APPENDIX C
LABORATORY ANALYTICAL REPORTS (on CD)

APPENDIX C.1
SHL ATP Permit and ATP Laboratory Reports

Permit No. 020

MASSDEVELOPMENT

33 Andrews Parkway
Devens, MA 01434

LANDFILL DISCHARGE PERMIT

Permittee Name:	U.S Army Corp of Engineers
Facility Address:	Shepley's Hill Landfill Devens, Massachusetts 01434
Contact Name:	Robert J. Simeone BRAC Environmental Coordinator
Contact Address:	30 Quebec Street, Building 666, Rm 132 Devens, MA 01434-4479
Contact Phone:	(978) 615-6090
Contact Email:	Robert.j.simeone.civ@mail.mil

The above permittee is authorized to discharge treated groundwater from the Shepley's Hill Landfill to the Devens Sewerage System in compliance with the *Sewer Rules and Regulations for the Devens Sewerage Service Area*, as adopted by MassDevelopment (MDFA), including any applicable provisions of Federal or Commonwealth of Massachusetts laws or regulations, and in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

Effective Date of Permit: June 28, 2019

Expiration Date of Permit: June 28, 2022

Issued by: _____
Mark Cohen
Devens Utilities Dept
MassDevelopment

PART I - Wastewater Discharge Limitations and Monitoring Requirements

A. The permittee shall comply with all Local Effluent Limitations and monitor the discharge as specified below:

Parameter	Limitations	Type	Frequency
Arsenic	0.20 mg/l*	Composite	Monthly
Chromium (total)	0.40 mg/l	Composite	Annually
Cadmium	0.045 mg/l	Composite	Annually
Copper	0.75 mg/l	Composite	Annually
Lead	0.20 mg/l	Composite	Annually
Silver	0.30 mg/l	Composite	Annually
Selenium	0.03 mg/l	Composite	Annually
Mercury	0.001 mg/l	Composite	Annually
Total Toxic Organics	5.0 mg/l	Composite	Annually
Total Petroleum Hydrocarbons	100 mg/l	Composite	Annually
pH (units)	5.5 - 9.5	Meter	Continuous

* Maximum daily loading for Arsenic shall not exceed 0.10 pounds per day.

B. The permittee shall comply with the additional effluent monitoring requirements specified below:

Parameter	Type	Frequency
Flow (MGD)	Meter	Continuous
Barium	Composite	Quarterly
Manganese	Composite	Quarterly
Magnesium	Composite	Quarterly
Chloride	Composite	Quarterly
Nitrate	Composite	Quarterly
Sulfate	Composite	Quarterly

Notes:

(1) A flow meter shall be used for recording effluent discharge into the Devens sewer system. The flowmeter shall be properly maintained in accordance with the manufacturer's requirements and it shall be calibrated at least annually by a certified and qualified manufacturer's representative. A copy of the "Certificate of Calibration" shall be submitted to MDFA following each calibration.

(2) A pH meter shall be used to continuously measure the pH of the discharge. The pH meter shall be a continuous monitoring instrument with a chart recorder. All charts shall be maintained on file onsite for a minimum of 3 years. At a minimum, the pH meter shall be calibrated weekly and a calibration log maintained on file onsite for a minimum of 3 years. The pH meter shall be properly maintained in accordance with the manufacturer's requirements and it shall be calibrated at least every six months by a certified and qualified manufacturer's representative. A copy of the "Certificate of Calibration" shall be submitted to the MDFA following each calibration.

(3) Spill protection shall be provided for all chemicals stored at the site. Adequate spill protection must be capable of containing all chemical spills and preventing them from entering the sewer or harming the environment.

C. Samples shall be obtained from the discharge of the pretreatment system installed to reduce pollutant levels. The location of the sampling point and discharge pipeline are shown on the attached drawing.

(1) Composite Sample - A composite sample shall be the collection of individual grab samples obtained at regular intervals either based on time intervals or flow intervals. Each individual grab sample is either combined with the others or analyzed individually and the results averaged. In time composite sampling the samples are collected after equal time intervals and combined in proportion to the rate of flow when the sample was collected. Flow composite sampling can be produced by varying the volume of the aliquot collected in proportion to the amount of flow that passed over the time interval which the sample represents. Composite samples are designed to be representative of the effluent conditions by reflecting the average conditions during the entire sampling period.

(2) Grab Sample - A grab sample shall be a sample, which is taken from a wastestream without regard to the flow in the wastestream and over a period of time not to exceed 15 minutes.

(3) Representative Sample - A representative sample shall mean a sample taken from a wastestream that is nearly identical in composition to that in the larger volume of wastewater being discharged during a normal production day as approved by MDFA.

D. Approved flow for the permittee:

The maximum anticipated flow is 93,600 gallons per day (65 gallons per minute). If the Permittee desires to exceed this flow, he shall request an increase from the Devens Utilities Department.

E. Automatic Re-sampling: If the results of the permittee's wastewater analyses indicate that a violation of this permit has occurred, the permittee must:

(1) Inform the Industrial Pretreatment Coordinator and the Devens Utilities Department Manager of the violation within 24 hours; and,

(2) Repeat the sampling and pollutant analysis for the parameters that exceeded the permit limit and submit, in writing to MDFA, the results of the second analysis within 30 days of the first violation; and,

(3) If the re-sample results still exceed the permit limit, submit an explanation for the violation and an action plan to prevent a recurrence of the non-compliance event within 30 days of the violation.

Part II - Special Conditions

A. **The Army shall take all reasonable steps to prevent any adverse impact to the Devens wastewater treatment facility or the environment due to the operation of the facility and shall assure the proper operation of the facility as specified in the treatment system manufacturer specifications and operating manual. If the arsenic concentration in the effluent exceeds 75 ug/l for a monthly sample event, the permittee shall, within 7 days of receiving the exceedance results, commence weekly sampling of arsenic until the concentration does not exceed 75 ug/l.**

If the weekly samples exceed 75 ug/l for more than 4 consecutive weeks, the permittee shall shut down plant operation and submit a Corrective Action Plan to MDFA for review and comment. Resumption of operation and discharge to the Devens wastewater treatment facility will require written authorization of MDFA.

B. **The Industrial Pretreatment Coordinator and MDFA Devens Utilities Department staff will review the facility Self-Monitoring data, and Devens wastewater treatment facility influent, effluent and sludge monitoring "baseline" data and operational data on an ongoing basis to determine whether there is any potential adverse affect on the Devens wastewater treatment facility influent, effluent or sludge quality, or any adverse impact on the Devens wastewater treatment facility operation or environment due to the operation of the Army's treatment facility. In the event that MDFA determines the data analysis indicates that an adverse affect has taken place, MDFA shall notify the Army and the Army shall immediately cease all discharge and shall disconnect from the Devens sewer system. (Initial notification may be made verbally with a written notice to follow.) For the purpose of this section, cessation of discharge and disconnection is required if:**

(1) The arsenic concentration in the effluent from the Shepley's Hill treatment system is greater than 75 ug/l, and
(2) The arsenic concentration in the Devens wastewater treatment facility effluent is greater than 10 ug/l or sludge is greater than 40 mg/kg, or
(3) There is some other indication of adverse environmental impact resulting from the Shepley's Hill discharge.

Part III - Monitoring Requirements

A. The permittee shall provide monthly, quarterly and annual sampling and analysis for the parameters listed in Part I, Section A and Section B of this Permit.

B. All sampling and analysis shall be performed in accordance with 40 CFR Part 136 and amendments thereto.

C. All sample analysis required by this permit shall be performed by an independent laboratory certified by the MADEP for the parameters being analyzed. The use of a laboratory with provisional MADEP certification is prohibited.

D. The permittee shall submit a copy of the "Massachusetts Certification for Chemical Analysis of Water" for each laboratory that performs an analysis submitted to MassDevelopment by or on behalf of the permittee.

E. The Self-Monitoring results shall be submitted to MDFA/Devens within 30 days of the analysis.

F. Each Self-Monitoring Report shall be signed by an authorized representative of the permittee submitting the Report, and shall be certified as accurate. An authorized representative shall be an individual described in 40 C.F.R. Part 403.12(I). The Self Monitoring Report shall contain a certification statement consistent with the following:

"I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Part IV - Reporting Requirements

A. As required in the MDFA *Sewer Use Rules and Regulations*, Section 1.012, the permittee shall notify MDFA/Devens and the MADEP immediately by telephone of any accidental or slug discharge to the sewer. Formal written notification addressing the circumstances and remedies shall be submitted to MDFA/Devens within 5 days of the occurrence. Furthermore, a notice shall be permanently posted on the permittee's bulletin board or other prominent location advising employees whom to call in the event of an accidental, slug or dangerous discharge. The permittee shall instruct all necessary employees of the emergency notification procedure.

B. The permittee shall notify MDFA/Devens prior to the introduction of new wastewater or pollutants or any substantial change in volume or characteristics of the wastewater being introduced to the sewer from the permittee's industrial process. Formal written notification shall follow within thirty (30) days of such introduction.

C. The permittee shall submit a monitoring report that tabulates the flow and sample analysis results for the composite samples and grab samples required in Part I. The monitoring quarters and due dates are as follows:

Quarter	Report Due Date	Data to be Reported
January 1 - March 31	April 5th	Quarterly Sampling, Flows
April 1 - June 30	July 5th	Quarterly Sampling, Flows
July 1 - September 30	October 5th	Quarterly/Annual Sampling, Flows
October 1 - December 31	January 5th	Quarterly Sampling, Flows

The monthly analysis results for arsenic samples required in Part I are due no later than the 5th of the month following the month the sample was taken.

D. All reports shall be submitted to the following address:

Devens Utilities Department Manager
MassDevelopment
33 Andrews Parkway
Devens, Massachusetts 01434

With copy to: Industrial Pretreatment Coordinator
Suez Water, Inc.
85 Walker Rd
Shirley MA, 01464

E. Emergency notifications shall be made to:

Devens Dispatch
Phone: (978) 772-7200

-and-

Suez Water, Inc. – Devens Wastewater Operations
Phone: (978) 772-4250

Part V - Standard Conditions

A. *Gereral Prohibitions.* The permittee shall comply with all general and specific prohibitive discharge standards described in Sections 1.021, 1.022 and 1.023 of the MassDevelopment, *Sewer Use Rules and Regulations*.

B. *Right of Entry.* The permittee shall, in accordance with Section 1.011 (3) of the Sewer Use Rules and Regulations, allow MassDevelopment or their representatives to enter upon the premises of the permittee, at any time, for the purpose of inspection, sampling or records inspection.

C. *Records Retention.* The permittee shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling and chemical analyses made by or in behalf of the permittee in connection with its discharge. All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by MassDevelopment shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired. Copies must be provided as required by MassDevelopment.

D. *Confidential Information.* Information and data on a permittee obtained from reports, questionnaires, permit applications, permits and monitoring programs and from inspections shall be available to the public or other governmental agency without restriction unless the permittee specifically requests and is able to demonstrate to the satisfaction of MassDevelopment that the release of such information would divulge information, process or methods of production entitled to protection as trade secrets of the permittee.

When requested by the person furnishing a report, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public, but shall be made available upon written request to governmental agencies for uses related to the Rules and Regulations, the Devens wastewater treatment facility's Groundwater Discharge Permit, State Disposal System permit and/or the Pretreatment Programs and also provided that such portions of a report shall be available for use by the State or any State agency in judicial review, or enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics will not be recognized as confidential information. Information accepted by MassDevelopment as confidential shall not be transmitted to the general public until notice is given to the permittee. EPA officials shall have unrestricted and immediate access to all information collected by MassDevelopment.

E. *Recording of Results.* For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall have the following information recorded:

1. The exact place, date, time of sampling and the person performing the sampling;
2. The dates the analyses were performed;
3. The person(s) who performed the analyses;
4. The analytical techniques or methods used;
5. Sample preservation; and,
6. The results of all required analyses.

F. *Dilution.* The permittee shall not increase the use of potable water or process water or, in anyway, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

G. *Proper Disposal of Pretreatment Sludges and Spent Chemicals.* The disposal of sludges and spent chemicals generated shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

H. *Signatory Requirements.* All applications, reports, or information submitted to MassDevelopment, must contain the following certification statement and be signed as required in Sections 1, 2, 3, or 4 below:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Authorized Representative of the Permittee:

1. If the permittee is a corporation, a responsible corporate officer means:

   a. The president, secretary, treasurer, or a vice-president of the corporation in charge of a principle business function or any other person who performs similar policy or decision-making functions for the corporation; or

   b. The manager of one or more manufacturing, production, or operation facilities employing more than two hundred fifty (250) persons or having a gross annual sales or expenditures exceeding twenty five (25) million dollars, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. If the permittee is a partnership or sole proprietorship: a general partner or proprietor, respectively.

3. If the permittee is a Federal, State or local governmental facility: a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or their designee.

4. The individuals described in paragraphs 1 through 3 above may designate another authorized representative if the authorization is in writing, the authorization specifies the individual or person responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for the environmental matters for the company, and the written authorization is submitted to MassDevelopment.

5. If the authorization under paragraph 4 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility or company, a new authorization satisfying the requirements of paragraph 4 of this section must be submitted to MassDevelopment prior to or together with any reports to be signed by an authorized representative.

I. *Revocation of Permit.* The permit issued to the permittee by MassDevelopment may be revoked when, after inspection, monitoring or analyses it is determined that the discharge of wastewater to the sanitary sewer is in violation of Federal, State or Local laws, ordinances or regulations. Additionally, falsification or intentional misrepresentation of data or statements pertaining to the permit application or any other required reporting form, shall be cause for permit revocation and possible criminal prosecution.

J. *Limitation of Permit Transfer.* Wastewater discharge permits are issued to a specific permittee for a specific operation and are not assignable to another user or transferable to any other location without the prior written approval of MassDevelopment. Sale of a permitted facility shall obligate the purchaser to seek prior written approval of MassDevelopment for continued discharge to the Devens Regional Wastewater Treatment Facility.

K. *Falsifying Information or Tampering With Monitoring Equipment.* Any person who knowingly makes any false statements, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to the *Sewer Use Rules and Regulations*, or permit, or who falsifies, tampers with or knowingly renders inaccurate, any monitoring device or method required under these Rules and Regulations, may, upon conviction, be punished by fine of up to $10,000 per day and imprisonment up to six months, or by both.

L. *Civil Penalties.* Any permittee who is found to have violated an Order of MassDevelopment or who failed to comply with any provision of the Rules and Regulations, and the orders, rules, regulations and permits issued hereunder, may be fined up to $10,000 for each offense. Each day on which a violation shall occur or continue shall be deemed a separate and distinct offense. In addition to the penalties provided herein, MassDevelopment may recover reasonable attorney's fees, court costs, court reporters' fees and other expenses of litigation by appropriate suit at law against the person found to have violated the Rules and Regulations or the orders, rules, regulations and permits issued hereunder. Nothing in the permit shall be construed to relieve the permittee from civil and/or criminal penalties for noncompliance under these Rules and Regulations or State or Federal laws or regulations.

M. *Recovery of Cost Incurred.* In addition to civil and criminal liability, the permittee violating any of the provisions of this permit or causing damage to or otherwise inhibiting the Agency's wastewater disposal system shall be liable to the Agency for any expenses, loss, or damage caused by such violation or discharge. The Agency shall assess the permittee for the cost incurred by the Agency for any cleaning, repair, or replacement work caused by the violation or discharge.

N. *Duty to Comply.* The permittee must comply with all conditions of this permit. Failure to comply with the requirements of this permit may be grounds for administrative action, or enforcement proceedings including civil or criminal penalties, injunctive relief and summary abatements.

O. *Duty to Mitigate.* The permittee shall take all reasonable steps to minimize or correct any adverse impact to the public treatment plant or to the environment resulting from noncompliance with this permit, including such accelerated monitoring as necessary to determine the nature and impact of the noncompliance discharge.

P. *Duty to Halt or Reduce Activity.* Upon reduction of efficiency of operation, or loss or failure of all or part of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control the production or discharges, or both, until operation of the treatment facility is restored or an alternate method of treatment is provided.

Q. *Modification or Revision of the Permit.* The terms and conditions of this permit may be subject to modifications by MassDevelopment at any time as limitations or requirements are modified or other just cause exists. This permit may be modified for other just cause. This permit may also be modified to incorporate special conditions resulting from the issuance of a special order promulgating a new pretreatment standard. Any permit modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance.

R. *Duty to Reapply.* The permittee shall apply for permit renewal a minimum of sixty (60) days prior to the expiration of the Permittee's existing permit.

S. *Severability.* The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit are deemed invalid, the remainder of this permit shall not be affected thereby.

T. *Property Rights.* The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of Federal, State or Local regulations.

MassDevelopment

SHEPLEY'S HILL LANDFILL DISCHARGE PERMIT

Please complete this page, keep a copy with your Landfill Discharge Permit and return the original to the following address:

MassDevelopment
Attn: Devens Utilities Dept. Manager
33 Andrews Parkway
Devens, MA 01434

Acknowledgment of permit terms, conditions and limitations:

The undersigned acknowledges receipt of a renewal of Permit Number 020 authorizing a discharge of treated landfill wastewater to the Devens Wastewater Treatment Facility sewer system. The permittee also acknowledges that this permit is issued at its request based upon the application for the permit and the information provided and acknowledges the conditions and limitations set forth in said permit. All information and data contained in this document may be made available to the public without restriction.

U.S Army Corp of Engineers
Permittee Name

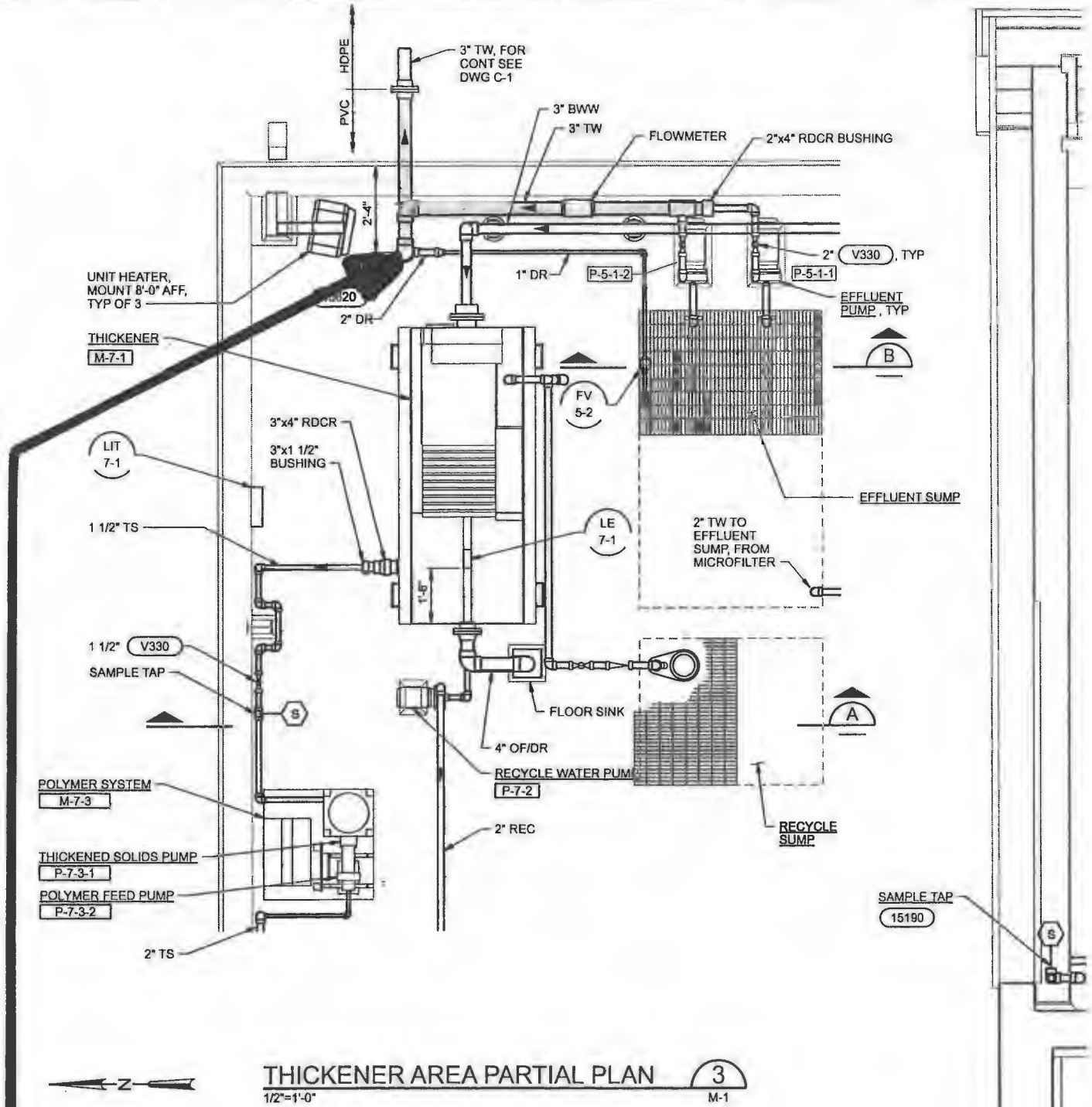
50 MacArthur Ave.
Box 99
Devens, MA 01434
Permittee Address

By:_____
Authorized Representative - Please Print or Type

_____
Signature

_____
Title

_____
Date



THICKENER AREA PARTIAL PLAN 3
1/2"=1'-0" M-1

SAMPLES TO BE OBTAINED FROM EFFLUENT DISCHARGE PIPING

(see piping labeled 3" TW above)

DSGN S BUECKER						VERIFY SCALE
DR C WORRALL						BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"
CHK S KADER						IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.
APVD S KADER	NO.	DATE	REVISION	BY	APVD	

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL), Devens, MA

AC001.M01.05

SGS Job Number: JC81275

Sampling Date: 01/11/19



Report to:

Sovereign Consulting
9 Payson Road Suite 150
Foxborough, MA 02035
SPassafaro@SovCon.com

ATTN: Steve Passafaro

Total number of pages in report: 223

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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Please share your ideas about
how we can serve you better at:
EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: JC81275

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01.05

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC81275-1	01/11/19	08:30	CT	01/11/19	AQ	Effluent	EFFLUENT

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Sovereign Consulting	**Job No**	JC81275
Site:	Shepley's Hill (SHL), Devens, MA	**Report Date**	1/15/2019 3:06:55 PM

On 01/11/2019, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC81275 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP12071

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC81275-1MS, JC81275-1MSD, JC81275-1PS, JC81275-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic are outside control limits for sample MP12071-SD1. Serial dilution indicates possible matrix interference.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC81275
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 01/11/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC81275-1	**EFFLUENT**					
Arsenic		10.9	3.0	2.0	ug/l	SW846 6020B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	JC81275-1	**Date Sampled:**	01/11/19
Matrix:	AQ - Effluent	**Date Received:**	01/11/19
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL), Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	10.9	3.0	2.0	0.94	ug/l	2	01/14/19	01/14/19	ZC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45980
(2) Prep QC Batch: MP12071

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody
- QC Evaluation: DOD QSM5 Limits

SGS

GW

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

PAGE 1 OF 1

FED-EX Tracking #	Bottle Order Control #
SGS Quote #	SGS Job # JC81275

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Street Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steve Passafaro (spassafaro@sovcon.com) E-mail:
Phone #: (508) 339-3200 Fax #: (
Sampler(s) Name(s): Sovereign Staff Phone #:

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project #: AC001.M01
Client Purchase Order #:
Project Manager: Steve Passafaro

Billing Information (if different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Lab Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Total As - 6020A	LAB USE ONLY
1	Effluent		1/11/19	0830	CJT	GW	1			1						X	AS

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

INITIAL ASESSMENT BAOK
LABEL VERIFICATION

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [x] 5 Day RUSH - Arsenic Only
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available via LabLink

Approved by (SGS Project Manager)/Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [x] Other See QAPP

Commercial "A" = Results Only; Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

See Project QAPP for all specfic project requirements
5 - Day rush on Arsenic

SGS-ACCUTEST MARLBOR 1/11

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	1/11/19 1150	1 [signature]	2 [signature]	1/11/19 13:00	2 courier
3 courier	1/11/19 23:18	3 [signature]	4		4
5		5	Custody Seal # 10069 ☑ Intact ☐ Not intact	Preserved where applicable OK	On Ice ☑ Cooler Temp. 1.6°C-ig

Form:SM088-03C (revised 2/12/18)

http://www.sgs.com/en/terms-and-conditions.

5.1

5

JC81275: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC81275 **Client:** _____ **Project:** _____

Date / Time Received: 1/11/2019 6:00:00 PM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (1.6);

Cooler Temps (Corrected) °C: Cooler 1: (1.3);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

Sovereign Consulting

Job No: JC81275

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01.05

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC81275-1 EFFLUENT	Collected: 11-JAN-19 08:30	By: CT	Received: 11-JAN-19	By: DG		
JC81275-1	SW846 6020B	14-JAN-19 17:19	ZC	14-JAN-19	TG	ASMS

SGS Internal Chain of Custody

Job Number: JC81275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Received: 01/11/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC81275-1.1	Secured Storage	Todd Shoemaker	01/14/19 08:26	Retrieve from Storage
JC81275-1.1	Todd Shoemaker	Secured Staging Area	01/14/19 08:26	Return to Storage
JC81275-1.1	Secured Staging Area	Taylor Gorman	01/14/19 08:28	Retrieve from Storage
JC81275-1.1	Taylor Gorman	Secured Storage	01/14/19 14:20	Return to Storage
JC81275-1.1.1	Taylor Gorman	Metals Digestion	01/14/19 14:15	Digestate from JC81275-1.1
JC81275-1.1.1	Metals Digestion	Taylor Gorman	01/14/19 14:15	Digestate from JC81275-1.1
JC81275-1.1.1	Taylor Gorman	Metals Digestate Storage	01/14/19 14:15	Return to Storage

QC Evaluation: DOD QSM5 Limits

Job Number: JC81275
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 01/11/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP12071	SW846 6020B						
MP12071-B1	7440-38-2	Arsenic	BSP	REC	92.5	%	84-116
MP12071-S1	7440-38-2	Arsenic	MS	REC	93.5	%	84-116
MP12071-S2	7440-38-2	Arsenic	MSD	REC	92.3	%	84-116
MP12071-S2	7440-38-2	Arsenic	MSD	RPD	1.2	%	20

* Sample used for QC is not from job JC81275

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:06	MA45980-STD1	1		STDA
11:11	MA45980-STD2	1		STDA
11:16	MA45980-STD3	1		STDA
11:21	MA45980-STD4	1		STDB
11:26	MA45980-STD5	1		STDC
11:31	MA45980-STD6	1		STDC
11:36	MA45980-STD7	1		STDD
11:41	MA45980-STD8	1		STDE
11:46	MA45980-STD9	1		STDF
11:51	MA45980-STD10	1		STDG
11:56	MA45980-STD11	1		STDH
12:01	MA45980-STD12	1		STDI
12:06	MA45980-STD13	1		STDJ
12:11	ZZZZZZ	1		
12:16	ZZZZZZ	1		
12:21	MA45980-ICVA1	1		
12:28	MA45980-ICV1	1		
12:33	MA45980-ICB1	1		
12:38	MA45980-CCVA1	1		
12:43	MA45980-CCB1	1		
12:48	MA45980-CRI1	1		
12:58	MA45980-ICSA1	1		
13:03	MA45980-ICSAB1	1		
13:08	ZZZZZZ	1		
13:13	MA45980-CCVA2	1		
13:18	MA45980-CCB2	1		
13:27	MP11896-MB1	2		
13:32	MP11896-B1	2		
13:37	ZZZZZZ	2		
13:42	MP11895-MB1	5		
13:47	MP11895-B1	5		
13:52	ZZZZZZ	5		
13:57	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:02	MP11897-B1	1		
14:07	MA45980-CCVA3	1		
14:12	MA45980-CCB3	1		
14:17	MP11897-MB1	1		
14:22	ZZZZZZ	100		
14:27	ZZZZZZ	100		
14:32	ZZZZZZ	25		
14:37	ZZZZZZ	2		
14:42	ZZZZZZ	10		
14:47	ZZZZZZ	20		
14:52	ZZZZZZ	10		
14:57	MA45980-CCVA4	1		
15:02	MA45980-CCB4	1		
15:08	ZZZZZZ	10		
15:13	ZZZZZZ	100		
15:18	ZZZZZZ	20		
15:23	ZZZZZZ	100		
15:28	ZZZZZZ	2		
15:33	ZZZZZZ	100		
15:38	ZZZZZZ	10		
15:43	ZZZZZZ	25		
15:48	ZZZZZZ	10		
15:53	MA45980-CCVA5	1		
15:59	MA45980-CCB5	1		
16:04	ZZZZZZ	10		
16:09	ZZZZZZ	100		
16:14	ZZZZZZ	10		
16:19	ZZZZZZ	25		
16:24	MP12039-S1	5		
16:29	MP12039-S2	5		
16:34	ZZZZZZ	2		
16:39	ZZZZZZ	2		
16:44	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:49	MA45980-CCVA6	1		
16:54	MA45980-CCB6	1		
16:59	ZZZZZZ	2		
17:04	MP12071-B1	2		
17:09	MP12071-S1	2		
17:14	MP12071-S2	2		
17:19	JC81275-1	2		
17:24	ZZZZZZ	2		
17:29	MP12071-MB1	2		
17:34	MA45980-CCVA7	1		
17:39	MA45980-CCB7	1		
17:44	MP12071-SD1	10		
17:49	MP12071-PS1	2		
---------->	Last reportable sample/prep for job JC81275			
17:54	ZZZZZZ	2		
17:59	ZZZZZZ	1		
18:04	MA45980-CCVA8	1		
18:09	MA45980-CCB8	1		
---------->	Last reportable CCB for job JC81275			
18:16	ZZZZZZ	1		
18:21	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Element: Dilution	As
12:11	ZZZZZZ	1	
12:16	ZZZZZZ	1	
12:21	MA45980-ICVA1	1	X
12:28	MA45980-ICV1	1	
12:33	MA45980-ICB1	1	X
12:38	MA45980-CCVA1	1	X
12:43	MA45980-CCB1	1	X
12:48	MA45980-CRI1	1	X
12:58	MA45980-ICSA1	1	X
13:03	MA45980-ICSAB1	1	X
13:08	ZZZZZZ	1	
13:13	MA45980-CCVA2	1	X
13:18	MA45980-CCB2	1	X
13:27	MP11896-MB1	2	X
13:32	MP11896-B1	2	X
13:37	ZZZZZZ	2	
13:42	MP11895-MB1	5	X
13:47	MP11895-B1	5	X
13:52	ZZZZZZ	5	
13:57	ZZZZZZ	1	
14:02	MP11897-B1	1	X
14:07	MA45980-CCVA3	1	X
14:12	MA45980-CCB3	1	X
14:17	MP11897-MB1	1	X
14:22	ZZZZZZ	100	
14:27	ZZZZZZ	100	
14:32	ZZZZZZ	25	
14:37	ZZZZZZ	2	
14:42	ZZZZZZ	10	
14:47	ZZZZZZ	20	
14:52	ZZZZZZ	10	
14:57	MA45980-CCVA4	1	X
15:02	MA45980-CCB4	1	X
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Element: Dilution	As
15:08	ZZZZZZ	10	
15:13	ZZZZZZ	100	
15:18	ZZZZZZ	20	
15:23	ZZZZZZ	100	
15:28	ZZZZZZ	2	
15:33	ZZZZZZ	100	
15:38	ZZZZZZ	10	
15:43	ZZZZZZ	25	
15:48	ZZZZZZ	10	
15:53	MA45980-CCVA5	1	X
15:59	MA45980-CCB5	1	X
16:04	ZZZZZZ	10	
16:09	ZZZZZZ	100	
16:14	ZZZZZZ	10	
16:19	ZZZZZZ	25	
16:24	MP12039-S1	5	
16:29	MP12039-S2	5	
16:34	ZZZZZZ	2	
16:39	ZZZZZZ	2	
16:44	ZZZZZZ	2	
16:49	MA45980-CCVA6	1	X
16:54	MA45980-CCB6	1	X
16:59	ZZZZZZ	2	
17:04	MP12071-B1	2	X
17:09	MP12071-S1	2	X
17:14	MP12071-S2	2	X
17:19	JC81275-1	2	X
17:24	ZZZZZZ	2	
17:29	MP12071-MB1	2	X
17:34	MA45980-CCVA7	1	X
17:39	MA45980-CCB7	1	X
17:44	MP12071-SD1	10	X
17:49	MP12071-PS1	2	X
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Element: Dilution	As
17:54	ZZZZZZ	2	
17:59	ZZZZZZ	1	
18:04	MA45980-CCVA8	1	X
18:09	MA45980-CCB8	1	X
18:16	ZZZZZZ	1	
18:21	ZZZZZZ	1	

Element: As

INTERNAL STANDARD SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
11:06	MA45980-STD1	100	100	100	100	100	100	100	100
11:11	MA45980-STD2	100	100	100	100	100	100	100	100
11:16	MA45980-STD3	100	100	100	100	100	100	100	100
11:21	MA45980-STD4	100.715	100.187	100.083	100.566	100.934	102.042	100.791	100.413
11:26	MA45980-STD5	102.355	105.13	102.219	100.446	103.859	102.831	101.368	104.116
11:31	MA45980-STD6	99.818	101.325	102.878	102.034	102.312	105.032	102.026	102.264
11:36	MA45980-STD7	100.943	101.456	102.114	100.673	102.46	103.619	101.1	102.668
11:41	MA45980-STD8	100.042	100.026	102.532	101.269	102.079	103.112	100.825	102.168
11:46	MA45980-STD9	100.793	98.954	100.391	99.947	100.885	101.323	99.114	101.031
11:51	MA45980-STD10	98.143	98.671	99.943	99.015	99.502	101.336	99.632	100.094
11:56	MA45980-STD11	101.053	99.331	101.579	99.572	99.856	102.227	100.106	101.885
12:01	MA45980-STD12	99.737	100.399	100.869	98.593	115.909	102.355	97.515	115.878
12:06	MA45980-STD13	98.725	99.505	102.182	97.777	97.321	99.774	94.945	96.502
12:11	ZZZZZZ	No results reported for the elements associated with this internal standard.							
12:16	ZZZZZZ	No results reported for the elements associated with this internal standard.							
12:21	MA45980-ICVA1	99.963	102.139	103.211	99.085	101.71	102.308	97.318	102.171
12:28	MA45980-ICV1	105.405	104.2	106.429	104.24	103.887	108.394	104.529	104.669
12:33	MA45980-ICB1	104.22	106.093	107.124	104.659	105.005	107.959	104.201	104.689
12:38	MA45980-CCVA1	103.286	103.205	104.47	100.5	102.285	103.461	98.764	102.781
12:43	MA45980-CCB1	103.945	105.353	106.921	104.709	105.005	108.25	104.948	104.502
12:48	MA45980-CRI1	105.934	106.468	107.065	105.278	106.605	108.85	105.019	106.704
12:58	MA45980-ICSA1	83.292	90.652	94.856	85.103	90.606	91.109	79.42	82.175
13:03	MA45980-ICSAB1	80.102	89.022	91.859	86.157	89.362	87.927	79.108	81.373
13:08	ZZZZZZ	No results reported for the elements associated with this internal standard.							
13:13	MA45980-CCVA2	80.328	87.54	88.8	93.401	92.063	94.128	93.116	92.926
13:18	MA45980-CCB2	84.02	91.304	91.392	98.743	95.533	97.758	99.684	95.986
13:27	MP11896-MB1	88.128	92.098	93.639	104.467	95.1	96.084	101.101	94.881
13:32	MP11896-B1	88.302	93.448	95.019	105.345	97.009	96.626	101.493	97.453
13:37	ZZZZZZ	91.806	97.247	96.635	110.308	98.872	99.649	105.332	98.963
13:42	MP11895-MB1	96.78	105.431	103.465	112.83	106.861	108.242	111.235	107.262
13:47	MP11895-B1	97.115	104.895	101.984	111.471	105.896	105.971	108.165	106.366
13:52	ZZZZZZ	97.888	105.734	104.51	113.615	107.67	108.74	112.593	107.85
13:57	ZZZZZZ	102.508	109.204	109.181	118.811	110.588	112.501	115.481	111.241

INTERNAL STANDARD SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
14:02	MP11897-B1	100.4	108.713	108.117	114.87	110.746	110.812	111.472	111.393
14:07	MA45980-CCVA3	99.539	107.6	104.536	110.614	107.5	107.581	108.188	108.036
14:12	MA45980-CCB3	102.427	107.823	106.059	115.281	109.657	110.643	113.817	109.567
14:17	MP11897-MB1	106.809	111.851	108.911	119.003	111.623	112.43	116.582	111.99
14:22	ZZZZZZ	105.555	111.792	108.014	116.74	111.516	111.956	115.648	111.679
14:27	ZZZZZZ	106.86	111.55	108.19	118.369	112.06	112.547	115.554	112.295
14:32	ZZZZZZ	104.727	111.589	108.485	116.816	109.852	110.342	113.247	110.222
14:37	ZZZZZZ	100.801	106.334	101.478	115.563	105.08	103.72	111.803	104.716
14:42	ZZZZZZ	103.554	114.127	105.651	113.136	109.477	106.515	107.563	109.1
14:47	ZZZZZZ	106.371	114.45	110.425	118.816	112.621	112.223	116.363	111.746
14:52	ZZZZZZ	105.885	112.457	108.334	117.283	108.077	109.102	112.989	108.638
14:57	MA45980-CCVA4	104.991	114.45	111.995	116.659	112.2	113.406	112.147	112.785
15:02	MA45980-CCB4	107.663	114.545	111.508	119.572	113.268	115.472	117.355	113.781
15:08	ZZZZZZ	106.159	114.322	109.994	116.243	110.703	111.6	111.149	109.775
15:13	ZZZZZZ	107.27	115.068	112.568	119.667	114.601	114.738	117.26	114.143
15:18	ZZZZZZ	106.301	114.44	110.553	118.803	112.128	112.226	114.488	112.114
15:23	ZZZZZZ	105.805	115.166	111.528	118.895	113.458	114.657	116.484	112.932
15:28	ZZZZZZ	104.752	110.43	106.576	119.951	107.11	105.666	111.701	107.06
15:33	ZZZZZZ	108.796	116.701	111.847	119.043	114.313	114.329	116.829	113.94
15:38	ZZZZZZ	107.55	113.408	110	119.637	110.281	111.343	114.567	110.083
15:43	ZZZZZZ	110.246	115.91	112.946	119.395	113.333	113.773	114.916	113.043
15:48	ZZZZZZ	105.706	112.596	107.595	113.635	107.28	106.09	107.23	106.626
15:53	MA45980-CCVA5	107.166	113.398	109.894	114.984	110.981	110.407	110.08	112.056
15:59	MA45980-CCB5	109.71	115.169	113.195	119.521	113.509	114.86	115.379	113.361
16:04	ZZZZZZ	106.922	111.708	107.46	114.245	105.976	105.804	107.344	105.918
16:09	ZZZZZZ	107.849	114.219	111.033	117.449	111.69	112.381	114.344	111.446
16:14	ZZZZZZ	106.606	113.341	109.785	117.429	108.285	109.604	112.264	107.952
16:19	ZZZZZZ	98.958	104.147	111.146	115.591	101.616	114.294	112.481	101.201
16:24	MP12039-S1	108.368	115.259	111.829	119.441	120.002	120.276	122.547	119.992
16:29	MP12039-S2	109.48	117.94	111.279	120.021	120.414	120.048	121.921	121.123
16:34	ZZZZZZ	107.176	113.953	109.117	121.42	109.784	107.444	114.792	109.415
16:39	ZZZZZZ	109.042	114.095	109.74	121.857	110.764	107.835	114.708	109.579
16:44	ZZZZZZ	106.631	113.337	108.754	120.213	108.352	105.724	112.971	108.936

INTERNAL STANDARD SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:49	MA45980-CCVA6	110.002	118.545	113.763	116.524	114.133	113.404	112.221	114.271
16:54	MA45980-CCB6	110.488	116.644	113.083	118.912	114.011	114.543	116.044	113.988
16:59	ZZZZZZ	110.438	115.132	113.907	113.314	115.851	118.447	113.837	115.518
17:04	MP12071-B1	108.034	113.31	109.362	117.082	108.666	106.518	110.271	109.005
17:09	MP12071-S1	102.696	111.372	106.393	114.56	103.518	103.149	138.569	!a104.017
17:14	MP12071-S2	102.443	111.09	104.58	112.884	103.449	101.087	104.03	103.712
17:19	JC81275-1	99.804	109.717	102.67	112.355	101.954	99.844	104.297	101.39
17:24	ZZZZZZ	102.6	109.376	104.841	114.31	106.449	103.985	109.24	105.322
17:29	MP12071-MB1	105.663	110.378	105.747	116.054	107.018	105.03	109.757	106.463
17:34	MA45980-CCVA7	106.269	110.2	108.439	111.722	108.473	108.673	107.519	109.276
17:39	MA45980-CCB7	106.542	111.494	109.008	113.268	109.643	110.853	111.046	109.177
17:44	MP12071-SD1	105.499	111.233	108.017	112.772	107.745	109.969	109.836	108.072
17:49	MP12071-PS1	102.813	107.145	103.756	110.518	100.759	100.163	102.757	101.771
17:54	ZZZZZZ	103.273	109.012	105.151	114.02	104.01	101.682	106.748	104.688
17:59	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:04	MA45980-CCVA8	103.127	109.354	107.306	109.151	106.605	106.036	105.017	106.605
18:09	MA45980-CCB8	102.724	109.231	105.978	110.842	107.541	107.955	107.754	107.457
18:16	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:21	ZZZZZZ	No results reported for the elements associated with this internal standard.							

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#1	Lithium	60-125 %	60-125 %
Istd#2	Scandium (45-1)	60-125 %	60-125 %
Istd#3	Scandium (45-2)	60-125 %	60-125 %
Istd#4	Scandium (45-3)	60-125 %	60-125 %
Istd#5	Germanium (72-1)	60-125 %	60-125 %
Istd#6	Germanium (72-2)	60-125 %	60-125 %
Istd#7	Germanium (72-3)	60-125 %	60-125 %
Istd#8	Germanium (74-1)	60-125 %	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
11:06	MA45980-STD1	100	100	100	100	100	100	100	100
11:11	MA45980-STD2	100	100	100	100	100	100	100	100
11:16	MA45980-STD3	100	100	100	100	100	100	100	100
11:21	MA45980-STD4	101.562	100.305	100.855	100.248	99.941	100.452	100.609	99.729
11:26	MA45980-STD5	102.784	100.658	105.386	100.847	100.405	105.335	101.575	103
11:31	MA45980-STD6	104.28	102.111	102.075	102.288	101.537	102.203	102.801	100.744
11:36	MA45980-STD7	103.797	100.791	101.109	101.414	100.513	101.103	101.785	99.632
11:41	MA45980-STD8	103.501	101.202	101.436	101.592	100.132	100.627	101.693	100.506
11:46	MA45980-STD9	101.86	98.877	99.765	99.678	98.458	99.744	100.314	99.862
11:51	MA45980-STD10	101.068	99.886	99.446	99.119	98.884	100.164	100.587	100.151
11:56	MA45980-STD11	102.682	101.034	99.125	99.54	98.768	100.257	101.041	101.798
12:01	MA45980-STD12	102.296	96.437	96.424	96.33	94.33	98.067	98.843	98.803
12:06	MA45980-STD13	100.041	93.752	93.913	94.828	91.16	96.474	98.469	98.882
12:11	ZZZZZZ	No results reported for the elements associated with this internal standard.							
12:16	ZZZZZZ	No results reported for the elements associated with this internal standard.							
12:21	MA45980-ICVA1	102.954	97.233	99.8	97.556	94.168	101.281	101.18	101.652
12:28	MA45980-ICV1	106.726	103.289	105.45	105.59	103.522	106.918	107.602	103.634
12:33	MA45980-ICB1	108.063	104.441	105.577	106.227	104.113	106.882	107.531	104.107
12:38	MA45980-CCVA1	103.024	98.463	100.725	98.786	95.332	101.055	101.82	102.091
12:43	MA45980-CCB1	107.651	104.329	106.07	105.865	104.325	107.027	107.204	103.6
12:48	MA45980-CRI1	108.238	105.195	107.439	105.516	104.054	107.389	107.691	105.281
12:58	MA45980-ICSA1	87.867	76.412	78.227	76.32	68.181 !a	83.58	87.616	87.559
13:03	MA45980-ICSAB1	85.463	75.982	79.155	75.296	68.173 !a	85.61	85.369	90.861
13:08	ZZZZZZ	No results reported for the elements associated with this internal standard.							
13:13	MA45980-CCVA2	94.662	93.328	95.01	92.472	91.285	99.15	95.367	104.197
13:18	MA45980-CCB2	98.578	99.65	101.237	99.761	100.695	106.031	100.039	107.405
13:27	MP11896-MB1	97.056	100.76	103.007	100.049	103.07	107.079	99.041	110.62
13:32	MP11896-B1	97.55	101.676	102.032	98.541	101.41	106.891	98.119	114.007
13:37	ZZZZZZ	99.658	105.759	105.497	102.64	107.342	110.814	100.315	115.1
13:42	MP11895-MB1	109.328	111.657	111.295	107.755	110.619	114.442	105.688	115.269
13:47	MP11895-B1	105.59	107.756	107.287	103.439	105.23	112.591	102.561	114.254
13:52	ZZZZZZ	109.05	111.082	111.21	106.737	108.633	114.967	105.364	115.068
13:57	ZZZZZZ	112.539	114.742	114.524	110.978	113.743	118.321	109.295	118.011

INTERNAL STANDARD SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
14:02	MP11897-B1	111.059	111.604	111.636	108.148	106.956	114.221	105.904	114.23
14:07	MA45980-CCVA3	107.747	107.677	106.66	102.349	102.032	110.996	102.608	111.536
14:12	MA45980-CCB3	110.487	113.442	112.439	108.462	110.747	114.491	106.053	114.815
14:17	MP11897-MB1	112.968	115.899	115.97	110.566	113.39	117.631	108.51	116.171
14:22	ZZZZZZ	112.018	114.226	113.357	108.412	110.317	115.559	106.665	115.563
14:27	ZZZZZZ	111.877	114.823	114.387	108.708	111.675	117.754	106.901	116.532
14:32	ZZZZZZ	110.27	112.23	111.086	106.578	108.491	114.796	105.248	115.549
14:37	ZZZZZZ	103.473	110.739	109.713	103.723	109.335	114.605	99.64	114.728
14:42	ZZZZZZ	106.124	105.658	109.539	100.298	100.289	113.186	100.648	116.421
14:47	ZZZZZZ	113.015	115.562	112.854	108.724	109.882	115.978	106.513	115.411
14:52	ZZZZZZ	109.043	112.045	108.37	103.933	105.838	113.29	103.677	114.802
14:57	MA45980-CCVA4	113.898	112.387	111.121	105.932	104.823	114.197	106.198	113.238
15:02	MA45980-CCB4	115.179	116.548	116.685	111.227	112.623	118.791	108.479	115.992
15:08	ZZZZZZ	109.958	110.419	111.139	105.242	105.262	113.492	104.369	115.507
15:13	ZZZZZZ	115.296	116.334	116.482	110.498	111.173	117.096	108.925	116.264
15:18	ZZZZZZ	111.701	114.459	114.2	107.872	109.751	117.558	106.012	115.341
15:23	ZZZZZZ	114.37	115.685	113.599	109.631	111.698	117.075	107.41	114.95
15:28	ZZZZZZ	105.291	111.651	109.512	104.406	107.862	114.708	101.757	117.088
15:33	ZZZZZZ	114.154	115.917	116.39	109.823	111.654	119.938	107.872	116.152
15:38	ZZZZZZ	110.437	114.464	112.249	106.917	109.887	116.377	105.369	115.158
15:43	ZZZZZZ	112.621	114.296	114.288	108.042	109.303	116.78	106.696	117.201
15:48	ZZZZZZ	106.338	105.66	106.746	100.56	100.281	110.74	100.639	112.836
15:53	MA45980-CCVA5	110.229	110.303	110.839	103.275	103.302	113.674	103.489	111.165
15:59	MA45980-CCB5	114.995	114.779	116.282	110.707	111.287	119.605	108.624	114.661
16:04	ZZZZZZ	106.303	106.754	107.271	100.801	101.308	111.875	100.617	112.156
16:09	ZZZZZZ	112.244	113.79	112.901	107.233	109.075	115.114	106.543	113.587
16:14	ZZZZZZ	109.888	110.935	109.719	103.762	105.345	114.766	104.262	113.347
16:19	ZZZZZZ	109.681	107.721	96.749	100.389	99.118	101.468	102.361	103.098
16:24	MP12039-S1	119.114	122.093	110.462	104.448	105.525	114.059	104.855	116.248
16:29	MP12039-S2	119.995	121.618	112.123	104.891	105.793	116.347	105.807	116.692
16:34	ZZZZZZ	107.567	114.185	114.962	108.407	112.976	118.549	103.941	119.384
16:39	ZZZZZZ	108.244	113.865	115.446	108.724	113.157	118.11	104.877	120.403
16:44	ZZZZZZ	105.673	111.375	112.197	104.813	108.627	116.196	102.327	117.451

INTERNAL STANDARD SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:49	MA45980-CCVA6	113.11	111.92	111.428	105.545	103.992	116.244	105.377	113.303
16:54	MA45980-CCB6	114.502	115.179	116.556	110.161	111.451	118.37	108.63	114.699
16:59	ZZZZZZ	118.019	112.8	116.444	110.218	107.584	116.735	111.39	111.169
17:04	MP12071-B1	105.765	109.351	112.263	104.824	105.775	116.047	102.693	115.98
17:09	MP12071-S1	103.053	137.348 !a	105.018	98.766	99.315	111.024	99.34	114.527
17:14	MP12071-S2	101.363	104.301	104.528	97.277	98.717	111.089	98.678	114.347
17:19	JC81275-1	100.564	103.311	105.48	97.59	99.746	110.513	98.419	113.447
17:24	ZZZZZZ	103.768	108.048	112.197	104.713	107.97	116.464	101.429	116.394
17:29	MP12071-MB1	103.995	108.858	112.012	105.142	108.713	115.008	102.061	115.889
17:34	MA45980-CCVA7	108.335	107.053	107.757	101.908	100.698	111.824	102.5	110.505
17:39	MA45980-CCB7	110.693	110.03	111.808	107.083	107.544	115.608	105.793	112.79
17:44	MP12071-SD1	109.665	109.066	110.83	103.554	104.107	113.907	104.36	110.471
17:49	MP12071-PS1	99.847	102.124	102.146	96.472	97.504	108.621	97.206	111.278
17:54	ZZZZZZ	101.391	106.021	109.049	102.141	104.244	114.598	100.654	115.45
17:59	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:04	MA45980-CCVA8	106.627	104.561	106.375	100.415	98.161	110.335	101.488	108.31
18:09	MA45980-CCB8	107.919	107.112	112.323	104.85	104.724	114.73	103.973	110.464
18:16	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:21	ZZZZZZ	No results reported for the elements associated with this internal standard.							

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#9	Germanium (74-2)	60-125 %	60-125 %
Istd#10	Germanium (74-3)	60-125 %	60-125 %
Istd#11	Rhodium (103-1)	60-125 %	60-125 %
Istd#12	Rhodium (103-2)	60-125 %	60-125 %
Istd#13	Rhodium (103-3)	60-125 %	60-125 %
Istd#14	Indium (115-1)	60-125 %	60-125 %
Istd#15	Indium (115-2)	60-125 %	60-125 %
Istd#16	Terbium (159-1)	60-125 %	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
11:06	MA45980-STD1	100	100	100	100	100	100
11:11	MA45980-STD2	100	100	100	100	100	100
11:16	MA45980-STD3	100	100	100	100	100	100
11:21	MA45980-STD4	100.126	99.374	99.489	100.902	100.429	99.841
11:26	MA45980-STD5	100.941	99.909	103.977	101.45	103.572	100.69
11:31	MA45980-STD6	102.251	100.774	100.974	102.681	100.784	101.866
11:36	MA45980-STD7	101.801	99.517	101.67	101.738	101.01	101.245
11:41	MA45980-STD8	101.493	99.651	101.379	102.003	101.375	101.182
11:46	MA45980-STD9	100.486	98.164	101.463	100.672	100.702	100.092
11:51	MA45980-STD10	100.449	99.398	100.041	100.686	99.553	99.752
11:56	MA45980-STD11	100.694	99.537	100.741	101.347	99.349	99.482
12:01	MA45980-STD12	100.15	97.195	98.576	100.881	95.558	95.337
12:06	MA45980-STD13	100.184	94.842	97.799	100.861	92.595	92.535
12:11	ZZZZZZ	No results reported for the elements associated with this internal standard.					
12:16	ZZZZZZ	No results reported for the elements associated with this internal standard.					
12:21	MA45980-ICVA1	101.494	96.801	100.972	102.04	96.111	96.157
12:28	MA45980-ICV1	105.507	102.063	103.327	105.971	103.506	104.296
12:33	MA45980-ICB1	105.878	102.206	102.632	105.636	103.09	104.354
12:38	MA45980-CCVA1	102.79	97.109	101.914	102.968	96.73	96.676
12:43	MA45980-CCB1	105.361	102.405	102.579	105.829	104.54	104.236
12:48	MA45980-CRI1	104.982	102.505	104.448	105.638	106.034	104.005
12:58	MA45980-ICSA1	88.896	75.945	86.922	90.255	72.576	74.236
13:03	MA45980-ICSAB1	88.003	76.42	89.962	89.445	74.925	73.362
13:08	ZZZZZZ	No results reported for the elements associated with this internal standard.					
13:13	MA45980-CCVA2	99.517	96.087	104.628	100.775	101.58	95.663
13:18	MA45980-CCB2	101.759	101.816	106.286	103.232	108.285	102.46
13:27	MP11896-MB1	103.592	105.65	110.536	104.615	111.297	101.939
13:32	MP11896-B1	103.111	105.384	113.349	104.577	108.1	97.79
13:37	ZZZZZZ	105.028	109.664	114.086	106.784	111.652	101.012
13:42	MP11895-MB1	106.545	109.054	113.038	107.8	114.468	106.629
13:47	MP11895-B1	104.364	106.172	113.341	105.947	109.542	100.661
13:52	ZZZZZZ	105.555	107.63	113.74	106.976	113.518	104.468
13:57	ZZZZZZ	108.981	112.096	115.919	110.278	115.109	106.917

INTERNAL STANDARD SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
14:02	MP11897-B1	108.089	105.962	112.831	107.849	110.39	103.284
14:07	MA45980-CCVA3	103.348	102.861	110.969	104.851	105.773	98.536
14:12	MA45980-CCB3	105.6	107.651	112.14	106.98	114.643	105.259
14:17	MP11897-MB1	107.363	109.497	114.33	108.185	116.491	107.677
14:22	ZZZZZZ	105.912	107.772	113.133	107.397	113.94	104.859
14:27	ZZZZZZ	105.68	108.661	113.455	107.041	114.098	105.077
14:32	ZZZZZZ	105.366	107.357	113.328	107.076	112.284	101.819
14:37	ZZZZZZ	101.948	108.621	111.035	103.781	112.638	99.931
14:42	ZZZZZZ	101.991	101.724	113.4	103.705	105.318	93.499
14:47	ZZZZZZ	105.631	107.238	113.088	107.059	111.656	102.924
14:52	ZZZZZZ	104.11	106.608	112.75	106.346	108.145	98.342
14:57	MA45980-CCVA4	105.052	103.493	111.637	106.43	107.656	99.579
15:02	MA45980-CCB4	106.743	107.885	112.457	107.861	115.033	105.306
15:08	ZZZZZZ	105.061	105.011	112.132	106.732	107.181	98.149
15:13	ZZZZZZ	106.283	107.503	112.013	107.938	113.364	104.578
15:18	ZZZZZZ	105.016	106.91	111.199	106.362	111.884	102.351
15:23	ZZZZZZ	105.351	107.234	111.633	106.485	112.541	104.051
15:28	ZZZZZZ	105.217	108.908	115.478	106.439	110.036	97.793
15:33	ZZZZZZ	105.316	107.735	112.335	107.902	114.241	104.978
15:38	ZZZZZZ	105.121	107.773	112.316	106.52	110.951	101.509
15:43	ZZZZZZ	105.412	106.301	112.399	107.101	111.388	101.422
15:48	ZZZZZZ	101.796	101.642	110.063	103.465	103.162	93.285
15:53	MA45980-CCVA5	102.469	102.126	110.904	103.837	106.717	97.236
15:59	MA45980-CCB5	106.074	106.32	111.75	107.353	112.966	104.908
16:04	ZZZZZZ	102.312	102.748	108.664	102.843	104.373	93.747
16:09	ZZZZZZ	104.486	105.374	109.978	105.869	110.86	101.885
16:14	ZZZZZZ	103.797	104.983	110.587	105.54	106.276	97.736
16:19	ZZZZZZ	104.162	102.445	119.656	123.551	92.999	92.97
16:24	MP12039-S1	104.915	105.577	112.769	106.786	107.675	97.085
16:29	MP12039-S2	105.345	105.802	113.456	106.464	108.087	97.518
16:34	ZZZZZZ	106.239	111.226	115.761	107.419	114.026	101.193
16:39	ZZZZZZ	106.793	111.017	117.082	108.102	113.604	100.875
16:44	ZZZZZZ	104.936	108.447	115.252	106.062	110.186	97.045

INTERNAL STANDARD SUMMARY

Login Number: JC81275
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File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45980
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
16:49	MA45980-CCVA6	104.556	102.279	111.015	105.841	106.913	98.232
16:54	MA45980-CCB6	105.22	105.809	110.777	106.527	112.751	103.792
16:59	ZZZZZZ	104.897	101.756	106.243	105.696	109.164	104.475
17:04	MP12071-B1	104.747	105.653	113.641	106.045	110.264	97.899
17:09	MP12071-S1	101.746	102.166	110.418	103.068	102.228	91.08
17:14	MP12071-S2	101.464	101.6	111.411	102.7	103.203	90.598
17:19	JC81275-1	100.971	102.868	110.596	102.431	104.939	91.624
17:24	ZZZZZZ	104.136	107.26	112.732	104.895	113.128	98.997
17:29	MP12071-MB1	103.797	106.99	112.247	104.597	111.967	98.907
17:34	MA45980-CCVA7	101.448	99.762	106.248	102.537	105.182	95.81
17:39	MA45980-CCB7	103.631	102.915	106.952	104.312	110.715	102.244
17:44	MP12071-SD1	101.898	101.62	106.245	103.286	108.699	99.62
17:49	MP12071-PS1	99.692	99.992	107.424	101.186	101.036	90.123
17:54	ZZZZZZ	103.616	105.297	112.708	104.725	108.511	95.661
17:59	ZZZZZZ	No results reported for the elements associated with this internal standard.					
18:04	MA45980-CCVA8	100.462	97.491	104.91	101.818	102.593	95.13
18:09	MA45980-CCB8	101.267	101.102	105.96	102.416	110.011	100.225
18:16	ZZZZZZ	No results reported for the elements associated with this internal standard.					
18:21	ZZZZZZ	No results reported for the elements associated with this internal standard.					

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Terbium (159-2)	60-125 %	60-125 %
Istd#18	Terbium (159-3)	60-125 %	60-125 %
Istd#19	Holmium (165-1)	60-125 %	60-125 %
Istd#20	Holmium (165-2)	60-125 %	60-125 %
Istd#21	Bismuth (209-1)	60-125 %	60-125 %
Istd#22	Bismuth (209-2)	60-125 %	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA45980 Units: ug/l

Time: / Sample ID:				12:33 ICB1		12:43 CCB1		13:18 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	1.1	20						
Antimony	2.0	.27	1.5						
Arsenic	0.50	.017	1.0	-0.00852	<1.5	-0.00781	<1.5	-0.00287	<1.5
Barium	1.0	.011	0.50						
Beryllium	0.50	.002	0.25						
Boron	25	1.5	20						
Cadmium	0.50	.004	2.0						
Calcium	250	21	50						
Chromium	1.0	.009	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.012	4.0						
Iron	25	.87	13						
Lead	0.50	.004	1.0						
Magnesium	250	1.9	130						
Manganese	1.0	.02	1.0						
Molybdenum	1.0	.018	0.50						
Nickel	1.0	.02	3.0						
Potassium	250	3.3	50						
Selenium	0.50	.025	0.50						
Silver	0.50	.005	0.50						
Sodium	250	3.6	100						
Strontium	5.0	.039	5.0						
Thallium	0.50	.003	0.50						
Tin	5.0	.038	2.5						
Titanium	1.0	.042	1.0						
Vanadium	1.0	.006	1.0						
Zinc	5.0	2.2	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA45980 Units: ug/l

Time: / Sample ID:				14:12 CCB3		15:02 CCB4		15:59 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	1.1	20						
Antimony	2.0	.27	1.5						
Arsenic	0.50	.017	1.0	-0.00130	<1.0	-0.0107	<1.5	0.0108	<1.5
Barium	1.0	.011	0.50						
Beryllium	0.50	.002	0.25						
Boron	25	1.5	20						
Cadmium	0.50	.004	2.0						
Calcium	250	21	50						
Chromium	1.0	.009	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.012	4.0						
Iron	25	.87	13						
Lead	0.50	.004	1.0						
Magnesium	250	1.9	130						
Manganese	1.0	.02	1.0						
Molybdenum	1.0	.018	0.50						
Nickel	1.0	.02	3.0						
Potassium	250	3.3	50						
Selenium	0.50	.025	0.50						
Silver	0.50	.005	0.50						
Sodium	250	3.6	100						
Strontium	5.0	.039	5.0						
Thallium	0.50	.003	0.50						
Tin	5.0	.038	2.5						
Titanium	1.0	.042	1.0						
Vanadium	1.0	.006	1.0						
Zinc	5.0	2.2	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA45980 Units: ug/l

Time: / Sample ID:				16:54 CCB6		17:39 CCB7		18:09 CCB8	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	1.1	20						
Antimony	2.0	.27	1.5						
Arsenic	0.50	.017	1.0	0.000522	<0.50	-0.00793	<1.5	0.00406	<1.5
Barium	1.0	.011	0.50						
Beryllium	0.50	.002	0.25						
Boron	25	1.5	20						
Cadmium	0.50	.004	2.0						
Calcium	250	21	50						
Chromium	1.0	.009	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.012	4.0						
Iron	25	.87	13						
Lead	0.50	.004	1.0						
Magnesium	250	1.9	130						
Manganese	1.0	.02	1.0						
Molybdenum	1.0	.018	0.50						
Nickel	1.0	.02	3.0						
Potassium	250	3.3	50						
Selenium	0.50	.025	0.50						
Silver	0.50	.005	0.50						
Sodium	250	3.6	100						
Strontium	5.0	.039	5.0						
Thallium	0.50	.003	0.50						
Tin	5.0	.038	2.5						
Titanium	1.0	.042	1.0						
Vanadium	1.0	.006	1.0						
Zinc	5.0	2.2	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA45980 Units: ug/l

Time:		12:21			12:28			12:38	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	60	64.9	108.2				50	53.2	106.4
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA45980 Units: ug/l

Time:		13:13			14:07			14:57	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	50	54.2	108.4	50	53.3	106.6	50	52.6	105.2
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA45980 Units: ug/l

Time:		15:53			16:49			17:34	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	50	52.1	104.2	50	51.8	103.6	50	51.8	103.6
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA45980 Units: ug/l

Time:		18:04	
Sample ID:	CCVA	CCVA8	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	50	51.8	103.6
Barium	anr		
Beryllium	anr		
Boron			
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	anr		
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	anr		
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA45980 Units: ug/l

Time:			12:48	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25	anr	
Antimony	2.0	0.25	anr	
Arsenic	0.50	0.50	0.536	107.2
Barium	1.0	0.50	anr	
Beryllium	0.50	0.25	anr	
Boron	25	2.5		
Cadmium	0.50	0.25	anr	
Calcium	250	125	anr	
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25	anr	
Copper	2.0	2.0	anr	
Iron	25	25	anr	
Lead	0.50	0.25	anr	
Magnesium	250	125	anr	
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50		
Nickel	1.0	2.0	anr	
Potassium	250	125	anr	
Selenium	0.50	0.50	anr	
Silver	0.50	1.0	anr	
Sodium	250	125	anr	
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0	anr	
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA011419M1L.CSV Date Analyzed: 01/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA45980 Units: ug/l

Time:			12:58		13:03	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	91300	91.3	93000	93.0
Antimony			0.101		0.0987	
Arsenic		20	0.0789		19.6	98.0
Barium			0.145		0.169	
Beryllium			0.000435		0.00212	
Boron		50	0.525		44.0	88.0
Cadmium		20	-0.0638		18.0	90.0
Calcium	100000	100000	93300	93.3	95900	95.9
Chromium		20	0.149		19.8	99.0
Cobalt		20	0.0548		18.2	91.0
Copper		20	0.366		17.2	86.0
Iron	100000	100000	86200	86.2	89100	89.1
Lead			0.102		0.102	
Magnesium	100000	100000	86700	86.7	87900	87.9
Manganese		20	0.356		19.7	98.5
Molybdenum	2000	2000	2260	113.0	2320	116.0
Nickel		20	0.406		17.3	86.5
Potassium	100000	100000	95900	95.9	97500	97.5
Selenium		20	0.0950		20.6	103.0
Silver		20	0.0366		22.2	111.0
Sodium	100000	100000	87300	87.3	89700	89.7
Strontium	2000	2000	2200	110.0	2130	106.5
Thallium			0.00841		0.00511	
Tin	2000	2000	2050	102.5	1990	99.5
Titanium	2000	2000	1920	96.0	1970	98.5
Vanadium		20	0.0255		21.7	108.5
Zinc		20	0.345		17.1	85.5

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP12071
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 01/14/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	2.3	32		
Antimony	4.0	.55	1.7		
Arsenic	3.0	.034	.94	0.049	<3.0
Barium	2.0	.022	.73		
Beryllium	1.0	.004	.15		
Boron	50	3	14		
Cadmium	6.0	.008	.17		
Calcium	500	42	64		
Chromium	8.0	.018	.62		
Cobalt	1.0	.004	.17		
Copper	10	.024	1.9		
Iron	50	1.7	19		
Lead	3.0	.008	.52		
Magnesium	500	3.8	46		
Manganese	4.0	.04	.63		
Molybdenum	2.0	.036	.45		
Nickel	8.0	.04	.95		
Potassium	500	6.5	68		
Selenium	2.0	.05	.55		
Silver	2.0	.01	.16		
Sodium	500	7.1	140		
Strontium	20	.078	2.4		
Thallium	2.0	.006	.17		
Tin	10	.076	2.6		
Titanium	4.0	.084	1.6		
Vanadium	3.0	.012	1.8		
Zinc	20	4.4	5.4		

Associated samples MP12071: JC81275-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP12071 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 01/14/19

Metal	JC81275-1 Original	MS	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum					
Antimony					
Arsenic	10.9	85.7	80	93.5	75-125
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP12071: JC81275-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP12071 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 01/14/19

Metal	JC81275-1 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	10.9	84.7	80	92.3	1.2	20
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP12071: JC81275-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP12071
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 01/14/19

Metal	BSP Result	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum				
Antimony				
Arsenic	74.0	80	92.5	80-120
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP12071: JC81275-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP12071 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 01/14/19

Metal	JC81275-1 Original	SDL 2:10	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	10.9	13.1	19.7*(a)	0-10
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP12071: JC81275-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: JC81275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP12071 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 01/14/19

Metal	Sample ml	Final ml	JC81275-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.14	10	10.93968	9.998867	85.81998	0.2	4	80	94.8	75-125
Barium										
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP12071: JC81275-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Instrument Detection Limits

Job Number: JC81275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/30/18

Analyte	IDL ug/l
Aluminum	.162
Aluminum	1.132
Antimony	.274
Arsenic	.511
Arsenic	.017
Barium	.011
Beryllium	.002
Boron	1.488
Cadmium	.009
Cadmium	.004
Calcium	21.1
Chromium	.028
Chromium	.009
Cobalt	.007
Cobalt	.002
Copper	.018
Copper	.012
Iron	1.37
Iron	.87
Lead	.004
Magnesium	.16
Magnesium	1.894
Manganese	.011
Manganese	.02
Molybdenum	.018
Nickel	.015
Nickel	.02
Potassium	1.74
Potassium	3.269
Selenium	.789
Selenium	.025
Silver	.005
Sodium	.571
Sodium	3.563
Strontium	.039
Thallium	.003
Tin	.023
Tin	.038
Titanium	.025
Titanium	.042
Vanadium	.11
Vanadium	.006
Zinc	.117
Zinc	2.2

Instrument Detection Limits

Job Number: JC81275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/30/18

Analyte	IDL ug/l

The above applies to the following instrument runs:
MA45980

Instrument Linear Ranges

Job Number: JC81275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC81275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA45980

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 11:06
Sample Name	STDA 1
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	2.50	100.00	1.315E-05	Pulse	0.25	3
B			1	0.175	ug/l	36.80	56,435.81	7.430E-03	Pulse	0.15	3
Ca			1	-0.404	ug/l	-85.99	25,687.32	3.007E-03	Pulse	0.10	3
Sr			1	-0.001	ug/l	-112.23	1,300.10	1.347E-04	Pulse	0.10	3
Mo			1	0.001	ug/l	91.73	66.67	6.917E-06	Pulse	0.10	3
Ag			1	0.000	ug/l	718.22	60.00	5.871E-06	Pulse	0.10	3
Sn			1	-0.298	ug/l	-1.70	3,140.45	3.089E-04	Pulse	0.10	3
Sb			1	0.002	ug/l	122.48	196.67	1.600E-05	Pulse	0.10	3
Ba			1	-0.001	ug/l	-360.31	126.67	1.037E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	4108.12	696.71	1.013E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	32.21	736.71	1.073E-04	Pulse	0.10	3
Pb			1	0.001	ug/l	304.71	553.37	8.045E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	29.28	2,766.88	4.028E-04	Pulse	0.10	3
Na			2	0.098	ug/l	205.73	10,948.11	4.561E-02	Pulse	0.30	3
Mg			2	-0.010	ug/l	-227.64	142.23	5.917E-04	Pulse	0.30	3
Al			2	0.014	ug/l	249.40	70.00	2.918E-04	Pulse	0.30	3
K			2	0.424	ug/l	141.80	10,275.48	4.281E-02	Pulse	0.30	3
Ca			2	-0.694	ug/l	-43.80	85.56	3.566E-04	Pulse	0.30	3
Ti			2	-0.021	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.001	ug/l	229.10	630.02	2.624E-03	Pulse	0.30	3
Cr			2	-0.054	ug/l	-13.03	1,177.83	4.908E-03	Pulse	0.30	3
Mn			2	-0.001	ug/l	-167.03	61.11	2.548E-04	Pulse	0.30	3
Fe			2	-0.012	ug/l	-87.07	4,203.92	1.751E-02	Pulse	0.30	3
Co			2	0.000	ug/l	495.88	128.89	5.378E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	3764.28	110.00	4.588E-04	Pulse	0.30	3
Cu			2	0.020	ug/l	31.88	1,936.80	8.068E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.031	ug/l	-76.18	338.90	1.410E-03	Pulse	0.30	3
As			2	-0.011	ug/l	-35.45	19.33	8.061E-05	Pulse	1.00	3
Cd			2	0.001	ug/l	542.98	17.78	1.491E-05	Pulse	0.30	3
Sn			2	-0.010	ug/l	-140.44	521.13	4.372E-04	Pulse	0.30	3
Se			3	0.022	ug/l	212.50	51.27	2.166E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,600,830.50	2.94	100.0	Analog	0.10	3
1	Sc		8,544,632.58	0.39	100.0	Analog	0.10	3
1	Ge		1,415,498.31	1.01	100.0	Pulse	0.10	3
1	Ge		1,956,550.49	0.89	100.0	Pulse	0.10	3
1	Rh		9,657,841.31	0.93	100.0	Analog	0.10	3
1	In		10,170,519.30	1.82	100.0	Analog	0.10	3
1	Tb		12,292,440.65	1.58	100.0	Analog	0.10	3
1	Ho		1,197,395.22	1.20	100.0	Pulse	0.10	3
1	Bi		6,867,793.02	1.71	100.0	Analog	0.10	3
2	Sc		240,088.75	1.03	100.0	Pulse	0.30	3
2	Ge		123,954.91	0.96	100.0	Pulse	0.30	3
2	Ge		186,180.65	0.24	100.0	Pulse	0.30	3
2	Rh		3,955,764.43	0.10	100.0	Pulse	0.30	3
2	In		1,192,080.00	0.21	100.0	Pulse	0.30	3
2	Tb		4,443,720.94	0.74	100.0	Pulse	0.30	3
2	Ho		437,556.41	0.69	100.0	Pulse	0.30	3
2	Bi		2,845,238.36	0.33	100.0	Pulse	0.30	3
3	Sc		264,234.35	0.40	100.0	Pulse	0.30	3
3	Ge		156,054.50	0.23	100.0	Pulse	0.30	3
3	Ge		236,802.02	0.48	100.0	Pulse	0.30	3
3	Rh		2,966,664.74	0.72	100.0	Pulse	0.30	3
3	Tb		4,436,499.41	0.51	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 11:11
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	44.50	108.00	1.417E-05	Pulse	0.25	3
B			1	0.069	ug/l	14.43	53,421.65	7.017E-03	Pulse	0.15	3
Ca			1	-0.078	ug/l	-216.49	26,548.64	3.107E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-3720.11	1,366.79	1.412E-04	Pulse	0.10	3
Mo			1	0.004	ug/l	68.93	126.67	1.306E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	-85.23	33.33	3.202E-06	Pulse	0.10	3
Sn			1	-0.302	ug/l	-2.20	3,083.75	2.979E-04	Pulse	0.10	3
Sb			1	0.003	ug/l	81.62	216.68	1.750E-05	Pulse	0.10	3
Ba			1	-0.002	ug/l	-71.78	116.67	9.435E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	1456.61	716.71	1.032E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	70.45	696.72	1.004E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	89.94	643.37	9.276E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	71.98	2,750.21	3.964E-04	Pulse	0.10	3
Na			2	0.084	ug/l	50.38	11,015.91	4.547E-02	Pulse	0.30	3
Mg			2	0.003	ug/l	1448.08	157.78	6.517E-04	Pulse	0.30	3
Al			2	0.024	ug/l	127.33	74.45	3.074E-04	Pulse	0.30	3
K			2	0.379	ug/l	81.39	10,342.18	4.269E-02	Pulse	0.30	3
Ca			2	-0.684	ug/l	-148.77	86.67	3.580E-04	Pulse	0.30	3
Ti			2	-0.017	ug/l	-44.08	1.11	4.585E-06	Pulse	0.30	3
V			2	0.003	ug/l	374.10	652.25	2.693E-03	Pulse	0.30	3
Cr			2	-0.054	ug/l	-5.76	1,186.72	4.899E-03	Pulse	0.30	3
Mn			2	0.001	ug/l	629.51	73.33	3.032E-04	Pulse	0.30	3
Fe			2	0.490	ug/l	18.21	9,198.23	3.796E-02	Pulse	0.30	3
Co			2	0.001	ug/l	311.21	136.67	5.641E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-120.52	102.23	4.221E-04	Pulse	0.30	3
Cu			2	0.015	ug/l	44.53	1,881.24	7.765E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.100	ug/l	32.82	594.46	2.454E-03	Pulse	0.30	3
As			2	-0.010	ug/l	-58.38	21.00	8.666E-05	Pulse	1.00	3
Cd			2	0.002	ug/l	123.92	22.22	1.848E-05	Pulse	0.30	3
Sn			2	-0.016	ug/l	-69.31	497.79	4.140E-04	Pulse	0.30	3
Se			3	-0.030	ug/l	-58.30	37.40	1.587E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,613,811.06	1.35	100.0	Analog	0.10	3
1	Sc		8,544,793.62	1.18	100.0	Analog	0.10	3
1	Ge		1,415,406.18	0.29	100.0	Pulse	0.10	3
1	Ge		1,958,778.10	0.10	100.0	Pulse	0.10	3
1	Rh		9,681,096.11	0.91	100.0	Analog	0.10	3
1	In		10,352,207.64	1.42	100.0	Analog	0.10	3
1	Tb		12,399,283.98	2.12	100.0	Analog	0.10	3
1	Ho		1,206,888.37	0.33	100.0	Pulse	0.10	3
1	Bi		6,934,435.52	1.11	100.0	Analog	0.10	3
2	Sc		242,263.60	0.43	100.0	Pulse	0.30	3
2	Ge		124,097.24	0.21	100.0	Pulse	0.30	3
2	Ge		187,096.99	0.88	100.0	Pulse	0.30	3
2	Rh		3,973,499.70	0.28	100.0	Pulse	0.30	3
2	In		1,202,567.19	0.17	100.0	Pulse	0.30	3
2	Tb		4,474,629.13	0.30	100.0	Pulse	0.30	3
2	Ho		442,000.86	0.47	100.0	Pulse	0.30	3
2	Bi		2,865,337.18	0.35	100.0	Pulse	0.30	3
3	Sc		264,471.61	0.39	100.0	Pulse	0.30	3
3	Ge		156,059.93	0.69	100.0	Pulse	0.30	3
3	Ge		235,627.01	0.47	100.0	Pulse	0.30	3
3	Rh		2,991,011.41	0.28	100.0	Pulse	0.30	3
3	Tb		4,467,930.80	0.44	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 11:16
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-32986.96	48.00	6.190E-06	Pulse	0.25	3
B			1	0.000	ug/l	---	52,445.34	6.747E-03	Pulse	0.15	3
Ca			1	-0.718	ug/l	-57.97	25,366.85	2.910E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	2971.75	1,373.45	1.422E-04	Pulse	0.10	3
Mo			1	0.000	ug/l	---	43.33	4.487E-06	Pulse	0.10	3
Ag			1	0.000	ug/l	64133.75	56.67	5.523E-06	Pulse	0.10	3
Sn			1	-0.301	ug/l	-1.05	3,073.76	2.997E-04	Pulse	0.10	3
Sb			1	0.000	ug/l	-1254.33	130.00	1.040E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	-1871.49	150.01	1.198E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	---	700.04	1.008E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	808.89	576.70	8.294E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	119.88	580.04	8.351E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	781.39	2,433.50	3.502E-04	Pulse	0.10	3
Na			2	0.056	ug/l	173.41	11,110.55	4.517E-02	Pulse	0.30	3
Mg			2	-0.009	ug/l	-337.02	146.67	5.962E-04	Pulse	0.30	3
Al			2	-0.004	ug/l	-600.13	65.56	2.665E-04	Pulse	0.30	3
K			2	0.238	ug/l	133.08	10,404.43	4.230E-02	Pulse	0.30	3
Ca			2	-0.693	ug/l	-86.44	87.78	3.567E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	5.56	2.260E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-125.39	606.69	2.466E-03	Pulse	0.30	3
Cr			2	-0.063	ug/l	-4.21	1,097.83	4.463E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	67.78	2.756E-04	Pulse	0.30	3
Fe			2	0.004	ug/l	368.08	4,463.99	1.815E-02	Pulse	0.30	3
Co			2	0.000	ug/l	---	125.56	5.105E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	---	112.23	4.563E-04	Pulse	0.30	3
Cu			2	0.000	ug/l	---	1,689.00	6.867E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.000	ug/l	---	407.79	1.658E-03	Pulse	0.30	3
As			2	-0.008	ug/l	-96.19	22.67	9.215E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	---	15.56	1.283E-05	Pulse	0.30	3
Sn			2	-0.004	ug/l	-209.82	557.80	4.599E-04	Pulse	0.30	3
Se			3	0.000	ug/l	---	45.67	1.918E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,774,800.03	1.67	100.0	Analog	0.10	3
1	Sc		8,719,135.49	1.47	100.0	Analog	0.10	3
1	Ge		1,428,579.40	0.98	100.0	Pulse	0.10	3
1	Ge		1,973,355.60	0.58	100.0	Pulse	0.10	3
1	Rh		9,654,616.11	0.48	100.0	Analog	0.10	3
1	In		10,255,638.84	0.30	100.0	Analog	0.10	3
1	Tb		12,509,004.81	1.29	100.0	Analog	0.10	3
1	Ho		1,208,527.87	0.53	100.0	Pulse	0.10	3
1	Bi		6,948,433.23	0.92	100.0	Analog	0.10	3
2	Sc		245,968.28	0.23	100.0	Pulse	0.30	3
2	Ge		125,324.97	0.92	100.0	Pulse	0.30	3
2	Ge		188,385.19	0.52	100.0	Pulse	0.30	3
2	Rh		3,984,575.40	0.22	100.0	Pulse	0.30	3
2	In		1,212,805.63	0.13	100.0	Pulse	0.30	3
2	Tb		4,499,353.29	0.18	100.0	Pulse	0.30	3
2	Ho		442,268.33	0.52	100.0	Pulse	0.30	3
2	Bi		2,874,887.80	0.16	100.0	Pulse	0.30	3
3	Sc		266,719.15	0.25	100.0	Pulse	0.30	3
3	Ge		156,400.10	0.50	100.0	Pulse	0.30	3
3	Ge		237,992.00	0.76	100.0	Pulse	0.30	3
3	Rh		3,002,438.07	0.82	100.0	Pulse	0.30	3
3	Tb		4,508,211.35	0.58	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 11:21
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.498	ug/l	3.34	14,633.09	1.869E-03	Pulse	0.25	3
B			1	24.557	ug/l	1.06	802,032.07	1.024E-01	Pulse	0.15	3
Ca			1	254.430	ug/l	0.30	710,207.10	8.130E-02	Pulse	0.10	3
Sr			1	4.954	ug/l	0.93	567,140.45	5.825E-02	Pulse	0.10	3
Mo			1	1.003	ug/l	3.27	20,156.76	2.070E-03	Pulse	0.10	3
Ag			1	0.501	ug/l	1.97	27,220.50	2.642E-03	Pulse	0.10	3
Sn			1	4.798	ug/l	0.95	160,013.08	1.553E-02	Pulse	0.10	3
Sb			1	2.054	ug/l	0.38	66,457.67	5.327E-03	Pulse	0.10	3
Ba			1	1.047	ug/l	3.21	14,991.08	1.202E-03	Pulse	0.10	3
Tl			1	0.485	ug/l	0.21	39,396.94	5.646E-03	Pulse	0.10	3
Pb			1	0.499	ug/l	1.37	13,763.51	1.972E-03	Pulse	0.10	3
Pb			1	0.499	ug/l	0.25	12,128.71	1.738E-03	Pulse	0.10	3
Pb			1	0.499	ug/l	2.40	55,886.80	8.008E-03	Pulse	0.10	3
Na			2	246.771	ug/l	0.82	650,431.74	2.642E+00	Pulse	0.30	3
Mg			2	254.716	ug/l	0.97	293,870.10	1.194E+00	Pulse	0.30	3
Al			2	25.834	ug/l	4.85	9,331.56	3.791E-02	Pulse	0.30	3
K			2	247.245	ug/l	0.60	176,337.31	7.163E-01	Pulse	0.30	3
Ca			2	286.472	ug/l	2.67	10,294.40	4.182E-02	Pulse	0.30	3
Ti			2	1.111	ug/l	14.62	294.45	1.196E-03	Pulse	0.30	3
V			2	1.040	ug/l	2.11	9,781.86	3.974E-02	Pulse	0.30	3
Cr			2	0.961	ug/l	3.71	13,031.92	5.294E-02	Pulse	0.30	3
Mn			2	1.022	ug/l	1.03	6,043.40	2.455E-02	Pulse	0.30	3
Fe			2	25.136	ug/l	0.90	256,564.30	1.042E+00	Pulse	0.30	3
Co			2	0.511	ug/l	0.72	10,676.89	4.337E-02	Pulse	0.30	3
Ni			2	1.045	ug/l	5.99	6,048.97	2.458E-02	Pulse	0.30	3
Cu			2	2.042	ug/l	1.02	32,244.94	1.310E-01	Pulse	0.30	3
Zn			2	4.916	ug/l	1.29	9,997.59	4.061E-02	Pulse	0.30	3
As			2	0.519	ug/l	2.94	521.68	2.119E-03	Pulse	1.00	3
Cd			2	0.499	ug/l	0.89	1,474.73	1.209E-03	Pulse	0.30	3
Sn			2	5.080	ug/l	0.46	25,702.15	2.106E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.485	ug/l	2.41	175.47	7.351E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,830,401.49	0.66	100.7	Analog	0.10	3
1	Sc		8,735,424.66	0.63	100.2	Analog	0.10	3
1	Ge		1,441,922.64	0.76	100.9	Pulse	0.10	3
1	Ge		1,981,502.00	0.44	100.4	Pulse	0.10	3
1	Rh		9,737,173.19	1.06	100.9	Analog	0.10	3
1	In		10,302,041.70	0.50	100.5	Analog	0.10	3
1	Tb		12,475,132.32	1.16	99.7	Analog	0.10	3
1	Ho		1,202,351.94	0.82	99.5	Pulse	0.10	3
1	Bi		6,978,262.19	0.17	100.4	Analog	0.10	3
2	Sc		246,172.15	0.40	100.1	Pulse	0.30	3
2	Ge		127,883.62	0.19	102.0	Pulse	0.30	3
2	Ge		191,326.83	0.32	101.6	Pulse	0.30	3
2	Rh		3,994,458.87	0.51	100.2	Pulse	0.30	3
2	In		1,220,193.10	0.07	100.6	Pulse	0.30	3
2	Tb		4,505,032.04	0.38	100.1	Pulse	0.30	3
2	Ho		446,257.34	0.58	100.9	Pulse	0.30	3
2	Bi		2,870,323.91	0.33	99.8	Pulse	0.30	3
3	Sc		268,228.67	1.20	100.6	Pulse	0.30	3
3	Ge		157,637.37	0.45	100.8	Pulse	0.30	3
3	Ge		238,718.11	0.53	100.3	Pulse	0.30	3
3	Rh		3,000,653.07	0.54	99.9	Pulse	0.30	3
3	Tb		4,479,972.32	0.52	99.4	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 11:26
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.960	ug/l	20.89	143,861.48	1.856E-02	Pulse	0.25	3
B			1	5.056	ug/l	26.75	205,238.37	2.645E-02	Pulse	0.15	3
Ca			1	9.809	ug/l	60.42	53,145.43	6.144E-03	Pulse	0.10	3
Sr			1	4.977	ug/l	30.85	560,430.68	5.852E-02	Pulse	0.10	3
Mo			1	4.972	ug/l	32.28	97,748.24	1.024E-02	Pulse	0.10	3
Ag			1	4.990	ug/l	29.05	268,536.68	2.626E-02	Pulse	0.10	3
Sn			1	4.837	ug/l	32.75	159,704.02	1.565E-02	Pulse	0.10	3
Sb			1	5.057	ug/l	29.21	159,940.40	1.310E-02	Pulse	0.10	3
Ba			1	5.052	ug/l	27.74	70,403.85	5.751E-03	Pulse	0.10	3
Tl			1	4.851	ug/l	25.03	384,885.87	5.561E-02	Pulse	0.10	3
Pb			1	4.960	ug/l	24.35	130,855.62	1.889E-02	Pulse	0.10	3
Pb			1	5.020	ug/l	25.53	116,032.92	1.678E-02	Pulse	0.10	3
Pb			1	4.958	ug/l	25.14	528,697.54	7.639E-02	Pulse	0.10	3
Na			2	4.870	ug/l	1.70	24,097.24	9.585E-02	Pulse	0.30	3
Mg			2	4.974	ug/l	3.23	6,017.81	2.394E-02	Pulse	0.30	3
Al			2	5.253	ug/l	1.93	1,992.37	7.924E-03	Pulse	0.30	3
K			2	4.824	ug/l	11.37	13,780.23	5.482E-02	Pulse	0.30	3
Ca			2	41.226	ug/l	3.77	1,611.21	6.409E-03	Pulse	0.30	3
Ti			2	4.726	ug/l	13.57	1,261.18	5.017E-03	Pulse	0.30	3
V			2	4.945	ug/l	1.08	45,085.62	1.793E-01	Pulse	0.30	3
Cr			2	4.863	ug/l	0.79	59,704.77	2.375E-01	Pulse	0.30	3
Mn			2	4.997	ug/l	0.09	29,907.12	1.190E-01	Pulse	0.30	3
Fe			2	4.935	ug/l	0.33	55,078.01	2.191E-01	Pulse	0.30	3
Co			2	4.985	ug/l	0.81	105,281.40	4.188E-01	Pulse	0.30	3
Ni			2	4.924	ug/l	1.73	28,683.93	1.141E-01	Pulse	0.30	3
Cu			2	4.985	ug/l	0.73	77,884.14	3.098E-01	Pulse	0.30	3
Zn			2	4.973	ug/l	1.91	10,323.35	4.106E-02	Pulse	0.30	3
As			2	4.951	ug/l	1.76	4,820.06	1.917E-02	Pulse	1.00	3
Cd			2	4.972	ug/l	2.15	14,701.28	1.193E-02	Pulse	0.30	3
Sn			2	5.019	ug/l	0.89	25,643.18	2.082E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	4.881	ug/l	2.06	1,356.52	5.663E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,957,897.00	18.92	102.4	Analog	0.10	3
1	Sc		9,166,403.20	28.98	105.1	Analog	0.10	3
1	Ge		1,483,708.81	21.19	103.9	Pulse	0.10	3
1	Ge		2,054,583.88	20.73	104.1	Pulse	0.10	3
1	Rh		10,174,566.93	29.09	105.4	Analog	0.10	3
1	In		10,802,802.12	27.92	105.3	Analog	0.10	3
1	Tb		12,884,265.43	27.39	103.0	Analog	0.10	3
1	Ho		1,256,586.08	27.76	104.0	Pulse	0.10	3
1	Bi		7,196,641.56	23.32	103.6	Analog	0.10	3
2	Sc		251,426.54	0.81	102.2	Pulse	0.30	3
2	Ge		128,873.21	0.41	102.8	Pulse	0.30	3
2	Ge		193,630.03	0.33	102.8	Pulse	0.30	3
2	Rh		4,018,311.64	0.50	100.8	Pulse	0.30	3
2	In		1,231,902.04	0.45	101.6	Pulse	0.30	3
2	Tb		4,541,679.40	0.23	100.9	Pulse	0.30	3
2	Ho		448,679.97	0.34	101.4	Pulse	0.30	3
2	Bi		2,894,734.68	0.23	100.7	Pulse	0.30	3
3	Sc		267,908.78	0.75	100.4	Pulse	0.30	3
3	Ge		158,540.22	0.51	101.4	Pulse	0.30	3
3	Ge		239,557.10	0.47	100.7	Pulse	0.30	3
3	Rh		3,014,604.88	0.46	100.4	Pulse	0.30	3
3	Tb		4,504,109.68	0.33	99.9	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 11:31
Sample Name STDC
Sample Type CalStd
Comment 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.040	ug/l	1.19	146,378.41	1.886E-02	Pulse	0.25	3
B			1	5.060	ug/l	3.00	205,322.76	2.646E-02	Pulse	0.15	3
Ca			1	10.301	ug/l	6.03	55,610.44	6.296E-03	Pulse	0.10	3
Sr			1	4.882	ug/l	2.06	565,608.42	5.740E-02	Pulse	0.10	3
Mo			1	4.913	ug/l	0.76	99,709.61	1.012E-02	Pulse	0.10	3
Ag			1	4.925	ug/l	1.18	271,615.54	2.591E-02	Pulse	0.10	3
Sn			1	4.718	ug/l	0.29	160,292.30	1.529E-02	Pulse	0.10	3
Sb			1	4.952	ug/l	0.61	161,676.85	1.283E-02	Pulse	0.10	3
Ba			1	4.944	ug/l	2.79	70,912.94	5.628E-03	Pulse	0.10	3
Tl			1	4.844	ug/l	0.43	388,827.71	5.552E-02	Pulse	0.10	3
Pb			1	4.964	ug/l	1.06	132,359.40	1.890E-02	Pulse	0.10	3
Pb			1	5.035	ug/l	1.08	117,831.47	1.683E-02	Pulse	0.10	3
Pb			1	4.947	ug/l	0.68	533,831.44	7.623E-02	Pulse	0.10	3
Na			2	5.118	ug/l	0.63	24,913.92	9.846E-02	Pulse	0.30	3
Mg			2	5.127	ug/l	2.26	6,238.99	2.465E-02	Pulse	0.30	3
Al			2	5.141	ug/l	7.29	1,963.47	7.761E-03	Pulse	0.30	3
K			2	4.845	ug/l	12.11	13,885.90	5.487E-02	Pulse	0.30	3
Ca			2	45.598	ug/l	9.72	1,781.23	7.041E-03	Pulse	0.30	3
Ti			2	4.870	ug/l	2.55	1,307.85	5.169E-03	Pulse	0.30	3
V			2	5.008	ug/l	1.71	45,938.99	1.816E-01	Pulse	0.30	3
Cr			2	4.901	ug/l	1.48	60,542.15	2.393E-01	Pulse	0.30	3
Mn			2	4.984	ug/l	1.10	30,024.03	1.186E-01	Pulse	0.30	3
Fe			2	5.075	ug/l	1.25	56,879.55	2.248E-01	Pulse	0.30	3
Co			2	5.002	ug/l	0.97	106,322.32	4.202E-01	Pulse	0.30	3
Ni			2	5.059	ug/l	0.60	29,656.68	1.172E-01	Pulse	0.30	3
Cu			2	4.978	ug/l	0.36	78,292.69	3.094E-01	Pulse	0.30	3
Zn			2	4.827	ug/l	1.93	10,097.64	3.991E-02	Pulse	0.30	3
As			2	5.045	ug/l	0.61	4,943.43	1.954E-02	Pulse	1.00	3
Cd			2	4.908	ug/l	3.05	14,687.85	1.178E-02	Pulse	0.30	3
Sn			2	4.982	ug/l	1.98	25,767.82	2.067E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	4.864	ug/l	0.47	1,371.53	5.644E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,760,639.02	2.06	99.8	Analog	0.10	3
1	Sc		8,834,629.87	1.43	101.3	Analog	0.10	3
1	Ge		1,461,602.11	0.61	102.3	Pulse	0.10	3
1	Ge		2,018,041.95	0.50	102.3	Pulse	0.10	3
1	Rh		9,854,988.40	1.83	102.1	Analog	0.10	3
1	In		10,481,603.98	0.65	102.2	Analog	0.10	3
1	Tb		12,602,017.31	1.02	100.7	Analog	0.10	3
1	Ho		1,220,303.11	1.19	101.0	Pulse	0.10	3
1	Bi		7,002,904.89	0.64	100.8	Analog	0.10	3
2	Sc		253,047.77	0.50	102.9	Pulse	0.30	3
2	Ge		131,630.96	0.06	105.0	Pulse	0.30	3
2	Ge		196,447.50	0.86	104.3	Pulse	0.30	3
2	Rh		4,075,747.75	0.46	102.3	Pulse	0.30	3
2	In		1,246,772.88	0.48	102.8	Pulse	0.30	3
2	Tb		4,600,633.98	0.65	102.3	Pulse	0.30	3
2	Ho		454,123.75	0.21	102.7	Pulse	0.30	3
2	Bi		2,928,531.76	0.26	101.9	Pulse	0.30	3
3	Sc		272,144.38	0.45	102.0	Pulse	0.30	3
3	Ge		159,569.37	0.25	102.0	Pulse	0.30	3
3	Ge		243,014.90	0.57	102.1	Pulse	0.30	3
3	Rh		3,048,572.73	0.43	101.5	Pulse	0.30	3
3	Tb		4,543,098.01	0.30	100.8	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 11:36
Sample Name	STDD
Sample Type	CalStd
Comment	25
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	25.217	ug/l	0.75	740,492.06	9.436E-02	Pulse	0.25	3
B			1	24.375	ug/l	0.51	798,286.74	1.017E-01	Pulse	0.15	3
Ca			1	39.930	ug/l	1.14	136,227.84	1.540E-02	Pulse	0.10	3
Sr			1	25.032	ug/l	1.10	2,867,167.66	2.937E-01	Pulse	0.10	3
Mo			1	25.370	ug/l	0.38	509,888.70	5.224E-02	Pulse	0.10	3
Ag			1	25.340	ug/l	2.04	1,382,054.51	1.333E-01	Pulse	0.10	3
Sn			1	25.109	ug/l	0.81	790,062.20	7.620E-02	Pulse	0.10	3
Sb			1	25.066	ug/l	0.33	808,905.04	6.490E-02	Pulse	0.10	3
Ba			1	25.238	ug/l	0.78	357,448.94	2.868E-02	Pulse	0.10	3
Tl			1	24.717	ug/l	1.32	1,985,280.75	2.829E-01	Pulse	0.10	3
Pb			1	25.441	ug/l	1.75	677,346.16	9.654E-02	Pulse	0.10	3
Pb			1	25.432	ug/l	1.85	594,209.80	8.469E-02	Pulse	0.10	3
Pb			1	25.227	ug/l	1.40	2,717,385.68	3.873E-01	Pulse	0.10	3
Na			2	26.400	ug/l	0.20	80,996.27	3.225E-01	Pulse	0.30	3
Mg			2	25.583	ug/l	1.35	30,258.18	1.205E-01	Pulse	0.30	3
Al			2	24.739	ug/l	1.38	9,120.32	3.631E-02	Pulse	0.30	3
K			2	25.277	ug/l	3.17	27,787.63	1.106E-01	Pulse	0.30	3
Ca			2	207.400	ug/l	2.70	7,636.29	3.040E-02	Pulse	0.30	3
Ti			2	25.467	ug/l	1.91	6,764.79	2.693E-02	Pulse	0.30	3
V			2	25.403	ug/l	0.67	228,680.81	9.105E-01	Pulse	0.30	3
Cr			2	25.258	ug/l	0.78	301,935.99	1.202E+00	Pulse	0.30	3
Mn			2	25.195	ug/l	0.64	150,366.10	5.987E-01	Pulse	0.30	3
Fe			2	25.580	ug/l	0.22	266,325.35	1.060E+00	Pulse	0.30	3
Co			2	25.392	ug/l	0.35	535,172.22	2.131E+00	Pulse	0.30	3
Ni			2	25.396	ug/l	0.61	147,318.13	5.865E-01	Pulse	0.30	3
Cu			2	25.339	ug/l	0.31	388,471.09	1.547E+00	Pulse	0.30	3
Zn			2	25.520	ug/l	2.42	51,199.60	2.039E-01	Pulse	0.30	3
As			2	25.746	ug/l	1.24	24,911.90	9.918E-02	Pulse	1.00	3
Cd			2	25.297	ug/l	0.21	74,890.65	6.067E-02	Pulse	0.30	3
Sn			2	25.600	ug/l	1.23	128,653.63	1.042E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	24.756	ug/l	0.73	6,702.30	2.794E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,848,092.47	1.23	100.9	Analog	0.10	3
1	Sc		8,846,085.08	0.90	101.5	Analog	0.10	3
1	Ge		1,463,720.86	1.28	102.5	Pulse	0.10	3
1	Ge		2,026,007.58	0.80	102.7	Pulse	0.10	3
1	Rh		9,761,723.40	1.43	101.1	Analog	0.10	3
1	In		10,368,711.67	0.30	101.1	Analog	0.10	3
1	Tb		12,462,963.98	0.65	99.6	Analog	0.10	3
1	Ho		1,228,714.02	1.34	101.7	Pulse	0.10	3
1	Bi		7,018,606.35	2.54	101.0	Analog	0.10	3
2	Sc		251,167.49	0.38	102.1	Pulse	0.30	3
2	Ge		129,860.22	0.72	103.6	Pulse	0.30	3
2	Ge		195,537.94	0.35	103.8	Pulse	0.30	3
2	Rh		4,040,915.95	0.15	101.4	Pulse	0.30	3
2	In		1,234,449.26	0.55	101.8	Pulse	0.30	3
2	Tb		4,580,382.87	0.56	101.8	Pulse	0.30	3
2	Ho		449,956.84	0.30	101.7	Pulse	0.30	3
2	Bi		2,910,665.79	0.73	101.2	Pulse	0.30	3
3	Sc		268,514.50	0.61	100.7	Pulse	0.30	3
3	Ge		158,120.81	0.50	101.1	Pulse	0.30	3
3	Ge		239,873.78	0.74	100.8	Pulse	0.30	3
3	Rh		3,017,836.27	0.66	100.5	Pulse	0.30	3
3	Tb		4,486,427.18	0.62	99.5	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 11:41
Sample Name	STDE
Sample Type	CalStd
Comment	50
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.445	ug/l	2.17	1,467,816.92	1.888E-01	Pulse	0.25	3
B			1	49.518	ug/l	2.62	1,552,798.27	1.997E-01	Pulse	0.15	3
Ca			1	73.299	ug/l	1.36	223,705.05	2.565E-02	Pulse	0.10	3
Sr			1	50.220	ug/l	0.57	5,769,820.75	5.892E-01	Analog	0.10	3
Mo			1	50.450	ug/l	0.81	1,017,215.48	1.039E-01	Pulse	0.10	3
Ag			1	50.602	ug/l	0.78	2,746,969.44	2.662E-01	Pulse	0.10	3
Sn			1	50.822	ug/l	0.98	1,579,017.95	1.530E-01	Pulse	0.10	3
Sb			1	50.318	ug/l	0.93	1,637,808.15	1.303E-01	Pulse	0.10	3
Ba			1	49.927	ug/l	0.35	713,169.89	5.672E-02	Pulse	0.10	3
Tl			1	49.468	ug/l	0.71	3,987,853.59	5.661E-01	Pulse	0.10	3
Pb			1	50.246	ug/l	1.59	1,342,405.50	1.906E-01	Pulse	0.10	3
Pb			1	50.272	ug/l	1.37	1,178,656.23	1.673E-01	Pulse	0.10	3
Pb			1	50.024	ug/l	1.31	5,406,687.31	7.676E-01	Pulse	0.10	3
Na			2	50.946	ug/l	0.30	146,489.29	5.809E-01	Pulse	0.30	3
Mg			2	49.404	ug/l	0.81	58,525.07	2.321E-01	Pulse	0.30	3
Al			2	50.322	ug/l	0.62	18,557.01	7.358E-02	Pulse	0.30	3
K			2	49.710	ug/l	1.36	44,712.85	1.773E-01	Pulse	0.30	3
Ca			2	407.827	ug/l	0.88	14,965.76	5.934E-02	Pulse	0.30	3
Ti			2	50.185	ug/l	2.01	13,379.93	5.306E-02	Pulse	0.30	3
V			2	49.736	ug/l	0.57	448,927.62	1.780E+00	Pulse	0.30	3
Cr			2	50.004	ug/l	0.43	598,342.37	2.373E+00	Pulse	0.30	3
Mn			2	50.031	ug/l	0.40	299,745.24	1.189E+00	Pulse	0.30	3
Fe			2	49.631	ug/l	0.25	514,581.78	2.040E+00	Pulse	0.30	3
Co			2	50.214	ug/l	0.21	1,062,546.34	4.213E+00	Pulse	0.30	3
Ni			2	50.235	ug/l	0.18	292,486.73	1.160E+00	Pulse	0.30	3
Cu			2	50.059	ug/l	0.09	768,907.47	3.049E+00	Pulse	0.30	3
Zn			2	50.213	ug/l	0.52	100,754.06	3.995E-01	Pulse	0.30	3
As			2	50.740	ug/l	1.03	49,265.70	1.954E-01	Pulse	1.00	3
Cd			2	50.199	ug/l	0.19	148,458.22	1.204E-01	Pulse	0.30	3
Sn			2	50.672	ug/l	0.66	253,850.31	2.058E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	48.965	ug/l	0.30	13,265.76	5.508E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,778,043.53	1.57	100.0	Analog	0.10	3
1	Sc		8,721,368.62	0.89	100.0	Analog	0.10	3
1	Ge		1,458,281.33	0.74	102.1	Pulse	0.10	3
1	Ge		2,016,134.40	1.26	102.2	Pulse	0.10	3
1	Rh		9,793,235.27	0.39	101.4	Analog	0.10	3
1	In		10,319,910.81	0.58	100.6	Analog	0.10	3
1	Tb		12,572,320.23	1.32	100.5	Analog	0.10	3
1	Ho		1,225,195.22	0.82	101.4	Pulse	0.10	3
1	Bi		7,043,941.15	0.40	101.4	Analog	0.10	3
2	Sc		252,195.22	0.48	102.5	Pulse	0.30	3
2	Ge		129,225.23	0.06	103.1	Pulse	0.30	3
2	Ge		194,981.33	0.62	103.5	Pulse	0.30	3
2	Rh		4,048,011.51	0.28	101.6	Pulse	0.30	3
2	In		1,233,337.20	0.24	101.7	Pulse	0.30	3
2	Tb		4,566,508.29	0.59	101.5	Pulse	0.30	3
2	Ho		451,126.48	0.36	102.0	Pulse	0.30	3
2	Bi		2,908,883.01	0.19	101.2	Pulse	0.30	3
3	Sc		270,102.84	0.43	101.3	Pulse	0.30	3
3	Ge		157,690.02	0.49	100.8	Pulse	0.30	3
3	Ge		240,851.87	0.70	101.2	Pulse	0.30	3
3	Rh		3,006,387.94	0.71	100.1	Pulse	0.30	3
3	Tb		4,492,498.43	0.56	99.7	Pulse	0.30	3

Quantitation Report

File Name 009CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 11:46
Sample Name STDF
Sample Type CalStd
Comment 100
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	98.361	ug/l	0.87	2,884,039.08	3.680E-01	Pulse	0.25	3
B			1	96.196	ug/l	0.93	2,989,960.65	3.816E-01	Pulse	0.15	3
Ca			1	145.484	ug/l	1.25	412,644.98	4.783E-02	Pulse	0.10	3
Sr			1	99.859	ug/l	0.61	11,282,853.16	1.171E+00	Analog	0.10	3
Mo			1	99.687	ug/l	0.47	1,976,836.01	2.052E-01	Pulse	0.10	3
Ag			1	99.710	ug/l	0.50	5,365,171.80	5.245E-01	Mix	0.10	3
Sn			1	99.572	ug/l	1.07	3,054,307.66	2.986E-01	Pulse	0.10	3
Sb			1	99.617	ug/l	0.62	3,221,701.72	2.579E-01	Pulse	0.10	3
Ba			1	99.894	ug/l	0.41	1,417,618.94	1.135E-01	Pulse	0.10	3
Tl			1	100.345	ug/l	0.28	8,034,761.55	1.148E+00	Analog	0.10	3
Pb			1	100.011	ug/l	0.54	2,653,700.38	3.792E-01	Pulse	0.10	3
Pb			1	100.189	ug/l	0.73	2,332,995.90	3.334E-01	Pulse	0.10	3
Pb			1	99.805	ug/l	0.71	10,713,674.53	1.531E+00	Analog	0.10	3
Na			2	101.226	ug/l	0.68	274,122.78	1.110E+00	Pulse	0.30	3
Mg			2	99.571	ug/l	0.52	115,328.57	4.671E-01	Pulse	0.30	3
Al			2	99.203	ug/l	1.87	35,753.51	1.448E-01	Pulse	0.30	3
K			2	98.096	ug/l	0.29	76,383.00	3.093E-01	Pulse	0.30	3
Ca			2	809.198	ug/l	2.00	28,964.31	1.173E-01	Pulse	0.30	3
Ti			2	99.796	ug/l	1.35	26,046.04	1.055E-01	Pulse	0.30	3
V			2	99.827	ug/l	0.78	881,619.03	3.570E+00	Pulse	0.30	3
Cr			2	99.939	ug/l	0.22	1,169,059.19	4.734E+00	Pulse	0.30	3
Mn			2	99.936	ug/l	0.53	586,165.37	2.374E+00	Pulse	0.30	3
Fe			2	100.004	ug/l	0.36	1,010,685.48	4.093E+00	Pulse	0.30	3
Co			2	99.795	ug/l	0.10	2,067,491.45	8.373E+00	Pulse	0.30	3
Ni			2	99.780	ug/l	0.07	568,714.02	2.303E+00	Pulse	0.30	3
Cu			2	99.886	ug/l	0.63	1,500,530.46	6.077E+00	Pulse	0.30	3
Zn			2	99.768	ug/l	0.56	195,608.54	7.922E-01	Pulse	0.30	3
As			2	99.657	ug/l	0.24	94,712.93	3.836E-01	Pulse	1.00	3
Cd			2	99.831	ug/l	0.45	291,216.56	2.394E-01	Pulse	0.30	3
Sn			2	98.694	ug/l	0.65	487,169.89	4.004E-01	Pulse	0.30	3
Se			3	97.496	ug/l	0.04	25,762.45	1.095E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,836,435.16	0.73	100.8	Analog	0.10	3
1	Sc		8,627,905.91	1.17	99.0	Analog	0.10	3
1	Ge		1,441,217.01	1.13	100.9	Pulse	0.10	3

Quantitation Report

1	Ge		1,993,701.85	0.94	101.0	Pulse	0.10	3
1	Rh		9,631,938.61	0.47	99.8	Analog	0.10	3
1	In		10,229,345.04	1.87	99.7	Analog	0.10	3
1	Tb		12,491,749.81	1.23	99.9	Analog	0.10	3
1	Ho		1,226,202.74	1.29	101.5	Pulse	0.10	3
1	Bi		6,997,216.98	1.30	100.7	Analog	0.10	3
2	Sc		246,929.53	0.43	100.4	Pulse	0.30	3
2	Ge		126,983.35	0.90	101.3	Pulse	0.30	3
2	Ge		191,889.75	0.82	101.9	Pulse	0.30	3
2	Rh		3,971,757.62	0.31	99.7	Pulse	0.30	3
2	In		1,216,608.03	0.46	100.3	Pulse	0.30	3
2	Tb		4,521,238.99	0.27	100.5	Pulse	0.30	3
2	Ho		445,240.54	0.33	100.7	Pulse	0.30	3
2	Bi		2,877,538.70	0.39	100.1	Pulse	0.30	3
3	Sc		266,577.06	0.76	99.9	Pulse	0.30	3
3	Ge		155,014.90	0.31	99.1	Pulse	0.30	3
3	Ge		235,318.61	0.44	98.9	Pulse	0.30	3
3	Rh		2,956,130.09	0.50	98.5	Pulse	0.30	3
3	Tb		4,425,451.49	0.73	98.2	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 11:51
Sample Name	STDG
Sample Type	CalStd
Comment	500MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	29.25	413.35	5.408E-05	Pulse	0.25	3
B			1	202.155	ug/l	1.32	6,061,188.09	7.944E-01	Analog	0.15	3
Ca			1	519.756	ug/l	1.24	1,400,652.74	1.628E-01	Pulse	0.10	3
Sr			1	0.028	ug/l	4.35	4,544.16	4.733E-04	Pulse	0.10	3
Mo			1	0.112	ug/l	2.03	2,256.93	2.351E-04	Pulse	0.10	3
Ag			1	0.020	ug/l	22.31	1,126.75	1.098E-04	Pulse	0.10	3
Sn			1	-0.192	ug/l	-6.37	6,434.86	6.265E-04	Pulse	0.10	3
Sb			1	0.289	ug/l	10.16	9,499.90	7.585E-04	Pulse	0.10	3
Ba			1	0.034	ug/l	5.07	636.70	5.084E-05	Pulse	0.10	3
Tl			1	0.031	ug/l	4.43	3,143.80	4.545E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	17.90	1,373.45	1.986E-04	Pulse	0.10	3
Pb			1	0.033	ug/l	13.19	1,276.77	1.846E-04	Pulse	0.10	3
Pb			1	0.034	ug/l	6.80	6,030.74	8.719E-04	Pulse	0.10	3
Na			2	501.862	ug/l	0.28	1,309,622.17	5.327E+00	Pulse	0.30	3
Mg			2	515.793	ug/l	0.47	594,089.59	2.417E+00	Pulse	0.30	3
Al			2	509.330	ug/l	0.30	182,469.77	7.423E-01	Pulse	0.30	3
K			2	507.001	ug/l	0.32	350,331.71	1.425E+00	Pulse	0.30	3
Ca			2	515.111	ug/l	1.10	18,395.81	7.483E-02	Pulse	0.30	3
Ti			2	0.017	ug/l	75.92	10.00	4.073E-05	Pulse	0.30	3
V			2	0.017	ug/l	12.93	782.25	3.182E-03	Pulse	0.30	3
Cr			2	-0.071	ug/l	-3.34	1,007.82	4.100E-03	Pulse	0.30	3
Mn			2	0.164	ug/l	4.49	1,026.71	4.176E-03	Pulse	0.30	3
Fe			2	522.433	ug/l	0.56	5,237,666.74	2.131E+01	Pulse	0.30	3
Co			2	0.038	ug/l	17.74	906.70	3.687E-03	Pulse	0.30	3
Ni			2	0.049	ug/l	9.30	388.90	1.582E-03	Pulse	0.30	3
Cu			2	2.426	ug/l	1.25	37,935.93	1.543E-01	Pulse	0.30	3
Zn			2	0.612	ug/l	0.33	1,598.99	6.504E-03	Pulse	0.30	3
As			2	0.016	ug/l	110.11	45.67	1.857E-04	Pulse	1.00	3
Cd			2	0.014	ug/l	12.49	55.42	4.542E-05	Pulse	0.30	3
Sn			2	0.150	ug/l	17.54	1,325.63	1.087E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	200.896	ug/l	0.39	53,577.83	2.254E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,630,388.01	1.49	98.1	Analog	0.10	3
1	Sc		8,603,221.96	1.32	98.7	Analog	0.10	3
1	Ge		1,421,465.19	0.84	99.5	Pulse	0.10	3
1	Ge		1,975,218.82	0.84	100.1	Pulse	0.10	3
1	Rh		9,601,086.32	1.11	99.4	Analog	0.10	3
1	In		10,272,468.97	0.82	100.2	Analog	0.10	3
1	Tb		12,527,923.98	1.74	100.2	Analog	0.10	3
1	Ho		1,209,023.11	0.45	100.0	Pulse	0.10	3
1	Bi		6,917,407.82	0.82	99.6	Analog	0.10	3
2	Sc		245,827.00	0.52	99.9	Pulse	0.30	3
2	Ge		126,998.92	0.50	101.3	Pulse	0.30	3
2	Ge		190,396.58	0.55	101.1	Pulse	0.30	3
2	Rh		3,949,461.23	0.79	99.1	Pulse	0.30	3
2	In		1,219,923.74	0.28	100.6	Pulse	0.30	3
2	Tb		4,519,574.68	0.31	100.4	Pulse	0.30	3
2	Ho		445,302.45	0.77	100.7	Pulse	0.30	3
2	Bi		2,867,753.78	0.13	99.8	Pulse	0.30	3
3	Sc		264,091.71	0.44	99.0	Pulse	0.30	3
3	Ge		155,824.87	0.17	99.6	Pulse	0.30	3
3	Ge		237,720.48	0.30	99.9	Pulse	0.30	3
3	Rh		2,968,919.19	0.46	98.9	Pulse	0.30	3
3	Tb		4,481,092.74	0.43	99.4	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 11:56
Sample Name	STDH
Sample Type	CalStd
Comment	1000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.017	ug/l	63.75	557.36	7.165E-05	Pulse	0.25	3
B			1	2.149	ug/l	8.22	118,718.43	1.512E-02	Pulse	0.15	3
Ca			1	1031.280	ug/l	0.89	2,771,265.48	3.200E-01	Pulse	0.10	3
Sr			1	0.020	ug/l	10.51	3,623.88	3.788E-04	Pulse	0.10	3
Mo			1	0.044	ug/l	22.60	900.06	9.408E-05	Pulse	0.10	3
Ag			1	0.005	ug/l	22.21	350.02	3.404E-05	Pulse	0.10	3
Sn			1	-0.257	ug/l	-0.70	4,450.81	4.329E-04	Pulse	0.10	3
Sb			1	0.106	ug/l	7.06	3,627.22	2.848E-04	Pulse	0.10	3
Ba			1	0.014	ug/l	45.79	350.02	2.748E-05	Pulse	0.10	3
Tl			1	0.014	ug/l	40.43	1,840.18	2.666E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	34.57	1,143.42	1.656E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	41.17	966.74	1.401E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	30.76	4,420.43	6.404E-04	Pulse	0.10	3
Na			2	997.025	ug/l	0.03	2,633,391.36	1.054E+01	Pulse	0.30	3
Mg			2	1016.670	ug/l	0.76	1,190,008.64	4.763E+00	Pulse	0.30	3
Al			2	1016.705	ug/l	0.60	370,134.10	1.481E+00	Pulse	0.30	3
K			2	1004.335	ug/l	0.81	695,130.39	2.782E+00	Pulse	0.30	3
Ca			2	1023.321	ug/l	0.45	37,032.30	1.482E-01	Pulse	0.30	3
Ti			2	0.067	ug/l	146.86	23.34	9.313E-05	Pulse	0.30	3
V			2	0.007	ug/l	155.67	707.81	2.832E-03	Pulse	0.30	3
Cr			2	-0.084	ug/l	-8.69	871.15	3.487E-03	Pulse	0.30	3
Mn			2	0.031	ug/l	5.96	250.00	1.001E-03	Pulse	0.30	3
Fe			2	1039.472	ug/l	1.99	10,587,392.08	4.238E+01	Analog	0.30	3
Co			2	0.054	ug/l	5.61	1,267.84	5.074E-03	Pulse	0.30	3
Ni			2	0.047	ug/l	13.50	383.34	1.534E-03	Pulse	0.30	3
Cu			2	0.029	ug/l	25.56	2,157.95	8.636E-03	Pulse	0.30	3
Zn			2	0.091	ug/l	27.61	594.46	2.379E-03	Pulse	0.30	3
As			2	0.007	ug/l	127.24	37.67	1.508E-04	Pulse	1.00	3
Cd			2	0.006	ug/l	146.10	32.17	2.621E-05	Pulse	0.30	3
Sn			2	0.030	ug/l	14.42	736.69	6.011E-04	Pulse	0.30	3
Se			3	400.324	ug/l	0.39	107,946.34	4.489E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,856,661.12	2.56	101.1	Analog	0.10	3
1	Sc		8,660,760.91	0.35	99.3	Analog	0.10	3
1	Ge		1,426,517.17	1.18	99.9	Pulse	0.10	3

Quantitation Report

1	Ge		2,010,560.07	0.84	101.9	Pulse	0.10	3
1	Rh		9,570,099.65	1.06	99.1	Analog	0.10	3
1	In		10,281,996.65	0.20	100.3	Analog	0.10	3
1	Tb		12,733,969.81	0.29	101.8	Analog	0.10	3
1	Ho		1,217,481.57	0.54	100.7	Pulse	0.10	3
1	Bi		6,903,201.36	0.09	99.3	Analog	0.10	3
2	Sc		249,852.68	0.50	101.6	Pulse	0.30	3
2	Ge		128,116.51	1.05	102.2	Pulse	0.30	3
2	Ge		193,436.88	0.37	102.7	Pulse	0.30	3
2	Rh		3,966,239.29	0.25	99.5	Pulse	0.30	3
2	In		1,225,432.72	0.46	101.0	Pulse	0.30	3
2	Tb		4,530,580.51	0.67	100.7	Pulse	0.30	3
2	Ho		448,224.74	0.75	101.3	Pulse	0.30	3
2	Bi		2,859,992.87	0.60	99.5	Pulse	0.30	3
3	Sc		265,576.29	0.66	99.6	Pulse	0.30	3
3	Ge		156,565.74	0.55	100.1	Pulse	0.30	3
3	Ge		240,453.87	0.31	101.0	Pulse	0.30	3
3	Rh		2,965,438.84	0.43	98.8	Pulse	0.30	3
3	Tb		4,487,318.99	0.53	99.5	Pulse	0.30	3

Quantitation Report

File Name	012CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 12:01
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	32.11	106.67	1.377E-05	Pulse	0.25	3
B			1	1.168	ug/l	3.73	87,605.83	1.130E-02	Pulse	0.15	3
Ca			1	4970.086	ug/l	1.84	13,393,980.22	1.530E+00	Analog	0.10	3
Sr			1	0.045	ug/l	1.38	6,258.13	6.723E-04	Pulse	0.10	3
Mo			1	0.020	ug/l	5.33	423.36	4.546E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	30.33	273.35	2.717E-05	Pulse	0.10	3
Sn			1	-0.299	ug/l	-1.04	3,093.75	3.076E-04	Pulse	0.10	3
Sb			1	0.076	ug/l	8.41	2,573.64	2.082E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	72.21	193.34	1.564E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	6.98	980.07	1.476E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	32.86	740.05	1.114E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	67.72	623.37	9.393E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	19.51	2,703.53	4.072E-04	Pulse	0.10	3
Na			2	4986.774	ug/l	0.90	13,034,625.31	5.254E+01	Analog	0.30	3
Mg			2	5091.170	ug/l	0.76	5,916,982.96	2.385E+01	Analog	0.30	3
Al			2	4991.799	ug/l	0.44	1,804,312.57	7.272E+00	Pulse	0.30	3
K			2	4950.157	ug/l	0.66	3,361,637.16	1.355E+01	Pulse	0.30	3
Ca			2	4986.643	ug/l	0.17	178,755.14	7.205E-01	Pulse	0.30	3
Ti			2	0.013	ug/l	118.27	8.89	3.588E-05	Pulse	0.30	3
V			2	0.013	ug/l	68.48	757.81	3.055E-03	Pulse	0.30	3
Cr			2	-0.069	ug/l	-13.59	1,042.27	4.202E-03	Pulse	0.30	3
Mn			2	0.082	ug/l	3.90	548.91	2.212E-03	Pulse	0.30	3
Fe			2	5048.492	ug/l	0.49	51,045,303.53	2.057E+02	Analog	0.30	3
Co			2	0.246	ug/l	2.25	5,237.56	2.111E-02	Pulse	0.30	3
Ni			2	0.193	ug/l	3.07	1,215.62	4.899E-03	Pulse	0.30	3
Cu			2	0.020	ug/l	36.22	2,010.15	8.103E-03	Pulse	0.30	3
Zn			2	0.104	ug/l	29.99	615.58	2.481E-03	Pulse	0.30	3
As			2	0.033	ug/l	11.10	62.33	2.512E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	307.06	18.87	1.574E-05	Pulse	0.30	3
Sn			2	-0.007	ug/l	-263.38	538.91	4.496E-04	Pulse	0.30	3
Se			3	0.148	ug/l	20.07	82.07	3.575E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,754,371.73	1.46	99.7	Analog	0.10	3
1	Sc		8,753,908.41	0.59	100.4	Analog	0.10	3
1	Ge		1,655,845.29	4.61	115.9	Pulse	0.10	3

Quantitation Report

1	Ge		2,286,684.76	5.02	115.9	Pulse	0.10	3
1	Rh		9,309,345.28	1.19	96.4	Analog	0.10	3
1	In		10,057,368.54	0.72	98.1	Analog	0.10	3
1	Tb		12,359,246.49	0.25	98.8	Analog	0.10	3
1	Ho		1,191,320.40	1.17	98.6	Pulse	0.10	3
1	Bi		6,639,787.82	0.54	95.6	Analog	0.10	3
2	Sc		248,105.48	0.46	100.9	Pulse	0.30	3
2	Ge		128,276.87	2.22	102.4	Pulse	0.30	3
2	Ge		192,709.91	1.70	102.3	Pulse	0.30	3
2	Rh		3,838,324.01	0.49	96.3	Pulse	0.30	3
2	In		1,198,767.96	0.21	98.8	Pulse	0.30	3
2	Tb		4,506,111.91	0.52	100.2	Pulse	0.30	3
2	Ho		446,166.16	0.65	100.9	Pulse	0.30	3
2	Bi		2,740,840.51	0.20	95.3	Pulse	0.30	3
3	Sc		262,965.16	0.27	98.6	Pulse	0.30	3
3	Ge		152,513.94	0.33	97.5	Pulse	0.30	3
3	Ge		229,513.53	0.29	96.4	Pulse	0.30	3
3	Rh		2,832,195.30	0.29	94.3	Pulse	0.30	3
3	Tb		4,381,743.71	0.43	97.2	Pulse	0.30	3

Quantitation Report

File Name	013CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 12:06
Sample Name	STDJ
Sample Type	CalStd
Comment	10000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.039	ug/l	49.32	1,157.41	1.504E-04	Pulse	0.25	3
B			1	1.254	ug/l	2.34	89,283.28	1.163E-02	Pulse	0.15	3
Ca			1	9977.202	ug/l	0.83	26,621,785.44	3.069E+00	Analog	0.10	3
Sr			1	0.124	ug/l	10.34	14,503.78	1.599E-03	Pulse	0.10	3
Mo			1	1.151	ug/l	7.96	21,525.13	2.374E-03	Pulse	0.10	3
Ag			1	0.004	ug/l	30.86	240.01	2.429E-05	Pulse	0.10	3
Sn			1	-0.098	ug/l	-8.39	8,966.24	9.061E-04	Pulse	0.10	3
Sb			1	0.119	ug/l	12.07	3,930.64	3.175E-04	Pulse	0.10	3
Ba			1	0.036	ug/l	23.65	653.39	5.275E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	48.69	2,053.59	3.191E-04	Pulse	0.10	3
Pb			1	0.065	ug/l	16.79	2,106.91	3.275E-04	Pulse	0.10	3
Pb			1	0.061	ug/l	13.20	1,803.53	2.803E-04	Pulse	0.10	3
Pb			1	0.063	ug/l	14.11	8,418.01	1.308E-03	Pulse	0.10	3
Na			2	10017.636	ug/l	0.19	26,514,824.50	1.055E+02	Analog	0.30	3
Mg			2	9875.702	ug/l	0.21	11,626,897.59	4.626E+01	Analog	0.30	3
Al			2	9818.651	ug/l	0.27	3,595,134.72	1.430E+01	Pulse	0.30	3
K			2	10043.796	ug/l	0.63	6,898,625.28	2.745E+01	Analog	0.30	3
Ca			2	9862.018	ug/l	0.53	358,007.80	1.424E+00	Pulse	0.30	3
Ti			2	0.037	ug/l	51.26	15.56	6.188E-05	Pulse	0.30	3
V			2	0.024	ug/l	36.58	867.81	3.453E-03	Pulse	0.30	3
Cr			2	-0.049	ug/l	-9.12	1,288.95	5.129E-03	Pulse	0.30	3
Mn			2	0.190	ug/l	3.42	1,202.28	4.784E-03	Pulse	0.30	3
Fe			2	9801.354	ug/l	0.54	100,384,827.12	3.994E+02	Analog	0.30	3
Co			2	0.493	ug/l	4.82	10,517.90	4.185E-02	Pulse	0.30	3
Ni			2	0.400	ug/l	7.20	2,433.55	9.683E-03	Pulse	0.30	3
Cu			2	0.058	ug/l	8.32	2,613.58	1.040E-02	Pulse	0.30	3
Zn			2	1.521	ug/l	2.74	3,445.96	1.371E-02	Pulse	0.30	3
As			2	0.099	ug/l	14.13	126.33	5.029E-04	Pulse	1.00	3
Cd			2	0.039	ug/l	51.41	127.93	1.070E-04	Pulse	0.30	3
Sn			2	0.200	ug/l	21.08	1,537.88	1.287E-03	Pulse	0.30	3
Se			3	0.132	ug/l	32.22	75.87	3.399E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,675,700.01	0.87	98.7	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		8,676,008.62	1.63	99.5	Analog	0.10	3
1	Ge		1,390,305.86	0.79	97.3	Pulse	0.10	3
1	Ge		1,904,325.86	0.62	96.5	Pulse	0.10	3
1	Rh		9,066,905.49	0.51	93.9	Analog	0.10	3
1	In		9,893,984.17	1.07	96.5	Analog	0.10	3
1	Tb		12,369,132.32	1.20	98.9	Analog	0.10	3
1	Ho		1,181,926.26	1.73	97.8	Pulse	0.10	3
1	Bi		6,433,917.61	0.40	92.6	Analog	0.10	3
2	Sc		251,334.75	0.61	102.2	Pulse	0.30	3
2	Ge		125,042.16	0.44	99.8	Pulse	0.30	3
2	Ge		188,462.90	0.60	100.0	Pulse	0.30	3
2	Rh		3,778,505.82	0.29	94.8	Pulse	0.30	3
2	In		1,194,232.21	0.24	98.5	Pulse	0.30	3
2	Tb		4,507,632.04	0.28	100.2	Pulse	0.30	3
2	Ho		446,075.15	0.52	100.9	Pulse	0.30	3
2	Bi		2,660,272.95	0.24	92.5	Pulse	0.30	3
3	Sc		260,790.78	0.28	97.8	Pulse	0.30	3
3	Ge		148,494.26	0.62	94.9	Pulse	0.30	3
3	Ge		223,122.78	0.43	93.8	Pulse	0.30	3
3	Rh		2,737,010.17	0.22	91.2	Pulse	0.30	3
3	Tb		4,275,689.55	0.15	94.8	Pulse	0.30	3

Quantitation Report

File Name	014SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 12:11
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	216.23	64.00	8.093E-06	Pulse	0.25	3
B			1	0.643	ug/l	125.75	66,386.77	9.251E-03	Pulse	0.15	3
Ca			1	1.625	ug/l	178.02	30,202.10	3.630E-03	Pulse	0.10	3
Sr			1	0.001	ug/l	515.76	1,400.13	1.479E-04	Pulse	0.10	3
Mo			1	0.008	ug/l	106.59	183.34	2.103E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	25.81	160.01	1.469E-05	Pulse	0.10	3
Sn			1	-0.283	ug/l	-14.45	3,400.55	3.537E-04	Pulse	0.10	3
Sb			1	0.028	ug/l	54.05	943.40	8.320E-05	Pulse	0.10	3
Ba			1	0.002	ug/l	407.61	153.34	1.384E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	160.35	823.39	1.260E-04	Pulse	0.10	3
Pb			1	-0.002	ug/l	-253.28	493.36	7.396E-05	Pulse	0.10	3
Pb			1	-0.008	ug/l	-23.13	343.35	5.036E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-93.12	1,790.12	2.731E-04	Pulse	0.10	3
Na			2	-0.148	ug/l	-93.25	11,118.20	4.302E-02	Pulse	0.30	3
Mg			2	0.339	ug/l	4.76	575.57	2.227E-03	Pulse	0.30	3
Al			2	0.327	ug/l	15.67	193.34	7.482E-04	Pulse	0.30	3
K			2	0.135	ug/l	344.23	10,860.29	4.202E-02	Pulse	0.30	3
Ca			2	0.051	ug/l	903.47	120.00	4.642E-04	Pulse	0.30	3
Ti			2	-0.005	ug/l	-551.30	4.44	1.720E-05	Pulse	0.30	3
V			2	-0.001	ug/l	-702.07	661.13	2.558E-03	Pulse	0.30	3
Cr			2	-0.059	ug/l	-0.09	1,204.50	4.660E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	-12080.16	71.11	2.750E-04	Pulse	0.30	3
Fe			2	0.824	ug/l	5.23	13,328.86	5.157E-02	Pulse	0.30	3
Co			2	0.000	ug/l	1003.78	134.45	5.200E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	65.07	136.67	5.289E-04	Pulse	0.30	3
Cu			2	-0.008	ug/l	-86.66	1,655.66	6.405E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.003	ug/l	864.49	434.46	1.681E-03	Pulse	0.30	3
As			2	-0.010	ug/l	-63.81	21.67	8.390E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	400.66	17.76	1.383E-05	Pulse	0.30	3
Sn			2	-0.008	ug/l	-49.87	570.02	4.435E-04	Pulse	0.30	3
Se			3	0.019	ug/l	19.54	52.13	2.136E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,858,067.85	38.48	101.1	Analog	0.10	3
1	Sc		8,854,616.12	39.21	101.6	Analog	0.10	3
1	Ge		1,438,128.34	36.69	100.7	Pulse	0.10	3
1	Ge		1,987,263.46	36.39	100.7	Pulse	0.10	3
1	Rh		10,022,689.23	39.45	103.8	Analog	0.10	3
1	In		10,560,511.46	39.10	103.0	Analog	0.10	3
1	Tb		12,681,517.73	39.74	101.4	Analog	0.10	3
1	Ho		1,222,105.66	39.93	101.1	Pulse	0.10	3
1	Bi		6,999,373.02	37.65	100.7	Analog	0.10	3
2	Sc		258,454.73	0.39	105.1	Pulse	0.30	3
2	Ge		133,632.12	1.00	106.6	Pulse	0.30	3
2	Ge		199,227.54	0.28	105.8	Pulse	0.30	3
2	Rh		4,170,041.22	0.33	104.7	Pulse	0.30	3
2	In		1,285,021.53	0.57	106.0	Pulse	0.30	3
2	Tb		4,684,876.34	0.29	104.1	Pulse	0.30	3
2	Ho		461,353.04	0.26	104.3	Pulse	0.30	3
2	Bi		2,970,457.45	0.11	103.3	Pulse	0.30	3
3	Sc		274,693.40	0.43	103.0	Pulse	0.30	3
3	Ge		161,268.61	0.46	103.1	Pulse	0.30	3
3	Ge		244,036.44	0.53	102.5	Pulse	0.30	3
3	Rh		3,086,549.53	0.47	102.8	Pulse	0.30	3
3	Tb		4,576,370.23	0.52	101.5	Pulse	0.30	3

Quantitation Report

File Name	015SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 12:16
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-18.39	12.00	1.489E-06	Pulse	0.25	3
B			1	0.343	ug/l	13.07	65,318.32	8.083E-03	Pulse	0.15	3
Ca			1	-0.754	ug/l	-41.89	26,742.32	2.899E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	1023.41	1,460.11	1.420E-04	Pulse	0.10	3
Mo			1	0.004	ug/l	28.17	140.01	1.362E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	77.57	160.01	1.462E-05	Pulse	0.10	3
Sn			1	-0.299	ug/l	-2.80	3,370.50	3.073E-04	Pulse	0.10	3
Sb			1	0.018	ug/l	16.55	733.38	5.676E-05	Pulse	0.10	3
Ba			1	-0.003	ug/l	-96.08	110.00	8.486E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	-474.72	706.71	9.786E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-50.22	410.02	5.677E-05	Pulse	0.10	3
Pb			1	-0.010	ug/l	-27.47	300.02	4.153E-05	Pulse	0.10	3
Pb			1	-0.009	ug/l	-22.94	1,516.76	2.100E-04	Pulse	0.10	3
Na			2	-0.439	ug/l	-30.90	10,535.62	3.996E-02	Pulse	0.30	3
Mg			2	0.152	ug/l	13.28	356.68	1.352E-03	Pulse	0.30	3
Al			2	0.123	ug/l	41.56	118.89	4.507E-04	Pulse	0.30	3
K			2	-0.526	ug/l	-161.08	10,605.70	4.022E-02	Pulse	0.30	3
Ca			2	-0.098	ug/l	-593.01	116.67	4.426E-04	Pulse	0.30	3
Ti			2	-0.013	ug/l	-51.59	2.22	8.437E-06	Pulse	0.30	3
V			2	-0.002	ug/l	-324.53	664.47	2.519E-03	Pulse	0.30	3
Cr			2	-0.065	ug/l	-11.57	1,162.28	4.407E-03	Pulse	0.30	3
Mn			2	0.001	ug/l	608.58	77.78	2.947E-04	Pulse	0.30	3
Fe			2	0.286	ug/l	11.24	7,813.05	2.963E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-81.50	116.67	4.425E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	3527.82	121.11	4.593E-04	Pulse	0.30	3
Cu			2	-0.012	ug/l	-52.71	1,615.65	6.128E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.002	ug/l	-1129.23	433.35	1.643E-03	Pulse	0.30	3
As			2	-0.019	ug/l	-21.00	13.67	5.179E-05	Pulse	1.00	3
Cd			2	-0.003	ug/l	-78.17	7.77	5.990E-06	Pulse	0.30	3
Sn			2	0.002	ug/l	702.38	628.91	4.844E-04	Pulse	0.30	3
Se			3	0.049	ug/l	73.74	61.27	2.471E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,082,276.56	1.53	104.0	Analog	0.10	3
1	Sc		9,224,640.70	0.93	105.8	Analog	0.10	3
1	Ge		1,499,194.72	0.54	104.9	Pulse	0.10	3
1	Ge		2,081,925.96	0.58	105.5	Pulse	0.10	3
1	Rh		10,280,824.01	0.10	106.5	Analog	0.10	3
1	In		10,970,860.87	1.52	107.0	Analog	0.10	3
1	Tb		12,920,852.31	1.22	103.3	Analog	0.10	3
1	Ho		1,239,367.79	0.84	102.6	Pulse	0.10	3
1	Bi		7,220,921.98	0.23	103.9	Analog	0.10	3
2	Sc		263,697.75	0.40	107.2	Pulse	0.30	3
2	Ge		134,887.70	0.34	107.6	Pulse	0.30	3
2	Ge		203,672.46	0.64	108.1	Pulse	0.30	3
2	Rh		4,207,956.92	0.24	105.6	Pulse	0.30	3
2	In		1,298,339.47	0.16	107.1	Pulse	0.30	3
2	Tb		4,710,940.09	0.52	104.7	Pulse	0.30	3
2	Ho		464,735.57	1.07	105.1	Pulse	0.30	3
2	Bi		2,983,103.56	0.67	103.8	Pulse	0.30	3
3	Sc		278,267.28	0.62	104.3	Pulse	0.30	3
3	Ge		162,862.15	0.30	104.1	Pulse	0.30	3
3	Ge		247,803.32	0.58	104.1	Pulse	0.30	3
3	Rh		3,115,656.47	0.60	103.8	Pulse	0.30	3
3	Tb		4,598,603.98	0.63	102.0	Pulse	0.30	3

Quantitation Report

File Name 016_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 12:21
Sample Name ICVA
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	61.934	ug/l	0.40	1,801,068.25	2.317E-01	Pulse	0.25	3
B			1	123.126	ug/l	1.21	3,780,993.05	4.865E-01	Pulse	0.15	3
Ca			1	5527.378	ug/l	1.33	15,151,528.11	1.701E+00	Analog	0.10	3
Sr			1	64.472	ug/l	1.38	7,286,762.18	7.563E-01	Analog	0.10	3
Mo			1	62.837	ug/l	1.88	1,246,361.78	1.294E-01	Pulse	0.10	3
Ag			1	59.830	ug/l	0.90	3,268,872.66	3.147E-01	Pulse	0.10	3
Sn			1	61.578	ug/l	1.46	1,922,849.56	1.851E-01	Pulse	0.10	3
Sb			1	62.926	ug/l	0.65	2,071,535.85	1.629E-01	Pulse	0.10	3
Ba			1	61.518	ug/l	1.43	888,619.10	6.989E-02	Pulse	0.10	3
Tl			1	64.513	ug/l	1.14	4,930,333.88	7.383E-01	Pulse	0.10	3
Pb			1	64.926	ug/l	1.16	1,644,361.64	2.462E-01	Pulse	0.10	3
Pb			1	61.642	ug/l	0.52	1,370,018.47	2.052E-01	Pulse	0.10	3
Pb			1	62.912	ug/l	0.86	6,445,747.15	9.652E-01	Pulse	0.10	3
Na			2	5387.949	ug/l	1.70	14,409,128.87	5.676E+01	Analog	0.30	3
Mg			2	5536.721	ug/l	0.76	6,584,206.68	2.594E+01	Analog	0.30	3
Al			2	5482.204	ug/l	0.70	2,027,572.14	7.987E+00	Pulse	0.30	3
K			2	5402.733	ug/l	0.59	3,753,195.27	1.478E+01	Pulse	0.30	3
Ca			2	5881.693	ug/l	1.44	215,711.69	8.497E-01	Pulse	0.30	3
Ti			2	61.848	ug/l	1.37	16,598.42	6.538E-02	Pulse	0.30	3
V			2	62.739	ug/l	0.76	569,880.98	2.245E+00	Pulse	0.30	3
Cr			2	61.517	ug/l	0.53	740,550.72	2.917E+00	Pulse	0.30	3
Mn			2	61.509	ug/l	0.56	370,936.48	1.461E+00	Pulse	0.30	3
Fe			2	5487.849	ug/l	0.30	56,775,137.74	2.236E+02	Analog	0.30	3
Co			2	60.849	ug/l	0.48	1,296,078.07	5.105E+00	Pulse	0.30	3
Ni			2	60.342	ug/l	0.65	353,630.43	1.393E+00	Pulse	0.30	3
Cu			2	58.837	ug/l	0.94	909,403.75	3.582E+00	Pulse	0.30	3
Zn			2	59.292	ug/l	0.33	119,683.87	4.714E-01	Pulse	0.30	3
As			2	64.931	ug/l	0.41	63,454.12	2.500E-01	Pulse	1.00	3
Cd			2	61.015	ug/l	0.42	179,535.33	1.463E-01	Pulse	0.30	3
Sn			2	62.224	ug/l	0.19	310,017.10	2.526E-01	Pulse	0.30	3
Se			3	265.925	ug/l	1.00	69,018.48	2.983E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,771,955.91	0.33	100.0	Analog	0.10	3
1	Sc		8,905,631.95	0.41	102.1	Analog	0.10	3
1	Ge		1,453,014.61	0.73	101.7	Pulse	0.10	3

Quantitation Report

1	Ge		2,016,191.38	1.32	102.2	Pulse	0.10	3
1	Rh		9,635,282.57	1.34	99.8	Analog	0.10	3
1	In		10,387,036.88	0.85	101.3	Analog	0.10	3
1	Tb		12,715,674.39	1.33	101.7	Analog	0.10	3
1	Ho		1,220,274.80	1.05	101.0	Pulse	0.10	3
1	Bi		6,678,176.36	0.82	96.1	Analog	0.10	3
2	Sc		253,865.87	0.34	103.2	Pulse	0.30	3
2	Ge		128,217.03	0.51	102.3	Pulse	0.30	3
2	Ge		193,950.23	1.08	103.0	Pulse	0.30	3
2	Rh		3,887,185.82	0.64	97.6	Pulse	0.30	3
2	In		1,227,117.88	0.39	101.2	Pulse	0.30	3
2	Tb		4,566,571.76	0.85	101.5	Pulse	0.30	3
2	Ho		451,290.83	0.62	102.0	Pulse	0.30	3
2	Bi		2,764,411.42	0.11	96.2	Pulse	0.30	3
3	Sc		264,279.32	0.85	99.1	Pulse	0.30	3
3	Ge		152,205.54	0.79	97.3	Pulse	0.30	3
3	Ge		231,406.07	0.96	97.2	Pulse	0.30	3
3	Rh		2,827,338.08	0.31	94.2	Pulse	0.30	3
3	Tb		4,364,015.94	0.26	96.8	Pulse	0.30	3

Quantitation Report

File Name 017_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 12:28
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	237.08	60.00	7.357E-06	Pulse	0.25	3
B			1	0.614	ug/l	4.92	74,901.61	9.141E-03	Pulse	0.15	3
Ca			1	0.491	ug/l	82.35	29,807.75	3.281E-03	Pulse	0.10	3
Sr			1	0.003	ug/l	23.30	1,836.85	1.804E-04	Pulse	0.10	3
Mo			1	0.022	ug/l	23.14	510.03	5.012E-05	Pulse	0.10	3
Ag			1	0.073	ug/l	2.46	4,254.04	3.879E-04	Pulse	0.10	3
Sn			1	-0.222	ug/l	-6.01	5,884.66	5.367E-04	Pulse	0.10	3
Sb			1	0.030	ug/l	9.52	1,133.41	8.745E-05	Pulse	0.10	3
Ba			1	0.003	ug/l	145.54	203.34	1.569E-05	Pulse	0.10	3
Tl			1	0.007	ug/l	17.45	1,330.12	1.850E-04	Pulse	0.10	3
Pb			1	-0.002	ug/l	-138.68	530.03	7.371E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	469.15	583.36	8.120E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-54.44	2,296.82	3.194E-04	Pulse	0.10	3
Na			2	0.560	ug/l	22.33	13,211.94	5.048E-02	Pulse	0.30	3
Mg			2	0.337	ug/l	12.90	580.02	2.217E-03	Pulse	0.30	3
Al			2	65.611	ug/l	0.30	25,093.22	9.586E-02	Pulse	0.30	3
K			2	2.323	ug/l	6.45	12,562.61	4.799E-02	Pulse	0.30	3
Ca			2	0.482	ug/l	21.18	137.78	5.263E-04	Pulse	0.30	3
Ti			2	-0.001	ug/l	-1516.26	5.56	2.132E-05	Pulse	0.30	3
V			2	0.008	ug/l	65.53	746.69	2.853E-03	Pulse	0.30	3
Cr			2	0.008	ug/l	112.19	2,053.49	7.842E-03	Pulse	0.30	3
Mn			2	0.003	ug/l	34.44	91.11	3.480E-04	Pulse	0.30	3
Fe			2	0.473	ug/l	9.34	9,748.53	3.725E-02	Pulse	0.30	3
Co			2	0.000	ug/l	1356.83	136.67	5.219E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	-1904.99	117.78	4.501E-04	Pulse	0.30	3
Cu			2	-0.010	ug/l	-39.53	1,642.32	6.275E-03	Pulse	0.30	3
Zn			2	0.036	ug/l	37.90	507.79	1.940E-03	Pulse	0.30	3
As			2	-0.005	ug/l	-92.94	27.00	1.030E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.004	ug/l	-45.24	5.53	4.228E-06	Pulse	0.30	3
Sn			2	0.084	ug/l	9.94	1,068.94	8.191E-04	Pulse	0.30	3
Se			3	0.052	ug/l	72.89	61.53	2.503E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,195,038.34	2.05	105.4	Analog	0.10	3
1	Sc		9,085,325.91	1.07	104.2	Analog	0.10	3
1	Ge		1,484,108.26	0.94	103.9	Pulse	0.10	3
1	Ge		2,065,490.33	1.78	104.7	Pulse	0.10	3
1	Rh		10,180,821.72	0.37	105.5	Analog	0.10	3
1	In		10,965,081.74	0.71	106.9	Analog	0.10	3
1	Tb		12,963,593.98	0.40	103.6	Analog	0.10	3
1	Ho		1,248,734.15	1.11	103.3	Pulse	0.10	3
1	Bi		7,192,064.27	0.76	103.5	Analog	0.10	3
2	Sc		261,780.80	0.89	106.4	Pulse	0.30	3
2	Ge		135,844.76	0.86	108.4	Pulse	0.30	3
2	Ge		201,055.25	0.64	106.7	Pulse	0.30	3
2	Rh		4,207,331.78	0.54	105.6	Pulse	0.30	3
2	In		1,304,998.92	0.42	107.6	Pulse	0.30	3
2	Tb		4,747,122.59	0.24	105.5	Pulse	0.30	3
2	Ho		468,676.54	0.30	106.0	Pulse	0.30	3
2	Bi		2,998,389.95	0.21	104.3	Pulse	0.30	3
3	Sc		278,027.70	0.45	104.2	Pulse	0.30	3
3	Ge		163,483.69	1.18	104.5	Pulse	0.30	3
3	Ge		245,820.14	0.12	103.3	Pulse	0.30	3
3	Rh		3,108,180.71	0.27	103.5	Pulse	0.30	3
3	Tb		4,601,202.18	0.16	102.1	Pulse	0.30	3

Quantitation Report

File Name	018_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 12:33
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-74.71	37.33	4.614E-06	Pulse	0.25	3
B			1	0.319	ug/l	13.58	64,725.02	7.989E-03	Pulse	0.15	3
Ca			1	-1.046	ug/l	-13.71	25,987.76	2.809E-03	Pulse	0.10	3
Sr			1	0.001	ug/l	82.11	1,540.13	1.511E-04	Pulse	0.10	3
Mo			1	0.009	ug/l	28.22	226.68	2.223E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	18.59	243.34	2.222E-05	Pulse	0.10	3
Sn			1	-0.289	ug/l	-1.74	3,687.24	3.365E-04	Pulse	0.10	3
Sb			1	0.010	ug/l	20.36	470.02	3.608E-05	Pulse	0.10	3
Ba			1	-0.003	ug/l	-67.80	113.34	8.713E-06	Pulse	0.10	3
Tl			1	0.001	ug/l	174.33	783.38	1.094E-04	Pulse	0.10	3
Pb			1	-0.004	ug/l	-51.40	473.36	6.610E-05	Pulse	0.10	3
Pb			1	-0.007	ug/l	-46.90	376.68	5.263E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-15.92	1,783.44	2.491E-04	Pulse	0.10	3
Na			2	-0.308	ug/l	-15.51	10,892.48	4.134E-02	Pulse	0.30	3
Mg			2	0.104	ug/l	25.30	296.67	1.126E-03	Pulse	0.30	3
Al			2	0.097	ug/l	90.34	108.89	4.132E-04	Pulse	0.30	3
K			2	-0.302	ug/l	-71.39	10,758.00	4.083E-02	Pulse	0.30	3
Ca			2	-0.417	ug/l	-245.08	104.45	3.966E-04	Pulse	0.30	3
Ti			2	-0.017	ug/l	-39.72	1.11	4.216E-06	Pulse	0.30	3
V			2	0.005	ug/l	133.40	724.47	2.750E-03	Pulse	0.30	3
Cr			2	-0.060	ug/l	-9.89	1,216.73	4.618E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	111.40	83.33	3.162E-04	Pulse	0.30	3
Fe			2	0.280	ug/l	7.52	7,746.35	2.940E-02	Pulse	0.30	3
Co			2	0.000	ug/l	318.94	137.78	5.228E-04	Pulse	0.30	3
Ni			2	0.005	ug/l	7.27	152.23	5.777E-04	Pulse	0.30	3
Cu			2	-0.006	ug/l	-115.48	1,720.11	6.528E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.018	ug/l	195.98	474.46	1.801E-03	Pulse	0.30	3
As			2	-0.009	ug/l	-41.45	24.00	9.107E-05	Pulse	1.00	3
Cd			2	-0.004	ug/l	-31.29	4.43	3.399E-06	Pulse	0.30	3
Sn			2	0.016	ug/l	73.93	710.02	5.443E-04	Pulse	0.30	3
Se			3	0.005	ug/l	205.73	49.13	1.976E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,102,914.28	0.93	104.2	Analog	0.10	3
1	Sc		9,250,405.91	0.71	106.1	Analog	0.10	3
1	Ge		1,500,078.47	0.14	105.0	Pulse	0.10	3
1	Ge		2,065,881.64	0.78	104.7	Pulse	0.10	3
1	Rh		10,193,091.93	0.75	105.6	Analog	0.10	3
1	In		10,961,396.98	1.14	106.9	Analog	0.10	3
1	Tb		13,022,757.72	0.70	104.1	Analog	0.10	3
1	Ho		1,240,334.75	0.38	102.6	Pulse	0.10	3
1	Bi		7,163,155.93	1.07	103.1	Analog	0.10	3
2	Sc		263,490.29	0.27	107.1	Pulse	0.30	3
2	Ge		135,300.20	0.14	108.0	Pulse	0.30	3
2	Ge		203,575.40	0.47	108.1	Pulse	0.30	3
2	Rh		4,232,681.64	0.11	106.2	Pulse	0.30	3
2	In		1,304,145.75	0.33	107.5	Pulse	0.30	3
2	Tb		4,763,824.81	0.33	105.9	Pulse	0.30	3
2	Ho		467,196.72	0.26	105.6	Pulse	0.30	3
2	Bi		3,000,050.99	0.45	104.4	Pulse	0.30	3
3	Sc		279,145.47	0.21	104.7	Pulse	0.30	3
3	Ge		162,969.99	0.57	104.2	Pulse	0.30	3
3	Ge		248,560.62	0.55	104.4	Pulse	0.30	3
3	Rh		3,125,927.51	0.40	104.1	Pulse	0.30	3
3	Tb		4,607,678.84	0.48	102.2	Pulse	0.30	3

Quantitation Report

File Name 019_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 12:38
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	52.913	ug/l	1.45	1,589,825.12	1.980E-01	Pulse	0.25	3
B			1	103.945	ug/l	1.38	3,306,361.19	4.118E-01	Pulse	0.15	3
Ca			1	5323.068	ug/l	1.82	14,743,628.95	1.639E+00	Analog	0.10	3
Sr			1	54.555	ug/l	1.39	6,223,434.91	6.400E-01	Analog	0.10	3
Mo			1	54.732	ug/l	1.14	1,095,767.90	1.127E-01	Pulse	0.10	3
Ag			1	51.695	ug/l	0.55	2,818,155.38	2.719E-01	Pulse	0.10	3
Sn			1	53.133	ug/l	0.13	1,657,230.65	1.599E-01	Pulse	0.10	3
Sb			1	52.995	ug/l	0.71	1,752,160.65	1.372E-01	Pulse	0.10	3
Ba			1	52.802	ug/l	0.78	766,062.02	5.999E-02	Pulse	0.10	3
Tl			1	53.884	ug/l	0.67	4,144,773.38	6.167E-01	Pulse	0.10	3
Pb			1	54.461	ug/l	0.48	1,388,277.84	2.066E-01	Pulse	0.10	3
Pb			1	54.425	ug/l	0.66	1,217,544.09	1.811E-01	Pulse	0.10	3
Pb			1	53.935	ug/l	0.51	5,562,136.37	8.275E-01	Pulse	0.10	3
Na			2	5319.268	ug/l	2.22	14,398,582.21	5.604E+01	Analog	0.30	3
Mg			2	5341.987	ug/l	0.43	6,430,110.02	2.502E+01	Analog	0.30	3
Al			2	5266.374	ug/l	0.30	1,971,522.42	7.672E+00	Pulse	0.30	3
K			2	5253.860	ug/l	0.74	3,694,550.41	1.438E+01	Pulse	0.30	3
Ca			2	5625.846	ug/l	0.60	208,848.91	8.128E-01	Pulse	0.30	3
Ti			2	53.817	ug/l	2.83	14,620.98	5.689E-02	Pulse	0.30	3
V			2	53.593	ug/l	0.60	492,837.20	1.918E+00	Pulse	0.30	3
Cr			2	52.685	ug/l	0.11	642,238.55	2.499E+00	Pulse	0.30	3
Mn			2	52.712	ug/l	0.06	321,775.36	1.252E+00	Pulse	0.30	3
Fe			2	5298.201	ug/l	0.25	55,482,766.68	2.159E+02	Analog	0.30	3
Co			2	51.982	ug/l	0.19	1,120,755.23	4.361E+00	Pulse	0.30	3
Ni			2	51.551	ug/l	0.93	305,812.68	1.190E+00	Pulse	0.30	3
Cu			2	50.520	ug/l	0.43	790,634.83	3.077E+00	Pulse	0.30	3
Zn			2	51.509	ug/l	0.95	105,295.55	4.098E-01	Pulse	0.30	3
As			2	53.153	ug/l	0.61	52,582.92	2.046E-01	Pulse	1.00	3
Cd			2	52.430	ug/l	0.49	155,247.94	1.257E-01	Pulse	0.30	3
Sn			2	53.468	ug/l	0.55	268,157.65	2.172E-01	Pulse	0.30	3
Se			3	209.079	ug/l	0.21	54,964.00	2.346E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,030,297.88	0.54	103.3	Analog	0.10	3
1	Sc		8,998,560.49	0.87	103.2	Analog	0.10	3
1	Ge		1,461,220.08	0.94	102.3	Pulse	0.10	3

Quantitation Report

1	Ge		2,028,242.63	0.61	102.8	Pulse	0.10	3
1	Rh		9,724,635.48	0.87	100.7	Analog	0.10	3
1	In		10,363,832.11	0.93	101.1	Analog	0.10	3
1	Tb		12,770,556.06	1.44	102.1	Analog	0.10	3
1	Ho		1,231,661.73	0.78	101.9	Pulse	0.10	3
1	Bi		6,721,217.61	0.87	96.7	Analog	0.10	3
2	Sc		256,963.70	0.57	104.5	Pulse	0.30	3
2	Ge		129,661.94	0.66	103.5	Pulse	0.30	3
2	Ge		194,082.87	0.63	103.0	Pulse	0.30	3
2	Rh		3,936,190.54	0.22	98.8	Pulse	0.30	3
2	In		1,234,876.76	0.30	101.8	Pulse	0.30	3
2	Tb		4,624,894.12	0.38	102.8	Pulse	0.30	3
2	Ho		455,393.09	0.28	103.0	Pulse	0.30	3
2	Bi		2,779,320.93	0.22	96.7	Pulse	0.30	3
3	Sc		268,051.47	0.36	100.5	Pulse	0.30	3
3	Ge		154,467.61	0.26	98.8	Pulse	0.30	3
3	Ge		234,333.70	0.31	98.5	Pulse	0.30	3
3	Rh		2,862,292.32	0.55	95.3	Pulse	0.30	3
3	Tb		4,377,873.16	0.64	97.1	Pulse	0.30	3

Quantitation Report

File Name 020_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 12:43
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	35.64	196.00	2.430E-05	Pulse	0.25	3
B			1	0.807	ug/l	4.34	79,946.57	9.893E-03	Pulse	0.15	3
Ca			1	-0.643	ug/l	-76.16	26,939.27	2.933E-03	Pulse	0.10	3
Sr			1	0.007	ug/l	26.81	2,303.60	2.247E-04	Pulse	0.10	3
Mo			1	0.063	ug/l	22.95	1,373.45	1.342E-04	Pulse	0.10	3
Ag			1	0.009	ug/l	22.80	596.70	5.442E-05	Pulse	0.10	3
Sn			1	-0.251	ug/l	-3.07	4,927.64	4.492E-04	Pulse	0.10	3
Sb			1	0.156	ug/l	13.07	5,357.80	4.132E-04	Pulse	0.10	3
Ba			1	0.006	ug/l	42.41	250.01	1.929E-05	Pulse	0.10	3
Tl			1	0.012	ug/l	7.49	1,733.52	2.386E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	17.18	916.73	1.262E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	23.80	733.38	1.009E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	6.84	3,543.64	4.879E-04	Pulse	0.10	3
Na			2	-0.223	ug/l	-70.54	11,107.09	4.224E-02	Pulse	0.30	3
Mg			2	0.380	ug/l	25.82	635.58	2.418E-03	Pulse	0.30	3
Al			2	0.417	ug/l	44.57	231.11	8.794E-04	Pulse	0.30	3
K			2	-0.333	ug/l	-142.35	10,715.75	4.074E-02	Pulse	0.30	3
Ca			2	0.407	ug/l	113.37	135.56	5.156E-04	Pulse	0.30	3
Ti			2	-0.013	ug/l	-104.25	2.22	8.492E-06	Pulse	0.30	3
V			2	0.003	ug/l	217.28	706.69	2.687E-03	Pulse	0.30	3
Cr			2	-0.056	ug/l	-17.65	1,271.18	4.834E-03	Pulse	0.30	3
Mn			2	0.004	ug/l	52.97	98.89	3.761E-04	Pulse	0.30	3
Fe			2	0.701	ug/l	10.32	12,240.22	4.655E-02	Pulse	0.30	3
Co			2	0.002	ug/l	88.14	178.89	6.806E-04	Pulse	0.30	3
Ni			2	0.004	ug/l	60.69	146.67	5.576E-04	Pulse	0.30	3
Cu			2	-0.006	ug/l	-132.76	1,716.77	6.528E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.023	ug/l	63.70	483.35	1.838E-03	Pulse	0.30	3
As			2	-0.008	ug/l	-89.68	24.67	9.380E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	-11980.60	16.58	1.277E-05	Pulse	0.30	3
Sn			2	0.056	ug/l	3.85	914.48	7.033E-04	Pulse	0.30	3
Se			3	0.027	ug/l	70.48	55.20	2.223E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,081,524.31	1.37	103.9	Analog	0.10	3
1	Sc		9,185,859.24	0.54	105.4	Analog	0.10	3
1	Ge		1,500,076.18	1.29	105.0	Pulse	0.10	3
1	Ge		2,062,197.73	1.10	104.5	Pulse	0.10	3
1	Rh		10,240,639.85	1.76	106.1	Analog	0.10	3
1	In		10,976,281.42	1.92	107.0	Analog	0.10	3
1	Tb		12,959,351.06	1.19	103.6	Analog	0.10	3
1	Ho		1,239,693.11	1.31	102.6	Pulse	0.10	3
1	Bi		7,263,885.31	0.64	104.5	Analog	0.10	3
2	Sc		262,991.86	0.39	106.9	Pulse	0.30	3
2	Ge		135,664.12	0.63	108.2	Pulse	0.30	3
2	Ge		202,799.41	0.27	107.7	Pulse	0.30	3
2	Rh		4,218,277.06	0.23	105.9	Pulse	0.30	3
2	In		1,300,170.24	0.36	107.2	Pulse	0.30	3
2	Tb		4,740,571.62	0.50	105.4	Pulse	0.30	3
2	Ho		468,046.01	0.75	105.8	Pulse	0.30	3
2	Bi		2,996,681.62	0.40	104.2	Pulse	0.30	3
3	Sc		279,280.05	0.51	104.7	Pulse	0.30	3
3	Ge		164,138.77	0.52	104.9	Pulse	0.30	3
3	Ge		248,295.67	0.32	104.3	Pulse	0.30	3
3	Rh		3,132,288.91	0.64	104.3	Pulse	0.30	3
3	Tb		4,616,631.62	0.92	102.4	Pulse	0.30	3

Quantitation Report

File Name	021LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 12:48
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.507	ug/l	1.17	15,667.34	1.902E-03	Pulse	0.25	3
B			1	24.539	ug/l	0.24	843,037.76	1.024E-01	Pulse	0.15	3
Ca			1	250.012	ug/l	1.91	742,025.77	7.995E-02	Pulse	0.10	3
Sr			1	4.966	ug/l	0.58	605,644.71	5.839E-02	Pulse	0.10	3
Mo			1	0.992	ug/l	2.47	21,237.98	2.047E-03	Pulse	0.10	3
Ag			1	0.517	ug/l	2.60	30,042.72	2.727E-03	Pulse	0.10	3
Sn			1	4.713	ug/l	1.94	168,212.59	1.528E-02	Pulse	0.10	3
Sb			1	2.090	ug/l	1.39	71,412.71	5.422E-03	Pulse	0.10	3
Ba			1	0.987	ug/l	0.75	14,921.02	1.133E-03	Pulse	0.10	3
Tl			1	0.483	ug/l	3.70	41,445.82	5.626E-03	Pulse	0.10	3
Pb			1	0.484	ug/l	3.57	14,107.24	1.915E-03	Pulse	0.10	3
Pb			1	0.520	ug/l	3.95	13,299.82	1.805E-03	Pulse	0.10	3
Pb			1	0.500	ug/l	1.50	59,028.47	8.012E-03	Pulse	0.10	3
Na			2	243.100	ug/l	1.02	685,620.02	2.604E+00	Pulse	0.30	3
Mg			2	250.058	ug/l	0.29	308,631.61	1.172E+00	Pulse	0.30	3
Al			2	25.787	ug/l	2.18	9,965.25	3.784E-02	Pulse	0.30	3
K			2	247.719	ug/l	0.93	188,976.28	7.176E-01	Pulse	0.30	3
Ca			2	292.120	ug/l	1.79	11,228.36	4.264E-02	Pulse	0.30	3
Ti			2	1.124	ug/l	23.60	318.90	1.210E-03	Pulse	0.30	3
V			2	1.038	ug/l	1.75	10,448.97	3.968E-02	Pulse	0.30	3
Cr			2	0.935	ug/l	1.47	13,617.92	5.171E-02	Pulse	0.30	3
Mn			2	1.005	ug/l	1.28	6,357.96	2.414E-02	Pulse	0.30	3
Fe			2	25.307	ug/l	0.48	276,308.65	1.049E+00	Pulse	0.30	3
Co			2	0.511	ug/l	0.73	11,421.84	4.337E-02	Pulse	0.30	3
Ni			2	1.019	ug/l	4.15	6,310.17	2.396E-02	Pulse	0.30	3
Cu			2	2.052	ug/l	3.09	34,637.56	1.315E-01	Pulse	0.30	3
Zn			2	4.985	ug/l	2.05	10,839.22	4.116E-02	Pulse	0.30	3
As			2	0.536	ug/l	7.69	576.34	2.188E-03	Pulse	1.00	3
Cd			2	0.480	ug/l	5.46	1,521.27	1.165E-03	Pulse	0.30	3
Sn			2	5.038	ug/l	2.54	27,292.61	2.090E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.545	ug/l	7.58	201.00	8.029E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,236,136.70	0.75	105.9	Analog	0.10	3
1	Sc		9,283,111.11	1.41	106.5	Analog	0.10	3
1	Ge		1,522,939.35	0.73	106.6	Pulse	0.10	3
1	Ge		2,105,650.96	0.75	106.7	Pulse	0.10	3
1	Rh		10,372,865.89	1.01	107.4	Analog	0.10	3
1	In		11,013,438.89	1.93	107.4	Analog	0.10	3
1	Tb		13,169,572.72	1.04	105.3	Analog	0.10	3
1	Ho		1,262,279.30	1.86	104.4	Pulse	0.10	3
1	Bi		7,367,694.89	0.92	106.0	Analog	0.10	3
2	Sc		263,346.41	0.53	107.1	Pulse	0.30	3
2	Ge		136,415.87	1.10	108.8	Pulse	0.30	3
2	Ge		203,904.94	0.35	108.2	Pulse	0.30	3
2	Rh		4,204,350.39	0.47	105.5	Pulse	0.30	3
2	In		1,306,086.41	0.34	107.7	Pulse	0.30	3
2	Tb		4,723,530.23	0.72	105.0	Pulse	0.30	3
2	Ho		467,205.36	0.27	105.6	Pulse	0.30	3
2	Bi		2,990,012.93	0.57	104.0	Pulse	0.30	3
3	Sc		280,797.30	0.29	105.3	Pulse	0.30	3
3	Ge		164,249.92	0.33	105.0	Pulse	0.30	3
3	Ge		250,356.63	0.15	105.2	Pulse	0.30	3
3	Rh		3,124,156.89	0.51	104.1	Pulse	0.30	3
3	Tb		4,621,145.09	0.48	102.5	Pulse	0.30	3

Quantitation Report

File Name 022ICSA.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 12:58
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	78.33	50.67	7.823E-06	Pulse	0.25	3
B			1	0.525	ug/l	5.47	56,935.04	8.792E-03	Pulse	0.15	3
Ca			1	93278.070	ug/l	1.49	226,521,063.29	2.866E+01	Analog	0.10	3
Sr			1	2196.547	ug/l	0.53	194,574,443.77	2.576E+01	Analog	0.10	3
Mo			1	2263.479	ug/l	0.12	35,194,670.31	4.660E+00	Analog	0.10	3
Ag			1	0.037	ug/l	11.92	1,696.82	1.978E-04	Pulse	0.10	3
Sn			1	1987.658	ug/l	0.63	50,899,910.91	5.938E+00	Analog	0.10	3
Sb			1	0.101	ug/l	5.77	2,987.07	2.727E-04	Pulse	0.10	3
Ba			1	0.145	ug/l	2.95	1,930.20	1.763E-04	Pulse	0.10	3
Tl			1	0.008	ug/l	16.30	993.41	1.971E-04	Pulse	0.10	3
Pb			1	0.110	ug/l	11.49	2,503.64	4.966E-04	Pulse	0.10	3
Pb			1	0.104	ug/l	5.93	2,130.25	4.223E-04	Pulse	0.10	3
Pb			1	0.102	ug/l	5.55	9,624.93	1.908E-03	Pulse	0.10	3
Na			2	87318.069	ug/l	1.24	214,448,267.03	9.192E+02	Analog	0.30	3
Mg			2	86652.467	ug/l	1.03	94,697,989.57	4.059E+02	Analog	0.30	3
Al			2	91322.844	ug/l	1.19	31,038,902.10	1.330E+02	Analog	0.30	3
K			2	95878.976	ug/l	1.35	61,047,348.68	2.617E+02	Analog	0.30	3
Ca			2	102849.991	ug/l	1.09	3,464,747.85	1.485E+01	Pulse	0.30	3
Ti			2	1922.165	ug/l	0.99	473,898.02	2.031E+00	Pulse	0.30	3
V			2	0.025	ug/l	19.30	814.48	3.490E-03	Pulse	0.30	3
Cr			2	0.149	ug/l	6.79	3,387.05	1.452E-02	Pulse	0.30	3
Mn			2	0.356	ug/l	1.76	2,035.70	8.725E-03	Pulse	0.30	3
Fe			2	86200.408	ug/l	0.82	819,515,220.77	3.513E+03	Analog	0.30	3
Co			2	0.055	ug/l	4.47	1,192.28	5.111E-03	Pulse	0.30	3
Ni			2	0.406	ug/l	7.40	2,289.08	9.814E-03	Pulse	0.30	3
Cu			2	0.366	ug/l	2.76	6,785.91	2.909E-02	Pulse	0.30	3
Zn			2	0.345	ug/l	2.96	1,025.60	4.395E-03	Pulse	0.30	3
As			2	0.079	ug/l	23.92	99.67	4.276E-04	Pulse	1.00	3
Cd			2	-0.064	ug/l	-57.71	-149.10	-1.402E-04	Pulse	0.30	3
Sn			2	2049.090	ug/l	0.70	8,824,409.37	8.304E+00	Analog	0.30	3
Se			3	0.095	ug/l	50.14	54.27	2.983E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		6,475,800.06	0.49	83.3	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		7,904,096.55	1.51	90.7	Analog	0.10	3
1	Ge		1,294,379.02	0.76	90.6	Pulse	0.10	3
1	Ge		1,621,600.34	1.25	82.2	Pulse	0.10	3
1	Rh		7,552,481.76	1.30	78.2	Analog	0.10	3
1	In		8,571,660.15	1.05	83.6	Analog	0.10	3
1	Tb		10,952,784.42	1.44	87.6	Analog	0.10	3
1	Ho		1,050,471.16	0.96	86.9	Pulse	0.10	3
1	Bi		5,042,882.32	1.19	72.6	Pulse	0.10	3
2	Sc		233,315.68	0.94	94.9	Pulse	0.30	3
2	Ge		114,182.55	0.77	91.1	Pulse	0.30	3
2	Ge		165,529.01	0.81	87.9	Pulse	0.30	3
2	Rh		3,041,019.53	0.44	76.3	Pulse	0.30	3
2	In		1,062,608.40	0.18	87.6	Pulse	0.30	3
2	Tb		3,999,760.81	0.21	88.9	Pulse	0.30	3
2	Ho		399,167.74	0.60	90.3	Pulse	0.30	3
2	Bi		2,134,202.48	0.15	74.2	Pulse	0.30	3
3	Sc		226,985.90	0.79	85.1	Pulse	0.30	3
3	Ge		124,212.41	0.65	79.4	Pulse	0.30	3
3	Ge		181,854.24	0.28	76.4	Pulse	0.30	3
3	Rh		2,047,088.25	0.20	68.2	Pulse	0.30	3
3	Tb		3,423,768.20	0.56	75.9	Pulse	0.30	3

Quantitation Report

File Name 023ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 13:03
Sample Name ICSAB
Sample Type ICSB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	14.34	88.00	1.412E-05	Pulse	0.25	3
B			1	43.982	ug/l	0.64	1,109,235.06	1.781E-01	Pulse	0.15	3
Ca			1	95932.753	ug/l	1.78	228,767,976.59	2.948E+01	Analog	0.10	3
Sr			1	2131.916	ug/l	0.81	191,089,383.82	2.501E+01	Analog	0.10	3
Mo			1	2317.995	ug/l	0.84	36,469,910.29	4.772E+00	Analog	0.10	3
Ag			1	22.231	ug/l	0.70	1,026,772.95	1.169E-01	Pulse	0.10	3
Sn			1	1911.607	ug/l	1.26	50,141,452.59	5.711E+00	Analog	0.10	3
Sb			1	0.099	ug/l	2.64	3,023.76	2.660E-04	Pulse	0.10	3
Ba			1	0.169	ug/l	7.16	2,316.93	2.038E-04	Pulse	0.10	3
Tl			1	0.005	ug/l	31.70	830.06	1.593E-04	Pulse	0.10	3
Pb			1	0.109	ug/l	10.42	2,583.67	4.964E-04	Pulse	0.10	3
Pb			1	0.106	ug/l	15.19	2,230.26	4.278E-04	Pulse	0.10	3
Pb			1	0.102	ug/l	4.53	9,995.06	1.919E-03	Pulse	0.10	3
Na			2	89689.753	ug/l	1.69	213,314,787.08	9.442E+02	Analog	0.30	3
Mg			2	87889.862	ug/l	0.64	93,016,549.64	4.117E+02	Analog	0.30	3
Al			2	92994.035	ug/l	0.77	30,608,427.67	1.355E+02	Analog	0.30	3
K			2	97517.019	ug/l	0.79	60,130,635.39	2.661E+02	Analog	0.30	3
Ca			2	104952.001	ug/l	0.71	3,423,893.61	1.515E+01	Pulse	0.30	3
Ti			2	1967.528	ug/l	1.04	469,747.85	2.079E+00	Pulse	0.30	3
V			2	21.718	ug/l	1.73	175,939.47	7.788E-01	Pulse	0.30	3
Cr			2	19.751	ug/l	1.11	212,746.57	9.417E-01	Pulse	0.30	3
Mn			2	19.733	ug/l	1.48	105,944.66	4.689E-01	Pulse	0.30	3
Fe			2	89116.731	ug/l	1.72	820,402,545.18	3.631E+03	Analog	0.30	3
Co			2	18.244	ug/l	1.38	345,913.95	1.531E+00	Pulse	0.30	3
Ni			2	17.299	ug/l	1.09	90,298.50	3.997E-01	Pulse	0.30	3
Cu			2	17.238	ug/l	1.34	238,208.26	1.054E+00	Pulse	0.30	3
Zn			2	17.112	ug/l	1.65	31,007.08	1.372E-01	Pulse	0.30	3
As			2	19.577	ug/l	1.14	17,045.55	7.545E-02	Pulse	1.00	3
Cd			2	18.029	ug/l	0.99	44,767.86	4.324E-02	Pulse	0.30	3
Sn			2	1991.876	ug/l	1.08	8,357,665.78	8.073E+00	Analog	0.30	3
Se			3	20.602	ug/l	1.05	4,210.48	2.328E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		6,227,777.25	1.33	80.1	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		7,761,911.34	1.53	89.0	Analog	0.10	3
1	Ge		1,276,609.36	0.71	89.4	Pulse	0.10	3
1	Ge		1,605,786.12	1.06	81.4	Pulse	0.10	3
1	Rh		7,642,141.14	1.03	79.2	Analog	0.10	3
1	In		8,779,869.71	0.96	85.6	Analog	0.10	3
1	Tb		11,365,829.00	0.87	90.9	Analog	0.10	3
1	Ho		1,087,210.66	1.04	90.0	Pulse	0.10	3
1	Bi		5,206,110.76	1.66	74.9	Pulse	0.10	3
2	Sc		225,945.02	1.16	91.9	Pulse	0.30	3
2	Ge		110,194.42	0.85	87.9	Pulse	0.30	3
2	Ge		160,998.99	0.55	85.5	Pulse	0.30	3
2	Rh		3,000,214.33	0.06	75.3	Pulse	0.30	3
2	In		1,035,360.74	0.59	85.4	Pulse	0.30	3
2	Tb		3,959,587.90	0.14	88.0	Pulse	0.30	3
2	Ho		395,586.61	0.46	89.4	Pulse	0.30	3
2	Bi		2,109,076.44	0.12	73.4	Pulse	0.30	3
3	Sc		229,796.94	0.10	86.2	Pulse	0.30	3
3	Ge		123,725.17	0.27	79.1	Pulse	0.30	3
3	Ge		180,830.92	0.56	76.0	Pulse	0.30	3
3	Rh		2,046,867.07	0.15	68.2	Pulse	0.30	3
3	Tb		3,445,193.82	0.08	76.4	Pulse	0.30	3

Quantitation Report

File Name	024SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 13:08
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-21.02	16.00	2.740E-06	Pulse	0.25	3
B			1	-0.088	ug/l	-50.68	37,495.03	6.404E-03	Pulse	0.15	3
Ca			1	12.709	ug/l	8.02	50,494.06	7.036E-03	Pulse	0.10	3
Sr			1	0.301	ug/l	5.59	33,659.58	3.671E-03	Pulse	0.10	3
Mo			1	0.773	ug/l	4.07	14,643.78	1.597E-03	Pulse	0.10	3
Ag			1	0.010	ug/l	9.43	586.70	5.714E-05	Pulse	0.10	3
Sn			1	0.173	ug/l	25.01	17,610.56	1.715E-03	Pulse	0.10	3
Sb			1	0.014	ug/l	21.82	613.37	4.749E-05	Pulse	0.10	3
Ba			1	0.002	ug/l	270.60	183.34	1.423E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-65.88	640.04	8.784E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-28.03	420.02	5.767E-05	Pulse	0.10	3
Pb			1	-0.013	ug/l	-14.41	250.01	3.429E-05	Pulse	0.10	3
Pb			1	-0.009	ug/l	-11.80	1,520.10	2.087E-04	Pulse	0.10	3
Na			2	11.215	ug/l	14.17	34,209.22	1.626E-01	Pulse	0.30	3
Mg			2	10.364	ug/l	15.59	10,344.44	4.918E-02	Pulse	0.30	3
Al			2	10.751	ug/l	13.31	3,351.49	1.593E-02	Pulse	0.30	3
K			2	7.717	ug/l	15.27	13,192.00	6.271E-02	Pulse	0.30	3
Ca			2	10.480	ug/l	14.76	414.46	1.970E-03	Pulse	0.30	3
Ti			2	0.308	ug/l	16.73	73.33	3.485E-04	Pulse	0.30	3
V			2	0.000	ug/l	6686.62	544.46	2.587E-03	Pulse	0.30	3
Cr			2	-0.047	ug/l	-11.55	1,106.72	5.260E-03	Pulse	0.30	3
Mn			2	0.009	ug/l	57.00	103.33	4.910E-04	Pulse	0.30	3
Fe			2	13.755	ug/l	10.97	121,680.68	5.785E-01	Pulse	0.30	3
Co			2	0.002	ug/l	68.47	138.89	6.602E-04	Pulse	0.30	3
Ni			2	0.002	ug/l	154.64	105.56	5.016E-04	Pulse	0.30	3
Cu			2	0.112	ug/l	7.07	2,872.51	1.365E-02	Pulse	0.30	3
Zn			2	1.173	ug/l	7.34	2,304.64	1.095E-02	Pulse	0.30	3
As			2	-0.009	ug/l	-43.21	19.00	9.034E-05	Pulse	1.00	3
Cd			2	-0.002	ug/l	-153.17	9.24	7.900E-06	Pulse	0.30	3
Sn			2	0.375	ug/l	4.96	2,336.86	1.996E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.002	ug/l	946.06	43.20	1.936E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		5,855,953.55	1.58	75.3	Analog	0.10	3
1	Sc		7,177,595.10	0.41	82.3	Analog	0.10	3
1	Ge		1,271,274.38	0.56	89.0	Pulse	0.10	3
1	Ge		1,769,473.31	0.65	89.7	Pulse	0.10	3
1	Rh		9,170,844.65	0.42	95.0	Analog	0.10	3
1	In		10,272,268.70	1.09	100.2	Analog	0.10	3
1	Tb		12,905,553.14	0.87	103.2	Analog	0.10	3
1	Ho		1,226,573.39	0.80	101.5	Pulse	0.10	3
1	Bi		7,287,324.06	1.22	104.9	Analog	0.10	3
2	Sc		210,387.56	0.34	85.5	Pulse	0.30	3
2	Ge		116,021.91	0.40	92.6	Pulse	0.30	3
2	Ge		174,861.85	0.05	92.8	Pulse	0.30	3
2	Rh		3,766,987.35	0.59	94.5	Pulse	0.30	3
2	In		1,170,721.42	0.19	96.5	Pulse	0.30	3
2	Tb		4,472,932.04	0.58	99.4	Pulse	0.30	3
2	Ho		444,811.56	0.05	100.6	Pulse	0.30	3
2	Bi		2,874,710.72	0.09	100.0	Pulse	0.30	3
3	Sc		246,287.03	0.41	92.3	Pulse	0.30	3
3	Ge		147,686.82	0.76	94.4	Pulse	0.30	3
3	Ge		223,272.09	0.80	93.8	Pulse	0.30	3
3	Rh		2,896,276.69	0.44	96.5	Pulse	0.30	3
3	Tb		4,461,485.80	0.57	99.0	Pulse	0.30	3

Quantitation Report

File Name 025_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 13:13
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.555	ug/l	1.65	1,111,108.75	1.779E-01	Pulse	0.25	3
B			1	96.096	ug/l	2.33	2,379,978.10	3.812E-01	Pulse	0.15	3
Ca			1	5163.431	ug/l	0.92	12,132,302.74	1.590E+00	Analog	0.10	3
Sr			1	52.337	ug/l	0.22	5,632,237.21	6.140E-01	Analog	0.10	3
Mo			1	52.263	ug/l	0.15	987,022.07	1.076E-01	Pulse	0.10	3
Ag			1	48.364	ug/l	0.61	2,586,969.86	2.544E-01	Pulse	0.10	3
Sn			1	50.971	ug/l	0.47	1,560,336.02	1.534E-01	Pulse	0.10	3
Sb			1	49.693	ug/l	1.23	1,676,751.95	1.287E-01	Pulse	0.10	3
Ba			1	49.388	ug/l	0.95	731,324.21	5.611E-02	Pulse	0.10	3
Tl			1	50.668	ug/l	1.04	4,092,902.96	5.799E-01	Pulse	0.10	3
Pb			1	51.223	ug/l	0.87	1,371,316.96	1.943E-01	Pulse	0.10	3
Pb			1	51.423	ug/l	0.86	1,208,093.32	1.712E-01	Pulse	0.10	3
Pb			1	51.099	ug/l	0.65	5,534,172.73	7.841E-01	Pulse	0.10	3
Na			2	4905.336	ug/l	1.20	11,288,201.22	5.168E+01	Analog	0.30	3
Mg			2	4808.540	ug/l	0.37	4,919,906.47	2.252E+01	Pulse	0.30	3
Al			2	4798.129	ug/l	0.16	1,526,824.28	6.990E+00	Pulse	0.30	3
K			2	4979.713	ug/l	0.35	2,977,069.53	1.363E+01	Pulse	0.30	3
Ca			2	5420.484	ug/l	0.86	171,048.98	7.831E-01	Pulse	0.30	3
Ti			2	52.248	ug/l	1.13	12,064.51	5.524E-02	Pulse	0.30	3
V			2	52.747	ug/l	0.30	412,318.66	1.888E+00	Pulse	0.30	3
Cr			2	51.710	ug/l	0.34	535,840.45	2.453E+00	Pulse	0.30	3
Mn			2	51.065	ug/l	0.25	264,967.47	1.213E+00	Pulse	0.30	3
Fe			2	5219.811	ug/l	0.92	46,462,378.15	2.127E+02	Analog	0.30	3
Co			2	51.825	ug/l	0.24	949,760.94	4.348E+00	Pulse	0.30	3
Ni			2	50.884	ug/l	0.10	256,586.22	1.175E+00	Pulse	0.30	3
Cu			2	50.164	ug/l	0.45	667,335.53	3.055E+00	Pulse	0.30	3
Zn			2	51.537	ug/l	0.72	89,552.21	4.100E-01	Pulse	0.30	3
As			2	54.160	ug/l	0.36	45,542.99	2.085E-01	Pulse	1.00	3
Cd			2	51.010	ug/l	0.14	141,474.27	1.223E-01	Pulse	0.30	3
Sn			2	52.388	ug/l	0.78	246,106.49	2.128E-01	Pulse	0.30	3
Se			3	201.319	ug/l	0.85	50,164.27	2.259E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		6,245,372.60	1.59	80.3	Analog	0.10	3
1	Sc		7,632,720.72	0.71	87.5	Analog	0.10	3
1	Ge		1,315,187.27	0.62	92.1	Pulse	0.10	3

Quantitation Report

1	Ge		1,833,753.10	0.75	92.9	Pulse	0.10	3
1	Rh		9,172,875.49	0.62	95.0	Analog	0.10	3
1	In		10,168,492.30	1.12	99.2	Analog	0.10	3
1	Tb		13,033,991.06	1.84	104.2	Analog	0.10	3
1	Ho		1,264,458.03	1.08	104.6	Pulse	0.10	3
1	Bi		7,058,225.52	0.37	101.6	Analog	0.10	3
2	Sc		218,420.41	0.09	88.8	Pulse	0.30	3
2	Ge		117,965.34	0.33	94.1	Pulse	0.30	3
2	Ge		178,329.35	0.14	94.7	Pulse	0.30	3
2	Rh		3,684,635.41	0.60	92.5	Pulse	0.30	3
2	In		1,156,619.74	0.15	95.4	Pulse	0.30	3
2	Tb		4,477,636.07	0.70	99.5	Pulse	0.30	3
2	Ho		445,697.67	0.34	100.8	Pulse	0.30	3
2	Bi		2,750,209.13	0.60	95.7	Pulse	0.30	3
3	Sc		249,117.33	0.49	93.4	Pulse	0.30	3
3	Ge		145,632.97	0.51	93.1	Pulse	0.30	3
3	Ge		222,113.44	0.56	93.3	Pulse	0.30	3
3	Rh		2,740,788.23	0.04	91.3	Pulse	0.30	3
3	Tb		4,331,821.36	0.34	96.1	Pulse	0.30	3

Quantitation Report

File Name	026_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 13:18
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	53.17	93.33	1.433E-05	Pulse	0.25	3
B			1	0.465	ug/l	10.60	55,887.06	8.557E-03	Pulse	0.15	3
Ca			1	-0.480	ug/l	-99.87	23,747.73	2.983E-03	Pulse	0.10	3
Sr			1	0.029	ug/l	7.52	4,650.87	4.761E-04	Pulse	0.10	3
Mo			1	0.138	ug/l	6.74	2,813.68	2.880E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	15.63	733.38	6.749E-05	Pulse	0.10	3
Sn			1	-0.179	ug/l	-10.09	7,228.64	6.651E-04	Pulse	0.10	3
Sb			1	0.119	ug/l	5.69	4,280.77	3.185E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	25.27	213.34	1.587E-05	Pulse	0.10	3
Tl			1	0.012	ug/l	10.18	1,810.19	2.406E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	52.31	690.04	9.172E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	172.37	583.37	7.753E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	48.75	2,840.24	3.775E-04	Pulse	0.10	3
Na			2	2.270	ug/l	5.51	15,394.91	6.848E-02	Pulse	0.30	3
Mg			2	1.363	ug/l	8.58	1,578.98	7.023E-03	Pulse	0.30	3
Al			2	1.242	ug/l	8.10	467.79	2.081E-03	Pulse	0.30	3
K			2	1.586	ug/l	27.99	10,335.51	4.598E-02	Pulse	0.30	3
Ca			2	0.666	ug/l	182.97	124.44	5.529E-04	Pulse	0.30	3
Ti			2	0.025	ug/l	114.83	11.11	4.942E-05	Pulse	0.30	3
V			2	-0.008	ug/l	-80.85	515.57	2.293E-03	Pulse	0.30	3
Cr			2	-0.052	ug/l	-13.75	1,130.06	5.028E-03	Pulse	0.30	3
Mn			2	0.007	ug/l	27.22	96.67	4.302E-04	Pulse	0.30	3
Fe			2	1.889	ug/l	1.49	21,347.25	9.497E-02	Pulse	0.30	3
Co			2	0.001	ug/l	29.81	141.11	6.277E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-599.80	96.67	4.303E-04	Pulse	0.30	3
Cu			2	0.047	ug/l	10.23	2,190.17	9.743E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.050	ug/l	54.00	462.23	2.057E-03	Pulse	0.30	3
As			2	-0.003	ug/l	-252.74	25.33	1.128E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	-2122.13	15.39	1.268E-05	Pulse	0.30	3
Sn			2	0.123	ug/l	13.73	1,182.28	9.743E-04	Pulse	0.30	3
Se			3	0.045	ug/l	58.91	57.47	2.422E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		6,532,406.10	1.50	84.0	Analog	0.10	3
1	Sc		7,960,880.72	0.33	91.3	Analog	0.10	3
1	Ge		1,364,766.54	0.74	95.5	Pulse	0.10	3
1	Ge		1,894,138.41	1.24	96.0	Pulse	0.10	3
1	Rh		9,774,051.10	1.69	101.2	Analog	0.10	3
1	In		10,874,152.55	0.83	106.0	Analog	0.10	3
1	Tb		13,435,314.38	1.16	107.4	Analog	0.10	3
1	Ho		1,284,494.12	0.41	106.3	Pulse	0.10	3
1	Bi		7,524,085.09	0.21	108.3	Analog	0.10	3
2	Sc		224,794.70	0.70	91.4	Pulse	0.30	3
2	Ge		122,515.01	0.55	97.8	Pulse	0.30	3
2	Ge		185,706.20	0.30	98.6	Pulse	0.30	3
2	Rh		3,975,069.43	0.31	99.8	Pulse	0.30	3
2	In		1,213,277.58	0.25	100.0	Pulse	0.30	3
2	Tb		4,578,513.15	0.43	101.8	Pulse	0.30	3
2	Ho		456,561.80	0.22	103.2	Pulse	0.30	3
2	Bi		2,945,624.05	0.16	102.5	Pulse	0.30	3
3	Sc		263,366.11	0.93	98.7	Pulse	0.30	3
3	Ge		155,905.53	0.83	99.7	Pulse	0.30	3
3	Ge		237,159.43	0.36	99.7	Pulse	0.30	3
3	Rh		3,023,302.03	0.68	100.7	Pulse	0.30	3
3	Tb		4,590,074.82	1.09	101.8	Pulse	0.30	3

Quantitation Report

File Name 027SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 13:27
Sample Name mp11896-mb1 4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	62.01	62.67	9.139E-06	Pulse	0.25	3
B			1	0.471	ug/l	18.91	52,509.67	7.664E-03	Pulse	0.15	3
Ca			1	15.822	ug/l	2.20	44,657.63	5.561E-03	Pulse	0.10	3
Sr			1	0.101	ug/l	0.82	7,315.27	7.356E-04	Pulse	0.10	3
Mo			1	0.178	ug/l	14.88	1,866.87	1.876E-04	Pulse	0.10	3
Ag			1	0.023	ug/l	29.99	736.71	6.691E-05	Pulse	0.10	3
Sn			1	-0.129	ug/l	-29.34	11,060.90	1.007E-03	Pulse	0.10	3
Sb			1	0.116	ug/l	16.56	2,223.57	1.604E-04	Pulse	0.10	3
Ba			1	0.024	ug/l	49.65	356.69	2.570E-05	Pulse	0.10	3
Tl			1	0.011	ug/l	16.49	1,260.10	1.629E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	22.01	840.06	1.086E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	127.45	666.71	8.627E-05	Pulse	0.10	3
Pb			1	0.009	ug/l	60.76	3,203.60	4.143E-04	Pulse	0.10	3
Na			2	11.305	ug/l	3.07	23,970.32	1.041E-01	Pulse	0.30	3
Mg			2	5.912	ug/l	7.42	3,335.93	1.448E-02	Pulse	0.30	3
Al			2	5.801	ug/l	3.10	1,035.60	4.497E-03	Pulse	0.30	3
K			2	3.966	ug/l	15.45	10,840.29	4.706E-02	Pulse	0.30	3
Ca			2	21.077	ug/l	5.67	455.57	1.978E-03	Pulse	0.30	3
Ti			2	0.304	ug/l	49.89	42.22	1.834E-04	Pulse	0.30	3
V			2	0.383	ug/l	0.43	2,172.39	9.432E-03	Pulse	0.30	3
Cr			2	0.554	ug/l	4.52	4,737.40	2.057E-02	Pulse	0.30	3
Mn			2	0.102	ug/l	27.23	341.12	1.483E-03	Pulse	0.30	3
Fe			2	7.106	ug/l	0.55	37,488.06	1.628E-01	Pulse	0.30	3
Co			2	0.013	ug/l	56.77	241.12	1.049E-03	Pulse	0.30	3
Ni			2	0.033	ug/l	7.29	193.33	8.395E-04	Pulse	0.30	3
Cu			2	0.441	ug/l	4.89	4,666.27	2.026E-02	Pulse	0.30	3
Zn			2	0.350	ug/l	4.77	701.14	3.044E-03	Pulse	0.30	3
As			2	0.027	ug/l	72.25	40.67	1.766E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.003	ug/l	493.59	19.88	1.651E-05	Pulse	0.30	3
Sn			2	0.525	ug/l	0.57	1,851.25	1.541E-03	Pulse	0.30	3
Se			3	-0.006	ug/l	-715.31	45.20	1.886E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		6,851,769.44	0.91	88.1	Analog	0.10	3
1	Sc		8,030,165.71	0.86	92.1	Analog	0.10	3
1	Ge		1,358,573.78	0.50	95.1	Pulse	0.10	3
1	Ge		1,872,332.94	0.92	94.9	Pulse	0.10	3
1	Rh		9,944,890.06	1.27	103.0	Analog	0.10	3
1	In		10,981,629.61	1.71	107.1	Analog	0.10	3
1	Tb		13,837,447.30	1.80	110.6	Analog	0.10	3
1	Ho		1,335,861.70	1.23	110.5	Pulse	0.10	3
1	Bi		7,733,421.13	1.50	111.3	Analog	0.10	3
2	Sc		230,321.96	0.80	93.6	Pulse	0.30	3
2	Ge		120,416.67	0.57	96.1	Pulse	0.30	3
2	Ge		182,839.89	0.64	97.1	Pulse	0.30	3
2	Rh		3,986,524.84	0.37	100.0	Pulse	0.30	3
2	In		1,201,171.01	0.37	99.0	Pulse	0.30	3
2	Tb		4,660,992.32	0.31	103.6	Pulse	0.30	3
2	Ho		462,677.85	0.86	104.6	Pulse	0.30	3
2	Bi		2,930,633.08	0.33	101.9	Pulse	0.30	3
3	Sc		278,633.56	0.46	104.5	Pulse	0.30	3
3	Ge		158,121.85	0.94	101.1	Pulse	0.30	3
3	Ge		239,799.96	0.65	100.8	Pulse	0.30	3
3	Rh		3,094,619.25	0.26	103.1	Pulse	0.30	3
3	Tb		4,762,904.39	0.18	105.6	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 13:32
Sample Name mp11896-b1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	69.393	ug/l	1.82	891,096.85	1.298E-01	Pulse	0.25	3
B			1	76.488	ug/l	1.70	1,069,174.44	1.558E-01	Pulse	0.15	3
Ca			1	4119.961	ug/l	0.58	5,182,359.61	6.360E-01	Mix	0.10	3
Sr			1	80.681	ug/l	1.07	4,662,374.72	4.733E-01	Pulse	0.10	3
Mo			1	84.076	ug/l	0.93	852,601.11	8.655E-02	Pulse	0.10	3
Ag			1	78.317	ug/l	0.74	2,258,085.28	2.060E-01	Pulse	0.10	3
Sn			1	82.231	ug/l	0.79	1,359,435.97	1.240E-01	Pulse	0.10	3
Sb			1	75.083	ug/l	0.72	1,386,096.54	9.720E-02	Pulse	0.10	3
Ba			1	76.660	ug/l	0.77	621,041.47	4.355E-02	Pulse	0.10	3
Tl			1	79.945	ug/l	1.56	3,436,424.85	4.575E-01	Pulse	0.10	3
Pb			1	81.590	ug/l	1.00	1,162,358.37	1.547E-01	Pulse	0.10	3
Pb			1	81.093	ug/l	0.48	1,013,807.28	1.350E-01	Pulse	0.10	3
Pb			1	80.852	ug/l	0.42	4,659,766.08	6.204E-01	Pulse	0.10	3
Na			2	3855.529	ug/l	0.88	4,752,962.86	2.034E+01	Pulse	0.30	3
Mg			2	3808.311	ug/l	0.87	2,084,712.21	8.920E+00	Pulse	0.30	3
Al			2	3686.797	ug/l	1.11	627,682.07	2.686E+00	Pulse	0.30	3
K			2	3881.145	ug/l	0.71	1,247,301.31	5.337E+00	Pulse	0.30	3
Ca			2	4469.522	ug/l	0.27	75,520.86	3.231E-01	Pulse	0.30	3
Ti			2	82.428	ug/l	0.90	10,184.34	4.358E-02	Pulse	0.30	3
V			2	82.895	ug/l	0.87	346,798.75	1.484E+00	Pulse	0.30	3
Cr			2	82.443	ug/l	0.85	457,404.53	1.957E+00	Pulse	0.30	3
Mn			2	79.877	ug/l	0.73	221,752.05	9.488E-01	Pulse	0.30	3
Fe			2	4112.895	ug/l	1.65	19,588,033.67	8.382E+01	Analog	0.30	3
Co			2	82.195	ug/l	0.64	805,922.33	3.448E+00	Pulse	0.30	3
Ni			2	80.499	ug/l	0.89	217,189.53	9.293E-01	Pulse	0.30	3
Cu			2	79.295	ug/l	0.90	564,679.98	2.416E+00	Pulse	0.30	3
Zn			2	76.955	ug/l	1.65	71,636.30	3.065E-01	Pulse	0.30	3
As			2	76.829	ug/l	1.03	34,571.67	1.479E-01	Pulse	1.00	3
Cd			2	74.899	ug/l	0.38	106,865.08	8.980E-02	Pulse	0.30	3
Sn			2	85.288	ug/l	0.72	206,213.24	1.733E-01	Pulse	0.30	3
Se			3	320.037	ug/l	0.56	43,449.81	1.796E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		6,865,310.95	2.00	88.3	Analog	0.10	3
1	Sc		8,147,882.38	0.42	93.4	Analog	0.10	3
1	Ge		1,385,848.15	0.50	97.0	Pulse	0.10	3

Quantitation Report

1	Ge		1,923,089.24	0.81	97.5	Pulse	0.10	3
1	Rh		9,850,821.94	0.62	102.0	Analog	0.10	3
1	In		10,962,317.99	0.33	106.9	Analog	0.10	3
1	Tb		14,261,098.12	1.92	114.0	Analog	0.10	3
1	Ho		1,369,858.31	1.24	113.3	Pulse	0.10	3
1	Bi		7,511,234.06	0.43	108.1	Analog	0.10	3
2	Sc		233,716.28	0.65	95.0	Pulse	0.30	3
2	Ge		121,096.98	0.71	96.6	Pulse	0.30	3
2	Ge		183,768.87	0.58	97.5	Pulse	0.30	3
2	Rh		3,926,451.09	0.11	98.5	Pulse	0.30	3
2	In		1,189,988.94	0.38	98.1	Pulse	0.30	3
2	Tb		4,639,307.46	0.17	103.1	Pulse	0.30	3
2	Ho		462,509.84	0.41	104.6	Pulse	0.30	3
2	Bi		2,811,351.42	0.52	97.8	Pulse	0.30	3
3	Sc		280,975.73	0.36	105.3	Pulse	0.30	3
3	Ge		158,734.80	0.16	101.5	Pulse	0.30	3
3	Ge		241,980.33	0.44	101.7	Pulse	0.30	3
3	Rh		3,044,777.59	0.28	101.4	Pulse	0.30	3
3	Tb		4,750,941.06	0.51	105.4	Pulse	0.30	3

Quantitation Report

File Name 029SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 13:37
Sample Name jc80366-11
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.497	ug/l	2.84	6,678.73	9.358E-04	Pulse	0.25	3
B			1	99.747	ug/l	1.06	1,435,122.41	2.011E-01	Pulse	0.15	3
Ca			1	533.094	ug/l	0.62	720,934.52	8.503E-02	Pulse	0.10	3
Sr			1	11.360	ug/l	1.47	679,998.43	6.676E-02	Pulse	0.10	3
Mo			1	2.229	ug/l	1.48	23,418.00	2.299E-03	Pulse	0.10	3
Ag			1	1.080	ug/l	0.81	32,333.84	2.845E-03	Pulse	0.10	3
Sn			1	10.018	ug/l	1.96	183,680.43	1.616E-02	Pulse	0.10	3
Sb			1	6.017	ug/l	0.69	112,306.09	7.800E-03	Pulse	0.10	3
Ba			1	2.105	ug/l	1.13	17,390.34	1.208E-03	Pulse	0.10	3
Tl			1	1.074	ug/l	1.08	48,453.77	6.245E-03	Pulse	0.10	3
Pb			1	2.127	ug/l	1.91	31,901.91	4.113E-03	Pulse	0.10	3
Pb			1	2.205	ug/l	1.09	29,052.48	3.745E-03	Pulse	0.10	3
Pb			1	2.139	ug/l	0.40	129,979.67	1.675E-02	Pulse	0.10	3
Na			2	507.982	ug/l	0.76	646,074.38	2.718E+00	Pulse	0.30	3
Mg			2	400.032	ug/l	0.99	222,839.60	9.376E-01	Pulse	0.30	3
Al			2	81.191	ug/l	1.72	14,122.67	5.941E-02	Pulse	0.30	3
K			2	499.224	ug/l	0.31	171,796.47	7.228E-01	Pulse	0.30	3
Ca			2	598.223	ug/l	2.34	10,373.34	4.365E-02	Pulse	0.30	3
Ti			2	4.337	ug/l	4.60	550.01	2.314E-03	Pulse	0.30	3
V			2	4.900	ug/l	1.11	21,425.07	9.014E-02	Pulse	0.30	3
Cr			2	2.953	ug/l	1.31	18,373.64	7.730E-02	Pulse	0.30	3
Mn			2	2.229	ug/l	4.25	6,355.73	2.674E-02	Pulse	0.30	3
Fe			2	88.719	ug/l	0.63	433,918.62	1.826E+00	Pulse	0.30	3
Co			2	0.575	ug/l	1.74	5,852.21	2.462E-02	Pulse	0.30	3
Ni			2	2.309	ug/l	1.90	6,440.22	2.710E-02	Pulse	0.30	3
Cu			2	9.877	ug/l	1.04	72,960.66	3.070E-01	Pulse	0.30	3
Zn			2	9.274	ug/l	1.13	9,127.07	3.840E-02	Pulse	0.30	3
As			2	2.106	ug/l	2.10	992.36	4.175E-03	Pulse	1.00	3
Cd			2	0.968	ug/l	6.37	1,427.91	1.174E-03	Pulse	0.30	3
Sn			2	11.161	ug/l	0.40	28,093.97	2.309E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	1.700	ug/l	3.48	288.07	1.144E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,137,721.68	0.78	91.8	Analog	0.10	3
1	Sc		8,479,099.46	0.50	97.2	Analog	0.10	3
1	Ge		1,412,463.21	0.80	98.9	Pulse	0.10	3
1	Ge		1,952,883.51	0.29	99.0	Pulse	0.10	3
1	Rh		10,185,360.89	0.37	105.5	Analog	0.10	3
1	In		11,364,680.91	0.61	110.8	Analog	0.10	3
1	Tb		14,397,893.53	0.56	115.1	Analog	0.10	3
1	Ho		1,378,763.16	1.17	114.1	Pulse	0.10	3
1	Bi		7,758,047.18	1.08	111.7	Analog	0.10	3
2	Sc		237,691.56	0.76	96.6	Pulse	0.30	3
2	Ge		124,884.98	0.75	99.6	Pulse	0.30	3
2	Ge		187,741.30	0.71	99.7	Pulse	0.30	3
2	Rh		4,089,754.42	0.25	102.6	Pulse	0.30	3
2	In		1,216,622.53	0.24	100.3	Pulse	0.30	3
2	Tb		4,725,565.51	0.51	105.0	Pulse	0.30	3
2	Ho		472,270.88	0.14	106.8	Pulse	0.30	3
2	Bi		2,903,991.62	0.32	101.0	Pulse	0.30	3
3	Sc		294,213.37	0.51	110.3	Pulse	0.30	3
3	Ge		164,739.53	0.61	105.3	Pulse	0.30	3
3	Ge		251,698.48	0.40	105.8	Pulse	0.30	3
3	Rh		3,222,888.83	0.67	107.3	Pulse	0.30	3
3	Tb		4,943,897.30	0.55	109.7	Pulse	0.30	3

Quantitation Report

File Name	030SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 13:42
Sample Name	mp11895-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	33.58	88.00	1.170E-05	Pulse	0.25	3
B			1	0.446	ug/l	67.98	53,368.09	7.094E-03	Pulse	0.15	3
Ca			1	42.205	ug/l	9.20	52,607.19	5.724E-03	Pulse	0.10	3
Sr			1	0.284	ug/l	0.99	8,686.08	8.083E-04	Pulse	0.10	3
Mo			1	0.536	ug/l	6.70	2,420.27	2.253E-04	Pulse	0.10	3
Ag			1	0.044	ug/l	13.36	613.37	5.225E-05	Pulse	0.10	3
Sn			1	15.699	ug/l	5.98	124,148.40	1.058E-02	Pulse	0.10	3
Sb			1	0.071	ug/l	19.44	686.71	4.754E-05	Pulse	0.10	3
Ba			1	0.249	ug/l	10.89	990.07	6.859E-05	Pulse	0.10	3
Tl			1	0.025	ug/l	5.29	1,256.77	1.580E-04	Pulse	0.10	3
Pb			1	0.057	ug/l	13.26	993.41	1.249E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	47.16	770.05	9.686E-05	Pulse	0.10	3
Pb			1	0.049	ug/l	14.10	3,977.07	5.001E-04	Pulse	0.10	3
Na			2	99.820	ug/l	1.00	64,825.23	2.547E-01	Pulse	0.30	3
Mg			2	14.456	ug/l	5.48	3,608.21	1.418E-02	Pulse	0.30	3
Al			2	14.606	ug/l	1.25	1,152.27	4.528E-03	Pulse	0.30	3
K			2	43.861	ug/l	4.18	16,692.90	6.559E-02	Pulse	0.30	3
Ca			2	58.392	ug/l	13.28	545.57	2.143E-03	Pulse	0.30	3
Ti			2	0.348	ug/l	80.71	24.44	9.624E-05	Pulse	0.30	3
V			2	0.093	ug/l	61.37	825.59	3.245E-03	Pulse	0.30	3
Cr			2	0.714	ug/l	3.03	3,618.22	1.422E-02	Pulse	0.30	3
Mn			2	0.215	ug/l	19.29	330.01	1.297E-03	Pulse	0.30	3
Fe			2	25.319	ug/l	2.51	57,084.82	2.243E-01	Pulse	0.30	3
Co			2	0.040	ug/l	46.93	300.01	1.180E-03	Pulse	0.30	3
Ni			2	1.009	ug/l	6.78	1,301.18	5.112E-03	Pulse	0.30	3
Cu			2	4.065	ug/l	0.81	14,319.72	5.627E-02	Pulse	0.30	3
Zn			2	1.734	ug/l	8.13	1,121.16	4.406E-03	Pulse	0.30	3
As			2	-0.026	ug/l	-127.40	26.33	1.036E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	18701.49	16.54	1.289E-05	Pulse	0.30	3
Sn			2	18.019	ug/l	0.99	19,332.46	1.508E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.151	ug/l	182.71	59.93	2.256E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,524,428.16	1.15	96.8	Analog	0.10	3
1	Sc		9,192,647.78	1.04	105.4	Analog	0.10	3
1	Ge		1,526,597.69	0.39	106.9	Pulse	0.10	3
1	Ge		2,116,666.01	1.02	107.3	Pulse	0.10	3
1	Rh		10,745,133.59	1.48	111.3	Analog	0.10	3
1	In		11,736,805.43	0.27	114.4	Analog	0.10	3
1	Tb		14,419,012.28	1.70	115.3	Analog	0.10	3
1	Ho		1,366,101.70	0.64	113.0	Pulse	0.10	3
1	Bi		7,953,730.92	0.78	114.5	Analog	0.10	3
2	Sc		254,492.24	0.63	103.5	Pulse	0.30	3
2	Ge		135,654.15	0.61	108.2	Pulse	0.30	3
2	Ge		205,957.92	0.21	109.3	Pulse	0.30	3
2	Rh		4,293,598.72	0.25	107.8	Pulse	0.30	3
2	In		1,281,784.71	0.24	105.7	Pulse	0.30	3
2	Tb		4,793,825.50	0.58	106.5	Pulse	0.30	3
2	Ho		476,763.84	0.69	107.8	Pulse	0.30	3
2	Bi		3,065,475.99	0.12	106.6	Pulse	0.30	3
3	Sc		300,940.31	0.18	112.8	Pulse	0.30	3
3	Ge		173,971.20	0.33	111.2	Pulse	0.30	3
3	Ge		265,734.16	0.29	111.7	Pulse	0.30	3
3	Rh		3,321,277.72	0.40	110.6	Pulse	0.30	3
3	Tb		4,916,376.47	0.51	109.1	Pulse	0.30	3

Quantitation Report

File Name 031SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 13:47
Sample Name mp11895-b1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	188.431	ug/l	1.60	1,064,588.96	1.410E-01	Pulse	0.25	3
B			1	195.534	ug/l	1.23	1,201,336.38	1.591E-01	Pulse	0.15	3
Ca			1	10719.009	ug/l	0.91	6,052,604.91	6.618E-01	Analog	0.10	3
Sr			1	211.875	ug/l	0.70	5,149,728.26	4.972E-01	Pulse	0.10	3
Mo			1	217.905	ug/l	0.60	929,428.84	8.973E-02	Pulse	0.10	3
Ag			1	102.431	ug/l	0.21	1,244,336.62	1.078E-01	Pulse	0.10	3
Sn			1	226.856	ug/l	0.63	1,578,659.87	1.367E-01	Pulse	0.10	3
Sb			1	210.413	ug/l	0.16	1,557,277.74	1.090E-01	Pulse	0.10	3
Ba			1	203.473	ug/l	0.89	660,782.88	4.624E-02	Pulse	0.10	3
Tl			1	207.099	ug/l	1.44	3,608,005.68	4.741E-01	Pulse	0.10	3
Pb			1	209.614	ug/l	1.86	1,210,287.58	1.590E-01	Pulse	0.10	3
Pb			1	209.852	ug/l	1.52	1,063,293.27	1.397E-01	Pulse	0.10	3
Pb			1	209.059	ug/l	1.65	4,883,261.54	6.416E-01	Pulse	0.10	3
Na			2	10429.028	ug/l	0.34	5,518,811.45	2.200E+01	Analog	0.30	3
Mg			2	10011.565	ug/l	0.44	2,352,922.62	9.380E+00	Pulse	0.30	3
Al			2	9617.710	ug/l	0.62	702,998.67	2.803E+00	Pulse	0.30	3
K			2	10196.697	ug/l	0.57	1,406,343.35	5.606E+00	Pulse	0.30	3
Ca			2	11728.214	ug/l	0.54	85,071.73	3.391E-01	Pulse	0.30	3
Ti			2	214.168	ug/l	1.96	11,359.53	4.529E-02	Pulse	0.30	3
V			2	216.813	ug/l	0.41	389,395.67	1.552E+00	Pulse	0.30	3
Cr			2	215.305	ug/l	1.02	512,756.66	2.044E+00	Pulse	0.30	3
Mn			2	205.770	ug/l	0.77	245,248.95	9.777E-01	Pulse	0.30	3
Fe			2	10679.612	ug/l	1.12	21,836,610.80	8.706E+01	Analog	0.30	3
Co			2	213.681	ug/l	1.00	899,471.49	3.586E+00	Pulse	0.30	3
Ni			2	212.534	ug/l	0.46	246,182.19	9.814E-01	Pulse	0.30	3
Cu			2	212.545	ug/l	0.38	649,708.36	2.590E+00	Pulse	0.30	3
Zn			2	197.114	ug/l	1.02	78,767.54	3.140E-01	Pulse	0.30	3
As			2	216.697	ug/l	0.33	41,860.23	1.669E-01	Pulse	1.00	3
Cd			2	204.075	ug/l	0.99	121,735.23	9.787E-02	Pulse	0.30	3
Sn			2	238.011	ug/l	0.44	240,542.51	1.934E-01	Pulse	0.30	3
Se			3	462.135	ug/l	0.87	26,618.74	1.038E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,550,532.69	1.29	97.1	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,145,960.28	0.58	104.9	Analog	0.10	3
1	Ge		1,512,811.28	0.86	105.9	Pulse	0.10	3
1	Ge		2,098,987.00	1.07	106.4	Pulse	0.10	3
1	Rh		10,358,168.60	0.26	107.3	Analog	0.10	3
1	In		11,546,897.38	0.89	112.6	Analog	0.10	3
1	Tb		14,291,989.79	1.32	114.3	Analog	0.10	3
1	Ho		1,369,754.04	0.90	113.3	Pulse	0.10	3
1	Bi		7,611,427.59	1.16	109.5	Analog	0.10	3
2	Sc		250,847.59	0.60	102.0	Pulse	0.30	3
2	Ge		132,808.00	0.45	106.0	Pulse	0.30	3
2	Ge		198,915.73	0.61	105.6	Pulse	0.30	3
2	Rh		4,121,592.89	0.25	103.4	Pulse	0.30	3
2	In		1,243,866.66	0.64	102.6	Pulse	0.30	3
2	Tb		4,695,708.01	0.35	104.4	Pulse	0.30	3
2	Ho		468,570.87	0.27	105.9	Pulse	0.30	3
2	Bi		2,893,883.43	0.54	100.7	Pulse	0.30	3
3	Sc		297,314.32	0.40	111.5	Pulse	0.30	3
3	Ge		169,170.91	0.38	108.2	Pulse	0.30	3
3	Ge		256,451.07	0.11	107.8	Pulse	0.30	3
3	Rh		3,159,456.96	0.38	105.2	Pulse	0.30	3
3	Tb		4,786,476.34	0.16	106.2	Pulse	0.30	3

Quantitation Report

File Name 032SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 13:52
Sample Name jc80366-13
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	2.400	ug/l	3.07	13,716.32	1.802E-03	Pulse	0.25	3
B			1	255.707	ug/l	1.52	1,567,678.62	2.060E-01	Pulse	0.15	3
Ca			1	1607.101	ug/l	1.64	939,203.69	1.019E-01	Pulse	0.10	3
Sr			1	22.973	ug/l	1.41	580,094.52	5.403E-02	Pulse	0.10	3
Mo			1	5.834	ug/l	1.08	25,844.84	2.407E-03	Pulse	0.10	3
Ag			1	6.165	ug/l	0.84	76,542.10	6.492E-03	Pulse	0.10	3
Sn			1	426.619	ug/l	0.47	3,018,955.16	2.561E-01	Pulse	0.10	3
Sb			1	16.886	ug/l	1.50	126,004.64	8.754E-03	Pulse	0.10	3
Ba			1	10.505	ug/l	0.35	34,525.98	2.399E-03	Pulse	0.10	3
Tl			1	2.886	ug/l	1.75	52,885.44	6.705E-03	Pulse	0.10	3
Pb			1	5.286	ug/l	2.02	32,256.03	4.089E-03	Pulse	0.10	3
Pb			1	5.542	ug/l	2.33	29,687.27	3.764E-03	Pulse	0.10	3
Pb			1	5.360	ug/l	1.12	132,438.86	1.679E-02	Pulse	0.10	3
Na			2	1614.787	ug/l	1.23	885,290.97	3.444E+00	Pulse	0.30	3
Mg			2	1540.823	ug/l	1.60	371,191.58	1.444E+00	Pulse	0.30	3
Al			2	298.614	ug/l	1.00	22,437.22	8.728E-02	Pulse	0.30	3
K			2	1552.740	ug/l	1.27	228,522.82	8.891E-01	Pulse	0.30	3
Ca			2	1754.571	ug/l	1.33	13,143.08	5.113E-02	Pulse	0.30	3
Ti			2	10.040	ug/l	4.41	551.13	2.145E-03	Pulse	0.30	3
V			2	11.341	ug/l	0.44	21,501.88	8.364E-02	Pulse	0.30	3
Cr			2	12.397	ug/l	1.47	32,062.10	1.247E-01	Pulse	0.30	3
Mn			2	2.896	ug/l	2.27	3,605.99	1.403E-02	Pulse	0.30	3
Fe			2	330.344	ug/l	0.78	696,654.85	2.710E+00	Pulse	0.30	3
Co			2	2.891	ug/l	0.93	12,599.36	4.902E-02	Pulse	0.30	3
Ni			2	12.037	ug/l	1.47	14,397.53	5.601E-02	Pulse	0.30	3
Cu			2	24.172	ug/l	0.74	77,282.25	3.007E-01	Pulse	0.30	3
Zn			2	54.302	ug/l	1.52	22,544.45	8.771E-02	Pulse	0.30	3
As			2	5.654	ug/l	2.37	1,150.05	4.474E-03	Pulse	1.00	3
Cd			2	2.720	ug/l	2.76	1,683.39	1.317E-03	Pulse	0.30	3
Sn			2	448.053	ug/l	0.40	464,666.32	3.636E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	5.371	ug/l	3.02	369.00	1.396E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,610,559.89	1.33	97.9	Analog	0.10	3
1	Sc		9,219,130.49	1.19	105.7	Analog	0.10	3
1	Ge		1,538,155.76	1.17	107.7	Pulse	0.10	3
1	Ge		2,128,266.16	1.19	107.9	Pulse	0.10	3
1	Rh		10,736,910.26	1.50	111.2	Analog	0.10	3
1	In		11,790,564.06	1.10	115.0	Analog	0.10	3
1	Tb		14,393,812.70	0.85	115.1	Analog	0.10	3
1	Ho		1,374,576.54	1.45	113.7	Pulse	0.10	3
1	Bi		7,887,706.76	0.56	113.5	Analog	0.10	3
2	Sc		257,060.84	1.12	104.5	Pulse	0.30	3
2	Ge		136,278.57	1.09	108.7	Pulse	0.30	3
2	Ge		205,433.42	0.12	109.0	Pulse	0.30	3
2	Rh		4,253,020.53	0.24	106.7	Pulse	0.30	3
2	In		1,277,862.98	0.38	105.4	Pulse	0.30	3
2	Tb		4,749,303.01	0.62	105.6	Pulse	0.30	3
2	Ho		473,120.74	0.38	107.0	Pulse	0.30	3
2	Bi		3,003,344.67	0.32	104.5	Pulse	0.30	3
3	Sc		303,032.18	0.69	113.6	Pulse	0.30	3
3	Ge		176,094.85	0.70	112.6	Pulse	0.30	3
3	Ge		264,365.60	0.34	111.1	Pulse	0.30	3
3	Rh		3,261,650.56	0.46	108.6	Pulse	0.30	3
3	Tb		4,852,202.03	0.83	107.6	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 13:57
Sample Name	jc80366-9 1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.463	ug/l	3.86	13,851.12	1.738E-03	Pulse	0.25	3
B			1	100.534	ug/l	1.61	3,175,357.65	3.985E-01	Pulse	0.15	3
Ca			1	331.659	ug/l	1.51	999,981.21	1.050E-01	Pulse	0.10	3
Sr			1	5.833	ug/l	1.23	758,033.16	6.856E-02	Pulse	0.10	3
Mo			1	1.115	ug/l	2.39	25,440.99	2.301E-03	Pulse	0.10	3
Ag			1	0.878	ug/l	1.68	56,103.62	4.624E-03	Pulse	0.10	3
Sn			1	5.237	ug/l	1.60	204,347.14	1.684E-02	Pulse	0.10	3
Sb			1	2.236	ug/l	0.82	85,589.92	5.798E-03	Pulse	0.10	3
Ba			1	2.190	ug/l	1.35	36,904.84	2.500E-03	Pulse	0.10	3
Tl			1	0.572	ug/l	1.43	53,116.17	6.641E-03	Pulse	0.10	3
Pb			1	0.603	ug/l	4.11	18,946.09	2.369E-03	Pulse	0.10	3
Pb			1	0.572	ug/l	0.18	15,819.08	1.978E-03	Pulse	0.10	3
Pb			1	0.579	ug/l	1.40	73,867.90	9.235E-03	Pulse	0.10	3
Na			2	310.163	ug/l	0.76	888,762.57	3.310E+00	Pulse	0.30	3
Mg			2	255.522	ug/l	0.35	321,603.12	1.198E+00	Pulse	0.30	3
Al			2	51.129	ug/l	2.22	20,075.41	7.476E-02	Pulse	0.30	3
K			2	255.497	ug/l	1.27	198,408.90	7.388E-01	Pulse	0.30	3
Ca			2	362.531	ug/l	1.09	14,180.60	5.280E-02	Pulse	0.30	3
Ti			2	2.109	ug/l	10.53	604.47	2.251E-03	Pulse	0.30	3
V			2	4.571	ug/l	1.08	44,561.84	1.659E-01	Pulse	0.30	3
Cr			2	2.699	ug/l	2.50	36,282.98	1.351E-01	Pulse	0.30	3
Mn			2	1.140	ug/l	0.81	7,348.38	2.736E-02	Pulse	0.30	3
Fe			2	89.461	ug/l	0.12	983,817.15	3.663E+00	Pulse	0.30	3
Co			2	0.566	ug/l	1.47	12,896.27	4.802E-02	Pulse	0.30	3
Ni			2	4.387	ug/l	2.20	27,308.32	1.017E-01	Pulse	0.30	3
Cu			2	4.811	ug/l	1.21	80,352.57	2.992E-01	Pulse	0.30	3
Zn			2	10.600	ug/l	1.55	22,999.53	8.565E-02	Pulse	0.30	3
As			2	1.047	ug/l	2.65	1,115.04	4.152E-03	Pulse	1.00	3
Cd			2	0.507	ug/l	3.60	1,628.90	1.229E-03	Pulse	0.30	3
Sn			2	5.757	ug/l	1.77	31,557.22	2.381E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	1.851	ug/l	3.97	619.01	2.267E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,969,788.73	0.99	102.5	Analog	0.10	3
1	Sc		9,521,608.81	0.98	109.2	Analog	0.10	3
1	Ge		1,579,840.08	0.52	110.6	Pulse	0.10	3
1	Ge		2,195,178.51	0.58	111.2	Pulse	0.10	3
1	Rh		11,056,890.25	0.55	114.5	Analog	0.10	3
1	In		12,134,549.63	0.92	118.3	Analog	0.10	3
1	Tb		14,762,054.78	0.91	118.0	Analog	0.10	3
1	Ho		1,400,910.24	0.57	115.9	Pulse	0.10	3
1	Bi		7,998,256.97	0.64	115.1	Analog	0.10	3
2	Sc		268,550.01	0.42	109.2	Pulse	0.30	3
2	Ge		140,991.98	0.66	112.5	Pulse	0.30	3
2	Ge		212,006.49	0.35	112.5	Pulse	0.30	3
2	Rh		4,422,011.91	0.50	111.0	Pulse	0.30	3
2	In		1,325,540.86	0.67	109.3	Pulse	0.30	3
2	Tb		4,903,457.31	0.44	109.0	Pulse	0.30	3
2	Ho		487,723.49	0.21	110.3	Pulse	0.30	3
2	Bi		3,073,747.45	0.18	106.9	Pulse	0.30	3
3	Sc		316,891.33	0.08	118.8	Pulse	0.30	3
3	Ge		180,611.76	0.28	115.5	Pulse	0.30	3
3	Ge		273,076.91	0.10	114.7	Pulse	0.30	3
3	Rh		3,415,056.53	0.30	113.7	Pulse	0.30	3
3	Tb		5,053,537.58	0.46	112.1	Pulse	0.30	3

Quantitation Report

File Name	034SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 14:02
Sample Name	mp11897-b1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.788	ug/l	2.19	2,183,786.67	2.798E-01	Pulse	0.25	3
B			1	79.261	ug/l	1.39	2,462,957.61	3.156E-01	Pulse	0.15	3
Ca			1	2008.903	ug/l	1.13	5,880,218.66	6.204E-01	Analog	0.10	3
Sr			1	81.059	ug/l	0.86	10,248,397.56	9.509E-01	Analog	0.10	3
Mo			1	82.389	ug/l	0.37	1,828,225.44	1.696E-01	Pulse	0.10	3
Ag			1	78.689	ug/l	1.69	4,847,964.93	4.139E-01	Pulse	0.10	3
Sn			1	81.583	ug/l	1.33	2,868,233.39	2.449E-01	Pulse	0.10	3
Sb			1	84.167	ug/l	0.96	3,113,388.81	2.179E-01	Pulse	0.10	3
Ba			1	79.313	ug/l	0.94	1,287,353.03	9.010E-02	Pulse	0.10	3
Tl			1	81.866	ug/l	0.98	7,185,274.89	9.369E-01	Analog	0.10	3
Pb			1	79.262	ug/l	1.08	2,305,460.96	3.006E-01	Pulse	0.10	3
Pb			1	79.715	ug/l	1.39	2,034,716.53	2.653E-01	Pulse	0.10	3
Pb			1	79.368	ug/l	0.94	9,339,290.75	1.218E+00	Pulse	0.10	3
Na			2	1928.233	ug/l	3.78	5,403,898.40	2.034E+01	Analog	0.30	3
Mg			2	1851.957	ug/l	4.61	2,304,144.15	8.676E+00	Pulse	0.30	3
Al			2	1780.446	ug/l	4.29	689,014.04	2.594E+00	Pulse	0.30	3
K			2	1882.248	ug/l	4.50	1,375,221.19	5.178E+00	Pulse	0.30	3
Ca			2	2426.507	ug/l	5.17	93,160.36	3.508E-01	Pulse	0.30	3
Ti			2	80.900	ug/l	4.66	22,711.21	8.551E-02	Pulse	0.30	3
V			2	81.688	ug/l	4.53	776,086.69	2.922E+00	Pulse	0.30	3
Cr			2	80.686	ug/l	4.95	1,015,439.75	3.824E+00	Pulse	0.30	3
Mn			2	77.282	ug/l	4.92	487,516.73	1.836E+00	Pulse	0.30	3
Fe			2	1952.455	ug/l	5.00	21,133,321.94	7.958E+01	Analog	0.30	3
Co			2	80.171	ug/l	5.08	1,786,222.64	6.726E+00	Pulse	0.30	3
Ni			2	79.447	ug/l	4.89	487,023.05	1.834E+00	Pulse	0.30	3
Cu			2	78.267	ug/l	5.17	1,264,803.32	4.763E+00	Pulse	0.30	3
Zn			2	77.831	ug/l	5.36	164,189.97	6.183E-01	Pulse	0.30	3
As			2	84.542	ug/l	5.03	86,414.65	3.254E-01	Pulse	1.00	3
Cd			2	79.993	ug/l	5.47	245,965.92	1.918E-01	Pulse	0.30	3
Sn			2	84.412	ug/l	4.94	439,352.27	3.426E-01	Pulse	0.30	3
Se			3	188.879	ug/l	0.76	56,283.38	2.119E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,805,908.04	1.96	100.4	Analog	0.10	3
1	Sc		9,478,801.32	0.62	108.7	Analog	0.10	3
1	Ge		1,582,098.93	1.17	110.7	Pulse	0.10	3

Quantitation Report

1	Ge		2,198,172.31	0.98	111.4	Pulse	0.10	3
1	Rh		10,777,998.17	0.42	111.6	Analog	0.10	3
1	In		11,714,126.07	1.64	114.2	Analog	0.10	3
1	Tb		14,289,073.54	2.04	114.2	Analog	0.10	3
1	Ho		1,363,595.45	1.78	112.8	Pulse	0.10	3
1	Bi		7,670,349.68	1.67	110.4	Analog	0.10	3
2	Sc		265,933.09	4.23	108.1	Pulse	0.30	3
2	Ge		138,875.17	3.04	110.8	Pulse	0.30	3
2	Ge		209,218.14	2.63	111.1	Pulse	0.30	3
2	Rh		4,309,241.49	5.85	108.1	Mix	0.30	3
2	In		1,284,412.87	4.39	105.9	Pulse	0.30	3
2	Tb		4,863,320.23	6.84	108.1	Mix	0.30	3
2	Ho		476,981.15	4.61	107.8	Pulse	0.30	3
2	Bi		2,969,302.66	3.74	103.3	Pulse	0.30	3
3	Sc		306,380.46	0.26	114.9	Pulse	0.30	3
3	Ge		174,341.98	0.33	111.5	Pulse	0.30	3
3	Ge		265,607.69	0.82	111.6	Pulse	0.30	3
3	Rh		3,211,276.47	0.50	107.0	Pulse	0.30	3
3	Tb		4,776,996.06	0.09	106.0	Pulse	0.30	3

Quantitation Report

File Name	035_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 14:07
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	46.882	ug/l	1.56	1,357,502.08	1.754E-01	Pulse	0.25	3
B			1	100.374	ug/l	1.35	3,078,810.71	3.978E-01	Pulse	0.15	3
Ca			1	5085.982	ug/l	1.28	14,689,026.86	1.566E+00	Analog	0.10	3
Sr			1	52.741	ug/l	1.08	6,370,952.20	6.187E-01	Analog	0.10	3
Mo			1	52.054	ug/l	1.52	1,103,513.34	1.072E-01	Pulse	0.10	3
Ag			1	47.921	ug/l	1.51	2,869,372.14	2.521E-01	Pulse	0.10	3
Sn			1	50.504	ug/l	1.83	1,730,676.59	1.521E-01	Pulse	0.10	3
Sb			1	51.531	ug/l	1.19	1,861,486.12	1.334E-01	Pulse	0.10	3
Ba			1	50.582	ug/l	0.81	801,825.40	5.747E-02	Pulse	0.10	3
Tl			1	51.024	ug/l	1.71	4,291,309.73	5.839E-01	Pulse	0.10	3
Pb			1	51.653	ug/l	1.13	1,439,785.91	1.959E-01	Pulse	0.10	3
Pb			1	51.503	ug/l	0.90	1,259,892.38	1.714E-01	Pulse	0.10	3
Pb			1	51.261	ug/l	1.15	5,780,587.93	7.865E-01	Pulse	0.10	3
Na			2	5081.999	ug/l	0.74	13,766,045.01	5.354E+01	Analog	0.30	3
Mg			2	5022.579	ug/l	0.90	6,049,263.23	2.353E+01	Analog	0.30	3
Al			2	4697.506	ug/l	1.00	1,759,618.75	6.844E+00	Pulse	0.30	3
K			2	4997.878	ug/l	0.69	3,517,249.86	1.368E+01	Pulse	0.30	3
Ca			2	5370.984	ug/l	0.75	199,518.15	7.760E-01	Pulse	0.30	3
Ti			2	50.336	ug/l	2.11	13,682.41	5.322E-02	Pulse	0.30	3
V			2	52.911	ug/l	0.81	486,868.96	1.894E+00	Pulse	0.30	3
Cr			2	51.907	ug/l	0.57	633,163.98	2.463E+00	Pulse	0.30	3
Mn			2	49.392	ug/l	0.93	301,691.17	1.173E+00	Pulse	0.30	3
Fe			2	5090.177	ug/l	1.60	53,333,960.10	2.074E+02	Analog	0.30	3
Co			2	51.122	ug/l	0.92	1,102,883.11	4.289E+00	Pulse	0.30	3
Ni			2	50.181	ug/l	0.46	297,875.42	1.159E+00	Pulse	0.30	3
Cu			2	49.305	ug/l	0.98	772,134.85	3.003E+00	Pulse	0.30	3
Zn			2	49.565	ug/l	0.38	101,402.47	3.944E-01	Pulse	0.30	3
As			2	53.295	ug/l	0.79	52,755.47	2.052E-01	Pulse	1.00	3
Cd			2	50.931	ug/l	0.25	151,980.11	1.221E-01	Pulse	0.30	3
Sn			2	52.688	ug/l	0.34	266,303.75	2.140E-01	Pulse	0.30	3
Se			3	198.109	ug/l	0.54	56,955.81	2.223E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,738,945.64	0.56	99.5	Analog	0.10	3
1	Sc		9,381,823.61	0.71	107.6	Analog	0.10	3
1	Ge		1,535,725.81	0.88	107.5	Pulse	0.10	3

Quantitation Report

1	Ge		2,131,929.97	0.77	108.0	Pulse	0.10	3
1	Rh		10,297,638.39	1.38	106.7	Analog	0.10	3
1	In		11,383,379.00	0.84	111.0	Analog	0.10	3
1	Tb		13,952,043.96	0.86	111.5	Analog	0.10	3
1	Ho		1,341,087.48	0.90	111.0	Pulse	0.10	3
1	Bi		7,349,595.10	1.00	105.8	Analog	0.10	3
2	Sc		257,125.30	0.82	104.5	Pulse	0.30	3
2	Ge		134,826.25	0.53	107.6	Pulse	0.30	3
2	Ge		202,978.90	0.89	107.7	Pulse	0.30	3
2	Rh		4,078,171.92	0.40	102.3	Pulse	0.30	3
2	In		1,244,438.73	0.57	102.6	Pulse	0.30	3
2	Tb		4,649,983.84	0.36	103.3	Pulse	0.30	3
2	Ho		463,721.39	0.20	104.9	Pulse	0.30	3
2	Bi		2,832,804.33	0.49	98.5	Pulse	0.30	3
3	Sc		295,028.32	0.71	110.6	Pulse	0.30	3
3	Ge		169,205.37	0.82	108.2	Pulse	0.30	3
3	Ge		256,262.17	0.39	107.7	Pulse	0.30	3
3	Rh		3,063,435.02	0.37	102.0	Pulse	0.30	3
3	Tb		4,637,175.23	0.18	102.9	Pulse	0.30	3

Quantitation Report

File Name 036_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 14:12
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	14.86	164.00	2.059E-05	Pulse	0.25	3
B			1	1.001	ug/l	3.35	84,804.91	1.065E-02	Pulse	0.15	3
Ca			1	-0.163	ug/l	-157.62	28,959.47	3.081E-03	Pulse	0.10	3
Sr			1	0.013	ug/l	15.65	3,237.13	2.979E-04	Pulse	0.10	3
Mo			1	0.074	ug/l	3.81	1,713.49	1.578E-04	Pulse	0.10	3
Ag			1	0.016	ug/l	9.32	1,026.74	8.745E-05	Pulse	0.10	3
Sn			1	-0.192	ug/l	-5.51	7,361.97	6.270E-04	Pulse	0.10	3
Sb			1	0.118	ug/l	9.59	4,537.49	3.160E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	21.19	376.69	2.622E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	5.35	2,370.30	2.976E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	30.10	1,120.09	1.405E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	28.69	970.07	1.217E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	20.96	4,450.45	5.584E-04	Pulse	0.10	3
Na			2	0.456	ug/l	15.96	12,881.66	4.938E-02	Pulse	0.30	3
Mg			2	0.681	ug/l	9.69	998.93	3.829E-03	Pulse	0.30	3
Al			2	0.708	ug/l	8.60	340.01	1.303E-03	Pulse	0.30	3
K			2	0.865	ug/l	22.44	11,481.80	4.401E-02	Pulse	0.30	3
Ca			2	0.347	ug/l	13.28	132.23	5.069E-04	Pulse	0.30	3
Ti			2	-0.009	ug/l	-130.00	3.33	1.277E-05	Pulse	0.30	3
V			2	-0.001	ug/l	-218.98	662.24	2.538E-03	Pulse	0.30	3
Cr			2	-0.050	ug/l	-5.56	1,335.63	5.120E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	87.72	108.89	4.175E-04	Pulse	0.30	3
Fe			2	0.983	ug/l	1.88	15,142.65	5.805E-02	Pulse	0.30	3
Co			2	0.005	ug/l	20.66	235.56	9.029E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	-1019.88	117.78	4.515E-04	Pulse	0.30	3
Cu			2	0.014	ug/l	65.03	2,019.04	7.740E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.049	ug/l	29.65	534.46	2.049E-03	Pulse	0.30	3
As			2	-0.001	ug/l	-354.86	31.00	1.189E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	191.03	22.12	1.722E-05	Pulse	0.30	3
Sn			2	0.122	ug/l	7.48	1,252.29	9.735E-04	Pulse	0.30	3
Se			3	0.060	ug/l	43.82	69.87	2.588E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,963,484.85	1.12	102.4	Analog	0.10	3
1	Sc		9,401,276.11	0.95	107.8	Analog	0.10	3
1	Ge		1,566,534.98	0.99	109.7	Pulse	0.10	3
1	Ge		2,162,151.32	1.51	109.6	Pulse	0.10	3
1	Rh		10,855,581.09	1.79	112.4	Analog	0.10	3
1	In		11,741,787.21	0.24	114.5	Analog	0.10	3
1	Tb		14,362,275.20	0.54	114.8	Analog	0.10	3
1	Ho		1,355,244.30	0.89	112.1	Pulse	0.10	3
1	Bi		7,965,872.80	1.32	114.6	Analog	0.10	3
2	Sc		260,870.92	0.16	106.1	Pulse	0.30	3
2	Ge		138,663.27	0.30	110.6	Pulse	0.30	3
2	Ge		208,140.86	0.57	110.5	Pulse	0.30	3
2	Rh		4,321,749.55	0.12	108.5	Pulse	0.30	3
2	In		1,286,217.23	0.34	106.1	Pulse	0.30	3
2	Tb		4,751,328.70	0.15	105.6	Pulse	0.30	3
2	Ho		473,136.96	0.39	107.0	Pulse	0.30	3
2	Bi		3,026,090.43	0.36	105.3	Pulse	0.30	3
3	Sc		307,476.11	0.64	115.3	Pulse	0.30	3
3	Ge		178,009.27	0.28	113.8	Pulse	0.30	3
3	Ge		269,984.02	0.24	113.4	Pulse	0.30	3
3	Rh		3,325,113.34	0.38	110.7	Pulse	0.30	3
3	Tb		4,853,149.81	0.98	107.7	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 14:17
Sample Name	mp11897-mb1 1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	19.52	137.33	1.654E-05	Pulse	0.25	3
B			1	0.607	ug/l	7.83	75,669.54	9.113E-03	Pulse	0.15	3
Ca			1	5.150	ug/l	8.09	45,964.68	4.713E-03	Pulse	0.10	3
Sr			1	0.013	ug/l	10.46	3,297.13	2.945E-04	Pulse	0.10	3
Mo			1	0.033	ug/l	11.32	803.39	7.174E-05	Pulse	0.10	3
Ag			1	0.009	ug/l	4.79	666.71	5.525E-05	Pulse	0.10	3
Sn			1	-0.294	ug/l	-1.31	3,867.30	3.204E-04	Pulse	0.10	3
Sb			1	0.033	ug/l	6.30	1,396.78	9.615E-05	Pulse	0.10	3
Ba			1	0.017	ug/l	16.63	460.03	3.167E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	30.57	1,293.45	1.600E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	82.08	763.39	9.424E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	722.90	636.71	7.853E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	257.20	2,943.57	3.633E-04	Pulse	0.10	3
Na			2	3.016	ug/l	4.57	20,444.68	7.632E-02	Pulse	0.30	3
Mg			2	1.489	ug/l	3.55	2,040.15	7.616E-03	Pulse	0.30	3
Al			2	2.003	ug/l	6.88	854.48	3.190E-03	Pulse	0.30	3
K			2	2.008	ug/l	22.85	12,624.90	4.713E-02	Pulse	0.30	3
Ca			2	4.823	ug/l	6.18	308.90	1.153E-03	Pulse	0.30	3
Ti			2	0.085	ug/l	36.37	30.00	1.119E-04	Pulse	0.30	3
V			2	-0.011	ug/l	-33.35	583.35	2.177E-03	Pulse	0.30	3
Cr			2	0.092	ug/l	0.88	3,161.45	1.180E-02	Pulse	0.30	3
Mn			2	0.021	ug/l	30.56	207.78	7.751E-04	Pulse	0.30	3
Fe			2	1.201	ug/l	1.97	17,927.69	6.693E-02	Pulse	0.30	3
Co			2	0.005	ug/l	25.54	254.45	9.496E-04	Pulse	0.30	3
Ni			2	0.045	ug/l	5.28	400.01	1.493E-03	Pulse	0.30	3
Cu			2	0.065	ug/l	17.67	2,889.17	1.079E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.321	ug/l	1.56	1,125.61	4.202E-03	Pulse	0.30	3
As			2	-0.007	ug/l	-29.85	26.00	9.708E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	597.65	17.73	1.347E-05	Pulse	0.30	3
Sn			2	0.001	ug/l	500.83	634.46	4.821E-04	Pulse	0.30	3
Se			3	0.005	ug/l	178.42	54.60	1.980E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,304,181.90	0.85	106.8	Analog	0.10	3
1	Sc		9,752,459.86	0.69	111.9	Analog	0.10	3
1	Ge		1,594,628.78	0.69	111.6	Pulse	0.10	3
1	Ge		2,209,967.57	0.56	112.0	Pulse	0.10	3
1	Rh		11,196,470.25	0.42	116.0	Analog	0.10	3
1	In		12,063,821.36	1.82	117.6	Analog	0.10	3
1	Tb		14,531,834.78	0.91	116.2	Analog	0.10	3
1	Ho		1,381,708.47	0.79	114.3	Pulse	0.10	3
1	Bi		8,094,280.92	1.33	116.5	Analog	0.10	3
2	Sc		267,886.37	0.60	108.9	Pulse	0.30	3
2	Ge		140,903.36	0.53	112.4	Pulse	0.30	3
2	Ge		212,815.07	0.44	113.0	Pulse	0.30	3
2	Rh		4,405,597.05	0.14	110.6	Pulse	0.30	3
2	In		1,316,009.90	0.22	108.5	Pulse	0.30	3
2	Tb		4,830,622.45	0.15	107.4	Pulse	0.30	3
2	Ho		478,467.60	0.47	108.2	Pulse	0.30	3
2	Bi		3,095,593.42	0.27	107.7	Pulse	0.30	3
3	Sc		317,402.68	0.28	119.0	Pulse	0.30	3
3	Ge		182,334.61	0.19	116.6	Pulse	0.30	3
3	Ge		275,830.79	0.21	115.9	Pulse	0.30	3
3	Rh		3,404,457.92	0.76	113.4	Pulse	0.30	3
3	Tb		4,936,354.94	0.77	109.5	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 14:22
Sample Name	jc80990-3
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.663	ug/l	31.86	254.67	3.099E-05	Pulse	0.25	3
B			1	118.522	ug/l	3.18	93,265.20	1.137E-02	Pulse	0.15	3
Ca			1	42836.985	ug/l	1.30	1,313,290.60	1.347E-01	Pulse	0.10	3
Sr			1	272.394	ug/l	0.57	351,195.58	3.209E-02	Pulse	0.10	3
Mo			1	6.691	ug/l	3.13	1,556.80	1.422E-04	Pulse	0.10	3
Ag			1	1.574	ug/l	5.39	1,046.74	8.830E-05	Pulse	0.10	3
Sn			1	-22.174	ug/l	-1.90	6,371.54	5.376E-04	Pulse	0.10	3
Sb			1	8.864	ug/l	9.59	3,473.87	2.401E-04	Pulse	0.10	3
Ba			1	93.675	ug/l	1.47	15,558.38	1.076E-03	Pulse	0.10	3
Tl			1	8.651	ug/l	2.51	8,636.14	1.091E-03	Pulse	0.10	3
Pb			1	3.141	ug/l	1.66	1,586.81	2.004E-04	Pulse	0.10	3
Pb			1	3.612	ug/l	22.42	1,556.81	1.966E-04	Pulse	0.10	3
Pb			1	3.250	ug/l	10.26	6,707.54	8.472E-04	Pulse	0.10	3
Na			2	125037.402	ug/l	0.22	3,508,744.72	1.321E+01	Pulse	0.30	3
Mg			2	12962.351	ug/l	0.75	161,486.74	6.078E-01	Pulse	0.30	3
Al			2	4200.458	ug/l	1.92	16,330.25	6.147E-02	Pulse	0.30	3
K			2	5884.787	ug/l	1.07	53,729.14	2.022E-01	Pulse	0.30	3
Ca			2	44544.347	ug/l	1.17	17,209.02	6.477E-02	Pulse	0.30	3
Ti			2	13.699	ug/l	26.84	44.44	1.674E-04	Pulse	0.30	3
V			2	4.109	ug/l	22.66	1,075.60	4.048E-03	Pulse	0.30	3
Cr			2	3.695	ug/l	19.44	2,447.99	9.214E-03	Pulse	0.30	3
Mn			2	5009.673	ug/l	0.35	316,189.06	1.190E+00	Pulse	0.30	3
Fe			2	19738.343	ug/l	0.21	2,141,702.76	8.061E+00	Pulse	0.30	3
Co			2	8.130	ug/l	2.62	1,947.91	7.331E-03	Pulse	0.30	3
Ni			2	5.959	ug/l	10.67	486.68	1.832E-03	Pulse	0.30	3
Cu			2	24.556	ug/l	2.43	5,788.85	2.179E-02	Pulse	0.30	3
Zn			2	82.848	ug/l	3.11	2,184.61	8.223E-03	Pulse	0.30	3
As			2	7.311	ug/l	19.48	107.67	4.052E-04	Pulse	1.00	3
Cd			2	-0.038	ug/l	-1147.85	15.47	1.193E-05	Pulse	0.30	3
Sn			2	8.690	ug/l	19.73	1,073.38	8.299E-04	Pulse	0.30	3
Se			3	3.085	ug/l	43.82	61.53	2.264E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,206,705.27	0.78	105.6	Analog	0.10	3
1	Sc		9,747,278.60	1.18	111.8	Analog	0.10	3
1	Ge		1,593,091.54	1.07	111.5	Pulse	0.10	3

Quantitation Report

1	Ge		2,203,817.05	1.09	111.7	Pulse	0.10	3
1	Rh		10,944,149.42	0.91	113.4	Analog	0.10	3
1	In		11,851,288.22	0.84	115.6	Analog	0.10	3
1	Tb		14,455,814.37	1.37	115.6	Analog	0.10	3
1	Ho		1,367,241.65	2.08	113.1	Pulse	0.10	3
1	Bi		7,917,037.59	0.83	113.9	Analog	0.10	3
2	Sc		265,680.95	0.34	108.0	Pulse	0.30	3
2	Ge		140,309.42	0.66	112.0	Pulse	0.30	3
2	Ge		211,024.90	1.41	112.0	Pulse	0.30	3
2	Rh		4,319,762.60	0.78	108.4	Pulse	0.30	3
2	In		1,293,639.41	0.45	106.7	Pulse	0.30	3
2	Tb		4,765,363.42	0.61	105.9	Pulse	0.30	3
2	Ho		474,983.30	0.63	107.4	Pulse	0.30	3
2	Bi		3,014,573.49	0.82	104.9	Pulse	0.30	3
3	Sc		311,367.50	1.07	116.7	Pulse	0.30	3
3	Ge		180,873.98	0.18	115.6	Pulse	0.30	3
3	Ge		271,848.62	0.30	114.2	Pulse	0.30	3
3	Rh		3,312,208.34	0.33	110.3	Pulse	0.30	3
3	Tb		4,858,608.56	0.29	107.8	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 14:27
Sample Name jc80990-4
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.531	ug/l	29.27	216.00	2.607E-05	Pulse	0.25	3
B			1	100.960	ug/l	7.67	88,718.22	1.068E-02	Pulse	0.15	3
Ca			1	43843.845	ug/l	1.03	1,340,616.70	1.378E-01	Pulse	0.10	3
Sr			1	274.510	ug/l	0.64	357,142.16	3.234E-02	Pulse	0.10	3
Mo			1	2.201	ug/l	7.29	550.03	4.981E-05	Pulse	0.10	3
Ag			1	0.563	ug/l	20.91	423.36	3.514E-05	Pulse	0.10	3
Sn			1	-24.805	ug/l	-4.20	5,541.23	4.590E-04	Pulse	0.10	3
Sb			1	2.363	ug/l	7.76	1,046.74	7.179E-05	Pulse	0.10	3
Ba			1	92.100	ug/l	2.48	15,424.82	1.058E-03	Pulse	0.10	3
Tl			1	0.040	ug/l	369.58	836.72	1.054E-04	Pulse	0.10	3
Pb			1	2.791	ug/l	5.88	1,483.47	1.872E-04	Pulse	0.10	3
Pb			1	2.268	ug/l	29.12	1,203.43	1.519E-04	Pulse	0.10	3
Pb			1	2.524	ug/l	13.91	5,830.71	7.359E-04	Pulse	0.10	3
Na			2	126939.958	ug/l	0.36	3,567,719.58	1.341E+01	Pulse	0.30	3
Mg			2	14008.005	ug/l	0.21	174,784.41	6.568E-01	Pulse	0.30	3
Al			2	2302.456	ug/l	2.78	8,999.16	3.381E-02	Pulse	0.30	3
K			2	5922.452	ug/l	1.26	54,090.29	2.033E-01	Pulse	0.30	3
Ca			2	45926.856	ug/l	2.03	17,768.47	6.677E-02	Pulse	0.30	3
Ti			2	14.039	ug/l	54.46	45.56	1.710E-04	Pulse	0.30	3
V			2	2.911	ug/l	5.11	963.38	3.620E-03	Pulse	0.30	3
Cr			2	-1.261	ug/l	-44.72	1,827.90	6.870E-03	Pulse	0.30	3
Mn			2	4955.172	ug/l	0.11	313,258.50	1.177E+00	Pulse	0.30	3
Fe			2	20643.129	ug/l	0.47	2,243,279.70	8.430E+00	Pulse	0.30	3
Co			2	8.481	ug/l	4.83	2,029.04	7.626E-03	Pulse	0.30	3
Ni			2	6.565	ug/l	8.85	524.46	1.971E-03	Pulse	0.30	3
Cu			2	12.601	ug/l	5.40	3,864.94	1.452E-02	Pulse	0.30	3
Zn			2	55.243	ug/l	11.91	1,605.66	6.035E-03	Pulse	0.30	3
As			2	3.881	ug/l	26.03	72.67	2.732E-04	Pulse	1.00	3
Cd			2	0.036	ug/l	741.37	17.75	1.370E-05	Pulse	0.30	3
Sn			2	4.306	ug/l	8.82	845.59	6.522E-04	Pulse	0.30	3
Se			3	2.243	ug/l	84.40	59.27	2.169E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,308,156.76	1.84	106.9	Analog	0.10	3
1	Sc		9,726,182.98	0.52	111.5	Analog	0.10	3
1	Ge		1,600,869.51	1.07	112.1	Pulse	0.10	3

Quantitation Report

1	Ge		2,215,984.60	1.13	112.3	Pulse	0.10	3
1	Rh		11,043,606.50	1.10	114.4	Analog	0.10	3
1	In		12,076,453.51	2.08	117.8	Analog	0.10	3
1	Tb		14,577,051.86	0.72	116.5	Analog	0.10	3
1	Ho		1,371,135.19	1.17	113.5	Pulse	0.10	3
1	Bi		7,928,020.30	1.35	114.1	Analog	0.10	3
2	Sc		266,112.35	0.44	108.2	Pulse	0.30	3
2	Ge		141,049.40	1.23	112.5	Pulse	0.30	3
2	Ge		210,760.43	0.31	111.9	Pulse	0.30	3
2	Rh		4,331,568.30	0.68	108.7	Pulse	0.30	3
2	In		1,296,499.92	0.46	106.9	Pulse	0.30	3
2	Tb		4,754,907.31	0.42	105.7	Pulse	0.30	3
2	Ho		473,408.94	0.38	107.0	Pulse	0.30	3
2	Bi		3,020,841.13	0.46	105.1	Pulse	0.30	3
3	Sc		315,711.81	0.65	118.4	Pulse	0.30	3
3	Ge		180,726.65	0.29	115.6	Pulse	0.30	3
3	Ge		273,270.65	0.55	114.8	Pulse	0.30	3
3	Rh		3,352,978.68	0.51	111.7	Pulse	0.30	3
3	Tb		4,898,685.36	0.59	108.7	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 14:32
Sample Name	jc80990-5
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.390	ug/l	20.11	525.35	6.461E-05	Pulse	0.25	3
B			1	59.483	ug/l	1.81	130,413.74	1.602E-02	Pulse	0.15	3
Ca			1	89219.457	ug/l	0.28	10,698,916.51	1.100E+00	Analog	0.10	3
Sr			1	602.354	ug/l	1.25	3,032,089.02	2.827E-01	Pulse	0.10	3
Mo			1	5.561	ug/l	4.09	4,957.63	4.624E-04	Pulse	0.10	3
Ag			1	0.403	ug/l	17.10	1,063.41	9.037E-05	Pulse	0.10	3
Sn			1	14.725	ug/l	5.49	34,836.13	2.959E-03	Pulse	0.10	3
Sb			1	8.053	ug/l	2.32	12,205.20	8.446E-04	Pulse	0.10	3
Ba			1	188.010	ug/l	1.66	123,629.96	8.555E-03	Pulse	0.10	3
Tl			1	2.117	ug/l	2.26	8,346.07	1.070E-03	Pulse	0.10	3
Pb			1	4.787	ug/l	1.74	6,298.25	8.073E-04	Pulse	0.10	3
Pb			1	4.547	ug/l	3.67	5,317.80	6.816E-04	Pulse	0.10	3
Pb			1	4.617	ug/l	2.75	24,819.09	3.181E-03	Pulse	0.10	3
Na			2	145304.626	ug/l	1.26	16,337,664.91	6.123E+01	Analog	0.30	3
Mg			2	48598.790	ug/l	1.01	2,429,853.72	9.107E+00	Pulse	0.30	3
Al			2	667.256	ug/l	2.30	10,446.67	3.915E-02	Pulse	0.30	3
K			2	7910.465	ug/l	1.05	241,497.40	9.051E-01	Pulse	0.30	3
Ca			2	90483.770	ug/l	2.18	139,554.41	5.231E-01	Pulse	0.30	3
Ti			2	18.770	ug/l	20.02	217.78	8.160E-04	Pulse	0.30	3
V			2	7.851	ug/l	4.35	3,682.67	1.380E-02	Pulse	0.30	3
Cr			2	9.229	ug/l	3.40	6,650.30	2.493E-02	Pulse	0.30	3
Mn			2	2002.308	ug/l	1.52	507,625.73	1.903E+00	Pulse	0.30	3
Fe			2	52272.988	ug/l	1.09	22,739,336.87	8.522E+01	Analog	0.30	3
Co			2	1.068	ug/l	8.13	1,092.27	4.095E-03	Pulse	0.30	3
Ni			2	5.632	ug/l	3.06	1,508.98	5.655E-03	Pulse	0.30	3
Cu			2	21.729	ug/l	0.58	15,925.59	5.968E-02	Pulse	0.30	3
Zn			2	30.011	ug/l	4.95	2,980.31	1.117E-02	Pulse	0.30	3
As			2	53.981	ug/l	1.13	2,249.83	8.432E-03	Pulse	1.00	3
Cd			2	0.000	ug/l	11173.94	16.44	1.287E-05	Pulse	0.30	3
Sn			2	22.279	ug/l	3.83	5,219.82	4.089E-03	Pulse	0.30	3
Se			3	4.609	ug/l	12.75	106.40	3.985E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,142,301.48	1.17	104.7	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,729,629.23	0.25	111.6	Analog	0.10	3
1	Ge		1,569,317.16	0.48	109.9	Pulse	0.10	3
1	Ge		2,175,081.11	0.64	110.2	Pulse	0.10	3
1	Rh		10,724,911.92	1.48	111.1	Analog	0.10	3
1	In		11,773,036.18	0.89	114.8	Analog	0.10	3
1	Tb		14,454,064.79	1.81	115.5	Analog	0.10	3
1	Ho		1,369,601.70	0.86	113.3	Pulse	0.10	3
1	Bi		7,801,950.92	0.67	112.3	Analog	0.10	3
2	Sc		266,839.11	0.85	108.5	Pulse	0.30	3
2	Ge		138,285.50	0.39	110.3	Pulse	0.30	3
2	Ge		207,733.25	0.48	110.3	Pulse	0.30	3
2	Rh		4,246,695.25	0.37	106.6	Pulse	0.30	3
2	In		1,276,449.95	0.13	105.2	Pulse	0.30	3
2	Tb		4,740,768.15	0.12	105.4	Pulse	0.30	3
2	Ho		473,565.24	0.42	107.1	Pulse	0.30	3
2	Bi		2,927,170.02	0.20	101.8	Pulse	0.30	3
3	Sc		311,571.70	0.52	116.8	Pulse	0.30	3
3	Ge		177,119.05	0.24	113.2	Pulse	0.30	3
3	Ge		267,097.59	0.67	112.2	Pulse	0.30	3
3	Rh		3,257,368.00	0.32	108.5	Pulse	0.30	3
3	Tb		4,839,871.20	0.45	107.4	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 14:37
Sample Name mp12001-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	55.71	102.67	1.309E-05	Pulse	0.25	3
B			1	0.430	ug/l	12.17	59,439.33	7.585E-03	Pulse	0.15	3
Ca			1	39.050	ug/l	1.64	84,638.34	9.130E-03	Pulse	0.10	3
Sr			1	0.162	ug/l	6.54	11,574.56	1.092E-03	Pulse	0.10	3
Mo			1	0.514	ug/l	8.83	5,654.67	5.340E-04	Pulse	0.10	3
Ag			1	0.024	ug/l	9.82	806.73	6.866E-05	Pulse	0.10	3
Sn			1	2.875	ug/l	1.42	64,563.05	5.494E-03	Pulse	0.10	3
Sb			1	0.417	ug/l	5.73	7,892.25	5.502E-04	Pulse	0.10	3
Ba			1	0.055	ug/l	17.44	620.03	4.316E-05	Pulse	0.10	3
Tl			1	0.094	ug/l	4.85	4,991.03	6.379E-04	Pulse	0.10	3
Pb			1	0.049	ug/l	14.31	1,360.11	1.737E-04	Pulse	0.10	3
Pb			1	0.046	ug/l	12.93	1,203.43	1.537E-04	Pulse	0.10	3
Pb			1	0.046	ug/l	8.03	5,477.26	6.996E-04	Pulse	0.10	3
Na			2	17.302	ug/l	2.13	33,852.71	1.356E-01	Pulse	0.30	3
Mg			2	5.729	ug/l	3.54	3,508.18	1.406E-02	Pulse	0.30	3
Al			2	8.705	ug/l	2.83	1,650.10	6.612E-03	Pulse	0.30	3
K			2	5.400	ug/l	17.07	12,232.35	4.902E-02	Pulse	0.30	3
Ca			2	40.670	ug/l	14.86	846.70	3.393E-03	Pulse	0.30	3
Ti			2	1.171	ug/l	34.44	160.01	6.411E-04	Pulse	0.30	3
V			2	0.602	ug/l	3.65	3,327.04	1.333E-02	Pulse	0.30	3
Cr			2	0.135	ug/l	8.51	2,662.47	1.066E-02	Pulse	0.30	3
Mn			2	0.096	ug/l	7.46	354.45	1.421E-03	Pulse	0.30	3
Fe			2	8.691	ug/l	2.14	48,679.23	1.951E-01	Pulse	0.30	3
Co			2	0.014	ug/l	6.81	270.01	1.082E-03	Pulse	0.30	3
Ni			2	0.068	ug/l	4.31	311.12	1.246E-03	Pulse	0.30	3
Cu			2	0.579	ug/l	4.04	6,102.31	2.446E-02	Pulse	0.30	3
Zn			2	1.883	ug/l	8.82	2,277.96	9.120E-03	Pulse	0.30	3
As			2	0.736	ug/l	3.73	384.34	1.540E-03	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-1244.76	14.20	1.188E-05	Pulse	0.30	3
Sn			2	3.672	ug/l	4.60	9,566.34	7.919E-03	Pulse	0.30	3
Se			3	0.198	ug/l	22.52	79.80	3.028E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,837,069.32	0.79	100.8	Analog	0.10	3
1	Sc		9,271,437.99	1.20	106.3	Analog	0.10	3
1	Ge		1,501,149.51	0.73	105.1	Pulse	0.10	3
1	Ge		2,066,428.36	1.55	104.7	Pulse	0.10	3
1	Rh		10,592,365.67	0.86	109.7	Analog	0.10	3
1	In		11,753,467.00	1.54	114.6	Analog	0.10	3
1	Tb		14,351,353.95	1.51	114.7	Analog	0.10	3
1	Ho		1,341,889.30	1.14	111.0	Pulse	0.10	3
1	Bi		7,826,563.01	1.08	112.6	Analog	0.10	3
2	Sc		249,604.79	1.56	101.5	Pulse	0.30	3
2	Ge		129,987.06	1.86	103.7	Pulse	0.30	3
2	Ge		194,927.11	1.63	103.5	Pulse	0.30	3
2	Rh		4,132,931.64	1.28	103.7	Pulse	0.30	3
2	In		1,208,440.16	1.64	99.6	Pulse	0.30	3
2	Tb		4,587,007.32	1.60	101.9	Pulse	0.30	3
2	Ho		458,990.59	1.93	103.8	Pulse	0.30	3
2	Bi		2,872,911.14	2.26	99.9	Pulse	0.30	3
3	Sc		308,229.81	0.43	115.6	Pulse	0.30	3
3	Ge		174,860.56	0.67	111.8	Pulse	0.30	3
3	Ge		263,550.48	0.13	110.7	Pulse	0.30	3
3	Rh		3,282,705.84	0.94	109.3	Pulse	0.30	3
3	Tb		4,896,867.72	0.70	108.6	Pulse	0.30	3

Quantitation Report

File Name	042SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 14:42
Sample Name	jc80990-6
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.042	ug/l	32.68	176.00	2.199E-05	Pulse	0.25	3
B			1	82.147	ug/l	5.75	311,449.08	3.875E-02	Pulse	0.15	3
Ca			1	54907.373	ug/l	6.18	16,771,661.00	1.690E+00	Analog	0.10	3
Sr			1	802.353	ug/l	7.19	9,919,460.89	9.412E-01	Analog	0.10	3
Mo			1	1.031	ug/l	10.64	2,283.58	2.168E-04	Pulse	0.10	3
Ag			1	0.079	ug/l	19.56	540.03	4.687E-05	Pulse	0.10	3
Sn			1	-1.155	ug/l	-14.01	9,903.49	8.551E-04	Pulse	0.10	3
Sb			1	1.147	ug/l	12.77	4,457.46	3.076E-04	Pulse	0.10	3
Ba			1	301.423	ug/l	7.36	497,196.47	3.425E-02	Pulse	0.10	3
Tl			1	0.218	ug/l	15.59	2,553.66	3.505E-04	Pulse	0.10	3
Pb			1	1.776	ug/l	8.92	5,504.55	7.547E-04	Pulse	0.10	3
Pb			1	1.698	ug/l	3.62	4,694.26	6.415E-04	Pulse	0.10	3
Pb			1	1.713	ug/l	8.24	21,710.40	2.976E-03	Pulse	0.10	3
Na			2	321396.825	ug/l	0.57	87,929,825.39	3.384E+02	Analog	0.30	3
Mg			2	44262.632	ug/l	1.10	5,388,210.76	2.073E+01	Analog	0.30	3
Al			2	165.105	ug/l	2.45	6,321.26	2.432E-02	Pulse	0.30	3
K			2	7188.823	ug/l	0.20	520,595.95	2.003E+00	Pulse	0.30	3
Ca			2	60654.084	ug/l	0.20	227,708.25	8.762E-01	Pulse	0.30	3
Ti			2	5.734	ug/l	3.55	163.33	6.285E-04	Pulse	0.30	3
V			2	1.544	ug/l	2.38	2,104.60	8.099E-03	Pulse	0.30	3
Cr			2	0.739	ug/l	5.12	2,849.17	1.096E-02	Pulse	0.30	3
Mn			2	766.543	ug/l	0.47	473,187.41	1.821E+00	Pulse	0.30	3
Fe			2	97902.350	ug/l	0.68	103,678,255.88	3.990E+02	Analog	0.30	3
Co			2	1.074	ug/l	4.79	2,474.66	9.523E-03	Pulse	0.30	3
Ni			2	0.757	ug/l	8.23	572.24	2.202E-03	Pulse	0.30	3
Cu			2	4.775	ug/l	3.01	9,324.97	3.588E-02	Pulse	0.30	3
Zn			2	8.555	ug/l	8.11	2,192.40	8.437E-03	Pulse	0.30	3
As			2	10.933	ug/l	3.51	1,125.38	4.331E-03	Pulse	1.00	3
Cd			2	0.014	ug/l	344.10	19.89	1.628E-05	Pulse	0.30	3
Sn			2	2.036	ug/l	7.54	1,590.10	1.303E-03	Pulse	0.30	3
Se			3	0.959	ug/l	35.79	75.27	2.993E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,051,135.68	5.79	103.6	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,950,866.10	6.75	114.1	Analog	0.10	3
1	Ge		1,563,963.88	6.02	109.5	Pulse	0.10	3
1	Ge		2,152,925.28	5.54	109.1	Pulse	0.10	3
1	Rh		10,575,580.05	7.24	109.5	Analog	0.10	3
1	In		11,607,951.43	6.46	113.2	Analog	0.10	3
1	Tb		14,563,166.87	6.58	116.4	Analog	0.10	3
1	Ho		1,370,475.42	7.55	113.4	Pulse	0.10	3
1	Bi		7,317,960.10	6.32	105.3	Analog	0.10	3
2	Sc		259,868.79	0.12	105.7	Pulse	0.30	3
2	Ge		133,490.01	0.35	106.5	Pulse	0.30	3
2	Ge		199,921.86	0.79	106.1	Pulse	0.30	3
2	Rh		3,996,449.98	0.54	100.3	Pulse	0.30	3
2	In		1,220,666.71	0.45	100.6	Pulse	0.30	3
2	Tb		4,588,943.15	0.14	102.0	Pulse	0.30	3
2	Ho		458,656.09	0.54	103.7	Pulse	0.30	3
2	Bi		2,687,995.94	0.44	93.5	Pulse	0.30	3
3	Sc		301,754.76	0.70	113.1	Pulse	0.30	3
3	Ge		168,228.38	0.43	107.6	Pulse	0.30	3
3	Ge		251,457.51	0.33	105.7	Pulse	0.30	3
3	Rh		3,011,118.63	0.38	100.3	Pulse	0.30	3
3	Tb		4,585,922.18	0.44	101.7	Pulse	0.30	3

Quantitation Report

File Name	043SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 14:47
Sample Name	jc80990-8
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.697	ug/l	8.05	1,129.39	1.366E-04	Pulse	0.25	3
B			1	38.129	ug/l	1.52	117,228.68	1.418E-02	Pulse	0.15	3
Ca			1	18486.363	ug/l	1.44	2,865,099.33	2.871E-01	Pulse	0.10	3
Sr			1	140.764	ug/l	1.69	900,969.93	8.269E-02	Pulse	0.10	3
Mo			1	1.219	ug/l	2.66	1,416.78	1.300E-04	Pulse	0.10	3
Ag			1	0.101	ug/l	45.00	383.35	3.220E-05	Pulse	0.10	3
Sn			1	-4.919	ug/l	-6.73	5,534.54	4.653E-04	Pulse	0.10	3
Sb			1	0.391	ug/l	6.12	883.39	6.118E-05	Pulse	0.10	3
Ba			1	79.072	ug/l	0.65	65,010.62	4.503E-03	Pulse	0.10	3
Tl			1	0.064	ug/l	35.73	1,066.74	1.375E-04	Pulse	0.10	3
Pb			1	7.076	ug/l	0.95	11,037.88	1.423E-03	Pulse	0.10	3
Pb			1	6.463	ug/l	1.77	8,933.05	1.151E-03	Pulse	0.10	3
Pb			1	6.561	ug/l	0.54	41,744.32	5.380E-03	Pulse	0.10	3
Na			2	31824.724	ug/l	0.30	4,561,633.71	1.679E+01	Pulse	0.30	3
Mg			2	15956.309	ug/l	0.14	1,015,224.19	3.738E+00	Pulse	0.30	3
Al			2	6889.660	ug/l	0.28	136,381.79	5.021E-01	Pulse	0.30	3
K			2	1914.579	ug/l	1.30	82,264.03	3.029E-01	Pulse	0.30	3
Ca			2	19008.774	ug/l	1.11	37,398.58	1.377E-01	Pulse	0.30	3
Ti			2	188.303	ug/l	35.26	2,707.77	9.972E-03	Pulse	0.30	3
V			2	18.569	ug/l	2.87	9,712.94	3.576E-02	Pulse	0.30	3
Cr			2	12.592	ug/l	1.91	10,116.54	3.725E-02	Pulse	0.30	3
Mn			2	1563.677	ug/l	0.46	504,436.65	1.857E+00	Pulse	0.30	3
Fe			2	19949.675	ug/l	1.23	11,044,971.50	4.066E+01	Analog	0.30	3
Co			2	7.350	ug/l	1.38	8,513.38	3.134E-02	Pulse	0.30	3
Ni			2	10.334	ug/l	3.05	3,362.61	1.238E-02	Pulse	0.30	3
Cu			2	19.329	ug/l	2.00	17,816.41	6.560E-02	Pulse	0.30	3
Zn			2	127.012	ug/l	0.92	14,117.31	5.198E-02	Pulse	0.30	3
As			2	7.369	ug/l	4.99	418.68	1.541E-03	Pulse	1.00	3
Cd			2	0.065	ug/l	33.99	26.61	2.061E-05	Pulse	0.30	3
Sn			2	0.979	ug/l	23.44	873.37	6.760E-04	Pulse	0.30	3
Se			3	0.176	ug/l	62.60	55.47	2.017E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,270,101.69	0.82	106.4	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,979,074.23	1.42	114.5	Analog	0.10	3
1	Ge		1,608,884.97	0.42	112.6	Pulse	0.10	3
1	Ge		2,205,145.80	0.78	111.7	Pulse	0.10	3
1	Rh		10,895,607.34	0.62	112.9	Analog	0.10	3
1	In		11,894,314.44	0.41	116.0	Analog	0.10	3
1	Tb		14,436,776.04	0.68	115.4	Analog	0.10	3
1	Ho		1,366,698.21	0.82	113.1	Pulse	0.10	3
1	Bi		7,758,320.93	0.59	111.7	Analog	0.10	3
2	Sc		271,610.53	0.13	110.4	Pulse	0.30	3
2	Ge		140,643.42	0.69	112.2	Pulse	0.30	3
2	Ge		212,903.76	0.66	113.0	Pulse	0.30	3
2	Rh		4,332,172.19	0.33	108.7	Pulse	0.30	3
2	In		1,291,797.01	0.32	106.5	Pulse	0.30	3
2	Tb		4,752,699.40	0.59	105.6	Pulse	0.30	3
2	Ho		473,488.94	0.29	107.1	Pulse	0.30	3
2	Bi		2,958,953.49	0.41	102.9	Pulse	0.30	3
3	Sc		316,906.19	0.59	118.8	Pulse	0.30	3
3	Ge		181,992.59	1.05	116.4	Pulse	0.30	3
3	Ge		275,028.64	0.65	115.6	Pulse	0.30	3
3	Rh		3,299,137.09	0.17	109.9	Pulse	0.30	3
3	Tb		4,834,535.36	0.20	107.2	Pulse	0.30	3

Quantitation Report

File Name 044SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 14:52
Sample Name jc80990-9
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.110	ug/l	21.12	389.34	4.730E-05	Pulse	0.25	3
B			1	97.511	ug/l	1.08	368,294.88	4.474E-02	Pulse	0.15	3
Ca			1	107753.429	ug/l	1.72	32,492,082.85	3.314E+00	Analog	0.10	3
Sr			1	661.165	ug/l	0.76	8,115,140.50	7.756E-01	Analog	0.10	3
Mo			1	13.709	ug/l	0.99	29,578.21	2.827E-03	Pulse	0.10	3
Ag			1	0.077	ug/l	9.19	536.70	4.621E-05	Pulse	0.10	3
Sn			1	-0.715	ug/l	-7.33	11,457.91	9.863E-04	Pulse	0.10	3
Sb			1	0.454	ug/l	12.45	1,840.21	1.281E-04	Pulse	0.10	3
Ba			1	100.125	ug/l	1.36	163,499.35	1.139E-02	Pulse	0.10	3
Tl			1	0.010	ug/l	86.97	840.05	1.118E-04	Pulse	0.10	3
Pb			1	1.899	ug/l	5.17	6,021.46	8.014E-04	Pulse	0.10	3
Pb			1	1.801	ug/l	6.70	5,077.74	6.757E-04	Pulse	0.10	3
Pb			1	1.831	ug/l	1.71	23,725.06	3.157E-03	Pulse	0.10	3
Na			2	76997.326	ug/l	1.15	21,608,370.25	8.110E+01	Analog	0.30	3
Mg			2	32491.038	ug/l	0.41	4,055,657.06	1.522E+01	Pulse	0.30	3
Al			2	1573.517	ug/l	0.86	61,153.56	2.295E-01	Pulse	0.30	3
K			2	6744.429	ug/l	0.72	501,487.41	1.882E+00	Pulse	0.30	3
Ca			2	111235.781	ug/l	1.23	428,089.42	1.607E+00	Pulse	0.30	3
Ti			2	50.183	ug/l	3.59	1,418.96	5.326E-03	Pulse	0.30	3
V			2	5.562	ug/l	3.20	5,983.39	2.246E-02	Pulse	0.30	3
Cr			2	3.833	ug/l	2.95	6,820.37	2.560E-02	Pulse	0.30	3
Mn			2	510.596	ug/l	0.23	323,217.28	1.213E+00	Pulse	0.30	3
Fe			2	7298.190	ug/l	0.99	7,929,078.85	2.976E+01	Analog	0.30	3
Co			2	1.461	ug/l	3.67	3,402.62	1.277E-02	Pulse	0.30	3
Ni			2	3.095	ug/l	9.01	2,024.60	7.599E-03	Pulse	0.30	3
Cu			2	4.742	ug/l	1.33	9,509.50	3.569E-02	Pulse	0.30	3
Zn			2	21.013	ug/l	1.34	4,878.56	1.831E-02	Pulse	0.30	3
As			2	6.982	ug/l	4.58	749.02	2.810E-03	Pulse	1.00	3
Cd			2	-0.029	ug/l	-146.30	7.50	5.964E-06	Pulse	0.30	3
Sn			2	2.360	ug/l	2.30	1,803.46	1.434E-03	Pulse	0.30	3
Se			3	0.850	ug/l	16.86	76.53	2.870E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,232,319.00	1.25	105.9	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,805,306.10	0.36	112.5	Analog	0.10	3
1	Ge		1,543,964.66	1.02	108.1	Pulse	0.10	3
1	Ge		2,143,812.88	0.81	108.6	Pulse	0.10	3
1	Rh		10,462,733.80	0.66	108.4	Analog	0.10	3
1	In		11,618,643.69	1.45	113.3	Analog	0.10	3
1	Tb		14,360,601.46	0.19	114.8	Analog	0.10	3
1	Ho		1,362,621.07	0.41	112.8	Pulse	0.10	3
1	Bi		7,514,349.68	0.22	108.1	Analog	0.10	3
2	Sc		266,468.34	0.69	108.3	Pulse	0.30	3
2	Ge		136,731.78	0.33	109.1	Pulse	0.30	3
2	Ge		205,420.37	0.31	109.0	Pulse	0.30	3
2	Rh		4,141,279.84	0.65	103.9	Pulse	0.30	3
2	In		1,257,402.94	0.06	103.7	Pulse	0.30	3
2	Tb		4,684,297.32	1.07	104.1	Pulse	0.30	3
2	Ho		470,333.80	1.06	106.3	Pulse	0.30	3
2	Bi		2,827,232.80	0.92	98.3	Pulse	0.30	3
3	Sc		312,816.47	0.15	117.3	Pulse	0.30	3
3	Ge		176,714.61	0.56	113.0	Pulse	0.30	3
3	Ge		266,657.21	0.34	112.0	Pulse	0.30	3
3	Rh		3,177,730.91	0.19	105.8	Pulse	0.30	3
3	Tb		4,806,120.64	0.44	106.6	Pulse	0.30	3

Quantitation Report

File Name	045_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 14:57
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.753	ug/l	1.19	1,458,367.25	1.787E-01	Pulse	0.25	3
B			1	101.474	ug/l	0.47	3,282,370.84	4.021E-01	Pulse	0.15	3
Ca			1	5143.121	ug/l	0.52	15,799,735.60	1.583E+00	Analog	0.10	3
Sr			1	53.553	ug/l	0.43	6,740,308.23	6.283E-01	Analog	0.10	3
Mo			1	52.005	ug/l	0.61	1,148,682.95	1.071E-01	Pulse	0.10	3
Ag			1	48.234	ug/l	0.89	2,971,378.91	2.537E-01	Pulse	0.10	3
Sn			1	50.303	ug/l	1.20	1,773,631.38	1.514E-01	Pulse	0.10	3
Sb			1	51.935	ug/l	1.22	1,904,636.38	1.345E-01	Pulse	0.10	3
Ba			1	50.889	ug/l	0.72	818,960.04	5.782E-02	Pulse	0.10	3
Tl			1	50.088	ug/l	1.14	4,287,945.45	5.732E-01	Pulse	0.10	3
Pb			1	50.573	ug/l	1.89	1,434,812.79	1.918E-01	Pulse	0.10	3
Pb			1	51.090	ug/l	0.97	1,272,010.89	1.700E-01	Pulse	0.10	3
Pb			1	50.400	ug/l	1.21	5,784,704.89	7.733E-01	Pulse	0.10	3
Na			2	5089.334	ug/l	0.70	14,770,126.08	5.362E+01	Analog	0.30	3
Mg			2	5072.559	ug/l	1.80	6,545,403.35	2.376E+01	Analog	0.30	3
Al			2	4711.132	ug/l	0.33	1,890,701.38	6.864E+00	Pulse	0.30	3
K			2	5032.636	ug/l	0.49	3,794,419.57	1.377E+01	Pulse	0.30	3
Ca			2	5337.948	ug/l	0.58	212,443.23	7.712E-01	Pulse	0.30	3
Ti			2	50.725	ug/l	3.41	14,773.38	5.363E-02	Pulse	0.30	3
V			2	52.704	ug/l	0.09	519,589.89	1.886E+00	Pulse	0.30	3
Cr			2	51.278	ug/l	0.54	670,173.15	2.433E+00	Pulse	0.30	3
Mn			2	49.088	ug/l	0.49	321,242.70	1.166E+00	Pulse	0.30	3
Fe			2	5090.828	ug/l	0.51	57,150,375.51	2.075E+02	Analog	0.30	3
Co			2	50.565	ug/l	0.28	1,168,726.93	4.243E+00	Pulse	0.30	3
Ni			2	49.730	ug/l	0.29	316,268.04	1.148E+00	Pulse	0.30	3
Cu			2	48.633	ug/l	0.08	816,006.86	2.962E+00	Pulse	0.30	3
Zn			2	48.398	ug/l	0.77	106,091.64	3.851E-01	Pulse	0.30	3
As			2	52.568	ug/l	0.09	55,751.64	2.024E-01	Pulse	1.00	3
Cd			2	51.055	ug/l	0.81	157,682.03	1.224E-01	Pulse	0.30	3
Sn			2	52.265	ug/l	0.50	273,411.61	2.123E-01	Pulse	0.30	3
Se			3	198.639	ug/l	0.42	59,606.58	2.229E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,162,827.92	1.55	105.0	Analog	0.10	3
1	Sc		9,979,047.14	0.89	114.4	Analog	0.10	3
1	Ge		1,602,859.92	0.58	112.2	Pulse	0.10	3

Quantitation Report

1	Ge		2,225,641.74	1.12	112.8	Pulse	0.10	3
1	Rh		10,728,271.51	0.73	111.1	Analog	0.10	3
1	In		11,711,674.38	1.25	114.2	Analog	0.10	3
1	Tb		14,164,960.21	0.73	113.2	Analog	0.10	3
1	Ho		1,349,166.39	1.05	111.6	Pulse	0.10	3
1	Bi		7,480,438.85	0.35	107.7	Analog	0.10	3
2	Sc		275,471.15	0.34	112.0	Pulse	0.30	3
2	Ge		142,125.98	0.55	113.4	Pulse	0.30	3
2	Ge		214,566.63	0.93	113.9	Pulse	0.30	3
2	Rh		4,220,959.55	0.40	105.9	Pulse	0.30	3
2	In		1,287,975.59	0.25	106.2	Pulse	0.30	3
2	Tb		4,726,640.78	0.04	105.1	Pulse	0.30	3
2	Ho		470,704.74	0.53	106.4	Pulse	0.30	3
2	Bi		2,862,787.66	0.43	99.6	Pulse	0.30	3
3	Sc		311,151.56	1.13	116.7	Pulse	0.30	3
3	Ge		175,397.75	0.17	112.1	Pulse	0.30	3
3	Ge		267,472.95	0.49	112.4	Pulse	0.30	3
3	Rh		3,147,233.76	0.67	104.8	Pulse	0.30	3
3	Tb		4,665,679.68	0.76	103.5	Pulse	0.30	3

Quantitation Report

File Name 046_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 15:02
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	25.73	152.00	1.817E-05	Pulse	0.25	3
B			1	0.051	ug/l	47.55	58,134.63	6.946E-03	Pulse	0.15	3
Ca			1	0.179	ug/l	73.07	31,811.27	3.186E-03	Pulse	0.10	3
Sr			1	0.013	ug/l	9.90	3,250.46	2.885E-04	Pulse	0.10	3
Mo			1	0.068	ug/l	3.90	1,630.14	1.447E-04	Pulse	0.10	3
Ag			1	0.010	ug/l	27.42	716.71	5.881E-05	Pulse	0.10	3
Sn			1	-0.235	ug/l	-3.94	6,068.07	4.981E-04	Pulse	0.10	3
Sb			1	0.115	ug/l	8.68	4,490.81	3.095E-04	Pulse	0.10	3
Ba			1	0.009	ug/l	42.08	320.01	2.204E-05	Pulse	0.10	3
Tl			1	0.010	ug/l	2.96	1,706.82	2.135E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	186.85	740.05	9.257E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-285.11	590.03	7.381E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	203.51	2,953.57	3.695E-04	Pulse	0.10	3
Na			2	1.042	ug/l	8.34	15,235.86	5.555E-02	Pulse	0.30	3
Mg			2	0.602	ug/l	1.67	948.93	3.460E-03	Pulse	0.30	3
Al			2	0.598	ug/l	22.27	313.34	1.142E-03	Pulse	0.30	3
K			2	0.790	ug/l	16.95	12,015.55	4.381E-02	Pulse	0.30	3
Ca			2	0.990	ug/l	34.58	164.45	5.998E-04	Pulse	0.30	3
Ti			2	0.002	ug/l	720.40	6.67	2.427E-05	Pulse	0.30	3
V			2	-0.008	ug/l	-60.36	633.35	2.309E-03	Pulse	0.30	3
Cr			2	-0.051	ug/l	-4.96	1,385.63	5.052E-03	Pulse	0.30	3
Mn			2	0.007	ug/l	117.44	118.89	4.330E-04	Pulse	0.30	3
Fe			2	1.041	ug/l	5.18	16,568.51	6.041E-02	Pulse	0.30	3
Co			2	0.004	ug/l	47.61	238.89	8.716E-04	Pulse	0.30	3
Ni			2	0.019	ug/l	119.06	243.38	8.853E-04	Pulse	0.30	3
Cu			2	0.011	ug/l	15.14	2,071.27	7.552E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.932	ug/l	4.28	2,479.10	9.039E-03	Pulse	0.30	3
As			2	-0.011	ug/l	-13.62	22.67	8.264E-05	Pulse	1.00	3
Cd			2	-0.001	ug/l	-535.22	14.35	1.091E-05	Pulse	0.30	3
Sn			2	0.068	ug/l	7.15	992.27	7.542E-04	Pulse	0.30	3
Se			3	0.063	ug/l	44.20	72.93	2.629E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,370,567.92	1.50	107.7	Analog	0.10	3
1	Sc		9,987,346.52	1.62	114.5	Analog	0.10	3
1	Ge		1,618,124.97	0.79	113.3	Pulse	0.10	3
1	Ge		2,245,310.69	0.42	113.8	Pulse	0.10	3
1	Rh		11,265,457.75	0.57	116.7	Analog	0.10	3
1	In		12,182,782.32	0.30	118.8	Analog	0.10	3
1	Tb		14,509,426.45	0.43	116.0	Analog	0.10	3
1	Ho		1,359,072.48	0.82	112.5	Pulse	0.10	3
1	Bi		7,993,019.88	0.14	115.0	Analog	0.10	3
2	Sc		274,275.11	0.60	111.5	Pulse	0.30	3
2	Ge		144,715.37	0.32	115.5	Pulse	0.30	3
2	Ge		216,979.59	0.83	115.2	Pulse	0.30	3
2	Rh		4,431,910.10	0.28	111.2	Pulse	0.30	3
2	In		1,315,634.75	0.35	108.5	Pulse	0.30	3
2	Tb		4,802,729.95	0.43	106.7	Pulse	0.30	3
2	Ho		477,035.85	0.59	107.9	Pulse	0.30	3
2	Bi		3,027,427.66	0.44	105.3	Pulse	0.30	3
3	Sc		318,922.60	0.49	119.6	Pulse	0.30	3
3	Ge		183,542.93	0.51	117.4	Pulse	0.30	3
3	Ge		277,375.84	0.36	116.5	Pulse	0.30	3
3	Rh		3,381,441.53	0.15	112.6	Pulse	0.30	3
3	Tb		4,863,706.19	0.37	107.9	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 15:08
Sample Name jc80990-1f
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.054	ug/l	29.31	218.67	2.654E-05	Pulse	0.25	3
B			1	43.414	ug/l	2.74	195,271.12	2.366E-02	Pulse	0.15	3
Ca			1	41519.510	ug/l	1.95	12,745,964.39	1.279E+00	Analog	0.10	3
Sr			1	489.295	ug/l	0.82	6,159,370.95	5.740E-01	Analog	0.10	3
Mo			1	0.419	ug/l	8.12	973.40	9.076E-05	Pulse	0.10	3
Ag			1	0.128	ug/l	9.19	846.72	7.274E-05	Pulse	0.10	3
Sn			1	-2.469	ug/l	-0.33	5,381.13	4.623E-04	Pulse	0.10	3
Sb			1	1.001	ug/l	4.96	3,897.29	2.697E-04	Pulse	0.10	3
Ba			1	204.996	ug/l	1.63	336,610.66	2.330E-02	Pulse	0.10	3
Tl			1	0.007	ug/l	187.73	806.72	1.083E-04	Pulse	0.10	3
Pb			1	1.141	ug/l	3.47	3,827.31	5.139E-04	Pulse	0.10	3
Pb			1	1.074	ug/l	9.49	3,232.16	4.339E-04	Pulse	0.10	3
Pb			1	1.086	ug/l	4.17	15,008.57	2.015E-03	Pulse	0.10	3
Na			2	136569.972	ug/l	0.67	38,905,920.68	1.438E+02	Analog	0.30	3
Mg			2	44133.947	ug/l	0.71	5,593,271.44	2.067E+01	Analog	0.30	3
Al			2	71.129	ug/l	9.14	2,876.95	1.063E-02	Pulse	0.30	3
K			2	2589.266	ug/l	0.91	202,420.59	7.482E-01	Pulse	0.30	3
Ca			2	43455.408	ug/l	0.64	169,878.72	6.279E-01	Pulse	0.30	3
Ti			2	1.962	ug/l	12.04	62.22	2.299E-04	Pulse	0.30	3
V			2	2.320	ug/l	4.90	2,941.41	1.087E-02	Pulse	0.30	3
Cr			2	0.935	ug/l	0.94	3,217.02	1.189E-02	Pulse	0.30	3
Mn			2	5830.696	ug/l	0.42	3,746,719.43	1.385E+01	Pulse	0.30	3
Fe			2	72422.332	ug/l	1.20	79,848,096.83	2.951E+02	Analog	0.30	3
Co			2	0.348	ug/l	14.49	927.82	3.431E-03	Pulse	0.30	3
Ni			2	1.751	ug/l	10.22	1,216.73	4.498E-03	Pulse	0.30	3
Cu			2	1.737	ug/l	9.17	4,714.07	1.742E-02	Pulse	0.30	3
Zn			2	42.154	ug/l	2.81	9,485.06	3.506E-02	Pulse	0.30	3
As			2	28.412	ug/l	2.17	2,990.95	1.106E-02	Pulse	1.00	3
Cd			2	-0.010	ug/l	-229.71	13.28	1.051E-05	Pulse	0.30	3
Sn			2	0.635	ug/l	14.51	930.05	7.349E-04	Pulse	0.30	3
Se			3	0.647	ug/l	27.63	69.47	2.643E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,253,611.77	1.33	106.2	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,967,857.77	0.55	114.3	Analog	0.10	3
1	Ge		1,581,477.79	0.53	110.7	Pulse	0.10	3
1	Ge		2,166,247.89	0.35	109.8	Pulse	0.10	3
1	Rh		10,730,068.17	0.98	111.1	Analog	0.10	3
1	In		11,639,283.82	0.42	113.5	Analog	0.10	3
1	Tb		14,448,795.20	0.63	115.5	Analog	0.10	3
1	Ho		1,355,141.13	1.01	112.1	Pulse	0.10	3
1	Bi		7,447,367.80	0.41	107.2	Analog	0.10	3
2	Sc		270,550.81	0.42	110.0	Pulse	0.30	3
2	Ge		139,862.28	0.60	111.6	Pulse	0.30	3
2	Ge		207,143.96	0.78	110.0	Pulse	0.30	3
2	Rh		4,193,432.61	0.45	105.2	Pulse	0.30	3
2	In		1,265,791.99	0.54	104.4	Pulse	0.30	3
2	Tb		4,727,044.67	0.47	105.1	Pulse	0.30	3
2	Ho		472,043.96	1.04	106.7	Pulse	0.30	3
2	Bi		2,821,666.56	0.26	98.1	Pulse	0.30	3
3	Sc		310,041.71	0.35	116.2	Pulse	0.30	3
3	Ge		173,837.57	0.52	111.1	Pulse	0.30	3
3	Ge		262,788.00	0.39	110.4	Pulse	0.30	3
3	Rh		3,160,412.79	0.58	105.3	Pulse	0.30	3
3	Tb		4,734,128.00	0.55	105.0	Pulse	0.30	3

Quantitation Report

File Name	048SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 15:13
Sample Name	jc80990-1f
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.040	ug/l	69.47	64.00	7.683E-06	Pulse	0.25	3
B			1	9.578	ug/l	75.15	59,347.77	7.120E-03	Pulse	0.15	3
Ca			1	40923.959	ug/l	0.81	1,292,961.98	1.289E-01	Pulse	0.10	3
Sr			1	435.000	ug/l	1.05	575,328.48	5.116E-02	Pulse	0.10	3
Mo			1	1.424	ug/l	8.68	380.02	3.380E-05	Pulse	0.10	3
Ag			1	0.349	ug/l	13.54	286.68	2.386E-05	Pulse	0.10	3
Sn			1	-26.164	ug/l	-1.68	5,024.32	4.185E-04	Pulse	0.10	3
Sb			1	2.522	ug/l	10.82	1,103.41	7.590E-05	Pulse	0.10	3
Ba			1	202.277	ug/l	0.52	33,590.36	2.310E-03	Pulse	0.10	3
Tl			1	-0.149	ug/l	-28.20	660.04	8.378E-05	Pulse	0.10	3
Pb			1	1.483	ug/l	15.33	1,083.42	1.376E-04	Pulse	0.10	3
Pb			1	0.946	ug/l	69.85	850.06	1.079E-04	Pulse	0.10	3
Pb			1	0.803	ug/l	29.95	3,716.99	4.720E-04	Pulse	0.10	3
Na			2	129637.171	ug/l	1.13	3,790,506.94	1.369E+01	Pulse	0.30	3
Mg			2	41309.421	ug/l	1.41	535,910.41	1.936E+00	Pulse	0.30	3
Al			2	446.385	ug/l	2.96	1,875.68	6.775E-03	Pulse	0.30	3
K			2	2611.596	ug/l	1.01	31,263.66	1.129E-01	Pulse	0.30	3
Ca			2	42989.942	ug/l	1.88	17,313.58	6.253E-02	Pulse	0.30	3
Ti			2	8.515	ug/l	44.20	31.11	1.126E-04	Pulse	0.30	3
V			2	0.921	ug/l	34.39	805.59	2.909E-03	Pulse	0.30	3
Cr			2	-3.273	ug/l	-15.08	1,638.99	5.918E-03	Pulse	0.30	3
Mn			2	5748.251	ug/l	0.72	378,077.48	1.366E+00	Pulse	0.30	3
Fe			2	71601.763	ug/l	0.66	8,083,281.90	2.920E+01	Analog	0.30	3
Co			2	0.516	ug/l	23.32	261.12	9.437E-04	Pulse	0.30	3
Ni			2	1.794	ug/l	17.36	241.11	8.704E-04	Pulse	0.30	3
Cu			2	6.588	ug/l	9.22	3,010.32	1.087E-02	Pulse	0.30	3
Zn			2	42.385	ug/l	0.62	1,388.97	5.017E-03	Pulse	0.30	3
As			2	28.347	ug/l	7.47	336.34	1.215E-03	Pulse	1.00	3
Cd			2	0.061	ug/l	359.39	18.87	1.429E-05	Pulse	0.30	3
Sn			2	4.033	ug/l	26.68	846.70	6.411E-04	Pulse	0.30	3
Se			3	-0.406	ug/l	-490.83	51.87	1.873E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,340,001.27	2.33	107.3	Analog	0.10	3
1	Sc		10,032,951.72	0.64	115.1	Analog	0.10	3
1	Ge		1,637,159.14	0.95	114.6	Pulse	0.10	3

Quantitation Report

1	Ge		2,252,438.77	0.60	114.1	Pulse	0.10	3
1	Rh		11,245,928.58	1.20	116.5	Analog	0.10	3
1	In		12,008,968.71	1.14	117.1	Analog	0.10	3
1	Tb		14,543,451.87	1.23	116.3	Analog	0.10	3
1	Ho		1,353,705.29	1.28	112.0	Pulse	0.10	3
1	Bi		7,877,050.72	0.62	113.4	Analog	0.10	3
2	Sc		276,882.62	1.00	112.6	Pulse	0.30	3
2	Ge		143,794.95	0.90	114.7	Pulse	0.30	3
2	Ge		217,199.70	0.77	115.3	Pulse	0.30	3
2	Rh		4,402,873.30	0.82	110.5	Pulse	0.30	3
2	In		1,321,042.92	0.73	108.9	Pulse	0.30	3
2	Tb		4,782,033.70	0.68	106.3	Pulse	0.30	3
2	Ho		477,373.64	0.96	107.9	Pulse	0.30	3
2	Bi		3,006,488.70	0.83	104.6	Pulse	0.30	3
3	Sc		319,174.34	0.90	119.7	Pulse	0.30	3
3	Ge		183,394.74	0.32	117.3	Pulse	0.30	3
3	Ge		276,865.87	0.57	116.3	Pulse	0.30	3
3	Rh		3,337,912.37	0.20	111.2	Pulse	0.30	3
3	Tb		4,846,458.28	0.32	107.5	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 15:18
Sample Name jc80990-2f
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.008	ug/l	-105.13	38.67	4.686E-06	Pulse	0.25	3
B			1	73.878	ug/l	2.00	174,698.42	2.114E-02	Pulse	0.15	3
Ca			1	45171.101	ug/l	0.62	6,955,394.48	6.971E-01	Analog	0.10	3
Sr			1	218.495	ug/l	0.78	1,414,352.12	1.283E-01	Pulse	0.10	3
Mo			1	0.523	ug/l	3.33	643.37	5.835E-05	Pulse	0.10	3
Ag			1	0.078	ug/l	47.34	313.35	2.596E-05	Pulse	0.10	3
Sn			1	-5.592	ug/l	-0.53	4,397.45	3.648E-04	Pulse	0.10	3
Sb			1	0.372	ug/l	15.79	846.72	5.873E-05	Pulse	0.10	3
Ba			1	45.967	ug/l	1.86	37,837.16	2.623E-03	Pulse	0.10	3
Tl			1	0.071	ug/l	13.64	1,100.08	1.415E-04	Pulse	0.10	3
Pb			1	-0.030	ug/l	-423.52	586.70	7.566E-05	Pulse	0.10	3
Pb			1	-0.047	ug/l	-272.33	533.37	6.865E-05	Pulse	0.10	3
Pb			1	-0.067	ug/l	-92.09	2,310.16	2.975E-04	Pulse	0.10	3
Na			2	76374.698	ug/l	1.00	10,942,690.40	4.024E+01	Analog	0.30	3
Mg			2	9959.412	ug/l	0.75	634,463.43	2.333E+00	Pulse	0.30	3
Al			2	81.948	ug/l	5.57	1,696.77	6.241E-03	Pulse	0.30	3
K			2	3686.161	ug/l	0.77	148,083.14	5.446E-01	Pulse	0.30	3
Ca			2	44898.839	ug/l	0.69	88,270.25	3.246E-01	Pulse	0.30	3
Ti			2	-0.041	ug/l	-329.83	5.56	2.044E-05	Pulse	0.30	3
V			2	0.846	ug/l	25.90	1,112.27	4.092E-03	Pulse	0.30	3
Cr			2	-0.521	ug/l	-29.71	1,695.66	6.234E-03	Pulse	0.30	3
Mn			2	1229.092	ug/l	1.13	396,957.25	1.460E+00	Pulse	0.30	3
Fe			2	1817.780	ug/l	0.35	1,012,002.29	3.722E+00	Pulse	0.30	3
Co			2	1.137	ug/l	5.35	1,435.64	5.281E-03	Pulse	0.30	3
Ni			2	0.642	ug/l	13.45	325.56	1.197E-03	Pulse	0.30	3
Cu			2	3.965	ug/l	4.18	5,143.07	1.892E-02	Pulse	0.30	3
Zn			2	12.640	ug/l	4.51	1,812.35	6.666E-03	Pulse	0.30	3
As			2	1.884	ug/l	24.73	132.33	4.863E-04	Pulse	1.00	3
Cd			2	-0.042	ug/l	-134.10	9.98	7.744E-06	Pulse	0.30	3
Sn			2	0.539	ug/l	66.54	754.48	5.870E-04	Pulse	0.30	3
Se			3	0.171	ug/l	95.82	54.87	2.014E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,264,681.31	1.13	106.3	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,978,170.68	1.63	114.4	Analog	0.10	3
1	Ge		1,601,838.00	1.03	112.1	Pulse	0.10	3
1	Ge		2,212,410.80	0.91	112.1	Pulse	0.10	3
1	Rh		11,025,579.42	0.42	114.2	Analog	0.10	3
1	In		12,056,276.80	0.55	117.6	Analog	0.10	3
1	Tb		14,427,987.70	1.06	115.3	Analog	0.10	3
1	Ho		1,343,866.33	0.81	111.2	Pulse	0.10	3
1	Bi		7,774,186.55	1.22	111.9	Analog	0.10	3
2	Sc		271,926.37	0.65	110.6	Pulse	0.30	3
2	Ge		140,646.82	0.95	112.2	Pulse	0.30	3
2	Ge		210,428.78	1.06	111.7	Pulse	0.30	3
2	Rh		4,298,221.78	0.75	107.9	Pulse	0.30	3
2	In		1,285,719.82	0.34	106.0	Pulse	0.30	3
2	Tb		4,725,033.42	0.32	105.0	Pulse	0.30	3
2	Ho		470,404.96	0.49	106.4	Pulse	0.30	3
2	Bi		2,942,485.16	0.67	102.4	Pulse	0.30	3
3	Sc		316,869.56	0.18	118.8	Pulse	0.30	3
3	Ge		179,059.65	0.33	114.5	Pulse	0.30	3
3	Ge		272,402.10	0.72	114.5	Pulse	0.30	3
3	Rh		3,295,209.94	0.20	109.8	Pulse	0.30	3
3	Tb		4,819,741.48	0.41	106.9	Pulse	0.30	3

Quantitation Report

File Name	050SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 15:23
Sample Name	jc80990-3f
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.388	ug/l	35.29	170.67	2.070E-05	Pulse	0.25	3
B			1	52.279	ug/l	8.63	72,241.51	8.784E-03	Pulse	0.15	3
Ca			1	45170.286	ug/l	1.38	1,424,876.44	1.419E-01	Pulse	0.10	3
Sr			1	288.655	ug/l	0.72	372,875.96	3.400E-02	Pulse	0.10	3
Mo			1	1.052	ug/l	31.47	286.68	2.615E-05	Pulse	0.10	3
Ag			1	0.317	ug/l	22.96	266.68	2.222E-05	Pulse	0.10	3
Sn			1	-29.086	ug/l	-3.74	3,977.33	3.312E-04	Pulse	0.10	3
Sb			1	1.623	ug/l	2.44	756.72	5.263E-05	Pulse	0.10	3
Ba			1	81.445	ug/l	2.33	13,476.27	9.372E-04	Pulse	0.10	3
Tl			1	-0.191	ug/l	-70.56	616.70	7.896E-05	Pulse	0.10	3
Pb			1	-0.131	ug/l	-191.52	596.71	7.638E-05	Pulse	0.10	3
Pb			1	-0.363	ug/l	-65.94	503.36	6.438E-05	Pulse	0.10	3
Pb			1	-0.283	ug/l	-40.35	2,386.84	3.053E-04	Pulse	0.10	3
Na			2	140877.973	ug/l	0.21	4,080,312.89	1.487E+01	Pulse	0.30	3
Mg			2	14259.680	ug/l	0.22	183,411.97	6.686E-01	Pulse	0.30	3
Al			2	534.608	ug/l	4.84	2,211.29	8.060E-03	Pulse	0.30	3
K			2	6594.747	ug/l	1.46	60,791.87	2.216E-01	Pulse	0.30	3
Ca			2	45910.234	ug/l	3.55	18,310.16	6.675E-02	Pulse	0.30	3
Ti			2	5.142	ug/l	56.31	21.11	7.694E-05	Pulse	0.30	3
V			2	0.081	ug/l	402.13	715.58	2.609E-03	Pulse	0.30	3
Cr			2	-3.709	ug/l	-19.44	1,566.76	5.712E-03	Pulse	0.30	3
Mn			2	5474.205	ug/l	0.66	356,736.52	1.300E+00	Pulse	0.30	3
Fe			2	17917.437	ug/l	0.40	2,007,812.97	7.319E+00	Pulse	0.30	3
Co			2	8.006	ug/l	5.13	1,982.37	7.227E-03	Pulse	0.30	3
Ni			2	1.920	ug/l	15.22	246.67	8.994E-04	Pulse	0.30	3
Cu			2	3.632	ug/l	16.66	2,489.11	9.074E-03	Pulse	0.30	3
Zn			2	40.306	ug/l	8.89	1,331.18	4.852E-03	Pulse	0.30	3
As			2	2.972	ug/l	15.18	65.33	2.382E-04	Pulse	1.00	3
Cd			2	-0.287	ug/l	-21.14	7.76	5.954E-06	Pulse	0.30	3
Sn			2	0.566	ug/l	106.44	652.24	5.006E-04	Pulse	0.30	3
Se			3	2.122	ug/l	171.16	59.40	2.156E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,226,110.06	1.99	105.8	Analog	0.10	3
1	Sc		10,041,498.39	1.20	115.2	Analog	0.10	3
1	Ge		1,620,842.58	0.74	113.5	Pulse	0.10	3

Quantitation Report

1	Ge		2,228,558.56	0.57	112.9	Pulse	0.10	3
1	Rh		10,967,529.01	0.50	113.6	Analog	0.10	3
1	In		12,006,753.06	0.52	117.1	Analog	0.10	3
1	Tb		14,379,137.71	0.13	115.0	Analog	0.10	3
1	Ho		1,349,121.86	0.87	111.6	Pulse	0.10	3
1	Bi		7,819,858.42	1.17	112.5	Analog	0.10	3
2	Sc		274,323.88	0.41	111.5	Pulse	0.30	3
2	Ge		143,693.38	0.52	114.7	Pulse	0.30	3
2	Ge		215,455.54	0.66	114.4	Pulse	0.30	3
2	Rh		4,368,326.77	0.11	109.6	Pulse	0.30	3
2	In		1,302,676.06	0.37	107.4	Pulse	0.30	3
2	Tb		4,740,119.12	0.38	105.4	Pulse	0.30	3
2	Ho		470,949.44	0.14	106.5	Pulse	0.30	3
2	Bi		2,991,356.13	0.50	104.1	Pulse	0.30	3
3	Sc		317,116.58	0.31	118.9	Pulse	0.30	3
3	Ge		182,180.51	0.82	116.5	Pulse	0.30	3
3	Ge		275,320.65	0.84	115.7	Pulse	0.30	3
3	Rh		3,353,660.77	0.76	111.7	Pulse	0.30	3
3	Tb		4,834,353.56	0.84	107.2	Pulse	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 15:28
Sample Name	mp12001-b1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	68.685	ug/l	0.35	1,046,573.29	1.285E-01	Pulse	0.25	3
B			1	77.862	ug/l	1.17	1,290,311.93	1.584E-01	Pulse	0.15	3
Ca			1	4112.979	ug/l	1.03	6,113,460.32	6.350E-01	Analog	0.10	3
Sr			1	81.543	ug/l	1.24	5,057,226.91	4.784E-01	Pulse	0.10	3
Mo			1	84.430	ug/l	1.19	918,895.95	8.692E-02	Pulse	0.10	3
Ag			1	76.883	ug/l	1.32	2,378,721.89	2.022E-01	Pulse	0.10	3
Sn			1	81.458	ug/l	0.91	1,445,163.26	1.229E-01	Pulse	0.10	3
Sb			1	76.856	ug/l	1.44	1,457,234.51	9.950E-02	Pulse	0.10	3
Ba			1	77.199	ug/l	2.03	642,328.81	4.386E-02	Pulse	0.10	3
Tl			1	78.808	ug/l	0.66	3,448,110.57	4.510E-01	Pulse	0.10	3
Pb			1	79.906	ug/l	0.68	1,158,753.34	1.516E-01	Pulse	0.10	3
Pb			1	80.129	ug/l	0.39	1,019,709.46	1.334E-01	Pulse	0.10	3
Pb			1	79.735	ug/l	0.61	4,677,676.57	6.118E-01	Pulse	0.10	3
Na			2	4144.798	ug/l	0.85	5,730,468.66	2.186E+01	Analog	0.30	3
Mg			2	3892.398	ug/l	0.17	2,389,968.38	9.117E+00	Pulse	0.30	3
Al			2	3716.405	ug/l	0.63	709,703.15	2.707E+00	Pulse	0.30	3
K			2	3916.577	ug/l	0.87	1,411,692.37	5.385E+00	Pulse	0.30	3
Ca			2	4485.075	ug/l	0.70	85,000.37	3.243E-01	Pulse	0.30	3
Ti			2	84.552	ug/l	2.52	11,716.49	4.470E-02	Pulse	0.30	3
V			2	82.667	ug/l	0.42	387,920.16	1.480E+00	Pulse	0.30	3
Cr			2	81.458	ug/l	0.83	506,937.86	1.934E+00	Pulse	0.30	3
Mn			2	78.085	ug/l	0.35	243,151.15	9.276E-01	Pulse	0.30	3
Fe			2	4081.721	ug/l	0.94	21,804,880.24	8.318E+01	Analog	0.30	3
Co			2	80.656	ug/l	0.25	887,037.57	3.384E+00	Pulse	0.30	3
Ni			2	80.315	ug/l	0.85	243,052.50	9.272E-01	Pulse	0.30	3
Cu			2	78.195	ug/l	0.38	624,618.06	2.383E+00	Pulse	0.30	3
Zn			2	63.512	ug/l	0.45	66,393.39	2.533E-01	Pulse	0.30	3
As			2	73.558	ug/l	0.78	37,128.25	1.416E-01	Pulse	1.00	3
Cd			2	72.814	ug/l	0.39	107,741.63	8.730E-02	Pulse	0.30	3
Sn			2	86.249	ug/l	0.30	216,265.66	1.752E-01	Pulse	0.30	3
Se			3	306.522	ug/l	0.82	45,699.22	1.720E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,144,276.71	0.58	104.8	Analog	0.10	3
1	Sc		9,628,543.19	1.09	110.4	Analog	0.10	3
1	Ge		1,530,151.59	1.29	107.1	Pulse	0.10	3

Quantitation Report

1	Ge		2,112,667.88	1.19	107.1	Pulse	0.10	3
1	Rh		10,573,000.05	1.03	109.5	Analog	0.10	3
1	In		11,764,088.98	1.45	114.7	Analog	0.10	3
1	Tb		14,646,580.61	0.64	117.1	Analog	0.10	3
1	Ho		1,395,583.68	1.17	115.5	Pulse	0.10	3
1	Bi		7,645,749.26	0.30	110.0	Analog	0.10	3
2	Sc		262,142.04	0.36	106.6	Pulse	0.30	3
2	Ge		132,426.16	1.35	105.7	Pulse	0.30	3
2	Ge		198,353.40	0.54	105.3	Pulse	0.30	3
2	Rh		4,160,139.00	0.11	104.4	Pulse	0.30	3
2	In		1,234,110.33	0.15	101.8	Pulse	0.30	3
2	Tb		4,734,081.34	0.16	105.2	Pulse	0.30	3
2	Ho		470,748.09	0.36	106.4	Pulse	0.30	3
2	Bi		2,811,443.98	0.34	97.8	Pulse	0.30	3
3	Sc		319,931.13	0.49	120.0	Pulse	0.30	3
3	Ge		174,701.21	0.71	111.7	Pulse	0.30	3
3	Ge		265,721.32	0.61	111.7	Pulse	0.30	3
3	Rh		3,238,490.01	0.63	107.9	Pulse	0.30	3
3	Tb		4,909,819.39	0.45	108.9	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 15:33
Sample Name	jc80990-4f
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	1.011	ug/l	22.05	372.01	4.402E-05	Pulse	0.25	3
B			1	61.565	ug/l	15.98	77,305.77	9.146E-03	Pulse	0.15	3
Ca			1	45721.921	ug/l	2.35	1,460,699.09	1.436E-01	Pulse	0.10	3
Sr			1	294.099	ug/l	1.02	389,190.19	3.464E-02	Pulse	0.10	3
Mo			1	11.845	ug/l	10.34	2,790.35	2.484E-04	Pulse	0.10	3
Ag			1	1.257	ug/l	15.84	880.06	7.166E-05	Pulse	0.10	3
Sn			1	-20.967	ug/l	-3.96	7,058.57	5.737E-04	Pulse	0.10	3
Sb			1	9.345	ug/l	10.88	3,670.58	2.526E-04	Pulse	0.10	3
Ba			1	85.002	ug/l	4.12	14,203.69	9.776E-04	Pulse	0.10	3
Tl			1	9.395	ug/l	4.79	9,329.98	1.176E-03	Pulse	0.10	3
Pb			1	2.241	ug/l	2.49	1,320.10	1.663E-04	Pulse	0.10	3
Pb			1	2.982	ug/l	28.62	1,393.46	1.757E-04	Pulse	0.10	3
Pb			1	2.496	ug/l	10.74	5,804.05	7.315E-04	Pulse	0.10	3
Na			2	142486.181	ug/l	1.01	4,138,432.89	1.504E+01	Pulse	0.30	3
Mg			2	15101.400	ug/l	1.09	194,775.94	7.080E-01	Pulse	0.30	3
Al			2	366.197	ug/l	2.85	1,542.31	5.607E-03	Pulse	0.30	3
K			2	6574.471	ug/l	0.23	60,813.09	2.211E-01	Pulse	0.30	3
Ca			2	47358.772	ug/l	1.29	18,938.70	6.884E-02	Pulse	0.30	3
Ti			2	5.124	ug/l	51.69	21.11	7.675E-05	Pulse	0.30	3
V			2	4.896	ug/l	7.47	1,191.17	4.329E-03	Pulse	0.30	3
Cr			2	1.217	ug/l	23.40	2,212.40	8.042E-03	Pulse	0.30	3
Mn			2	5474.361	ug/l	0.97	357,761.93	1.300E+00	Pulse	0.30	3
Fe			2	17772.883	ug/l	0.62	1,997,334.78	7.260E+00	Pulse	0.30	3
Co			2	8.501	ug/l	4.06	2,102.39	7.642E-03	Pulse	0.30	3
Ni			2	2.819	ug/l	7.80	304.45	1.107E-03	Pulse	0.30	3
Cu			2	7.617	ug/l	2.42	3,162.56	1.150E-02	Pulse	0.30	3
Zn			2	36.996	ug/l	12.15	1,262.29	4.590E-03	Pulse	0.30	3
As			2	8.309	ug/l	8.55	122.00	4.435E-04	Pulse	1.00	3
Cd			2	0.382	ug/l	43.34	28.76	2.200E-05	Pulse	0.30	3
Sn			2	9.260	ug/l	22.96	1,115.61	8.530E-04	Pulse	0.30	3
Se			3	14.295	ug/l	4.86	97.13	3.520E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,458,683.65	3.36	108.8	Analog	0.10	3
1	Sc		10,175,307.56	2.53	116.7	Analog	0.10	3
1	Ge		1,633,054.46	1.15	114.3	Pulse	0.10	3

Quantitation Report

1	Ge		2,248,444.19	0.80	113.9	Pulse	0.10	3
1	Rh		11,237,032.33	0.94	116.4	Analog	0.10	3
1	In		12,300,429.65	1.64	119.9	Analog	0.10	3
1	Tb		14,529,423.53	0.51	116.2	Analog	0.10	3
1	Ho		1,357,594.51	0.80	112.3	Pulse	0.10	3
1	Bi		7,937,987.17	1.28	114.2	Analog	0.10	3
2	Sc		275,107.66	0.55	111.8	Pulse	0.30	3
2	Ge		143,283.00	0.49	114.3	Pulse	0.30	3
2	Ge		215,049.52	1.10	114.2	Pulse	0.30	3
2	Rh		4,375,962.05	0.77	109.8	Pulse	0.30	3
2	In		1,308,273.88	0.42	107.9	Pulse	0.30	3
2	Tb		4,738,518.56	0.66	105.3	Pulse	0.30	3
2	Ho		477,218.09	0.77	107.9	Pulse	0.30	3
2	Bi		3,018,001.41	0.55	105.0	Pulse	0.30	3
3	Sc		317,510.13	0.58	119.0	Pulse	0.30	3
3	Ge		182,721.16	0.22	116.8	Pulse	0.30	3
3	Ge		275,872.32	1.01	115.9	Pulse	0.30	3
3	Rh		3,352,353.20	0.33	111.7	Pulse	0.30	3
3	Tb		4,856,901.48	0.44	107.7	Pulse	0.30	3

Quantitation Report

File Name 053SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 15:38
Sample Name jc81275-1conf
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	5.09	77.33	9.247E-06	Pulse	0.25	3
B			1	105.004	ug/l	2.80	398,426.76	4.766E-02	Pulse	0.15	3
Ca			1	42049.247	ug/l	1.50	12,804,276.89	1.295E+00	Analog	0.10	3
Sr			1	313.678	ug/l	0.60	3,988,668.07	3.681E-01	Pulse	0.10	3
Mo			1	0.545	ug/l	15.45	1,263.44	1.166E-04	Pulse	0.10	3
Ag			1	0.503	ug/l	5.03	3,227.12	2.703E-04	Pulse	0.10	3
Sn			1	-2.299	ug/l	-3.99	6,124.73	5.134E-04	Pulse	0.10	3
Sb			1	0.231	ug/l	11.96	1,013.41	7.036E-05	Pulse	0.10	3
Ba			1	21.450	ug/l	1.64	35,270.84	2.449E-03	Pulse	0.10	3
Tl			1	0.018	ug/l	71.87	940.07	1.219E-04	Pulse	0.10	3
Pb			1	0.075	ug/l	35.69	846.72	1.098E-04	Pulse	0.10	3
Pb			1	0.047	ug/l	9.43	710.04	9.210E-05	Pulse	0.10	3
Pb			1	0.041	ug/l	48.06	3,170.25	4.113E-04	Pulse	0.10	3
Na			2	27150.386	ug/l	2.95	7,744,550.53	2.862E+01	Analog	0.30	3
Mg			2	5667.676	ug/l	0.55	718,479.38	2.656E+00	Pulse	0.30	3
Al			2	10.820	ug/l	16.61	500.01	1.848E-03	Pulse	0.30	3
K			2	7657.566	ug/l	0.93	576,615.79	2.131E+00	Pulse	0.30	3
Ca			2	43189.586	ug/l	0.38	168,850.76	6.241E-01	Pulse	0.30	3
Ti			2	0.137	ug/l	256.32	10.00	3.706E-05	Pulse	0.30	3
V			2	0.508	ug/l	18.91	1,188.94	4.395E-03	Pulse	0.30	3
Cr			2	-0.141	ug/l	-34.62	1,840.12	6.801E-03	Pulse	0.30	3
Mn			2	936.925	ug/l	0.45	602,147.11	2.226E+00	Pulse	0.30	3
Fe			2	275.133	ug/l	0.32	308,207.60	1.139E+00	Pulse	0.30	3
Co			2	14.505	ug/l	1.75	33,062.04	1.222E-01	Pulse	0.30	3
Ni			2	6.147	ug/l	2.36	3,961.63	1.464E-02	Pulse	0.30	3
Cu			2	11.588	ug/l	0.73	20,910.08	7.728E-02	Pulse	0.30	3
Zn			2	6.528	ug/l	7.55	1,847.90	6.831E-03	Pulse	0.30	3
As			2	12.217	ug/l	6.91	1,305.06	4.824E-03	Pulse	1.00	3
Cd			2	0.004	ug/l	1029.90	17.71	1.385E-05	Pulse	0.30	3
Sn			2	0.615	ug/l	9.48	928.93	7.269E-04	Pulse	0.30	3
Se			3	-0.358	ug/l	-55.66	41.33	1.517E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,361,804.70	1.63	107.6	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,888,205.06	1.40	113.4	Analog	0.10	3
1	Ge		1,575,457.53	0.80	110.3	Pulse	0.10	3
1	Ge		2,172,331.74	0.72	110.1	Pulse	0.10	3
1	Rh		10,837,180.26	0.85	112.2	Analog	0.10	3
1	In		11,935,173.98	1.36	116.4	Analog	0.10	3
1	Tb		14,405,113.54	0.29	115.2	Analog	0.10	3
1	Ho		1,357,366.86	0.65	112.3	Pulse	0.10	3
1	Bi		7,709,366.34	0.23	111.0	Analog	0.10	3
2	Sc		270,565.99	0.47	110.0	Pulse	0.30	3
2	Ge		139,540.91	0.22	111.3	Pulse	0.30	3
2	Ge		208,046.85	0.15	110.4	Pulse	0.30	3
2	Rh		4,260,189.14	0.28	106.9	Pulse	0.30	3
2	In		1,277,921.94	0.19	105.4	Pulse	0.30	3
2	Tb		4,729,771.34	0.51	105.1	Pulse	0.30	3
2	Ho		471,105.11	0.13	106.5	Pulse	0.30	3
2	Bi		2,918,272.73	0.35	101.5	Pulse	0.30	3
3	Sc		319,095.08	0.63	119.6	Pulse	0.30	3
3	Ge		179,182.38	0.62	114.6	Pulse	0.30	3
3	Ge		272,415.56	0.16	114.5	Pulse	0.30	3
3	Rh		3,299,281.26	0.31	109.9	Pulse	0.30	3
3	Tb		4,858,628.70	0.53	107.8	Pulse	0.30	3

Quantitation Report

File Name	054SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 15:43
Sample Name	jc80990-5f
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.144	ug/l	18.16	237.34	2.768E-05	Pulse	0.25	3
B			1	47.973	ug/l	2.67	121,918.94	1.422E-02	Pulse	0.15	3
Ca			1	89346.410	ug/l	0.78	11,127,436.50	1.101E+00	Analog	0.10	3
Sr			1	592.384	ug/l	0.33	3,068,145.06	2.781E-01	Pulse	0.10	3
Mo			1	2.007	ug/l	2.35	1,873.51	1.698E-04	Pulse	0.10	3
Ag			1	0.408	ug/l	6.68	1,093.41	9.126E-05	Pulse	0.10	3
Sn			1	-6.068	ug/l	-6.31	5,691.24	4.749E-04	Pulse	0.10	3
Sb			1	2.827	ug/l	5.98	4,447.45	3.034E-04	Pulse	0.10	3
Ba			1	174.147	ug/l	1.06	116,172.57	7.925E-03	Pulse	0.10	3
Tl			1	0.249	ug/l	27.31	1,663.49	2.148E-04	Pulse	0.10	3
Pb			1	0.454	ug/l	25.90	1,163.43	1.502E-04	Pulse	0.10	3
Pb			1	0.461	ug/l	12.16	1,066.76	1.379E-04	Pulse	0.10	3
Pb			1	0.416	ug/l	11.93	4,677.15	6.041E-04	Pulse	0.10	3
Na			2	144814.350	ug/l	1.05	16,952,918.77	6.102E+01	Analog	0.30	3
Mg			2	48226.556	ug/l	0.40	2,510,494.21	9.037E+00	Pulse	0.30	3
Al			2	113.754	ug/l	15.73	1,918.13	6.900E-03	Pulse	0.30	3
K			2	7823.294	ug/l	0.13	248,797.54	8.956E-01	Pulse	0.30	3
Ca			2	90205.737	ug/l	0.77	144,860.18	5.214E-01	Pulse	0.30	3
Ti			2	5.997	ug/l	25.31	76.67	2.761E-04	Pulse	0.30	3
V			2	5.728	ug/l	8.70	2,991.42	1.077E-02	Pulse	0.30	3
Cr			2	4.133	ug/l	2.17	4,246.15	1.528E-02	Pulse	0.30	3
Mn			2	1964.547	ug/l	0.95	518,569.59	1.867E+00	Pulse	0.30	3
Fe			2	47263.612	ug/l	1.07	21,406,114.71	7.706E+01	Analog	0.30	3
Co			2	0.427	ug/l	12.78	540.02	1.944E-03	Pulse	0.30	3
Ni			2	2.986	ug/l	5.62	892.26	3.212E-03	Pulse	0.30	3
Cu			2	4.396	ug/l	4.34	4,876.34	1.755E-02	Pulse	0.30	3
Zn			2	15.061	ug/l	1.48	1,786.79	6.432E-03	Pulse	0.30	3
As			2	40.603	ug/l	4.30	1,770.77	6.373E-03	Pulse	1.00	3
Cd			2	-0.054	ug/l	-49.17	9.89	7.632E-06	Pulse	0.30	3
Sn			2	1.789	ug/l	16.18	993.38	7.678E-04	Pulse	0.30	3
Se			3	-0.545	ug/l	-25.19	45.53	1.674E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,571,426.37	0.24	110.2	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		10,106,337.56	2.55	115.9	Analog	0.10	3
1	Ge		1,619,046.12	0.86	113.3	Pulse	0.10	3
1	Ge		2,230,743.93	1.46	113.0	Pulse	0.10	3
1	Rh		11,034,041.09	1.28	114.3	Analog	0.10	3
1	In		11,976,582.93	0.87	116.8	Analog	0.10	3
1	Tb		14,660,694.78	1.32	117.2	Analog	0.10	3
1	Ho		1,358,378.37	1.46	112.4	Pulse	0.10	3
1	Bi		7,739,714.88	1.40	111.4	Analog	0.10	3
2	Sc		277,812.02	0.68	112.9	Pulse	0.30	3
2	Ge		142,585.79	1.47	113.8	Pulse	0.30	3
2	Ge		212,162.03	0.19	112.6	Pulse	0.30	3
2	Rh		4,305,033.44	0.36	108.0	Pulse	0.30	3
2	In		1,294,011.88	0.57	106.7	Pulse	0.30	3
2	Tb		4,742,860.78	0.61	105.4	Pulse	0.30	3
2	Ho		473,673.16	0.18	107.1	Pulse	0.30	3
2	Bi		2,915,764.88	0.36	101.4	Pulse	0.30	3
3	Sc		318,449.69	0.41	119.4	Pulse	0.30	3
3	Ge		179,728.11	0.48	114.9	Pulse	0.30	3
3	Ge		272,015.80	0.85	114.3	Pulse	0.30	3
3	Rh		3,281,747.30	0.25	109.3	Pulse	0.30	3
3	Tb		4,792,260.09	0.76	106.3	Pulse	0.30	3

Quantitation Report

File Name 055SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 15:48
Sample Name jc80990-6f
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.019	ug/l	34.56	109.33	1.333E-05	Pulse	0.25	3
B			1	77.720	ug/l	2.96	304,243.14	3.703E-02	Pulse	0.15	3
Ca			1	54242.990	ug/l	0.23	16,391,944.34	1.670E+00	Analog	0.10	3
Sr			1	796.410	ug/l	1.64	9,628,070.69	9.343E-01	Analog	0.10	3
Mo			1	0.335	ug/l	1.65	756.72	7.343E-05	Pulse	0.10	3
Ag			1	0.094	ug/l	2.80	626.71	5.517E-05	Pulse	0.10	3
Sn			1	-0.830	ug/l	-41.94	10,810.76	9.519E-04	Pulse	0.10	3
Sb			1	0.501	ug/l	10.52	1,980.20	1.403E-04	Pulse	0.10	3
Ba			1	294.884	ug/l	0.20	472,953.73	3.351E-02	Pulse	0.10	3
Tl			1	-0.018	ug/l	-55.76	576.70	8.051E-05	Pulse	0.10	3
Pb			1	0.171	ug/l	44.40	1,046.75	1.460E-04	Pulse	0.10	3
Pb			1	0.102	ug/l	63.33	790.05	1.104E-04	Pulse	0.10	3
Pb			1	0.127	ug/l	23.82	3,893.69	5.433E-04	Pulse	0.10	3
Na			2	315900.989	ug/l	0.37	88,015,349.84	3.326E+02	Analog	0.30	3
Mg			2	41808.375	ug/l	1.81	5,182,941.74	1.958E+01	Mix	0.30	3
Al			2	15.336	ug/l	7.16	663.36	2.506E-03	Pulse	0.30	3
K			2	6846.442	ug/l	0.60	505,434.25	1.910E+00	Pulse	0.30	3
Ca			2	57895.027	ug/l	0.80	221,347.67	8.364E-01	Pulse	0.30	3
Ti			2	2.015	ug/l	42.33	62.22	2.355E-04	Pulse	0.30	3
V			2	0.683	ug/l	7.23	1,328.96	5.021E-03	Pulse	0.30	3
Cr			2	0.120	ug/l	37.48	2,125.72	8.033E-03	Pulse	0.30	3
Mn			2	723.433	ug/l	0.85	454,782.20	1.718E+00	Pulse	0.30	3
Fe			2	95228.353	ug/l	1.28	102,695,778.14	3.881E+02	Analog	0.30	3
Co			2	0.747	ug/l	7.74	1,792.34	6.774E-03	Pulse	0.30	3
Ni			2	6.674	ug/l	3.33	4,196.14	1.586E-02	Pulse	0.30	3
Cu			2	1.285	ug/l	9.02	3,883.84	1.468E-02	Pulse	0.30	3
Zn			2	9.830	ug/l	1.37	2,500.22	9.447E-03	Pulse	0.30	3
As			2	8.931	ug/l	3.49	942.03	3.560E-03	Pulse	1.00	3
Cd			2	-0.016	ug/l	-151.77	11.08	9.078E-06	Pulse	0.30	3
Sn			2	2.251	ug/l	9.51	1,696.78	1.390E-03	Pulse	0.30	3
Se			3	-0.063	ug/l	-495.60	46.47	1.848E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,218,411.19	1.73	105.7	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,817,358.40	1.10	112.6	Analog	0.10	3
1	Ge		1,532,577.84	0.62	107.3	Pulse	0.10	3
1	Ge		2,104,105.90	1.21	106.6	Pulse	0.10	3
1	Rh		10,305,876.31	0.29	106.7	Analog	0.10	3
1	In		11,357,103.75	0.84	110.7	Analog	0.10	3
1	Tb		14,114,642.71	0.79	112.8	Analog	0.10	3
1	Ho		1,330,142.95	0.77	110.1	Pulse	0.10	3
1	Bi		7,168,141.56	1.12	103.2	Analog	0.10	3
2	Sc		264,649.68	0.66	107.6	Pulse	0.30	3
2	Ge		132,957.77	0.41	106.1	Pulse	0.30	3
2	Ge		200,324.72	0.56	106.3	Pulse	0.30	3
2	Rh		4,006,903.04	0.19	100.6	Pulse	0.30	3
2	In		1,220,555.89	0.10	100.6	Pulse	0.30	3
2	Tb		4,580,146.49	0.69	101.8	Pulse	0.30	3
2	Ho		457,594.44	0.48	103.5	Pulse	0.30	3
2	Bi		2,681,850.03	0.41	93.3	Pulse	0.30	3
3	Sc		303,085.44	0.42	113.6	Pulse	0.30	3
3	Ge		167,708.24	0.85	107.2	Pulse	0.30	3
3	Ge		251,463.08	0.16	105.7	Pulse	0.30	3
3	Rh		3,010,888.84	0.48	100.3	Pulse	0.30	3
3	Tb		4,582,236.76	0.68	101.6	Pulse	0.30	3

Quantitation Report

File Name 056_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 15:53
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.890	ug/l	0.87	1,492,967.67	1.792E-01	Pulse	0.25	3
B			1	100.878	ug/l	0.89	3,330,949.24	3.998E-01	Pulse	0.15	3
Ca			1	5176.564	ug/l	1.71	15,753,764.77	1.594E+00	Analog	0.10	3
Sr			1	53.233	ug/l	2.31	6,681,349.28	6.245E-01	Analog	0.10	3
Mo			1	51.503	ug/l	1.92	1,134,469.70	1.060E-01	Pulse	0.10	3
Ag			1	47.819	ug/l	1.61	2,932,245.17	2.515E-01	Pulse	0.10	3
Sn			1	49.643	ug/l	2.19	1,742,516.54	1.495E-01	Pulse	0.10	3
Sb			1	51.860	ug/l	1.78	1,867,029.55	1.343E-01	Pulse	0.10	3
Ba			1	50.678	ug/l	0.40	800,657.77	5.758E-02	Pulse	0.10	3
Tl			1	50.038	ug/l	0.48	4,246,278.16	5.727E-01	Pulse	0.10	3
Pb			1	50.547	ug/l	1.24	1,421,521.44	1.917E-01	Pulse	0.10	3
Pb			1	50.455	ug/l	1.09	1,245,182.98	1.679E-01	Pulse	0.10	3
Pb			1	50.388	ug/l	1.38	5,732,618.12	7.732E-01	Pulse	0.10	3
Na			2	5213.299	ug/l	0.66	14,845,217.19	5.492E+01	Analog	0.30	3
Mg			2	5138.492	ug/l	1.63	6,506,017.80	2.407E+01	Analog	0.30	3
Al			2	4765.901	ug/l	1.37	1,876,655.48	6.943E+00	Pulse	0.30	3
K			2	5041.925	ug/l	0.85	3,729,945.82	1.380E+01	Pulse	0.30	3
Ca			2	5408.954	ug/l	1.34	211,213.07	7.815E-01	Pulse	0.30	3
Ti			2	51.517	ug/l	0.81	14,722.18	5.446E-02	Pulse	0.30	3
V			2	52.582	ug/l	0.97	508,634.22	1.882E+00	Pulse	0.30	3
Cr			2	51.406	ug/l	0.53	659,215.40	2.439E+00	Pulse	0.30	3
Mn			2	49.113	ug/l	0.73	315,363.06	1.167E+00	Pulse	0.30	3
Fe			2	5130.051	ug/l	0.73	56,508,308.87	2.091E+02	Analog	0.30	3
Co			2	50.584	ug/l	0.44	1,147,215.93	4.244E+00	Pulse	0.30	3
Ni			2	50.054	ug/l	0.64	312,356.63	1.156E+00	Pulse	0.30	3
Cu			2	48.725	ug/l	0.44	802,195.04	2.968E+00	Pulse	0.30	3
Zn			2	48.270	ug/l	1.23	103,821.71	3.841E-01	Pulse	0.30	3
As			2	52.120	ug/l	0.74	54,237.60	2.007E-01	Pulse	1.00	3
Cd			2	50.852	ug/l	0.57	153,041.36	1.219E-01	Pulse	0.30	3
Sn			2	52.360	ug/l	1.25	266,905.95	2.127E-01	Pulse	0.30	3
Se			3	198.368	ug/l	0.57	58,422.06	2.225E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,331,913.61	1.34	107.2	Analog	0.10	3
1	Sc		9,887,332.77	1.52	113.4	Analog	0.10	3
1	Ge		1,585,453.42	0.83	111.0	Pulse	0.10	3

Quantitation Report

1	Ge		2,211,272.94	1.12	112.1	Pulse	0.10	3
1	Rh		10,701,050.05	2.52	110.8	Analog	0.10	3
1	In		11,658,034.66	1.20	113.7	Analog	0.10	3
1	Tb		13,905,653.12	0.65	111.2	Analog	0.10	3
1	Ho		1,340,301.85	0.58	110.9	Pulse	0.10	3
1	Bi		7,415,161.35	1.28	106.7	Analog	0.10	3
2	Sc		270,305.30	1.00	109.9	Pulse	0.30	3
2	Ge		138,367.90	0.15	110.4	Pulse	0.30	3
2	Ge		207,654.19	0.81	110.2	Pulse	0.30	3
2	Rh		4,115,059.98	0.37	103.3	Pulse	0.30	3
2	In		1,255,121.11	0.89	103.5	Pulse	0.30	3
2	Tb		4,610,442.32	0.68	102.5	Pulse	0.30	3
2	Ho		459,236.13	0.53	103.8	Pulse	0.30	3
2	Bi		2,795,419.96	0.36	97.2	Pulse	0.30	3
3	Sc		306,684.00	0.36	115.0	Pulse	0.30	3
3	Ge		172,166.00	0.78	110.1	Pulse	0.30	3
3	Ge		262,512.34	0.04	110.3	Pulse	0.30	3
3	Rh		3,101,572.10	0.59	103.3	Pulse	0.30	3
3	Tb		4,604,049.26	0.58	102.1	Pulse	0.30	3

Quantitation Report

File Name 057_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 15:59
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	11.18	525.36	6.161E-05	Pulse	0.25	3
B			1	-0.125	ug/l	-33.42	53,379.46	6.259E-03	Pulse	0.15	3
Ca			1	3.762	ug/l	11.96	43,052.52	4.287E-03	Pulse	0.10	3
Sr			1	0.069	ug/l	7.77	10,681.65	9.508E-04	Pulse	0.10	3
Mo			1	0.088	ug/l	13.05	2,083.57	1.853E-04	Pulse	0.10	3
Ag			1	0.007	ug/l	23.54	550.04	4.490E-05	Pulse	0.10	3
Sn			1	-0.221	ug/l	-11.75	6,628.37	5.396E-04	Pulse	0.10	3
Sb			1	0.074	ug/l	18.36	2,883.71	2.010E-04	Pulse	0.10	3
Ba			1	0.020	ug/l	14.28	496.70	3.463E-05	Pulse	0.10	3
Tl			1	0.013	ug/l	14.16	1,983.55	2.529E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	19.16	1,096.75	1.396E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	44.11	826.73	1.054E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	13.06	3,980.37	5.070E-04	Pulse	0.10	3
Na			2	7.106	ug/l	24.91	33,225.73	1.194E-01	Pulse	0.30	3
Mg			2	3.797	ug/l	24.53	5,125.98	1.842E-02	Pulse	0.30	3
Al			2	2.802	ug/l	36.23	1,211.20	4.354E-03	Pulse	0.30	3
K			2	3.146	ug/l	24.48	13,985.01	5.024E-02	Pulse	0.30	3
Ca			2	4.940	ug/l	37.08	325.57	1.170E-03	Pulse	0.30	3
Ti			2	0.039	ug/l	68.24	17.78	6.398E-05	Pulse	0.30	3
V			2	0.014	ug/l	91.56	862.25	3.098E-03	Pulse	0.30	3
Cr			2	-0.038	ug/l	-22.73	1,572.32	5.648E-03	Pulse	0.30	3
Mn			2	0.060	ug/l	41.99	472.24	1.698E-03	Pulse	0.30	3
Fe			2	4.487	ug/l	28.01	55,883.10	2.008E-01	Pulse	0.30	3
Co			2	0.013	ug/l	30.37	451.13	1.621E-03	Pulse	0.30	3
Ni			2	0.015	ug/l	54.01	224.45	8.071E-04	Pulse	0.30	3
Cu			2	0.010	ug/l	90.33	2,084.61	7.489E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.961	ug/l	2.93	2,581.34	9.271E-03	Pulse	0.30	3
As			2	0.011	ug/l	116.27	46.00	1.655E-04	Pulse	1.00	3
Cd			2	0.011	ug/l	63.36	51.01	3.869E-05	Pulse	0.30	3
Sn			2	0.084	ug/l	33.20	1,077.83	8.178E-04	Pulse	0.30	3
Se			3	-0.041	ug/l	-11.30	39.80	1.457E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,529,704.59	1.06	109.7	Analog	0.10	3
1	Sc		10,041,726.73	0.75	115.2	Analog	0.10	3
1	Ge		1,621,572.68	0.90	113.5	Pulse	0.10	3
1	Ge		2,237,025.33	1.01	113.4	Pulse	0.10	3
1	Rh		11,226,606.08	1.69	116.3	Analog	0.10	3
1	In		12,266,242.72	1.67	119.6	Analog	0.10	3
1	Tb		14,342,943.95	0.66	114.7	Analog	0.10	3
1	Ho		1,350,525.76	1.46	111.7	Pulse	0.10	3
1	Bi		7,849,394.88	1.22	113.0	Analog	0.10	3
2	Sc		278,423.57	0.76	113.2	Pulse	0.30	3
2	Ge		143,948.71	0.57	114.9	Pulse	0.30	3
2	Ge		216,632.81	0.17	115.0	Pulse	0.30	3
2	Rh		4,411,200.38	0.28	110.7	Pulse	0.30	3
2	In		1,317,399.27	0.74	108.6	Pulse	0.30	3
2	Tb		4,772,664.25	0.68	106.1	Pulse	0.30	3
2	Ho		474,788.95	0.39	107.4	Pulse	0.30	3
2	Bi		3,015,982.03	0.34	104.9	Pulse	0.30	3
3	Sc		318,785.79	0.34	119.5	Pulse	0.30	3
3	Ge		180,452.75	0.33	115.4	Pulse	0.30	3
3	Ge		273,164.98	0.37	114.8	Pulse	0.30	3
3	Rh		3,341,317.78	0.10	111.3	Pulse	0.30	3
3	Tb		4,793,122.73	0.34	106.3	Pulse	0.30	3

Quantitation Report

File Name 058SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 16:04
Sample Name jc80990-8f
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.018	ug/l	73.82	106.67	1.282E-05	Pulse	0.25	3
B			1	248.491	ug/l	1.92	860,912.28	1.036E-01	Pulse	0.15	3
Ca			1	105331.306	ug/l	0.71	31,550,164.53	3.239E+00	Analog	0.10	3
Sr			1	836.209	ug/l	0.83	10,159,326.51	9.809E-01	Analog	0.10	3
Mo			1	3.178	ug/l	2.85	6,821.73	6.587E-04	Pulse	0.10	3
Ag			1	0.130	ug/l	11.01	850.05	7.406E-05	Pulse	0.10	3
Sn			1	-2.591	ug/l	-3.52	4,890.93	4.262E-04	Pulse	0.10	3
Sb			1	0.700	ug/l	4.10	2,690.33	1.917E-04	Pulse	0.10	3
Ba			1	228.460	ug/l	1.15	364,237.87	2.596E-02	Pulse	0.10	3
Tl			1	-0.003	ug/l	-542.00	710.05	9.792E-05	Pulse	0.10	3
Pb			1	0.559	ug/l	9.97	2,126.89	2.932E-04	Pulse	0.10	3
Pb			1	0.508	ug/l	6.48	1,780.17	2.455E-04	Pulse	0.10	3
Pb			1	0.515	ug/l	2.81	8,257.89	1.139E-03	Pulse	0.10	3
Na			2	198344.357	ug/l	0.85	55,199,653.36	2.088E+02	Analog	0.30	3
Mg			2	90843.016	ug/l	0.70	11,247,881.50	4.255E+01	Analog	0.30	3
Al			2	25.305	ug/l	46.44	1,046.17	3.958E-03	Pulse	0.30	3
K			2	3961.038	ug/l	0.69	296,708.38	1.123E+00	Pulse	0.30	3
Ca			2	107292.002	ug/l	0.32	409,593.99	1.550E+00	Pulse	0.30	3
Ti			2	1.535	ug/l	30.72	48.89	1.848E-04	Pulse	0.30	3
V			2	0.611	ug/l	10.82	1,258.95	4.763E-03	Pulse	0.30	3
Cr			2	-0.151	ug/l	-98.83	1,784.56	6.754E-03	Pulse	0.30	3
Mn			2	7646.912	ug/l	0.77	4,800,458.28	1.816E+01	Pulse	0.30	3
Fe			2	24434.562	ug/l	0.28	26,322,716.17	9.959E+01	Analog	0.30	3
Co			2	2.528	ug/l	4.30	5,739.96	2.172E-02	Pulse	0.30	3
Ni			2	0.968	ug/l	6.92	711.14	2.691E-03	Pulse	0.30	3
Cu			2	1.987	ug/l	1.54	5,007.49	1.894E-02	Pulse	0.30	3
Zn			2	11.407	ug/l	3.84	2,826.95	1.070E-02	Pulse	0.30	3
As			2	14.866	ug/l	5.79	1,544.75	5.844E-03	Pulse	1.00	3
Cd			2	-0.028	ug/l	-102.17	7.47	6.113E-06	Pulse	0.30	3
Sn			2	0.488	ug/l	6.71	824.48	6.756E-04	Pulse	0.30	3
Se			3	0.176	ug/l	343.56	53.73	2.115E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,312,966.03	0.51	106.9	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,740,006.31	0.94	111.7	Analog	0.10	3
1	Ge		1,513,944.46	0.73	106.0	Pulse	0.10	3
1	Ge		2,090,141.01	0.64	105.9	Pulse	0.10	3
1	Rh		10,356,639.64	0.42	107.3	Analog	0.10	3
1	In		11,473,483.62	1.09	111.9	Analog	0.10	3
1	Tb		14,029,593.96	0.78	112.2	Analog	0.10	3
1	Ho		1,313,238.60	0.81	108.7	Pulse	0.10	3
1	Bi		7,252,260.10	0.58	104.4	Analog	0.10	3
2	Sc		264,317.40	0.57	107.5	Pulse	0.30	3
2	Ge		132,598.48	0.20	105.8	Pulse	0.30	3
2	Ge		200,258.54	0.52	106.3	Pulse	0.30	3
2	Rh		4,016,499.29	0.16	100.8	Pulse	0.30	3
2	In		1,220,289.92	0.40	100.6	Pulse	0.30	3
2	Tb		4,603,368.98	0.15	102.3	Pulse	0.30	3
2	Ho		454,840.50	0.26	102.8	Pulse	0.30	3
2	Bi		2,695,109.96	0.26	93.7	Pulse	0.30	3
3	Sc		304,713.63	0.88	114.2	Pulse	0.30	3
3	Ge		167,885.94	0.77	107.3	Pulse	0.30	3
3	Ge		254,065.64	0.22	106.8	Pulse	0.30	3
3	Rh		3,041,697.45	0.24	101.3	Pulse	0.30	3
3	Tb		4,632,078.43	0.15	102.7	Pulse	0.30	3

Quantitation Report

File Name 059SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 16:09
Sample Name jc80990-8f
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.080	ug/l	-37.69	26.67	3.189E-06	Pulse	0.25	3
B			1	217.452	ug/l	1.18	127,613.08	1.522E-02	Pulse	0.15	3
Ca			1	104378.588	ug/l	1.26	3,224,752.97	3.238E-01	Pulse	0.10	3
Sr			1	793.873	ug/l	1.00	1,016,505.14	9.326E-02	Pulse	0.10	3
Mo			1	4.253	ug/l	3.80	1,003.40	9.206E-05	Pulse	0.10	3
Ag			1	0.330	ug/l	30.29	270.01	2.286E-05	Pulse	0.10	3
Sn			1	-27.445	ug/l	-3.60	4,490.81	3.802E-04	Pulse	0.10	3
Sb			1	2.099	ug/l	6.56	923.39	6.496E-05	Pulse	0.10	3
Ba			1	238.147	ug/l	0.36	38,608.91	2.717E-03	Pulse	0.10	3
Tl			1	-0.177	ug/l	-69.27	620.04	8.060E-05	Pulse	0.10	3
Pb			1	0.162	ug/l	203.79	673.38	8.751E-05	Pulse	0.10	3
Pb			1	0.138	ug/l	276.55	623.37	8.105E-05	Pulse	0.10	3
Pb			1	0.103	ug/l	149.87	2,806.88	3.646E-04	Pulse	0.10	3
Na			2	200981.291	ug/l	0.84	5,790,093.11	2.120E+01	Analog	0.30	3
Mg			2	89906.837	ug/l	0.29	1,150,348.04	4.212E+00	Pulse	0.30	3
Al			2	722.310	ug/l	2.44	2,948.07	1.079E-02	Pulse	0.30	3
K			2	4170.529	ug/l	1.82	42,455.94	1.555E-01	Pulse	0.30	3
Ca			2	109624.194	ug/l	1.54	43,354.01	1.587E-01	Pulse	0.30	3
Ti			2	5.946	ug/l	84.67	23.33	8.544E-05	Pulse	0.30	3
V			2	0.500	ug/l	13.01	753.36	2.758E-03	Pulse	0.30	3
Cr			2	-0.155	ug/l	-93.85	2,019.04	7.393E-03	Pulse	0.30	3
Mn			2	7867.234	ug/l	0.35	510,381.60	1.869E+00	Pulse	0.30	3
Fe			2	24389.320	ug/l	0.30	2,719,166.21	9.956E+00	Pulse	0.30	3
Co			2	2.485	ug/l	1.89	708.91	2.596E-03	Pulse	0.30	3
Ni			2	2.942	ug/l	16.55	310.00	1.135E-03	Pulse	0.30	3
Cu			2	9.758	ug/l	5.38	3,494.87	1.280E-02	Pulse	0.30	3
Zn			2	47.061	ug/l	12.16	1,471.19	5.387E-03	Pulse	0.30	3
As			2	14.227	ug/l	14.62	183.33	6.713E-04	Pulse	1.00	3
Cd			2	-0.250	ug/l	-90.02	8.84	6.844E-06	Pulse	0.30	3
Sn			2	2.238	ug/l	36.64	734.47	5.684E-04	Pulse	0.30	3
Se			3	1.269	ug/l	156.02	55.80	2.060E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,385,022.34	1.26	107.8	Analog	0.10	3
1	Sc		9,958,887.35	1.02	114.2	Analog	0.10	3
1	Ge		1,595,578.99	0.93	111.7	Pulse	0.10	3

Quantitation Report

1	Ge		2,199,230.85	1.17	111.4	Pulse	0.10	3
1	Rh		10,900,170.67	0.12	112.9	Analog	0.10	3
1	In		11,805,681.25	1.43	115.1	Analog	0.10	3
1	Tb		14,208,647.29	1.17	113.6	Analog	0.10	3
1	Ho		1,329,112.19	1.64	110.0	Pulse	0.10	3
1	Bi		7,703,058.84	1.55	110.9	Analog	0.10	3
2	Sc		273,106.38	0.04	111.0	Pulse	0.30	3
2	Ge		140,841.92	0.71	112.4	Pulse	0.30	3
2	Ge		211,450.15	0.71	112.2	Pulse	0.30	3
2	Rh		4,272,788.44	0.57	107.2	Pulse	0.30	3
2	In		1,292,159.32	0.14	106.5	Pulse	0.30	3
2	Tb		4,701,213.29	0.62	104.5	Pulse	0.30	3
2	Ho		468,224.84	0.39	105.9	Pulse	0.30	3
2	Bi		2,929,085.79	0.11	101.9	Pulse	0.30	3
3	Sc		313,259.13	0.55	117.4	Pulse	0.30	3
3	Ge		178,834.87	0.16	114.3	Pulse	0.30	3
3	Ge		270,810.91	0.20	113.8	Pulse	0.30	3
3	Rh		3,274,916.53	0.65	109.1	Pulse	0.30	3
3	Tb		4,750,478.01	0.37	105.4	Pulse	0.30	3

Quantitation Report

File Name 060SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 16:14
Sample Name jc80990-9f
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.018	ug/l	48.27	106.67	1.288E-05	Pulse	0.25	3
B			1	114.948	ug/l	3.20	427,094.65	5.154E-02	Pulse	0.15	3
Ca			1	122311.996	ug/l	0.92	37,170,386.95	3.761E+00	Analog	0.10	3
Sr			1	733.788	ug/l	2.47	9,117,055.91	8.608E-01	Analog	0.10	3
Mo			1	16.130	ug/l	2.60	35,226.40	3.325E-03	Pulse	0.10	3
Ag			1	0.135	ug/l	7.94	900.06	7.653E-05	Pulse	0.10	3
Sn			1	0.537	ug/l	19.37	16,008.71	1.360E-03	Pulse	0.10	3
Sb			1	1.329	ug/l	6.34	5,027.66	3.547E-04	Pulse	0.10	3
Ba			1	104.979	ug/l	1.07	169,240.02	1.194E-02	Pulse	0.10	3
Tl			1	0.192	ug/l	10.72	2,370.29	3.210E-04	Pulse	0.10	3
Pb			1	0.253	ug/l	29.99	1,310.12	1.775E-04	Pulse	0.10	3
Pb			1	0.247	ug/l	8.89	1,170.10	1.585E-04	Pulse	0.10	3
Pb			1	0.223	ug/l	10.65	5,097.20	6.904E-04	Pulse	0.10	3
Na			2	88668.279	ug/l	1.37	25,215,869.56	9.338E+01	Analog	0.30	3
Mg			2	36673.816	ug/l	0.35	4,639,069.40	1.718E+01	Pulse	0.30	3
Al			2	23.880	ug/l	6.29	1,012.82	3.751E-03	Pulse	0.30	3
K			2	7418.120	ug/l	0.58	557,854.65	2.066E+00	Pulse	0.30	3
Ca			2	125602.633	ug/l	0.59	489,852.21	1.814E+00	Pulse	0.30	3
Ti			2	0.798	ug/l	109.68	28.89	1.069E-04	Pulse	0.30	3
V			2	1.056	ug/l	11.00	1,715.67	6.354E-03	Pulse	0.30	3
Cr			2	1.063	ug/l	23.62	3,373.72	1.249E-02	Pulse	0.30	3
Mn			2	552.988	ug/l	0.36	354,733.86	1.314E+00	Pulse	0.30	3
Fe			2	5174.450	ug/l	1.10	5,698,696.16	2.110E+01	Analog	0.30	3
Co			2	0.256	ug/l	3.94	717.81	2.658E-03	Pulse	0.30	3
Ni			2	0.699	ug/l	13.20	558.91	2.070E-03	Pulse	0.30	3
Cu			2	1.859	ug/l	6.50	4,904.12	1.816E-02	Pulse	0.30	3
Zn			2	9.654	ug/l	6.82	2,513.56	9.308E-03	Pulse	0.30	3
As			2	7.057	ug/l	8.31	766.69	2.839E-03	Pulse	1.00	3
Cd			2	-0.033	ug/l	-19.75	6.11	4.834E-06	Pulse	0.30	3
Sn			2	3.748	ug/l	8.32	2,524.68	1.997E-03	Pulse	0.30	3
Se			3	1.415	ug/l	2.49	92.53	3.505E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,288,377.18	1.56	106.6	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,882,374.85	1.09	113.3	Analog	0.10	3
1	Ge		1,546,940.76	0.54	108.3	Pulse	0.10	3
1	Ge		2,130,267.31	0.88	108.0	Pulse	0.10	3
1	Rh		10,592,953.80	0.97	109.7	Analog	0.10	3
1	In		11,769,998.79	1.60	114.8	Analog	0.10	3
1	Tb		14,178,528.12	1.94	113.3	Analog	0.10	3
1	Ho		1,336,479.20	3.16	110.6	Pulse	0.10	3
1	Bi		7,384,524.26	0.50	106.3	Analog	0.10	3
2	Sc		270,035.46	0.18	109.8	Pulse	0.30	3
2	Ge		137,360.56	0.25	109.6	Pulse	0.30	3
2	Ge		207,012.28	0.89	109.9	Pulse	0.30	3
2	Rh		4,134,460.39	0.32	103.8	Pulse	0.30	3
2	In		1,264,492.33	0.63	104.3	Pulse	0.30	3
2	Tb		4,670,205.23	0.21	103.8	Pulse	0.30	3
2	Ho		466,769.15	0.14	105.5	Pulse	0.30	3
2	Bi		2,809,802.18	0.05	97.7	Pulse	0.30	3
3	Sc		313,205.14	0.21	117.4	Pulse	0.30	3
3	Ge		175,580.45	0.50	112.3	Pulse	0.30	3
3	Ge		264,015.36	0.75	110.9	Pulse	0.30	3
3	Rh		3,162,905.36	0.21	105.3	Pulse	0.30	3
3	Tb		4,732,834.67	0.05	105.0	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 16:19
Sample Name jc81083-2
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.968	ug/l	21.73	1,146.73	1.511E-04	Pulse	0.25	3
B			1	203.839	ug/l	12.56	294,294.24	3.852E-02	Pulse	0.15	3
Ca			1	143182.906	ug/l	16.04	15,777,786.02	1.763E+00	Analog	0.10	3
Sr			1	820.419	ug/l	15.50	3,543,304.32	3.851E-01	Pulse	0.10	3
Mo			1	1.425	ug/l	23.56	1,113.42	1.218E-04	Pulse	0.10	3
Ag			1	0.199	ug/l	39.36	480.03	4.735E-05	Pulse	0.10	3
Sn			1	-6.523	ug/l	-9.33	4,314.10	4.206E-04	Pulse	0.10	3
Sb			1	0.349	ug/l	17.85	596.70	4.678E-05	Pulse	0.10	3
Ba			1	208.216	ug/l	14.84	120,542.09	9.473E-03	Pulse	0.10	3
Tl			1	0.311	ug/l	27.57	1,553.48	2.434E-04	Pulse	0.10	3
Pb			1	9.576	ug/l	16.30	9,776.86	1.533E-03	Pulse	0.10	3
Pb			1	9.355	ug/l	16.71	8,422.74	1.321E-03	Pulse	0.10	3
Pb			1	9.380	ug/l	15.26	38,948.10	6.103E-03	Pulse	0.10	3
Na			2	1332559.100	ug/l	1.87	153,401,473.90	5.611E+02	Analog	0.30	3
Mg			2	48499.162	ug/l	0.45	2,484,478.23	9.088E+00	Pulse	0.30	3
Al			2	26045.851	ug/l	0.17	415,009.13	1.518E+00	Pulse	0.30	3
K			2	49066.569	ug/l	0.68	1,475,513.69	5.397E+00	Pulse	0.30	3
Ca			2	128960.729	ug/l	0.94	203,746.16	7.453E-01	Pulse	0.30	3
Ti			2	15.816	ug/l	85.88	188.95	6.912E-04	Pulse	0.30	3
V			2	3.540	ug/l	7.12	2,089.05	7.641E-03	Pulse	0.30	3
Cr			2	5.895	ug/l	4.89	5,089.73	1.862E-02	Pulse	0.30	3
Mn			2	1745.838	ug/l	0.77	453,505.59	1.659E+00	Pulse	0.30	3
Fe			2	14267.384	ug/l	1.30	6,362,456.83	2.327E+01	Analog	0.30	3
Co			2	26.284	ug/l	0.52	24,253.45	8.872E-02	Pulse	0.30	3
Ni			2	21.079	ug/l	1.80	5,444.29	1.991E-02	Pulse	0.30	3
Cu			2	7.762	ug/l	5.56	7,034.93	2.573E-02	Pulse	0.30	3
Zn			2	23.047	ug/l	1.93	2,450.22	8.962E-03	Pulse	0.30	3
As			2	59.875	ug/l	2.62	2,553.21	9.339E-03	Pulse	1.00	3
Cd			2	1.126	ug/l	26.40	149.95	1.208E-04	Pulse	0.30	3
Sn			2	0.466	ug/l	66.45	686.69	5.532E-04	Pulse	0.30	3
Se			3	44.231	ug/l	2.24	557.61	2.175E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,693,769.72	9.98	99.0	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,080,725.49	13.47	104.1	Analog	0.10	3
1	Ge		1,451,665.52	11.75	101.6	Pulse	0.10	3
1	Ge		1,997,063.51	11.42	101.2	Pulse	0.10	3
1	Rh		9,340,756.11	14.41	96.7	Analog	0.10	3
1	In		10,406,206.61	13.73	101.5	Analog	0.10	3
1	Tb		12,896,553.98	13.47	103.1	Analog	0.10	3
1	Ho		1,446,080.13	12.18	119.7	Pulse	0.10	3
1	Bi		6,461,980.53	13.00	93.0	Analog	0.10	3
2	Sc		273,384.80	0.24	111.1	Pulse	0.30	3
2	Ge		143,239.06	0.56	114.3	Pulse	0.30	3
2	Ge		206,622.89	0.64	109.7	Pulse	0.30	3
2	Rh		4,000,089.98	0.22	100.4	Pulse	0.30	3
2	In		1,241,445.27	0.27	102.4	Pulse	0.30	3
2	Tb		4,686,595.92	0.10	104.2	Pulse	0.30	3
2	Ho		546,425.97	0.54	123.6	Pulse	0.30	3
2	Bi		2,672,794.75	0.32	93.0	Pulse	0.30	3
3	Sc		308,304.01	0.50	115.6	Pulse	0.30	3
3	Ge		175,921.01	0.47	112.5	Pulse	0.30	3
3	Ge		256,366.59	0.17	107.7	Pulse	0.30	3
3	Rh		2,975,960.51	0.66	99.1	Pulse	0.30	3
3	Tb		4,618,427.73	0.46	102.4	Pulse	0.30	3

Quantitation Report

File Name	062SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 16:24
Sample Name	mp12039-s1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	72.505	ug/l	0.79	457,199.98	5.426E-02	Pulse	0.25	3
B			1	16135.637	ug/l	1.10	105,996,033.57	1.258E+01	Analog	0.15	3
Ca			1	103980.637	ug/l	1.53	64,233,092.38	6.393E+00	Analog	0.10	3
Sr			1	2899.386	ug/l	0.68	72,537,322.25	6.802E+00	Analog	0.10	3
Mo			1	181.219	ug/l	0.81	795,835.93	7.462E-02	Pulse	0.10	3
Ag			1	77.931	ug/l	1.38	959,025.56	8.199E-02	Pulse	0.10	3
Sn			1	83.025	ug/l	1.09	594,188.61	5.080E-02	Pulse	0.10	3
Sb			1	83.329	ug/l	0.17	627,574.07	4.316E-02	Pulse	0.10	3
Ba			1	164.991	ug/l	0.33	545,246.99	3.750E-02	Pulse	0.10	3
Tl			1	80.110	ug/l	2.80	1,372,144.88	1.834E-01	Pulse	0.10	3
Pb			1	80.834	ug/l	1.96	459,114.84	6.137E-02	Pulse	0.10	3
Pb			1	80.997	ug/l	1.26	403,755.68	5.397E-02	Pulse	0.10	3
Pb			1	80.395	ug/l	1.52	1,847,447.28	2.470E-01	Pulse	0.10	3
Na			2	36760.256	ug/l	1.34	21,299,443.60	7.744E+01	Analog	0.30	3
Mg			2	5631.377	ug/l	1.06	1,451,303.10	5.276E+00	Pulse	0.30	3
Al			2	4065.517	ug/l	0.76	325,896.85	1.185E+00	Pulse	0.30	3
K			2	12125.387	ug/l	0.74	1,831,638.96	6.659E+00	Pulse	0.30	3
Ca			2	118284.404	ug/l	0.63	939,682.71	3.416E+00	Pulse	0.30	3
Ti			2	91.209	ug/l	0.81	5,308.69	1.930E-02	Pulse	0.30	3
V			2	92.796	ug/l	0.90	183,155.20	6.659E-01	Pulse	0.30	3
Cr			2	82.506	ug/l	1.13	216,727.01	7.879E-01	Pulse	0.30	3
Mn			2	212.694	ug/l	0.79	277,973.98	1.011E+00	Pulse	0.30	3
Fe			2	5568.456	ug/l	1.14	12,487,924.78	4.540E+01	Analog	0.30	3
Co			2	80.768	ug/l	0.48	372,903.05	1.356E+00	Pulse	0.30	3
Ni			2	79.771	ug/l	0.47	101,398.68	3.686E-01	Pulse	0.30	3
Cu			2	76.709	ug/l	0.79	258,328.62	9.392E-01	Pulse	0.30	3
Zn			2	71.397	ug/l	0.29	31,577.16	1.148E-01	Pulse	0.30	3
As			2	121.221	ug/l	1.26	25,692.79	9.341E-02	Pulse	1.00	3
Cd			2	77.275	ug/l	1.03	47,137.98	3.707E-02	Pulse	0.30	3
Sn			2	87.363	ug/l	0.87	90,650.58	7.129E-02	Pulse	0.30	3
Se			3	273.474	ug/l	0.76	17,869.72	6.150E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,425,384.15	0.34	108.4	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		10,049,629.02	1.64	115.3	Analog	0.10	3
1	Ge		1,714,328.99	1.26	120.0	Pulse	0.10	3
1	Ge		2,367,865.85	1.31	120.0	Pulse	0.10	3
1	Rh		10,664,645.67	0.37	110.5	Analog	0.10	3
1	In		11,697,526.83	1.11	114.1	Analog	0.10	3
1	Tb		14,541,439.37	1.14	116.2	Analog	0.10	3
1	Ho		1,362,850.76	1.82	112.8	Pulse	0.10	3
1	Bi		7,481,744.89	1.16	107.7	Analog	0.10	3
2	Sc		275,064.65	0.47	111.8	Pulse	0.30	3
2	Ge		150,736.48	0.53	120.3	Pulse	0.30	3
2	Ge		224,392.85	0.37	119.1	Pulse	0.30	3
2	Rh		4,161,808.31	0.58	104.4	Pulse	0.30	3
2	In		1,271,687.42	0.48	104.9	Pulse	0.30	3
2	Tb		4,720,474.12	0.78	104.9	Pulse	0.30	3
2	Ho		472,280.87	0.57	106.8	Pulse	0.30	3
2	Bi		2,791,090.93	0.62	97.1	Pulse	0.30	3
3	Sc		318,571.66	0.52	119.4	Pulse	0.30	3
3	Ge		191,664.08	0.70	122.5	Pulse	0.30	3
3	Ge		290,572.05	0.84	122.1	Pulse	0.30	3
3	Rh		3,168,328.28	0.34	105.5	Pulse	0.30	3
3	Tb		4,759,641.06	0.19	105.6	Pulse	0.30	3

Quantitation Report

File Name	063SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 16:29
Sample Name	mp12039-s2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	71.174	ug/l	1.48	453,365.18	5.327E-02	Pulse	0.25	3
B			1	15932.101	ug/l	2.56	105,718,173.58	1.242E+01	Analog	0.15	3
Ca			1	100256.935	ug/l	0.76	63,386,889.06	6.164E+00	Analog	0.10	3
Sr			1	2820.861	ug/l	0.51	71,634,170.60	6.617E+00	Analog	0.10	3
Mo			1	177.759	ug/l	1.34	792,281.21	7.320E-02	Pulse	0.10	3
Ag			1	77.095	ug/l	0.99	967,808.58	8.111E-02	Pulse	0.10	3
Sn			1	81.353	ug/l	1.27	594,201.57	4.980E-02	Pulse	0.10	3
Sb			1	83.293	ug/l	1.14	629,666.65	4.314E-02	Pulse	0.10	3
Ba			1	163.994	ug/l	0.76	543,994.89	3.727E-02	Pulse	0.10	3
Tl			1	79.326	ug/l	0.88	1,364,144.51	1.816E-01	Pulse	0.10	3
Pb			1	79.735	ug/l	0.52	454,672.96	6.054E-02	Pulse	0.10	3
Pb			1	80.757	ug/l	1.35	404,122.01	5.381E-02	Pulse	0.10	3
Pb			1	79.769	ug/l	0.61	1,840,231.65	2.450E-01	Pulse	0.10	3
Na			2	36729.026	ug/l	0.74	21,177,736.38	7.737E+01	Analog	0.30	3
Mg			2	5669.723	ug/l	0.61	1,454,006.88	5.312E+00	Pulse	0.30	3
Al			2	4063.616	ug/l	1.26	324,131.91	1.184E+00	Pulse	0.30	3
K			2	12134.005	ug/l	0.64	1,823,897.84	6.664E+00	Pulse	0.30	3
Ca			2	117988.610	ug/l	0.34	932,721.14	3.408E+00	Pulse	0.30	3
Ti			2	93.996	ug/l	3.65	5,443.19	1.989E-02	Pulse	0.30	3
V			2	92.658	ug/l	0.73	181,983.33	6.649E-01	Pulse	0.30	3
Cr			2	82.550	ug/l	0.71	215,775.33	7.884E-01	Pulse	0.30	3
Mn			2	212.395	ug/l	0.84	276,215.14	1.009E+00	Pulse	0.30	3
Fe			2	5604.987	ug/l	0.63	12,508,273.95	4.570E+01	Analog	0.30	3
Co			2	79.972	ug/l	0.44	367,411.38	1.342E+00	Pulse	0.30	3
Ni			2	79.522	ug/l	0.24	100,587.18	3.675E-01	Pulse	0.30	3
Cu			2	76.972	ug/l	0.55	257,930.90	9.424E-01	Pulse	0.30	3
Zn			2	73.927	ug/l	1.81	32,516.71	1.188E-01	Pulse	0.30	3
As			2	121.898	ug/l	0.40	25,708.78	9.393E-02	Pulse	1.00	3
Cd			2	76.642	ug/l	0.61	47,179.35	3.676E-02	Pulse	0.30	3
Sn			2	86.721	ug/l	0.24	90,808.77	7.077E-02	Pulse	0.30	3
Se			3	261.381	ug/l	0.14	17,016.28	5.879E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,511,876.96	1.05	109.5	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		10,283,341.93	0.79	117.9	Analog	0.10	3
1	Ge		1,720,212.27	1.03	120.4	Pulse	0.10	3
1	Ge		2,390,179.13	0.91	121.1	Pulse	0.10	3
1	Rh		10,825,053.59	1.52	112.1	Analog	0.10	3
1	In		11,932,173.30	0.66	116.3	Analog	0.10	3
1	Tb		14,596,953.53	0.73	116.7	Analog	0.10	3
1	Ho		1,371,145.92	0.54	113.5	Pulse	0.10	3
1	Bi		7,510,322.60	0.58	108.1	Analog	0.10	3
2	Sc		273,710.97	0.68	111.3	Pulse	0.30	3
2	Ge		150,450.31	0.35	120.0	Pulse	0.30	3
2	Ge		226,052.70	0.38	120.0	Pulse	0.30	3
2	Rh		4,179,478.31	0.55	104.9	Pulse	0.30	3
2	In		1,283,238.64	0.82	105.8	Pulse	0.30	3
2	Tb		4,739,841.20	0.66	105.3	Pulse	0.30	3
2	Ho		470,856.67	0.38	106.5	Pulse	0.30	3
2	Bi		2,803,523.36	0.53	97.5	Pulse	0.30	3
3	Sc		320,119.81	0.52	120.0	Pulse	0.30	3
3	Ge		190,684.76	0.38	121.9	Pulse	0.30	3
3	Ge		289,442.29	0.21	121.6	Pulse	0.30	3
3	Rh		3,176,383.69	0.52	105.8	Pulse	0.30	3
3	Tb		4,769,775.64	0.27	105.8	Pulse	0.30	3

Quantitation Report

File Name 064SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 16:34
Sample Name mp12039-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	29.74	110.67	1.327E-05	Pulse	0.25	3
B			1	65.461	ug/l	1.70	1,118,950.93	1.343E-01	Pulse	0.15	3
Ca			1	18.109	ug/l	5.79	58,734.78	5.913E-03	Pulse	0.10	3
Sr			1	0.153	ug/l	5.84	11,524.54	1.038E-03	Pulse	0.10	3
Mo			1	0.083	ug/l	11.66	1,003.40	9.043E-05	Pulse	0.10	3
Ag			1	0.025	ug/l	4.17	856.72	7.047E-05	Pulse	0.10	3
Sn			1	-0.300	ug/l	-12.93	9,139.64	7.517E-04	Pulse	0.10	3
Sb			1	0.044	ug/l	2.58	1,003.40	6.719E-05	Pulse	0.10	3
Ba			1	0.032	ug/l	26.03	453.36	3.036E-05	Pulse	0.10	3
Tl			1	0.012	ug/l	18.36	1,326.77	1.674E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	39.57	833.39	1.051E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	8.80	826.73	1.044E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	15.03	3,530.33	4.457E-04	Pulse	0.10	3
Na			2	13.155	ug/l	2.48	30,549.84	1.138E-01	Pulse	0.30	3
Mg			2	3.161	ug/l	5.75	2,157.95	8.041E-03	Pulse	0.30	3
Al			2	3.970	ug/l	7.60	848.92	3.163E-03	Pulse	0.30	3
K			2	2.027	ug/l	36.69	11,921.01	4.442E-02	Pulse	0.30	3
Ca			2	19.826	ug/l	10.94	506.68	1.888E-03	Pulse	0.30	3
Ti			2	0.153	ug/l	61.90	27.78	1.035E-04	Pulse	0.30	3
V			2	0.490	ug/l	1.92	3,043.66	1.134E-02	Pulse	0.30	3
Cr			2	0.090	ug/l	31.17	2,575.79	9.598E-03	Pulse	0.30	3
Mn			2	0.142	ug/l	17.22	527.79	1.967E-03	Pulse	0.30	3
Fe			2	2.919	ug/l	2.40	20,789.90	7.746E-02	Pulse	0.30	3
Co			2	0.012	ug/l	36.55	274.45	1.023E-03	Pulse	0.30	3
Ni			2	0.020	ug/l	64.36	184.45	6.871E-04	Pulse	0.30	3
Cu			2	0.259	ug/l	4.95	3,958.31	1.475E-02	Pulse	0.30	3
Zn			2	0.201	ug/l	4.29	658.91	2.455E-03	Pulse	0.30	3
As			2	0.055	ug/l	28.85	61.67	2.297E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	780.77	16.60	1.316E-05	Pulse	0.30	3
Sn			2	0.296	ug/l	10.38	1,358.96	1.078E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.047	ug/l	53.63	59.33	2.183E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,332,733.86	0.46	107.2	Analog	0.10	3
1	Sc		9,935,677.77	1.16	114.0	Analog	0.10	3
1	Ge		1,568,358.26	0.31	109.8	Pulse	0.10	3
1	Ge		2,159,138.61	0.77	109.4	Pulse	0.10	3
1	Rh		11,099,105.25	0.46	115.0	Analog	0.10	3
1	In		12,157,969.06	0.47	118.5	Analog	0.10	3
1	Tb		14,933,796.03	0.21	119.4	Analog	0.10	3
1	Ho		1,399,005.19	0.34	115.8	Pulse	0.10	3
1	Bi		7,922,991.97	0.96	114.0	Analog	0.10	3
2	Sc		268,393.96	0.37	109.1	Pulse	0.30	3
2	Ge		134,653.69	0.63	107.4	Pulse	0.30	3
2	Ge		202,640.48	0.41	107.6	Pulse	0.30	3
2	Rh		4,319,567.33	0.19	108.4	Pulse	0.30	3
2	In		1,260,600.12	0.59	103.9	Pulse	0.30	3
2	Tb		4,780,083.14	0.11	106.2	Pulse	0.30	3
2	Ho		475,080.74	0.26	107.4	Pulse	0.30	3
2	Bi		2,909,184.74	0.61	101.2	Pulse	0.30	3
3	Sc		323,850.92	0.34	121.4	Pulse	0.30	3
3	Ge		179,535.44	0.24	114.8	Pulse	0.30	3
3	Ge		271,751.66	0.49	114.2	Pulse	0.30	3
3	Rh		3,392,045.35	0.33	113.0	Pulse	0.30	3
3	Tb		5,014,311.74	0.18	111.2	Pulse	0.30	3

Quantitation Report

File Name	065SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 16:39
Sample Name	jc81167-9
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.031	ug/l	10.65	537.35	6.338E-05	Pulse	0.25	3
B			1	41.368	ug/l	1.48	740,440.77	8.734E-02	Pulse	0.15	3
Ca			1	192.084	ug/l	1.05	324,688.79	3.264E-02	Pulse	0.10	3
Sr			1	2.187	ug/l	1.82	144,491.47	1.296E-02	Pulse	0.10	3
Mo			1	0.075	ug/l	11.08	906.73	8.132E-05	Pulse	0.10	3
Ag			1	0.083	ug/l	7.15	2,693.67	2.225E-04	Pulse	0.10	3
Sn			1	-0.196	ug/l	-5.30	10,987.56	9.072E-04	Pulse	0.10	3
Sb			1	0.046	ug/l	5.76	1,053.41	6.993E-05	Pulse	0.10	3
Ba			1	0.204	ug/l	5.65	1,926.86	1.279E-04	Pulse	0.10	3
Tl			1	0.011	ug/l	47.36	1,283.43	1.624E-04	Pulse	0.10	3
Pb			1	0.061	ug/l	28.08	1,553.48	1.968E-04	Pulse	0.10	3
Pb			1	0.051	ug/l	5.62	1,266.77	1.605E-04	Pulse	0.10	3
Pb			1	0.054	ug/l	11.73	5,990.73	7.591E-04	Pulse	0.10	3
Na			2	91.138	ug/l	0.61	141,512.12	5.243E-01	Pulse	0.30	3
Mg			2	18.804	ug/l	1.22	12,059.97	4.468E-02	Pulse	0.30	3
Al			2	10.433	ug/l	0.61	2,124.61	7.871E-03	Pulse	0.30	3
K			2	3.483	ug/l	12.15	12,525.90	4.641E-02	Pulse	0.30	3
Ca			2	199.701	ug/l	1.62	4,014.99	1.487E-02	Pulse	0.30	3
Ti			2	0.105	ug/l	113.75	21.11	7.816E-05	Pulse	0.30	3
V			2	0.578	ug/l	4.16	3,484.86	1.291E-02	Pulse	0.30	3
Cr			2	3.368	ug/l	2.30	23,511.24	8.710E-02	Pulse	0.30	3
Mn			2	0.843	ug/l	2.91	2,775.83	1.028E-02	Pulse	0.30	3
Fe			2	38.260	ug/l	0.15	215,268.98	7.975E-01	Pulse	0.30	3
Co			2	0.034	ug/l	3.30	517.79	1.918E-03	Pulse	0.30	3
Ni			2	0.185	ug/l	3.92	697.80	2.585E-03	Pulse	0.30	3
Cu			2	0.769	ug/l	1.33	8,159.89	3.023E-02	Pulse	0.30	3
Zn			2	1.586	ug/l	5.41	2,143.50	7.941E-03	Pulse	0.30	3
As			2	0.090	ug/l	36.52	80.33	2.977E-04	Pulse	1.00	3
Cd			2	-0.004	ug/l	-1.23	9.97	7.839E-06	Pulse	0.30	3
Sn			2	0.443	ug/l	7.46	1,750.12	1.376E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	-0.022	ug/l	-405.67	48.67	1.795E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,477,803.85	0.46	109.0	Analog	0.10	3
1	Sc		9,948,113.81	0.55	114.1	Analog	0.10	3
1	Ge		1,582,356.75	0.25	110.8	Pulse	0.10	3
1	Ge		2,162,390.49	0.52	109.6	Pulse	0.10	3
1	Rh		11,145,859.41	0.59	115.4	Analog	0.10	3
1	In		12,112,985.27	1.37	118.1	Analog	0.10	3
1	Tb		15,061,232.28	1.01	120.4	Analog	0.10	3
1	Ho		1,414,966.91	1.41	117.1	Pulse	0.10	3
1	Bi		7,893,725.30	0.81	113.6	Analog	0.10	3
2	Sc		269,925.73	0.17	109.7	Pulse	0.30	3
2	Ge		135,144.22	0.61	107.8	Pulse	0.30	3
2	Ge		203,915.30	0.71	108.2	Pulse	0.30	3
2	Rh		4,332,193.72	0.30	108.7	Pulse	0.30	3
2	In		1,271,956.30	0.68	104.9	Pulse	0.30	3
2	Tb		4,805,000.64	0.45	106.8	Pulse	0.30	3
2	Ho		478,102.64	0.49	108.1	Pulse	0.30	3
2	Bi		2,900,055.93	0.58	100.9	Pulse	0.30	3
3	Sc		325,015.01	1.49	121.9	Pulse	0.30	3
3	Ge		179,404.20	0.46	114.7	Pulse	0.30	3
3	Ge		270,990.28	0.22	113.9	Pulse	0.30	3
3	Rh		3,397,469.24	0.48	113.2	Pulse	0.30	3
3	Tb		5,004,869.24	0.85	111.0	Pulse	0.30	3

Quantitation Report

File Name 066SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 16:44
Sample Name mp12039-b1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	69.865	ug/l	3.53	1,082,945.13	1.307E-01	Pulse	0.25	3
B			1	111.261	ug/l	3.69	1,851,700.13	2.235E-01	Pulse	0.15	3
Ca			1	4141.039	ug/l	1.49	6,317,346.78	6.393E-01	Analog	0.10	3
Sr			1	81.422	ug/l	0.80	5,174,018.57	4.776E-01	Pulse	0.10	3
Mo			1	84.323	ug/l	0.58	940,303.45	8.681E-02	Pulse	0.10	3
Ag			1	77.866	ug/l	1.17	2,440,281.21	2.048E-01	Pulse	0.10	3
Sn			1	80.481	ug/l	1.13	1,446,493.15	1.214E-01	Pulse	0.10	3
Sb			1	77.247	ug/l	0.91	1,469,244.72	1.000E-01	Pulse	0.10	3
Ba			1	78.339	ug/l	1.11	653,869.83	4.451E-02	Pulse	0.10	3
Tl			1	79.335	ug/l	1.38	3,475,632.97	4.540E-01	Pulse	0.10	3
Pb			1	80.166	ug/l	1.51	1,164,051.36	1.520E-01	Pulse	0.10	3
Pb			1	80.554	ug/l	1.92	1,026,279.49	1.341E-01	Pulse	0.10	3
Pb			1	79.919	ug/l	1.51	4,694,167.07	6.132E-01	Pulse	0.10	3
Na			2	4186.730	ug/l	1.95	5,906,174.07	2.208E+01	Analog	0.30	3
Mg			2	3957.614	ug/l	0.37	2,479,652.61	9.270E+00	Pulse	0.30	3
Al			2	3758.507	ug/l	0.49	732,407.23	2.738E+00	Pulse	0.30	3
K			2	4002.639	ug/l	0.66	1,471,954.04	5.503E+00	Pulse	0.30	3
Ca			2	4513.760	ug/l	1.17	87,289.89	3.263E-01	Pulse	0.30	3
Ti			2	82.848	ug/l	4.37	11,716.47	4.380E-02	Pulse	0.30	3
V			2	82.609	ug/l	0.76	395,568.07	1.479E+00	Pulse	0.30	3
Cr			2	82.008	ug/l	0.24	520,785.67	1.947E+00	Pulse	0.30	3
Mn			2	78.497	ug/l	0.24	249,434.43	9.325E-01	Pulse	0.30	3
Fe			2	4142.688	ug/l	1.03	22,583,145.21	8.442E+01	Analog	0.30	3
Co			2	80.959	ug/l	0.52	908,557.08	3.397E+00	Pulse	0.30	3
Ni			2	79.769	ug/l	0.54	246,337.58	9.209E-01	Pulse	0.30	3
Cu			2	77.413	ug/l	0.51	631,021.71	2.359E+00	Pulse	0.30	3
Zn			2	62.134	ug/l	2.08	66,289.74	2.478E-01	Pulse	0.30	3
As			2	73.571	ug/l	0.51	37,893.64	1.417E-01	Pulse	1.00	3
Cd			2	74.370	ug/l	0.26	110,661.60	8.917E-02	Pulse	0.30	3
Sn			2	86.130	ug/l	0.20	217,175.68	1.750E-01	Pulse	0.30	3
Se			3	314.242	ug/l	0.51	46,734.26	1.763E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,290,350.21	2.77	106.6	Analog	0.10	3
1	Sc		9,882,042.14	1.32	113.3	Analog	0.10	3
1	Ge		1,547,890.92	0.77	108.4	Pulse	0.10	3

Quantitation Report

1	Ge		2,149,691.27	1.13	108.9	Pulse	0.10	3
1	Rh		10,832,191.51	0.33	112.2	Analog	0.10	3
1	In		11,916,602.91	1.71	116.2	Analog	0.10	3
1	Tb		14,691,912.28	0.99	117.5	Analog	0.10	3
1	Ho		1,392,858.47	1.65	115.3	Pulse	0.10	3
1	Bi		7,656,217.80	1.73	110.2	Analog	0.10	3
2	Sc		267,499.55	0.44	108.8	Pulse	0.30	3
2	Ge		132,498.59	1.90	105.7	Pulse	0.30	3
2	Ge		199,072.31	0.72	105.7	Pulse	0.30	3
2	Rh		4,176,358.31	0.04	104.8	Pulse	0.30	3
2	In		1,241,023.34	0.21	102.3	Pulse	0.30	3
2	Tb		4,721,445.78	0.23	104.9	Pulse	0.30	3
2	Ho		469,080.66	0.14	106.1	Pulse	0.30	3
2	Bi		2,789,926.97	0.50	97.0	Pulse	0.30	3
3	Sc		320,630.28	1.06	120.2	Pulse	0.30	3
3	Ge		176,686.64	1.20	113.0	Pulse	0.30	3
3	Ge		265,064.75	0.32	111.4	Pulse	0.30	3
3	Rh		3,261,464.59	0.59	108.6	Pulse	0.30	3
3	Tb		4,889,030.36	0.86	108.4	Pulse	0.30	3

Quantitation Report

File Name 067_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 16:49
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.045	ug/l	1.66	1,537,235.25	1.798E-01	Pulse	0.25	3
B			1	115.080	ug/l	2.22	3,891,843.46	4.551E-01	Pulse	0.15	3
Ca			1	5180.433	ug/l	1.08	16,483,473.92	1.595E+00	Analog	0.10	3
Sr			1	54.434	ug/l	1.57	6,869,184.48	6.386E-01	Analog	0.10	3
Mo			1	52.134	ug/l	1.96	1,154,532.67	1.073E-01	Pulse	0.10	3
Ag			1	47.315	ug/l	1.03	2,966,872.25	2.489E-01	Pulse	0.10	3
Sn			1	49.844	ug/l	0.32	1,789,211.12	1.501E-01	Pulse	0.10	3
Sb			1	51.794	ug/l	0.66	1,900,540.60	1.341E-01	Pulse	0.10	3
Ba			1	51.065	ug/l	0.80	822,240.04	5.802E-02	Pulse	0.10	3
Tl			1	49.797	ug/l	1.38	4,233,222.85	5.699E-01	Pulse	0.10	3
Pb			1	50.128	ug/l	1.65	1,412,333.16	1.901E-01	Pulse	0.10	3
Pb			1	50.517	ug/l	1.31	1,248,911.68	1.681E-01	Pulse	0.10	3
Pb			1	49.998	ug/l	1.05	5,698,724.79	7.672E-01	Pulse	0.10	3
Na			2	5174.249	ug/l	0.96	15,253,153.28	5.451E+01	Analog	0.30	3
Mg			2	5077.911	ug/l	0.87	6,655,934.60	2.379E+01	Analog	0.30	3
Al			2	4743.392	ug/l	0.13	1,933,710.13	6.911E+00	Pulse	0.30	3
K			2	5051.936	ug/l	0.31	3,869,090.96	1.383E+01	Pulse	0.30	3
Ca			2	5339.340	ug/l	0.21	215,853.86	7.714E-01	Pulse	0.30	3
Ti			2	50.166	ug/l	1.44	14,840.08	5.304E-02	Pulse	0.30	3
V			2	52.490	ug/l	0.20	525,658.89	1.879E+00	Pulse	0.30	3
Cr			2	51.139	ug/l	0.40	678,914.29	2.426E+00	Pulse	0.30	3
Mn			2	49.112	ug/l	0.38	326,473.48	1.167E+00	Pulse	0.30	3
Fe			2	5123.588	ug/l	0.59	58,425,968.79	2.088E+02	Analog	0.30	3
Co			2	50.087	ug/l	0.44	1,175,970.02	4.203E+00	Pulse	0.30	3
Ni			2	49.265	ug/l	0.23	318,257.36	1.137E+00	Pulse	0.30	3
Cu			2	48.283	ug/l	0.39	822,941.62	2.941E+00	Pulse	0.30	3
Zn			2	48.191	ug/l	0.17	107,308.38	3.835E-01	Pulse	0.30	3
As			2	51.766	ug/l	0.45	55,767.72	1.993E-01	Pulse	1.00	3
Cd			2	50.950	ug/l	0.24	156,138.73	1.222E-01	Pulse	0.30	3
Sn			2	52.204	ug/l	0.91	270,987.96	2.120E-01	Pulse	0.30	3
Se			3	198.657	ug/l	0.05	59,364.46	2.229E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,552,406.46	1.65	110.0	Analog	0.10	3
1	Sc		10,336,129.01	0.40	118.5	Analog	0.10	3
1	Ge		1,630,487.32	0.29	114.1	Pulse	0.10	3

Quantitation Report

1	Ge		2,254,982.05	0.73	114.3	Pulse	0.10	3
1	Rh		10,757,981.92	1.31	111.4	Analog	0.10	3
1	In		11,921,581.82	1.25	116.2	Analog	0.10	3
1	Tb		14,173,139.37	1.28	113.3	Analog	0.10	3
1	Ho		1,341,645.35	1.53	111.0	Pulse	0.10	3
1	Bi		7,428,763.22	1.62	106.9	Analog	0.10	3
2	Sc		279,820.07	0.25	113.8	Pulse	0.30	3
2	Ge		142,123.93	0.16	113.4	Pulse	0.30	3
2	Ge		213,082.46	0.37	113.1	Pulse	0.30	3
2	Rh		4,205,535.95	0.11	105.5	Pulse	0.30	3
2	In		1,278,019.35	0.18	105.4	Pulse	0.30	3
2	Tb		4,704,355.37	0.56	104.6	Pulse	0.30	3
2	Ho		468,102.05	0.47	105.8	Pulse	0.30	3
2	Bi		2,824,069.33	0.29	98.2	Pulse	0.30	3
3	Sc		310,790.77	0.56	116.5	Pulse	0.30	3
3	Ge		175,514.35	0.82	112.2	Pulse	0.30	3
3	Ge		266,359.68	0.18	111.9	Pulse	0.30	3
3	Rh		3,122,307.65	0.19	104.0	Pulse	0.30	3
3	Tb		4,610,937.18	0.16	102.3	Pulse	0.30	3

Quantitation Report

File Name	068_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 16:54
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	18.99	150.67	1.754E-05	Pulse	0.25	3
B			1	9.355	ug/l	2.21	371,019.56	4.320E-02	Pulse	0.15	3
Ca			1	0.581	ug/l	75.53	33,648.27	3.309E-03	Pulse	0.10	3
Sr			1	0.017	ug/l	15.53	3,880.61	3.448E-04	Pulse	0.10	3
Mo			1	0.070	ug/l	8.24	1,670.16	1.484E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	9.90	896.73	7.391E-05	Pulse	0.10	3
Sn			1	-0.252	ug/l	-4.17	5,444.55	4.485E-04	Pulse	0.10	3
Sb			1	0.117	ug/l	8.33	4,514.18	3.147E-04	Pulse	0.10	3
Ba			1	0.005	ug/l	58.40	256.68	1.788E-05	Pulse	0.10	3
Tl			1	0.014	ug/l	11.13	2,030.21	2.591E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	8.94	1,023.41	1.306E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	21.88	960.07	1.226E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	10.04	4,047.03	5.166E-04	Pulse	0.10	3
Na			2	2.877	ug/l	21.53	20,826.40	7.486E-02	Pulse	0.30	3
Mg			2	1.386	ug/l	28.08	1,984.60	7.132E-03	Pulse	0.30	3
Al			2	1.258	ug/l	17.04	585.57	2.105E-03	Pulse	0.30	3
K			2	1.434	ug/l	24.73	12,674.91	4.557E-02	Pulse	0.30	3
Ca			2	2.062	ug/l	74.45	210.00	7.545E-04	Pulse	0.30	3
Ti			2	0.032	ug/l	90.78	15.56	5.597E-05	Pulse	0.30	3
V			2	0.010	ug/l	30.95	820.03	2.948E-03	Pulse	0.30	3
Cr			2	-0.053	ug/l	-5.80	1,375.63	4.945E-03	Pulse	0.30	3
Mn			2	0.028	ug/l	21.71	260.01	9.345E-04	Pulse	0.30	3
Fe			2	1.944	ug/l	22.25	27,047.90	9.720E-02	Pulse	0.30	3
Co			2	0.008	ug/l	13.40	324.45	1.166E-03	Pulse	0.30	3
Ni			2	0.012	ug/l	16.77	204.45	7.351E-04	Pulse	0.30	3
Cu			2	0.012	ug/l	42.62	2,120.17	7.623E-03	Pulse	0.30	3
Zn			2	0.731	ug/l	3.94	2,072.38	7.451E-03	Pulse	0.30	3
As			2	0.001	ug/l	2175.65	35.00	1.259E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.006	ug/l	115.05	35.45	2.687E-05	Pulse	0.30	3
Sn			2	0.085	ug/l	31.69	1,083.39	8.221E-04	Pulse	0.30	3
Se			3	0.091	ug/l	33.17	80.60	2.939E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,590,239.19	1.19	110.5	Analog	0.10	3
1	Sc		10,170,377.76	0.93	116.6	Analog	0.10	3
1	Ge		1,628,735.55	1.02	114.0	Pulse	0.10	3
1	Ge		2,249,398.41	0.61	114.0	Pulse	0.10	3
1	Rh		11,252,991.08	0.80	116.6	Analog	0.10	3
1	In		12,139,566.61	1.24	118.4	Analog	0.10	3
1	Tb		14,347,705.20	0.60	114.7	Analog	0.10	3
1	Ho		1,338,770.40	1.21	110.8	Pulse	0.10	3
1	Bi		7,834,447.80	0.99	112.8	Analog	0.10	3
2	Sc		278,147.46	0.33	113.1	Pulse	0.30	3
2	Ge		143,550.87	0.45	114.5	Pulse	0.30	3
2	Ge		215,704.42	0.28	114.5	Pulse	0.30	3
2	Rh		4,389,463.99	0.60	110.2	Pulse	0.30	3
2	In		1,317,475.12	0.35	108.6	Pulse	0.30	3
2	Tb		4,734,228.84	0.69	105.2	Pulse	0.30	3
2	Ho		471,134.34	0.36	106.5	Pulse	0.30	3
2	Bi		2,983,894.95	0.10	103.8	Pulse	0.30	3
3	Sc		317,160.79	0.80	118.9	Pulse	0.30	3
3	Ge		181,492.43	0.65	116.0	Pulse	0.30	3
3	Ge		274,117.15	0.47	115.2	Pulse	0.30	3
3	Rh		3,346,251.46	0.55	111.5	Pulse	0.30	3
3	Tb		4,770,071.20	0.97	105.8	Pulse	0.30	3

Quantitation Report

File Name	069SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 16:59
Sample Name	jc81167-9undconf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.042	ug/l	10.18	729.36	8.498E-05	Pulse	0.25	3
B			1	14.021	ug/l	3.05	292,401.67	3.406E-02	Pulse	0.15	3
Ca			1	102.500	ug/l	0.90	189,492.30	1.888E-02	Pulse	0.10	3
Sr			1	1.947	ug/l	2.78	129,883.23	1.156E-02	Pulse	0.10	3
Mo			1	0.052	ug/l	6.64	646.70	5.751E-05	Pulse	0.10	3
Ag			1	0.044	ug/l	5.31	1,440.12	1.204E-04	Pulse	0.10	3
Sn			1	-0.696	ug/l	-0.89	1,923.52	1.607E-04	Pulse	0.10	3
Sb			1	0.042	ug/l	18.79	900.06	6.461E-05	Pulse	0.10	3
Ba			1	0.152	ug/l	5.89	1,366.78	9.828E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	373.88	780.05	1.029E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	30.97	936.73	1.234E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	34.67	846.72	1.117E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	20.05	3,833.67	5.054E-04	Pulse	0.10	3
Na			2	76.096	ug/l	0.98	124,704.55	4.451E-01	Pulse	0.30	3
Mg			2	4.364	ug/l	2.51	3,042.54	1.086E-02	Pulse	0.30	3
Al			2	4.266	ug/l	1.38	946.71	3.379E-03	Pulse	0.30	3
K			2	3.914	ug/l	18.30	13,166.43	4.699E-02	Pulse	0.30	3
Ca			2	115.469	ug/l	1.20	2,463.55	8.793E-03	Pulse	0.30	3
Ti			2	-0.005	ug/l	-251.77	5.56	1.985E-05	Pulse	0.30	3
V			2	-0.063	ug/l	-5.61	405.57	1.448E-03	Pulse	0.30	3
Cr			2	2.349	ug/l	0.51	17,653.98	6.301E-02	Pulse	0.30	3
Mn			2	0.524	ug/l	3.17	1,819.01	6.493E-03	Pulse	0.30	3
Fe			2	22.583	ug/l	1.54	133,949.16	4.781E-01	Pulse	0.30	3
Co			2	0.020	ug/l	32.83	373.34	1.333E-03	Pulse	0.30	3
Ni			2	0.031	ug/l	43.83	226.67	8.088E-04	Pulse	0.30	3
Cu			2	0.159	ug/l	3.40	3,280.36	1.171E-02	Pulse	0.30	3
Zn			2	0.345	ug/l	18.31	847.81	3.026E-03	Pulse	0.30	3
As			2	-0.014	ug/l	-103.55	27.33	9.763E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	2070.32	17.73	1.313E-05	Pulse	0.30	3
Sn			2	-0.126	ug/l	-9.37	301.12	2.229E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.068	ug/l	40.44	61.67	2.297E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,586,298.75	1.36	110.4	Analog	0.10	3
1	Sc		10,038,476.31	1.24	115.1	Analog	0.10	3
1	Ge		1,655,026.90	1.43	115.9	Pulse	0.10	3
1	Ge		2,279,577.98	0.98	115.5	Pulse	0.10	3
1	Rh		11,242,239.83	1.83	116.4	Analog	0.10	3
1	In		11,971,911.58	1.71	116.7	Analog	0.10	3
1	Tb		13,906,080.21	1.70	111.2	Analog	0.10	3
1	Ho		1,283,977.35	1.84	106.2	Pulse	0.10	3
1	Bi		7,585,172.80	1.01	109.2	Analog	0.10	3
2	Sc		280,174.84	0.37	113.9	Pulse	0.30	3
2	Ge		148,443.31	0.37	118.4	Pulse	0.30	3
2	Ge		222,330.33	0.28	118.0	Pulse	0.30	3
2	Rh		4,391,713.44	0.49	110.2	Pulse	0.30	3
2	In		1,350,948.86	0.60	111.4	Pulse	0.30	3
2	Tb		4,719,676.76	0.52	104.9	Pulse	0.30	3
2	Ho		467,459.43	0.29	105.7	Pulse	0.30	3
2	Bi		3,003,529.12	0.58	104.5	Pulse	0.30	3
3	Sc		302,229.42	0.56	113.3	Pulse	0.30	3
3	Ge		178,040.75	1.03	113.8	Pulse	0.30	3
3	Ge		268,455.89	0.55	112.8	Pulse	0.30	3
3	Rh		3,230,147.16	0.41	107.6	Pulse	0.30	3
3	Tb		4,587,363.57	0.60	101.8	Pulse	0.30	3

Quantitation Report

File Name	070SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 17:04
Sample Name	mp12071-b1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	69.607	ug/l	0.81	1,093,848.05	1.302E-01	Pulse	0.25	3
B			1	95.599	ug/l	0.92	1,621,015.94	1.930E-01	Pulse	0.15	3
Ca			1	4147.585	ug/l	1.82	6,325,406.57	6.403E-01	Analog	0.10	3
Sr			1	81.717	ug/l	3.39	5,195,551.38	4.794E-01	Mix	0.10	3
Mo			1	83.765	ug/l	0.43	934,608.29	8.623E-02	Pulse	0.10	3
Ag			1	76.739	ug/l	0.95	2,401,883.82	2.018E-01	Pulse	0.10	3
Sn			1	80.239	ug/l	0.74	1,440,363.26	1.210E-01	Pulse	0.10	3
Sb			1	77.995	ug/l	1.91	1,464,660.03	1.010E-01	Pulse	0.10	3
Ba			1	77.667	ug/l	2.29	640,025.06	4.412E-02	Pulse	0.10	3
Tl			1	77.299	ug/l	0.27	3,389,073.70	4.423E-01	Pulse	0.10	3
Pb			1	78.675	ug/l	0.76	1,143,247.20	1.492E-01	Pulse	0.10	3
Pb			1	78.990	ug/l	1.02	1,007,311.73	1.315E-01	Pulse	0.10	3
Pb			1	78.530	ug/l	0.79	4,616,645.77	6.026E-01	Pulse	0.10	3
Na			2	4175.704	ug/l	1.72	5,922,658.10	2.202E+01	Analog	0.30	3
Mg			2	3896.123	ug/l	1.74	2,454,269.48	9.126E+00	Pulse	0.30	3
Al			2	3717.498	ug/l	2.28	728,278.01	2.708E+00	Pulse	0.30	3
K			2	3936.245	ug/l	2.10	1,455,489.52	5.412E+00	Pulse	0.30	3
Ca			2	4514.005	ug/l	1.02	87,776.75	3.263E-01	Pulse	0.30	3
Ti			2	82.907	ug/l	2.33	11,787.65	4.383E-02	Pulse	0.30	3
V			2	81.297	ug/l	1.77	391,402.94	1.455E+00	Pulse	0.30	3
Cr			2	80.813	ug/l	2.06	515,970.40	1.919E+00	Pulse	0.30	3
Mn			2	77.600	ug/l	1.67	247,908.01	9.218E-01	Pulse	0.30	3
Fe			2	4081.834	ug/l	2.41	22,369,329.11	8.318E+01	Analog	0.30	3
Co			2	79.759	ug/l	1.68	899,932.74	3.346E+00	Pulse	0.30	3
Ni			2	78.028	ug/l	1.76	242,258.51	9.008E-01	Pulse	0.30	3
Cu			2	76.410	ug/l	1.75	626,230.15	2.329E+00	Pulse	0.30	3
Zn			2	63.504	ug/l	1.93	68,104.85	2.532E-01	Pulse	0.30	3
As			2	74.048	ug/l	1.63	38,345.32	1.426E-01	Pulse	1.00	3
Cd			2	73.905	ug/l	0.95	110,360.19	8.861E-02	Pulse	0.30	3
Sn			2	84.901	ug/l	0.91	214,846.87	1.725E-01	Pulse	0.30	3
Se			3	322.153	ug/l	1.12	47,035.92	1.807E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,399,454.21	0.33	108.0	Analog	0.10	3
1	Sc		9,879,659.23	0.60	113.3	Analog	0.10	3
1	Ge		1,552,385.14	0.48	108.7	Pulse	0.10	3

Quantitation Report

1	Ge		2,151,060.80	0.88	109.0	Pulse	0.10	3
1	Rh		10,838,541.92	0.62	112.3	Analog	0.10	3
1	In		11,901,323.83	1.59	116.0	Analog	0.10	3
1	Tb		14,507,920.62	1.52	116.0	Analog	0.10	3
1	Ho		1,373,381.75	1.43	113.6	Pulse	0.10	3
1	Bi		7,661,630.30	1.06	110.3	Analog	0.10	3
2	Sc		268,994.84	1.88	109.4	Pulse	0.30	3
2	Ge		133,493.22	1.02	106.5	Pulse	0.30	3
2	Ge		199,245.34	0.92	105.8	Pulse	0.30	3
2	Rh		4,176,782.75	0.54	104.8	Pulse	0.30	3
2	In		1,245,471.44	0.73	102.7	Pulse	0.30	3
2	Tb		4,712,933.01	0.65	104.7	Pulse	0.30	3
2	Ho		469,002.74	0.73	106.0	Pulse	0.30	3
2	Bi		2,814,492.04	0.56	97.9	Pulse	0.30	3
3	Sc		312,279.97	1.34	117.1	Pulse	0.30	3
3	Ge		172,463.76	0.29	110.3	Pulse	0.30	3
3	Ge		260,245.87	0.85	109.4	Pulse	0.30	3
3	Rh		3,175,821.89	1.38	105.8	Pulse	0.30	3
3	Tb		4,763,053.29	1.14	105.7	Pulse	0.30	3

Quantitation Report

File Name 071SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 17:09
Sample Name mp12071-s1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	70.256	ug/l	1.75	1,049,247.00	1.314E-01	Pulse	0.25	3
B			1	207.348	ug/l	1.77	3,278,441.40	4.107E-01	Pulse	0.15	3
Ca			1	45113.431	ug/l	1.85	67,321,730.66	6.934E+00	Analog	0.10	3
Sr			1	421.871	ug/l	0.55	25,086,065.46	2.474E+00	Analog	0.10	3
Mo			1	87.544	ug/l	0.44	913,755.85	9.012E-02	Pulse	0.10	3
Ag			1	74.702	ug/l	0.18	2,237,092.94	1.965E-01	Pulse	0.10	3
Sn			1	81.677	ug/l	0.85	1,402,654.15	1.232E-01	Pulse	0.10	3
Sb			1	76.403	ug/l	1.19	1,416,845.29	9.891E-02	Pulse	0.10	3
Ba			1	96.867	ug/l	1.02	788,240.80	5.503E-02	Pulse	0.10	3
Tl			1	79.895	ug/l	0.72	3,247,677.24	4.572E-01	Pulse	0.10	3
Pb			1	80.436	ug/l	0.71	1,083,644.72	1.526E-01	Pulse	0.10	3
Pb			1	81.275	ug/l	0.69	960,920.76	1.353E-01	Pulse	0.10	3
Pb			1	80.625	ug/l	0.65	4,394,414.09	6.186E-01	Pulse	0.10	3
Na			2	30775.262	ug/l	2.27	42,397,306.09	1.620E+02	Analog	0.30	3
Mg			2	9788.724	ug/l	0.46	5,999,798.37	2.293E+01	Analog	0.30	3
Al			2	3658.905	ug/l	1.26	697,507.19	2.665E+00	Pulse	0.30	3
K			2	11492.801	ug/l	1.03	4,114,246.09	1.572E+01	Pulse	0.30	3
Ca			2	47425.935	ug/l	0.74	896,116.42	3.424E+00	Pulse	0.30	3
Ti			2	82.126	ug/l	1.64	11,361.77	4.342E-02	Pulse	0.30	3
V			2	82.553	ug/l	0.87	386,717.55	1.478E+00	Pulse	0.30	3
Cr			2	80.285	ug/l	0.92	498,804.91	1.906E+00	Pulse	0.30	3
Mn			2	1001.256	ug/l	0.53	3,111,638.28	1.189E+01	Pulse	0.30	3
Fe			2	4310.262	ug/l	0.11	22,986,539.09	8.784E+01	Analog	0.30	3
Co			2	91.701	ug/l	0.92	1,006,736.63	3.847E+00	Pulse	0.30	3
Ni			2	81.626	ug/l	0.78	246,594.44	9.423E-01	Pulse	0.30	3
Cu			2	82.962	ug/l	0.39	661,454.45	2.528E+00	Pulse	0.30	3
Zn			2	65.103	ug/l	0.95	67,927.41	2.596E-01	Pulse	0.30	3
As			2	85.732	ug/l	0.88	43,193.31	1.651E-01	Pulse	1.00	3
Cd			2	73.596	ug/l	1.14	106,315.38	8.824E-02	Pulse	0.30	3
Sn			2	85.805	ug/l	0.25	210,046.53	1.743E-01	Pulse	0.30	3
Se			3	246.867	ug/l	8.96	45,052.24	1.386E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,984,416.82	2.16	102.7	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,710,643.19	1.30	111.4	Analog	0.10	3
1	Ge		1,478,834.41	1.04	103.5	Pulse	0.10	3
1	Ge		2,052,615.96	0.90	104.0	Pulse	0.10	3
1	Rh		10,139,055.89	0.35	105.0	Analog	0.10	3
1	In		11,386,245.70	1.14	111.0	Analog	0.10	3
1	Tb		14,326,216.04	2.20	114.5	Analog	0.10	3
1	Ho		1,334,431.85	1.57	110.4	Pulse	0.10	3
1	Bi		7,103,236.98	0.85	102.2	Analog	0.10	3
2	Sc		261,693.71	0.48	106.4	Pulse	0.30	3
2	Ge		129,270.89	1.70	103.1	Pulse	0.30	3
2	Ge		194,136.93	0.85	103.1	Pulse	0.30	3
2	Rh		3,935,394.43	0.13	98.8	Pulse	0.30	3
2	In		1,204,807.07	0.25	99.3	Pulse	0.30	3
2	Tb		4,577,915.51	0.13	101.7	Pulse	0.30	3
2	Ho		455,838.59	0.20	103.1	Pulse	0.30	3
2	Bi		2,618,436.36	0.59	91.1	Pulse	0.30	3
3	Sc		305,553.91	0.79	114.6	Pulse	0.30	3
3	Ge		216,722.68	7.64	138.6	Pulse	0.30	3
3	Ge		326,877.07	8.79	137.3	Pulse	0.30	3
3	Rh		2,981,867.59	0.17	99.3	Pulse	0.30	3
3	Tb		4,605,838.43	0.37	102.2	Pulse	0.30	3

Quantitation Report

File Name	072SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 17:14
Sample Name	mp12071-s2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	69.031	ug/l	1.75	1,028,536.67	1.292E-01	Pulse	0.25	3
B			1	199.851	ug/l	2.45	3,154,323.07	3.961E-01	Pulse	0.15	3
Ca			1	44763.966	ug/l	0.80	66,636,030.68	6.880E+00	Analog	0.10	3
Sr			1	423.004	ug/l	0.52	25,036,552.96	2.481E+00	Analog	0.10	3
Mo			1	87.101	ug/l	0.76	904,902.02	8.967E-02	Pulse	0.10	3
Ag			1	73.869	ug/l	0.35	2,213,422.42	1.943E-01	Pulse	0.10	3
Sn			1	80.278	ug/l	0.59	1,379,562.38	1.211E-01	Pulse	0.10	3
Sb			1	76.626	ug/l	0.97	1,418,864.82	9.920E-02	Pulse	0.10	3
Ba			1	97.512	ug/l	2.04	792,339.00	5.539E-02	Pulse	0.10	3
Tl			1	79.641	ug/l	0.41	3,268,066.10	4.558E-01	Pulse	0.10	3
Pb			1	80.047	ug/l	0.69	1,088,758.71	1.518E-01	Pulse	0.10	3
Pb			1	80.261	ug/l	0.99	957,902.54	1.336E-01	Pulse	0.10	3
Pb			1	79.861	ug/l	0.36	4,394,082.10	6.128E-01	Pulse	0.10	3
Na			2	30367.326	ug/l	0.63	41,125,163.92	1.599E+02	Analog	0.30	3
Mg			2	9574.216	ug/l	0.62	5,768,166.71	2.242E+01	Analog	0.30	3
Al			2	3660.757	ug/l	0.15	685,987.87	2.667E+00	Pulse	0.30	3
K			2	11422.850	ug/l	0.21	4,019,671.78	1.563E+01	Pulse	0.30	3
Ca			2	47060.606	ug/l	0.42	874,060.42	3.398E+00	Pulse	0.30	3
Ti			2	83.882	ug/l	1.29	11,407.36	4.434E-02	Pulse	0.30	3
V			2	82.307	ug/l	0.47	379,000.10	1.473E+00	Pulse	0.30	3
Cr			2	80.159	ug/l	0.79	489,536.72	1.903E+00	Pulse	0.30	3
Mn			2	997.715	ug/l	0.43	3,047,760.43	1.185E+01	Pulse	0.30	3
Fe			2	4305.112	ug/l	1.69	22,566,900.77	8.773E+01	Analog	0.30	3
Co			2	92.156	ug/l	0.48	994,497.56	3.866E+00	Pulse	0.30	3
Ni			2	81.623	ug/l	0.53	242,381.60	9.423E-01	Pulse	0.30	3
Cu			2	83.410	ug/l	0.39	653,683.36	2.541E+00	Pulse	0.30	3
Zn			2	65.352	ug/l	0.53	67,023.65	2.606E-01	Pulse	0.30	3
As			2	84.692	ug/l	0.91	41,941.09	1.631E-01	Pulse	1.00	3
Cd			2	73.397	ug/l	1.13	105,314.98	8.800E-02	Pulse	0.30	3
Sn			2	85.483	ug/l	0.16	207,865.10	1.737E-01	Pulse	0.30	3
Se			3	316.980	ug/l	0.50	44,146.79	1.778E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,964,742.93	1.06	102.4	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,686,068.81	0.82	111.1	Analog	0.10	3
1	Ge		1,477,849.87	0.54	103.4	Pulse	0.10	3
1	Ge		2,046,605.91	0.70	103.7	Pulse	0.10	3
1	Rh		10,091,761.31	0.49	104.5	Analog	0.10	3
1	In		11,392,929.35	1.06	111.1	Analog	0.10	3
1	Tb		14,303,615.20	1.35	114.3	Analog	0.10	3
1	Ho		1,346,428.94	2.09	111.4	Pulse	0.10	3
1	Bi		7,170,973.64	1.33	103.2	Analog	0.10	3
2	Sc		257,232.54	0.72	104.6	Pulse	0.30	3
2	Ge		126,687.73	0.67	101.1	Pulse	0.30	3
2	Ge		190,952.43	0.24	101.4	Pulse	0.30	3
2	Rh		3,876,077.90	0.73	97.3	Pulse	0.30	3
2	In		1,196,767.31	0.68	98.7	Pulse	0.30	3
2	Tb		4,565,201.90	0.54	101.5	Pulse	0.30	3
2	Ho		454,210.03	0.36	102.7	Pulse	0.30	3
2	Bi		2,604,603.79	0.71	90.6	Pulse	0.30	3
3	Sc		301,082.75	0.53	112.9	Pulse	0.30	3
3	Ge		162,703.57	0.18	104.0	Pulse	0.30	3
3	Ge		248,228.25	0.28	104.3	Pulse	0.30	3
3	Rh		2,963,906.20	0.07	98.7	Pulse	0.30	3
3	Tb		4,580,333.57	0.37	101.6	Pulse	0.30	3

Quantitation Report

File Name	073SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 17:19
Sample Name	jc81275-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	15.54	237.34	3.064E-05	Pulse	0.25	3
B			1	121.833	ug/l	3.01	1,893,291.73	2.441E-01	Pulse	0.15	3
Ca			1	39988.193	ug/l	0.87	58,799,699.12	6.146E+00	Analog	0.10	3
Sr			1	323.461	ug/l	0.43	19,319,929.71	1.897E+00	Analog	0.10	3
Mo			1	0.707	ug/l	1.44	7,458.66	7.324E-04	Pulse	0.10	3
Ag			1	0.033	ug/l	13.42	1,056.74	9.327E-05	Pulse	0.10	3
Sn			1	0.250	ug/l	3.61	17,833.96	1.574E-03	Pulse	0.10	3
Sb			1	0.239	ug/l	2.81	4,547.48	3.204E-04	Pulse	0.10	3
Ba			1	20.390	ug/l	2.06	164,480.75	1.159E-02	Pulse	0.10	3
Tl			1	0.134	ug/l	5.92	6,334.96	8.687E-04	Pulse	0.10	3
Pb			1	0.154	ug/l	9.36	2,727.03	3.737E-04	Pulse	0.10	3
Pb			1	0.157	ug/l	3.39	2,460.30	3.373E-04	Pulse	0.10	3
Pb			1	0.155	ug/l	1.95	11,225.47	1.539E-03	Pulse	0.10	3
Na			2	26142.767	ug/l	1.74	34,759,489.73	1.376E+02	Analog	0.30	3
Mg			2	5404.858	ug/l	0.12	3,196,960.29	1.266E+01	Pulse	0.30	3
Al			2	3.179	ug/l	12.66	653.35	2.587E-03	Pulse	0.30	3
K			2	7403.958	ug/l	0.48	2,561,522.05	1.014E+01	Pulse	0.30	3
Ca			2	42158.995	ug/l	0.61	768,732.40	3.044E+00	Pulse	0.30	3
Ti			2	0.306	ug/l	58.12	46.67	1.844E-04	Pulse	0.30	3
V			2	0.532	ug/l	1.80	3,050.32	1.208E-02	Pulse	0.30	3
Cr			2	0.308	ug/l	4.50	3,722.69	1.474E-02	Pulse	0.30	3
Mn			2	911.492	ug/l	0.64	2,733,515.24	1.082E+01	Pulse	0.30	3
Fe			2	263.779	ug/l	0.60	1,361,739.60	5.392E+00	Pulse	0.30	3
Co			2	13.912	ug/l	0.39	147,500.20	5.841E-01	Pulse	0.30	3
Ni			2	5.938	ug/l	0.94	17,417.11	6.897E-02	Pulse	0.30	3
Cu			2	10.297	ug/l	1.23	80,739.94	3.197E-01	Pulse	0.30	3
Zn			2	4.825	ug/l	6.34	5,246.46	2.077E-02	Pulse	0.30	3
As			2	10.940	ug/l	1.13	5,345.89	2.117E-02	Pulse	1.00	3
Cd			2	-0.005	ug/l	-75.19	8.54	7.143E-06	Pulse	0.30	3
Sn			2	0.850	ug/l	7.08	2,625.81	2.200E-03	Pulse	0.30	3
Se			3	0.155	ug/l	34.50	68.47	2.786E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,759,544.00	2.33	99.8	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,566,407.15	0.78	109.7	Analog	0.10	3
1	Ge		1,456,496.02	1.56	102.0	Pulse	0.10	3
1	Ge		2,000,794.24	0.75	101.4	Pulse	0.10	3
1	Rh		10,183,679.02	1.06	105.5	Analog	0.10	3
1	In		11,333,838.27	0.67	110.5	Analog	0.10	3
1	Tb		14,191,070.21	1.63	113.4	Analog	0.10	3
1	Ho		1,336,586.60	1.08	110.6	Pulse	0.10	3
1	Bi		7,291,636.97	2.35	104.9	Analog	0.10	3
2	Sc		252,535.74	0.66	102.7	Pulse	0.30	3
2	Ge		125,129.35	1.05	99.8	Pulse	0.30	3
2	Ge		189,447.48	0.61	100.6	Pulse	0.30	3
2	Rh		3,888,537.21	0.65	97.6	Pulse	0.30	3
2	In		1,193,625.93	0.44	98.4	Pulse	0.30	3
2	Tb		4,543,049.40	0.16	101.0	Pulse	0.30	3
2	Ho		453,019.53	0.31	102.4	Pulse	0.30	3
2	Bi		2,634,075.31	0.95	91.6	Pulse	0.30	3
3	Sc		299,673.60	0.75	112.4	Pulse	0.30	3
3	Ge		163,121.08	0.27	104.3	Pulse	0.30	3
3	Ge		245,871.43	0.88	103.3	Pulse	0.30	3
3	Rh		2,994,813.01	0.64	99.7	Pulse	0.30	3
3	Tb		4,637,492.18	0.60	102.9	Pulse	0.30	3

Quantitation Report

File Name 074SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 17:24
Sample Name mp12049a-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-120.32	36.00	4.483E-06	Pulse	0.25	3
B			1	11.736	ug/l	3.98	236,104.64	2.961E-02	Pulse	0.15	3
Ca			1	9.394	ug/l	1.52	43,618.14	4.574E-03	Pulse	0.10	3
Sr			1	0.056	ug/l	2.49	5,060.98	4.672E-04	Pulse	0.10	3
Mo			1	0.028	ug/l	17.24	356.69	3.295E-05	Pulse	0.10	3
Ag			1	0.022	ug/l	8.42	746.72	6.251E-05	Pulse	0.10	3
Sn			1	-0.335	ug/l	-4.21	8,362.53	7.002E-04	Pulse	0.10	3
Sb			1	0.032	ug/l	8.82	760.05	5.217E-05	Pulse	0.10	3
Ba			1	0.041	ug/l	18.47	513.36	3.529E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	31.91	1,030.08	1.310E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	40.40	876.73	1.116E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	149.56	700.05	8.908E-05	Pulse	0.10	3
Pb			1	0.010	ug/l	31.26	3,350.29	4.263E-04	Pulse	0.10	3
Na			2	8.231	ug/l	2.09	22,668.62	8.791E-02	Pulse	0.30	3
Mg			2	2.035	ug/l	2.72	1,393.41	5.404E-03	Pulse	0.30	3
Al			2	1.874	ug/l	12.07	422.24	1.637E-03	Pulse	0.30	3
K			2	2.036	ug/l	25.09	11,457.38	4.443E-02	Pulse	0.30	3
Ca			2	11.580	ug/l	9.87	333.34	1.293E-03	Pulse	0.30	3
Ti			2	0.096	ug/l	81.88	18.89	7.317E-05	Pulse	0.30	3
V			2	0.507	ug/l	12.53	3,000.31	1.163E-02	Pulse	0.30	3
Cr			2	0.099	ug/l	29.90	2,526.90	9.800E-03	Pulse	0.30	3
Mn			2	0.194	ug/l	16.49	664.47	2.577E-03	Pulse	0.30	3
Fe			2	3.964	ug/l	1.62	25,465.35	9.875E-02	Pulse	0.30	3
Co			2	0.011	ug/l	25.94	250.00	9.697E-04	Pulse	0.30	3
Ni			2	0.068	ug/l	31.77	320.01	1.241E-03	Pulse	0.30	3
Cu			2	0.477	ug/l	7.06	5,507.65	2.136E-02	Pulse	0.30	3
Zn			2	0.089	ug/l	76.82	518.90	2.012E-03	Pulse	0.30	3
As			2	0.053	ug/l	12.85	58.33	2.262E-04	Pulse	1.00	3
Cd			2	-0.006	ug/l	-96.01	6.64	5.386E-06	Pulse	0.30	3
Sn			2	0.259	ug/l	7.35	1,232.29	1.002E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.024	ug/l	338.38	52.80	2.051E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,976,932.17	2.37	102.6	Analog	0.10	3
1	Sc		9,536,674.02	0.85	109.4	Analog	0.10	3
1	Ge		1,520,715.08	0.35	106.4	Pulse	0.10	3
1	Ge		2,078,382.73	1.07	105.3	Pulse	0.10	3
1	Rh		10,832,225.26	0.71	112.2	Analog	0.10	3
1	In		11,944,105.22	0.53	116.5	Analog	0.10	3
1	Tb		14,559,733.95	1.20	116.4	Analog	0.10	3
1	Ho		1,362,395.71	1.20	112.7	Pulse	0.10	3
1	Bi		7,860,637.38	0.41	113.1	Analog	0.10	3
2	Sc		257,876.72	0.30	104.8	Pulse	0.30	3
2	Ge		130,319.10	1.15	104.0	Pulse	0.30	3
2	Ge		195,482.76	0.86	103.8	Pulse	0.30	3
2	Rh		4,172,356.78	0.35	104.7	Pulse	0.30	3
2	In		1,230,139.82	0.46	101.4	Pulse	0.30	3
2	Tb		4,685,441.90	0.66	104.1	Pulse	0.30	3
2	Ho		463,916.51	0.52	104.9	Pulse	0.30	3
2	Bi		2,846,062.32	0.68	99.0	Pulse	0.30	3
3	Sc		304,885.33	0.78	114.3	Pulse	0.30	3
3	Ge		170,851.30	0.40	109.2	Pulse	0.30	3
3	Ge		257,144.70	0.72	108.0	Pulse	0.30	3
3	Rh		3,241,718.48	0.79	108.0	Pulse	0.30	3
3	Tb		4,835,487.31	0.38	107.3	Pulse	0.30	3

Quantitation Report

File Name	075SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 17:29
Sample Name	mp12071-mb1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-549.35	46.67	5.687E-06	Pulse	0.25	3
B			1	8.520	ug/l	1.86	191,771.06	2.335E-02	Pulse	0.15	3
Ca			1	5.417	ug/l	8.84	38,141.42	3.963E-03	Pulse	0.10	3
Sr			1	0.027	ug/l	12.07	3,260.46	3.013E-04	Pulse	0.10	3
Mo			1	0.040	ug/l	12.39	490.02	4.533E-05	Pulse	0.10	3
Ag			1	0.015	ug/l	19.15	533.36	4.522E-05	Pulse	0.10	3
Sn			1	-0.453	ug/l	-0.89	6,174.76	5.235E-04	Pulse	0.10	3
Sb			1	0.034	ug/l	14.86	786.72	5.430E-05	Pulse	0.10	3
Ba			1	0.007	ug/l	14.69	233.34	1.610E-05	Pulse	0.10	3
Tl			1	-0.002	ug/l	-101.39	713.38	9.167E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	187.09	680.04	8.744E-05	Pulse	0.10	3
Pb			1	0.009	ug/l	106.05	710.05	9.122E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	11893.40	2,716.88	3.491E-04	Pulse	0.10	3
Na			2	6.971	ug/l	3.48	21,138.85	8.127E-02	Pulse	0.30	3
Mg			2	1.909	ug/l	6.69	1,328.96	5.109E-03	Pulse	0.30	3
Al			2	1.973	ug/l	8.28	444.46	1.709E-03	Pulse	0.30	3
K			2	1.836	ug/l	28.16	11,485.16	4.416E-02	Pulse	0.30	3
Ca			2	5.806	ug/l	21.15	227.78	8.760E-04	Pulse	0.30	3
Ti			2	0.054	ug/l	89.43	13.33	5.129E-05	Pulse	0.30	3
V			2	0.434	ug/l	4.96	2,690.27	1.034E-02	Pulse	0.30	3
Cr			2	0.199	ug/l	7.17	3,164.79	1.217E-02	Pulse	0.30	3
Mn			2	0.098	ug/l	20.38	375.57	1.444E-03	Pulse	0.30	3
Fe			2	3.029	ug/l	4.25	20,726.45	7.969E-02	Pulse	0.30	3
Co			2	0.006	ug/l	20.52	203.34	7.816E-04	Pulse	0.30	3
Ni			2	0.392	ug/l	3.72	1,294.51	4.977E-03	Pulse	0.30	3
Cu			2	0.206	ug/l	4.88	3,413.73	1.312E-02	Pulse	0.30	3
Zn			2	0.129	ug/l	16.04	564.46	2.170E-03	Pulse	0.30	3
As			2	0.049	ug/l	41.28	56.67	2.180E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.005	ug/l	-85.46	7.75	6.267E-06	Pulse	0.30	3
Sn			2	0.119	ug/l	11.41	888.93	7.181E-04	Pulse	0.30	3
Se			3	0.117	ug/l	16.21	66.73	2.576E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,215,124.46	0.71	105.7	Analog	0.10	3
1	Sc		9,623,987.36	0.57	110.4	Analog	0.10	3
1	Ge		1,528,839.82	0.84	107.0	Pulse	0.10	3
1	Ge		2,100,894.55	1.11	106.5	Pulse	0.10	3
1	Rh		10,814,369.42	1.36	112.0	Analog	0.10	3
1	In		11,794,816.57	0.58	115.0	Analog	0.10	3
1	Tb		14,496,563.12	1.57	115.9	Analog	0.10	3
1	Ho		1,356,531.49	0.49	112.2	Pulse	0.10	3
1	Bi		7,779,965.09	0.71	112.0	Analog	0.10	3
2	Sc		260,103.78	0.41	105.7	Pulse	0.30	3
2	Ge		131,628.62	0.67	105.0	Pulse	0.30	3
2	Ge		195,911.11	0.43	104.0	Pulse	0.30	3
2	Rh		4,189,447.89	0.19	105.1	Pulse	0.30	3
2	In		1,237,800.28	0.16	102.1	Pulse	0.30	3
2	Tb		4,670,192.18	0.14	103.8	Pulse	0.30	3
2	Ho		462,598.16	0.37	104.6	Pulse	0.30	3
2	Bi		2,843,468.22	0.29	98.9	Pulse	0.30	3
3	Sc		309,538.64	0.82	116.1	Pulse	0.30	3
3	Ge		171,660.75	0.26	109.8	Pulse	0.30	3
3	Ge		259,072.67	0.51	108.9	Pulse	0.30	3
3	Rh		3,264,026.40	0.51	108.7	Pulse	0.30	3
3	Tb		4,823,349.53	0.97	107.0	Pulse	0.30	3

Quantitation Report

File Name 076_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 17:34
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.123	ug/l	0.31	1,456,842.29	1.763E-01	Pulse	0.25	3
B			1	102.525	ug/l	0.32	3,356,309.94	4.062E-01	Pulse	0.15	3
Ca			1	5257.545	ug/l	1.74	15,549,525.60	1.618E+00	Analog	0.10	3
Sr			1	54.092	ug/l	0.90	6,602,524.07	6.346E-01	Analog	0.10	3
Mo			1	51.650	ug/l	0.82	1,106,281.99	1.063E-01	Pulse	0.10	3
Ag			1	47.130	ug/l	2.57	2,842,715.27	2.479E-01	Pulse	0.10	3
Sn			1	48.941	ug/l	1.99	1,690,026.48	1.474E-01	Pulse	0.10	3
Sb			1	50.725	ug/l	0.62	1,815,467.32	1.313E-01	Pulse	0.10	3
Ba			1	50.017	ug/l	0.27	785,525.20	5.683E-02	Pulse	0.10	3
Tl			1	49.355	ug/l	1.68	4,127,953.17	5.648E-01	Pulse	0.10	3
Pb			1	49.808	ug/l	1.86	1,380,589.77	1.889E-01	Pulse	0.10	3
Pb			1	50.187	ug/l	1.64	1,220,653.57	1.670E-01	Pulse	0.10	3
Pb			1	49.831	ug/l	1.80	5,587,626.94	7.646E-01	Pulse	0.10	3
Na			2	5170.582	ug/l	0.53	14,528,921.64	5.447E+01	Analog	0.30	3
Mg			2	5165.403	ug/l	0.95	6,453,639.75	2.420E+01	Analog	0.30	3
Al			2	4801.333	ug/l	0.61	1,865,675.62	6.995E+00	Pulse	0.30	3
K			2	5038.632	ug/l	0.83	3,678,195.41	1.379E+01	Pulse	0.30	3
Ca			2	5382.423	ug/l	0.66	207,410.37	7.776E-01	Pulse	0.30	3
Ti			2	49.917	ug/l	1.32	14,074.95	5.277E-02	Pulse	0.30	3
V			2	52.500	ug/l	0.70	501,140.05	1.879E+00	Pulse	0.30	3
Cr			2	51.048	ug/l	1.09	645,960.30	2.422E+00	Pulse	0.30	3
Mn			2	49.195	ug/l	0.73	311,711.03	1.169E+00	Pulse	0.30	3
Fe			2	5181.366	ug/l	0.55	56,318,604.43	2.112E+02	Analog	0.30	3
Co			2	50.143	ug/l	0.32	1,122,172.84	4.207E+00	Pulse	0.30	3
Ni			2	49.478	ug/l	0.90	304,662.60	1.142E+00	Pulse	0.30	3
Cu			2	48.524	ug/l	0.51	788,319.47	2.956E+00	Pulse	0.30	3
Zn			2	48.331	ug/l	0.80	102,580.77	3.846E-01	Pulse	0.30	3
As			2	51.809	ug/l	0.41	53,200.59	1.995E-01	Pulse	1.00	3
Cd			2	51.040	ug/l	0.57	152,142.30	1.224E-01	Pulse	0.30	3
Sn			2	52.125	ug/l	0.55	263,185.83	2.117E-01	Pulse	0.30	3
Se			3	200.210	ug/l	0.54	57,225.41	2.246E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,262,224.40	0.26	106.3	Analog	0.10	3
1	Sc		9,608,470.06	1.49	110.2	Analog	0.10	3
1	Ge		1,549,629.67	1.68	108.5	Pulse	0.10	3

Quantitation Report

1	Ge		2,156,411.53	1.03	109.3	Pulse	0.10	3
1	Rh		10,403,561.10	1.44	107.8	Analog	0.10	3
1	In		11,468,275.52	0.94	111.8	Analog	0.10	3
1	Tb		13,823,025.62	0.37	110.5	Analog	0.10	3
1	Ho		1,284,034.59	1.58	106.2	Pulse	0.10	3
1	Bi		7,308,482.81	2.18	105.2	Analog	0.10	3
2	Sc		266,725.08	0.78	108.4	Pulse	0.30	3
2	Ge		136,194.15	0.16	108.7	Pulse	0.30	3
2	Ge		204,086.30	0.38	108.3	Pulse	0.30	3
2	Rh		4,060,597.76	0.44	101.9	Pulse	0.30	3
2	In		1,243,130.42	0.43	102.5	Pulse	0.30	3
2	Tb		4,564,494.26	0.15	101.4	Pulse	0.30	3
2	Ho		453,486.52	0.25	102.5	Pulse	0.30	3
2	Bi		2,754,438.78	0.19	95.8	Pulse	0.30	3
3	Sc		297,983.90	0.52	111.7	Pulse	0.30	3
3	Ge		168,159.47	0.77	107.5	Pulse	0.30	3
3	Ge		254,777.08	0.53	107.1	Pulse	0.30	3
3	Rh		3,023,408.42	0.60	100.7	Pulse	0.30	3
3	Tb		4,497,498.71	0.50	99.8	Pulse	0.30	3

Quantitation Report

File Name	077_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 17:39
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	5.88	205.34	2.480E-05	Pulse	0.25	3
B			1	3.171	ug/l	3.30	158,201.78	1.910E-02	Pulse	0.15	3
Ca			1	0.008	ug/l	3099.35	30,458.80	3.133E-03	Pulse	0.10	3
Sr			1	0.010	ug/l	15.23	2,837.03	2.629E-04	Pulse	0.10	3
Mo			1	0.063	ug/l	12.71	1,456.80	1.350E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	13.02	900.06	7.594E-05	Pulse	0.10	3
Sn			1	-0.255	ug/l	-4.10	5,184.38	4.373E-04	Pulse	0.10	3
Sb			1	0.114	ug/l	2.61	4,320.76	3.062E-04	Pulse	0.10	3
Ba			1	0.007	ug/l	71.98	276.68	1.963E-05	Pulse	0.10	3
Tl			1	0.012	ug/l	14.95	1,856.87	2.414E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	44.65	956.74	1.242E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	25.48	773.39	1.006E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	13.38	3,616.99	4.701E-04	Pulse	0.10	3
Na			2	1.525	ug/l	15.94	16,256.80	6.063E-02	Pulse	0.30	3
Mg			2	0.584	ug/l	10.24	904.48	3.372E-03	Pulse	0.30	3
Al			2	0.451	ug/l	3.07	248.89	9.281E-04	Pulse	0.30	3
K			2	0.659	ug/l	37.73	11,649.74	4.345E-02	Pulse	0.30	3
Ca			2	0.654	ug/l	10.37	147.78	5.512E-04	Pulse	0.30	3
Ti			2	0.010	ug/l	180.61	8.89	3.305E-05	Pulse	0.30	3
V			2	0.004	ug/l	135.69	731.14	2.728E-03	Pulse	0.30	3
Cr			2	-0.052	ug/l	-10.03	1,344.51	5.015E-03	Pulse	0.30	3
Mn			2	0.015	ug/l	14.93	172.22	6.419E-04	Pulse	0.30	3
Fe			2	0.893	ug/l	9.55	14,573.23	5.435E-02	Pulse	0.30	3
Co			2	0.004	ug/l	22.99	223.34	8.334E-04	Pulse	0.30	3
Ni			2	0.007	ug/l	84.14	164.45	6.143E-04	Pulse	0.30	3
Cu			2	-0.002	ug/l	-255.52	1,802.35	6.725E-03	Pulse	0.30	3
Zn			2	0.734	ug/l	9.44	2,002.37	7.472E-03	Pulse	0.30	3
As			2	-0.008	ug/l	-47.03	25.00	9.333E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.002	ug/l	123.68	22.13	1.727E-05	Pulse	0.30	3
Sn			2	0.062	ug/l	19.39	935.59	7.290E-04	Pulse	0.30	3
Se			3	0.088	ug/l	24.94	75.93	2.899E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,283,454.61	2.45	106.5	Analog	0.10	3
1	Sc		9,721,311.94	0.49	111.5	Analog	0.10	3
1	Ge		1,566,341.59	0.25	109.6	Pulse	0.10	3
1	Ge		2,154,442.31	0.55	109.2	Pulse	0.10	3
1	Rh		10,794,654.42	0.84	111.8	Analog	0.10	3
1	In		11,856,317.16	1.12	115.6	Analog	0.10	3
1	Tb		14,108,956.04	0.78	112.8	Analog	0.10	3
1	Ho		1,292,541.65	0.40	107.0	Pulse	0.10	3
1	Bi		7,692,946.97	0.98	110.7	Analog	0.10	3
2	Sc		268,124.28	1.22	109.0	Pulse	0.30	3
2	Ge		138,926.53	0.46	110.9	Pulse	0.30	3
2	Ge		208,528.84	0.15	110.7	Pulse	0.30	3
2	Rh		4,266,805.39	0.37	107.1	Pulse	0.30	3
2	In		1,283,065.77	0.74	105.8	Pulse	0.30	3
2	Tb		4,662,739.12	0.23	103.6	Pulse	0.30	3
2	Ho		461,340.99	0.66	104.3	Pulse	0.30	3
2	Bi		2,939,404.19	0.77	102.2	Pulse	0.30	3
3	Sc		302,107.84	0.93	113.3	Pulse	0.30	3
3	Ge		173,676.71	0.17	111.0	Pulse	0.30	3
3	Ge		261,861.72	0.39	110.0	Pulse	0.30	3
3	Rh		3,228,930.64	0.24	107.5	Pulse	0.30	3
3	Tb		4,639,623.71	0.17	102.9	Pulse	0.30	3

Quantitation Report

File Name 078SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 17:44
Sample Name mp12071-sd1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	18.62	89.33	1.090E-05	Pulse	0.25	3
B			1	138.429	ug/l	1.35	497,729.83	6.068E-02	Pulse	0.15	3
Ca			1	42553.096	ug/l	1.86	12,710,154.39	1.311E+00	Analog	0.10	3
Sr			1	309.340	ug/l	1.43	3,883,504.21	3.630E-01	Pulse	0.10	3
Mo			1	0.476	ug/l	14.44	1,096.75	1.025E-04	Pulse	0.10	3
Ag			1	0.055	ug/l	5.06	403.36	3.452E-05	Pulse	0.10	3
Sn			1	-3.115	ug/l	-1.44	3,150.43	2.696E-04	Pulse	0.10	3
Sb			1	0.443	ug/l	7.05	1,730.16	1.252E-04	Pulse	0.10	3
Ba			1	21.290	ug/l	0.95	33,584.02	2.430E-03	Pulse	0.10	3
Tl			1	0.005	ug/l	242.90	806.72	1.068E-04	Pulse	0.10	3
Pb			1	0.089	ug/l	51.60	870.06	1.152E-04	Pulse	0.10	3
Pb			1	0.065	ug/l	56.08	740.05	9.800E-05	Pulse	0.10	3
Pb			1	0.054	ug/l	22.82	3,263.60	4.321E-04	Pulse	0.10	3
Na			2	27338.748	ug/l	0.50	7,657,749.69	2.882E+01	Analog	0.30	3
Mg			2	5736.432	ug/l	0.60	714,090.32	2.688E+00	Pulse	0.30	3
Al			2	5.339	ug/l	19.75	278.89	1.050E-03	Pulse	0.30	3
K			2	7782.276	ug/l	0.10	575,276.45	2.165E+00	Pulse	0.30	3
Ca			2	44280.343	ug/l	0.37	169,991.10	6.398E-01	Pulse	0.30	3
Ti			2	0.300	ug/l	81.84	14.45	5.430E-05	Pulse	0.30	3
V			2	0.077	ug/l	105.97	758.92	2.856E-03	Pulse	0.30	3
Cr			2	-0.928	ug/l	-5.41	817.81	3.077E-03	Pulse	0.30	3
Mn			2	946.166	ug/l	0.46	597,134.20	2.247E+00	Pulse	0.30	3
Fe			2	275.193	ug/l	0.71	302,711.23	1.139E+00	Pulse	0.30	3
Co			2	14.430	ug/l	1.91	32,299.46	1.216E-01	Pulse	0.30	3
Ni			2	6.396	ug/l	2.49	4,042.76	1.522E-02	Pulse	0.30	3
Cu			2	11.128	ug/l	0.88	19,790.91	7.449E-02	Pulse	0.30	3
Zn			2	5.445	ug/l	3.92	1,586.77	5.973E-03	Pulse	0.30	3
As			2	13.097	ug/l	2.27	1,371.73	5.163E-03	Pulse	1.00	3
Cd			2	-0.006	ug/l	-105.64	14.39	1.137E-05	Pulse	0.30	3
Sn			2	-0.187	ug/l	-10.69	508.90	4.021E-04	Pulse	0.30	3
Se			3	0.330	ug/l	7.28	59.40	2.288E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,202,309.28	1.17	105.5	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,698,581.73	0.20	111.2	Analog	0.10	3
1	Ge		1,539,219.40	1.06	107.7	Pulse	0.10	3
1	Ge		2,132,651.53	0.98	108.1	Pulse	0.10	3
1	Rh		10,700,166.09	0.87	110.8	Analog	0.10	3
1	In		11,681,902.47	0.98	113.9	Analog	0.10	3
1	Tb		13,818,802.29	0.90	110.5	Analog	0.10	3
1	Ho		1,284,001.62	1.34	106.2	Pulse	0.10	3
1	Bi		7,552,882.60	0.49	108.7	Analog	0.10	3
2	Sc		265,688.02	0.46	108.0	Pulse	0.30	3
2	Ge		137,818.74	0.45	110.0	Pulse	0.30	3
2	Ge		206,593.04	0.11	109.7	Pulse	0.30	3
2	Rh		4,126,192.34	0.51	103.6	Pulse	0.30	3
2	In		1,265,678.44	0.10	104.4	Pulse	0.30	3
2	Tb		4,584,742.32	0.70	101.9	Pulse	0.30	3
2	Ho		456,802.93	0.19	103.3	Pulse	0.30	3
2	Bi		2,863,962.52	0.17	99.6	Pulse	0.30	3
3	Sc		300,785.06	0.34	112.8	Pulse	0.30	3
3	Ge		171,784.32	0.61	109.8	Pulse	0.30	3
3	Ge		259,569.29	1.62	109.1	Pulse	0.30	3
3	Rh		3,125,750.43	0.63	104.1	Pulse	0.30	3
3	Tb		4,581,227.32	0.67	101.6	Pulse	0.30	3

Quantitation Report

File Name	079SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 17:49
Sample Name	mp12071-ps1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	72.233	ug/l	0.33	1,080,255.42	1.351E-01	Pulse	0.25	3
B			1	185.718	ug/l	0.46	2,946,107.94	3.686E-01	Pulse	0.15	3
Ca			1	40998.705	ug/l	0.72	58,870,534.12	6.301E+00	Analog	0.10	3
Sr			1	391.409	ug/l	0.42	22,638,875.50	2.296E+00	Analog	0.10	3
Mo			1	88.746	ug/l	1.03	900,994.21	9.136E-02	Pulse	0.10	3
Ag			1	77.054	ug/l	0.70	2,257,586.27	2.027E-01	Pulse	0.10	3
Sn			1	83.170	ug/l	0.73	1,397,098.99	1.254E-01	Pulse	0.10	3
Sb			1	77.919	ug/l	1.54	1,403,873.78	1.009E-01	Pulse	0.10	3
Ba			1	98.976	ug/l	2.41	782,529.29	5.623E-02	Pulse	0.10	3
Tl			1	83.361	ug/l	1.53	3,349,149.22	4.770E-01	Pulse	0.10	3
Pb			1	83.728	ug/l	1.60	1,114,869.49	1.588E-01	Pulse	0.10	3
Pb			1	83.844	ug/l	1.41	979,678.24	1.395E-01	Pulse	0.10	3
Pb			1	83.469	ug/l	1.42	4,496,159.31	6.404E-01	Pulse	0.10	3
Na			2	27559.162	ug/l	0.39	37,029,672.97	1.451E+02	Analog	0.30	3
Mg			2	9148.128	ug/l	0.91	5,468,302.42	2.143E+01	Analog	0.30	3
Al			2	3745.092	ug/l	0.51	696,267.16	2.728E+00	Pulse	0.30	3
K			2	10650.445	ug/l	0.45	3,719,068.46	1.457E+01	Pulse	0.30	3
Ca			2	42685.855	ug/l	0.36	786,582.95	3.082E+00	Pulse	0.30	3
Ti			2	83.591	ug/l	1.81	11,277.27	4.419E-02	Pulse	0.30	3
V			2	86.012	ug/l	0.76	392,909.61	1.540E+00	Pulse	0.30	3
Cr			2	83.890	ug/l	0.54	508,210.66	1.991E+00	Pulse	0.30	3
Mn			2	907.343	ug/l	0.62	2,749,907.88	1.078E+01	Pulse	0.30	3
Fe			2	4335.786	ug/l	0.47	22,549,541.88	8.836E+01	Analog	0.30	3
Co			2	94.448	ug/l	0.75	1,011,211.28	3.962E+00	Pulse	0.30	3
Ni			2	84.945	ug/l	0.49	250,259.61	9.806E-01	Pulse	0.30	3
Cu			2	86.241	ug/l	0.52	670,486.83	2.627E+00	Pulse	0.30	3
Zn			2	69.496	ug/l	0.73	70,685.69	2.770E-01	Pulse	0.30	3
As			2	85.820	ug/l	0.85	42,165.68	1.652E-01	Pulse	1.00	3
Cd			2	77.936	ug/l	0.49	110,163.98	9.344E-02	Pulse	0.30	3
Sn			2	87.068	ug/l	0.14	208,549.43	1.769E-01	Pulse	0.30	3
Se			3	350.663	ug/l	0.51	47,813.49	1.967E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,993,499.92	0.34	102.8	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		9,342,143.41	0.59	107.1	Analog	0.10	3
1	Ge		1,439,425.66	1.14	100.8	Pulse	0.10	3
1	Ge		2,008,301.22	1.18	101.8	Pulse	0.10	3
1	Rh		9,861,773.60	0.71	102.1	Analog	0.10	3
1	In		11,139,828.05	0.58	108.6	Analog	0.10	3
1	Tb		13,919,725.21	2.16	111.3	Analog	0.10	3
1	Ho		1,298,244.57	2.26	107.4	Pulse	0.10	3
1	Bi		7,020,399.48	0.75	101.0	Analog	0.10	3
2	Sc		255,206.62	0.33	103.8	Pulse	0.30	3
2	Ge		125,528.70	0.52	100.2	Pulse	0.30	3
2	Ge		188,097.68	0.73	99.8	Pulse	0.30	3
2	Rh		3,844,007.90	0.46	96.5	Pulse	0.30	3
2	In		1,178,924.16	0.29	97.2	Pulse	0.30	3
2	Tb		4,485,489.13	0.49	99.7	Pulse	0.30	3
2	Ho		447,515.54	0.23	101.2	Pulse	0.30	3
2	Bi		2,590,924.76	0.46	90.1	Pulse	0.30	3
3	Sc		294,773.74	0.29	110.5	Pulse	0.30	3
3	Ge		160,712.13	0.90	102.8	Pulse	0.30	3
3	Ge		243,048.11	0.42	102.1	Pulse	0.30	3
3	Rh		2,927,505.51	0.50	97.5	Pulse	0.30	3
3	Tb		4,507,856.35	0.71	100.0	Pulse	0.30	3

Quantitation Report

File Name 080SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 17:54
Sample Name mp12049a-b1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	65.698	ug/l	0.75	986,906.98	1.229E-01	Pulse	0.25	3
B			1	79.832	ug/l	0.69	1,302,953.46	1.623E-01	Pulse	0.15	3
Ca			1	4001.353	ug/l	2.04	5,870,713.87	6.178E-01	Analog	0.10	3
Sr			1	78.860	ug/l	0.18	4,870,471.91	4.626E-01	Pulse	0.10	3
Mo			1	81.827	ug/l	0.71	886,919.13	8.424E-02	Pulse	0.10	3
Ag			1	74.691	ug/l	1.28	2,308,720.07	1.964E-01	Pulse	0.10	3
Sn			1	77.365	ug/l	1.14	1,371,913.42	1.167E-01	Pulse	0.10	3
Sb			1	73.449	ug/l	0.96	1,373,263.57	9.509E-02	Pulse	0.10	3
Ba			1	75.382	ug/l	0.37	618,478.77	4.283E-02	Pulse	0.10	3
Tl			1	76.517	ug/l	1.31	3,301,272.76	4.379E-01	Pulse	0.10	3
Pb			1	77.637	ug/l	1.45	1,110,241.47	1.473E-01	Pulse	0.10	3
Pb			1	77.742	ug/l	1.48	975,564.75	1.294E-01	Pulse	0.10	3
Pb			1	77.500	ug/l	1.56	4,483,409.15	5.947E-01	Pulse	0.10	3
Na			2	4017.588	ug/l	0.15	5,480,618.81	2.119E+01	Analog	0.30	3
Mg			2	3780.107	ug/l	0.34	2,289,998.80	8.854E+00	Pulse	0.30	3
Al			2	3644.691	ug/l	0.76	686,718.18	2.655E+00	Pulse	0.30	3
K			2	3815.908	ug/l	0.62	1,357,310.05	5.248E+00	Pulse	0.30	3
Ca			2	4412.299	ug/l	1.22	82,505.69	3.190E-01	Pulse	0.30	3
Ti			2	81.862	ug/l	0.72	11,192.74	4.328E-02	Pulse	0.30	3
V			2	79.840	ug/l	0.21	369,672.56	1.429E+00	Pulse	0.30	3
Cr			2	79.537	ug/l	0.61	488,418.09	1.888E+00	Pulse	0.30	3
Mn			2	76.593	ug/l	0.36	235,323.86	9.098E-01	Pulse	0.30	3
Fe			2	4039.488	ug/l	0.86	21,291,381.93	8.232E+01	Analog	0.30	3
Co			2	77.727	ug/l	0.21	843,409.78	3.261E+00	Pulse	0.30	3
Ni			2	76.416	ug/l	1.18	228,168.46	8.822E-01	Pulse	0.30	3
Cu			2	74.152	ug/l	0.50	584,499.16	2.260E+00	Pulse	0.30	3
Zn			2	59.321	ug/l	0.72	61,211.08	2.367E-01	Pulse	0.30	3
As			2	70.005	ug/l	0.55	34,863.95	1.348E-01	Pulse	1.00	3
Cd			2	70.930	ug/l	0.48	103,816.07	8.504E-02	Pulse	0.30	3
Sn			2	83.372	ug/l	0.09	206,805.31	1.694E-01	Pulse	0.30	3
Se			3	303.732	ug/l	0.63	43,000.69	1.704E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,029,303.45	0.61	103.3	Analog	0.10	3
1	Sc		9,504,895.90	2.10	109.0	Analog	0.10	3
1	Ge		1,485,870.71	1.02	104.0	Pulse	0.10	3

Quantitation Report

1	Ge		2,065,867.26	1.48	104.7	Pulse	0.10	3
1	Rh		10,528,261.93	1.58	109.0	Analog	0.10	3
1	In		11,752,786.65	1.21	114.6	Analog	0.10	3
1	Tb		14,441,618.12	0.58	115.4	Analog	0.10	3
1	Ho		1,362,111.54	1.41	112.7	Pulse	0.10	3
1	Bi		7,539,792.18	1.40	108.5	Analog	0.10	3
2	Sc		258,639.19	0.39	105.2	Pulse	0.30	3
2	Ge		127,433.37	0.22	101.7	Pulse	0.30	3
2	Ge		191,004.76	0.83	101.4	Pulse	0.30	3
2	Rh		4,069,899.98	0.59	102.1	Pulse	0.30	3
2	In		1,220,731.53	0.29	100.7	Pulse	0.30	3
2	Tb		4,662,045.93	0.36	103.6	Pulse	0.30	3
2	Ho		463,164.39	0.47	104.7	Pulse	0.30	3
2	Bi		2,750,142.94	0.47	95.7	Pulse	0.30	3
3	Sc		304,112.05	0.80	114.0	Pulse	0.30	3
3	Ge		166,954.52	0.24	106.7	Pulse	0.30	3
3	Ge		252,321.47	0.51	106.0	Pulse	0.30	3
3	Rh		3,129,858.35	0.54	104.2	Pulse	0.30	3
3	Tb		4,747,020.78	0.41	105.3	Pulse	0.30	3

Quantitation Report

File Name	081SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 17:59
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	5.26	429.34	5.150E-05	Pulse	0.25	3
B			1	1.895	ug/l	7.10	117,753.88	1.413E-02	Pulse	0.15	3
Ca			1	0.472	ug/l	26.10	32,145.26	3.276E-03	Pulse	0.10	3
Sr			1	0.026	ug/l	9.96	4,930.95	4.444E-04	Pulse	0.10	3
Mo			1	0.027	ug/l	27.46	676.71	6.098E-05	Pulse	0.10	3
Ag			1	0.018	ug/l	9.23	1,183.42	9.922E-05	Pulse	0.10	3
Sn			1	-0.215	ug/l	-37.16	6,645.27	5.579E-04	Pulse	0.10	3
Sb			1	0.027	ug/l	14.86	1,126.75	8.088E-05	Pulse	0.10	3
Ba			1	0.011	ug/l	52.87	336.69	2.423E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	6.46	2,353.61	3.046E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	20.54	973.41	1.260E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	62.72	766.72	9.920E-05	Pulse	0.10	3
Pb			1	0.010	ug/l	16.58	3,827.04	4.952E-04	Pulse	0.10	3
Na			2	2.005	ug/l	9.45	17,542.53	6.569E-02	Pulse	0.30	3
Mg			2	0.905	ug/l	5.58	1,302.29	4.877E-03	Pulse	0.30	3
Al			2	0.776	ug/l	12.34	374.45	1.403E-03	Pulse	0.30	3
K			2	0.364	ug/l	83.73	11,389.54	4.265E-02	Pulse	0.30	3
Ca			2	1.074	ug/l	58.35	163.34	6.119E-04	Pulse	0.30	3
Ti			2	-0.006	ug/l	-323.79	4.44	1.668E-05	Pulse	0.30	3
V			2	0.011	ug/l	49.71	790.03	2.958E-03	Pulse	0.30	3
Cr			2	-0.046	ug/l	-10.23	1,418.97	5.314E-03	Pulse	0.30	3
Mn			2	0.044	ug/l	23.70	354.46	1.328E-03	Pulse	0.30	3
Fe			2	1.004	ug/l	8.24	15,722.07	5.888E-02	Pulse	0.30	3
Co			2	0.010	ug/l	24.68	353.34	1.324E-03	Pulse	0.30	3
Ni			2	0.003	ug/l	85.98	141.11	5.284E-04	Pulse	0.30	3
Cu			2	-0.016	ug/l	-28.86	1,574.54	5.896E-03	Pulse	0.30	3
Zn			2	0.003	ug/l	875.01	448.90	1.681E-03	Pulse	0.30	3
As			2	-0.008	ug/l	-126.29	25.00	9.366E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.009	ug/l	17.99	45.52	3.529E-05	Pulse	0.30	3
Sn			2	0.031	ug/l	30.38	777.80	6.029E-04	Pulse	0.30	3
Se			3	0.031	ug/l	216.89	59.20	2.264E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,337,382.78	2.21	107.2	Analog	0.10	3
1	Sc		9,813,313.60	0.17	112.5	Analog	0.10	3
1	Ge		1,566,599.77	0.39	109.7	Pulse	0.10	3
1	Ge		2,168,684.76	0.63	109.9	Pulse	0.10	3
1	Rh		11,102,746.92	1.51	115.0	Analog	0.10	3
1	In		11,928,731.64	0.51	116.3	Analog	0.10	3
1	Tb		13,937,094.79	2.38	111.4	Analog	0.10	3
1	Ho		1,304,349.33	1.44	107.9	Pulse	0.10	3
1	Bi		7,726,851.76	0.33	111.2	Analog	0.10	3
2	Sc		267,077.63	0.53	108.6	Pulse	0.30	3
2	Ge		139,248.25	0.19	111.1	Pulse	0.30	3
2	Ge		207,390.53	0.65	110.1	Pulse	0.30	3
2	Rh		4,281,974.14	0.86	107.5	Pulse	0.30	3
2	In		1,290,149.78	0.35	106.4	Pulse	0.30	3
2	Tb		4,653,410.65	0.33	103.4	Pulse	0.30	3
2	Ho		461,872.41	0.48	104.4	Pulse	0.30	3
2	Bi		2,921,460.02	0.29	101.6	Pulse	0.30	3
3	Sc		300,044.21	0.44	112.5	Pulse	0.30	3
3	Ge		172,691.38	0.32	110.4	Pulse	0.30	3
3	Ge		261,415.45	0.20	109.8	Pulse	0.30	3
3	Rh		3,203,847.02	0.44	106.7	Pulse	0.30	3
3	Tb		4,637,960.51	0.56	102.9	Pulse	0.30	3

Quantitation Report

File Name 082_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 18:04
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.037	ug/l	0.37	1,441,159.71	1.797E-01	Pulse	0.25	3
B			1	102.069	ug/l	2.09	3,242,760.98	4.044E-01	Pulse	0.15	3
Ca			1	5191.582	ug/l	2.08	15,234,315.60	1.598E+00	Analog	0.10	3
Sr			1	54.112	ug/l	1.74	6,519,159.90	6.348E-01	Analog	0.10	3
Mo			1	51.504	ug/l	1.47	1,088,987.74	1.060E-01	Pulse	0.10	3
Ag			1	47.169	ug/l	2.67	2,807,107.15	2.481E-01	Pulse	0.10	3
Sn			1	48.740	ug/l	0.64	1,660,828.36	1.468E-01	Pulse	0.10	3
Sb			1	50.874	ug/l	0.73	1,784,478.05	1.317E-01	Pulse	0.10	3
Ba			1	50.002	ug/l	1.01	769,669.86	5.681E-02	Pulse	0.10	3
Tl			1	49.391	ug/l	1.52	4,029,802.86	5.653E-01	Pulse	0.10	3
Pb			1	49.932	ug/l	1.67	1,350,176.65	1.894E-01	Pulse	0.10	3
Pb			1	50.168	ug/l	2.76	1,190,471.83	1.670E-01	Pulse	0.10	3
Pb			1	49.712	ug/l	2.30	5,438,140.10	7.628E-01	Pulse	0.10	3
Na			2	5199.196	ug/l	1.04	14,456,493.31	5.477E+01	Analog	0.30	3
Mg			2	5178.790	ug/l	2.36	6,402,509.19	2.426E+01	Analog	0.30	3
Al			2	4813.004	ug/l	0.80	1,850,681.31	7.012E+00	Pulse	0.30	3
K			2	5028.774	ug/l	0.78	3,632,745.27	1.376E+01	Pulse	0.30	3
Ca			2	5398.701	ug/l	0.39	205,862.87	7.800E-01	Pulse	0.30	3
Ti			2	51.643	ug/l	0.54	14,409.70	5.460E-02	Pulse	0.30	3
V			2	52.080	ug/l	0.60	491,946.02	1.864E+00	Pulse	0.30	3
Cr			2	50.929	ug/l	0.35	637,745.43	2.416E+00	Pulse	0.30	3
Mn			2	49.448	ug/l	0.77	310,038.63	1.175E+00	Pulse	0.30	3
Fe			2	5156.720	ug/l	1.24	55,464,930.02	2.102E+02	Analog	0.30	3
Co			2	50.054	ug/l	0.97	1,108,459.96	4.200E+00	Pulse	0.30	3
Ni			2	49.471	ug/l	1.15	301,442.15	1.142E+00	Pulse	0.30	3
Cu			2	48.222	ug/l	0.78	775,248.46	2.937E+00	Pulse	0.30	3
Zn			2	48.406	ug/l	0.59	101,666.07	3.852E-01	Pulse	0.30	3
As			2	51.756	ug/l	0.14	52,592.65	1.993E-01	Pulse	1.00	3
Cd			2	51.042	ug/l	0.68	150,644.19	1.224E-01	Pulse	0.30	3
Sn			2	51.992	ug/l	0.46	259,923.47	2.112E-01	Pulse	0.30	3
Se			3	200.674	ug/l	0.08	56,023.97	2.251E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		8,017,899.31	0.18	103.1	Analog	0.10	3
1	Sc		9,534,715.48	2.02	109.4	Analog	0.10	3
1	Ge		1,522,935.97	1.56	106.6	Pulse	0.10	3

Quantitation Report

1	Ge		2,103,699.13	1.17	106.6	Pulse	0.10	3
1	Rh		10,270,144.85	1.17	106.4	Analog	0.10	3
1	In		11,315,532.24	1.11	110.3	Analog	0.10	3
1	Tb		13,548,477.30	1.46	108.3	Analog	0.10	3
1	Ho		1,267,861.31	1.56	104.9	Pulse	0.10	3
1	Bi		7,128,583.43	0.73	102.6	Analog	0.10	3
2	Sc		263,938.07	0.47	107.3	Pulse	0.30	3
2	Ge		132,889.54	0.86	106.0	Pulse	0.30	3
2	Ge		200,869.45	0.10	106.6	Pulse	0.30	3
2	Rh		4,001,095.95	0.32	100.4	Pulse	0.30	3
2	In		1,230,851.05	0.43	101.5	Pulse	0.30	3
2	Tb		4,520,123.15	0.64	100.5	Pulse	0.30	3
2	Ho		450,309.55	0.39	101.8	Pulse	0.30	3
2	Bi		2,734,875.31	0.22	95.1	Pulse	0.30	3
3	Sc		291,125.93	0.59	109.2	Pulse	0.30	3
3	Ge		164,246.74	0.75	105.0	Pulse	0.30	3
3	Ge		248,846.90	0.31	104.6	Pulse	0.30	3
3	Rh		2,947,209.12	0.18	98.2	Pulse	0.30	3
3	Tb		4,395,078.02	0.10	97.5	Pulse	0.30	3

Quantitation Report

File Name 083_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File
Method Path
Acq Time 1/14/2019 18:09
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/14/2019 14:03
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	20.18	224.00	2.801E-05	Pulse	0.25	3
B			1	2.064	ug/l	2.80	118,085.34	1.479E-02	Pulse	0.15	3
Ca			1	-0.062	ug/l	-348.36	29,630.55	3.112E-03	Pulse	0.10	3
Sr			1	0.012	ug/l	19.44	3,120.42	2.877E-04	Pulse	0.10	3
Mo			1	0.067	ug/l	8.14	1,540.13	1.420E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	18.02	853.39	7.244E-05	Pulse	0.10	3
Sn			1	-0.252	ug/l	-4.27	5,261.11	4.471E-04	Pulse	0.10	3
Sb			1	0.126	ug/l	5.43	4,640.90	3.359E-04	Pulse	0.10	3
Ba			1	0.008	ug/l	14.02	296.68	2.146E-05	Pulse	0.10	3
Tl			1	0.013	ug/l	3.72	1,880.19	2.460E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	18.74	860.06	1.125E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	62.81	816.72	1.070E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	13.60	3,676.99	4.812E-04	Pulse	0.10	3
Na			2	1.460	ug/l	1.41	15,626.20	5.995E-02	Pulse	0.30	3
Mg			2	0.550	ug/l	6.76	837.81	3.214E-03	Pulse	0.30	3
Al			2	0.636	ug/l	9.03	312.23	1.198E-03	Pulse	0.30	3
K			2	0.956	ug/l	51.82	11,537.42	4.426E-02	Pulse	0.30	3
Ca			2	0.438	ug/l	38.89	135.56	5.200E-04	Pulse	0.30	3
Ti			2	-0.005	ug/l	-131.41	4.44	1.703E-05	Pulse	0.30	3
V			2	0.001	ug/l	732.18	680.02	2.609E-03	Pulse	0.30	3
Cr			2	-0.052	ug/l	-21.19	1,308.96	5.023E-03	Pulse	0.30	3
Mn			2	0.016	ug/l	18.83	168.89	6.477E-04	Pulse	0.30	3
Fe			2	0.925	ug/l	4.28	14,510.95	5.566E-02	Pulse	0.30	3
Co			2	0.004	ug/l	84.07	210.00	8.060E-04	Pulse	0.30	3
Ni			2	0.010	ug/l	35.17	180.00	6.908E-04	Pulse	0.30	3
Cu			2	0.000	ug/l	-9887.22	1,789.01	6.863E-03	Pulse	0.30	3
Zn			2	0.752	ug/l	8.84	1,984.59	7.615E-03	Pulse	0.30	3
As			2	0.004	ug/l	244.75	36.33	1.395E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.000	ug/l	835.37	16.57	1.315E-05	Pulse	0.30	3
Sn			2	0.067	ug/l	8.62	944.48	7.489E-04	Pulse	0.30	3
Se			3	0.156	ug/l	21.60	93.47	3.668E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		7,986,584.59	1.29	102.7	Analog	0.10	3
1	Sc		9,523,973.82	1.24	109.2	Analog	0.10	3
1	Ge		1,536,306.44	0.50	107.5	Pulse	0.10	3
1	Ge		2,120,517.31	0.99	107.5	Pulse	0.10	3
1	Rh		10,844,400.26	0.14	112.3	Analog	0.10	3
1	In		11,766,296.43	1.11	114.7	Analog	0.10	3
1	Tb		13,817,920.21	0.94	110.5	Analog	0.10	3
1	Ho		1,280,554.88	0.95	106.0	Pulse	0.10	3
1	Bi		7,644,068.84	1.44	110.0	Analog	0.10	3
2	Sc		260,672.37	0.42	106.0	Pulse	0.30	3
2	Ge		135,294.56	0.37	108.0	Pulse	0.30	3
2	Ge		203,304.17	1.13	107.9	Pulse	0.30	3
2	Rh		4,177,808.72	0.26	104.8	Pulse	0.30	3
2	In		1,260,985.53	0.57	104.0	Pulse	0.30	3
2	Tb		4,556,359.68	0.39	101.3	Pulse	0.30	3
2	Ho		452,951.82	0.15	102.4	Pulse	0.30	3
2	Bi		2,881,366.48	0.38	100.2	Pulse	0.30	3
3	Sc		295,636.23	0.92	110.8	Pulse	0.30	3
3	Ge		168,526.78	0.24	107.8	Pulse	0.30	3
3	Ge		254,918.43	0.74	107.1	Pulse	0.30	3
3	Rh		3,144,272.86	0.47	104.7	Pulse	0.30	3
3	Tb		4,557,874.40	0.47	101.1	Pulse	0.30	3

Quantitation Report

File Name	084SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Method File	
Method Path	
Acq Time	1/14/2019 18:16
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/14/2019 14:03
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

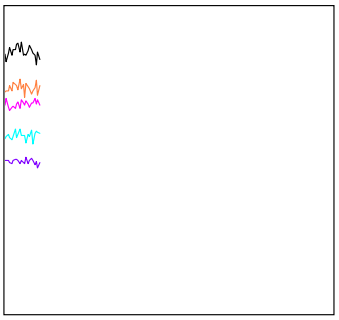
Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	28.72	370.68	4.495E-05	Pulse	0.25	3
B			1	1.464	ug/l	4.76	102,604.15	1.245E-02	Pulse	0.15	3
Ca			1	2.497	ug/l	36.56	37,584.72	3.898E-03	Pulse	0.10	3
Sr			1	0.043	ug/l	18.71	6,975.25	6.450E-04	Pulse	0.10	3
Mo			1	0.030	ug/l	25.39	710.04	6.569E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	20.00	333.35	2.865E-05	Pulse	0.10	3
Sn			1	-0.239	ug/l	-2.77	5,671.23	4.866E-04	Pulse	0.10	3
Sb			1	0.028	ug/l	13.55	1,153.42	8.347E-05	Pulse	0.10	3
Ba			1	0.007	ug/l	39.34	273.35	1.978E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	29.22	1,290.11	1.695E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-545.80	593.37	7.797E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	127.17	673.38	8.850E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	22.69	2,960.25	3.887E-04	Pulse	0.10	3
Na			2	6.237	ug/l	27.08	29,260.26	1.102E-01	Pulse	0.30	3
Mg			2	3.144	ug/l	25.29	4,077.65	1.536E-02	Pulse	0.30	3
Al			2	2.409	ug/l	25.41	1,003.40	3.781E-03	Pulse	0.30	3
K			2	2.867	ug/l	29.30	13,133.14	4.948E-02	Pulse	0.30	3
Ca			2	6.259	ug/l	19.33	361.12	1.361E-03	Pulse	0.30	3
Ti			2	0.030	ug/l	99.08	14.44	5.438E-05	Pulse	0.30	3
V			2	0.024	ug/l	9.31	911.15	3.432E-03	Pulse	0.30	3
Cr			2	-0.047	ug/l	-13.11	1,391.19	5.241E-03	Pulse	0.30	3
Mn			2	0.104	ug/l	38.91	725.60	2.734E-03	Pulse	0.30	3
Fe			2	2.873	ug/l	24.08	35,848.92	1.351E-01	Pulse	0.30	3
Co			2	0.018	ug/l	25.67	527.80	1.988E-03	Pulse	0.30	3
Ni			2	0.018	ug/l	45.81	233.35	8.789E-04	Pulse	0.30	3
Cu			2	-0.015	ug/l	-38.23	1,582.32	5.961E-03	Pulse	0.30	3
Zn			2	0.017	ug/l	25.56	476.68	1.796E-03	Pulse	0.30	3
As			2	0.013	ug/l	61.01	46.33	1.746E-04	Pulse	1.00	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	20000	11739	11593.3	2.18
59	20000	9813	9888.6	1.59
89	20000	14834	14683.6	2.08
140	20000	13569	13628.5	1.58
205	10000	8259	8504.8	2.18
156/140	5	1.548 %	1.710 %	11.27
70/140	20	8.965 %	9.118 %	5.93
9	20	0	2.0	53.45
11	10000	7470	7447.9	2.61
88	100	81	61.0	14.92
95	20	6	3.2	58.89
107	20	1	3.9	64.58
121	20	10	10.3	40.61
137	50	7	12.9	28.28
208	100	41	46.7	12.20
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-20	V
Extract 2	-120.0	V	Cell Exit	-60	V
Omega Bias	-65	V	Deflect	15.2	V
Omega Lens	6.5	V	Plate Bias	-45	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.66E+2	Pa	S/C Temp (L)	1.9	℃
TMP Revolution	100.0	%	Carrier Gas(BP)	1.45E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

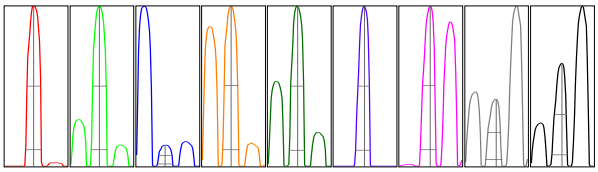
Batch Folder C:\Agilent\ICPMH\1\DATA\xa011419m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	364987	1.02	5.00	
24	979937	0.83	5.00	
25	128090	0.72	5.00	
26	149570	0.67	5.00	
59	1156339	0.48	5.00	
115	1427096	0.47	5.00	
206	307997	0.46	5.00	
207	279046	0.41	5.00	
208	652022	0.45	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	359860	364067	364842	365939	370229
24	967503	977497	982647	982445	989594
25	126596	127993	128736	128169	128956
26	147975	149171	150128	150201	150376
59	1148504	1155049	1154803	1160906	1162430
115	1419371	1430258	1421044	1435531	1429277
206	305868	309337	309279	307715	307787
207	277327	279185	279881	278625	280211
208	647264	653096	652476	655336	651938

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	59843	8.90	8.9 - 9.1		0.754	0.900	
24	161056	23.90	23.9 - 24.1		0.756	0.900	
25	21352	24.90	24.9 - 25.1		0.731	0.900	
26	24516	25.90	25.9 - 26.1		0.759	0.900	
59	198372	58.95	58.9 - 59.1		0.717	0.900	
115	260274	115.00	114.9 - 115.1		0.692	0.900	
206	54169	206.00	205.9 - 206.1		0.741	0.900	
207	48834	207.00	206.9 - 207.1		0.748	0.900	
208	116458	208.00	207.9 - 208.1		0.743	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

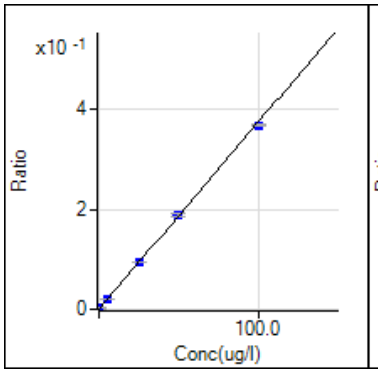
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.5	V			
Extract 2	-120.0	V	Cell Entrance	-20	V			
Omega Bias	-65	V	Cell Exit	-60	V			
Deflect	15.2	V						

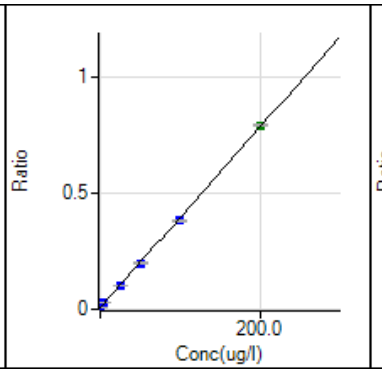
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

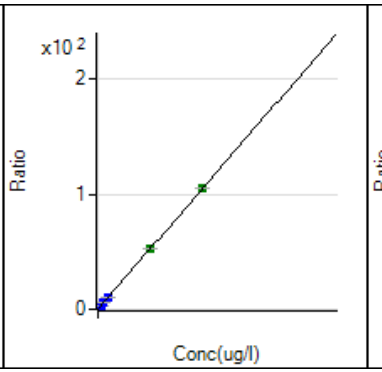
Calibration for C:\Agilent\ICPMH\1\DATA\xa011419m1.b\072SMPL.d



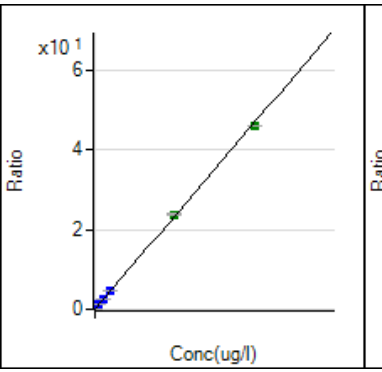
9 Be [1] / ISTD: 6 Li
y = 3.742E-3 x + 6.195E-6
R 0.9999
DL 0.001184
BEC 0.001656



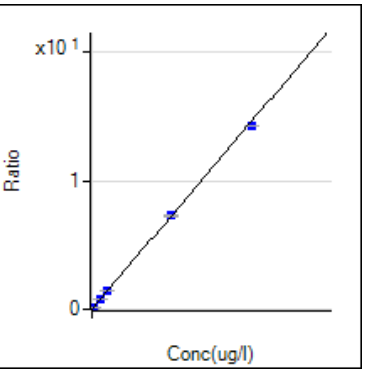
11 B [1] / ISTD: 6 Li
y = 3.896E-3 x + 6.747E-3
R 0.9997
DL 0.1681
BEC 1.732



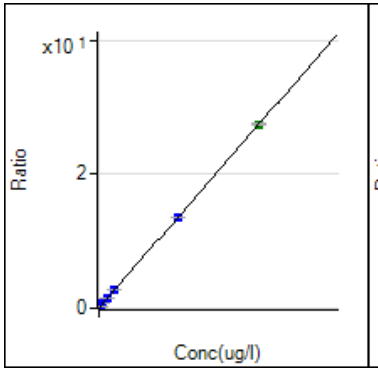
23 Na [2] / ISTD: 45 Sc
y = 1.053E-2 x + 4.458E-2
R 1.0000
DL 0.2912
BEC 4.235



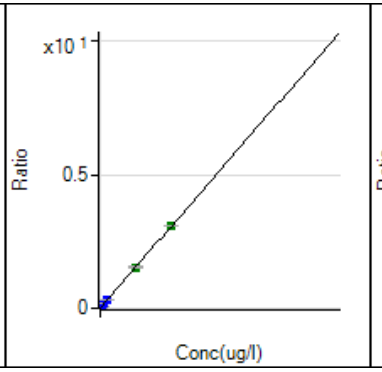
24 Mg [2] / ISTD: 45 Sc
y = 4.684E-3 x + 6.384E-4
R 0.9999
DL 0.09115
BEC 0.1363



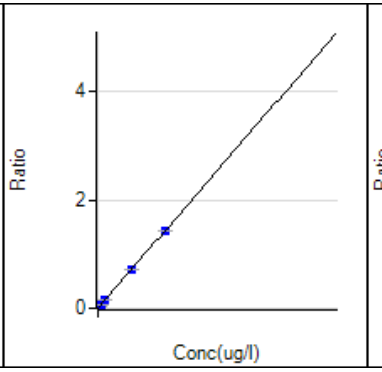
27 Al [2] / ISTD: 45 Sc
y = 1.457E-3 x + 2.717E-4
R 1.0000
DL 0.06432
BEC 0.1865



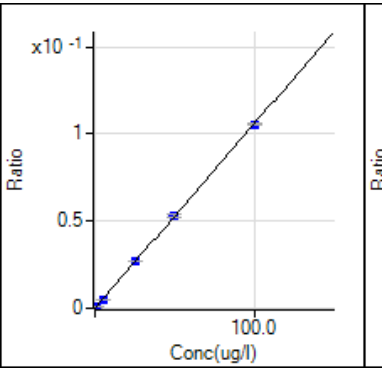
39 K [2] / ISTD: 45 Sc
y = 2.729E-3 x + 4.165E-2
R 1.0000
DL 0.9483
BEC 15.26



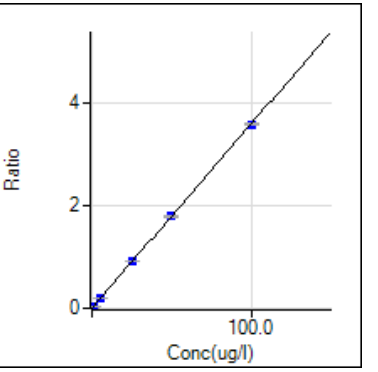
44 Ca [1] / ISTD: 45 Sc
y = 3.072E-4 x + 3.131E-3
R 1.0000
DL 1.248
BEC 10.19



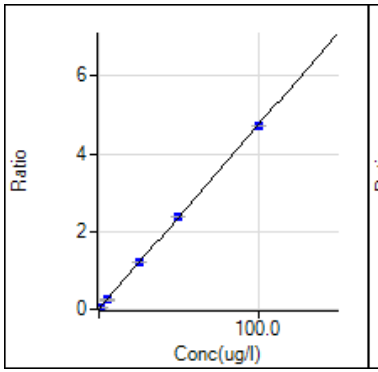
44 Ca [2] / ISTD: 45 Sc
y = 1.444E-4 x + 4.568E-4
R 1.0000
DL 1.797
BEC 3.164



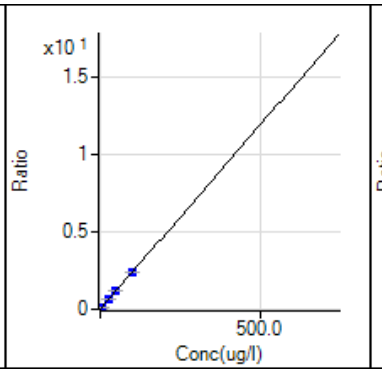
47 Ti [2] / ISTD: 45 Sc
y = 1.057E-3 x + 2.260E-5
R 1.0000
DL 0.02236
BEC 0.02139



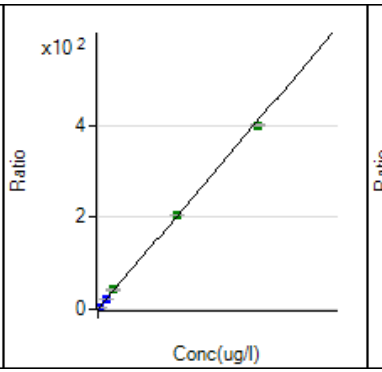
51 V [2] / ISTD: 45 Sc
y = 3.574E-2 x + 2.580E-3
R 1.0000
DL 0.01194
BEC 0.07218



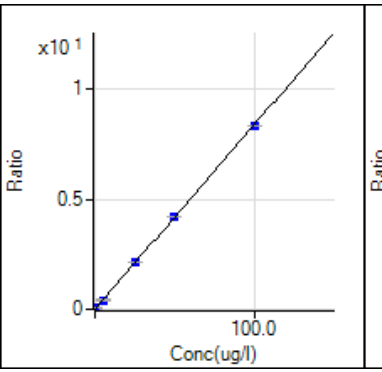
52 Cr [2] / ISTD: 45 Sc
y = 4.730E-2 x + 7.466E-3
R 1.0000
DL 0.008015
BEC 0.1579



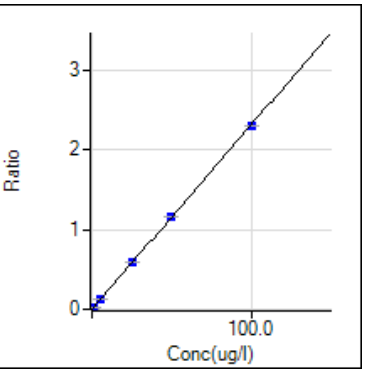
55 Mn [2] / ISTD: 45 Sc
y = 2.375E-2 x + 2.756E-4
R 1.0000
DL 0.003637
BEC 0.0116



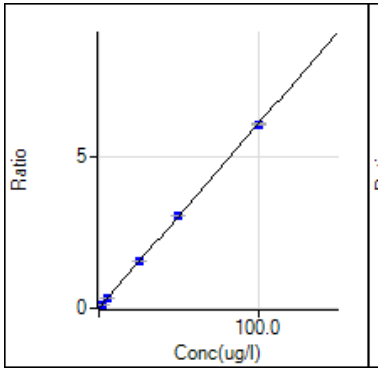
56 Fe [2] / ISTD: 45 Sc
y = 4.075E-2 x + 1.798E-2
R 0.9999
DL 0.04482
BEC 0.4413



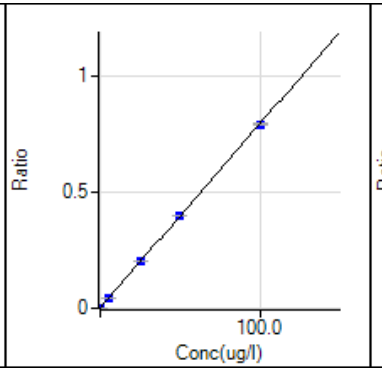
59 Co [2] / ISTD: 45 Sc
y = 8.389E-2 x + 5.105E-4
R 1.0000
DL 0.003176
BEC 0.006086



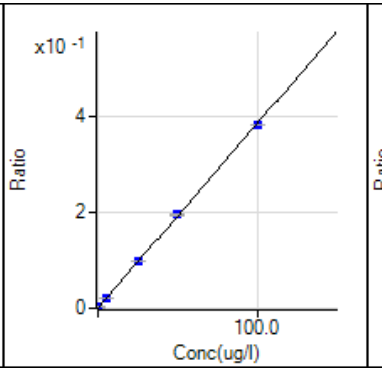
60 Ni [2] / ISTD: 45 Sc
y = 2.308E-2 x + 4.563E-4
R 1.0000
DL 0.00667
BEC 0.01977



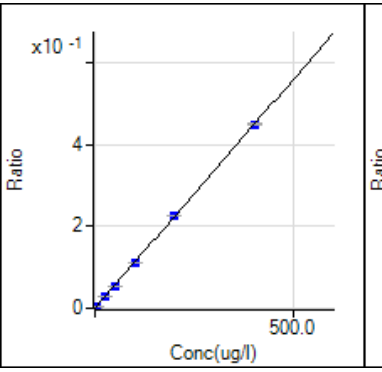
63 Cu [2] / ISTD: 45 Sc
y = 6.077E-2 x + 6.867E-3
R 1.0000
DL 0.01852
BEC 0.113



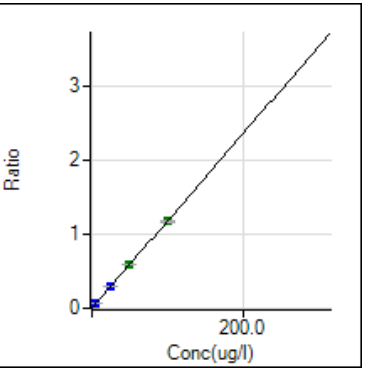
66 Zn [2] / ISTD: 45 Sc
y = 7.923E-3 x + 1.658E-3
R 1.0000
DL 0.09177
BEC 0.2093



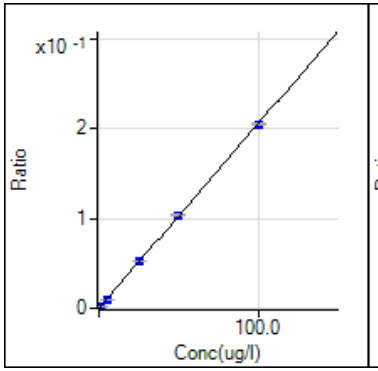
75 As [2] / ISTD: 45 Sc
y = 3.848E-3 x + 1.239E-4
R 0.9999
DL 0.02378
BEC 0.03219



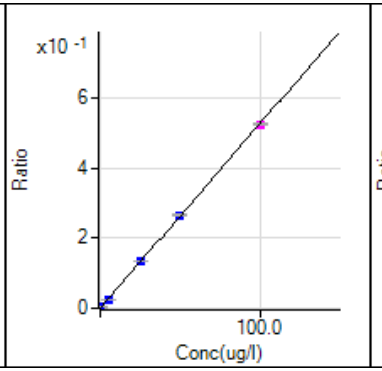
78 Se [3] / ISTD: 74 Ge
y = 1.121E-3 x + 1.918E-4
R 1.0000
DL 0.1364
BEC 0.1711



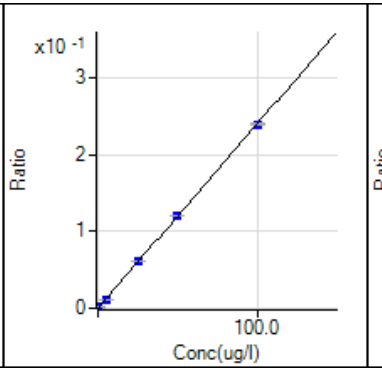
88 Sr [1] / ISTD: 103 Rh
y = 1.173E-2 x + 1.415E-4
R 1.0000
DL 0.005374
BEC 0.01207



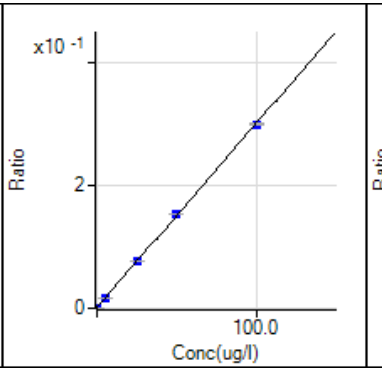
95 Mo [1] / ISTD: 103 Rh
y = 2.059E-3 x + 4.487E-6
R 1.0000
DL 0.0008391
BEC 0.002179



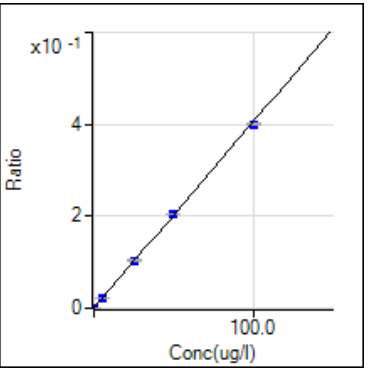
107 Ag [1] / ISTD: 115 In
y = 5.260E-3 x + 5.520E-6
R 1.0000
DL 0.000841
BEC 0.001049



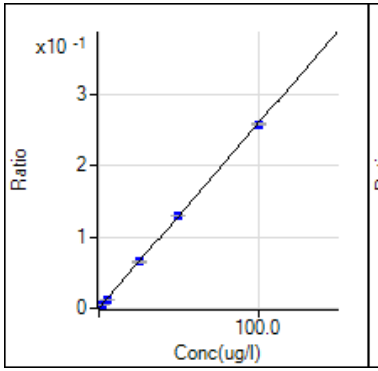
111 Cd [2] / ISTD: 115 In
y = 2.398E-3 x + 1.283E-5
R 1.0000
DL 0.009935
BEC 0.00535



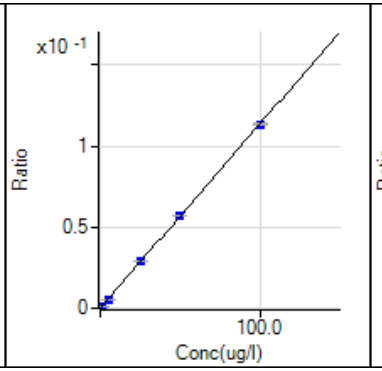
118 Sn [1] / ISTD: 115 In
y = 2.987E-3 x + 1.200E-3
R 0.9999
DL 0.009518
BEC 0.4017



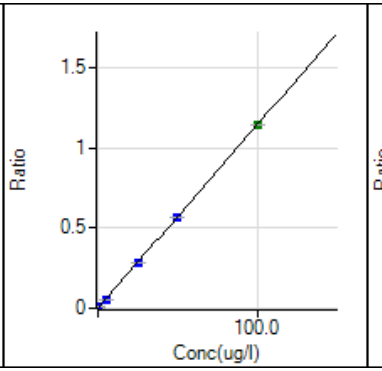
118 Sn [2] / ISTD: 115 In
y = 4.053E-3 x + 4.777E-4
R 0.9999
DL 0.02766
BEC 0.1179



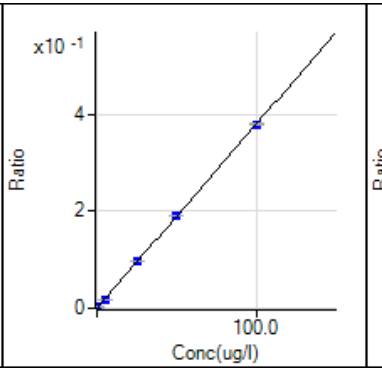
121 Sb [1] / ISTD: 159 Tb
y = 2.589E-3 x + 1.062E-5
R 1.0000
DL 0.003225
BEC 0.004101



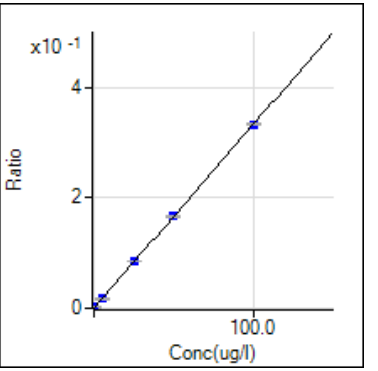
137 Ba [1] / ISTD: 159 Tb
y = 1.136E-3 x + 1.206E-5
R 1.0000
DL 0.003814
BEC 0.01061



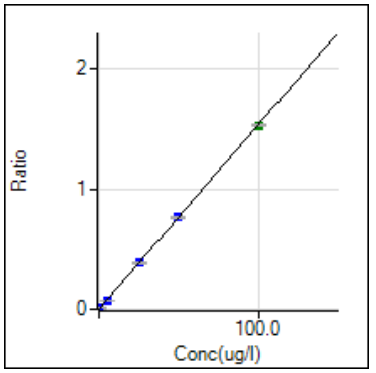
205 Tl [1] / ISTD: 209 Bi
y = 1.144E-2 x + 1.008E-4
R 1.0000
DL 0.002338
BEC 0.008809



206 Pb [1] / ISTD: 209 Bi
y = 3.791E-3 x + 8.136E-5
R 1.0000
DL 0.01011
BEC 0.02146



207 Pb [1] / ISTD: 209 Bi
y = 3.327E-3 x + 7.645E-5
R 1.0000
DL 0.007631
BEC 0.02298



208 Pb [1] / ISTD: 209 Bi

y = 1.534E-2 x + 3.488E-4

R	1.0000
DL	0.002231
BEC	0.02274

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP12071	1/14/2019	8:50	1/14/2019	14:15	JC81275-1	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	5	4156601	94	0	94
1	End	5	4156601	93	0	93
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1808349	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP12071-MB1	N/A	N	50	50	AB		
MP12071-B1	N/A	N	50	50	AB	ABCDE	
MP12071-S1	1	Y	50	50	AB	ABCDE	
MP12071-S2	1	Y	50	50	AB	ABCDE	
MP12071-SD1	1	Y	50	50	AB		
JC81275-1	1	Y	50	50	AB		

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13B REV1	0.2
B	ACCUTEST 14B REV1	0.2
C	MINERALS 1000PPM	0.2
D	AG 20PPM	0.2
E	SE 20PPM	0.8
F	AG 20PPM	0.2
G		
H		

Comments:

Analyst TAYLORG **Approved by** GULCAGT **Approved on** 1/15/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL), Devens, MA

AC001.M01

SGS Job Number: JC82631

Sampling Date: 02/08/19

Report to:

Sovereign Consulting
9 Payson Road Suite 150
Foxborough, MA 02035
SPassafaro@SovCon.com

ATTN: Steve Passafaro

Total number of pages in report: **158**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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Please share your ideas about how we can serve you better at:
EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: JC82631

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC82631-1	02/08/19	08:33	LP	02/08/19	AQ	Effluent	EFFLUENT

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Sovereign Consulting	**Job No**	JC82631
Site:	Shepley's Hill (SHL), Devens, MA	**Report Date**	2/14/2019 10:18:58 A

On 02/08/2019, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC82631 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP12514

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC79879-11AMS, JC79879-11AMSD, JC79879-11APS, JC79879-11ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic are outside control limits. Serial dilution indicates possible matrix interference.
- MP12514-MB2 for Arsenic: Lab filtered.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC82631
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 02/08/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC82631-1	**EFFLUENT**					
Arsenic		18.1	3.0	2.0	ug/l	SW846 6020B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	JC82631-1	**Date Sampled:**	02/08/19
Matrix:	AQ - Effluent	**Date Received:**	02/08/19
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL), Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	18.1	3.0	2.0	0.94	ug/l	2	02/12/19	02/13/19	ZC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA46148
(2) Prep QC Batch: MP12514

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody
- QC Evaluation: DOD QSM5 Limits

SGS

GW

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

PAGE 1 OF 1

FED-EX Tracking # 4901 7491 4938 | Bottle Order Control #
SGS Quote # | SGS Job # JC82631

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Street Address: 9 Payson Road, Suite 150
City / State / Zip: Foxborough MA 02035
Project Contact / E-mail: Steve Passafaro (spassafaro@sovcon.com)
Phone # / Fax #: (508) 339-3200
Sampler(s) Name(s) / Phone #: Louis A Pescetti / Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City / State: Devens MA
Project #: AC001.M01
Client Purchase Order #:
Project Manager: Steve Passafaro

Billing Information (if different from Report to)

Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Lab Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Total As - 6020A	LAB USE ONLY
1	Effluent		2/8/19	08:33	LAP	GW	1			✓						X	
																	A24

Turnaround Time (Business days)

Approved by (SGS Project Manager)/Date:

- [ ] Std. 10 Business Days
- [X] 5 Day RUSH - Arsenic Only — INITIAL ASESSMENT 3A0
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH — LABEL VERIFICATION
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available via LabLink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [X] Other See QAPP

Commercial "A" = Results Only; Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

See Project QAPP for all specfic project requirements
5 - Day rush on Arsenic

SGS-ACCUTEST 2/8
MARLBOR

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		2/8/19 10:30	1	2	2/8/19 1800	2
3	FEDEX	2/9/19 1000	3	FEDEX	2/9/19 1003	4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal # 10096	Intact / Not intact	Preserved where applicable: On Ice; Cooler Temp. 1.6°C IR

Form:SM088-03C (revised 2/12/18)

http://www.sgs.com/en/terms-and-conditions.

JC82631: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC82631 **Client:** _____ **Project:** _____

Date / Time Received: 2/8/2019 6:30:00 PM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (1.6);

Cooler Temps (Corrected) °C: Cooler 1: (1.3);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

Sovereign Consulting

Job No: JC82631

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC82631-1 EFFLUENT	Collected: 08-FEB-19 08:33	By: LP	Received: 08-FEB-19	By: AS		
JC82631-1	SW846 6020B	13-FEB-19 15:38	ZC	12-FEB-19	TG	ASMS

SGS Internal Chain of Custody

Job Number: JC82631
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Received: 02/08/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC82631-1.1	Secured Storage	Matthew Robbins	02/11/19 18:07	Retrieve from Storage
JC82631-1.1	Matthew Robbins	Secured Staging Area	02/11/19 18:07	Return to Storage
JC82631-1.1	Secured Staging Area	Taylor Gorman	02/12/19 08:20	Retrieve from Storage
JC82631-1.1	Taylor Gorman	Secured Storage	02/12/19 11:24	Return to Storage
JC82631-1.1.1	Taylor Gorman	Metals Digestion	02/12/19 11:23	Digestate from JC82631-1.1
JC82631-1.1.1	Metals Digestion	Taylor Gorman	02/12/19 11:24	Digestate from JC82631-1.1
JC82631-1.1.1	Taylor Gorman	Metals Digestate Storage	02/12/19 11:24	Return to Storage

QC Evaluation: DOD QSM5 Limits

Job Number: JC82631
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 02/08/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP12514	SW846 6020B						
MP12514-B2	7440-38-2	Arsenic	BSP	REC	94.4	%	84-116
MP12514-B3	7440-38-2	Arsenic	BSP	REC	114.5	%	84-116
MP12514-S3*	7440-38-2	Arsenic	MS	REC	84.6	%	84-116
MP12514-S4*	7440-38-2	Arsenic	MSD	REC	83.9	%	84-116
MP12514-S4*	7440-38-2	Arsenic	MSD	RPD	.9	%	20

* Sample used for QC is not from job JC82631

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:13	MA46148-STD1	1		STDA
11:18	MA46148-STD2	1		STDA
11:23	MA46148-STD3	1		STDA
11:28	MA46148-STD4	1		STDA
11:33	MA46148-STD5	1		STDB
11:38	MA46148-STD6	1		STDC
11:43	MA46148-STD7	1		STDD
11:48	MA46148-STD8	1		STDE
11:53	MA46148-STD9	1		STDF
11:58	MA46148-STD10	1		STDG
12:03	MA46148-STD11	1		STDH
12:07	MA46148-STD12	1		STDI
12:12	MA46148-STD13	1		STDJ
12:17	MA46148-STD14	1		STDA
12:40	MA46148-ICVA1	1		See rerun
12:45	MA46148-ICV1	1		
12:54	ZZZZZZ	1		
13:03	MA46148-ICVA2	1		
13:12	MA46148-ICB1	1		
13:17	MA46148-CCVA1	1		
13:22	MA46148-CCB1	1		
13:27	MA46148-CRI1	1		
13:32	ZZZZZZ	1		
13:44	MA46148-ICSA1	1		
13:48	MA46148-ICSAB1	1		
13:53	ZZZZZZ	1		
13:58	MA46148-CCVA2	1		
14:03	MA46148-CCB2	1		
14:08	MP12514-MB1	2		
14:13	MP12514-MB2	2		
14:18	MP12514-B2	2		
14:23	MP12514-B3	25		
14:28	MP12514-S3	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:33	ZZZZZZ	1		
14:38	MP12514-S4	2		
14:43	JC79879-11A	2		(sample used for QC only; not part of login JC82631)
14:48	MP12514-SD1	10		
14:53	MA46148-CCVA3	1		
14:58	MA46148-CCB3	1		
15:03	ZZZZZZ	1		
15:08	ZZZZZZ	1		
15:13	MP12514-PS1	2		
15:18	ZZZZZZ	2		
15:23	ZZZZZZ	2		
15:28	ZZZZZZ	2		
15:33	ZZZZZZ	2		
15:38	JC82631-1	2		
---------->	Last reportable sample/prep for job JC82631			
15:43	MA46148-CCVA4	1		
15:48	MA46148-CCB4	1		
---------->	Last reportable CCB for job JC82631			
15:53	ZZZZZZ	2		
15:58	ZZZZZZ	2		
16:03	ZZZZZZ	2		
16:08	ZZZZZZ	2		
16:13	ZZZZZZ	2		
16:18	ZZZZZZ	2		
16:23	MA46148-CCVA5	1		
16:28	MA46148-CCB5	1		
16:33	ZZZZZZ	2		
16:38	ZZZZZZ	2		
16:43	ZZZZZZ	2		
16:48	MA46148-CCVA6	1		
16:53	MA46148-CCB6	1		
16:58	MP12547-MB1	1		
17:03	MP12547-B1	1		
17:08	MP12547-S1	1		
17:13	MP12547-S2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:18	JC82713-14	1		(sample used for QC only; not part of login JC82631)
17:23	MP12547-S3	1		
17:27	JC82713-15	1		(sample used for QC only; not part of login JC82631)
17:32	ZZZZZZ	1		
17:37	ZZZZZZ	1		
17:42	ZZZZZZ	1		
17:47	MA46148-CCVA7	1		
17:52	MA46148-CCB7	1		
17:57	ZZZZZZ	1		
18:02	ZZZZZZ	1		
18:07	ZZZZZZ	1		
18:12	ZZZZZZ	1		
18:17	ZZZZZZ	1		
18:22	ZZZZZZ	1		
18:27	ZZZZZZ	1		
18:32	ZZZZZZ	1		
18:37	ZZZZZZ	1		
18:42	MA46148-CCVA8	1		
18:47	MA46148-CCB8	1		
18:52	ZZZZZZ	1		
18:57	ZZZZZZ	1		
19:02	ZZZZZZ	1		
19:07	ZZZZZZ	1		
19:12	ZZZZZZ	1		
19:17	ZZZZZZ	1		
19:22	ZZZZZZ	1		
19:27	MA46148-CCVA9	1		
19:32	MA46148-CCB9	1		
19:37	ZZZZZZ	1		
19:42	ZZZZZZ	1		
19:47	ZZZZZZ	1		
19:51	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Element: Dilution	As
12:40	MA46148-ICVA1	1	See rerun
12:45	MA46148-ICV1	1	
12:54	ZZZZZZ	1	
13:03	MA46148-ICVA2	1	X
13:12	MA46148-ICB1	1	X
13:17	MA46148-CCVA1	1	X
13:22	MA46148-CCB1	1	X
13:27	MA46148-CRI1	1	X
13:32	ZZZZZZ	1	
13:44	MA46148-ICSA1	1	X
13:48	MA46148-ICSAB1	1	X
13:53	ZZZZZZ	1	
13:58	MA46148-CCVA2	1	X
14:03	MA46148-CCB2	1	X
14:08	MP12514-MB1	2	X
14:13	MP12514-MB2	2	X
14:18	MP12514-B2	2	X
14:23	MP12514-B3	25	X
14:28	MP12514-S3	2	X
14:33	ZZZZZZ	1	
14:38	MP12514-S4	2	X
14:43	JC79879-11A	2	X (a)
14:48	MP12514-SD1	10	X
14:53	MA46148-CCVA3	1	X
14:58	MA46148-CCB3	1	X
15:03	ZZZZZZ	1	
15:08	ZZZZZZ	1	
15:13	MP12514-PS1	2	X
15:18	ZZZZZZ	2	
15:23	ZZZZZZ	2	
15:28	ZZZZZZ	2	
15:33	ZZZZZZ	2	
15:38	JC82631-1	2	X
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Element: Dilution	As	
15:43	MA46148-CCVA4	1	X	
15:48	MA46148-CCB4	1	X	
15:53	ZZZZZZ	2		
15:58	ZZZZZZ	2		
16:03	ZZZZZZ	2		
16:08	ZZZZZZ	2		
16:13	ZZZZZZ	2		
16:18	ZZZZZZ	2		
16:23	MA46148-CCVA5	1	X	
16:28	MA46148-CCB5	1	X	
16:33	ZZZZZZ	2		
16:38	ZZZZZZ	2		
16:43	ZZZZZZ	2		
16:48	MA46148-CCVA6	1	X	
16:53	MA46148-CCB6	1	X	
16:58	MP12547-MB1	1		
17:03	MP12547-B1	1		
17:08	MP12547-S1	1		
17:13	MP12547-S2	1		
17:18	JC82713-14	1		(a)
17:23	MP12547-S3	1		
17:27	JC82713-15	1		(a)
17:32	ZZZZZZ	1		
17:37	ZZZZZZ	1		
17:42	ZZZZZZ	1		
17:47	MA46148-CCVA7	1	X	
17:52	MA46148-CCB7	1	X	
17:57	ZZZZZZ	1		
18:02	ZZZZZZ	1		
18:07	ZZZZZZ	1		
18:12	ZZZZZZ	1		
18:17	ZZZZZZ	1		
18:22	ZZZZZZ	1		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Dilution	Element: As
18:27	ZZZZZZ	1	
18:32	ZZZZZZ	1	
18:37	ZZZZZZ	1	
18:42	MA46148-CCVA8	1	X
18:47	MA46148-CCB8	1	X
18:52	ZZZZZZ	1	
18:57	ZZZZZZ	1	
19:02	ZZZZZZ	1	
19:07	ZZZZZZ	1	
19:12	ZZZZZZ	1	
19:17	ZZZZZZ	1	
19:22	ZZZZZZ	1	
19:27	MA46148-CCVA9	1	X
19:32	MA46148-CCB9	1	X
19:37	ZZZZZZ	1	
19:42	ZZZZZZ	1	
19:47	ZZZZZZ	1	
19:51	ZZZZZZ	1	

(a) Sample used for QC only; not part of login JC82631.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
11:13	MA46148-STD1	100	100	100	100	100	100	100	100
11:18	MA46148-STD2	100	100	100	100	100	100	100	100
11:23	MA46148-STD3	100	100	100	100	100	100	100	100
11:28	MA46148-STD4	100	100	100	100	100	100	100	100
11:33	MA46148-STD5	99.855	100.809	100.286	101.419	101.021	100.608	100.911	101.051
11:38	MA46148-STD6	99.339	100.432	102.121	103.197	100.608	102.039	101.917	100.799
11:43	MA46148-STD7	101.441	102.391	103.66	104.228	102.454	103.08	102.325	102.331
11:48	MA46148-STD8	99.404	101.927	102.663	102.346	101.933	102.096	101.071	101.783
11:53	MA46148-STD9	99.973	100.391	100.641	100.641	101.103	100.982	99.291	101.479
11:58	MA46148-STD10	98.638	99.059	100.995	101.393	99.236	100.785	100.25	100.654
12:03	MA46148-STD11	99.926	100.781	102.561	102.306	101.505	102.425	101.083	102.53
12:07	MA46148-STD12	99.768	101.7	104.716	104.728	102.397	104.265	102.559	100.485
12:12	MA46148-STD13	102.026	104.422	107.867	105.094	105.49	107.097	103.245	103.154
12:17	MA46148-STD14	100	100	100	100	100	100	100	100
12:40	MA46148-ICVA1	No results reported for the elements associated with this internal standard.							
12:45	MA46148-ICV1	99.952	99.817	102.183	99.446	100.766	101.716	99.956	100.025
12:54	ZZZZZZ	99.426	98.353	101.165	98.204	99.645	100.138	96.895	99.762
13:03	MA46148-ICVA2	100.526	99.297	102.274	98.606	100.837	101.189	98.231	100.846
13:12	MA46148-ICB1	100.758	101.062	103.52	100.875	102.52	103.462	101.447	101.675
13:17	MA46148-CCVA1	100.276	99.316	101.045	99.457	99.728	99.907	97.767	100.429
13:22	MA46148-CCB1	99.176	99.935	101.9	101.271	101.318	102.817	101.673	100.761
13:27	MA46148-CRI1	100.277	101.427	102.623	100.876	102.717	102.507	101.199	101.568
13:32	ZZZZZZ	100.95	101.679	102.281	100.973	101.578	103.288	101.289	101.423
13:44	MA46148-ICSA1	97.263	98.96	109.984	105.691	109.085	108.913	101.155	93.656
13:48	MA46148-ICSAB1	100.738	106.879	113.299	110.689	115.352	111.807	104.973	99.782
13:53	ZZZZZZ	92.55	98.323	97.755	104.518	103.131	103.675	106.661	102.659
13:58	MA46148-CCVA2	95.493	100.062	101.985	108.82	105.223	105.31	108.903	104.948
14:03	MA46148-CCB2	99.744	104.836	104.513	113.951	110.161	108.558	115.295	110.128
14:08	MP12514-MB1	100.628	103.025	102.059	117.628	107.842	104.767	116.133	106.36
14:13	MP12514-MB2	105.036	108.058	106.662	124.09	111.745	107.597	120.845	110.791
14:18	MP12514-B2	100.078	104.941	102.121	119.417	108.048	105.36	115.209	108.482
14:23	MP12514-B3	105.63	111.786	109.282	120.806	116.747	114.985	120.566	116.876
14:28	MP12514-S3	101.317	107.662	103.469	120.145	109.169	105.315	116.31	107.73

INTERNAL STANDARD SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
14:33	ZZZZZZ	104.234	110.726	109.06	122.681	115.415	113.736	123.045	114.66
14:38	MP12514-S4	101.436	108.855	103.638	121.73	110.073	104.991	117.643	109.23
14:43	JC79879-11A	101.835	107.804	101.41	121.424	108.726	103.804	117.431	106.412
14:48	MP12514-SD1	107.821	110.879	108.99	123.822	114.434	113.297	124.095	113.796
14:53	MA46148-CCVA3	111.855	118.046	115.872	126.779	119.696	118.065	123.301	119.633
14:58	MA46148-CCB3	114.01	116.097	114.591	127.085	118.415	117.713	125.506	118.232
15:03	ZZZZZZ	116.747	116.135	114.375	126.523	118.759	116.211	125.305	118.256
15:08	ZZZZZZ	114.062	115.728	114.33	126.825	117.8	115.469	125.253	117.107
15:13	MP12514-PS1	106.955	111.714	106.992	124.153	111.359	107.566	118.246	110.79
15:18	ZZZZZZ	104.287	111.665	109.27	119.756	104.512	103.108	107.694	103.914
15:23	ZZZZZZ	103.947	112.897	110.557	119.668	104.357	103.779	105.094	103.249
15:28	ZZZZZZ	105.178	117.079	112.171	121.837	106.833	105.391	108.772	105.816
15:33	ZZZZZZ	104.596	113.163	110.25	118.656	105.625	103.176	104.971	103.743
15:38	JC82631-1	106.824	112.108	108.875	126.086	113.521	109.434	120.898	112.27
15:43	MA46148-CCVA4	107.581	113.804	114.095	125.327	117.723	116.553	123.731	117.701
15:48	MA46148-CCB4	108.293	114.429	112.911	124.993	118.991	117.345	124.643	118.335
15:53	ZZZZZZ	104.65	109.176	107.391	124.688	113.215	110.04	121.82	111.418
15:58	ZZZZZZ	100.845	109.99	103.48	119.053	109.44	106.029	114.75	106.292
16:03	ZZZZZZ	99.815	110.884	103.108	121.264	108.196	104.583	115.215	103.887
16:08	ZZZZZZ	102.634	106.23	102.922	119.161	109.012	105.64	114.489	106.522
16:13	ZZZZZZ	100.577	101.758	100.62	119.281	108.118	102.853	116.044	105.305
16:18	ZZZZZZ	102.366	105.177	103.173	119.92	109.868	104.927	115.407	107.529
16:23	MA46148-CCVA5	105.723	110.677	109.964	117.581	114.235	111.966	115.585	113.985
16:28	MA46148-CCB5	108.925	109.466	109.118	117.743	112.649	112.447	117.921	112.428
16:33	ZZZZZZ	101.37	102.986	101.328	116.702	106.715	102.213	112.019	103.392
16:38	ZZZZZZ	97.622	100.369	99.275	116.061	104.325	100.768	112.839	102.675
16:43	ZZZZZZ	99.427	101.976	101.305	117.021	107.624	102.324	114.344	104.907
16:48	MA46148-CCVA6	100.4	105.32	106.17	113.696	110.686	108.683	112.187	110.148
16:53	MA46148-CCB6	99.841	104.122	104.155	111.97	108.436	107.163	113.513	107.788
16:58	MP12547-MB1	100.015	104.726	105.712	113.358	108.397	108.421	112.553	107.842
17:03	MP12547-B1	101.482	104.104	102.487	110.882	108.039	106.671	110.358	108.582
17:08	MP12547-S1	105.402	114.802	125.423	!a126.674	!a112.017	122.969	120.745	111.904
17:13	MP12547-S2	112.945	121.538	129.808	!a129.485	!a117.471	125.563	!a122.576	117.449

INTERNAL STANDARD SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
17:18	JC82713-14	111.552	123.02	131.428	!a132.346	!a117.054	125.974	!a123.875	118.116
17:23	MP12547-S3	111.271	120.838	126.379	!a126.069	!a116.923	122.3	119.367	116.008
17:27	JC82713-15	110.98	121.017	127.281	!a126.817	!a115.979	123.498	120.603	115.861
17:32	ZZZZZZ	108.459	119.286	125.877	!a126.371	!a114.721	123.027	119.85	115.346
17:37	ZZZZZZ	110.774	119.029	124.131	124.515	114.851	122.054	119.121	114.264
17:42	ZZZZZZ	106.454	116.753	121.989	122.675	112.903	119.474	117.081	111.907
17:47	MA46148-CCVA7	97.235	101.118	101.878	106.179	105.658	104.573	105.875	105.799
17:52	MA46148-CCB7	91.282	98.42	98.868	104.823	103.348	103.663	106.353	102.91
17:57	ZZZZZZ	98.537	106.295	112.929	113.321	105.209	112.545	109.539	104.444
18:02	ZZZZZZ	99.148	110.828	116.827	114.896	109.123	115.908	111.207	108.428
18:07	ZZZZZZ	102.884	111.786	116.478	114.931	108.892	115.297	110.976	108.592
18:12	ZZZZZZ	100.545	110.528	115.394	114.049	108.192	115.923	110.11	108.114
18:17	ZZZZZZ	98.516	109.071	113.932	112.036	107.406	113.431	108.241	107.227
18:22	ZZZZZZ	98.312	108.287	113.403	110.432	106.711	113.803	108.146	106.511
18:27	ZZZZZZ	98.833	107.963	112.383	109.298	106.275	113.278	106.913	105.177
18:32	ZZZZZZ	96.976	106.287	111.388	107.914	104.094	111.498	105.451	104.219
18:37	ZZZZZZ	95	105.349	109.389	106.662	104.037	110.844	104.485	103.83
18:42	MA46148-CCVA8	85.284	91.315	91.384	91.68	96.664	96.277	92.541	96.393
18:47	MA46148-CCB8	81.324	88.233	89.861	89.977	93.92	95.724	92.834	93.309
18:52	ZZZZZZ	87.128	95.072	101.256	96.692	95.686	103.359	95.152	94.51
18:57	ZZZZZZ	90.457	99.542	105.419	99.93	98.423	106.296	98.092	98.678
19:02	ZZZZZZ	91.293	100.246	104.615	99.209	98.568	106.326	97.765	99.329
19:07	ZZZZZZ	91.764	100.04	105.629	101.248	99.001	106.113	98.914	99.032
19:12	ZZZZZZ	90.838	99.045	105.267	99.631	98.777	106.57	98.115	98.23
19:17	ZZZZZZ	90.71	99.556	104.811	99.915	98.644	106.514	98.294	98.399
19:22	ZZZZZZ	87.206	93.173	93.387	91.506	98.043	97.682	94.341	96.946
19:27	MA46148-CCVA9	78.445	83.344	85.326	84.058	88.084	90.06	86.449	87.999
19:32	MA46148-CCB9	77.735	83.872	86.468	85.606	89.006	91.429	88.447	88.673
19:37	ZZZZZZ	79.984	85.841	87.974	87.183	91.066	92.865	89.823	90.765
19:42	ZZZZZZ	80.509	85.839	87.25	87.092	90.77	92.689	91.038	90.429
19:47	ZZZZZZ	80.555	85.89	86.467	86.577	91.36	90.916	90.053	90.338
19:51	ZZZZZZ	80.739	85.657	85.975	86.382	90.358	91.78	89.635	89.893

! = Outside limits.

INTERNAL STANDARD SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8

LEGEND:

Istd#	Parameter	Limits
Istd#1	Lithium	60-125 %
Istd#2	Scandium (45-1)	60-125 %
Istd#3	Scandium (45-2)	60-125 %
Istd#4	Scandium (45-3)	60-125 %
Istd#5	Germanium (72-1)	60-125 %
Istd#6	Germanium (72-2)	60-125 %
Istd#7	Germanium (72-3)	60-125 %
Istd#8	Germanium (74-1)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
11:13	MA46148-STD1	100	100	100	100	100	100	100	100
11:18	MA46148-STD2	100	100	100	100	100	100	100	100
11:23	MA46148-STD3	100	100	100	100	100	100	100	100
11:28	MA46148-STD4	100	100	100	100	100	100	100	100
11:33	MA46148-STD5	101.112	101.09	99.603	100.136	100.879	100.235	101.199	100.854
11:38	MA46148-STD6	102.446	102.912	100.052	101.476	101.932	101.076	102.113	101.177
11:43	MA46148-STD7	102.956	103.11	101.232	101.866	102.464	103.015	102.825	102.489
11:48	MA46148-STD8	101.656	101.546	100.637	101.196	101.331	101.285	102.205	99.978
11:53	MA46148-STD9	100.816	100.397	100.32	100.327	99.266	100.755	101.163	101.031
11:58	MA46148-STD10	101.479	102.078	98.824	99.841	100.686	100.431	101.355	99.04
12:03	MA46148-STD11	103.005	103.226	99.001	100.648	100.464	101.312	103.144	101.195
12:07	MA46148-STD12	104.414	102.982	98.123	100.522	99.72	100.235	104.086	100.122
12:12	MA46148-STD13	107.05	102.371	99.178	101.596	98.671	103.332	106.167	101.426
12:17	MA46148-STD14	100	100	100	100	100	100	100	100
12:40	MA46148-ICVA1	No results reported for the elements associated with this internal standard.							
12:45	MA46148-ICV1	101.756	100.033	98.571	101.512	100.314	101.615	102.371	100.035
12:54	ZZZZZZ	100.335	97.121	95.519	97.309	94.01	96.198	99.68	96.842
13:03	MA46148-ICVA2	100.661	97.616	95.856	97.986	94.443	97.711	100.658	98.657
13:12	MA46148-ICB1	104.114	100.996	101.393	102.709	100.683	100.741	103.948	100.91
13:17	MA46148-CCVA1	99.885	98.278	96.148	97.185	94.902	97.839	99.532	99.036
13:22	MA46148-CCB1	102.261	100.924	99.52	101.456	100.854	102.093	102.596	99.779
13:27	MA46148-CRI1	102.719	101.459	99.93	102.147	101.388	101.488	102.874	100.766
13:32	ZZZZZZ	102.772	100.875	101.107	102.422	101.322	100.637	102.798	99.266
13:44	MA46148-ICSA1	101.588	93.887	86.392	89.21	81.423	91.51	98.802	89.957
13:48	MA46148-ICSAB1	104.752	96.73	91.343	91.988	83.195	96.593	101.115	94.695
13:53	ZZZZZZ	103.348	106.56	101.767	103.246	106.013	105.884	103.199	106.809
13:58	MA46148-CCVA2	104.908	108.112	101.917	102.89	103.281	105.592	102.157	107.341
14:03	MA46148-CCB2	109.33	114.412	108.469	108.92	112.354	113.904	105.733	114.164
14:08	MP12514-MB1	106.077	115.03	106.271	107.002	114.548	111.954	101.705	116.404
14:13	MP12514-MB2	108.517	119.525	110.359	110.499	118.692	115.342	104.013	120.224
14:18	MP12514-B2	105.344	116.546	105.482	105.372	112.9	111.664	99.846	114.532
14:23	MP12514-B3	116.205	120.186	112.418	111.951	113.904	117.221	107.463	116.242
14:28	MP12514-S3	105.176	115.337	104.058	104.286	110.283	110.451	99.532	112.783

INTERNAL STANDARD SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
14:33	ZZZZZZ	113.014	121.897	112.887	112.937	118.091	117.567	106.909	117.474
14:38	MP12514-S4	105.882	116.461	104.402	104.819	111.073	111.101	99.366	112.626
14:43	JC79879-11A	103.814	116.008	104.383	104.727	112.26	109.166	97.97	113.699
14:48	MP12514-SD1	113.514	122.282	111.445	111.531	117.972	116.946	106.389	115.516
14:53	MA46148-CCVA3	118.013	122.755	111.434	112.39	113.279	116.825	108.675	116.912
14:58	MA46148-CCB3	116.952	123.931	115.585	114.462	120.255	118.726	109.223	117.663
15:03	ZZZZZZ	116.667	124.32	115.875	114.242	119.035	118.723	109.302	116.286
15:08	ZZZZZZ	116.611	123.9	114.002	114.969	119.241	117.953	109.581	117.703
15:13	MP12514-PS1	106.875	117.986	105.844	105.676	111.558	109.744	100.693	113.537
15:18	ZZZZZZ	103.7	106.628	96.035	94.549	94.682	103.167	97.222	107.402
15:23	ZZZZZZ	103.505	104.636	96.267	94.249	93.618	103.978	97.886	107.864
15:28	ZZZZZZ	106.235	107.234	97.918	95.797	94.893	104.736	99.036	107.944
15:33	ZZZZZZ	103.268	104.366	96.9	93.999	92.76	103.91	97.755	108.736
15:38	JC82631-1	110.487	120.389	108.044	107.648	113.669	113.695	104.033	116.965
15:43	MA46148-CCVA4	117.006	123.061	111.679	112.425	113.947	117.462	109.219	115.911
15:48	MA46148-CCB4	117.766	124.301	116.083	115.394	119.715	119.608	110.777	118.056
15:53	ZZZZZZ	110.269	120.536	110.435	110.408	117.71	114.209	105.389	115.989
15:58	ZZZZZZ	104.35	113.097	105.307	104.247	109.312	110.662	99.612	113.259
16:03	ZZZZZZ	102.529	112.348	101.085	101.679	106.871	107.926	97.589	111.161
16:08	ZZZZZZ	104.781	113.504	104.177	104.136	110.276	109.47	99.929	112.786
16:13	ZZZZZZ	102.776	115.326	105.589	104.59	113.803	109.326	99.181	112.989
16:18	ZZZZZZ	105.444	114.946	104.323	103.952	110.199	109.797	100.508	113.119
16:23	MA46148-CCVA5	111.998	115.202	107.72	106.854	107.748	112.48	105.087	113.071
16:28	MA46148-CCB5	112.254	116.69	109.5	109.534	113.544	113.71	106.921	110.906
16:33	ZZZZZZ	102.022	110.58	101.161	101.222	107.638	108.359	98.384	110.169
16:38	ZZZZZZ	101.774	111.986	99.963	99.808	107.183	108.139	97.517	110.267
16:43	ZZZZZZ	102.91	113.472	102.649	102.191	109.112	108.585	99.845	111.461
16:48	MA46148-CCVA6	108.787	111.877	104.269	104.389	105.718	109.01	103.298	110.248
16:53	MA46148-CCB6	107.306	112.358	105.672	105.611	109.266	108.535	103.15	108.883
16:58	MP12547-MB1	108.152	112.2	106.428	106.428	109.796	109.551	103.654	108.028
17:03	MP12547-B1	105.874	110.375	106.001	103.969	107.315	107.725	101.459	108.354
17:08	MP12547-S1	122.372	119.591	102.403	106.613	103.267	107.062	112.787	103.885
17:13	MP12547-S2	125.193	!a122.141	104.034	108.41	104.303	109.677	115.367	106.697

INTERNAL STANDARD SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
17:18	JC82713-14	127.195	!a122.851	105.983	109.578	105.908	110.5	115.976	107.165
17:23	MP12547-S3	122.998	119.21	103.099	106.834	102.895	109.005	113.64	106.734
17:27	JC82713-15	123.184	119.663	104.348	107.544	103.436	109.582	113.576	107.054
17:32	ZZZZZZ	122.384	119.121	104.153	107.139	103.365	109.33	113.451	106.13
17:37	ZZZZZZ	121.232	117.341	103.545	106.367	102.231	108.35	112.092	104.631
17:42	ZZZZZZ	119.012	115.97	101.622	104.273	100.586	106.342	110.902	105.145
17:47	MA46148-CCVA7	104.71	106.189	100.89	99.894	100.653	104.726	101.22	105.522
17:52	MA46148-CCB7	103.602	105.967	101.858	101.284	104.291	105.164	100.603	105.105
17:57	ZZZZZZ	112.607	107.819	96.305	99.052	95.783	100.889	105.233	100.104
18:02	ZZZZZZ	115.01	110.366	100.022	101.282	96.991	103.358	108.528	101.674
18:07	ZZZZZZ	115.021	110.097	97.941	100.882	96.78	104.318	107.965	101.881
18:12	ZZZZZZ	114.414	109.781	98.119	100.338	96.364	103.364	107.786	100.115
18:17	ZZZZZZ	113.344	107.061	97.56	99.094	94.981	101.383	106.952	100.49
18:22	ZZZZZZ	112.889	107.839	96.801	98.766	94.689	103.366	107.094	100.75
18:27	ZZZZZZ	112.727	106.076	96.009	98.255	93.643	101.184	106.223	99.695
18:32	ZZZZZZ	110.7	103.979	95.165	97.04	92.805	99.961	105.077	97.823
18:37	ZZZZZZ	109.788	103.732	94.389	96.28	92.098	99.232	104.41	97.153
18:42	MA46148-CCVA8	96.447	93.167	92.845	91.778	89.26	96.114	94.759	96.213
18:47	MA46148-CCB8	95.714	93.547	93.044	92.861	92.456	96.288	95.156	94.578
18:52	ZZZZZZ	102.269	94.823	87.547	90.821	85.46	92.521	98.877	91.854
18:57	ZZZZZZ	106.209	97.468	91.215	92.644	87.537	95.543	101.374	93.79
19:02	ZZZZZZ	106.111	97.482	91.003	92.728	86.975	95.802	101.042	94.009
19:07	ZZZZZZ	106.586	98.621	90.725	92.695	87.733	96.229	101.334	94.762
19:12	ZZZZZZ	105.121	97.655	90.476	91.927	87.447	96.075	100.844	93.422
19:17	ZZZZZZ	105.738	97.958	89.934	92.087	87.161	94.476	101	93.98
19:22	ZZZZZZ	97.586	94.333	94.65	94.188	93.47	98.556	96.994	95.531
19:27	MA46148-CCVA9	89.714	86.154	85.05	85.385	83.267	88.706	89.124	88.506
19:32	MA46148-CCB9	91.413	88.35	88.714	88.59	88.438	91.677	91.729	89.589
19:37	ZZZZZZ	93.105	89.635	89.975	89.782	89.469	92.778	92.893	92.565
19:42	ZZZZZZ	92.252	89.841	89.795	89.447	89.867	93.122	91.913	91.445
19:47	ZZZZZZ	91.561	89.753	90.044	88.455	89.487	92.69	90.908	90.826
19:51	ZZZZZZ	92.178	89.083	89.124	88.709	89.119	93.602	90.78	90.45

! = Outside limits.

INTERNAL STANDARD SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16

LEGEND:

Istd#	Parameter	Limits
Istd#9	Germanium (74-2)	60-125 %
Istd#10	Germanium (74-3)	60-125 %
Istd#11	Rhodium (103-1)	60-125 %
Istd#12	Rhodium (103-2)	60-125 %
Istd#13	Rhodium (103-3)	60-125 %
Istd#14	Indium (115-1)	60-125 %
Istd#15	Indium (115-2)	60-125 %
Istd#16	Terbium (159-1)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
11:13	MA46148-STD1	100	100	100	100	100	100
11:18	MA46148-STD2	100	100	100	100	100	100
11:23	MA46148-STD3	100	100	100	100	100	100
11:28	MA46148-STD4	100	100	100	100	100	100
11:33	MA46148-STD5	100.845	100.479	99.841	100.718	98.887	100.34
11:38	MA46148-STD6	101.806	100.95	100.658	101.745	99.968	100.681
11:43	MA46148-STD7	102.657	101.493	101.155	102.52	101.375	101.784
11:48	MA46148-STD8	101.975	101.64	100.241	102.034	101.457	101.758
11:53	MA46148-STD9	101.527	99.849	100.528	101.151	100.931	100.896
11:58	MA46148-STD10	101.221	100.931	99.953	101.502	100.314	100.352
12:03	MA46148-STD11	102.032	101.625	101.394	102.406	100.416	100.903
12:07	MA46148-STD12	103.059	101.318	99.783	103.556	97.404	99.485
12:12	MA46148-STD13	105.32	101.037	101.501	105.606	96.964	99.595
12:17	MA46148-STD14	100	100	100	100	100	100
12:40	MA46148-ICVA1	No results reported for the elements associated with this internal standard.					
12:45	MA46148-ICV1	101.742	100.002	99.819	101.765	100.882	101.483
12:54	ZZZZZZ	99.05	96.013	98.407	99.8	96.66	96.807
13:03	MA46148-ICVA2	100.213	96.34	99.012	100.407	97.723	97.79
13:12	MA46148-ICB1	102.87	99.801	101.582	102.514	101.932	102.184
13:17	MA46148-CCVA1	99.111	97.063	100.169	100.063	97.491	97.158
13:22	MA46148-CCB1	101.9	100.1	101.317	101.316	101.538	101.359
13:27	MA46148-CRI1	101.653	100.61	101.499	101.738	101.558	101.734
13:32	ZZZZZZ	102.101	100.541	100.971	102.227	101.717	101.83
13:44	MA46148-ICSA1	93.57	85.149	90.31	93.381	81.634	83.5
13:48	MA46148-ICSAB1	94.906	86.751	95.76	95.079	84.479	84.931
13:53	ZZZZZZ	104.011	105.089	107.921	105.1	108.33	104.125
13:58	MA46148-CCVA2	103.915	104.105	109.087	104.635	106.584	101.391
14:03	MA46148-CCB2	106.122	109.245	114.99	107.308	113.651	106.719
14:08	MP12514-MB1	105.244	113.432	116.936	106.073	115.096	106.49
14:13	MP12514-MB2	107.4	117.016	119.188	108.901	114.852	106.109
14:18	MP12514-B2	104.365	113.129	117.157	105.465	111.746	102.289
14:23	MP12514-B3	107.062	110.884	117.446	107.628	114.728	107.848
14:28	MP12514-S3	102.371	110.866	115.548	104.33	111.624	100.249

INTERNAL STANDARD SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
14:33	ZZZZZZ	107.285	113.138	118.754	108.159	116.424	107.694
14:38	MP12514-S4	102.367	111.799	116.919	103.778	111.774	100.571
14:43	JC79879-11A	101.929	112.464	115.932	103.58	112.654	100.197
14:48	MP12514-SD1	106.227	113.794	115.439	107.122	115.204	107.873
14:53	MA46148-CCVA3	108.32	110.828	117.892	109.206	111.916	104.846
14:58	MA46148-CCB3	107.979	113.996	118.156	109.169	114.069	107.573
15:03	ZZZZZZ	107.573	113.388	119.061	108.331	114.518	107.868
15:08	ZZZZZZ	108.519	113.592	118.282	108.698	114.072	107.799
15:13	MP12514-PS1	102.749	111.15	116.216	104.565	111.743	100.379
15:18	ZZZZZZ	99.145	99.415	109.324	100.735	91.485	84.747
15:23	ZZZZZZ	99.102	98.46	109.921	100.238	90.78	83.319
15:28	ZZZZZZ	100.156	99.684	110.504	102.301	92.525	84.856
15:33	ZZZZZZ	99.035	97.786	109.811	100.255	91.255	82.913
15:38	JC82631-1	106.199	114.48	119.184	107.616	110.047	100.596
15:43	MA46148-CCVA4	109.228	112.177	117.764	109.778	113.044	105.791
15:48	MA46148-CCB4	109.383	114.038	118.144	110.433	115.629	109.124
15:53	ZZZZZZ	106.79	114.861	118.171	107.668	114.696	104.953
15:58	ZZZZZZ	102.643	109.663	116.925	105.626	110.996	100.724
16:03	ZZZZZZ	101.044	108.347	116.096	104.686	108.78	98.197
16:08	ZZZZZZ	102.637	109.804	114.999	104.104	110.745	100.84
16:13	ZZZZZZ	102.876	112.526	115.28	103.539	112.655	101.176
16:18	ZZZZZZ	103.929	110.75	115.213	104.715	108.752	98.911
16:23	MA46148-CCVA5	104.966	106.959	114.608	105.789	110.556	101.887
16:28	MA46148-CCB5	105.344	109.262	113.553	105.603	112.396	105.086
16:33	ZZZZZZ	101.768	109.49	112.612	102.538	106.969	97.155
16:38	ZZZZZZ	101.077	109.726	111.718	101.901	106.52	96.879
16:43	ZZZZZZ	102.206	110.314	113.502	103.396	107.853	98.428
16:48	MA46148-CCVA6	103.141	105.296	112.026	104.021	107.923	100.638
16:53	MA46148-CCB6	102.694	106.627	109.75	103.617	108.904	102.748
16:58	MP12547-MB1	103.008	106.216	109.849	103.75	108.755	103.06
17:03	MP12547-B1	101.05	105.37	109.618	102.201	109.457	101.605
17:08	MP12547-S1	106.919	102.246	106.715	107.057	96.074	97.104
17:13	MP12547-S2	107.771	103.252	108.042	108.106	96.903	97.477

INTERNAL STANDARD SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
17:18	JC82713-14	108.736	103.644	107.622	109.431	97.386	98.467
17:23	MP12547-S3	106.609	101.998	106.854	107.635	97.289	97.356
17:27	JC82713-15	106.97	102.318	107.272	107.468	96.735	97.585
17:32	ZZZZZZ	106.786	102.68	106.502	107.131	96.22	97.559
17:37	ZZZZZZ	106.516	101.764	106.589	107.049	96.355	97.02
17:42	ZZZZZZ	104.841	100.816	105.006	105.506	95.063	95.842
17:47	MA46148-CCVA7	100.572	101.36	105.962	101.417	103.315	98.472
17:52	MA46148-CCB7	100.206	103.053	105.915	101.383	105.259	100.855
17:57	ZZZZZZ	101.284	97.848	100.829	102.052	92.517	93.192
18:02	ZZZZZZ	102.882	98.537	102.863	103.481	93.601	94.66
18:07	ZZZZZZ	102.775	98.135	102.272	103.922	93.652	94.231
18:12	ZZZZZZ	102.518	97.878	102.318	103.353	93.1	94.258
18:17	ZZZZZZ	101.784	96.727	101.573	102.717	92.606	93.465
18:22	ZZZZZZ	101.544	96.733	100.999	102.049	92.159	93.277
18:27	ZZZZZZ	101.429	96.249	100.715	102.115	91.754	93.053
18:32	ZZZZZZ	100.426	95.621	99.526	101.472	91.124	92.439
18:37	ZZZZZZ	99.725	94.817	97.944	100.644	90.461	92.054
18:42	MA46148-CCVA8	94.214	92.972	96.971	95.367	95.23	92.651
18:47	MA46148-CCB8	94.156	94.187	95.405	94.776	95.659	94.969
18:52	ZZZZZZ	95.171	89.853	92.193	95.725	85.612	88.23
18:57	ZZZZZZ	97.01	91.417	95.436	98.368	87.044	89.866
19:02	ZZZZZZ	96.048	91.356	94.679	97.651	87.341	89.409
19:07	ZZZZZZ	96.804	92.039	95.054	98.2	87.511	89.493
19:12	ZZZZZZ	96.27	91.83	93.414	97.416	87.013	88.972
19:17	ZZZZZZ	96.738	91.331	93.671	97.609	86.648	89.349
19:22	ZZZZZZ	94.905	94.62	96.793	96.655	96.287	95.623
19:27	MA46148-CCVA9	88.768	88.044	89.677	90.326	88.342	87.732
19:32	MA46148-CCB9	90.557	90.73	90.168	91.684	91.094	91.692
19:37	ZZZZZZ	91.723	91.743	92.387	92.149	92.484	92.332
19:42	ZZZZZZ	90.507	91.788	92.533	91.801	92.452	91.691
19:47	ZZZZZZ	89.738	91.724	91.407	91.293	92.672	90.931
19:51	ZZZZZZ	89.787	91.228	90.885	90.929	92.146	91.242

! = Outside limits.

INTERNAL STANDARD SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46148
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22

LEGEND:

Istd#	Parameter	Limits
Istd#17	Terbium (159-2)	60-125 %
Istd#18	Terbium (159-3)	60-125 %
Istd#19	Holmium (165-1)	60-125 %
Istd#20	Holmium (165-2)	60-125 %
Istd#21	Bismuth (209-1)	60-125 %
Istd#22	Bismuth (209-2)	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46148 Units: ug/l

Time: / Sample ID:				13:12 ICB1		13:22 CCB1		14:03 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	1.0	.013	1.0	0.00545	<1.5	0.00886	<1.5	0.0155	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	4.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	4.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	4.0	.017	3.0						
Potassium	250	.71	50						
Selenium	1.0	.072	0.50						
Silver	1.0	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.5	.009	1.0						
Zinc	10	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46148 Units: ug/l

Time: / Sample ID:				14:58 CCB3		15:48 CCB4	
Metal	RL	IDL	LOD	raw	final	raw	final
Aluminum	25	.28	20				
Antimony	2.0	.094	1.5				
Arsenic	1.0	.013	1.0	0.00892	<1.5	0.00690	<1.5
Barium	1.0	.008	0.50				
Beryllium	0.50	.004	0.25				
Boron	25	.65	20				
Cadmium	0.50	.004	2.0				
Calcium	250	6.1	50				
Chromium	4.0	.014	3.0				
Cobalt	0.50	.002	0.25				
Copper	4.0	.021	4.0				
Iron	25	.43	13				
Lead	0.50	.009	1.0				
Magnesium	250	.15	130				
Manganese	1.0	.007	1.0				
Molybdenum	1.0	.015	0.50				
Nickel	4.0	.017	3.0				
Potassium	250	.71	50				
Selenium	1.0	.072	0.50				
Silver	1.0	.004	0.50				
Sodium	250	1	100				
Strontium	5.0	.003	5.0				
Thallium	0.50	.004	0.50				
Tin	5.0	.071	2.5				
Titanium	1.0	.035	1.0				
Vanadium	1.5	.009	1.0				
Zinc	10	.029	7.5				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46148 Units: ug/l

Time:		12:45			13:03			13:17	
Sample ID:	ICV	ICV1		ICVA	ICVA2		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				60	62.3	103.8	50	51.1	102.2
Barium									
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46148 Units: ug/l

Time:		13:58			14:53			15:43	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	50	53.0	106.0	50	52.8	105.6	50	53.0	106.0
Barium									
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46148 Units: ug/l

Time:			13:27	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25		
Antimony	2.0	0.25		
Arsenic	0.50	0.50	0.504	100.8
Barium	1.0	0.50		
Beryllium	0.50	0.25		
Boron	25	2.5		
Cadmium	0.50	0.25		
Calcium	250	125		
Chromium	1.0	2.0		
Cobalt	0.50	0.25		
Copper	2.0	2.0	anr	
Iron	25	25		
Lead	0.50	0.25	anr	
Magnesium	250	125		
Manganese	1.0	0.25		
Molybdenum	1.0	0.50		
Nickel	1.0	2.0		
Potassium	250	125		
Selenium	0.50	0.50		
Silver	0.50	1.0		
Sodium	250	125		
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0		
Zinc	5.0	2.0		

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA021319M1L.CSV Date Analyzed: 02/13/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46148 Units: ug/l

Time:			13:44		13:48	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	96300	96.3	92000	92.0
Antimony			0.0432		0.0502	
Arsenic		20	0.0846		18.5	92.5
Barium			0.162		0.164	
Beryllium			0.00189		0.00164	
Boron		50	0.0111		47.7	95.4
Cadmium		20	0.00759		17.7	88.5
Calcium	100000	100000	97700	97.7	96700	96.7
Chromium		20	0.187		19.7	98.5
Cobalt		20	0.0739		18.4	92.0
Copper		20	0.297		17.3	86.5
Iron	100000	100000	89800	89.8	87200	87.2
Lead			0.117		0.109	
Magnesium	100000	100000	91800	91.8	88900	88.9
Manganese		20	0.388		19.8	99.0
Molybdenum	2000	2000	2250	112.5	2210	110.5
Nickel		20	0.512		17.5	87.5
Potassium	100000	100000	100000	100.0	97300	97.3
Selenium		20	0.137		20.2	101.0
Silver		20	0.0311		20.8	104.0
Sodium	100000	100000	94200	94.2	90800	90.8
Strontium	2000	2000	2320	116.0	2220	111.0
Thallium			0.00409		0.00387	
Tin	2000	2000	1990	99.5	1890	94.5
Titanium	2000	2000	1980	99.0	1910	95.5
Vanadium		20	0.0228		22.5	112.5
Zinc		20	0.696		17.5	87.5

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP12514
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:				02/12/19		02/12/19	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	50	.55	32				
Antimony	4.0	.19	1.7				
Arsenic	3.0	.026	.94	0.10	<3.0	0.070	<3.0 (a)
Barium	2.0	.016	.73				
Beryllium	1.0	.008	.15				
Boron	50	1.3	14				
Cadmium	6.0	.008	.17				
Calcium	500	12	64				
Chromium	8.0	.028	.62				
Cobalt	1.0	.004	.17				
Copper	10	.042	1.9				
Iron	50	.86	19				
Lead	3.0	.018	.52				
Magnesium	500	.3	46				
Manganese	4.0	.014	.63				
Molybdenum	2.0	.03	.45				
Nickel	8.0	.034	.95				
Potassium	500	1.4	68				
Selenium	2.0	.14	.55				
Silver	2.0	.008	.16				
Sodium	500	2.1	140				
Strontium	20	.006	2.4				
Thallium	2.0	.008	.17				
Tin	10	.14	2.6				
Titanium	4.0	.07	1.6				
Vanadium	3.0	.018	1.8				
Zinc	20	.058	5.4				

Associated samples MP12514: JC82631-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Lab filtered.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP12514 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 02/12/19

Metal	JC79879-11A Original	MS	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum					
Antimony					
Arsenic	9.6	348	400	84.6	75-125
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper	anr				
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium	anr				
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP12514: JC82631-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP12514 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 02/12/19

Metal	JC79879-11A Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	9.6	345	400	83.9	0.9	20
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper	anr					
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP12514: JC82631-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP12514
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:		02/12/19				02/12/19	
Metal	BSP Result	Spikelot MP6020AQ3% Rec	QC Limits	BSP Result	Spikelot MPSPK2 % Rec		QC Limits
Aluminum							
Antimony							
Arsenic	75.5	80	94.4	80-120	2290 (a)	2000	114.5	80-120
Barium							
Beryllium							
Boron							
Cadmium							
Calcium							
Chromium							
Cobalt							
Copper	anr						
Iron							
Lead							
Magnesium							
Manganese							
Molybdenum							
Nickel							
Potassium							
Selenium							
Silver							
Sodium							
Strontium							
Thallium	anr						
Tin							
Titanium							
Vanadium							
Zinc							

Associated samples MP12514: JC82631-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Lab filtered.

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP12514
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 02/12/19

Metal	JC79879-11A Original	SDL 2:10	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	1.92	2.37	23.5*(a)	0-10
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper	anr			
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP12514: JC82631-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: JC82631
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP12514 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 02/12/19

Metal	Sample ml	Final ml	JC79879-11A Raw	JC79879-11A Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.14	10	1.922254	1.756941	75.63053	0.2	4	80	92.3	75-125
Barium										
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP12514: JC82631-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Instrument Detection Limits

Job Number: JC82631
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Aluminum	.045
Aluminum	.276
Antimony	.094
Arsenic	.12
Arsenic	.013
Barium	.008
Beryllium	.004
Boron	.648
Cadmium	.007
Cadmium	.004
Calcium	6.11
Chromium	.036
Chromium	.014
Cobalt	.0041
Cobalt	.002
Copper	.1044
Copper	.021
Iron	1.21
Iron	.432
Lead	.009
Magnesium	.033
Magnesium	.152
Manganese	.006
Manganese	.007
Molybdenum	.015
Nickel	.046
Nickel	.017
Potassium	.506
Potassium	.707
Selenium	.503
Selenium	.072
Silver	.004
Sodium	.357
Sodium	1.037
Strontium	.003
Thallium	.004
Tin	.025
Tin	.071
Titanium	.035
Titanium	.035
Vanadium	.112
Vanadium	.009
Zinc	.041
Zinc	.029

Instrument Detection Limits

Job Number: JC82631
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l

The above applies to the following instrument runs:
MA46148

Instrument Linear Ranges

Job Number: JC82631
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC82631
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA46148

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 11:13
Sample Name	STDA 1
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-634.12	12.00	2.850E-06	Pulse	0.25	3
B			1	-1.352	ug/l	-0.56	5,552.15	1.320E-03	Pulse	0.15	3
Ca			1	0.619	ug/l	46.80	13,372.56	2.949E-03	Pulse	0.10	3
Sr			1	0.003	ug/l	28.51	760.05	1.376E-04	Pulse	0.10	3
Mo			1	0.092	ug/l	22.91	1,246.76	2.255E-04	Pulse	0.10	3
Ag			1	-0.002	ug/l	-27.75	13.33	2.242E-06	Pulse	0.10	3
Sn			1	-0.135	ug/l	-13.31	4,757.54	8.011E-04	Pulse	0.10	3
Sb			1	0.252	ug/l	10.82	6,731.70	8.570E-04	Pulse	0.10	3
Ba			1	0.006	ug/l	50.42	90.00	1.148E-05	Pulse	0.10	3
Tl			1	0.013	ug/l	23.43	1,016.74	2.141E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	101.79	356.68	7.511E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	103.03	390.02	8.214E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	5.57	1,623.44	3.418E-04	Pulse	0.10	3
Na			2	-0.459	ug/l	-43.73	5,259.76	3.566E-02	Pulse	0.30	3
Mg			2	-0.691	ug/l	-2.04	167.78	1.137E-03	Pulse	0.30	3
Al			2	-0.815	ug/l	-6.05	32.22	2.185E-04	Pulse	0.30	3
K			2	1.475	ug/l	33.31	8,104.29	5.494E-02	Pulse	0.30	3
Ca			2	-0.347	ug/l	-180.91	65.56	4.444E-04	Pulse	0.30	3
Ti			2	-0.010	ug/l	-226.27	2.22	1.511E-05	Pulse	0.30	3
V			2	0.000	ug/l	3572.12	360.01	2.440E-03	Pulse	0.30	3
Cr			2	-0.003	ug/l	-344.73	816.70	5.537E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-104.70	27.78	1.884E-04	Pulse	0.30	3
Fe			2	-0.980	ug/l	-1.14	1,825.68	1.238E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-182.11	76.67	5.197E-04	Pulse	0.30	3
Ni			2	0.007	ug/l	197.89	60.00	4.066E-04	Pulse	0.30	3
Cu			2	0.000	ug/l	-3766.06	442.23	2.998E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.049	ug/l	19.69	218.89	1.484E-03	Pulse	0.30	3
As			2	0.006	ug/l	66.31	14.00	9.489E-05	Pulse	1.00	3
Cd			2	-0.003	ug/l	-50.77	3.22	4.008E-06	Pulse	0.30	3
Sn			2	0.147	ug/l	23.95	1,170.06	1.456E-03	Pulse	0.30	3
Se			3	-0.011	ug/l	-153.27	15.93	9.498E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,207,567.92	0.43	100.0	Pulse	0.10	3
1	Sc		4,534,408.37	1.32	100.0	Pulse	0.10	3
1	Ge		791,041.70	1.23	100.0	Pulse	0.10	3
1	Ge		1,089,218.47	0.66	100.0	Pulse	0.10	3
1	Rh		5,520,519.08	1.29	100.0	Mix	0.10	3
1	In		5,937,885.28	0.24	100.0	Analog	0.10	3
1	Tb		7,855,954.88	1.15	100.0	Analog	0.10	3
1	Ho		781,225.93	0.84	100.0	Pulse	0.10	3
1	Bi		4,749,343.89	0.29	100.0	Pulse	0.10	3
2	Sc		147,508.85	0.22	100.0	Pulse	0.30	3
2	Ge		78,980.55	1.25	100.0	Pulse	0.30	3
2	Ge		118,590.91	1.01	100.0	Pulse	0.30	3
2	Rh		2,546,672.61	0.49	100.0	Pulse	0.30	3
2	In		803,835.38	0.40	100.0	Pulse	0.30	3
2	Tb		3,201,842.86	0.43	100.0	Pulse	0.30	3
2	Ho		316,421.26	0.66	100.0	Pulse	0.30	3
2	Bi		2,132,396.10	0.09	100.0	Pulse	0.30	3
3	Sc		181,307.89	0.73	100.0	Pulse	0.30	3
3	Ge		110,760.33	0.85	100.0	Pulse	0.30	3
3	Ge		167,602.99	0.64	100.0	Pulse	0.30	3
3	Rh		2,200,090.54	0.76	100.0	Pulse	0.30	3
3	Tb		3,528,183.96	0.84	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 11:18
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-150.39	8.00	1.905E-06	Pulse	0.25	3
B			1	-1.361	ug/l	-1.28	5,389.88	1.286E-03	Pulse	0.15	3
Ca			1	0.886	ug/l	44.62	13,849.71	3.038E-03	Pulse	0.10	3
Sr			1	0.002	ug/l	107.32	666.70	1.212E-04	Pulse	0.10	3
Mo			1	0.013	ug/l	40.27	260.01	4.722E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-0.44	30.00	5.035E-06	Pulse	0.10	3
Sn			1	-0.200	ug/l	-3.64	3,497.19	5.868E-04	Pulse	0.10	3
Sb			1	0.032	ug/l	43.41	1,916.86	2.471E-04	Pulse	0.10	3
Ba			1	0.005	ug/l	40.04	76.67	9.917E-06	Pulse	0.10	3
Tl			1	0.002	ug/l	113.37	356.69	7.543E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	169.67	326.68	6.916E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	22817.84	320.02	6.778E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	81.88	1,450.09	3.070E-04	Pulse	0.10	3
Na			2	-0.483	ug/l	-25.09	5,348.69	3.539E-02	Pulse	0.30	3
Mg			2	-0.685	ug/l	-10.11	176.67	1.167E-03	Pulse	0.30	3
Al			2	-0.741	ug/l	-4.72	51.11	3.382E-04	Pulse	0.30	3
K			2	1.199	ug/l	42.75	8,179.86	5.412E-02	Pulse	0.30	3
Ca			2	-0.231	ug/l	-61.12	70.00	4.631E-04	Pulse	0.30	3
Ti			2	-0.004	ug/l	-5.69	3.33	2.203E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-78.66	352.23	2.331E-03	Pulse	0.30	3
Cr			2	-0.010	ug/l	-112.30	780.03	5.164E-03	Pulse	0.30	3
Mn			2	0.003	ug/l	38.82	47.78	3.158E-04	Pulse	0.30	3
Fe			2	-0.962	ug/l	-1.40	1,990.14	1.317E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-777.75	81.11	5.356E-04	Pulse	0.30	3
Ni			2	0.006	ug/l	127.67	60.00	3.976E-04	Pulse	0.30	3
Cu			2	0.002	ug/l	53.80	477.79	3.160E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.087	ug/l	27.95	275.56	1.821E-03	Pulse	0.30	3
As			2	0.000	ug/l	11351.05	10.33	6.829E-05	Pulse	1.00	3
Cd			2	-0.003	ug/l	-86.44	3.30	4.031E-06	Pulse	0.30	3
Sn			2	0.052	ug/l	14.49	851.14	1.035E-03	Pulse	0.30	3
Se			3	0.019	ug/l	56.62	22.33	1.329E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,191,317.77	0.45	100.0	Pulse	0.10	3
1	Sc		4,558,412.75	1.02	100.0	Pulse	0.10	3
1	Ge		787,395.46	0.45	100.0	Pulse	0.10	3
1	Ge		1,088,525.11	1.28	100.0	Pulse	0.10	3
1	Rh		5,505,095.33	0.79	100.0	Pulse	0.10	3
1	In		5,958,577.18	0.56	100.0	Analog	0.10	3
1	Tb		7,746,318.22	1.45	100.0	Analog	0.10	3
1	Ho		770,020.41	0.20	100.0	Pulse	0.10	3
1	Bi		4,722,224.62	0.87	100.0	Pulse	0.10	3
2	Sc		151,169.61	1.21	100.0	Pulse	0.30	3
2	Ge		80,626.30	0.67	100.0	Pulse	0.30	3
2	Ge		122,428.73	0.50	100.0	Pulse	0.30	3
2	Rh		2,573,222.05	0.19	100.0	Pulse	0.30	3
2	In		822,139.72	0.34	100.0	Pulse	0.30	3
2	Tb		3,240,396.81	0.33	100.0	Pulse	0.30	3
2	Ho		322,333.27	0.55	100.0	Pulse	0.30	3
2	Bi		2,161,480.96	0.37	100.0	Pulse	0.30	3
3	Sc		181,698.27	0.45	100.0	Pulse	0.30	3
3	Ge		110,934.68	0.17	100.0	Pulse	0.30	3
3	Ge		168,046.08	0.21	100.0	Pulse	0.30	3
3	Rh		2,212,165.96	0.06	100.0	Pulse	0.30	3
3	Tb		3,523,700.69	0.46	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 11:23
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	261.78	17.33	4.106E-06	Pulse	0.25	3
B			1	-1.359	ug/l	-0.40	5,436.57	1.291E-03	Pulse	0.15	3
Ca			1	0.707	ug/l	33.29	13,532.65	2.978E-03	Pulse	0.10	3
Sr			1	0.002	ug/l	99.71	686.71	1.237E-04	Pulse	0.10	3
Mo			1	0.002	ug/l	328.71	130.01	2.330E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-73.45	33.33	5.649E-06	Pulse	0.10	3
Sn			1	-0.204	ug/l	-5.69	3,407.16	5.745E-04	Pulse	0.10	3
Sb			1	0.003	ug/l	180.48	1,303.44	1.660E-04	Pulse	0.10	3
Ba			1	0.004	ug/l	55.42	73.33	9.331E-06	Pulse	0.10	3
Tl			1	0.001	ug/l	56.62	306.68	6.468E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	446.60	310.02	6.537E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-45.55	246.68	5.206E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	97.43	1,333.41	2.812E-04	Pulse	0.10	3
Na			2	-0.532	ug/l	-21.41	5,319.79	3.484E-02	Pulse	0.30	3
Mg			2	-0.632	ug/l	-7.41	220.00	1.440E-03	Pulse	0.30	3
Al			2	-0.815	ug/l	-7.14	33.33	2.180E-04	Pulse	0.30	3
K			2	1.359	ug/l	11.52	8,336.61	5.460E-02	Pulse	0.30	3
Ca			2	0.009	ug/l	5495.26	76.67	5.019E-04	Pulse	0.30	3
Ti			2	-0.016	ug/l	-65.45	1.11	7.315E-06	Pulse	0.30	3
V			2	-0.002	ug/l	-223.05	360.01	2.358E-03	Pulse	0.30	3
Cr			2	0.002	ug/l	321.77	880.04	5.762E-03	Pulse	0.30	3
Mn			2	-0.001	ug/l	-864.40	34.45	2.259E-04	Pulse	0.30	3
Fe			2	-0.963	ug/l	-0.88	2,001.25	1.311E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-47.95	66.67	4.364E-04	Pulse	0.30	3
Ni			2	0.004	ug/l	154.60	51.11	3.351E-04	Pulse	0.30	3
Cu			2	-0.003	ug/l	-85.88	425.57	2.787E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.074	ug/l	46.03	260.00	1.704E-03	Pulse	0.30	3
As			2	0.000	ug/l	1594.66	10.67	6.976E-05	Pulse	1.00	3
Cd			2	-0.003	ug/l	-33.52	4.42	5.298E-06	Pulse	0.30	3
Sn			2	0.028	ug/l	50.54	775.59	9.291E-04	Pulse	0.30	3
Se			3	0.043	ug/l	94.53	27.53	1.628E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,210,605.85	1.20	100.0	Pulse	0.10	3
1	Sc		4,544,262.53	0.46	100.0	Pulse	0.10	3
1	Ge		798,791.60	0.66	100.0	Pulse	0.10	3
1	Ge		1,099,829.18	0.44	100.0	Pulse	0.10	3
1	Rh		5,548,858.46	1.12	100.0	Pulse	0.10	3
1	In		5,931,763.94	1.27	100.0	Analog	0.10	3
1	Tb		7,848,215.09	0.77	100.0	Analog	0.10	3
1	Ho		780,441.68	0.63	100.0	Pulse	0.10	3
1	Bi		4,741,718.68	0.94	100.0	Pulse	0.10	3
2	Sc		152,691.99	0.56	100.0	Pulse	0.30	3
2	Ge		81,887.05	1.28	100.0	Pulse	0.30	3
2	Ge		123,120.85	0.96	100.0	Pulse	0.30	3
2	Rh		2,599,396.08	0.29	100.0	Pulse	0.30	3
2	In		834,806.26	0.08	100.0	Pulse	0.30	3
2	Tb		3,269,978.69	0.54	100.0	Pulse	0.30	3
2	Ho		323,350.59	0.90	100.0	Pulse	0.30	3
2	Bi		2,175,912.28	0.45	100.0	Pulse	0.30	3
3	Sc		182,701.68	0.92	100.0	Pulse	0.30	3
3	Ge		112,426.06	0.49	100.0	Pulse	0.30	3
3	Ge		169,263.92	0.45	100.0	Pulse	0.30	3
3	Rh		2,224,618.94	0.38	100.0	Pulse	0.30	3
3	Tb		3,557,853.75	0.84	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 11:28
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-38.47	6.67	1.573E-06	Pulse	0.25	3
B			1	-1.373	ug/l	-2.10	5,252.05	1.239E-03	Pulse	0.15	3
Ca			1	0.849	ug/l	52.37	13,866.25	3.026E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	616.54	606.70	1.082E-04	Pulse	0.10	3
Mo			1	0.005	ug/l	81.13	166.68	2.967E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-93.19	33.33	5.626E-06	Pulse	0.10	3
Sn			1	-0.199	ug/l	-3.88	3,507.19	5.894E-04	Pulse	0.10	3
Sb			1	-0.008	ug/l	-58.66	1,056.75	1.344E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	153.86	60.00	7.650E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	429.88	280.02	5.877E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-143.75	256.68	5.390E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-56.74	213.35	4.480E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-73.49	1,046.73	2.197E-04	Pulse	0.10	3
Na			2	-0.547	ug/l	-12.78	5,412.04	3.468E-02	Pulse	0.30	3
Mg			2	-0.692	ug/l	-2.09	176.67	1.131E-03	Pulse	0.30	3
Al			2	-0.835	ug/l	-3.74	28.89	1.853E-04	Pulse	0.30	3
K			2	0.666	ug/l	20.73	8,200.99	5.254E-02	Pulse	0.30	3
Ca			2	0.418	ug/l	356.25	88.89	5.679E-04	Pulse	0.30	3
Ti			2	-0.022	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.002	ug/l	154.84	388.90	2.492E-03	Pulse	0.30	3
Cr			2	0.000	ug/l	4584.88	887.82	5.686E-03	Pulse	0.30	3
Mn			2	-0.004	ug/l	-42.66	21.11	1.352E-04	Pulse	0.30	3
Fe			2	-0.969	ug/l	-1.70	2,009.04	1.287E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-59.09	66.67	4.268E-04	Pulse	0.30	3
Ni			2	0.010	ug/l	52.33	74.45	4.764E-04	Pulse	0.30	3
Cu			2	-0.009	ug/l	-26.14	377.78	2.419E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.083	ug/l	11.98	277.78	1.780E-03	Pulse	0.30	3
As			2	0.002	ug/l	68.85	12.00	7.686E-05	Pulse	1.00	3
Cd			2	-0.004	ug/l	-23.93	2.21	2.628E-06	Pulse	0.30	3
Sn			2	0.034	ug/l	27.62	806.70	9.561E-04	Pulse	0.30	3
Se			3	-0.021	ug/l	-114.10	14.00	8.305E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,239,898.09	0.73	100.0	Pulse	0.10	3
1	Sc		4,583,013.27	0.10	100.0	Pulse	0.10	3
1	Ge		797,790.79	0.29	100.0	Pulse	0.10	3
1	Ge		1,102,905.74	0.49	100.0	Pulse	0.10	3
1	Rh		5,610,669.92	0.64	100.0	Mix	0.10	3
1	In		5,950,973.91	0.88	100.0	Analog	0.10	3
1	Tb		7,860,966.13	0.78	100.0	Analog	0.10	3
1	Ho		784,571.89	0.61	100.0	Pulse	0.10	3
1	Bi		4,765,130.24	0.34	100.0	Pulse	0.10	3
2	Sc		156,089.35	0.96	100.0	Pulse	0.30	3
2	Ge		83,231.26	0.66	100.0	Pulse	0.30	3
2	Ge		124,838.97	0.38	100.0	Pulse	0.30	3
2	Rh		2,626,326.43	0.58	100.0	Pulse	0.30	3
2	In		843,931.28	0.66	100.0	Pulse	0.30	3
2	Tb		3,289,046.75	0.31	100.0	Pulse	0.30	3
2	Ho		326,518.34	0.57	100.0	Pulse	0.30	3
2	Bi		2,201,087.55	0.29	100.0	Pulse	0.30	3
3	Sc		181,648.88	0.72	100.0	Pulse	0.30	3
3	Ge		111,960.65	0.51	100.0	Pulse	0.30	3
3	Ge		168,677.12	0.50	100.0	Pulse	0.30	3
3	Rh		2,221,008.66	0.33	100.0	Pulse	0.30	3
3	Tb		3,557,795.00	0.86	100.0	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 11:33
Sample Name STDB
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.524	ug/l	1.03	8,798.37	2.078E-03	Pulse	0.25	3
B			1	23.918	ug/l	1.18	420,874.19	9.941E-02	Pulse	0.15	3
Ca			1	254.296	ug/l	0.41	404,935.79	8.765E-02	Pulse	0.10	3
Sr			1	5.257	ug/l	0.71	345,641.66	6.185E-02	Pulse	0.10	3
Mo			1	1.020	ug/l	3.55	12,922.26	2.313E-03	Pulse	0.10	3
Ag			1	0.491	ug/l	3.89	16,799.42	2.817E-03	Pulse	0.10	3
Sn			1	4.795	ug/l	1.72	102,070.37	1.711E-02	Pulse	0.10	3
Sb			1	1.944	ug/l	1.92	44,106.18	5.564E-03	Pulse	0.10	3
Ba			1	1.044	ug/l	3.09	9,496.55	1.198E-03	Pulse	0.10	3
Tl			1	0.533	ug/l	3.28	30,058.00	6.378E-03	Pulse	0.10	3
Pb			1	0.505	ug/l	4.16	9,920.31	2.105E-03	Pulse	0.10	3
Pb			1	0.525	ug/l	2.06	9,186.58	1.949E-03	Pulse	0.10	3
Pb			1	0.531	ug/l	2.40	41,698.17	8.848E-03	Pulse	0.10	3
Na			2	250.355	ug/l	0.47	444,613.63	2.840E+00	Pulse	0.30	3
Mg			2	251.990	ug/l	0.94	204,037.32	1.303E+00	Pulse	0.30	3
Al			2	25.757	ug/l	4.17	6,760.31	4.319E-02	Pulse	0.30	3
K			2	250.380	ug/l	0.51	124,165.06	7.932E-01	Pulse	0.30	3
Ca			2	279.219	ug/l	2.47	7,134.95	4.558E-02	Pulse	0.30	3
Ti			2	0.994	ug/l	17.32	191.12	1.221E-03	Pulse	0.30	3
V			2	1.080	ug/l	3.32	6,808.14	4.349E-02	Pulse	0.30	3
Cr			2	1.077	ug/l	3.41	9,331.60	5.961E-02	Pulse	0.30	3
Mn			2	1.050	ug/l	2.69	4,242.82	2.710E-02	Pulse	0.30	3
Fe			2	25.001	ug/l	0.63	181,098.68	1.157E+00	Pulse	0.30	3
Co			2	0.532	ug/l	3.89	7,292.83	4.659E-02	Pulse	0.30	3
Ni			2	1.103	ug/l	5.06	4,177.24	2.669E-02	Pulse	0.30	3
Cu			2	2.170	ug/l	1.69	22,915.02	1.464E-01	Pulse	0.30	3
Zn			2	5.482	ug/l	1.68	7,636.32	4.878E-02	Pulse	0.30	3
As			2	0.522	ug/l	6.50	374.01	2.389E-03	Pulse	1.00	3
Cd			2	0.525	ug/l	4.69	1,104.90	1.294E-03	Pulse	0.30	3
Sn			2	4.929	ug/l	1.55	19,359.79	2.267E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.565	ug/l	15.23	137.87	8.090E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,233,729.58	0.53	99.9	Mix	0.10	3
1	Sc		4,620,095.87	0.50	100.8	Pulse	0.10	3
1	Ge		805,936.13	0.52	101.0	Pulse	0.10	3
1	Ge		1,114,501.15	0.67	101.1	Pulse	0.10	3
1	Rh		5,588,386.58	0.68	99.6	Analog	0.10	3
1	In		5,964,951.98	1.34	100.2	Analog	0.10	3
1	Tb		7,928,134.47	0.70	100.9	Analog	0.10	3
1	Ho		783,324.86	1.27	99.8	Pulse	0.10	3
1	Bi		4,712,117.43	1.01	98.9	Pulse	0.10	3
2	Sc		156,535.97	0.06	100.3	Pulse	0.30	3
2	Ge		83,737.21	0.67	100.6	Pulse	0.30	3
2	Ge		126,227.66	0.84	101.1	Pulse	0.30	3
2	Rh		2,629,905.24	0.27	100.1	Pulse	0.30	3
2	In		854,051.68	0.37	101.2	Pulse	0.30	3
2	Tb		3,316,840.98	0.75	100.8	Pulse	0.30	3
2	Ho		328,862.07	1.10	100.7	Pulse	0.30	3
2	Bi		2,208,564.43	0.56	100.3	Pulse	0.30	3
3	Sc		184,227.07	0.93	101.4	Pulse	0.30	3
3	Ge		112,980.93	0.43	100.9	Pulse	0.30	3
3	Ge		170,514.87	0.72	101.1	Pulse	0.30	3
3	Rh		2,240,537.00	0.67	100.9	Pulse	0.30	3
3	Tb		3,574,844.72	0.57	100.5	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 11:38
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.997	ug/l	0.30	83,377.29	1.980E-02	Pulse	0.25	3
B			1	3.751	ug/l	4.84	88,958.52	2.113E-02	Pulse	0.15	3
Ca			1	10.348	ug/l	2.59	28,525.27	6.197E-03	Pulse	0.10	3
Sr			1	4.908	ug/l	0.80	324,228.00	5.776E-02	Pulse	0.10	3
Mo			1	4.986	ug/l	0.21	63,095.30	1.124E-02	Pulse	0.10	3
Ag			1	4.934	ug/l	2.66	169,786.38	2.823E-02	Pulse	0.10	3
Sn			1	4.817	ug/l	1.53	103,364.80	1.719E-02	Pulse	0.10	3
Sb			1	4.684	ug/l	1.30	104,861.82	1.318E-02	Pulse	0.10	3
Ba			1	4.696	ug/l	1.54	42,739.93	5.375E-03	Pulse	0.10	3
Tl			1	4.896	ug/l	0.83	277,126.69	5.818E-02	Pulse	0.10	3
Pb			1	4.901	ug/l	0.90	94,601.11	1.986E-02	Pulse	0.10	3
Pb			1	4.839	ug/l	0.93	82,953.67	1.741E-02	Pulse	0.10	3
Pb			1	4.935	ug/l	0.42	381,443.19	8.007E-02	Pulse	0.10	3
Na			2	4.933	ug/l	1.32	15,294.79	9.595E-02	Pulse	0.30	3
Mg			2	4.400	ug/l	3.66	4,365.07	2.738E-02	Pulse	0.30	3
Al			2	4.076	ug/l	3.33	1,295.62	8.127E-03	Pulse	0.30	3
K			2	5.758	ug/l	10.53	10,783.59	6.764E-02	Pulse	0.30	3
Ca			2	37.895	ug/l	6.80	1,054.49	6.619E-03	Pulse	0.30	3
Ti			2	5.040	ug/l	5.46	970.04	6.084E-03	Pulse	0.30	3
V			2	4.909	ug/l	1.38	30,121.92	1.890E-01	Pulse	0.30	3
Cr			2	4.893	ug/l	0.66	39,979.32	2.508E-01	Pulse	0.30	3
Mn			2	4.917	ug/l	0.13	20,086.78	1.260E-01	Pulse	0.30	3
Fe			2	4.198	ug/l	2.47	38,324.46	2.405E-01	Pulse	0.30	3
Co			2	4.973	ug/l	1.27	68,682.03	4.309E-01	Pulse	0.30	3
Ni			2	4.986	ug/l	2.70	19,084.50	1.198E-01	Pulse	0.30	3
Cu			2	4.875	ug/l	1.89	51,825.79	3.252E-01	Pulse	0.30	3
Zn			2	4.984	ug/l	1.43	7,086.05	4.446E-02	Pulse	0.30	3
As			2	4.927	ug/l	0.79	3,502.05	2.197E-02	Pulse	1.00	3
Cd			2	4.982	ug/l	2.71	10,494.70	1.218E-02	Pulse	0.30	3
Sn			2	5.004	ug/l	2.18	19,824.81	2.300E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	4.729	ug/l	0.77	1,035.36	5.964E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,211,879.89	1.53	99.3	Mix	0.10	3
1	Sc		4,602,790.56	0.72	100.4	Pulse	0.10	3
1	Ge		802,638.51	1.06	100.6	Pulse	0.10	3
1	Ge		1,111,719.57	1.47	100.8	Pulse	0.10	3
1	Rh		5,613,614.92	0.65	100.1	Mix	0.10	3
1	In		6,014,997.90	0.77	101.1	Analog	0.10	3
1	Tb		7,953,499.47	1.70	101.2	Analog	0.10	3
1	Ho		789,731.68	1.92	100.7	Pulse	0.10	3
1	Bi		4,763,599.30	0.68	100.0	Pulse	0.10	3
2	Sc		159,399.68	1.30	102.1	Pulse	0.30	3
2	Ge		84,927.93	0.60	102.0	Pulse	0.30	3
2	Ge		127,892.52	1.11	102.4	Pulse	0.30	3
2	Rh		2,665,102.74	0.20	101.5	Pulse	0.30	3
2	In		861,765.41	0.93	102.1	Pulse	0.30	3
2	Tb		3,348,455.91	0.84	101.8	Pulse	0.30	3
2	Ho		332,217.10	0.33	101.7	Pulse	0.30	3
2	Bi		2,216,072.48	0.46	100.7	Pulse	0.30	3
3	Sc		187,456.04	0.77	103.2	Pulse	0.30	3
3	Ge		114,106.55	0.50	101.9	Pulse	0.30	3
3	Ge		173,588.79	0.87	102.9	Pulse	0.30	3
3	Rh		2,263,922.97	0.70	101.9	Pulse	0.30	3
3	Tb		3,591,609.86	0.69	101.0	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 11:43
Sample Name	STDD
Sample Type	CalStd
Comment	25
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	25.664	ug/l	0.11	437,199.06	1.017E-01	Pulse	0.25	3
B			1	23.694	ug/l	0.37	423,819.14	9.854E-02	Pulse	0.15	3
Ca			1	37.802	ug/l	1.87	72,093.25	1.536E-02	Pulse	0.10	3
Sr			1	25.615	ug/l	1.02	1,709,483.57	3.010E-01	Pulse	0.10	3
Mo			1	25.299	ug/l	0.84	323,486.82	5.696E-02	Pulse	0.10	3
Ag			1	25.178	ug/l	1.91	882,754.00	1.440E-01	Pulse	0.10	3
Sn			1	24.919	ug/l	1.29	513,011.19	8.369E-02	Pulse	0.10	3
Sb			1	24.219	ug/l	0.97	543,948.85	6.752E-02	Pulse	0.10	3
Ba			1	25.374	ug/l	1.73	233,792.11	2.902E-02	Pulse	0.10	3
Tl			1	25.417	ug/l	0.92	1,457,734.46	3.018E-01	Pulse	0.10	3
Pb			1	25.605	ug/l	1.29	499,796.39	1.035E-01	Pulse	0.10	3
Pb			1	25.465	ug/l	1.06	441,286.10	9.135E-02	Pulse	0.10	3
Pb			1	25.743	ug/l	0.94	2,012,114.00	4.165E-01	Pulse	0.10	3
Na			2	24.141	ug/l	2.08	50,274.40	3.107E-01	Pulse	0.30	3
Mg			2	23.582	ug/l	2.07	20,425.81	1.262E-01	Pulse	0.30	3
Al			2	23.701	ug/l	2.18	6,450.20	3.986E-02	Pulse	0.30	3
K			2	24.908	ug/l	2.85	20,136.67	1.244E-01	Pulse	0.30	3
Ca			2	187.927	ug/l	2.11	4,989.70	3.084E-02	Pulse	0.30	3
Ti			2	25.490	ug/l	2.03	4,961.91	3.066E-02	Pulse	0.30	3
V			2	25.529	ug/l	0.49	157,377.98	9.727E-01	Pulse	0.30	3
Cr			2	25.540	ug/l	1.71	207,924.17	1.285E+00	Pulse	0.30	3
Mn			2	25.723	ug/l	1.44	106,494.78	6.582E-01	Pulse	0.30	3
Fe			2	24.335	ug/l	0.55	182,436.69	1.128E+00	Pulse	0.30	3
Co			2	26.010	ug/l	1.36	364,217.96	2.251E+00	Pulse	0.30	3
Ni			2	25.623	ug/l	1.01	99,411.67	6.144E-01	Pulse	0.30	3
Cu			2	25.119	ug/l	0.41	269,072.59	1.663E+00	Pulse	0.30	3
Zn			2	26.053	ug/l	1.56	36,866.95	2.279E-01	Pulse	0.30	3
As			2	25.317	ug/l	1.06	18,223.47	1.126E-01	Pulse	1.00	3
Cd			2	25.731	ug/l	1.29	54,545.93	6.286E-02	Pulse	0.30	3
Sn			2	25.218	ug/l	0.49	97,778.89	1.127E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	24.660	ug/l	0.76	5,329.47	3.064E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,301,008.29	0.68	101.4	Mix	0.10	3
1	Sc		4,692,610.66	1.13	102.4	Pulse	0.10	3
1	Ge		817,366.05	0.44	102.5	Pulse	0.10	3
1	Ge		1,128,617.53	1.47	102.3	Pulse	0.10	3
1	Rh		5,679,803.87	1.34	101.2	Analog	0.10	3
1	In		6,130,423.12	1.40	103.0	Analog	0.10	3
1	Tb		8,056,614.67	0.50	102.5	Analog	0.10	3
1	Ho		793,630.12	0.97	101.2	Pulse	0.10	3
1	Bi		4,830,631.80	1.33	101.4	Pulse	0.10	3
2	Sc		161,801.80	0.94	103.7	Pulse	0.30	3
2	Ge		85,794.45	1.63	103.1	Pulse	0.30	3
2	Ge		128,529.61	0.06	103.0	Pulse	0.30	3
2	Rh		2,675,333.37	0.58	101.9	Pulse	0.30	3
2	In		867,776.01	0.65	102.8	Pulse	0.30	3
2	Tb		3,376,434.73	0.24	102.7	Pulse	0.30	3
2	Ho		334,745.22	0.45	102.5	Pulse	0.30	3
2	Bi		2,240,349.91	0.58	101.8	Pulse	0.30	3
3	Sc		189,329.33	0.41	104.2	Pulse	0.30	3
3	Ge		114,564.06	1.24	102.3	Pulse	0.30	3
3	Ge		173,923.31	0.68	103.1	Pulse	0.30	3
3	Rh		2,275,728.38	0.70	102.5	Pulse	0.30	3
3	Tb		3,610,920.27	0.52	101.5	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 11:48
Sample Name	STDE
Sample Type	CalStd
Comment	50
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	51.853	ug/l	1.41	865,515.60	2.054E-01	Pulse	0.25	3
B			1	48.771	ug/l	1.95	825,480.73	1.959E-01	Pulse	0.15	3
Ca			1	72.373	ug/l	0.46	125,689.73	2.691E-02	Pulse	0.10	3
Sr			1	51.465	ug/l	1.15	3,414,217.66	6.047E-01	Pulse	0.10	3
Mo			1	51.280	ug/l	0.61	651,779.72	1.154E-01	Pulse	0.10	3
Ag			1	50.835	ug/l	0.74	1,752,505.75	2.908E-01	Pulse	0.10	3
Sn			1	50.896	ug/l	1.32	1,022,453.13	1.696E-01	Pulse	0.10	3
Sb			1	50.119	ug/l	0.15	1,096,773.13	1.396E-01	Pulse	0.10	3
Ba			1	51.842	ug/l	1.16	465,904.60	5.928E-02	Pulse	0.10	3
Tl			1	51.260	ug/l	1.15	2,942,000.27	6.086E-01	Pulse	0.10	3
Pb			1	50.949	ug/l	0.88	995,115.06	2.058E-01	Pulse	0.10	3
Pb			1	50.852	ug/l	0.50	881,595.14	1.824E-01	Pulse	0.10	3
Pb			1	51.352	ug/l	0.61	4,015,808.66	8.307E-01	Pulse	0.10	3
Na			2	48.036	ug/l	0.61	92,614.05	5.779E-01	Pulse	0.30	3
Mg			2	46.764	ug/l	0.60	39,375.85	2.457E-01	Pulse	0.30	3
Al			2	48.247	ug/l	3.01	12,747.17	7.955E-02	Pulse	0.30	3
K			2	47.511	ug/l	2.20	30,682.69	1.915E-01	Pulse	0.30	3
Ca			2	371.596	ug/l	4.30	9,695.17	6.049E-02	Pulse	0.30	3
Ti			2	50.586	ug/l	2.79	9,748.53	6.083E-02	Pulse	0.30	3
V			2	51.160	ug/l	0.66	311,968.10	1.947E+00	Pulse	0.30	3
Cr			2	51.440	ug/l	0.57	413,865.40	2.583E+00	Pulse	0.30	3
Mn			2	51.771	ug/l	0.66	212,248.71	1.325E+00	Pulse	0.30	3
Fe			2	47.356	ug/l	0.88	343,192.05	2.142E+00	Pulse	0.30	3
Co			2	51.505	ug/l	1.10	714,241.33	4.457E+00	Pulse	0.30	3
Ni			2	51.119	ug/l	1.56	196,387.47	1.226E+00	Pulse	0.30	3
Cu			2	49.928	ug/l	0.67	529,205.34	3.303E+00	Pulse	0.30	3
Zn			2	51.786	ug/l	1.52	72,411.99	4.519E-01	Pulse	0.30	3
As			2	50.685	ug/l	0.72	36,120.02	2.254E-01	Pulse	1.00	3
Cd			2	51.550	ug/l	0.97	108,612.17	1.259E-01	Pulse	0.30	3
Sn			2	51.209	ug/l	0.23	196,640.54	2.280E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	49.574	ug/l	0.65	10,533.05	6.149E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,214,611.94	0.92	99.4	Analog	0.10	3
1	Sc		4,671,346.60	0.98	101.9	Pulse	0.10	3
1	Ge		813,209.73	0.54	101.9	Pulse	0.10	3
1	Ge		1,122,573.16	0.33	101.8	Pulse	0.10	3
1	Rh		5,646,436.37	0.19	100.6	Analog	0.10	3
1	In		6,027,447.23	0.22	101.3	Analog	0.10	3
1	Tb		7,859,214.05	0.63	100.0	Analog	0.10	3
1	Ho		786,464.83	0.51	100.2	Pulse	0.10	3
1	Bi		4,834,581.91	1.18	101.5	Pulse	0.10	3
2	Sc		160,246.24	0.65	102.7	Pulse	0.30	3
2	Ge		84,975.98	0.17	102.1	Pulse	0.30	3
2	Ge		126,906.00	0.95	101.7	Pulse	0.30	3
2	Rh		2,657,741.35	0.43	101.2	Pulse	0.30	3
2	In		862,543.77	0.51	102.2	Pulse	0.30	3
2	Tb		3,354,010.98	0.90	102.0	Pulse	0.30	3
2	Ho		333,159.26	0.85	102.0	Pulse	0.30	3
2	Bi		2,239,783.87	0.72	101.8	Pulse	0.30	3
3	Sc		185,909.79	0.48	102.3	Pulse	0.30	3
3	Ge		113,160.08	1.15	101.1	Pulse	0.30	3
3	Ge		171,284.70	0.50	101.5	Pulse	0.30	3
3	Rh		2,250,564.49	0.32	101.3	Pulse	0.30	3
3	Tb		3,616,132.77	0.35	101.6	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 11:53
Sample Name	STDF
Sample Type	CalStd
Comment	100
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	97.605	ug/l	0.84	1,638,599.96	3.866E-01	Pulse	0.25	3
B			1	93.381	ug/l	0.95	1,564,198.69	3.690E-01	Pulse	0.15	3
Ca			1	141.356	ug/l	1.55	229,748.38	4.994E-02	Pulse	0.10	3
Sr			1	96.925	ug/l	0.49	6,408,977.82	1.139E+00	Analog	0.10	3
Mo			1	98.552	ug/l	0.88	1,248,525.21	2.218E-01	Pulse	0.10	3
Ag			1	99.699	ug/l	0.33	3,418,967.76	5.702E-01	Pulse	0.10	3
Sn			1	99.582	ug/l	0.32	1,982,942.68	3.307E-01	Pulse	0.10	3
Sb			1	95.827	ug/l	1.58	2,117,944.76	2.667E-01	Pulse	0.10	3
Ba			1	98.331	ug/l	1.78	892,996.91	1.124E-01	Pulse	0.10	3
Tl			1	98.461	ug/l	1.12	5,621,513.67	1.169E+00	Analog	0.10	3
Pb			1	98.209	ug/l	1.19	1,907,758.98	3.967E-01	Pulse	0.10	3
Pb			1	97.200	ug/l	0.74	1,676,054.04	3.485E-01	Pulse	0.10	3
Pb			1	99.135	ug/l	0.51	7,711,060.67	1.603E+00	Pulse	0.10	3
Na			2	97.323	ug/l	0.82	177,363.42	1.129E+00	Pulse	0.30	3
Mg			2	96.727	ug/l	0.85	79,051.80	5.032E-01	Pulse	0.30	3
Al			2	96.739	ug/l	0.67	24,814.99	1.580E-01	Pulse	0.30	3
K			2	96.146	ug/l	1.54	52,741.58	3.357E-01	Pulse	0.30	3
Ca			2	729.306	ug/l	1.60	18,575.09	1.182E-01	Pulse	0.30	3
Ti			2	99.583	ug/l	0.87	18,806.35	1.197E-01	Pulse	0.30	3
V			2	98.397	ug/l	1.33	587,801.50	3.742E+00	Pulse	0.30	3
Cr			2	98.153	ug/l	0.83	773,324.25	4.923E+00	Pulse	0.30	3
Mn			2	98.938	ug/l	0.77	397,597.03	2.531E+00	Pulse	0.30	3
Fe			2	98.941	ug/l	0.52	693,405.30	4.414E+00	Pulse	0.30	3
Co			2	98.997	ug/l	0.59	1,345,734.25	8.567E+00	Pulse	0.30	3
Ni			2	98.251	ug/l	0.67	369,997.00	2.355E+00	Pulse	0.30	3
Cu			2	95.703	ug/l	1.05	993,959.30	6.328E+00	Pulse	0.30	3
Zn			2	98.820	ug/l	0.49	135,311.49	8.614E-01	Pulse	0.30	3
As			2	99.250	ug/l	0.77	69,325.12	4.413E-01	Pulse	1.00	3
Cd			2	99.043	ug/l	0.78	206,538.19	2.419E-01	Pulse	0.30	3
Sn			2	98.693	ug/l	0.46	374,474.10	4.386E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	93.144	ug/l	0.34	19,549.96	1.154E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,238,754.17	1.03	100.0	Pulse	0.10	3
1	Sc		4,600,918.79	0.78	100.4	Pulse	0.10	3
1	Ge		806,586.76	1.01	101.1	Pulse	0.10	3
1	Ge		1,119,213.76	0.84	101.5	Pulse	0.10	3
1	Rh		5,628,624.71	0.72	100.3	Analog	0.10	3
1	In		5,995,910.94	0.91	100.8	Analog	0.10	3
1	Tb		7,942,016.97	0.21	101.0	Analog	0.10	3
1	Ho		788,713.27	0.53	100.5	Pulse	0.10	3
1	Bi		4,809,484.83	1.15	100.9	Pulse	0.10	3
2	Sc		157,090.14	0.73	100.6	Pulse	0.30	3
2	Ge		84,048.90	0.86	101.0	Pulse	0.30	3
2	Ge		125,858.01	0.54	100.8	Pulse	0.30	3
2	Rh		2,634,927.53	0.36	100.3	Pulse	0.30	3
2	In		853,746.71	0.27	101.2	Pulse	0.30	3
2	Tb		3,339,255.98	0.53	101.5	Pulse	0.30	3
2	Ho		330,275.85	0.63	101.2	Pulse	0.30	3
2	Bi		2,220,815.05	0.45	100.9	Pulse	0.30	3
3	Sc		182,812.99	0.23	100.6	Pulse	0.30	3
3	Ge		111,166.55	0.30	99.3	Pulse	0.30	3
3	Ge		169,346.30	0.31	100.4	Pulse	0.30	3
3	Rh		2,204,702.48	0.80	99.3	Pulse	0.30	3
3	Tb		3,552,409.58	0.57	99.8	Pulse	0.30	3

Quantitation Report

File Name 010CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 11:58
Sample Name STDG
Sample Type CalStd
Comment 500MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	19.48	265.34	6.350E-05	Pulse	0.25	3
B			1	203.946	ug/l	0.25	3,338,156.88	7.982E-01	Pulse	0.15	3
Ca			1	500.616	ug/l	0.57	771,275.77	1.699E-01	Pulse	0.10	3
Sr			1	0.027	ug/l	19.53	2,306.94	4.164E-04	Pulse	0.10	3
Mo			1	0.117	ug/l	12.19	1,563.47	2.818E-04	Pulse	0.10	3
Ag			1	0.016	ug/l	11.01	620.03	1.037E-04	Pulse	0.10	3
Sn			1	-0.104	ug/l	-3.55	5,404.48	9.042E-04	Pulse	0.10	3
Sb			1	0.498	ug/l	7.11	12,004.92	1.542E-03	Pulse	0.10	3
Ba			1	0.023	ug/l	21.79	240.01	3.084E-05	Pulse	0.10	3
Tl			1	0.032	ug/l	3.02	2,093.56	4.379E-04	Pulse	0.10	3
Pb			1	0.037	ug/l	24.32	1,020.08	2.135E-04	Pulse	0.10	3
Pb			1	0.033	ug/l	3.68	890.06	1.862E-04	Pulse	0.10	3
Pb			1	0.035	ug/l	13.45	4,010.37	8.394E-04	Pulse	0.10	3
Na			2	499.821	ug/l	1.28	887,441.73	5.630E+00	Pulse	0.30	3
Mg			2	497.830	ug/l	1.69	405,174.10	2.571E+00	Pulse	0.30	3
Al			2	503.141	ug/l	2.23	128,482.94	8.152E-01	Pulse	0.30	3
K			2	493.279	ug/l	0.68	238,604.01	1.514E+00	Pulse	0.30	3
Ca			2	502.691	ug/l	1.46	12,871.76	8.166E-02	Pulse	0.30	3
Ti			2	0.037	ug/l	122.46	11.11	7.059E-05	Pulse	0.30	3
V			2	0.012	ug/l	49.99	455.57	2.890E-03	Pulse	0.30	3
Cr			2	0.017	ug/l	61.07	1,032.27	6.550E-03	Pulse	0.30	3
Mn			2	0.025	ug/l	30.38	137.78	8.742E-04	Pulse	0.30	3
Fe			2	510.126	ug/l	0.92	3,551,103.89	2.253E+01	Pulse	0.30	3
Co			2	0.039	ug/l	8.43	613.35	3.891E-03	Pulse	0.30	3
Ni			2	0.037	ug/l	22.27	176.67	1.122E-03	Pulse	0.30	3
Cu			2	0.087	ug/l	5.46	1,380.07	8.755E-03	Pulse	0.30	3
Zn			2	0.750	ug/l	3.94	1,196.73	7.592E-03	Pulse	0.30	3
As			2	0.017	ug/l	30.93	22.67	1.439E-04	Pulse	1.00	3
Cd			2	0.009	ug/l	89.80	28.78	3.369E-05	Pulse	0.30	3
Sn			2	0.146	ug/l	13.80	1,243.40	1.454E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	206.163	ug/l	0.67	43,972.33	2.554E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,182,168.21	0.69	98.6	Mix	0.10	3
1	Sc		4,539,873.37	0.59	99.1	Pulse	0.10	3
1	Ge		791,691.92	0.81	99.2	Pulse	0.10	3
1	Ge		1,110,115.69	0.72	100.7	Pulse	0.10	3
1	Rh		5,544,697.63	0.77	98.8	Pulse	0.10	3
1	In		5,976,602.93	0.81	100.4	Analog	0.10	3
1	Tb		7,785,464.47	0.36	99.0	Analog	0.10	3
1	Ho		784,200.80	0.67	100.0	Pulse	0.10	3
1	Bi		4,780,072.74	1.02	100.3	Pulse	0.10	3
2	Sc		157,641.78	1.09	101.0	Pulse	0.30	3
2	Ge		83,884.68	0.56	100.8	Pulse	0.30	3
2	Ge		126,685.16	1.35	101.5	Pulse	0.30	3
2	Rh		2,622,149.13	0.56	99.8	Pulse	0.30	3
2	In		855,362.36	0.36	101.4	Pulse	0.30	3
2	Tb		3,329,190.08	0.55	101.2	Pulse	0.30	3
2	Ho		331,422.16	0.74	101.5	Pulse	0.30	3
2	Bi		2,208,836.16	0.26	100.4	Pulse	0.30	3
3	Sc		184,179.79	0.42	101.4	Pulse	0.30	3
3	Ge		112,240.32	0.23	100.2	Pulse	0.30	3
3	Ge		172,182.00	0.59	102.1	Pulse	0.30	3
3	Rh		2,236,253.80	0.88	100.7	Pulse	0.30	3
3	Tb		3,590,924.30	0.52	100.9	Pulse	0.30	3

Quantitation Report

File Name 011CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 12:03
Sample Name STDH
Sample Type CalStd
Comment 1000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	143.59	20.00	4.719E-06	Pulse	0.25	3
B			1	2.881	ug/l	3.18	75,174.01	1.775E-02	Pulse	0.15	3
Ca			1	992.439	ug/l	0.64	1,543,100.24	3.341E-01	Pulse	0.10	3
Sr			1	0.015	ug/l	13.27	1,546.81	2.784E-04	Pulse	0.10	3
Mo			1	0.030	ug/l	41.86	476.70	8.581E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	55.84	180.01	2.984E-05	Pulse	0.10	3
Sn			1	-0.178	ug/l	-6.99	3,973.99	6.592E-04	Pulse	0.10	3
Sb			1	0.153	ug/l	8.89	4,634.18	5.825E-04	Pulse	0.10	3
Ba			1	0.016	ug/l	18.64	180.01	2.263E-05	Pulse	0.10	3
Tl			1	0.007	ug/l	9.67	676.71	1.414E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	37.52	576.70	1.205E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	59.74	500.03	1.045E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	25.91	2,140.14	4.471E-04	Pulse	0.10	3
Na			2	988.616	ug/l	0.87	1,776,208.89	1.110E+01	Pulse	0.30	3
Mg			2	987.487	ug/l	0.96	815,479.01	5.094E+00	Pulse	0.30	3
Al			2	1050.718	ug/l	1.32	272,233.15	1.701E+00	Pulse	0.30	3
K			2	982.735	ug/l	1.35	474,689.84	2.965E+00	Pulse	0.30	3
Ca			2	994.134	ug/l	1.83	25,772.25	1.610E-01	Pulse	0.30	3
Ti			2	0.030	ug/l	117.19	10.00	6.258E-05	Pulse	0.30	3
V			2	0.016	ug/l	70.25	487.79	3.049E-03	Pulse	0.30	3
Cr			2	0.007	ug/l	195.47	966.71	6.037E-03	Pulse	0.30	3
Mn			2	0.029	ug/l	8.13	157.78	9.857E-04	Pulse	0.30	3
Fe			2	1000.483	ug/l	1.24	7,064,140.55	4.413E+01	Analog	0.30	3
Co			2	0.048	ug/l	6.00	752.25	4.698E-03	Pulse	0.30	3
Ni			2	0.054	ug/l	17.77	245.56	1.535E-03	Pulse	0.30	3
Cu			2	0.053	ug/l	14.11	1,038.93	6.489E-03	Pulse	0.30	3
Zn			2	0.216	ug/l	20.14	471.12	2.945E-03	Pulse	0.30	3
As			2	0.017	ug/l	49.22	23.00	1.435E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	105.15	15.52	1.786E-05	Pulse	0.30	3
Sn			2	0.024	ug/l	62.24	793.36	9.116E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	402.396	ug/l	0.96	86,774.89	4.984E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,236,761.96	2.24	99.9	Mix	0.10	3
1	Sc		4,618,825.14	0.99	100.8	Pulse	0.10	3
1	Ge		809,800.79	0.85	101.5	Pulse	0.10	3
1	Ge		1,130,809.83	1.25	102.5	Pulse	0.10	3
1	Rh		5,554,643.87	0.29	99.0	Mix	0.10	3
1	In		6,029,022.99	0.35	101.3	Analog	0.10	3
1	Tb		7,954,884.88	0.31	101.2	Analog	0.10	3
1	Ho		795,505.87	1.16	101.4	Pulse	0.10	3
1	Bi		4,784,958.89	0.39	100.4	Pulse	0.10	3
2	Sc		160,086.73	0.77	102.6	Pulse	0.30	3
2	Ge		85,249.48	0.49	102.4	Pulse	0.30	3
2	Ge		128,590.35	0.79	103.0	Pulse	0.30	3
2	Rh		2,643,333.65	0.07	100.6	Pulse	0.30	3
2	In		870,462.90	0.74	103.1	Pulse	0.30	3
2	Tb		3,355,865.49	0.60	102.0	Pulse	0.30	3
2	Ho		334,373.73	0.86	102.4	Pulse	0.30	3
2	Bi		2,220,962.90	0.35	100.9	Pulse	0.30	3
3	Sc		185,838.10	0.89	102.3	Pulse	0.30	3
3	Ge		113,173.47	0.50	101.1	Pulse	0.30	3
3	Ge		174,118.62	0.20	103.2	Pulse	0.30	3
3	Rh		2,231,308.80	0.67	100.5	Pulse	0.30	3
3	Tb		3,615,607.64	0.70	101.6	Pulse	0.30	3

Quantitation Report

File Name	012CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 12:07
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	261.01	17.33	4.129E-06	Pulse	0.25	3
B			1	1.270	ug/l	7.76	48,614.08	1.150E-02	Pulse	0.15	3
Ca			1	4973.673	ug/l	1.52	7,752,305.51	1.663E+00	Analog	0.10	3
Sr			1	0.050	ug/l	6.65	3,820.60	6.941E-04	Pulse	0.10	3
Mo			1	0.014	ug/l	34.08	273.34	4.961E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	29.87	116.67	1.955E-05	Pulse	0.10	3
Sn			1	-0.205	ug/l	-4.02	3,407.17	5.713E-04	Pulse	0.10	3
Sb			1	0.084	ug/l	0.62	3,073.76	3.905E-04	Pulse	0.10	3
Ba			1	0.016	ug/l	54.41	180.01	2.287E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	14.62	370.02	7.970E-05	Pulse	0.10	3
Pb			1	0.009	ug/l	48.66	473.36	1.021E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	41.60	440.02	9.480E-05	Pulse	0.10	3
Pb			1	0.010	ug/l	33.41	1,963.46	4.233E-04	Pulse	0.10	3
Na			2	5141.077	ug/l	1.76	9,402,694.07	5.753E+01	Analog	0.30	3
Mg			2	5015.027	ug/l	0.85	4,225,498.16	2.585E+01	Pulse	0.30	3
Al			2	5127.567	ug/l	0.70	1,355,533.10	8.293E+00	Pulse	0.30	3
K			2	5034.656	ug/l	0.48	2,449,079.07	1.498E+01	Pulse	0.30	3
Ca			2	5014.666	ug/l	0.51	132,416.19	8.101E-01	Pulse	0.30	3
Ti			2	-0.017	ug/l	-59.38	1.11	6.810E-06	Pulse	0.30	3
V			2	0.008	ug/l	124.81	445.57	2.725E-03	Pulse	0.30	3
Cr			2	0.018	ug/l	27.93	1,074.50	6.574E-03	Pulse	0.30	3
Mn			2	0.094	ug/l	22.44	430.01	2.632E-03	Pulse	0.30	3
Fe			2	5040.547	ug/l	0.49	36,302,876.33	2.221E+02	Analog	0.30	3
Co			2	0.253	ug/l	2.13	3,663.78	2.241E-02	Pulse	0.30	3
Ni			2	0.215	ug/l	6.67	883.37	5.406E-03	Pulse	0.30	3
Cu			2	0.021	ug/l	29.40	722.25	4.418E-03	Pulse	0.30	3
Zn			2	0.258	ug/l	27.03	540.01	3.303E-03	Pulse	0.30	3
As			2	0.024	ug/l	16.42	28.33	1.733E-04	Pulse	1.00	3
Cd			2	-0.002	ug/l	-219.21	6.64	7.582E-06	Pulse	0.30	3
Sn			2	0.012	ug/l	81.06	752.25	8.563E-04	Pulse	0.30	3
Se			3	0.147	ug/l	20.10	50.53	2.911E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,230,061.39	1.71	99.8	Mix	0.10	3
1	Sc		4,660,926.70	1.21	101.7	Pulse	0.10	3
1	Ge		816,914.67	1.04	102.4	Pulse	0.10	3

Quantitation Report

1	Ge		1,108,256.49	0.82	100.5	Pulse	0.10	3
1	Rh		5,505,375.96	1.09	98.1	Pulse	0.10	3
1	In		5,964,935.81	0.87	100.2	Analog	0.10	3
1	Tb		7,870,583.63	1.45	100.1	Analog	0.10	3
1	Ho		782,871.52	1.29	99.8	Pulse	0.10	3
1	Bi		4,641,433.26	0.98	97.4	Pulse	0.10	3
2	Sc		163,449.78	0.48	104.7	Pulse	0.30	3
2	Ge		86,780.84	0.55	104.3	Pulse	0.30	3
2	Ge		130,349.43	0.59	104.4	Pulse	0.30	3
2	Rh		2,640,044.41	0.54	100.5	Pulse	0.30	3
2	In		878,411.40	0.34	104.1	Pulse	0.30	3
2	Tb		3,389,664.66	0.24	103.1	Pulse	0.30	3
2	Ho		338,129.90	0.22	103.6	Pulse	0.30	3
2	Bi		2,189,760.33	0.22	99.5	Pulse	0.30	3
3	Sc		190,237.07	0.39	104.7	Pulse	0.30	3
3	Ge		114,826.01	1.07	102.6	Pulse	0.30	3
3	Ge		173,706.69	0.78	103.0	Pulse	0.30	3
3	Rh		2,214,784.70	0.81	99.7	Pulse	0.30	3
3	Tb		3,604,699.02	0.87	101.3	Pulse	0.30	3

Quantitation Report

File Name 013CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 12:12
Sample Name STDJ
Sample Type CalStd
Comment 10000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	149.94	21.33	4.892E-06	Pulse	0.25	3
B			1	0.490	ug/l	19.77	36,621.93	8.470E-03	Pulse	0.15	3
Ca			1	10029.392	ug/l	0.77	16,037,732.68	3.351E+00	Analog	0.10	3
Sr			1	0.099	ug/l	2.70	7,048.50	1.267E-03	Pulse	0.10	3
Mo			1	0.017	ug/l	4.91	313.35	5.629E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	49.17	173.34	2.823E-05	Pulse	0.10	3
Sn			1	-0.098	ug/l	-16.78	5,694.75	9.262E-04	Pulse	0.10	3
Sb			1	0.070	ug/l	8.69	2,807.01	3.521E-04	Pulse	0.10	3
Ba			1	0.024	ug/l	35.78	256.68	3.208E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	43.64	343.35	7.428E-05	Pulse	0.10	3
Pb			1	0.017	ug/l	10.12	623.37	1.349E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	38.85	480.03	1.040E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	17.23	2,260.15	4.892E-04	Pulse	0.10	3
Na			2	10035.610	ug/l	2.64	18,898,497.58	1.123E+02	Analog	0.30	3
Mg			2	10034.648	ug/l	1.18	8,707,937.71	5.172E+01	Analog	0.30	3
Al			2	10071.244	ug/l	1.57	2,742,066.98	1.629E+01	Pulse	0.30	3
K			2	9992.594	ug/l	0.94	4,998,450.78	2.969E+01	Pulse	0.30	3
Ca			2	9973.114	ug/l	0.32	271,180.56	1.611E+00	Pulse	0.30	3
Ti			2	-0.006	ug/l	-294.66	3.33	1.991E-05	Pulse	0.30	3
V			2	0.019	ug/l	78.80	532.24	3.158E-03	Pulse	0.30	3
Cr			2	0.054	ug/l	3.13	1,408.97	8.369E-03	Pulse	0.30	3
Mn			2	0.169	ug/l	5.39	766.70	4.555E-03	Pulse	0.30	3
Fe			2	10066.462	ug/l	0.33	74,671,377.04	4.435E+02	Analog	0.30	3
Co			2	0.501	ug/l	3.10	7,390.61	4.389E-02	Pulse	0.30	3
Ni			2	0.412	ug/l	4.64	1,704.56	1.013E-02	Pulse	0.30	3
Cu			2	0.073	ug/l	8.29	1,322.29	7.855E-03	Pulse	0.30	3
Zn			2	0.846	ug/l	6.77	1,417.86	8.423E-03	Pulse	0.30	3
As			2	0.068	ug/l	21.80	62.33	3.702E-04	Pulse	1.00	3
Cd			2	0.004	ug/l	47.95	18.87	2.105E-05	Pulse	0.30	3
Sn			2	0.114	ug/l	27.54	1,174.50	1.311E-03	Pulse	0.30	3
Se			3	0.457	ug/l	5.03	116.53	6.749E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,325,812.33	2.07	102.0	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		4,785,656.39	1.26	104.4	Pulse	0.10	3
1	Ge		841,591.29	0.98	105.5	Pulse	0.10	3
1	Ge		1,137,693.84	1.38	103.2	Pulse	0.10	3
1	Rh		5,564,572.00	1.76	99.2	Mix	0.10	3
1	In		6,149,239.01	1.62	103.3	Analog	0.10	3
1	Tb		7,973,050.71	1.73	101.4	Analog	0.10	3
1	Ho		796,348.29	1.81	101.5	Pulse	0.10	3
1	Bi		4,620,469.93	0.92	97.0	Pulse	0.10	3
2	Sc		168,368.16	0.88	107.9	Pulse	0.30	3
2	Ge		89,137.77	0.88	107.1	Pulse	0.30	3
2	Ge		133,639.81	0.54	107.0	Pulse	0.30	3
2	Rh		2,668,250.03	0.18	101.6	Pulse	0.30	3
2	In		895,979.48	0.31	106.2	Pulse	0.30	3
2	Tb		3,464,033.82	0.38	105.3	Pulse	0.30	3
2	Ho		344,822.08	1.01	105.6	Pulse	0.30	3
2	Bi		2,192,170.12	0.43	99.6	Pulse	0.30	3
3	Sc		190,901.24	0.87	105.1	Pulse	0.30	3
3	Ge		115,594.28	0.57	103.2	Pulse	0.30	3
3	Ge		172,677.04	0.18	102.4	Pulse	0.30	3
3	Rh		2,191,488.87	0.52	98.7	Pulse	0.30	3
3	Tb		3,594,693.75	0.78	101.0	Pulse	0.30	3

Quantitation Report

File Name	014SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 12:17
Sample Name	STDA
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-1069.23	12.00	2.771E-06	Pulse	0.25	3
B			1	0.000	ug/l	---	28,393.23	6.567E-03	Pulse	0.15	3
Ca			1	-0.062	ug/l	-632.93	13,082.28	2.721E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-564.97	596.70	1.014E-04	Pulse	0.10	3
Mo			1	0.001	ug/l	299.99	120.01	2.041E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	3313.72	73.34	1.169E-05	Pulse	0.10	3
Sn			1	-0.193	ug/l	-2.86	3,830.61	6.112E-04	Pulse	0.10	3
Sb			1	0.002	ug/l	190.89	1,356.78	1.638E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	2621.28	40.00	4.820E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	-324.64	256.68	5.188E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	529.46	343.35	6.947E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-195.76	303.35	6.136E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-1276.37	1,316.74	2.663E-04	Pulse	0.10	3
Na			2	-0.003	ug/l	-5270.54	6,822.56	4.076E-02	Pulse	0.30	3
Mg			2	-0.004	ug/l	-3467.45	782.25	4.676E-03	Pulse	0.30	3
Al			2	0.150	ug/l	94.10	297.78	1.779E-03	Pulse	0.30	3
K			2	1.029	ug/l	59.62	8,980.28	5.362E-02	Pulse	0.30	3
Ca			2	-0.260	ug/l	-245.09	76.67	4.585E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	4.44	2.667E-05	Pulse	0.30	3
V			2	-0.005	ug/l	-71.97	377.78	2.256E-03	Pulse	0.30	3
Cr			2	-0.008	ug/l	-130.91	885.59	5.290E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	40.00	2.387E-04	Pulse	0.30	3
Fe			2	0.232	ug/l	48.14	11,008.23	6.577E-02	Pulse	0.30	3
Co			2	0.000	ug/l	---	92.22	5.521E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-152.91	36.67	2.189E-04	Pulse	0.30	3
Cu			2	-0.006	ug/l	-117.64	435.57	2.598E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.000	ug/l	---	177.78	1.061E-03	Pulse	0.30	3
As			2	0.001	ug/l	773.20	12.00	7.150E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	---	11.10	1.218E-05	Pulse	0.30	3
Sn			2	-0.001	ug/l	-2269.80	730.03	8.006E-04	Pulse	0.30	3
Se			3	0.001	ug/l	1725.60	20.00	1.108E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,323,448.44	0.42	100.0	Analog	0.10	3
1	Sc		4,808,696.07	0.74	100.0	Pulse	0.10	3
1	Ge		838,902.80	0.80	100.0	Pulse	0.10	3
1	Ge		1,162,313.11	0.98	100.0	Pulse	0.10	3
1	Rh		5,888,004.50	0.65	100.0	Analog	0.10	3
1	In		6,268,156.58	0.79	100.0	Analog	0.10	3
1	Tb		8,281,685.92	0.62	100.0	Analog	0.10	3
1	Ho		818,439.29	1.10	100.0	Pulse	0.10	3
1	Bi		4,944,500.34	0.48	100.0	Pulse	0.10	3
2	Sc		167,439.85	1.16	100.0	Pulse	0.30	3
2	Ge		89,677.26	0.92	100.0	Pulse	0.30	3
2	Ge		134,844.28	0.88	100.0	Pulse	0.30	3
2	Rh		2,774,484.40	0.67	100.0	Pulse	0.30	3
2	In		912,035.86	0.67	100.0	Pulse	0.30	3
2	Tb		3,495,161.32	0.20	100.0	Pulse	0.30	3
2	Ho		346,338.63	0.60	100.0	Pulse	0.30	3
2	Bi		2,320,008.59	0.48	100.0	Pulse	0.30	3
3	Sc		194,043.14	0.44	100.0	Pulse	0.30	3
3	Ge		118,223.05	0.89	100.0	Pulse	0.30	3
3	Ge		180,177.54	0.94	100.0	Pulse	0.30	3
3	Rh		2,355,166.43	0.04	100.0	Pulse	0.30	3
3	Tb		3,759,518.32	0.59	100.0	Pulse	0.30	3

Quantitation Report

File Name 015_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 12:40
Sample Name ICVA
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	64.607	ug/l	0.99	1,103,417.00	2.559E-01	Pulse	0.25	3
B			1	127.035	ug/l	1.34	2,154,553.60	4.997E-01	Pulse	0.15	3
Ca			1	5535.844	ug/l	0.70	8,766,370.70	1.851E+00	Analog	0.10	3
Sr			1	66.689	ug/l	1.54	4,408,346.81	7.835E-01	Pulse	0.10	3
Mo			1	63.488	ug/l	1.78	804,063.35	1.429E-01	Pulse	0.10	3
Ag			1	61.999	ug/l	1.55	2,166,082.78	3.546E-01	Pulse	0.10	3
Sn			1	62.291	ug/l	1.62	1,266,447.79	2.073E-01	Pulse	0.10	3
Sb			1	64.728	ug/l	1.55	1,446,799.46	1.802E-01	Pulse	0.10	3
Ba			1	66.746	ug/l	2.17	612,819.35	7.633E-02	Pulse	0.10	3
Tl			1	68.692	ug/l	0.70	3,883,544.94	8.155E-01	Pulse	0.10	3
Pb			1	68.028	ug/l	0.89	1,308,615.60	2.748E-01	Pulse	0.10	3
Pb			1	63.997	ug/l	1.00	1,092,781.50	2.295E-01	Pulse	0.10	3
Pb			1	66.736	ug/l	0.68	5,140,330.70	1.079E+00	Pulse	0.10	3
Na			2	5601.530	ug/l	0.89	10,659,849.58	6.268E+01	Analog	0.30	3
Mg			2	5479.173	ug/l	1.22	4,803,405.22	2.824E+01	Pulse	0.30	3
Al			2	5661.769	ug/l	0.22	1,557,384.94	9.157E+00	Pulse	0.30	3
K			2	5566.300	ug/l	1.29	2,816,356.49	1.656E+01	Pulse	0.30	3
Ca			2	5952.721	ug/l	0.44	163,536.71	9.616E-01	Pulse	0.30	3
Ti			2	61.824	ug/l	0.46	12,642.67	7.434E-02	Pulse	0.30	3
V			2	65.518	ug/l	0.52	423,896.29	2.492E+00	Pulse	0.30	3
Cr			2	64.576	ug/l	0.95	551,165.29	3.241E+00	Pulse	0.30	3
Mn			2	65.618	ug/l	0.66	285,511.33	1.679E+00	Pulse	0.30	3
Fe			2	5550.557	ug/l	0.53	41,594,662.79	2.446E+02	Analog	0.30	3
Co			2	63.863	ug/l	0.60	939,942.74	5.527E+00	Pulse	0.30	3
Ni			2	63.074	ug/l	0.26	257,181.04	1.512E+00	Pulse	0.30	3
Cu			2	60.316	ug/l	0.92	678,411.71	3.989E+00	Pulse	0.30	3
Zn			2	63.185	ug/l	1.07	93,734.03	5.511E-01	Pulse	0.30	3
As			2	65.516	ug/l	0.45	49,549.89	2.913E-01	Pulse	1.00	3
Cd			2	63.134	ug/l	0.47	141,861.04	1.542E-01	Pulse	0.30	3
Sn			2	61.690	ug/l	0.78	252,482.91	2.745E-01	Pulse	0.30	3
Se			3	266.130	ug/l	0.35	57,766.70	3.296E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,312,049.78	0.67	99.7	Mix	0.10	3
1	Sc		4,736,046.08	1.08	98.5	Pulse	0.10	3
1	Ge		834,089.52	1.47	99.4	Pulse	0.10	3

Quantitation Report

1	Ge		1,153,504.54	0.87	99.2	Pulse	0.10	3
1	Rh		5,626,849.71	0.49	95.6	Mix	0.10	3
1	In		6,109,541.08	2.54	97.5	Analog	0.10	3
1	Tb		8,030,706.13	1.57	97.0	Analog	0.10	3
1	Ho		806,366.97	0.32	98.5	Pulse	0.10	3
1	Bi		4,762,205.14	1.06	96.3	Pulse	0.10	3
2	Sc		170,075.31	0.71	101.6	Pulse	0.30	3
2	Ge		90,867.15	0.32	101.3	Pulse	0.30	3
2	Ge		135,390.75	0.98	100.4	Pulse	0.30	3
2	Rh		2,705,198.78	0.45	97.5	Pulse	0.30	3
2	In		919,890.75	0.23	100.9	Pulse	0.30	3
2	Tb		3,498,457.50	0.56	100.1	Pulse	0.30	3
2	Ho		348,302.80	0.28	100.6	Pulse	0.30	3
2	Bi		2,264,512.41	0.11	97.6	Pulse	0.30	3
3	Sc		190,390.45	0.85	98.1	Pulse	0.30	3
3	Ge		114,891.86	0.62	97.2	Pulse	0.30	3
3	Ge		175,240.33	0.69	97.3	Pulse	0.30	3
3	Rh		2,197,470.26	0.83	93.3	Pulse	0.30	3
3	Tb		3,591,058.89	0.72	95.5	Pulse	0.30	3

Quantitation Report

File Name 016_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 12:45
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	10.51	204.00	4.725E-05	Pulse	0.25	3
B			1	0.970	ug/l	6.61	44,634.36	1.033E-02	Pulse	0.15	3
Ca			1	3.486	ug/l	2.58	18,747.72	3.906E-03	Pulse	0.10	3
Sr			1	0.015	ug/l	22.10	1,613.47	2.782E-04	Pulse	0.10	3
Mo			1	0.061	ug/l	3.95	903.39	1.557E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	19.63	616.70	9.696E-05	Pulse	0.10	3
Sn			1	-0.224	ug/l	-4.68	3,247.13	5.096E-04	Pulse	0.10	3
Sb			1	0.020	ug/l	25.43	1,763.51	2.129E-04	Pulse	0.10	3
Ba			1	0.022	ug/l	14.21	243.34	2.935E-05	Pulse	0.10	3
Tl			1	0.024	ug/l	12.10	1,676.83	3.364E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	5.86	796.72	1.597E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	36.41	666.71	1.337E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	7.14	3,100.24	6.214E-04	Pulse	0.10	3
Na			2	1.625	ug/l	13.34	10,088.65	5.897E-02	Pulse	0.30	3
Mg			2	0.148	ug/l	30.49	934.48	5.462E-03	Pulse	0.30	3
Al			2	63.924	ug/l	1.07	17,948.56	1.049E-01	Pulse	0.30	3
K			2	1.170	ug/l	43.87	9,245.98	5.404E-02	Pulse	0.30	3
Ca			2	3.819	ug/l	17.53	191.11	1.117E-03	Pulse	0.30	3
Ti			2	0.032	ug/l	58.34	11.11	6.488E-05	Pulse	0.30	3
V			2	0.012	ug/l	93.87	494.46	2.890E-03	Pulse	0.30	3
Cr			2	-0.053	ug/l	-9.48	518.91	3.033E-03	Pulse	0.30	3
Mn			2	0.035	ug/l	8.07	193.34	1.130E-03	Pulse	0.30	3
Fe			2	1.297	ug/l	5.48	19,278.07	1.127E-01	Pulse	0.30	3
Co			2	0.005	ug/l	36.56	172.22	1.007E-03	Pulse	0.30	3
Ni			2	0.026	ug/l	27.84	146.67	8.570E-04	Pulse	0.30	3
Cu			2	0.025	ug/l	23.57	800.03	4.677E-03	Pulse	0.30	3
Zn			2	0.219	ug/l	17.67	507.79	2.969E-03	Pulse	0.30	3
As			2	0.016	ug/l	21.33	23.67	1.383E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.004	ug/l	71.39	21.05	2.253E-05	Pulse	0.30	3
Sn			2	-0.028	ug/l	-37.97	634.47	6.795E-04	Pulse	0.30	3
Se			3	0.118	ug/l	6.39	46.00	2.552E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,321,360.81	1.29	100.0	Analog	0.10	3
1	Sc		4,799,907.53	1.06	99.8	Pulse	0.10	3
1	Ge		845,325.66	0.43	100.8	Pulse	0.10	3
1	Ge		1,162,607.12	1.41	100.0	Pulse	0.10	3
1	Rh		5,803,859.08	0.80	98.6	Analog	0.10	3
1	In		6,369,380.69	1.33	101.6	Analog	0.10	3
1	Tb		8,284,578.21	1.29	100.0	Analog	0.10	3
1	Ho		816,958.74	0.98	99.8	Pulse	0.10	3
1	Bi		4,988,106.80	0.96	100.9	Pulse	0.10	3
2	Sc		171,094.74	0.40	102.2	Pulse	0.30	3
2	Ge		91,215.72	1.41	101.7	Pulse	0.30	3
2	Ge		137,212.48	0.41	101.8	Pulse	0.30	3
2	Rh		2,816,428.85	0.12	101.5	Pulse	0.30	3
2	In		933,656.31	0.23	102.4	Pulse	0.30	3
2	Tb		3,556,057.78	0.55	101.7	Pulse	0.30	3
2	Ho		352,452.59	0.33	101.8	Pulse	0.30	3
2	Bi		2,354,421.71	0.46	101.5	Pulse	0.30	3
3	Sc		192,968.79	1.40	99.4	Pulse	0.30	3
3	Ge		118,170.79	1.25	100.0	Pulse	0.30	3
3	Ge		180,237.60	0.40	100.0	Pulse	0.30	3
3	Rh		2,362,565.32	0.52	100.3	Pulse	0.30	3
3	Tb		3,759,601.38	0.42	100.0	Pulse	0.30	3

Quantitation Report

File Name 017_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 12:54
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	63.826	ug/l	1.58	1,086,450.33	2.528E-01	Pulse	0.25	3
B			1	125.772	ug/l	1.90	2,126,203.73	4.948E-01	Pulse	0.15	3
Ca			1	5473.969	ug/l	1.40	8,656,855.29	1.830E+00	Analog	0.10	3
Sr			1	65.640	ug/l	0.47	4,337,097.75	7.712E-01	Pulse	0.10	3
Mo			1	62.536	ug/l	0.79	791,639.88	1.408E-01	Pulse	0.10	3
Ag			1	62.053	ug/l	1.37	2,139,946.48	3.549E-01	Pulse	0.10	3
Sn			1	62.159	ug/l	1.97	1,247,395.55	2.069E-01	Pulse	0.10	3
Sb			1	63.288	ug/l	0.72	1,412,926.28	1.762E-01	Pulse	0.10	3
Ba			1	65.726	ug/l	1.60	602,756.74	7.516E-02	Pulse	0.10	3
Tl			1	67.302	ug/l	0.36	3,818,889.32	7.990E-01	Pulse	0.10	3
Pb			1	66.561	ug/l	0.92	1,285,112.45	2.689E-01	Pulse	0.10	3
Pb			1	62.936	ug/l	0.37	1,078,590.95	2.257E-01	Pulse	0.10	3
Pb			1	65.200	ug/l	0.47	5,040,289.20	1.055E+00	Pulse	0.10	3
Na			2	5505.934	ug/l	0.84	10,435,662.36	6.161E+01	Analog	0.30	3
Mg			2	5328.645	ug/l	0.89	4,652,728.01	2.747E+01	Pulse	0.30	3
Al			2	5506.129	ug/l	0.94	1,508,433.45	8.905E+00	Pulse	0.30	3
K			2	5399.736	ug/l	0.52	2,721,428.29	1.607E+01	Pulse	0.30	3
Ca			2	5797.338	ug/l	0.42	158,628.46	9.365E-01	Pulse	0.30	3
Ti			2	60.004	ug/l	1.82	12,221.28	7.215E-02	Pulse	0.30	3
V			2	64.047	ug/l	0.64	412,720.19	2.437E+00	Pulse	0.30	3
Cr			2	62.899	ug/l	0.47	534,724.99	3.157E+00	Pulse	0.30	3
Mn			2	63.828	ug/l	1.32	276,593.12	1.633E+00	Pulse	0.30	3
Fe			2	5432.473	ug/l	1.47	40,544,442.84	2.394E+02	Analog	0.30	3
Co			2	62.569	ug/l	0.73	917,166.08	5.415E+00	Pulse	0.30	3
Ni			2	61.935	ug/l	0.78	251,514.90	1.485E+00	Pulse	0.30	3
Cu			2	59.133	ug/l	1.01	662,428.67	3.911E+00	Pulse	0.30	3
Zn			2	63.706	ug/l	0.26	94,127.61	5.557E-01	Pulse	0.30	3
As			2	64.540	ug/l	0.19	48,616.14	2.870E-01	Pulse	1.00	3
Cd			2	62.642	ug/l	0.71	139,108.81	1.530E-01	Pulse	0.30	3
Sn			2	60.437	ug/l	0.71	244,472.59	2.689E-01	Pulse	0.30	3
Se			3	261.435	ug/l	0.32	56,666.48	3.238E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,298,648.39	2.21	99.4	Analog	0.10	3
1	Sc		4,729,493.89	0.17	98.4	Pulse	0.10	3
1	Ge		835,922.57	0.29	99.6	Pulse	0.10	3

Quantitation Report

1	Ge		1,159,545.30	1.14	99.8	Pulse	0.10	3
1	Rh		5,624,166.37	1.09	95.5	Mix	0.10	3
1	In		6,029,867.67	1.09	96.2	Analog	0.10	3
1	Tb		8,020,185.30	1.13	96.8	Analog	0.10	3
1	Ho		805,397.75	0.92	98.4	Pulse	0.10	3
1	Bi		4,779,372.95	0.55	96.7	Pulse	0.10	3
2	Sc		169,390.45	0.77	101.2	Pulse	0.30	3
2	Ge		89,801.37	0.66	100.1	Pulse	0.30	3
2	Ge		135,296.51	0.33	100.3	Pulse	0.30	3
2	Rh		2,699,827.95	0.55	97.3	Pulse	0.30	3
2	In		909,120.72	0.28	99.7	Pulse	0.30	3
2	Tb		3,461,960.35	0.39	99.1	Pulse	0.30	3
2	Ho		345,645.45	0.34	99.8	Pulse	0.30	3
2	Bi		2,245,926.02	0.64	96.8	Pulse	0.30	3
3	Sc		190,558.58	1.53	98.2	Pulse	0.30	3
3	Ge		114,551.68	0.18	96.9	Pulse	0.30	3
3	Ge		174,990.01	0.41	97.1	Pulse	0.30	3
3	Rh		2,214,082.27	0.24	94.0	Pulse	0.30	3
3	Tb		3,609,636.94	0.52	96.0	Pulse	0.30	3

Quantitation Report

File Name 018_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 13:03
Sample Name ICVA
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	61.409	ug/l	0.82	1,057,077.54	2.432E-01	Pulse	0.25	3
B			1	121.721	ug/l	2.19	2,081,819.50	4.790E-01	Pulse	0.15	3
Ca			1	5298.520	ug/l	0.44	8,460,589.87	1.772E+00	Analog	0.10	3
Sr			1	64.173	ug/l	0.49	4,255,219.42	7.539E-01	Pulse	0.10	3
Mo			1	61.056	ug/l	0.95	775,680.54	1.374E-01	Pulse	0.10	3
Ag			1	59.891	ug/l	0.81	2,097,914.03	3.426E-01	Pulse	0.10	3
Sn			1	60.263	ug/l	2.21	1,228,650.76	2.006E-01	Pulse	0.10	3
Sb			1	61.296	ug/l	1.10	1,394,039.10	1.706E-01	Pulse	0.10	3
Ba			1	63.311	ug/l	1.24	591,447.97	7.240E-02	Pulse	0.10	3
Tl			1	65.607	ug/l	0.90	3,763,477.34	7.789E-01	Pulse	0.10	3
Pb			1	64.976	ug/l	0.76	1,268,248.89	2.625E-01	Pulse	0.10	3
Pb			1	60.528	ug/l	0.45	1,048,753.99	2.170E-01	Pulse	0.10	3
Pb			1	63.418	ug/l	0.43	4,956,558.78	1.026E+00	Pulse	0.10	3
Na			2	5348.628	ug/l	2.49	10,249,457.09	5.985E+01	Analog	0.30	3
Mg			2	5182.609	ug/l	0.48	4,574,903.01	2.672E+01	Pulse	0.30	3
Al			2	5364.958	ug/l	0.61	1,485,913.21	8.677E+00	Pulse	0.30	3
K			2	5278.547	ug/l	0.81	2,689,685.80	1.571E+01	Pulse	0.30	3
Ca			2	5636.942	ug/l	0.68	155,940.27	9.106E-01	Pulse	0.30	3
Ti			2	58.221	ug/l	0.63	11,987.79	7.000E-02	Pulse	0.30	3
V			2	62.107	ug/l	0.76	404,613.13	2.363E+00	Pulse	0.30	3
Cr			2	61.347	ug/l	0.80	527,270.98	3.079E+00	Pulse	0.30	3
Mn			2	62.084	ug/l	0.85	271,992.71	1.588E+00	Pulse	0.30	3
Fe			2	5291.872	ug/l	0.17	39,930,521.75	2.332E+02	Analog	0.30	3
Co			2	60.939	ug/l	0.66	903,085.69	5.274E+00	Pulse	0.30	3
Ni			2	59.971	ug/l	0.27	246,215.92	1.438E+00	Pulse	0.30	3
Cu			2	57.695	ug/l	0.62	653,437.98	3.816E+00	Pulse	0.30	3
Zn			2	61.317	ug/l	0.49	91,595.83	5.349E-01	Pulse	0.30	3
As			2	62.301	ug/l	0.83	47,443.06	2.771E-01	Pulse	1.00	3
Cd			2	61.071	ug/l	1.03	136,945.28	1.492E-01	Pulse	0.30	3
Sn			2	59.407	ug/l	0.30	242,677.14	2.643E-01	Pulse	0.30	3
Se			3	255.895	ug/l	0.61	55,747.15	3.170E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,346,178.07	0.60	100.5	Mix	0.10	3
1	Sc		4,774,899.82	1.05	99.3	Pulse	0.10	3
1	Ge		845,925.01	0.73	100.8	Pulse	0.10	3

Quantitation Report

1	Ge		1,172,143.58	0.90	100.8	Pulse	0.10	3
1	Rh		5,644,027.00	0.15	95.9	Mix	0.10	3
1	In		6,124,654.26	0.86	97.7	Analog	0.10	3
1	Tb		8,170,435.92	1.64	98.7	Analog	0.10	3
1	Ho		810,355.74	0.56	99.0	Pulse	0.10	3
1	Bi		4,831,936.91	0.76	97.7	Pulse	0.10	3
2	Sc		171,246.81	0.67	102.3	Pulse	0.30	3
2	Ge		90,743.17	0.20	101.2	Pulse	0.30	3
2	Ge		135,735.86	1.26	100.7	Pulse	0.30	3
2	Rh		2,718,603.92	0.30	98.0	Pulse	0.30	3
2	In		918,039.63	0.52	100.7	Pulse	0.30	3
2	Tb		3,502,608.19	0.83	100.2	Pulse	0.30	3
2	Ho		347,747.03	0.25	100.4	Pulse	0.30	3
2	Bi		2,268,735.53	0.24	97.8	Pulse	0.30	3
3	Sc		191,339.02	0.32	98.6	Pulse	0.30	3
3	Ge		116,131.58	0.26	98.2	Pulse	0.30	3
3	Ge		175,881.96	0.85	97.6	Pulse	0.30	3
3	Rh		2,224,278.11	0.20	94.4	Pulse	0.30	3
3	Tb		3,621,910.41	0.06	96.3	Pulse	0.30	3

Quantitation Report

File Name 019_ICB.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 13:12
Sample Name ICB
Sample Type ICB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	75.31	32.00	7.334E-06	Pulse	0.25	3
B			1	0.632	ug/l	2.69	39,289.95	9.019E-03	Pulse	0.15	3
Ca			1	0.188	ug/l	103.84	13,629.36	2.805E-03	Pulse	0.10	3
Sr			1	0.004	ug/l	18.32	913.40	1.530E-04	Pulse	0.10	3
Mo			1	0.009	ug/l	30.19	226.68	3.794E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	38.60	140.01	2.216E-05	Pulse	0.10	3
Sn			1	-0.195	ug/l	-1.62	3,810.63	6.034E-04	Pulse	0.10	3
Sb			1	-0.032	ug/l	-8.08	563.37	6.743E-05	Pulse	0.10	3
Ba			1	0.003	ug/l	116.01	66.67	7.980E-06	Pulse	0.10	3
Tl			1	0.004	ug/l	20.82	500.03	9.929E-05	Pulse	0.10	3
Pb			1	0.009	ug/l	7.92	510.03	1.012E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	57.29	423.36	8.394E-05	Pulse	0.10	3
Pb			1	0.007	ug/l	19.90	1,930.12	3.828E-04	Pulse	0.10	3
Na			2	-0.239	ug/l	-42.74	6,606.92	3.812E-02	Pulse	0.30	3
Mg			2	-0.571	ug/l	-11.49	304.45	1.756E-03	Pulse	0.30	3
Al			2	-0.744	ug/l	-5.97	57.78	3.332E-04	Pulse	0.30	3
K			2	0.968	ug/l	58.32	9,262.63	5.344E-02	Pulse	0.30	3
Ca			2	-0.043	ug/l	-867.28	85.55	4.935E-04	Pulse	0.30	3
Ti			2	-0.012	ug/l	-79.72	2.22	1.279E-05	Pulse	0.30	3
V			2	0.014	ug/l	30.14	512.24	2.955E-03	Pulse	0.30	3
Cr			2	0.004	ug/l	176.09	1,017.82	5.872E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	51.02	68.89	3.976E-04	Pulse	0.30	3
Fe			2	-0.753	ug/l	-2.98	3,881.62	2.240E-02	Pulse	0.30	3
Co			2	0.000	ug/l	3607.78	96.67	5.582E-04	Pulse	0.30	3
Ni			2	0.006	ug/l	73.02	67.78	3.913E-04	Pulse	0.30	3
Cu			2	-0.003	ug/l	-105.26	491.13	2.833E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.079	ug/l	20.17	303.34	1.750E-03	Pulse	0.30	3
As			2	0.005	ug/l	24.46	16.00	9.231E-05	Pulse	1.00	3
Cd			2	-0.003	ug/l	-31.95	5.54	5.845E-06	Pulse	0.30	3
Sn			2	0.012	ug/l	157.14	813.37	8.578E-04	Pulse	0.30	3
Se			3	0.087	ug/l	12.87	39.40	2.165E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,356,236.96	0.58	100.8	Analog	0.10	3
1	Sc		4,859,787.64	0.75	101.1	Pulse	0.10	3
1	Ge		860,042.83	0.84	102.5	Pulse	0.10	3
1	Ge		1,181,779.35	1.51	101.7	Pulse	0.10	3
1	Rh		5,970,001.79	0.75	101.4	Analog	0.10	3
1	In		6,314,617.50	1.59	100.7	Analog	0.10	3
1	Tb		8,357,074.04	0.45	100.9	Analog	0.10	3
1	Ho		831,384.23	1.53	101.6	Pulse	0.10	3
1	Bi		5,040,013.78	1.38	101.9	Pulse	0.10	3
2	Sc		173,332.98	0.38	103.5	Pulse	0.30	3
2	Ge		92,782.20	0.64	103.5	Pulse	0.30	3
2	Ge		140,391.39	0.22	104.1	Pulse	0.30	3
2	Rh		2,849,636.14	0.77	102.7	Pulse	0.30	3
2	In		948,042.29	0.41	103.9	Pulse	0.30	3
2	Tb		3,595,468.61	0.45	102.9	Pulse	0.30	3
2	Ho		355,044.02	0.50	102.5	Pulse	0.30	3
2	Bi		2,370,667.54	0.27	102.2	Pulse	0.30	3
3	Sc		195,740.17	0.56	100.9	Pulse	0.30	3
3	Ge		119,933.99	0.92	101.4	Pulse	0.30	3
3	Ge		181,971.57	0.63	101.0	Pulse	0.30	3
3	Rh		2,371,260.60	1.01	100.7	Pulse	0.30	3
3	Tb		3,752,041.24	1.09	99.8	Pulse	0.30	3

Quantitation Report

File Name 020_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 13:17
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	51.513	ug/l	0.18	884,555.56	2.040E-01	Pulse	0.25	3
B			1	100.395	ug/l	0.45	1,717,907.88	3.963E-01	Pulse	0.15	3
Ca			1	4900.464	ug/l	2.34	7,825,658.63	1.639E+00	Analog	0.10	3
Sr			1	53.152	ug/l	0.79	3,535,098.39	6.245E-01	Pulse	0.10	3
Mo			1	53.184	ug/l	1.66	677,622.41	1.197E-01	Pulse	0.10	3
Ag			1	51.364	ug/l	1.74	1,801,492.16	2.938E-01	Pulse	0.10	3
Sn			1	51.977	ug/l	0.91	1,062,192.12	1.732E-01	Pulse	0.10	3
Sb			1	51.112	ug/l	1.60	1,167,093.89	1.423E-01	Pulse	0.10	3
Ba			1	52.308	ug/l	2.05	490,528.65	5.982E-02	Pulse	0.10	3
Tl			1	52.515	ug/l	1.41	3,005,355.58	6.235E-01	Pulse	0.10	3
Pb			1	51.844	ug/l	1.44	1,009,599.93	2.094E-01	Pulse	0.10	3
Pb			1	51.506	ug/l	1.24	890,334.52	1.847E-01	Pulse	0.10	3
Pb			1	52.395	ug/l	1.27	4,085,414.10	8.475E-01	Pulse	0.10	3
Na			2	4939.165	ug/l	1.95	9,350,680.46	5.527E+01	Analog	0.30	3
Mg			2	4827.439	ug/l	0.63	4,210,226.08	2.489E+01	Pulse	0.30	3
Al			2	4927.007	ug/l	0.39	1,348,242.48	7.969E+00	Pulse	0.30	3
K			2	4891.221	ug/l	0.77	2,463,001.84	1.456E+01	Pulse	0.30	3
Ca			2	5221.191	ug/l	1.03	142,700.04	8.435E-01	Pulse	0.30	3
Ti			2	51.003	ug/l	1.52	10,375.57	6.133E-02	Pulse	0.30	3
V			2	51.287	ug/l	1.06	330,172.11	1.952E+00	Pulse	0.30	3
Cr			2	50.790	ug/l	0.86	431,445.19	2.550E+00	Pulse	0.30	3
Mn			2	51.377	ug/l	1.12	222,384.33	1.314E+00	Pulse	0.30	3
Fe			2	4973.151	ug/l	0.85	37,074,098.53	2.191E+02	Analog	0.30	3
Co			2	50.632	ug/l	0.80	741,353.77	4.382E+00	Pulse	0.30	3
Ni			2	49.694	ug/l	0.74	201,574.65	1.191E+00	Pulse	0.30	3
Cu			2	48.072	ug/l	0.40	538,012.34	3.180E+00	Pulse	0.30	3
Zn			2	50.681	ug/l	0.96	74,827.12	4.423E-01	Pulse	0.30	3
As			2	51.053	ug/l	1.10	38,412.20	2.270E-01	Pulse	1.00	3
Cd			2	50.483	ug/l	0.44	111,941.60	1.233E-01	Pulse	0.30	3
Sn			2	51.489	ug/l	0.59	208,076.66	2.292E-01	Pulse	0.30	3
Se			3	194.850	ug/l	0.24	42,742.63	2.414E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,335,370.82	0.29	100.3	Analog	0.10	3
1	Sc		4,775,814.30	1.37	99.3	Pulse	0.10	3
1	Ge		836,623.82	0.44	99.7	Pulse	0.10	3

Quantitation Report

1	Ge		1,167,299.62	1.00	100.4	Pulse	0.10	3
1	Rh		5,661,181.37	1.53	96.1	Analog	0.10	3
1	In		6,132,724.49	1.05	97.8	Analog	0.10	3
1	Tb		8,201,888.42	1.21	99.0	Analog	0.10	3
1	Ho		819,825.27	0.89	100.2	Pulse	0.10	3
1	Bi		4,820,465.55	0.43	97.5	Pulse	0.10	3
2	Sc		169,190.43	0.80	101.0	Pulse	0.30	3
2	Ge		89,593.66	0.42	99.9	Pulse	0.30	3
2	Ge		134,688.61	0.75	99.9	Pulse	0.30	3
2	Rh		2,696,392.04	0.19	97.2	Pulse	0.30	3
2	In		907,768.20	0.38	99.5	Pulse	0.30	3
2	Tb		3,464,085.42	0.17	99.1	Pulse	0.30	3
2	Ho		346,556.03	0.57	100.1	Pulse	0.30	3
2	Bi		2,254,063.80	0.65	97.2	Pulse	0.30	3
3	Sc		192,988.87	0.46	99.5	Pulse	0.30	3
3	Ge		115,583.59	1.20	97.8	Pulse	0.30	3
3	Ge		177,075.31	0.11	98.3	Pulse	0.30	3
3	Rh		2,235,093.04	0.15	94.9	Pulse	0.30	3
3	Tb		3,649,095.41	0.39	97.1	Pulse	0.30	3

Quantitation Report

File Name 021_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 13:22
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	12.35	118.67	2.768E-05	Pulse	0.25	3
B			1	1.291	ug/l	4.02	49,636.94	1.158E-02	Pulse	0.15	3
Ca			1	0.938	ug/l	44.69	14,677.05	3.055E-03	Pulse	0.10	3
Sr			1	0.009	ug/l	14.20	1,193.42	2.037E-04	Pulse	0.10	3
Mo			1	0.076	ug/l	6.71	1,100.07	1.878E-04	Pulse	0.10	3
Ag			1	0.010	ug/l	18.90	443.36	6.928E-05	Pulse	0.10	3
Sn			1	-0.165	ug/l	-11.19	4,494.14	7.021E-04	Pulse	0.10	3
Sb			1	0.045	ug/l	31.19	2,330.25	2.819E-04	Pulse	0.10	3
Ba			1	0.010	ug/l	49.75	130.00	1.572E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	8.32	1,366.79	2.724E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	32.47	803.38	1.601E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	18.95	620.04	1.234E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	8.39	3,020.25	6.016E-04	Pulse	0.10	3
Na			2	0.134	ug/l	80.89	7,216.06	4.230E-02	Pulse	0.30	3
Mg			2	-0.235	ug/l	-18.61	594.46	3.485E-03	Pulse	0.30	3
Al			2	-0.317	ug/l	-61.76	174.45	1.023E-03	Pulse	0.30	3
K			2	1.695	ug/l	55.75	9,483.89	5.559E-02	Pulse	0.30	3
Ca			2	1.337	ug/l	87.22	122.23	7.164E-04	Pulse	0.30	3
Ti			2	0.005	ug/l	192.75	5.56	3.261E-05	Pulse	0.30	3
V			2	0.016	ug/l	48.58	517.80	3.036E-03	Pulse	0.30	3
Cr			2	0.003	ug/l	277.18	994.49	5.830E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	155.81	50.00	2.929E-04	Pulse	0.30	3
Fe			2	-0.240	ug/l	-12.41	7,672.96	4.497E-02	Pulse	0.30	3
Co			2	0.003	ug/l	55.40	141.12	8.275E-04	Pulse	0.30	3
Ni			2	0.010	ug/l	20.16	83.34	4.883E-04	Pulse	0.30	3
Cu			2	-0.001	ug/l	-94.50	500.01	2.930E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.079	ug/l	24.54	298.90	1.752E-03	Pulse	0.30	3
As			2	0.009	ug/l	60.31	18.33	1.075E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	125.10	15.48	1.655E-05	Pulse	0.30	3
Sn			2	0.049	ug/l	56.74	955.59	1.021E-03	Pulse	0.30	3
Se			3	0.096	ug/l	14.31	41.33	2.273E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,287,841.05	0.78	99.2	Analog	0.10	3
1	Sc		4,805,557.12	1.28	99.9	Pulse	0.10	3
1	Ge		849,960.17	0.84	101.3	Pulse	0.10	3
1	Ge		1,171,154.59	0.96	100.8	Pulse	0.10	3
1	Rh		5,859,766.16	0.78	99.5	Analog	0.10	3
1	In		6,399,372.31	0.44	102.1	Analog	0.10	3
1	Tb		8,263,381.96	0.84	99.8	Analog	0.10	3
1	Ho		829,214.70	0.65	101.3	Pulse	0.10	3
1	Bi		5,020,565.14	1.43	101.5	Pulse	0.10	3
2	Sc		170,621.66	0.51	101.9	Pulse	0.30	3
2	Ge		92,203.39	0.22	102.8	Pulse	0.30	3
2	Ge		137,892.45	0.40	102.3	Pulse	0.30	3
2	Rh		2,814,870.30	0.41	101.5	Pulse	0.30	3
2	In		935,714.06	0.50	102.6	Pulse	0.30	3
2	Tb		3,561,552.08	0.98	101.9	Pulse	0.30	3
2	Ho		350,895.20	0.50	101.3	Pulse	0.30	3
2	Bi		2,351,547.68	0.11	101.4	Pulse	0.30	3
3	Sc		196,509.59	0.86	101.3	Pulse	0.30	3
3	Ge		120,200.73	0.47	101.7	Pulse	0.30	3
3	Ge		181,842.45	0.36	100.9	Pulse	0.30	3
3	Rh		2,375,276.85	0.14	100.9	Pulse	0.30	3
3	Tb		3,763,267.35	0.33	100.1	Pulse	0.30	3

Quantitation Report

File Name	022LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 13:27
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.515	ug/l	0.74	8,853.06	2.042E-03	Pulse	0.25	3
B			1	25.590	ug/l	1.89	459,028.68	1.059E-01	Pulse	0.15	3
Ca			1	251.661	ug/l	0.86	423,193.33	8.677E-02	Pulse	0.10	3
Sr			1	5.262	ug/l	0.65	364,309.28	6.192E-02	Pulse	0.10	3
Mo			1	1.064	ug/l	1.81	14,200.16	2.413E-03	Pulse	0.10	3
Ag			1	0.520	ug/l	0.74	18,985.21	2.985E-03	Pulse	0.10	3
Sn			1	4.783	ug/l	2.13	108,613.56	1.707E-02	Pulse	0.10	3
Sb			1	1.980	ug/l	5.16	47,265.40	5.664E-03	Pulse	0.10	3
Ba			1	1.072	ug/l	4.29	10,267.13	1.230E-03	Pulse	0.10	3
Tl			1	0.520	ug/l	1.32	31,293.81	6.232E-03	Pulse	0.10	3
Pb			1	0.520	ug/l	3.89	10,877.80	2.167E-03	Pulse	0.10	3
Pb			1	0.532	ug/l	4.02	9,907.05	1.973E-03	Pulse	0.10	3
Pb			1	0.536	ug/l	2.23	44,831.91	8.929E-03	Pulse	0.10	3
Na			2	241.833	ug/l	0.79	471,674.81	2.745E+00	Pulse	0.30	3
Mg			2	244.929	ug/l	1.55	217,716.31	1.267E+00	Pulse	0.30	3
Al			2	24.752	ug/l	0.63	7,141.59	4.156E-02	Pulse	0.30	3
K			2	248.636	ug/l	1.22	135,406.68	7.880E-01	Pulse	0.30	3
Ca			2	272.410	ug/l	1.58	7,642.96	4.448E-02	Pulse	0.30	3
Ti			2	0.935	ug/l	12.47	197.78	1.151E-03	Pulse	0.30	3
V			2	1.068	ug/l	1.07	7,395.06	4.304E-02	Pulse	0.30	3
Cr			2	1.044	ug/l	2.09	9,960.87	5.797E-02	Pulse	0.30	3
Mn			2	1.062	ug/l	2.93	4,709.62	2.741E-02	Pulse	0.30	3
Fe			2	24.629	ug/l	1.07	195,970.30	1.141E+00	Pulse	0.30	3
Co			2	0.527	ug/l	1.16	7,929.76	4.615E-02	Pulse	0.30	3
Ni			2	1.058	ug/l	5.03	4,398.43	2.560E-02	Pulse	0.30	3
Cu			2	2.062	ug/l	1.02	23,929.70	1.393E-01	Pulse	0.30	3
Zn			2	5.485	ug/l	2.50	8,387.78	4.881E-02	Pulse	0.30	3
As			2	0.504	ug/l	3.04	396.68	2.309E-03	Pulse	1.00	3
Cd			2	0.547	ug/l	3.40	1,264.86	1.348E-03	Pulse	0.30	3
Sn			2	4.870	ug/l	1.03	21,024.11	2.241E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.498	ug/l	8.17	132.60	7.252E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,335,416.98	1.50	100.3	Mix	0.10	3
1	Sc		4,877,309.20	0.58	101.4	Pulse	0.10	3
1	Ge		861,698.29	0.98	102.7	Pulse	0.10	3
1	Ge		1,180,538.40	0.70	101.6	Pulse	0.10	3
1	Rh		5,883,860.95	0.44	99.9	Analog	0.10	3
1	In		6,361,456.98	0.87	101.5	Analog	0.10	3
1	Tb		8,345,130.71	1.07	100.8	Analog	0.10	3
1	Ho		830,709.47	0.57	101.5	Pulse	0.10	3
1	Bi		5,021,547.22	1.18	101.6	Pulse	0.10	3
2	Sc		171,832.36	0.48	102.6	Pulse	0.30	3
2	Ge		91,925.15	0.45	102.5	Pulse	0.30	3
2	Ge		138,510.11	0.93	102.7	Pulse	0.30	3
2	Rh		2,834,059.47	0.61	102.1	Pulse	0.30	3
2	In		938,252.05	0.88	102.9	Pulse	0.30	3
2	Tb		3,552,938.05	0.41	101.7	Pulse	0.30	3
2	Ho		352,356.87	0.07	101.7	Pulse	0.30	3
2	Bi		2,360,241.43	0.40	101.7	Pulse	0.30	3
3	Sc		195,742.21	0.17	100.9	Pulse	0.30	3
3	Ge		119,640.96	0.65	101.2	Pulse	0.30	3
3	Ge		182,805.63	0.70	101.5	Pulse	0.30	3
3	Rh		2,387,848.79	0.70	101.4	Pulse	0.30	3
3	Tb		3,782,459.29	0.35	100.6	Pulse	0.30	3

Quantitation Report

File Name 023SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 13:32
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	2249.13	13.33	3.062E-06	Pulse	0.25	3
B			1	0.344	ug/l	14.57	34,482.02	7.902E-03	Pulse	0.15	3
Ca			1	-1.630	ug/l	-10.79	10,747.30	2.198E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-603.07	610.04	1.024E-04	Pulse	0.10	3
Mo			1	0.004	ug/l	27.00	163.34	2.744E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	70.49	110.00	1.744E-05	Pulse	0.10	3
Sn			1	-0.186	ug/l	-12.30	4,007.67	6.353E-04	Pulse	0.10	3
Sb			1	-0.029	ug/l	-24.67	636.71	7.744E-05	Pulse	0.10	3
Ba			1	0.002	ug/l	138.15	53.33	6.486E-06	Pulse	0.10	3
Tl			1	0.002	ug/l	37.10	410.02	8.161E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	127.62	400.02	7.968E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-152.99	316.68	6.291E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	55.13	1,493.42	2.971E-04	Pulse	0.10	3
Na			2	-0.803	ug/l	-12.35	5,447.61	3.182E-02	Pulse	0.30	3
Mg			2	-0.762	ug/l	-3.00	132.22	7.724E-04	Pulse	0.30	3
Al			2	-0.733	ug/l	-10.18	60.00	3.510E-04	Pulse	0.30	3
K			2	0.547	ug/l	78.41	8,939.14	5.219E-02	Pulse	0.30	3
Ca			2	-1.334	ug/l	-19.58	48.89	2.852E-04	Pulse	0.30	3
Ti			2	-0.017	ug/l	-56.52	1.11	6.563E-06	Pulse	0.30	3
V			2	0.011	ug/l	22.25	486.68	2.841E-03	Pulse	0.30	3
Cr			2	-0.002	ug/l	-686.46	956.71	5.588E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	134.05	51.11	2.982E-04	Pulse	0.30	3
Fe			2	-0.898	ug/l	-1.43	2,741.37	1.601E-02	Pulse	0.30	3
Co			2	0.000	ug/l	234.91	100.00	5.836E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	67.55	52.22	3.050E-04	Pulse	0.30	3
Cu			2	-0.010	ug/l	-33.30	403.34	2.356E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.018	ug/l	-67.88	154.45	9.026E-04	Pulse	0.30	3
As			2	0.007	ug/l	106.63	17.33	1.013E-04	Pulse	1.00	3
Cd			2	-0.004	ug/l	-41.78	2.21	2.350E-06	Pulse	0.30	3
Sn			2	0.006	ug/l	378.16	777.81	8.296E-04	Pulse	0.30	3
Se			3	0.028	ug/l	59.29	26.07	1.434E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,364,529.66	1.08	101.0	Mix	0.10	3
1	Sc		4,889,411.49	0.85	101.7	Pulse	0.10	3
1	Ge		852,143.48	1.26	101.6	Pulse	0.10	3
1	Ge		1,178,857.43	1.02	101.4	Pulse	0.10	3
1	Rh		5,953,201.99	0.98	101.1	Analog	0.10	3
1	In		6,308,113.73	0.30	100.6	Analog	0.10	3
1	Tb		8,220,892.38	0.19	99.3	Analog	0.10	3
1	Ho		826,388.06	1.12	101.0	Pulse	0.10	3
1	Bi		5,029,421.90	1.29	101.7	Pulse	0.10	3
2	Sc		171,259.41	1.14	102.3	Pulse	0.30	3
2	Ge		92,625.71	0.50	103.3	Pulse	0.30	3
2	Ge		138,581.53	0.35	102.8	Pulse	0.30	3
2	Rh		2,841,695.10	0.28	102.4	Pulse	0.30	3
2	In		937,550.98	0.18	102.8	Pulse	0.30	3
2	Tb		3,568,604.44	0.47	102.1	Pulse	0.30	3
2	Ho		354,050.44	0.99	102.2	Pulse	0.30	3
2	Bi		2,362,461.16	0.53	101.8	Pulse	0.30	3
3	Sc		195,930.64	0.41	101.0	Pulse	0.30	3
3	Ge		119,747.48	0.58	101.3	Pulse	0.30	3
3	Ge		181,753.82	0.46	100.9	Pulse	0.30	3
3	Rh		2,386,312.06	0.61	101.3	Pulse	0.30	3
3	Tb		3,779,856.38	0.74	100.5	Pulse	0.30	3

Quantitation Report

File Name	024ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 13:44
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	59.01	44.00	1.048E-05	Pulse	0.25	3
B			1	0.011	ug/l	316.79	27,796.51	6.610E-03	Pulse	0.15	3
Ca			1	97732.083	ug/l	0.52	155,307,461.02	3.263E+01	Analog	0.10	3
Sr			1	2316.293	ug/l	1.38	138,386,881.27	2.721E+01	Analog	0.10	3
Mo			1	2253.363	ug/l	0.79	25,797,742.12	5.072E+00	Analog	0.10	3
Ag			1	0.031	ug/l	14.26	1,086.75	1.891E-04	Pulse	0.10	3
Sn			1	1988.051	ug/l	0.79	37,732,771.10	6.579E+00	Analog	0.10	3
Sb			1	0.043	ug/l	19.31	2,070.20	2.778E-04	Pulse	0.10	3
Ba			1	0.162	ug/l	20.03	1,413.46	1.895E-04	Pulse	0.10	3
Tl			1	0.004	ug/l	26.25	420.02	1.039E-04	Pulse	0.10	3
Pb			1	0.123	ug/l	11.99	2,260.26	5.608E-04	Pulse	0.10	3
Pb			1	0.103	ug/l	12.15	1,770.18	4.379E-04	Pulse	0.10	3
Pb			1	0.117	ug/l	2.78	8,708.04	2.158E-03	Pulse	0.10	3
Na			2	94165.073	ug/l	0.83	193,931,587.85	1.053E+03	Analog	0.30	3
Mg			2	91847.950	ug/l	0.69	87,170,416.54	4.734E+02	Analog	0.30	3
Al			2	96266.336	ug/l	0.20	28,668,779.97	1.557E+02	Analog	0.30	3
K			2	100329.551	ug/l	0.59	54,807,458.93	2.976E+02	Analog	0.30	3
Ca			2	108353.958	ug/l	1.01	3,221,312.17	1.749E+01	Pulse	0.30	3
Ti			2	1977.648	ug/l	0.96	437,696.66	2.377E+00	Pulse	0.30	3
V			2	0.023	ug/l	29.67	607.80	3.300E-03	Pulse	0.30	3
Cr			2	0.187	ug/l	9.01	2,771.38	1.505E-02	Pulse	0.30	3
Mn			2	0.388	ug/l	5.45	1,872.35	1.016E-02	Pulse	0.30	3
Fe			2	89843.578	ug/l	1.13	728,779,188.82	3.958E+03	Analog	0.30	3
Co			2	0.074	ug/l	0.15	1,280.06	6.951E-03	Pulse	0.30	3
Ni			2	0.512	ug/l	2.15	2,304.64	1.252E-02	Pulse	0.30	3
Cu			2	0.297	ug/l	3.66	4,171.69	2.265E-02	Pulse	0.30	3
Zn			2	0.696	ug/l	3.50	1,312.29	7.125E-03	Pulse	0.30	3
As			2	0.085	ug/l	22.66	81.67	4.442E-04	Pulse	1.00	3
Cd			2	0.008	ug/l	445.05	27.79	3.071E-05	Pulse	0.30	3
Sn			2	1990.235	ug/l	0.68	7,956,724.13	8.830E+00	Analog	0.30	3
Se			3	0.137	ug/l	23.72	47.20	2.791E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,205,099.80	0.61	97.3	Mix	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		4,758,699.51	2.46	99.0	Pulse	0.10	3
1	Ge		915,118.79	2.41	109.1	Pulse	0.10	3
1	Ge		1,088,581.23	2.91	93.7	Pulse	0.10	3
1	Rh		5,086,781.28	2.41	86.4	Pulse	0.10	3
1	In		5,735,993.70	1.98	91.5	Analog	0.10	3
1	Tb		7,449,919.26	1.17	90.0	Analog	0.10	3
1	Ho		739,134.23	1.63	90.3	Pulse	0.10	3
1	Bi		4,036,399.21	2.63	81.6	Pulse	0.10	3
2	Sc		184,156.31	1.75	110.0	Pulse	0.30	3
2	Ge		97,670.58	0.52	108.9	Pulse	0.30	3
2	Ge		136,985.95	0.83	101.6	Pulse	0.30	3
2	Rh		2,475,120.32	0.57	89.2	Pulse	0.30	3
2	In		901,106.12	0.46	98.8	Pulse	0.30	3
2	Tb		3,270,406.40	0.37	93.6	Pulse	0.30	3
2	Ho		323,415.83	0.54	93.4	Pulse	0.30	3
2	Bi		1,937,197.15	0.70	83.5	Pulse	0.30	3
3	Sc		205,086.27	1.23	105.7	Pulse	0.30	3
3	Ge		119,588.25	1.08	101.2	Pulse	0.30	3
3	Ge		169,163.03	0.38	93.9	Pulse	0.30	3
3	Rh		1,917,656.66	0.39	81.4	Pulse	0.30	3
3	Tb		3,201,201.82	0.79	85.1	Pulse	0.30	3

Quantitation Report

File Name	025ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 13:48
Sample Name	ICSAB
Sample Type	ICSB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	59.43	41.33	9.502E-06	Pulse	0.25	3
B			1	47.743	ug/l	1.42	835,769.51	1.919E-01	Pulse	0.15	3
Ca			1	96725.389	ug/l	1.03	165,973,110.86	3.230E+01	Analog	0.10	3
Sr			1	2219.030	ug/l	0.72	140,201,241.25	2.607E+01	Analog	0.10	3
Mo			1	2209.401	ug/l	0.47	26,745,122.93	4.973E+00	Analog	0.10	3
Ag			1	20.831	ug/l	1.53	721,350.95	1.192E-01	Pulse	0.10	3
Sn			1	1909.268	ug/l	0.73	38,251,767.76	6.318E+00	Analog	0.10	3
Sb			1	0.050	ug/l	24.98	2,330.27	2.970E-04	Pulse	0.10	3
Ba			1	0.164	ug/l	13.01	1,506.80	1.923E-04	Pulse	0.10	3
Tl			1	0.004	ug/l	28.61	423.36	1.012E-04	Pulse	0.10	3
Pb			1	0.115	ug/l	12.20	2,203.58	5.280E-04	Pulse	0.10	3
Pb			1	0.098	ug/l	2.69	1,746.84	4.182E-04	Pulse	0.10	3
Pb			1	0.109	ug/l	5.35	8,511.32	2.038E-03	Pulse	0.10	3
Na			2	90808.520	ug/l	0.44	192,642,383.46	1.015E+03	Analog	0.30	3
Mg			2	88930.747	ug/l	0.57	86,951,029.88	4.584E+02	Analog	0.30	3
Al			2	92019.563	ug/l	1.14	28,228,687.21	1.488E+02	Analog	0.30	3
K			2	97308.048	ug/l	0.32	54,763,860.05	2.887E+02	Analog	0.30	3
Ca			2	104925.556	ug/l	0.56	3,213,732.23	1.694E+01	Pulse	0.30	3
Ti			2	1911.924	ug/l	0.82	435,940.10	2.298E+00	Pulse	0.30	3
V			2	22.508	ug/l	1.07	162,730.72	8.578E-01	Pulse	0.30	3
Cr			2	19.699	ug/l	0.72	188,296.17	9.926E-01	Pulse	0.30	3
Mn			2	19.778	ug/l	1.37	96,017.21	5.062E-01	Pulse	0.30	3
Fe			2	87165.871	ug/l	0.36	728,461,197.72	3.840E+03	Analog	0.30	3
Co			2	18.377	ug/l	1.31	301,760.82	1.591E+00	Pulse	0.30	3
Ni			2	17.488	ug/l	0.73	79,571.69	4.195E-01	Pulse	0.30	3
Cu			2	17.340	ug/l	0.53	217,959.27	1.149E+00	Pulse	0.30	3
Zn			2	17.505	ug/l	0.76	29,111.45	1.535E-01	Pulse	0.30	3
As			2	18.531	ug/l	0.47	15,643.16	8.246E-02	Pulse	1.00	3
Cd			2	17.668	ug/l	1.23	39,808.92	4.317E-02	Pulse	0.30	3
Sn			2	1892.086	ug/l	0.40	7,741,474.97	8.394E+00	Analog	0.30	3
Se			3	20.166	ug/l	1.20	4,370.58	2.508E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,355,370.72	0.66	100.7	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,139,473.26	1.87	106.9	Pulse	0.10	3
1	Ge		967,689.88	1.18	115.4	Pulse	0.10	3
1	Ge		1,159,776.13	1.48	99.8	Pulse	0.10	3
1	Rh		5,378,291.17	1.51	91.3	Mix	0.10	3
1	In		6,054,628.77	1.54	96.6	Analog	0.10	3
1	Tb		7,842,301.55	0.75	94.7	Analog	0.10	3
1	Ho		783,741.32	1.05	95.8	Pulse	0.10	3
1	Bi		4,177,064.00	1.34	84.5	Pulse	0.10	3
2	Sc		189,708.03	0.71	113.3	Pulse	0.30	3
2	Ge		100,265.63	0.83	111.8	Pulse	0.30	3
2	Ge		141,251.43	0.59	104.8	Pulse	0.30	3
2	Rh		2,552,182.05	0.37	92.0	Pulse	0.30	3
2	In		922,204.07	0.49	101.1	Pulse	0.30	3
2	Tb		3,317,135.21	0.21	94.9	Pulse	0.30	3
2	Ho		329,296.73	0.24	95.1	Pulse	0.30	3
2	Bi		1,970,397.28	0.38	84.9	Pulse	0.30	3
3	Sc		214,783.93	0.19	110.7	Pulse	0.30	3
3	Ge		124,102.72	0.90	105.0	Pulse	0.30	3
3	Ge		174,285.64	1.19	96.7	Pulse	0.30	3
3	Rh		1,959,390.82	0.66	83.2	Pulse	0.30	3
3	Tb		3,261,430.70	0.62	86.8	Pulse	0.30	3

Quantitation Report

File Name 026SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 13:53
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-630.24	10.67	2.667E-06	Pulse	0.25	3
B			1	-0.382	ug/l	-2.28	20,352.59	5.086E-03	Pulse	0.15	3
Ca			1	14.319	ug/l	9.19	35,572.30	7.523E-03	Pulse	0.10	3
Sr			1	0.322	ug/l	9.32	23,297.86	3.886E-03	Pulse	0.10	3
Mo			1	0.839	ug/l	3.97	11,424.53	1.907E-03	Pulse	0.10	3
Ag			1	0.008	ug/l	31.51	370.02	5.594E-05	Pulse	0.10	3
Sn			1	0.238	ug/l	6.88	13,512.94	2.036E-03	Pulse	0.10	3
Sb			1	-0.036	ug/l	-7.60	503.37	5.691E-05	Pulse	0.10	3
Ba			1	0.002	ug/l	244.15	56.67	6.416E-06	Pulse	0.10	3
Tl			1	-0.001	ug/l	-59.32	253.34	4.730E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-95.80	296.68	5.535E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-19.25	263.35	4.915E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-21.93	1,266.74	2.365E-04	Pulse	0.10	3
Na			2	14.499	ug/l	9.25	33,222.73	2.029E-01	Pulse	0.30	3
Mg			2	9.335	ug/l	12.19	8,646.75	5.281E-02	Pulse	0.30	3
Al			2	9.712	ug/l	6.48	2,822.50	1.724E-02	Pulse	0.30	3
K			2	10.160	ug/l	11.29	13,210.87	8.070E-02	Pulse	0.30	3
Ca			2	10.267	ug/l	12.92	353.34	2.158E-03	Pulse	0.30	3
Ti			2	0.356	ug/l	12.09	74.45	4.549E-04	Pulse	0.30	3
V			2	0.015	ug/l	28.52	488.91	2.987E-03	Pulse	0.30	3
Cr			2	-0.003	ug/l	-64.44	904.48	5.526E-03	Pulse	0.30	3
Mn			2	0.005	ug/l	70.56	58.89	3.599E-04	Pulse	0.30	3
Fe			2	11.859	ug/l	7.29	94,622.58	5.780E-01	Pulse	0.30	3
Co			2	0.001	ug/l	121.99	101.11	6.176E-04	Pulse	0.30	3
Ni			2	0.008	ug/l	22.47	72.22	4.414E-04	Pulse	0.30	3
Cu			2	0.078	ug/l	5.08	1,338.96	8.180E-03	Pulse	0.30	3
Zn			2	-0.021	ug/l	-82.95	144.45	8.820E-04	Pulse	0.30	3
As			2	0.000	ug/l	-2266.03	11.00	6.714E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.001	ug/l	284.25	14.84	1.575E-05	Pulse	0.30	3
Sn			2	0.338	ug/l	2.25	2,167.95	2.303E-03	Pulse	0.30	3
Se			3	0.051	ug/l	39.07	33.13	1.726E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,001,364.92	0.21	92.6	Pulse	0.10	3
1	Sc		4,728,064.62	0.33	98.3	Pulse	0.10	3
1	Ge		865,165.07	0.79	103.1	Pulse	0.10	3
1	Ge		1,193,219.80	0.32	102.7	Pulse	0.10	3
1	Rh		5,992,033.25	0.83	101.8	Analog	0.10	3
1	In		6,636,983.14	2.21	105.9	Analog	0.10	3
1	Tb		8,845,592.78	0.98	106.8	Analog	0.10	3
1	Ho		883,271.89	0.82	107.9	Pulse	0.10	3
1	Bi		5,356,400.96	0.67	108.3	Pulse	0.10	3
2	Sc		163,680.23	0.46	97.8	Pulse	0.30	3
2	Ge		92,973.30	0.22	103.7	Pulse	0.30	3
2	Ge		139,359.12	0.80	103.3	Pulse	0.30	3
2	Rh		2,864,541.55	0.29	103.2	Pulse	0.30	3
2	In		941,210.47	0.39	103.2	Pulse	0.30	3
2	Tb		3,635,360.97	0.37	104.0	Pulse	0.30	3
2	Ho		364,002.59	0.43	105.1	Pulse	0.30	3
2	Bi		2,415,704.07	0.32	104.1	Pulse	0.30	3
3	Sc		202,810.86	0.36	104.5	Pulse	0.30	3
3	Ge		126,097.50	0.67	106.7	Pulse	0.30	3
3	Ge		191,997.93	0.41	106.6	Pulse	0.30	3
3	Rh		2,496,784.35	0.44	106.0	Pulse	0.30	3
3	Tb		3,950,855.96	0.49	105.1	Pulse	0.30	3

Quantitation Report

File Name 027_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 13:58
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.536	ug/l	0.74	777,343.58	1.883E-01	Pulse	0.25	3
B			1	97.132	ug/l	0.72	1,583,713.41	3.836E-01	Pulse	0.15	3
Ca			1	4910.055	ug/l	0.64	7,901,347.17	1.642E+00	Analog	0.10	3
Sr			1	53.967	ug/l	0.42	3,804,870.26	6.340E-01	Pulse	0.10	3
Mo			1	53.560	ug/l	0.78	723,504.18	1.206E-01	Pulse	0.10	3
Ag			1	50.223	ug/l	1.04	1,901,257.47	2.873E-01	Pulse	0.10	3
Sn			1	52.952	ug/l	0.83	1,167,695.71	1.764E-01	Pulse	0.10	3
Sb			1	51.674	ug/l	1.12	1,278,908.18	1.439E-01	Pulse	0.10	3
Ba			1	51.876	ug/l	0.48	527,347.88	5.932E-02	Pulse	0.10	3
Tl			1	51.891	ug/l	0.17	3,246,799.22	6.161E-01	Pulse	0.10	3
Pb			1	52.161	ug/l	0.22	1,110,532.48	2.107E-01	Pulse	0.10	3
Pb			1	51.448	ug/l	0.82	972,346.24	1.845E-01	Pulse	0.10	3
Pb			1	52.463	ug/l	0.55	4,472,205.82	8.486E-01	Pulse	0.10	3
Na			2	4730.563	ug/l	0.82	9,040,013.53	5.294E+01	Analog	0.30	3
Mg			2	4625.267	ug/l	0.35	4,071,514.28	2.384E+01	Pulse	0.30	3
Al			2	4596.706	ug/l	0.48	1,269,578.04	7.435E+00	Pulse	0.30	3
K			2	4828.747	ug/l	1.10	2,454,287.96	1.437E+01	Pulse	0.30	3
Ca			2	5153.447	ug/l	0.89	142,161.84	8.325E-01	Pulse	0.30	3
Ti			2	49.883	ug/l	2.02	10,243.27	5.998E-02	Pulse	0.30	3
V			2	52.046	ug/l	0.17	338,188.06	1.980E+00	Pulse	0.30	3
Cr			2	51.653	ug/l	0.61	442,856.75	2.593E+00	Pulse	0.30	3
Mn			2	51.200	ug/l	1.17	223,687.14	1.310E+00	Pulse	0.30	3
Fe			2	4901.848	ug/l	0.42	36,884,140.76	2.160E+02	Analog	0.30	3
Co			2	51.475	ug/l	0.41	760,709.93	4.455E+00	Pulse	0.30	3
Ni			2	50.471	ug/l	0.76	206,630.71	1.210E+00	Pulse	0.30	3
Cu			2	49.057	ug/l	0.41	554,115.83	3.245E+00	Pulse	0.30	3
Zn			2	51.473	ug/l	0.75	76,703.61	4.492E-01	Pulse	0.30	3
As			2	52.970	ug/l	0.89	40,226.87	2.356E-01	Pulse	1.00	3
Cd			2	50.954	ug/l	0.10	115,967.47	1.245E-01	Pulse	0.30	3
Sn			2	52.717	ug/l	0.62	218,642.30	2.347E-01	Pulse	0.30	3
Se			3	192.579	ug/l	0.50	46,471.11	2.386E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,128,611.90	0.57	95.5	Pulse	0.10	3
1	Sc		4,811,654.51	1.64	100.1	Pulse	0.10	3
1	Ge		882,721.39	1.37	105.2	Pulse	0.10	3

Quantitation Report

1	Ge		1,219,821.29	0.99	104.9	Pulse	0.10	3
1	Rh		6,000,879.70	0.71	101.9	Analog	0.10	3
1	In		6,618,654.57	1.23	105.6	Analog	0.10	3
1	Tb		8,889,616.33	1.31	107.3	Analog	0.10	3
1	Ho		892,807.41	0.95	109.1	Pulse	0.10	3
1	Bi		5,270,059.40	1.16	106.6	Pulse	0.10	3
2	Sc		170,762.78	0.37	102.0	Pulse	0.30	3
2	Ge		94,439.54	0.98	105.3	Pulse	0.30	3
2	Ge		141,462.79	0.96	104.9	Pulse	0.30	3
2	Rh		2,854,666.76	0.35	102.9	Pulse	0.30	3
2	In		931,711.77	0.26	102.2	Pulse	0.30	3
2	Tb		3,631,992.91	0.26	103.9	Pulse	0.30	3
2	Ho		362,392.26	0.22	104.6	Pulse	0.30	3
2	Bi		2,352,285.53	0.22	101.4	Pulse	0.30	3
3	Sc		211,156.99	0.26	108.8	Pulse	0.30	3
3	Ge		128,747.98	0.15	108.9	Pulse	0.30	3
3	Ge		194,793.95	0.47	108.1	Pulse	0.30	3
3	Rh		2,432,436.64	0.36	103.3	Pulse	0.30	3
3	Tb		3,913,862.07	0.28	104.1	Pulse	0.30	3

Quantitation Report

File Name	028_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 14:03
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	18.92	120.00	2.784E-05	Pulse	0.25	3
B			1	0.697	ug/l	2.61	39,980.61	9.271E-03	Pulse	0.15	3
Ca			1	1.627	ug/l	14.25	16,558.84	3.285E-03	Pulse	0.10	3
Sr			1	0.027	ug/l	4.22	2,710.33	4.243E-04	Pulse	0.10	3
Mo			1	0.138	ug/l	10.01	2,100.21	3.287E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	23.05	550.03	7.704E-05	Pulse	0.10	3
Sn			1	-0.132	ug/l	-12.10	5,811.29	8.138E-04	Pulse	0.10	3
Sb			1	0.046	ug/l	14.37	2,710.36	2.866E-04	Pulse	0.10	3
Ba			1	0.007	ug/l	52.22	123.34	1.304E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	6.76	1,523.48	2.710E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	69.41	603.37	1.075E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	35.56	606.71	1.079E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	10.93	2,696.88	4.800E-04	Pulse	0.10	3
Na			2	3.573	ug/l	1.83	14,130.44	8.075E-02	Pulse	0.30	3
Mg			2	0.423	ug/l	44.37	1,204.50	6.879E-03	Pulse	0.30	3
Al			2	0.346	ug/l	37.59	366.67	2.095E-03	Pulse	0.30	3
K			2	3.151	ug/l	16.60	10,484.50	5.991E-02	Pulse	0.30	3
Ca			2	1.536	ug/l	77.76	131.11	7.484E-04	Pulse	0.30	3
Ti			2	0.041	ug/l	67.15	13.34	7.636E-05	Pulse	0.30	3
V			2	0.006	ug/l	84.88	468.90	2.680E-03	Pulse	0.30	3
Cr			2	0.004	ug/l	115.18	1,031.16	5.893E-03	Pulse	0.30	3
Mn			2	0.007	ug/l	42.79	74.44	4.255E-04	Pulse	0.30	3
Fe			2	0.706	ug/l	10.40	15,158.21	8.663E-02	Pulse	0.30	3
Co			2	0.003	ug/l	81.73	146.67	8.372E-04	Pulse	0.30	3
Ni			2	0.010	ug/l	59.04	84.45	4.821E-04	Pulse	0.30	3
Cu			2	0.033	ug/l	18.68	906.70	5.183E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.072	ug/l	19.33	295.56	1.689E-03	Pulse	0.30	3
As			2	0.016	ug/l	30.05	24.00	1.372E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	119.93	16.52	1.710E-05	Pulse	0.30	3
Sn			2	0.113	ug/l	11.16	1,261.18	1.308E-03	Pulse	0.30	3
Se			3	0.067	ug/l	0.95	39.60	1.921E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,312,373.50	0.92	99.7	Mix	0.10	3
1	Sc		5,041,220.97	0.91	104.8	Pulse	0.10	3
1	Ge		924,144.54	0.88	110.2	Pulse	0.10	3
1	Ge		1,280,029.80	0.68	110.1	Pulse	0.10	3
1	Rh		6,386,630.95	0.64	108.5	Analog	0.10	3
1	In		7,139,662.26	0.34	113.9	Analog	0.10	3
1	Tb		9,454,666.11	1.25	114.2	Analog	0.10	3
1	Ho		941,121.89	0.43	115.0	Pulse	0.10	3
1	Bi		5,619,482.21	0.78	113.7	Pulse	0.10	3
2	Sc		174,995.75	0.65	104.5	Pulse	0.30	3
2	Ge		97,351.72	1.15	108.6	Pulse	0.30	3
2	Ge		147,425.66	0.37	109.3	Pulse	0.30	3
2	Rh		3,021,959.04	0.56	108.9	Pulse	0.30	3
2	In		964,320.51	0.73	105.7	Pulse	0.30	3
2	Tb		3,709,126.66	1.09	106.1	Pulse	0.30	3
2	Ho		371,647.50	0.96	107.3	Pulse	0.30	3
2	Bi		2,475,888.79	0.74	106.7	Pulse	0.30	3
3	Sc		221,113.16	0.53	114.0	Pulse	0.30	3
3	Ge		136,305.35	0.74	115.3	Pulse	0.30	3
3	Ge		206,144.70	0.66	114.4	Pulse	0.30	3
3	Rh		2,646,121.21	0.71	112.4	Pulse	0.30	3
3	Tb		4,107,082.06	0.24	109.2	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 14:08
Sample Name	mp12514-mb1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	34.30	46.67	1.073E-05	Pulse	0.25	3
B			1	0.676	ug/l	12.17	34,278.13	7.880E-03	Pulse	0.15	3
Ca			1	57.983	ug/l	2.46	61,538.08	1.242E-02	Pulse	0.10	3
Sr			1	0.354	ug/l	2.23	13,642.95	2.181E-03	Pulse	0.10	3
Mo			1	0.359	ug/l	7.56	2,643.67	4.223E-04	Pulse	0.10	3
Ag			1	0.032	ug/l	24.33	713.38	1.018E-04	Pulse	0.10	3
Sn			1	0.285	ug/l	12.07	12,071.73	1.720E-03	Pulse	0.10	3
Sb			1	0.216	ug/l	6.77	4,417.45	4.583E-04	Pulse	0.10	3
Ba			1	0.084	ug/l	23.17	506.70	5.260E-05	Pulse	0.10	3
Tl			1	0.031	ug/l	6.01	1,366.78	2.402E-04	Pulse	0.10	3
Pb			1	0.055	ug/l	17.12	1,003.41	1.763E-04	Pulse	0.10	3
Pb			1	0.044	ug/l	32.08	830.06	1.458E-04	Pulse	0.10	3
Pb			1	0.050	ug/l	18.01	3,833.70	6.734E-04	Pulse	0.10	3
Na			2	59.872	ug/l	1.34	64,175.24	3.755E-01	Pulse	0.30	3
Mg			2	16.666	ug/l	1.11	8,142.04	4.765E-02	Pulse	0.30	3
Al			2	6.569	ug/l	9.78	1,170.06	6.847E-03	Pulse	0.30	3
K			2	10.638	ug/l	6.63	11,337.29	6.634E-02	Pulse	0.30	3
Ca			2	53.082	ug/l	5.59	817.81	4.786E-03	Pulse	0.30	3
Ti			2	0.443	ug/l	60.08	50.00	2.927E-04	Pulse	0.30	3
V			2	0.351	ug/l	2.31	1,554.54	9.097E-03	Pulse	0.30	3
Cr			2	0.527	ug/l	6.99	3,228.13	1.889E-02	Pulse	0.30	3
Mn			2	0.070	ug/l	19.99	193.33	1.131E-03	Pulse	0.30	3
Fe			2	10.837	ug/l	0.59	50,284.08	2.943E-01	Pulse	0.30	3
Co			2	0.019	ug/l	34.67	237.78	1.391E-03	Pulse	0.30	3
Ni			2	0.047	ug/l	23.71	137.78	8.063E-04	Pulse	0.30	3
Cu			2	0.375	ug/l	9.12	2,632.46	1.541E-02	Pulse	0.30	3
Zn			2	1.096	ug/l	8.23	996.71	5.833E-03	Pulse	0.30	3
As			2	0.104	ug/l	20.36	51.00	2.984E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.003	ug/l	-190.55	7.63	8.244E-06	Pulse	0.30	3
Sn			2	0.703	ug/l	3.59	2,193.51	2.365E-03	Pulse	0.30	3
Se			3	0.213	ug/l	17.96	49.93	2.409E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,350,594.94	1.26	100.6	Mix	0.10	3
1	Sc		4,954,164.51	0.90	103.0	Pulse	0.10	3
1	Ge		904,691.50	0.96	107.8	Pulse	0.10	3
1	Ge		1,236,239.74	1.35	106.4	Pulse	0.10	3
1	Rh		6,257,235.95	1.65	106.3	Analog	0.10	3
1	In		7,017,457.11	0.99	112.0	Analog	0.10	3
1	Tb		9,640,196.73	0.63	116.4	Analog	0.10	3
1	Ho		957,054.13	0.74	116.9	Pulse	0.10	3
1	Bi		5,690,910.54	0.68	115.1	Analog	0.10	3
2	Sc		170,887.29	0.09	102.1	Pulse	0.30	3
2	Ge		93,952.09	0.92	104.8	Pulse	0.30	3
2	Ge		143,038.15	0.93	106.1	Pulse	0.30	3
2	Rh		2,968,747.45	0.50	107.0	Pulse	0.30	3
2	In		927,586.62	0.37	101.7	Pulse	0.30	3
2	Tb		3,678,444.71	0.34	105.2	Pulse	0.30	3
2	Ho		367,371.30	0.18	106.1	Pulse	0.30	3
2	Bi		2,470,574.00	0.40	106.5	Pulse	0.30	3
3	Sc		228,249.00	0.89	117.6	Pulse	0.30	3
3	Ge		137,295.54	0.78	116.1	Pulse	0.30	3
3	Ge		207,257.45	0.18	115.0	Pulse	0.30	3
3	Rh		2,697,785.24	0.49	114.5	Pulse	0.30	3
3	Tb		4,264,496.50	0.53	113.4	Pulse	0.30	3

Quantitation Report

File Name	030SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 14:13
Sample Name	mp12514-mb2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	1043.66	14.67	3.246E-06	Pulse	0.25	3
B			1	-0.084	ug/l	-69.46	29,081.06	6.404E-03	Pulse	0.15	3
Ca			1	49.009	ug/l	5.23	56,757.82	1.092E-02	Pulse	0.10	3
Sr			1	0.086	ug/l	11.11	3,970.63	6.110E-04	Pulse	0.10	3
Mo			1	0.125	ug/l	23.51	1,026.74	1.580E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	23.37	400.02	5.539E-05	Pulse	0.10	3
Sn			1	-0.022	ug/l	-144.49	8,772.79	1.214E-03	Pulse	0.10	3
Sb			1	0.001	ug/l	2896.66	1,576.81	1.584E-04	Pulse	0.10	3
Ba			1	0.041	ug/l	11.37	280.01	2.812E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	23.96	506.69	8.917E-05	Pulse	0.10	3
Pb			1	0.030	ug/l	21.59	710.05	1.250E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	67.48	543.37	9.584E-05	Pulse	0.10	3
Pb			1	0.024	ug/l	20.02	2,606.86	4.592E-04	Pulse	0.10	3
Na			2	18.815	ug/l	3.02	26,071.24	1.460E-01	Pulse	0.30	3
Mg			2	3.913	ug/l	10.21	2,639.13	1.478E-02	Pulse	0.30	3
Al			2	3.773	ug/l	15.19	818.92	4.586E-03	Pulse	0.30	3
K			2	7.207	ug/l	7.99	10,939.24	6.126E-02	Pulse	0.30	3
Ca			2	45.986	ug/l	5.77	752.25	4.213E-03	Pulse	0.30	3
Ti			2	0.256	ug/l	13.67	32.22	1.804E-04	Pulse	0.30	3
V			2	0.314	ug/l	5.04	1,501.20	8.407E-03	Pulse	0.30	3
Cr			2	0.639	ug/l	11.99	3,873.84	2.170E-02	Pulse	0.30	3
Mn			2	0.068	ug/l	12.82	197.78	1.108E-03	Pulse	0.30	3
Fe			2	4.766	ug/l	7.22	28,666.11	1.605E-01	Pulse	0.30	3
Co			2	0.021	ug/l	1.88	262.23	1.468E-03	Pulse	0.30	3
Ni			2	0.037	ug/l	33.91	122.22	6.844E-04	Pulse	0.30	3
Cu			2	0.296	ug/l	5.01	2,282.41	1.278E-02	Pulse	0.30	3
Zn			2	0.609	ug/l	6.61	663.35	3.714E-03	Pulse	0.30	3
As			2	0.070	ug/l	28.18	40.00	2.239E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.001	ug/l	193.46	13.26	1.398E-05	Pulse	0.30	3
Sn			2	0.480	ug/l	5.17	1,772.35	1.868E-03	Pulse	0.30	3
Se			3	0.086	ug/l	56.97	34.93	1.621E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,541,164.91	1.63	105.0	Analog	0.10	3
1	Sc		5,196,170.03	0.38	108.1	Pulse	0.10	3
1	Ge		937,435.77	0.21	111.7	Pulse	0.10	3
1	Ge		1,287,735.74	0.72	110.8	Pulse	0.10	3
1	Rh		6,497,960.73	0.21	110.4	Analog	0.10	3
1	In		7,229,840.01	0.96	115.3	Analog	0.10	3
1	Tb		9,956,576.31	0.94	120.2	Analog	0.10	3
1	Ho		975,483.60	1.24	119.2	Pulse	0.10	3
1	Bi		5,678,864.08	1.27	114.9	Analog	0.10	3
2	Sc		178,595.32	0.63	106.7	Pulse	0.30	3
2	Ge		96,490.25	0.43	107.6	Pulse	0.30	3
2	Ge		146,328.31	0.70	108.5	Pulse	0.30	3
2	Rh		3,065,766.34	0.77	110.5	Pulse	0.30	3
2	In		948,632.24	0.16	104.0	Pulse	0.30	3
2	Tb		3,753,814.57	0.39	107.4	Pulse	0.30	3
2	Ho		377,165.06	0.21	108.9	Pulse	0.30	3
2	Bi		2,461,729.69	0.58	106.1	Pulse	0.30	3
3	Sc		240,788.10	0.52	124.1	Pulse	0.30	3
3	Ge		142,866.84	0.67	120.8	Pulse	0.30	3
3	Ge		215,357.66	0.78	119.5	Pulse	0.30	3
3	Rh		2,795,385.58	0.46	118.7	Pulse	0.30	3
3	Tb		4,399,222.74	0.90	117.0	Pulse	0.30	3

Quantitation Report

File Name 031SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 14:18
Sample Name mp12514-b2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	69.480	ug/l	1.98	595,237.00	1.376E-01	Pulse	0.25	3
B			1	78.922	ug/l	1.84	691,022.66	1.597E-01	Pulse	0.15	3
Ca			1	3970.841	ug/l	0.80	3,359,049.43	6.656E-01	Pulse	0.10	3
Sr			1	86.166	ug/l	1.09	3,143,664.22	5.062E-01	Pulse	0.10	3
Mo			1	84.617	ug/l	1.61	591,467.49	9.524E-02	Pulse	0.10	3
Ag			1	77.418	ug/l	2.38	1,549,323.52	2.214E-01	Pulse	0.10	3
Sn			1	83.354	ug/l	2.39	973,636.94	1.391E-01	Pulse	0.10	3
Sb			1	77.635	ug/l	1.29	1,025,510.69	1.081E-01	Pulse	0.10	3
Ba			1	80.648	ug/l	1.56	437,387.18	4.611E-02	Pulse	0.10	3
Tl			1	82.837	ug/l	1.06	2,716,725.79	4.917E-01	Pulse	0.10	3
Pb			1	83.013	ug/l	1.16	926,432.51	1.677E-01	Pulse	0.10	3
Pb			1	81.851	ug/l	1.24	810,914.93	1.468E-01	Pulse	0.10	3
Pb			1	83.418	ug/l	1.20	3,727,568.87	6.747E-01	Pulse	0.10	3
Na			2	3871.924	ug/l	0.30	3,708,661.66	2.169E+01	Pulse	0.30	3
Mg			2	3714.450	ug/l	0.44	1,637,556.32	9.577E+00	Pulse	0.30	3
Al			2	3563.119	ug/l	0.66	492,880.85	2.882E+00	Pulse	0.30	3
K			2	3819.454	ug/l	0.47	977,192.88	5.715E+00	Pulse	0.30	3
Ca			2	4311.542	ug/l	0.93	59,599.43	3.486E-01	Pulse	0.30	3
Ti			2	80.744	ug/l	2.90	8,302.17	4.855E-02	Pulse	0.30	3
V			2	83.555	ug/l	0.87	271,903.38	1.590E+00	Pulse	0.30	3
Cr			2	83.816	ug/l	0.31	359,968.20	2.105E+00	Pulse	0.30	3
Mn			2	80.458	ug/l	0.67	176,004.99	1.029E+00	Pulse	0.30	3
Fe			2	4014.149	ug/l	1.36	15,128,192.18	8.847E+01	Analog	0.30	3
Co			2	84.069	ug/l	0.51	622,038.45	3.638E+00	Pulse	0.30	3
Ni			2	82.295	ug/l	0.89	168,692.68	9.866E-01	Pulse	0.30	3
Cu			2	78.654	ug/l	0.51	444,908.54	2.602E+00	Pulse	0.30	3
Zn			2	68.726	ug/l	1.69	51,334.40	3.002E-01	Pulse	0.30	3
As			2	75.510	ug/l	0.29	28,713.10	1.679E-01	Pulse	1.00	3
Cd			2	77.072	ug/l	0.32	85,722.73	9.414E-02	Pulse	0.30	3
Sn			2	85.266	ug/l	0.69	172,958.48	1.899E-01	Pulse	0.30	3
Se			3	310.179	ug/l	0.56	40,348.24	1.921E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,326,813.82	1.63	100.1	Mix	0.10	3
1	Sc		5,046,275.13	0.31	104.9	Pulse	0.10	3
1	Ge		906,415.80	0.54	108.0	Pulse	0.10	3

Quantitation Report

1	Ge		1,260,897.90	0.48	108.5	Pulse	0.10	3
1	Rh		6,210,792.83	1.02	105.5	Analog	0.10	3
1	In		6,999,274.38	1.36	111.7	Analog	0.10	3
1	Tb		9,485,145.69	0.28	114.5	Analog	0.10	3
1	Ho		958,858.50	0.90	117.2	Pulse	0.10	3
1	Bi		5,525,269.71	1.89	111.7	Mix	0.10	3
2	Sc		170,990.63	0.34	102.1	Pulse	0.30	3
2	Ge		94,484.01	0.89	105.4	Pulse	0.30	3
2	Ge		142,050.43	0.28	105.3	Pulse	0.30	3
2	Rh		2,923,540.72	0.30	105.4	Pulse	0.30	3
2	In		910,626.91	0.19	99.8	Pulse	0.30	3
2	Tb		3,647,729.58	0.43	104.4	Pulse	0.30	3
2	Ho		365,267.08	0.68	105.5	Pulse	0.30	3
2	Bi		2,373,107.20	0.19	102.3	Pulse	0.30	3
3	Sc		231,719.54	0.61	119.4	Pulse	0.30	3
3	Ge		136,203.56	1.42	115.2	Pulse	0.30	3
3	Ge		209,989.44	0.65	116.5	Pulse	0.30	3
3	Rh		2,658,991.49	1.15	112.9	Pulse	0.30	3
3	Tb		4,253,111.08	1.51	113.1	Pulse	0.30	3

Quantitation Report

File Name	032SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 14:23
Sample Name	mp12514-b3
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	1949.331	ug/l	0.62	1,410,359.71	3.088E-01	Pulse	0.25	3
B			1	1940.966	ug/l	0.89	1,406,205.05	3.079E-01	Pulse	0.15	3
Ca			1	27557.286	ug/l	0.61	1,993,124.87	3.708E-01	Pulse	0.10	3
Sr			1	2147.500	ug/l	1.11	6,679,925.94	1.009E+00	Analog	0.10	3
Mo			1	2058.497	ug/l	1.38	1,226,611.39	1.853E-01	Pulse	0.10	3
Ag			1	244.578	ug/l	0.60	411,195.17	5.596E-02	Pulse	0.10	3
Sn			1	2081.895	ug/l	0.86	2,033,457.63	2.768E-01	Pulse	0.10	3
Sb			1	2159.689	ug/l	0.67	2,314,457.67	2.404E-01	Pulse	0.10	3
Ba			1	2119.907	ug/l	0.49	933,444.83	9.697E-02	Pulse	0.10	3
Tl			1	2091.337	ug/l	1.21	5,633,147.00	9.931E-01	Mix	0.10	3
Pb			1	2083.211	ug/l	1.02	1,909,271.69	3.366E-01	Pulse	0.10	3
Pb			1	2069.999	ug/l	0.93	1,684,035.70	2.969E-01	Pulse	0.10	3
Pb			1	2109.348	ug/l	0.78	7,740,838.48	1.365E+00	Pulse	0.10	3
Na			2	25056.352	ug/l	0.74	2,058,147.35	1.125E+01	Pulse	0.30	3
Mg			2	24016.737	ug/l	0.75	906,824.55	4.956E+00	Pulse	0.30	3
Al			2	23007.447	ug/l	1.41	272,573.90	1.490E+00	Pulse	0.30	3
K			2	24677.665	ug/l	0.70	544,966.35	2.978E+00	Pulse	0.30	3
Ca			2	38329.891	ug/l	1.48	45,385.00	2.480E-01	Pulse	0.30	3
Ti			2	1987.784	ug/l	1.82	17,491.54	9.559E-02	Pulse	0.30	3
V			2	2111.764	ug/l	0.82	587,847.18	3.213E+00	Pulse	0.30	3
Cr			2	2110.269	ug/l	0.80	774,809.03	4.235E+00	Pulse	0.30	3
Mn			2	2038.859	ug/l	0.92	381,760.68	2.086E+00	Pulse	0.30	3
Fe			2	25102.153	ug/l	1.55	8,103,227.73	4.429E+01	Analog	0.30	3
Co			2	2130.306	ug/l	1.15	1,349,242.13	7.374E+00	Pulse	0.30	3
Ni			2	2099.663	ug/l	0.80	368,411.77	2.013E+00	Pulse	0.30	3
Cu			2	2044.267	ug/l	1.05	989,308.01	5.407E+00	Pulse	0.30	3
Zn			2	2512.129	ug/l	0.88	160,262.52	8.759E-01	Pulse	0.30	3
As			2	2293.434	ug/l	0.72	74,639.95	4.079E-01	Pulse	1.00	3
Cd			2	2216.554	ug/l	0.58	212,255.53	2.166E-01	Pulse	0.30	3
Sn			2	2086.013	ug/l	0.35	363,580.21	3.710E-01	Pulse	0.30	3
Se			3	2257.875	ug/l	0.16	24,240.54	1.119E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,566,879.85	0.82	105.6	Analog	0.10	3
1	Sc		5,375,472.00	0.20	111.8	Mix	0.10	3
1	Ge		979,390.46	0.44	116.7	Pulse	0.10	3

Quantitation Report

1	Ge		1,358,467.43	0.47	116.9	Pulse	0.10	3
1	Rh		6,619,197.61	1.43	112.4	Analog	0.10	3
1	In		7,347,572.00	0.56	117.2	Analog	0.10	3
1	Tb		9,626,830.48	1.07	116.2	Analog	0.10	3
1	Ho		961,224.75	0.85	117.4	Pulse	0.10	3
1	Bi		5,672,722.21	1.47	114.7	Mix	0.10	3
2	Sc		182,981.03	0.79	109.3	Pulse	0.30	3
2	Ge		103,115.71	1.25	115.0	Pulse	0.30	3
2	Ge		156,696.24	0.87	116.2	Pulse	0.30	3
2	Rh		3,106,052.24	0.57	112.0	Pulse	0.30	3
2	In		980,097.03	0.31	107.5	Pulse	0.30	3
2	Tb		3,741,977.21	0.49	107.1	Pulse	0.30	3
2	Ho		372,755.88	0.48	107.6	Pulse	0.30	3
2	Bi		2,502,088.23	0.26	107.8	Pulse	0.30	3
3	Sc		234,416.66	0.96	120.8	Pulse	0.30	3
3	Ge		142,536.29	0.34	120.6	Pulse	0.30	3
3	Ge		216,547.48	0.35	120.2	Pulse	0.30	3
3	Rh		2,682,626.21	0.36	113.9	Pulse	0.30	3
3	Tb		4,168,694.00	0.06	110.9	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 14:28
Sample Name	mp12514-s3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	64.146	ug/l	1.48	556,399.33	1.270E-01	Pulse	0.25	3
B			1	87.870	ug/l	1.26	775,712.00	1.771E-01	Pulse	0.15	3
Ca			1	7024.571	ug/l	1.23	6,085,524.28	1.175E+00	Analog	0.10	3
Sr			1	114.730	ug/l	0.57	4,129,160.77	6.740E-01	Pulse	0.10	3
Mo			1	78.496	ug/l	0.48	541,297.57	8.835E-02	Pulse	0.10	3
Ag			1	70.537	ug/l	0.23	1,396,605.03	2.017E-01	Pulse	0.10	3
Sn			1	76.476	ug/l	1.23	884,532.51	1.278E-01	Pulse	0.10	3
Sb			1	70.130	ug/l	1.35	912,320.77	9.768E-02	Pulse	0.10	3
Ba			1	121.050	ug/l	0.88	646,434.48	6.921E-02	Pulse	0.10	3
Tl			1	74.725	ug/l	1.39	2,448,026.84	4.436E-01	Pulse	0.10	3
Pb			1	77.964	ug/l	1.25	869,208.90	1.575E-01	Pulse	0.10	3
Pb			1	76.523	ug/l	1.02	757,322.02	1.372E-01	Pulse	0.10	3
Pb			1	78.254	ug/l	0.95	3,493,289.27	6.330E-01	Pulse	0.10	3
Na			2	8507.847	ug/l	1.62	8,248,696.62	4.761E+01	Analog	0.30	3
Mg			2	6212.415	ug/l	1.26	2,774,091.62	1.601E+01	Pulse	0.30	3
Al			2	10171.773	ug/l	0.71	1,425,022.51	8.226E+00	Pulse	0.30	3
K			2	5321.902	ug/l	1.33	1,375,955.33	7.943E+00	Pulse	0.30	3
Ca			2	7477.923	ug/l	1.29	104,658.41	6.042E-01	Pulse	0.30	3
Ti			2	266.824	ug/l	1.93	27,781.31	1.604E-01	Pulse	0.30	3
V			2	87.951	ug/l	1.21	289,941.18	1.674E+00	Pulse	0.30	3
Cr			2	87.612	ug/l	1.39	381,151.31	2.200E+00	Pulse	0.30	3
Mn			2	362.934	ug/l	1.41	804,154.25	4.642E+00	Pulse	0.30	3
Fe			2	8675.864	ug/l	0.78	33,115,609.79	1.912E+02	Analog	0.30	3
Co			2	78.417	ug/l	1.46	587,808.21	3.393E+00	Pulse	0.30	3
Ni			2	78.645	ug/l	1.23	163,325.00	9.428E-01	Pulse	0.30	3
Cu			2	73.784	ug/l	0.64	422,881.60	2.441E+00	Pulse	0.30	3
Zn			2	88.452	ug/l	1.66	66,879.90	3.861E-01	Pulse	0.30	3
As			2	69.510	ug/l	1.11	26,779.17	1.546E-01	Pulse	1.00	3
Cd			2	71.458	ug/l	0.92	79,227.54	8.728E-02	Pulse	0.30	3
Sn			2	77.104	ug/l	1.39	155,967.76	1.718E-01	Pulse	0.30	3
Se			3	289.036	ug/l	0.33	37,209.53	1.791E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,380,374.33	1.14	101.3	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,177,158.36	0.38	107.7	Mix	0.10	3
1	Ge		915,820.37	1.55	109.2	Pulse	0.10	3
1	Ge		1,252,155.71	1.33	107.7	Pulse	0.10	3
1	Rh		6,126,913.45	1.27	104.1	Analog	0.10	3
1	In		6,923,265.36	0.60	110.5	Analog	0.10	3
1	Tb		9,340,320.07	1.39	112.8	Analog	0.10	3
1	Ho		945,690.66	0.03	115.5	Pulse	0.10	3
1	Bi		5,519,263.46	1.46	111.6	Pulse	0.10	3
2	Sc		173,248.08	1.38	103.5	Pulse	0.30	3
2	Ge		94,443.84	0.23	105.3	Pulse	0.30	3
2	Ge		141,824.15	0.17	105.2	Pulse	0.30	3
2	Rh		2,893,394.61	0.41	104.3	Pulse	0.30	3
2	In		907,765.49	0.81	99.5	Pulse	0.30	3
2	Tb		3,578,038.61	0.63	102.4	Pulse	0.30	3
2	Ho		361,335.93	0.37	104.3	Pulse	0.30	3
2	Bi		2,325,794.28	0.09	100.2	Pulse	0.30	3
3	Sc		233,133.96	0.42	120.1	Pulse	0.30	3
3	Ge		137,505.06	0.42	116.3	Pulse	0.30	3
3	Ge		207,810.65	0.64	115.3	Pulse	0.30	3
3	Rh		2,597,344.34	0.60	110.3	Pulse	0.30	3
3	Tb		4,168,012.34	1.12	110.9	Pulse	0.30	3

Quantitation Report

File Name 034SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 14:33
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	43.89	113.33	2.534E-05	Pulse	0.25	3
B			1	0.501	ug/l	11.04	38,345.69	8.513E-03	Pulse	0.15	3
Ca			1	1.004	ug/l	7.57	16,385.31	3.077E-03	Pulse	0.10	3
Sr			1	0.015	ug/l	0.96	1,830.18	2.753E-04	Pulse	0.10	3
Mo			1	0.044	ug/l	22.02	773.38	1.165E-04	Pulse	0.10	3
Ag			1	0.009	ug/l	21.33	473.36	6.431E-05	Pulse	0.10	3
Sn			1	-0.141	ug/l	-15.25	5,764.62	7.827E-04	Pulse	0.10	3
Sb			1	-0.022	ug/l	-17.02	933.40	9.603E-05	Pulse	0.10	3
Ba			1	0.009	ug/l	70.28	143.34	1.468E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	9.96	1,566.81	2.720E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	66.23	690.04	1.198E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	66.53	706.72	1.229E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	26.75	3,033.58	5.271E-04	Pulse	0.10	3
Na			2	0.819	ug/l	11.72	9,121.44	4.995E-02	Pulse	0.30	3
Mg			2	-0.181	ug/l	-5.50	687.80	3.767E-03	Pulse	0.30	3
Al			2	0.153	ug/l	41.00	325.56	1.783E-03	Pulse	0.30	3
K			2	0.369	ug/l	29.40	9,433.86	5.166E-02	Pulse	0.30	3
Ca			2	-0.575	ug/l	-31.10	74.44	4.077E-04	Pulse	0.30	3
Ti			2	0.008	ug/l	491.76	6.67	3.648E-05	Pulse	0.30	3
V			2	0.032	ug/l	44.49	663.36	3.633E-03	Pulse	0.30	3
Cr			2	0.004	ug/l	221.57	1,076.72	5.896E-03	Pulse	0.30	3
Mn			2	0.027	ug/l	26.30	170.00	9.313E-04	Pulse	0.30	3
Fe			2	-0.044	ug/l	-175.43	9,789.69	5.362E-02	Pulse	0.30	3
Co			2	0.007	ug/l	33.01	211.12	1.156E-03	Pulse	0.30	3
Ni			2	0.006	ug/l	86.32	70.00	3.834E-04	Pulse	0.30	3
Cu			2	0.017	ug/l	27.84	751.14	4.114E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.040	ug/l	36.76	257.78	1.412E-03	Pulse	0.30	3
As			2	0.017	ug/l	65.24	26.00	1.423E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	85.83	24.38	2.500E-05	Pulse	0.30	3
Sn			2	0.099	ug/l	17.15	1,214.51	1.246E-03	Pulse	0.30	3
Se			3	0.081	ug/l	69.99	45.93	2.092E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,506,496.47	3.20	104.2	Analog	0.10	3
1	Sc		5,324,478.04	1.18	110.7	Pulse	0.10	3
1	Ge		968,221.47	0.99	115.4	Pulse	0.10	3
1	Ge		1,332,708.89	1.20	114.7	Pulse	0.10	3
1	Rh		6,646,810.94	0.93	112.9	Analog	0.10	3
1	In		7,369,312.75	1.05	117.6	Analog	0.10	3
1	Tb		9,728,794.85	1.25	117.5	Analog	0.10	3
1	Ho		971,931.18	1.82	118.8	Pulse	0.10	3
1	Bi		5,756,573.66	1.20	116.4	Analog	0.10	3
2	Sc		182,609.49	0.24	109.1	Pulse	0.30	3
2	Ge		101,995.30	0.38	113.7	Pulse	0.30	3
2	Ge		152,392.82	0.33	113.0	Pulse	0.30	3
2	Rh		3,133,425.50	0.37	112.9	Pulse	0.30	3
2	In		975,050.20	0.27	106.9	Pulse	0.30	3
2	Tb		3,749,766.52	0.14	107.3	Pulse	0.30	3
2	Ho		374,595.94	0.22	108.2	Pulse	0.30	3
2	Bi		2,498,512.26	0.27	107.7	Pulse	0.30	3
3	Sc		238,054.86	0.18	122.7	Pulse	0.30	3
3	Ge		145,467.36	0.91	123.0	Pulse	0.30	3
3	Ge		219,630.20	0.54	121.9	Pulse	0.30	3
3	Rh		2,781,246.76	0.29	118.1	Pulse	0.30	3
3	Tb		4,253,428.86	0.32	113.1	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 14:38
Sample Name	mp12514-s4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	63.670	ug/l	2.63	552,823.62	1.261E-01	Pulse	0.25	3
B			1	85.856	ug/l	1.90	759,390.63	1.732E-01	Pulse	0.15	3
Ca			1	6996.895	ug/l	0.95	6,128,691.16	1.171E+00	Analog	0.10	3
Sr			1	113.698	ug/l	1.19	4,105,500.36	6.679E-01	Pulse	0.10	3
Mo			1	76.990	ug/l	0.78	532,680.59	8.666E-02	Pulse	0.10	3
Ag			1	69.268	ug/l	1.24	1,379,464.77	1.981E-01	Pulse	0.10	3
Sn			1	73.483	ug/l	0.98	855,186.26	1.228E-01	Pulse	0.10	3
Sb			1	68.918	ug/l	1.04	895,329.26	9.600E-02	Pulse	0.10	3
Ba			1	122.049	ug/l	1.10	650,846.90	6.978E-02	Pulse	0.10	3
Tl			1	74.318	ug/l	0.32	2,438,298.71	4.412E-01	Pulse	0.10	3
Pb			1	77.069	ug/l	0.88	860,499.34	1.557E-01	Pulse	0.10	3
Pb			1	76.777	ug/l	1.00	760,922.65	1.377E-01	Pulse	0.10	3
Pb			1	77.604	ug/l	0.29	3,469,310.13	6.277E-01	Pulse	0.10	3
Na			2	8461.029	ug/l	0.85	8,216,433.56	4.735E+01	Analog	0.30	3
Mg			2	6201.379	ug/l	0.40	2,774,024.82	1.599E+01	Pulse	0.30	3
Al			2	10121.311	ug/l	0.17	1,420,353.62	8.185E+00	Pulse	0.30	3
K			2	5280.513	ug/l	0.23	1,367,721.75	7.882E+00	Pulse	0.30	3
Ca			2	7357.315	ug/l	1.04	103,149.24	5.944E-01	Pulse	0.30	3
Ti			2	263.403	ug/l	1.68	27,472.90	1.583E-01	Pulse	0.30	3
V			2	87.467	ug/l	0.73	288,842.26	1.665E+00	Pulse	0.30	3
Cr			2	86.665	ug/l	0.66	377,699.01	2.177E+00	Pulse	0.30	3
Mn			2	362.906	ug/l	0.50	805,498.42	4.642E+00	Pulse	0.30	3
Fe			2	8572.718	ug/l	1.25	32,775,487.59	1.889E+02	Analog	0.30	3
Co			2	76.881	ug/l	0.84	577,304.49	3.327E+00	Pulse	0.30	3
Ni			2	78.245	ug/l	0.38	162,777.93	9.380E-01	Pulse	0.30	3
Cu			2	72.972	ug/l	0.55	418,935.64	2.414E+00	Pulse	0.30	3
Zn			2	88.025	ug/l	0.91	66,675.82	3.842E-01	Pulse	0.30	3
As			2	69.071	ug/l	0.34	26,655.97	1.536E-01	Pulse	1.00	3
Cd			2	69.963	ug/l	0.60	77,442.94	8.545E-02	Pulse	0.30	3
Sn			2	74.991	ug/l	0.83	151,469.22	1.671E-01	Pulse	0.30	3
Se			3	285.019	ug/l	0.67	37,050.11	1.766E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,385,517.95	1.78	101.4	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,234,508.26	0.64	108.9	Pulse	0.10	3
1	Ge		923,402.41	0.76	110.1	Pulse	0.10	3
1	Ge		1,269,599.67	1.02	109.2	Pulse	0.10	3
1	Rh		6,147,178.03	0.66	104.4	Analog	0.10	3
1	In		6,963,971.17	0.64	111.1	Analog	0.10	3
1	Tb		9,327,312.78	1.17	112.6	Analog	0.10	3
1	Ho		956,910.32	1.29	116.9	Pulse	0.10	3
1	Bi		5,526,690.33	0.90	111.8	Pulse	0.10	3
2	Sc		173,530.62	0.40	103.6	Pulse	0.30	3
2	Ge		94,153.29	1.08	105.0	Pulse	0.30	3
2	Ge		142,776.00	0.29	105.9	Pulse	0.30	3
2	Rh		2,908,181.06	0.19	104.8	Pulse	0.30	3
2	In		906,253.35	0.45	99.4	Pulse	0.30	3
2	Tb		3,577,885.55	0.33	102.4	Pulse	0.30	3
2	Ho		359,422.24	0.08	103.8	Pulse	0.30	3
2	Bi		2,333,248.10	0.08	100.6	Pulse	0.30	3
3	Sc		236,209.39	0.25	121.7	Pulse	0.30	3
3	Ge		139,081.59	0.73	117.6	Pulse	0.30	3
3	Ge		209,836.69	0.56	116.5	Pulse	0.30	3
3	Rh		2,615,962.26	0.56	111.1	Pulse	0.30	3
3	Tb		4,203,089.97	0.34	111.8	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 14:43
Sample Name jc79879-11a
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.249	ug/l	6.85	2,182.84	4.960E-04	Pulse	0.25	3
B			1	14.482	ug/l	1.75	152,644.66	3.467E-02	Pulse	0.15	3
Ca			1	3603.274	ug/l	0.48	3,132,533.49	6.043E-01	Pulse	0.10	3
Sr			1	35.978	ug/l	0.53	1,299,410.74	2.114E-01	Pulse	0.10	3
Mo			1	0.696	ug/l	5.77	4,920.94	8.006E-04	Pulse	0.10	3
Ag			1	0.041	ug/l	17.87	886.72	1.295E-04	Pulse	0.10	3
Sn			1	0.186	ug/l	16.70	10,654.32	1.557E-03	Pulse	0.10	3
Sb			1	0.045	ug/l	66.17	2,076.89	2.204E-04	Pulse	0.10	3
Ba			1	51.378	ug/l	1.23	276,580.95	2.938E-02	Pulse	0.10	3
Tl			1	0.098	ug/l	1.89	3,557.23	6.385E-04	Pulse	0.10	3
Pb			1	3.264	ug/l	2.20	37,067.54	6.656E-03	Pulse	0.10	3
Pb			1	3.101	ug/l	2.14	31,337.28	5.625E-03	Pulse	0.10	3
Pb			1	3.175	ug/l	0.21	144,481.54	2.594E-02	Pulse	0.10	3
Na			2	5022.750	ug/l	0.75	4,775,247.59	2.812E+01	Pulse	0.30	3
Mg			2	2973.573	ug/l	1.09	1,301,890.78	7.668E+00	Pulse	0.30	3
Al			2	7500.110	ug/l	0.86	1,029,929.06	6.066E+00	Pulse	0.30	3
K			2	2146.169	ug/l	1.35	549,001.71	3.233E+00	Pulse	0.30	3
Ca			2	3659.460	ug/l	0.98	50,247.64	2.959E-01	Pulse	0.30	3
Ti			2	242.382	ug/l	5.05	24,738.20	1.457E-01	Pulse	0.30	3
V			2	13.509	ug/l	0.47	44,002.74	2.591E-01	Pulse	0.30	3
Cr			2	13.508	ug/l	0.50	58,419.11	3.440E-01	Pulse	0.30	3
Mn			2	299.732	ug/l	0.77	650,970.13	3.834E+00	Pulse	0.30	3
Fe			2	5332.162	ug/l	1.00	19,952,300.32	1.175E+02	Analog	0.30	3
Co			2	2.455	ug/l	0.42	18,132.33	1.068E-01	Pulse	0.30	3
Ni			2	5.399	ug/l	2.08	11,027.13	6.495E-02	Pulse	0.30	3
Cu			2	3.211	ug/l	0.84	18,528.35	1.091E-01	Pulse	0.30	3
Zn			2	27.574	ug/l	1.97	20,563.00	1.211E-01	Pulse	0.30	3
As			2	1.922	ug/l	5.53	737.02	4.341E-03	Pulse	1.00	3
Cd			2	0.031	ug/l	52.55	45.28	5.060E-05	Pulse	0.30	3
Sn			2	0.580	ug/l	3.16	1,867.91	2.090E-03	Pulse	0.30	3
Se			3	0.421	ug/l	14.05	77.27	3.694E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,402,805.14	1.05	101.8	Analog	0.10	3
1	Sc		5,183,984.19	0.61	107.8	Pulse	0.10	3
1	Ge		912,105.59	1.33	108.7	Pulse	0.10	3

Quantitation Report

1	Ge		1,236,836.08	1.01	106.4	Pulse	0.10	3
1	Rh		6,146,059.07	0.87	104.4	Analog	0.10	3
1	In		6,842,681.15	0.80	109.2	Analog	0.10	3
1	Tb		9,416,201.11	2.75	113.7	Analog	0.10	3
1	Ho		948,830.87	1.09	115.9	Pulse	0.10	3
1	Bi		5,570,180.33	1.14	112.7	Pulse	0.10	3
2	Sc		169,800.19	0.71	101.4	Pulse	0.30	3
2	Ge		93,088.23	1.07	103.8	Pulse	0.30	3
2	Ge		139,986.69	0.69	103.8	Pulse	0.30	3
2	Rh		2,905,630.30	0.65	104.7	Pulse	0.30	3
2	In		893,521.82	0.60	98.0	Pulse	0.30	3
2	Tb		3,562,585.83	0.62	101.9	Pulse	0.30	3
2	Ho		358,736.16	0.73	103.6	Pulse	0.30	3
2	Bi		2,324,577.48	0.37	100.2	Pulse	0.30	3
3	Sc		235,615.70	1.02	121.4	Pulse	0.30	3
3	Ge		138,830.66	0.95	117.4	Pulse	0.30	3
3	Ge		209,019.71	1.06	116.0	Pulse	0.30	3
3	Rh		2,643,915.45	0.57	112.3	Pulse	0.30	3
3	Tb		4,228,115.11	1.22	112.5	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 14:48
Sample Name	mp12514-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.350	ug/l	4.76	660.02	1.415E-04	Pulse	0.25	3
B			1	10.985	ug/l	3.87	50,479.37	1.083E-02	Pulse	0.15	3
Ca			1	3676.247	ug/l	0.28	669,077.12	1.255E-01	Pulse	0.10	3
Sr			1	35.473	ug/l	2.30	274,057.89	4.177E-02	Pulse	0.10	3
Mo			1	0.741	ug/l	14.03	1,210.10	1.846E-04	Pulse	0.10	3
Ag			1	0.099	ug/l	3.50	500.03	6.823E-05	Pulse	0.10	3
Sn			1	-2.719	ug/l	-1.30	2,563.64	3.498E-04	Pulse	0.10	3
Sb			1	-0.218	ug/l	-10.47	926.73	9.694E-05	Pulse	0.10	3
Ba			1	51.731	ug/l	1.91	56,642.93	5.920E-03	Pulse	0.10	3
Tl			1	0.227	ug/l	10.83	1,846.86	3.242E-04	Pulse	0.10	3
Pb			1	3.316	ug/l	1.14	7,995.80	1.404E-03	Pulse	0.10	3
Pb			1	3.121	ug/l	9.56	6,761.87	1.187E-03	Pulse	0.10	3
Pb			1	3.224	ug/l	3.44	31,227.40	5.482E-03	Pulse	0.10	3
Na			2	5035.193	ug/l	1.36	1,034,850.69	5.671E+00	Pulse	0.30	3
Mg			2	3017.499	ug/l	1.23	284,643.14	1.560E+00	Pulse	0.30	3
Al			2	7696.488	ug/l	1.08	227,388.26	1.246E+00	Pulse	0.30	3
K			2	2180.104	ug/l	2.37	127,209.20	6.972E-01	Pulse	0.30	3
Ca			2	3534.521	ug/l	3.84	10,504.55	5.757E-02	Pulse	0.30	3
Ti			2	239.889	ug/l	13.52	5,263.88	2.886E-02	Pulse	0.30	3
V			2	13.441	ug/l	3.12	9,765.21	5.352E-02	Pulse	0.30	3
Cr			2	12.869	ug/l	0.79	12,801.79	7.015E-02	Pulse	0.30	3
Mn			2	300.900	ug/l	1.85	140,489.47	7.700E-01	Pulse	0.30	3
Fe			2	5315.749	ug/l	1.35	4,283,134.97	2.347E+01	Pulse	0.30	3
Co			2	2.599	ug/l	0.40	4,205.03	2.304E-02	Pulse	0.30	3
Ni			2	5.934	ug/l	7.37	2,639.14	1.447E-02	Pulse	0.30	3
Cu			2	3.261	ug/l	4.50	4,480.67	2.456E-02	Pulse	0.30	3
Zn			2	35.862	ug/l	3.45	5,890.01	3.228E-02	Pulse	0.30	3
As			2	2.374	ug/l	4.57	205.00	1.124E-03	Pulse	1.00	3
Cd			2	0.137	ug/l	20.96	44.37	4.572E-05	Pulse	0.30	3
Sn			2	-0.712	ug/l	-15.06	474.46	4.890E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.837	ug/l	15.32	46.87	2.126E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,661,584.10	2.09	107.8	Analog	0.10	3
1	Sc		5,331,820.34	0.49	110.9	Pulse	0.10	3
1	Ge		959,988.84	0.68	114.4	Pulse	0.10	3
1	Ge		1,322,664.02	1.28	113.8	Pulse	0.10	3
1	Rh		6,561,877.61	1.20	111.4	Analog	0.10	3
1	In		7,330,342.53	0.96	116.9	Analog	0.10	3
1	Tb		9,566,659.02	1.69	115.5	Analog	0.10	3
1	Ho		944,797.56	1.18	115.4	Pulse	0.10	3
1	Bi		5,696,241.58	0.85	115.2	Mix	0.10	3
2	Sc		182,492.51	1.28	109.0	Pulse	0.30	3
2	Ge		101,601.74	0.42	113.3	Pulse	0.30	3
2	Ge		153,066.87	0.56	113.5	Pulse	0.30	3
2	Rh		3,094,409.74	0.21	111.5	Pulse	0.30	3
2	In		970,308.83	0.41	106.4	Pulse	0.30	3
2	Tb		3,712,814.44	0.68	106.2	Pulse	0.30	3
2	Ho		371,005.53	0.74	107.1	Pulse	0.30	3
2	Bi		2,502,672.19	0.39	107.9	Pulse	0.30	3
3	Sc		240,268.23	0.54	123.8	Pulse	0.30	3
3	Ge		146,709.48	0.88	124.1	Pulse	0.30	3
3	Ge		220,323.85	0.88	122.3	Pulse	0.30	3
3	Rh		2,778,434.47	0.21	118.0	Pulse	0.30	3
3	Tb		4,278,091.78	0.51	113.8	Pulse	0.30	3

Quantitation Report

File Name 038_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 14:53
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.220	ug/l	1.65	904,308.48	1.870E-01	Pulse	0.25	3
B			1	103.540	ug/l	1.46	1,975,030.55	4.085E-01	Pulse	0.15	3
Ca			1	4918.361	ug/l	1.10	9,336,891.74	1.645E+00	Analog	0.10	3
Sr			1	54.980	ug/l	0.14	4,238,230.25	6.460E-01	Pulse	0.10	3
Mo			1	54.567	ug/l	0.58	805,939.52	1.228E-01	Pulse	0.10	3
Ag			1	50.384	ug/l	1.17	2,110,234.29	2.882E-01	Pulse	0.10	3
Sn			1	52.886	ug/l	0.90	1,290,419.72	1.762E-01	Pulse	0.10	3
Sb			1	52.695	ug/l	1.29	1,420,591.75	1.467E-01	Pulse	0.10	3
Ba			1	52.765	ug/l	0.57	584,215.11	6.034E-02	Pulse	0.10	3
Tl			1	53.156	ug/l	1.68	3,491,765.26	6.311E-01	Pulse	0.10	3
Pb			1	52.333	ug/l	1.55	1,169,802.22	2.114E-01	Pulse	0.10	3
Pb			1	52.305	ug/l	2.13	1,037,739.20	1.876E-01	Pulse	0.10	3
Pb			1	53.084	ug/l	1.65	4,751,011.91	8.587E-01	Pulse	0.10	3
Na			2	5053.221	ug/l	1.96	10,970,985.12	5.655E+01	Analog	0.30	3
Mg			2	4690.276	ug/l	0.76	4,690,856.06	2.418E+01	Pulse	0.30	3
Al			2	4527.899	ug/l	0.87	1,420,839.53	7.324E+00	Pulse	0.30	3
K			2	4918.490	ug/l	0.47	2,840,161.14	1.464E+01	Pulse	0.30	3
Ca			2	5116.344	ug/l	1.16	160,355.24	8.265E-01	Pulse	0.30	3
Ti			2	49.080	ug/l	1.59	11,449.60	5.902E-02	Pulse	0.30	3
V			2	52.859	ug/l	0.26	390,229.80	2.011E+00	Pulse	0.30	3
Cr			2	52.282	ug/l	0.31	509,276.47	2.625E+00	Pulse	0.30	3
Mn			2	50.332	ug/l	1.12	249,835.44	1.288E+00	Pulse	0.30	3
Fe			2	4912.920	ug/l	1.70	42,001,768.33	2.165E+02	Analog	0.30	3
Co			2	52.150	ug/l	0.66	875,613.78	4.513E+00	Pulse	0.30	3
Ni			2	50.960	ug/l	0.59	237,046.16	1.222E+00	Pulse	0.30	3
Cu			2	49.184	ug/l	0.85	631,187.21	3.253E+00	Pulse	0.30	3
Zn			2	50.095	ug/l	1.07	84,818.41	4.372E-01	Pulse	0.30	3
As			2	52.782	ug/l	0.95	45,541.02	2.347E-01	Pulse	1.00	3
Cd			2	52.026	ug/l	0.19	125,959.43	1.271E-01	Pulse	0.30	3
Sn			2	53.354	ug/l	0.56	235,390.98	2.375E-01	Pulse	0.30	3
Se			3	190.608	ug/l	1.01	52,223.01	2.361E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,835,972.27	1.62	111.9	Analog	0.10	3
1	Sc		5,676,496.79	0.64	118.0	Analog	0.10	3
1	Ge		1,004,133.11	0.81	119.7	Pulse	0.10	3

Quantitation Report

1	Ge		1,390,508.62	0.53	119.6	Pulse	0.10	3
1	Rh		6,561,258.44	0.96	111.4	Analog	0.10	3
1	In		7,322,766.38	1.49	116.8	Analog	0.10	3
1	Tb		9,682,324.86	0.56	116.9	Analog	0.10	3
1	Ho		964,872.41	0.84	117.9	Pulse	0.10	3
1	Bi		5,533,709.08	1.56	111.9	Mix	0.10	3
2	Sc		194,015.93	0.59	115.9	Pulse	0.30	3
2	Ge		105,877.57	0.89	118.1	Pulse	0.30	3
2	Ge		159,134.07	0.28	118.0	Pulse	0.30	3
2	Rh		3,118,229.46	0.39	112.4	Pulse	0.30	3
2	In		991,151.14	0.07	108.7	Pulse	0.30	3
2	Tb		3,785,953.32	0.39	108.3	Pulse	0.30	3
2	Ho		378,221.83	0.38	109.2	Pulse	0.30	3
2	Bi		2,432,439.48	0.34	104.8	Pulse	0.30	3
3	Sc		246,006.11	0.72	126.8	Pulse	0.30	3
3	Ge		145,770.22	0.33	123.3	Pulse	0.30	3
3	Ge		221,176.16	0.87	122.8	Pulse	0.30	3
3	Rh		2,667,910.80	0.81	113.3	Pulse	0.30	3
3	Tb		4,166,607.48	1.26	110.8	Pulse	0.30	3

Quantitation Report

File Name	039_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 14:58
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	18.94	116.00	2.356E-05	Pulse	0.25	3
B			1	0.776	ug/l	6.74	47,228.13	9.581E-03	Pulse	0.15	3
Ca			1	1.733	ug/l	9.39	18,537.71	3.321E-03	Pulse	0.10	3
Sr			1	0.010	ug/l	15.52	1,533.46	2.251E-04	Pulse	0.10	3
Mo			1	0.071	ug/l	8.64	1,210.09	1.780E-04	Pulse	0.10	3
Ag			1	0.010	ug/l	11.13	510.03	6.855E-05	Pulse	0.10	3
Sn			1	-0.155	ug/l	-7.74	5,471.14	7.352E-04	Pulse	0.10	3
Sb			1	0.039	ug/l	31.77	2,606.98	2.673E-04	Pulse	0.10	3
Ba			1	0.009	ug/l	54.81	150.01	1.531E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	6.36	1,486.81	2.636E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	14.20	836.72	1.483E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	10.77	650.04	1.153E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	8.44	3,116.91	5.527E-04	Pulse	0.10	3
Na			2	1.012	ug/l	8.85	9,998.60	5.211E-02	Pulse	0.30	3
Mg			2	-0.239	ug/l	-32.60	665.58	3.468E-03	Pulse	0.30	3
Al			2	-0.291	ug/l	-12.04	204.45	1.065E-03	Pulse	0.30	3
K			2	2.127	ug/l	4.50	10,912.54	5.688E-02	Pulse	0.30	3
Ca			2	-0.051	ug/l	-495.19	94.45	4.923E-04	Pulse	0.30	3
Ti			2	0.007	ug/l	216.00	6.67	3.482E-05	Pulse	0.30	3
V			2	0.021	ug/l	33.93	620.02	3.232E-03	Pulse	0.30	3
Cr			2	0.004	ug/l	284.97	1,124.50	5.862E-03	Pulse	0.30	3
Mn			2	0.013	ug/l	35.25	110.00	5.728E-04	Pulse	0.30	3
Fe			2	-0.163	ug/l	-32.39	9,280.48	4.836E-02	Pulse	0.30	3
Co			2	0.006	ug/l	16.42	206.67	1.078E-03	Pulse	0.30	3
Ni			2	0.009	ug/l	32.35	87.78	4.574E-04	Pulse	0.30	3
Cu			2	0.010	ug/l	22.26	700.02	3.649E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.036	ug/l	31.88	263.34	1.372E-03	Pulse	0.30	3
As			2	0.009	ug/l	28.60	20.67	1.077E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	193.46	17.70	1.783E-05	Pulse	0.30	3
Sn			2	0.043	ug/l	47.16	991.16	9.956E-04	Pulse	0.30	3
Se			3	0.042	ug/l	40.86	35.93	1.610E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,929,163.98	1.29	114.0	Analog	0.10	3
1	Sc		5,582,760.33	0.11	116.1	Analog	0.10	3
1	Ge		993,383.21	0.83	118.4	Pulse	0.10	3
1	Ge		1,374,220.87	1.16	118.2	Pulse	0.10	3
1	Rh		6,805,661.98	1.95	115.6	Analog	0.10	3
1	In		7,441,941.28	0.96	118.7	Analog	0.10	3
1	Tb		9,744,450.48	2.32	117.7	Analog	0.10	3
1	Ho		967,036.00	0.72	118.2	Pulse	0.10	3
1	Bi		5,640,135.13	0.50	114.1	Mix	0.10	3
2	Sc		191,870.60	0.64	114.6	Pulse	0.30	3
2	Ge		105,562.22	0.73	117.7	Pulse	0.30	3
2	Ge		157,703.45	0.67	117.0	Pulse	0.30	3
2	Rh		3,175,722.79	0.22	114.5	Pulse	0.30	3
2	In		996,152.52	0.95	109.2	Pulse	0.30	3
2	Tb		3,774,051.79	0.72	108.0	Pulse	0.30	3
2	Ho		378,092.69	0.80	109.2	Pulse	0.30	3
2	Bi		2,495,700.39	0.82	107.6	Pulse	0.30	3
3	Sc		246,599.73	0.47	127.1	Pulse	0.30	3
3	Ge		148,377.06	0.60	125.5	Pulse	0.30	3
3	Ge		223,295.76	0.67	123.9	Pulse	0.30	3
3	Rh		2,832,210.51	0.18	120.3	Pulse	0.30	3
3	Tb		4,285,707.19	0.57	114.0	Pulse	0.30	3

Quantitation Report

File Name 040SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 15:03
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	1059.00	16.00	3.280E-06	Pulse	0.25	3
B			1	-0.025	ug/l	-280.92	32,616.08	6.471E-03	Pulse	0.15	3
Ca			1	0.107	ug/l	320.85	15,507.76	2.778E-03	Pulse	0.10	3
Sr			1	0.001	ug/l	118.51	816.72	1.196E-04	Pulse	0.10	3
Mo			1	0.012	ug/l	49.56	306.68	4.501E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	37.05	156.68	2.107E-05	Pulse	0.10	3
Sn			1	-0.162	ug/l	-17.64	5,299.64	7.125E-04	Pulse	0.10	3
Sb			1	-0.020	ug/l	-11.06	986.74	1.024E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	235.81	60.00	6.197E-06	Pulse	0.10	3
Tl			1	0.003	ug/l	49.52	496.70	8.772E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	15.13	450.03	7.949E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	438.79	396.69	7.003E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	57.52	1,760.12	3.109E-04	Pulse	0.10	3
Na			2	0.221	ug/l	55.31	8,284.33	4.326E-02	Pulse	0.30	3
Mg			2	-0.619	ug/l	-3.48	288.90	1.508E-03	Pulse	0.30	3
Al			2	-0.644	ug/l	-26.33	94.45	4.941E-04	Pulse	0.30	3
K			2	1.784	ug/l	35.10	10,695.74	5.586E-02	Pulse	0.30	3
Ca			2	-1.157	ug/l	-53.19	60.00	3.137E-04	Pulse	0.30	3
Ti			2	-0.022	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.021	ug/l	17.19	616.69	3.220E-03	Pulse	0.30	3
Cr			2	0.000	ug/l	37671.42	1,087.83	5.678E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-43.07	34.44	1.797E-04	Pulse	0.30	3
Fe			2	-0.746	ug/l	-2.24	4,343.95	2.268E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-515.82	98.89	5.155E-04	Pulse	0.30	3
Ni			2	0.002	ug/l	188.26	56.67	2.956E-04	Pulse	0.30	3
Cu			2	0.011	ug/l	137.35	711.26	3.719E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.033	ug/l	96.59	257.78	1.345E-03	Pulse	0.30	3
As			2	0.011	ug/l	90.69	22.33	1.165E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-153.03	9.98	1.000E-05	Pulse	0.30	3
Sn			2	0.010	ug/l	246.94	844.48	8.472E-04	Pulse	0.30	3
Se			3	0.073	ug/l	27.02	44.60	1.992E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		5,047,487.31	5.54	116.7	Analog	0.10	3
1	Sc		5,584,560.13	1.31	116.1	Analog	0.10	3
1	Ge		996,269.96	0.84	118.8	Pulse	0.10	3
1	Ge		1,374,510.65	0.80	118.3	Pulse	0.10	3
1	Rh		6,822,742.81	0.69	115.9	Analog	0.10	3
1	In		7,441,736.96	0.82	118.7	Analog	0.10	3
1	Tb		9,630,473.82	1.38	116.3	Analog	0.10	3
1	Ho		974,442.17	0.49	119.1	Pulse	0.10	3
1	Bi		5,662,333.04	0.62	114.5	Mix	0.10	3
2	Sc		191,509.93	0.77	114.4	Pulse	0.30	3
2	Ge		104,214.47	0.80	116.2	Pulse	0.30	3
2	Ge		157,318.78	0.42	116.7	Pulse	0.30	3
2	Rh		3,169,613.83	0.37	114.2	Pulse	0.30	3
2	In		996,871.16	0.23	109.3	Pulse	0.30	3
2	Tb		3,759,863.05	0.28	107.6	Pulse	0.30	3
2	Ho		375,191.08	0.29	108.3	Pulse	0.30	3
2	Bi		2,502,536.92	0.26	107.9	Pulse	0.30	3
3	Sc		245,508.61	0.67	126.5	Pulse	0.30	3
3	Ge		148,139.07	1.37	125.3	Pulse	0.30	3
3	Ge		223,996.16	0.62	124.3	Pulse	0.30	3
3	Rh		2,803,467.80	0.25	119.0	Pulse	0.30	3
3	Tb		4,262,859.83	0.95	113.4	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 15:08
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	39.67	21.33	4.332E-06	Pulse	0.25	3
B			1	-0.276	ug/l	-15.07	27,093.17	5.497E-03	Pulse	0.15	3
Ca			1	-0.090	ug/l	-202.52	15,090.67	2.712E-03	Pulse	0.10	3
Sr			1	0.002	ug/l	104.39	813.38	1.212E-04	Pulse	0.10	3
Mo			1	0.004	ug/l	101.94	176.67	2.631E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	80.56	166.67	2.262E-05	Pulse	0.10	3
Sn			1	-0.200	ug/l	-2.78	4,347.47	5.881E-04	Pulse	0.10	3
Sb			1	-0.037	ug/l	-9.74	533.36	5.466E-05	Pulse	0.10	3
Ba			1	0.001	ug/l	188.26	53.33	5.465E-06	Pulse	0.10	3
Tl			1	0.001	ug/l	67.57	373.35	6.625E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	255.66	376.69	6.682E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-267.38	366.69	6.500E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-62.71	1,453.42	2.577E-04	Pulse	0.10	3
Na			2	0.108	ug/l	44.81	8,039.77	4.200E-02	Pulse	0.30	3
Mg			2	-0.731	ug/l	-3.61	177.78	9.292E-04	Pulse	0.30	3
Al			2	-0.680	ug/l	-16.51	83.33	4.355E-04	Pulse	0.30	3
K			2	1.456	ug/l	26.73	10,505.61	5.488E-02	Pulse	0.30	3
Ca			2	-1.085	ug/l	-41.23	62.22	3.254E-04	Pulse	0.30	3
Ti			2	-0.003	ug/l	-601.15	4.45	2.332E-05	Pulse	0.30	3
V			2	0.016	ug/l	21.69	584.46	3.053E-03	Pulse	0.30	3
Cr			2	-0.002	ug/l	-152.69	1,072.27	5.601E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	-1389.24	44.44	2.319E-04	Pulse	0.30	3
Fe			2	-0.775	ug/l	-2.06	4,100.56	2.142E-02	Pulse	0.30	3
Co			2	0.001	ug/l	171.61	125.56	6.559E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	231.82	58.89	3.082E-04	Pulse	0.30	3
Cu			2	-0.004	ug/l	-79.95	518.91	2.711E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.016	ug/l	-147.08	176.67	9.237E-04	Pulse	0.30	3
As			2	0.001	ug/l	1174.11	13.67	7.124E-05	Pulse	1.00	3
Cd			2	-0.003	ug/l	-49.74	4.43	4.431E-06	Pulse	0.30	3
Sn			2	0.000	ug/l	-1349.49	802.25	8.027E-04	Pulse	0.30	3
Se			3	0.140	ug/l	30.64	63.07	2.825E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,931,411.86	3.26	114.1	Analog	0.10	3
1	Sc		5,565,005.75	1.37	115.7	Analog	0.10	3
1	Ge		988,226.63	0.23	117.8	Pulse	0.10	3
1	Ge		1,361,151.54	1.12	117.1	Pulse	0.10	3
1	Rh		6,712,466.15	0.58	114.0	Analog	0.10	3
1	In		7,393,470.32	1.45	118.0	Analog	0.10	3
1	Tb		9,747,796.73	0.78	117.7	Analog	0.10	3
1	Ho		968,067.20	1.05	118.3	Pulse	0.10	3
1	Bi		5,640,297.21	1.20	114.1	Analog	0.10	3
2	Sc		191,433.56	0.69	114.3	Pulse	0.30	3
2	Ge		103,549.52	1.05	115.5	Pulse	0.30	3
2	Ge		157,242.67	0.72	116.6	Pulse	0.30	3
2	Rh		3,189,797.10	0.50	115.0	Pulse	0.30	3
2	In		999,416.79	0.34	109.6	Pulse	0.30	3
2	Tb		3,792,901.79	0.22	108.5	Pulse	0.30	3
2	Ho		376,463.24	0.76	108.7	Pulse	0.30	3
2	Bi		2,500,948.58	0.20	107.8	Pulse	0.30	3
3	Sc		246,095.59	0.27	126.8	Pulse	0.30	3
3	Ge		148,078.42	0.69	125.3	Pulse	0.30	3
3	Ge		223,239.12	0.29	123.9	Pulse	0.30	3
3	Rh		2,808,314.05	0.24	119.2	Pulse	0.30	3
3	Tb		4,270,502.61	0.53	113.6	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 15:13
Sample Name mp12514-ps1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.262	ug/l	1.83	670,853.23	1.451E-01	Pulse	0.25	3
B			1	95.569	ug/l	1.23	887,989.34	1.920E-01	Pulse	0.15	3
Ca			1	7351.911	ug/l	0.95	6,607,999.49	1.230E+00	Analog	0.10	3
Sr			1	123.768	ug/l	1.05	4,530,823.68	7.270E-01	Pulse	0.10	3
Mo			1	85.589	ug/l	0.36	600,343.87	9.633E-02	Pulse	0.10	3
Ag			1	81.034	ug/l	1.03	1,593,923.10	2.317E-01	Pulse	0.10	3
Sn			1	85.012	ug/l	0.36	975,924.49	1.419E-01	Pulse	0.10	3
Sb			1	77.394	ug/l	0.34	1,013,467.80	1.078E-01	Pulse	0.10	3
Ba			1	131.870	ug/l	1.49	708,956.27	7.540E-02	Pulse	0.10	3
Tl			1	85.982	ug/l	0.21	2,820,176.32	5.104E-01	Pulse	0.10	3
Pb			1	88.179	ug/l	0.88	984,197.88	1.781E-01	Pulse	0.10	3
Pb			1	87.479	ug/l	0.70	866,692.20	1.569E-01	Pulse	0.10	3
Pb			1	88.805	ug/l	0.64	3,968,680.88	7.183E-01	Pulse	0.10	3
Na			2	8782.135	ug/l	1.01	8,803,399.37	4.914E+01	Analog	0.30	3
Mg			2	6587.607	ug/l	1.36	3,041,887.24	1.698E+01	Pulse	0.30	3
Al			2	10542.736	ug/l	1.03	1,527,312.40	8.526E+00	Pulse	0.30	3
K			2	5895.997	ug/l	1.07	1,575,425.53	8.794E+00	Pulse	0.30	3
Ca			2	7733.410	ug/l	0.75	111,923.82	6.248E-01	Pulse	0.30	3
Ti			2	300.059	ug/l	4.85	32,306.51	1.804E-01	Pulse	0.30	3
V			2	97.951	ug/l	1.10	333,868.94	1.864E+00	Pulse	0.30	3
Cr			2	97.441	ug/l	1.43	438,255.31	2.447E+00	Pulse	0.30	3
Mn			2	354.434	ug/l	1.63	812,100.49	4.534E+00	Pulse	0.30	3
Fe			2	8902.965	ug/l	0.99	35,138,839.71	1.962E+02	Analog	0.30	3
Co			2	87.522	ug/l	1.40	678,433.52	3.787E+00	Pulse	0.30	3
Ni			2	87.558	ug/l	1.47	188,034.87	1.050E+00	Pulse	0.30	3
Cu			2	82.885	ug/l	1.11	491,152.08	2.742E+00	Pulse	0.30	3
Zn			2	98.985	ug/l	0.54	77,378.64	4.319E-01	Pulse	0.30	3
As			2	75.631	ug/l	1.55	30,128.94	1.682E-01	Pulse	1.00	3
Cd			2	80.507	ug/l	0.90	90,301.87	9.833E-02	Pulse	0.30	3
Sn			2	84.472	ug/l	0.73	172,804.72	1.882E-01	Pulse	0.30	3
Se			3	341.212	ug/l	0.10	44,931.98	2.114E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,624,137.79	0.92	107.0	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,372,004.92	1.02	111.7	Mix	0.10	3
1	Ge		934,190.67	0.65	111.4	Pulse	0.10	3
1	Ge		1,287,721.93	0.63	110.8	Pulse	0.10	3
1	Rh		6,232,075.11	0.85	105.8	Analog	0.10	3
1	In		6,878,915.91	1.97	109.7	Analog	0.10	3
1	Tb		9,402,761.11	0.23	113.5	Analog	0.10	3
1	Ho		951,156.86	1.62	116.2	Pulse	0.10	3
1	Bi		5,525,144.71	0.78	111.7	Pulse	0.10	3
2	Sc		179,147.00	0.78	107.0	Pulse	0.30	3
2	Ge		96,462.10	0.16	107.6	Pulse	0.30	3
2	Ge		144,115.47	0.68	106.9	Pulse	0.30	3
2	Rh		2,931,963.56	0.37	105.7	Pulse	0.30	3
2	In		918,352.32	0.36	100.7	Pulse	0.30	3
2	Tb		3,591,257.91	0.62	102.7	Pulse	0.30	3
2	Ho		362,150.18	0.35	104.6	Pulse	0.30	3
2	Bi		2,328,805.81	0.51	100.4	Pulse	0.30	3
3	Sc		240,910.21	0.52	124.2	Pulse	0.30	3
3	Ge		139,794.06	0.73	118.2	Pulse	0.30	3
3	Ge		212,584.86	0.35	118.0	Pulse	0.30	3
3	Rh		2,627,374.97	0.26	111.6	Pulse	0.30	3
3	Tb		4,178,687.06	0.90	111.1	Pulse	0.30	3

Quantitation Report

File Name 043SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 15:18
Sample Name jc82216-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.063	ug/l	7.22	580.02	1.286E-04	Pulse	0.25	3
B			1	182.795	ug/l	0.40	1,629,142.61	3.613E-01	Pulse	0.15	3
Ca			1	51022.252	ug/l	0.67	45,752,404.32	8.521E+00	Analog	0.10	3
Sr			1	614.266	ug/l	1.22	20,400,157.61	3.608E+00	Analog	0.10	3
Mo			1	4.841	ug/l	3.00	30,900.67	5.466E-03	Pulse	0.10	3
Ag			1	0.065	ug/l	11.87	1,276.77	1.974E-04	Pulse	0.10	3
Sn			1	0.073	ug/l	71.45	8,859.47	1.370E-03	Pulse	0.10	3
Sb			1	0.761	ug/l	4.52	10,814.07	1.216E-03	Pulse	0.10	3
Ba			1	46.477	ug/l	0.83	236,389.70	2.658E-02	Pulse	0.10	3
Tl			1	0.040	ug/l	3.91	1,333.44	2.947E-04	Pulse	0.10	3
Pb			1	1.260	ug/l	2.44	11,798.41	2.609E-03	Pulse	0.10	3
Pb			1	1.177	ug/l	1.43	9,850.36	2.178E-03	Pulse	0.10	3
Pb			1	1.214	ug/l	1.58	45,608.91	1.008E-02	Pulse	0.10	3
Na			2	443893.835	ug/l	1.62	454,054,524.18	2.482E+03	Analog	0.30	3
Mg			2	76263.015	ug/l	1.70	35,954,889.68	1.965E+02	Analog	0.30	3
Al			2	738.066	ug/l	2.46	109,450.50	5.983E-01	Pulse	0.30	3
K			2	19205.545	ug/l	0.66	5,220,212.43	2.853E+01	Pulse	0.30	3
Ca			2	53622.659	ug/l	1.46	792,027.09	4.329E+00	Pulse	0.30	3
Ti			2	15.446	ug/l	9.86	1,702.38	9.309E-03	Pulse	0.30	3
V			2	2.428	ug/l	1.01	8,885.83	4.857E-02	Pulse	0.30	3
Cr			2	2.022	ug/l	1.98	10,306.67	5.633E-02	Pulse	0.30	3
Mn			2	11639.991	ug/l	0.11	27,238,993.92	1.489E+02	Analog	0.30	3
Fe			2	1725.181	ug/l	1.06	6,962,250.97	3.805E+01	Analog	0.30	3
Co			2	7.178	ug/l	0.47	56,923.33	3.111E-01	Pulse	0.30	3
Ni			2	13.251	ug/l	1.26	29,101.38	1.591E-01	Pulse	0.30	3
Cu			2	5.254	ug/l	0.86	32,315.17	1.766E-01	Pulse	0.30	3
Zn			2	12.058	ug/l	2.74	9,796.34	5.355E-02	Pulse	0.30	3
As			2	2.067	ug/l	8.85	853.02	4.663E-03	Pulse	1.00	3
Cd			2	0.128	ug/l	10.18	149.44	1.685E-04	Pulse	0.30	3
Sn			2	0.467	ug/l	13.62	1,631.22	1.840E-03	Pulse	0.30	3
Se			3	0.552	ug/l	3.41	86.60	4.507E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,508,774.32	0.40	104.3	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,369,629.09	0.41	111.7	Mix	0.10	3
1	Ge		876,758.03	0.96	104.5	Pulse	0.10	3
1	Ge		1,207,811.05	0.54	103.9	Pulse	0.10	3
1	Rh		5,654,573.25	0.86	96.0	Pulse	0.10	3
1	In		6,466,646.65	0.47	103.2	Analog	0.10	3
1	Tb		8,894,681.12	1.15	107.4	Analog	0.10	3
1	Ho		894,748.68	0.84	109.3	Pulse	0.10	3
1	Bi		4,523,459.62	0.84	91.5	Pulse	0.10	3
2	Sc		182,961.10	0.82	109.3	Pulse	0.30	3
2	Ge		92,464.76	1.26	103.1	Pulse	0.30	3
2	Ge		139,834.17	0.44	103.7	Pulse	0.30	3
2	Rh		2,623,258.44	0.34	94.5	Pulse	0.30	3
2	In		886,700.10	0.25	97.2	Pulse	0.30	3
2	Tb		3,465,272.01	0.19	99.1	Pulse	0.30	3
2	Ho		348,885.71	0.22	100.7	Pulse	0.30	3
2	Bi		1,966,137.98	0.24	84.7	Pulse	0.30	3
3	Sc		232,378.71	0.70	119.8	Pulse	0.30	3
3	Ge		127,319.07	0.56	107.7	Pulse	0.30	3
3	Ge		192,120.16	0.13	106.6	Pulse	0.30	3
3	Rh		2,229,909.70	0.67	94.7	Pulse	0.30	3
3	Tb		3,737,543.74	0.10	99.4	Pulse	0.30	3

Quantitation Report

File Name 044SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 15:23
Sample Name jc82216-3f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	36.01	104.00	2.316E-05	Pulse	0.25	3
B			1	211.232	ug/l	0.73	1,871,899.85	4.165E-01	Pulse	0.15	3
Ca			1	58557.305	ug/l	0.72	53,085,790.87	9.778E+00	Analog	0.10	3
Sr			1	709.102	ug/l	0.63	23,608,020.48	4.165E+00	Analog	0.10	3
Mo			1	5.188	ug/l	2.28	33,191.96	5.856E-03	Pulse	0.10	3
Ag			1	0.039	ug/l	13.13	800.05	1.229E-04	Pulse	0.10	3
Sn			1	0.062	ug/l	67.87	8,809.47	1.352E-03	Pulse	0.10	3
Sb			1	0.490	ug/l	7.15	7,485.43	8.383E-04	Pulse	0.10	3
Ba			1	47.622	ug/l	1.65	243,245.41	2.723E-02	Pulse	0.10	3
Tl			1	0.023	ug/l	16.86	853.39	1.901E-04	Pulse	0.10	3
Pb			1	0.116	ug/l	4.88	1,340.12	2.986E-04	Pulse	0.10	3
Pb			1	0.102	ug/l	3.52	1,126.76	2.511E-04	Pulse	0.10	3
Pb			1	0.113	ug/l	0.24	5,287.25	1.178E-03	Pulse	0.10	3
Na			2	503084.521	ug/l	0.19	520,709,668.20	2.813E+03	Analog	0.30	3
Mg			2	85964.063	ug/l	1.49	41,005,729.48	2.215E+02	Analog	0.30	3
Al			2	7.721	ug/l	10.61	1,439.08	7.778E-03	Pulse	0.30	3
K			2	21999.023	ug/l	0.48	6,048,916.57	3.268E+01	Analog	0.30	3
Ca			2	61114.634	ug/l	0.95	913,314.37	4.934E+00	Pulse	0.30	3
Ti			2	0.524	ug/l	28.71	63.33	3.416E-04	Pulse	0.30	3
V			2	0.606	ug/l	7.48	2,582.46	1.395E-02	Pulse	0.30	3
Cr			2	0.868	ug/l	1.14	5,074.17	2.741E-02	Pulse	0.30	3
Mn			2	13270.472	ug/l	0.78	31,418,770.97	1.697E+02	Analog	0.30	3
Fe			2	25.650	ug/l	1.09	114,862.61	6.205E-01	Pulse	0.30	3
Co			2	7.274	ug/l	0.99	58,361.67	3.153E-01	Pulse	0.30	3
Ni			2	13.381	ug/l	1.07	29,732.51	1.606E-01	Pulse	0.30	3
Cu			2	4.013	ug/l	0.85	25,099.23	1.356E-01	Pulse	0.30	3
Zn			2	6.013	ug/l	2.93	5,040.83	2.723E-02	Pulse	0.30	3
As			2	1.181	ug/l	4.46	498.68	2.694E-03	Pulse	1.00	3
Cd			2	0.084	ug/l	20.91	102.76	1.151E-04	Pulse	0.30	3
Sn			2	0.546	ug/l	3.89	1,800.12	2.016E-03	Pulse	0.30	3
Se			3	0.624	ug/l	5.37	93.40	4.955E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,494,110.19	0.93	103.9	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,428,865.33	0.23	112.9	Mix	0.10	3
1	Ge		875,457.75	0.90	104.4	Pulse	0.10	3
1	Ge		1,200,077.30	1.23	103.2	Pulse	0.10	3
1	Rh		5,668,227.21	0.08	96.3	Mix	0.10	3
1	In		6,517,506.98	1.52	104.0	Analog	0.10	3
1	Tb		8,932,924.03	1.18	107.9	Analog	0.10	3
1	Ho		899,638.89	0.74	109.9	Pulse	0.10	3
1	Bi		4,488,627.43	1.25	90.8	Pulse	0.10	3
2	Sc		185,116.93	0.96	110.6	Pulse	0.30	3
2	Ge		93,066.02	0.86	103.8	Pulse	0.30	3
2	Ge		139,570.91	0.06	103.5	Pulse	0.30	3
2	Rh		2,614,911.35	0.95	94.2	Pulse	0.30	3
2	In		892,755.75	0.34	97.9	Pulse	0.30	3
2	Tb		3,463,771.18	0.27	99.1	Pulse	0.30	3
2	Ho		347,164.62	0.96	100.2	Pulse	0.30	3
2	Bi		1,933,000.62	0.54	83.3	Pulse	0.30	3
3	Sc		232,207.59	0.43	119.7	Pulse	0.30	3
3	Ge		124,245.71	0.47	105.1	Pulse	0.30	3
3	Ge		188,531.32	0.70	104.6	Pulse	0.30	3
3	Rh		2,204,849.64	0.32	93.6	Pulse	0.30	3
3	Tb		3,701,605.82	0.76	98.5	Pulse	0.30	3

Quantitation Report

File Name	045SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 15:28
Sample Name	jc82500-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.282	ug/l	5.72	2,549.56	5.610E-04	Pulse	0.25	3
B			1	187.885	ug/l	3.03	1,686,974.79	3.712E-01	Pulse	0.15	3
Ca			1	38480.930	ug/l	1.77	36,179,854.46	6.427E+00	Analog	0.10	3
Sr			1	571.431	ug/l	1.20	19,350,933.05	3.356E+00	Analog	0.10	3
Mo			1	6.219	ug/l	0.55	40,448.86	7.016E-03	Pulse	0.10	3
Ag			1	0.087	ug/l	8.46	1,706.83	2.600E-04	Pulse	0.10	3
Sn			1	0.243	ug/l	18.44	10,840.86	1.651E-03	Pulse	0.10	3
Sb			1	0.508	ug/l	1.69	7,728.85	8.646E-04	Pulse	0.10	3
Ba			1	67.668	ug/l	1.90	345,811.51	3.869E-02	Pulse	0.10	3
Tl			1	0.114	ug/l	6.84	3,337.17	7.296E-04	Pulse	0.10	3
Pb			1	6.561	ug/l	1.14	60,909.25	1.331E-02	Pulse	0.10	3
Pb			1	6.277	ug/l	1.90	51,788.50	1.132E-02	Pulse	0.10	3
Pb			1	6.416	ug/l	0.68	238,557.01	5.214E-02	Pulse	0.10	3
Na			2	471384.465	ug/l	1.19	495,007,411.44	2.636E+03	Analog	0.30	3
Mg			2	73817.343	ug/l	0.72	35,729,400.80	1.902E+02	Analog	0.30	3
Al			2	3855.496	ug/l	0.86	585,773.27	3.119E+00	Pulse	0.30	3
K			2	21943.002	ug/l	0.37	6,121,518.23	3.259E+01	Analog	0.30	3
Ca			2	40903.496	ug/l	0.27	620,261.16	3.302E+00	Pulse	0.30	3
Ti			2	86.750	ug/l	4.40	9,797.91	5.216E-02	Pulse	0.30	3
V			2	10.255	ug/l	1.77	37,057.09	1.973E-01	Pulse	0.30	3
Cr			2	8.334	ug/l	0.50	40,274.57	2.144E-01	Pulse	0.30	3
Mn			2	6597.087	ug/l	0.73	15,848,188.81	8.438E+01	Analog	0.30	3
Fe			2	5667.662	ug/l	1.28	23,457,226.85	1.249E+02	Analog	0.30	3
Co			2	9.231	ug/l	0.87	75,118.65	4.000E-01	Pulse	0.30	3
Ni			2	18.623	ug/l	1.06	41,966.80	2.234E-01	Pulse	0.30	3
Cu			2	8.177	ug/l	0.83	51,308.60	2.732E-01	Pulse	0.30	3
Zn			2	30.137	ug/l	0.62	24,838.88	1.322E-01	Pulse	0.30	3
As			2	5.200	ug/l	1.52	2,183.82	1.163E-02	Pulse	1.00	3
Cd			2	0.193	ug/l	7.45	223.51	2.474E-04	Pulse	0.30	3
Sn			2	0.692	ug/l	5.00	2,113.51	2.340E-03	Pulse	0.30	3
Se			3	0.761	ug/l	1.37	112.07	5.800E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,547,324.50	3.23	105.2	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,629,987.42	0.98	117.1	Analog	0.10	3
1	Ge		896,221.60	1.28	106.8	Pulse	0.10	3
1	Ge		1,229,911.60	1.34	105.8	Pulse	0.10	3
1	Rh		5,765,409.91	0.38	97.9	Analog	0.10	3
1	In		6,565,006.29	0.43	104.7	Analog	0.10	3
1	Tb		8,939,600.28	2.00	107.9	Analog	0.10	3
1	Ho		904,404.52	0.73	110.5	Pulse	0.10	3
1	Bi		4,574,913.37	0.78	92.5	Pulse	0.10	3
2	Sc		187,819.66	0.41	112.2	Pulse	0.30	3
2	Ge		94,512.06	1.17	105.4	Pulse	0.30	3
2	Ge		143,252.38	0.67	106.2	Pulse	0.30	3
2	Rh		2,657,879.41	0.24	95.8	Pulse	0.30	3
2	In		903,244.20	0.90	99.0	Pulse	0.30	3
2	Tb		3,500,622.29	0.48	100.2	Pulse	0.30	3
2	Ho		354,308.73	0.67	102.3	Pulse	0.30	3
2	Bi		1,968,661.17	0.48	84.9	Pulse	0.30	3
3	Sc		236,417.00	1.06	121.8	Pulse	0.30	3
3	Ge		128,593.30	0.01	108.8	Pulse	0.30	3
3	Ge		193,210.70	1.37	107.2	Pulse	0.30	3
3	Rh		2,234,879.84	0.79	94.9	Pulse	0.30	3
3	Tb		3,747,640.40	0.76	99.7	Pulse	0.30	3

Quantitation Report

File Name	046SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 15:33
Sample Name	jc82500-1f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	26.31	158.67	3.510E-05	Pulse	0.25	3
B			1	206.105	ug/l	0.46	1,838,554.51	4.066E-01	Pulse	0.15	3
Ca			1	43134.390	ug/l	1.69	39,200,350.25	7.204E+00	Analog	0.10	3
Sr			1	635.446	ug/l	0.39	21,295,139.68	3.732E+00	Analog	0.10	3
Mo			1	6.757	ug/l	2.24	43,490.26	7.622E-03	Pulse	0.10	3
Ag			1	0.026	ug/l	20.46	566.70	8.697E-05	Pulse	0.10	3
Sn			1	-0.154	ug/l	-31.57	6,478.27	9.943E-04	Pulse	0.10	3
Sb			1	0.472	ug/l	2.36	7,328.66	8.138E-04	Pulse	0.10	3
Ba			1	49.227	ug/l	0.49	253,487.88	2.815E-02	Pulse	0.10	3
Tl			1	0.013	ug/l	36.09	610.04	1.352E-04	Pulse	0.10	3
Pb			1	0.086	ug/l	5.12	1,073.41	2.379E-04	Pulse	0.10	3
Pb			1	0.076	ug/l	12.07	920.06	2.040E-04	Pulse	0.10	3
Pb			1	0.085	ug/l	3.85	4,307.08	9.546E-04	Pulse	0.10	3
Na			2	545050.862	ug/l	2.75	562,549,755.42	3.047E+03	Analog	0.30	3
Mg			2	82663.838	ug/l	0.55	39,326,233.99	2.130E+02	Analog	0.30	3
Al			2	12.274	ug/l	5.55	2,115.71	1.146E-02	Pulse	0.30	3
K			2	24421.789	ug/l	0.21	6,695,304.59	3.627E+01	Analog	0.30	3
Ca			2	45905.721	ug/l	0.27	684,184.57	3.706E+00	Pulse	0.30	3
Ti			2	0.687	ug/l	9.48	81.11	4.395E-04	Pulse	0.30	3
V			2	1.926	ug/l	2.93	7,203.88	3.903E-02	Pulse	0.30	3
Cr			2	0.939	ug/l	5.95	5,387.62	2.919E-02	Pulse	0.30	3
Mn			2	7025.653	ug/l	1.59	16,588,173.79	8.986E+01	Analog	0.30	3
Fe			2	32.579	ug/l	0.37	142,722.25	7.731E-01	Pulse	0.30	3
Co			2	5.251	ug/l	1.28	42,043.43	2.278E-01	Pulse	0.30	3
Ni			2	13.218	ug/l	0.92	29,289.43	1.587E-01	Pulse	0.30	3
Cu			2	3.917	ug/l	1.37	24,446.07	1.324E-01	Pulse	0.30	3
Zn			2	3.266	ug/l	2.26	2,820.28	1.528E-02	Pulse	0.30	3
As			2	2.698	ug/l	6.23	1,119.71	6.065E-03	Pulse	1.00	3
Cd			2	0.027	ug/l	53.78	39.95	4.486E-05	Pulse	0.30	3
Sn			2	0.255	ug/l	10.00	1,221.18	1.370E-03	Pulse	0.30	3
Se			3	0.750	ug/l	10.22	107.80	5.734E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,522,140.19	0.30	104.6	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,441,660.33	0.14	113.2	Analog	0.10	3
1	Ge		886,092.28	0.38	105.6	Pulse	0.10	3
1	Ge		1,205,816.88	1.08	103.7	Pulse	0.10	3
1	Rh		5,705,455.54	0.54	96.9	Mix	0.10	3
1	In		6,513,248.17	0.68	103.9	Analog	0.10	3
1	Tb		9,005,177.16	0.12	108.7	Analog	0.10	3
1	Ho		898,737.10	0.66	109.8	Pulse	0.10	3
1	Bi		4,512,124.83	0.46	91.3	Pulse	0.10	3
2	Sc		184,602.55	0.36	110.3	Pulse	0.30	3
2	Ge		92,525.16	0.49	103.2	Pulse	0.30	3
2	Ge		139,250.50	0.70	103.3	Pulse	0.30	3
2	Rh		2,607,983.58	0.83	94.0	Pulse	0.30	3
2	In		891,564.37	0.39	97.8	Pulse	0.30	3
2	Tb		3,461,440.49	0.39	99.0	Pulse	0.30	3
2	Ho		347,221.66	0.17	100.3	Pulse	0.30	3
2	Bi		1,923,585.83	0.41	82.9	Pulse	0.30	3
3	Sc		230,243.73	0.33	118.7	Pulse	0.30	3
3	Ge		124,099.37	1.29	105.0	Pulse	0.30	3
3	Ge		188,044.08	0.64	104.4	Pulse	0.30	3
3	Rh		2,184,643.52	0.17	92.8	Pulse	0.30	3
3	Tb		3,676,280.83	0.55	97.8	Pulse	0.30	3

Quantitation Report

File Name	047SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 15:38
Sample Name	jc82631-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	39.74	62.67	1.355E-05	Pulse	0.25	3
B			1	114.688	ug/l	0.62	1,058,358.81	2.292E-01	Pulse	0.15	3
Ca			1	39768.725	ug/l	1.92	35,799,903.63	6.642E+00	Analog	0.10	3
Sr			1	334.357	ug/l	0.42	12,493,761.06	1.964E+00	Analog	0.10	3
Mo			1	0.381	ug/l	5.89	2,837.04	4.460E-04	Pulse	0.10	3
Ag			1	0.019	ug/l	16.20	463.36	6.503E-05	Pulse	0.10	3
Sn			1	0.752	ug/l	4.94	17,764.00	2.493E-03	Pulse	0.10	3
Sb			1	0.027	ug/l	34.66	1,893.53	1.954E-04	Pulse	0.10	3
Ba			1	23.466	ug/l	1.62	130,001.68	1.342E-02	Pulse	0.10	3
Tl			1	0.007	ug/l	18.74	540.03	9.926E-05	Pulse	0.10	3
Pb			1	0.158	ug/l	3.73	2,083.55	3.829E-04	Pulse	0.10	3
Pb			1	0.145	ug/l	2.46	1,780.17	3.271E-04	Pulse	0.10	3
Pb			1	0.161	ug/l	1.53	8,541.32	1.570E-03	Pulse	0.10	3
Na			2	21652.692	ug/l	1.73	22,078,078.57	1.211E+02	Analog	0.30	3
Mg			2	5270.122	ug/l	0.47	2,476,678.44	1.359E+01	Pulse	0.30	3
Al			2	2.051	ug/l	6.19	582.24	3.194E-03	Pulse	0.30	3
K			2	7364.279	ug/l	0.16	2,000,192.00	1.097E+01	Pulse	0.30	3
Ca			2	41156.040	ug/l	0.51	605,761.83	3.323E+00	Pulse	0.30	3
Ti			2	0.564	ug/l	18.51	66.67	3.656E-04	Pulse	0.30	3
V			2	0.340	ug/l	7.98	1,622.32	8.899E-03	Pulse	0.30	3
Cr			2	1.034	ug/l	3.45	5,757.73	3.158E-02	Pulse	0.30	3
Mn			2	1493.125	ug/l	0.25	3,481,521.81	1.910E+01	Pulse	0.30	3
Fe			2	443.500	ug/l	0.33	1,790,969.30	9.824E+00	Pulse	0.30	3
Co			2	16.199	ug/l	0.50	127,870.43	7.014E-01	Pulse	0.30	3
Ni			2	6.097	ug/l	1.19	13,365.56	7.332E-02	Pulse	0.30	3
Cu			2	14.927	ug/l	0.87	90,461.01	4.962E-01	Pulse	0.30	3
Zn			2	6.022	ug/l	0.30	4,971.93	2.727E-02	Pulse	0.30	3
As			2	18.070	ug/l	1.90	7,335.33	4.024E-02	Pulse	1.00	3
Cd			2	-0.001	ug/l	-1352.77	10.96	1.153E-05	Pulse	0.30	3
Sn			2	1.118	ug/l	7.03	3,117.01	3.285E-03	Pulse	0.30	3
Se			3	0.031	ug/l	109.27	27.80	1.281E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,618,483.37	0.90	106.8	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,390,940.75	1.55	112.1	Mix	0.10	3
1	Ge		952,328.79	0.06	113.5	Pulse	0.10	3
1	Ge		1,304,932.07	0.77	112.3	Pulse	0.10	3
1	Rh		6,361,640.32	0.34	108.0	Analog	0.10	3
1	In		7,126,586.04	0.16	113.7	Analog	0.10	3
1	Tb		9,686,681.73	1.60	117.0	Analog	0.10	3
1	Ho		975,447.28	0.52	119.2	Pulse	0.10	3
1	Bi		5,441,271.17	1.12	110.0	Pulse	0.10	3
2	Sc		182,300.29	0.37	108.9	Pulse	0.30	3
2	Ge		98,137.52	0.77	109.4	Pulse	0.30	3
2	Ge		148,986.01	0.37	110.5	Pulse	0.30	3
2	Rh		2,986,663.98	0.81	107.6	Pulse	0.30	3
2	In		948,813.97	0.49	104.0	Pulse	0.30	3
2	Tb		3,711,841.38	0.96	106.2	Pulse	0.30	3
2	Ho		372,715.40	1.71	107.6	Pulse	0.30	3
2	Bi		2,333,825.53	0.69	100.6	Pulse	0.30	3
3	Sc		244,661.58	1.39	126.1	Pulse	0.30	3
3	Ge		142,929.83	1.07	120.9	Pulse	0.30	3
3	Ge		216,913.48	0.22	120.4	Pulse	0.30	3
3	Rh		2,677,092.95	0.22	113.7	Pulse	0.30	3
3	Tb		4,303,898.30	0.24	114.5	Pulse	0.30	3

Quantitation Report

File Name 048_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 15:43
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.134	ug/l	0.30	868,298.00	1.867E-01	Pulse	0.25	3
B			1	102.628	ug/l	0.59	1,883,310.97	4.049E-01	Pulse	0.15	3
Ca			1	4997.729	ug/l	1.47	9,146,126.32	1.671E+00	Analog	0.10	3
Sr			1	54.784	ug/l	0.76	4,232,511.71	6.436E-01	Pulse	0.10	3
Mo			1	53.855	ug/l	0.92	797,162.36	1.212E-01	Pulse	0.10	3
Ag			1	50.117	ug/l	1.14	2,110,376.59	2.866E-01	Pulse	0.10	3
Sn			1	52.403	ug/l	0.94	1,285,633.37	1.746E-01	Pulse	0.10	3
Sb			1	53.053	ug/l	1.26	1,417,926.23	1.477E-01	Pulse	0.10	3
Ba			1	53.257	ug/l	0.56	584,607.74	6.090E-02	Pulse	0.10	3
Tl			1	52.348	ug/l	0.49	3,473,902.97	6.215E-01	Pulse	0.10	3
Pb			1	51.872	ug/l	0.23	1,171,338.76	2.096E-01	Pulse	0.10	3
Pb			1	51.405	ug/l	0.63	1,030,393.24	1.843E-01	Pulse	0.10	3
Pb			1	52.419	ug/l	0.37	4,739,466.33	8.479E-01	Pulse	0.10	3
Na			2	4886.949	ug/l	2.82	10,445,866.53	5.469E+01	Analog	0.30	3
Mg			2	4634.587	ug/l	0.93	4,563,966.35	2.389E+01	Pulse	0.30	3
Al			2	4509.566	ug/l	1.41	1,393,322.51	7.294E+00	Pulse	0.30	3
K			2	4852.628	ug/l	0.84	2,759,188.92	1.444E+01	Pulse	0.30	3
Ca			2	5123.325	ug/l	0.59	158,112.39	8.277E-01	Pulse	0.30	3
Ti			2	50.419	ug/l	1.14	11,583.05	6.063E-02	Pulse	0.30	3
V			2	52.593	ug/l	0.68	382,313.28	2.001E+00	Pulse	0.30	3
Cr			2	52.103	ug/l	0.77	499,738.54	2.616E+00	Pulse	0.30	3
Mn			2	50.703	ug/l	1.28	247,804.43	1.297E+00	Pulse	0.30	3
Fe			2	4858.566	ug/l	1.35	40,896,138.38	2.141E+02	Analog	0.30	3
Co			2	51.964	ug/l	0.93	859,091.70	4.497E+00	Pulse	0.30	3
Ni			2	50.782	ug/l	1.11	232,582.32	1.218E+00	Pulse	0.30	3
Cu			2	49.124	ug/l	0.69	620,738.62	3.249E+00	Pulse	0.30	3
Zn			2	50.906	ug/l	0.20	84,868.74	4.442E-01	Pulse	0.30	3
As			2	53.023	ug/l	0.87	45,045.66	2.358E-01	Pulse	1.00	3
Cd			2	51.861	ug/l	0.96	126,186.02	1.267E-01	Pulse	0.30	3
Sn			2	53.447	ug/l	0.98	236,970.02	2.379E-01	Pulse	0.30	3
Se			3	190.328	ug/l	0.39	52,279.34	2.358E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,651,200.66	0.96	107.6	Analog	0.10	3
1	Sc		5,472,483.88	1.87	113.8	Analog	0.10	3
1	Ge		987,578.87	1.31	117.7	Pulse	0.10	3

Quantitation Report

1	Ge		1,368,050.71	0.83	117.7	Pulse	0.10	3
1	Rh		6,575,659.90	0.62	111.7	Analog	0.10	3
1	In		7,362,671.04	1.15	117.5	Analog	0.10	3
1	Tb		9,599,420.90	0.61	115.9	Analog	0.10	3
1	Ho		963,830.74	0.93	117.8	Pulse	0.10	3
1	Bi		5,589,438.04	0.95	113.0	Pulse	0.10	3
2	Sc		191,040.17	0.90	114.1	Pulse	0.30	3
2	Ge		104,521.39	0.45	116.6	Pulse	0.30	3
2	Ge		157,776.44	0.73	117.0	Pulse	0.30	3
2	Rh		3,119,227.31	0.40	112.4	Pulse	0.30	3
2	In		996,114.32	0.58	109.2	Pulse	0.30	3
2	Tb		3,817,681.10	0.89	109.2	Pulse	0.30	3
2	Ho		380,203.84	0.80	109.8	Pulse	0.30	3
2	Bi		2,454,358.03	0.75	105.8	Pulse	0.30	3
3	Sc		243,187.63	1.29	125.3	Pulse	0.30	3
3	Ge		146,279.08	0.99	123.7	Pulse	0.30	3
3	Ge		221,728.99	0.20	123.1	Pulse	0.30	3
3	Rh		2,683,641.84	0.53	113.9	Pulse	0.30	3
3	Tb		4,217,320.53	0.77	112.2	Pulse	0.30	3

Quantitation Report

File Name 049_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File
Method Path
Acq Time 2/13/2019 15:48
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/13/2019 16:47
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	37.02	162.67	3.468E-05	Pulse	0.25	3
B			1	1.760	ug/l	6.88	62,712.98	1.340E-02	Pulse	0.15	3
Ca			1	2.501	ug/l	4.85	19,682.21	3.577E-03	Pulse	0.10	3
Sr			1	0.021	ug/l	9.32	2,400.28	3.511E-04	Pulse	0.10	3
Mo			1	0.069	ug/l	19.67	1,190.09	1.741E-04	Pulse	0.10	3
Ag			1	0.010	ug/l	16.07	520.03	6.949E-05	Pulse	0.10	3
Sn			1	-0.162	ug/l	-6.55	5,347.79	7.129E-04	Pulse	0.10	3
Sb			1	0.046	ug/l	32.63	2,787.02	2.850E-04	Pulse	0.10	3
Ba			1	0.024	ug/l	67.77	310.06	3.184E-05	Pulse	0.10	3
Tl			1	0.015	ug/l	13.99	1,363.45	2.386E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	46.99	720.05	1.261E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	19.56	636.71	1.114E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	9.12	2,900.24	5.074E-04	Pulse	0.10	3
Na			2	13.099	ug/l	6.78	35,398.10	1.873E-01	Pulse	0.30	3
Mg			2	0.686	ug/l	13.09	1,556.76	8.236E-03	Pulse	0.30	3
Al			2	-0.277	ug/l	-11.78	205.56	1.088E-03	Pulse	0.30	3
K			2	1.499	ug/l	19.03	10,400.00	5.501E-02	Pulse	0.30	3
Ca			2	1.600	ug/l	46.95	143.34	7.588E-04	Pulse	0.30	3
Ti			2	0.036	ug/l	106.06	13.33	7.041E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-237.95	442.24	2.339E-03	Pulse	0.30	3
Cr			2	-0.003	ug/l	-165.46	1,041.16	5.506E-03	Pulse	0.30	3
Mn			2	0.143	ug/l	15.90	737.81	3.906E-03	Pulse	0.30	3
Fe			2	-0.170	ug/l	-37.79	9,084.83	4.806E-02	Pulse	0.30	3
Co			2	0.007	ug/l	39.17	214.45	1.135E-03	Pulse	0.30	3
Ni			2	0.012	ug/l	41.61	102.22	5.413E-04	Pulse	0.30	3
Cu			2	0.051	ug/l	9.62	1,206.72	6.384E-03	Pulse	0.30	3
Zn			2	0.093	ug/l	39.80	354.45	1.875E-03	Pulse	0.30	3
As			2	0.007	ug/l	61.19	18.67	9.875E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.004	ug/l	51.24	23.26	2.298E-05	Pulse	0.30	3
Sn			2	0.047	ug/l	31.11	1,023.38	1.013E-03	Pulse	0.30	3
Se			3	0.099	ug/l	44.18	51.93	2.318E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,681,998.95	1.83	108.3	Analog	0.10	3
1	Sc		5,502,538.67	0.30	114.4	Analog	0.10	3
1	Ge		998,217.41	0.24	119.0	Pulse	0.10	3
1	Ge		1,375,420.76	0.83	118.3	Pulse	0.10	3
1	Rh		6,834,976.36	1.67	116.1	Analog	0.10	3
1	In		7,497,246.25	2.40	119.6	Analog	0.10	3
1	Tb		9,776,997.98	1.07	118.1	Analog	0.10	3
1	Ho		966,934.18	1.71	118.1	Pulse	0.10	3
1	Bi		5,717,257.42	0.85	115.6	Mix	0.10	3
2	Sc		189,058.32	0.80	112.9	Pulse	0.30	3
2	Ge		105,232.19	0.18	117.3	Pulse	0.30	3
2	Ge		158,800.61	1.19	117.8	Pulse	0.30	3
2	Rh		3,201,598.69	0.38	115.4	Pulse	0.30	3
2	In		1,010,325.06	1.00	110.8	Pulse	0.30	3
2	Tb		3,823,099.43	0.51	109.4	Pulse	0.30	3
2	Ho		382,471.78	0.41	110.4	Pulse	0.30	3
2	Bi		2,531,684.06	0.18	109.1	Pulse	0.30	3
3	Sc		242,540.34	0.71	125.0	Pulse	0.30	3
3	Ge		147,356.23	0.09	124.6	Pulse	0.30	3
3	Ge		223,963.30	0.49	124.3	Pulse	0.30	3
3	Rh		2,819,481.69	0.07	119.7	Pulse	0.30	3
3	Tb		4,287,282.05	0.65	114.0	Pulse	0.30	3

Quantitation Report

File Name	050SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Method File	
Method Path	
Acq Time	2/13/2019 15:53
Sample Name	jc79879-13
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/13/2019 16:47
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

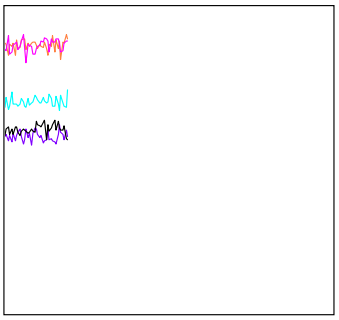
Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	31.59	69.33	1.531E-05	Pulse	0.25	3
B			1	2.829	ug/l	2.60	54,547.42	1.206E-02	Pulse	0.15	3
Ca			1	102.806	ug/l	1.52	104,501.00	1.990E-02	Pulse	0.10	3
Sr			1	0.247	ug/l	1.97	10,103.51	1.554E-03	Pulse	0.10	3
Mo			1	0.085	ug/l	21.14	733.38	1.129E-04	Pulse	0.10	3
Ag			1	0.024	ug/l	5.13	583.37	8.149E-05	Pulse	0.10	3
Sn			1	-0.145	ug/l	-28.33	7,225.29	1.009E-03	Pulse	0.10	3
Sb			1	0.070	ug/l	20.53	2,446.94	2.550E-04	Pulse	0.10	3
Ba			1	0.041	ug/l	15.13	270.01	2.810E-05	Pulse	0.10	3
Tl			1	0.010	ug/l	32.65	650.04	1.147E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	18.26	660.04	1.164E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	49.11	646.71	1.140E-04	Pulse	0.10	3
Pb			1	0.030	ug/l	20.02	2,883.56	5.084E-04	Pulse	0.10	3
Na			2	60.496	ug/l	0.43	68,156.06	3.790E-01	Pulse	0.30	3
Mg			2	12.579	ug/l	2.41	6,673.61	3.711E-02	Pulse	0.30	3
Al			2	1.792	ug/l	11.75	536.68	2.985E-03	Pulse	0.30	3
K			2	13.437	ug/l	6.92	12,676.03	7.049E-02	Pulse	0.30	3
Ca			2	99.283	ug/l	1.67	1,531.20	8.515E-03	Pulse	0.30	3
Ti			2	0.161	ug/l	67.23	22.22	1.237E-04	Pulse	0.30	3
V			2	0.335	ug/l	8.08	1,581.21	8.793E-03	Pulse	0.30	3
Cr			2	0.801	ug/l	3.85	4,628.48	2.574E-02	Pulse	0.30	3
Mn			2	0.376	ug/l	3.97	907.82	5.048E-03	Pulse	0.30	3
Fe			2	1.849	ug/l	3.53	17,311.45	9.627E-02	Pulse	0.30	3
Co			2	0.032	ug/l	8.82	350.01	1.946E-03	Pulse	0.30	3
Ni			2	0.467	ug/l	2.15	1,051.16	5.846E-03	Pulse	0.30	3
Cu			2	0.595	ug/l	5.71	4,073.89	2.266E-02	Pulse	0.30	3
Zn			2	2.018	ug/l	7.52	1,770.12	9.845E-03	Pulse	0.30	3
As			2	0.086	ug/l	10.56	46.67	2.595E-04	Pulse	1.00	3
Cd			2	0.008	ug/l	144.09	21.07	2.193E-05	Pulse	0.30	3
Sn			2	0.302	ug/l	6.03	1,417.87	1.475E-03	Pulse	0.30	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	10000	7266	6887.9	2.30
59	10000	5757	5768.3	2.86
89	10000	8948	8738.3	2.03
140	10000	8861	8730.2	2.22
205	10000	5667	5996.1	2.71
156/140	5	1.998 %	1.512 %	15.73
70/140	10	7.484 %	7.160 %	11.22
9	20	0	0.3	214.41
11	1000	679	614.1	5.47
88	50	27	29.5	19.74
95	20	0	1.8	98.29
107	20	4	2.1	86.54
121	50	11	8.8	47.72
137	20	8	5.5	55.60
208	100	46	43.1	14.24
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.40	L/min	Makeup/Dilution Gas	0.70	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-22	V
Extract 2	-135.0	V	Cell Exit	-60	V
Omega Bias	-75	V	Deflect	15.2	V
Omega Lens	7.0	V	Plate Bias	-45	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.61E+2	Pa	S/C Temp (L)	2.0	℃
TMP Revolution	100.0	%	Carrier Gas(BP)	8.64E+1	kPa
Carrier Gas	0.40	L/min			

US EPA Tune Check Sample Report

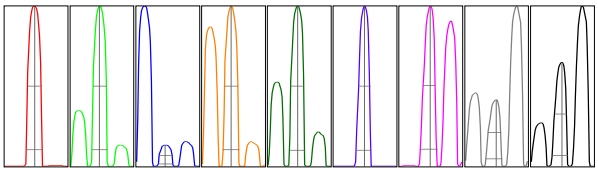
Batch Folder C:\Agilent\ICPMH\1\DATA\xa021319m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	222100	0.45	5.00	
24	571696	0.34	5.00	
25	75130	0.50	5.00	
26	87532	0.61	5.00	
59	707579	0.37	5.00	
115	894508	0.66	5.00	
206	232177	0.52	5.00	
207	213042	0.33	5.00	
208	501741	0.50	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	220395	222793	222316	222824	222174
24	568630	571644	571835	573835	572535
25	74661	75036	75235	75685	75031
26	87015	87407	87266	87551	88423
59	704414	706383	708814	707016	711266
115	885087	894116	898171	900489	894679
206	231011	231893	231150	233715	233114
207	212509	212506	213582	214015	212597
208	497394	502560	502611	503820	502321

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	35959	8.95	8.9 - 9.1		0.767	0.900	
24	95796	23.90	23.9 - 24.1		0.728	0.900	
25	12717	24.90	24.9 - 25.1		0.703	0.900	
26	14643	25.90	25.9 - 26.1		0.740	0.900	
59	120194	58.95	58.9 - 59.1		0.715	0.900	
115	166550	115.00	114.9 - 115.1		0.706	0.900	
206	40764	206.00	205.9 - 206.1		0.768	0.900	
207	36961	207.00	206.9 - 207.1		0.751	0.900	
208	88871	208.00	207.9 - 208.1		0.733	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.40	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

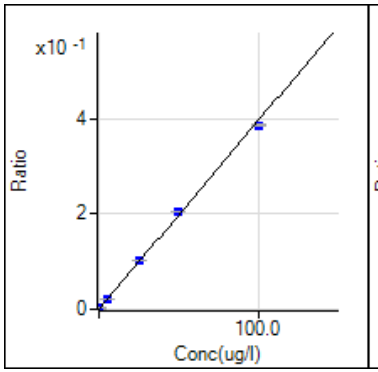
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.0	V			
Extract 2	-135.0	V	Cell Entrance	-22	V			
Omega Bias	-75	V	Cell Exit	-60	V			
Deflect	15.2	V						

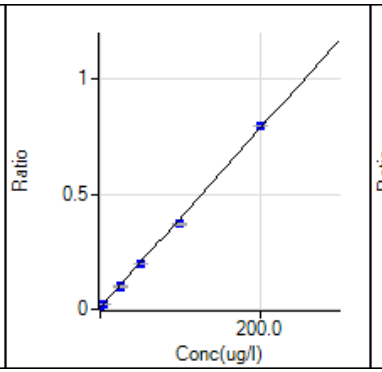
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

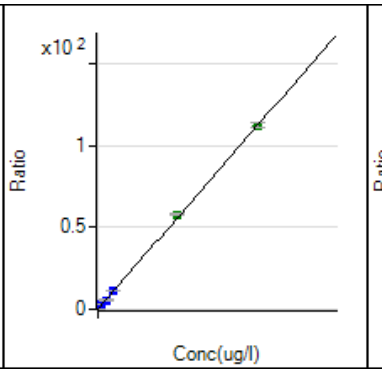
Calibration for C:\Agilent\ICPMH\1\DATA\xa021319m1.b\001CALB.d



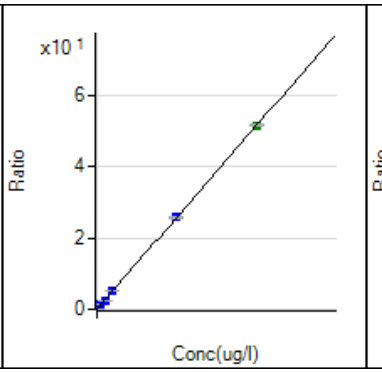
9 Be [1] / ISTD: 6 Li
y = 3.961E-3 x + 2.998E-6
R 0.9995
DL 0.001843
BEC 0.000757



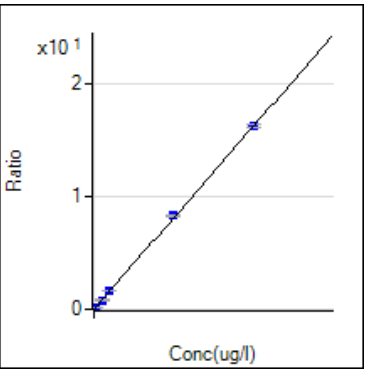
11 B [1] / ISTD: 6 Li
y = 3.882E-3 x + 6.567E-3
R 0.9992
DL 0.06794
BEC 1.692



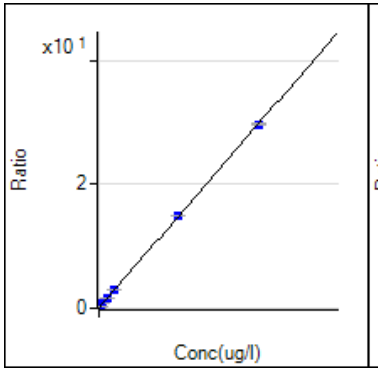
23 Na [2] / ISTD: 45 Sc
y = 1.118E-2 x + 4.079E-2
R 0.9999
DL 0.5012
BEC 3.648



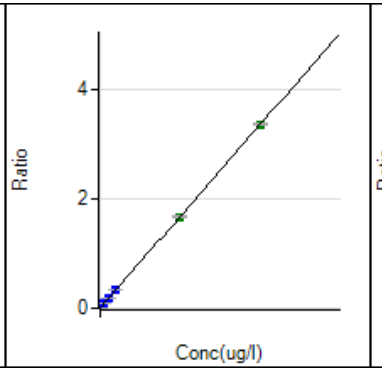
24 Mg [2] / ISTD: 45 Sc
y = 5.154E-3 x + 4.698E-3
R 1.0000
DL 0.4437
BEC 0.9116



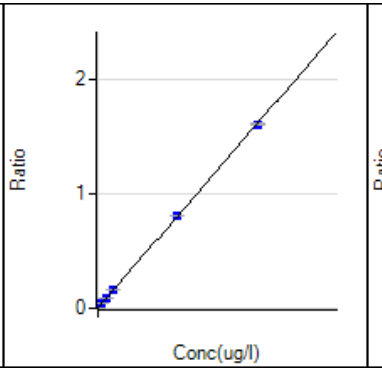
27 Al [2] / ISTD: 45 Sc
y = 1.617E-3 x + 1.536E-3
R 1.0000
DL 0.4241
BEC 0.9497



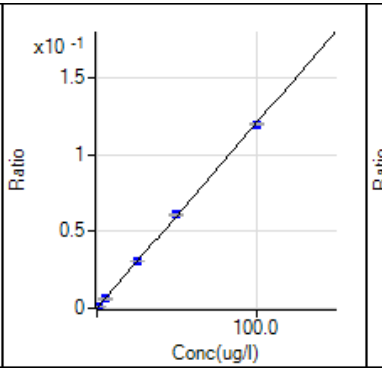
39 K [2] / ISTD: 45 Sc
y = 2.966E-3 x + 5.057E-2
R 1.0000
DL 1.841
BEC 17.05



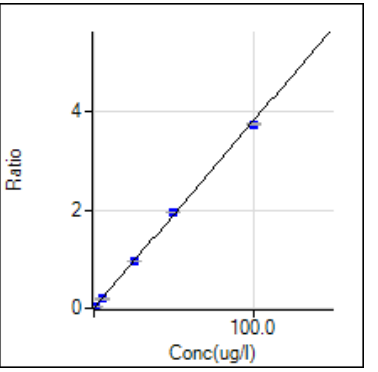
44 Ca [1] / ISTD: 45 Sc
y = 3.339E-4 x + 2.742E-3
R 1.0000
DL 1.186
BEC 8.212



44 Ca [2] / ISTD: 45 Sc
y = 1.615E-4 x + 5.005E-4
R 1.0000
DL 1.913
BEC 3.1

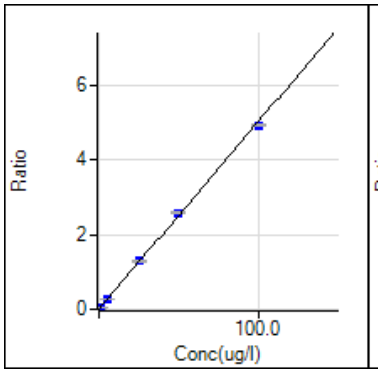


47 Ti [2] / ISTD: 45 Sc
y = 1.202E-3 x + 2.667E-5
R 1.0000
DL 0.07616
BEC 0.02219

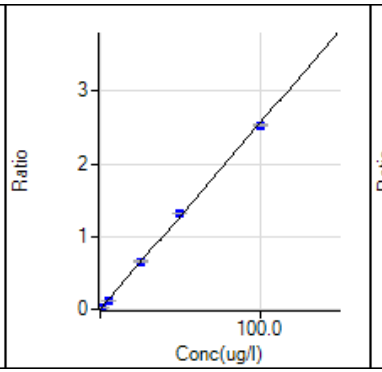


51 V [2] / ISTD: 45 Sc
y = 3.801E-2 x + 2.434E-3
R 0.9998
DL 0.01011
BEC 0.06405

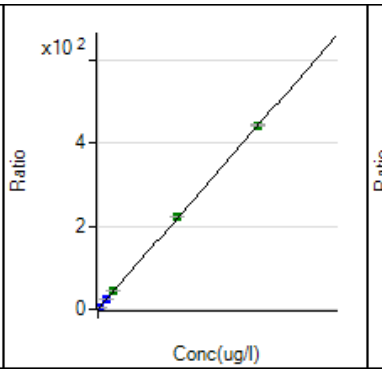
Calibration for C:\Agilent\ICPMH\1\DATA\xa021319m1.b\001CALB.d



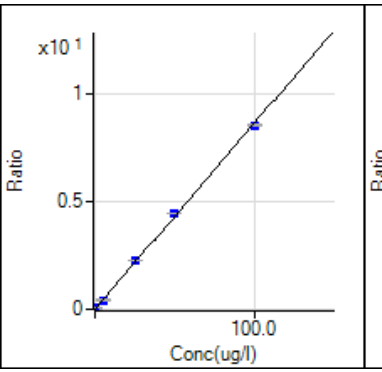
52 Cr [2] / ISTD: 45 Sc
y = 5.010E-2 x + 5.677E-3
R 0.9997
DL 0.03034
BEC 0.1133



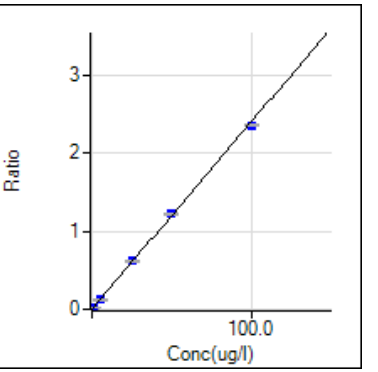
55 Mn [2] / ISTD: 45 Sc
y = 2.558E-2 x + 2.387E-4
R 0.9997
DL 0.003704
BEC 0.00933



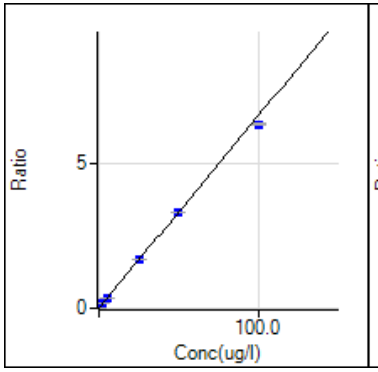
56 Fe [2] / ISTD: 45 Sc
y = 4.405E-2 x + 5.555E-2
R 1.0000
DL 0.3352
BEC 1.261



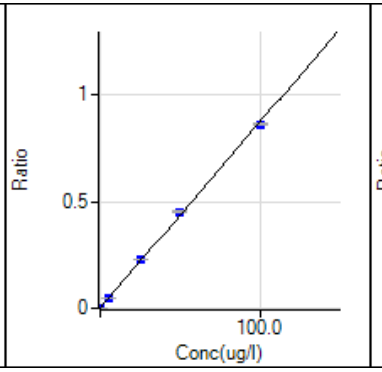
59 Co [2] / ISTD: 45 Sc
y = 8.653E-2 x + 5.521E-4
R 0.9998
DL 0.005779
BEC 0.00638



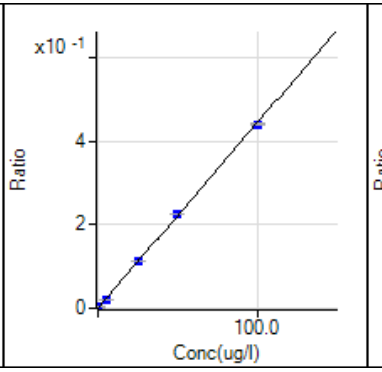
60 Ni [2] / ISTD: 45 Sc
y = 2.397E-2 x + 2.448E-4
R 0.9998
DL 0.004946
BEC 0.01021



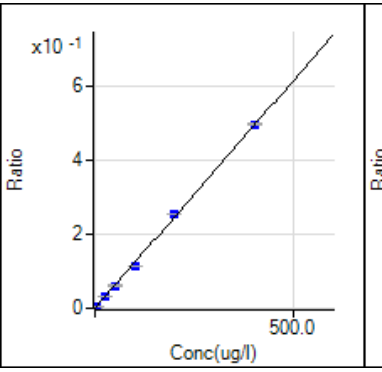
63 Cu [2] / ISTD: 45 Sc
y = 6.609E-2 x + 3.005E-3
R 0.9997
DL 0.02175
BEC 0.04547



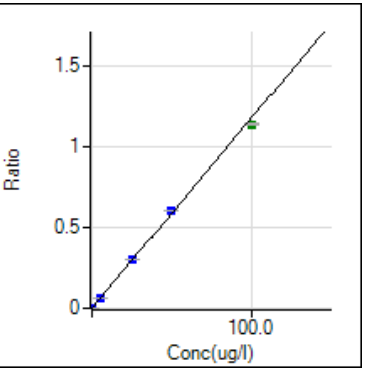
66 Zn [2] / ISTD: 45 Sc
y = 8.706E-3 x + 1.061E-3
R 0.9997
DL 0.04843
BEC 0.1219



75 As [2] / ISTD: 45 Sc
y = 4.446E-3 x + 6.807E-5
R 0.9999
DL 0.01789
BEC 0.01531

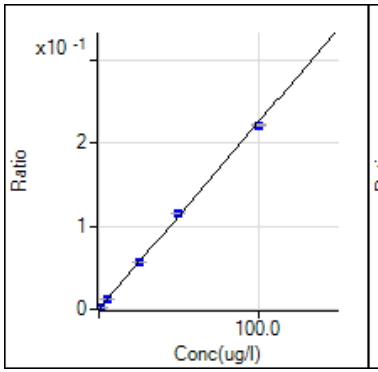


78 Se [3] / ISTD: 74 Ge
y = 1.238E-3 x + 1.090E-4
R 0.9997
DL 0.07588
BEC 0.08804

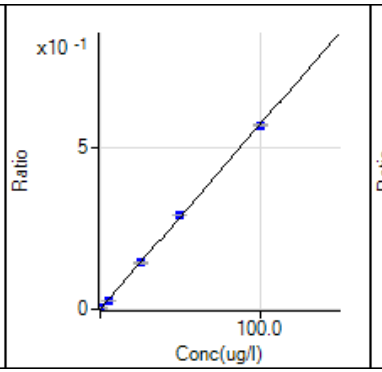


88 Sr [1] / ISTD: 103 Rh
y = 1.175E-2 x + 1.034E-4
R 0.9995
DL 0.002902
BEC 0.008801

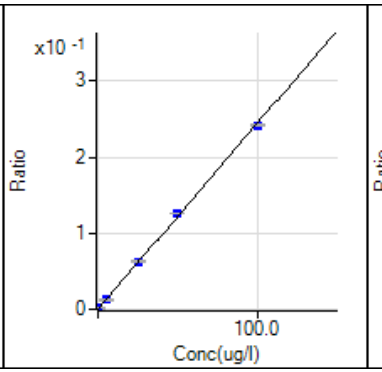
Calibration for C:\Agilent\ICPMH\1\DATA\xa021319m1.b\001CALB.d



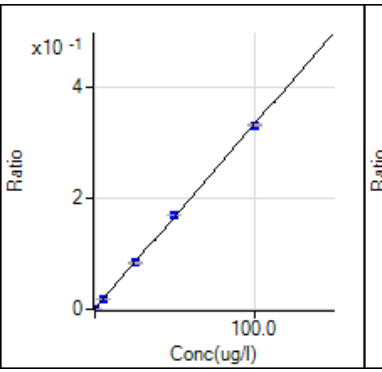
95 Mo [1] / ISTD: 103 Rh
y = 2.251E-3 x + 1.779E-5
R 0.9998
DL 0.01051
BEC 0.007902



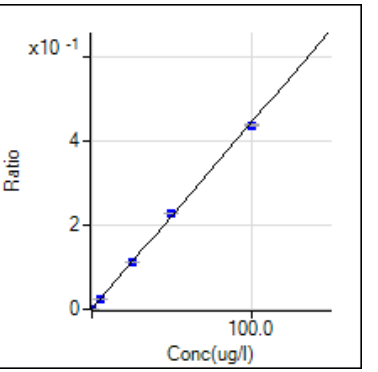
107 Ag [1] / ISTD: 115 In
y = 5.719E-3 x + 1.149E-5
R 1.0000
DL 0.003481
BEC 0.002009



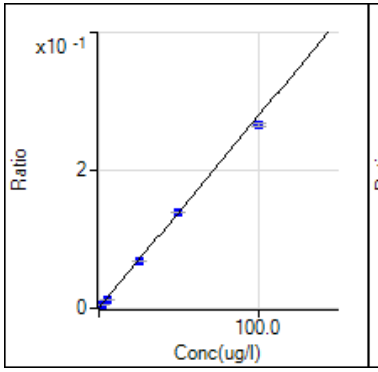
111 Cd [2] / ISTD: 115 In
y = 2.442E-3 x + 1.218E-5
R 0.9998
DL 0.02218
BEC 0.004987



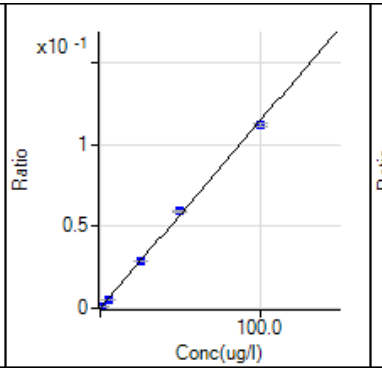
118 Sn [1] / ISTD: 115 In
y = 3.308E-3 x + 1.249E-3
R 0.9999
DL 0.01652
BEC 0.3776



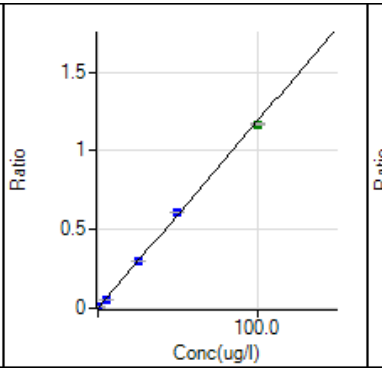
118 Sn [2] / ISTD: 115 In
y = 4.436E-3 x + 8.046E-4
R 0.9998
DL 0.06079
BEC 0.1814



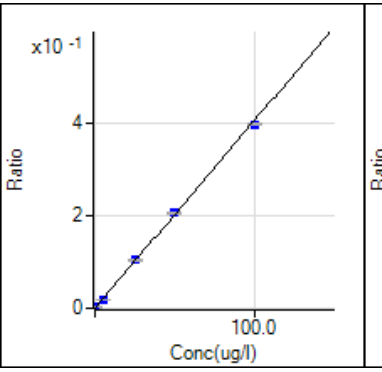
121 Sb [1] / ISTD: 159 Tb
y = 2.781E-3 x + 1.575E-4
R 0.9997
DL 0.01302
BEC 0.05662



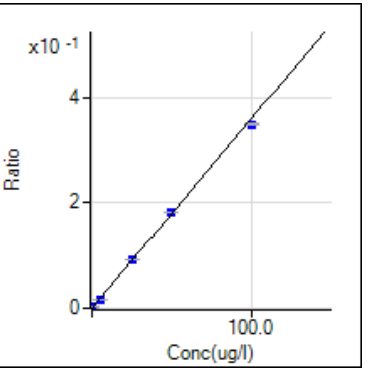
137 Ba [1] / ISTD: 159 Tb
y = 1.143E-3 x + 4.655E-6
R 0.9996
DL 0.01137
BEC 0.004071



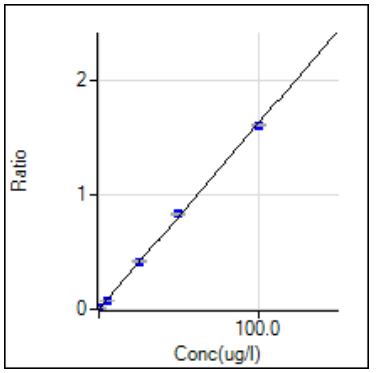
205 Tl [1] / ISTD: 209 Bi
y = 1.187E-2 x + 5.525E-5
R 0.9998
DL 0.002759
BEC 0.004654



206 Pb [1] / ISTD: 209 Bi
y = 4.039E-3 x + 6.461E-5
R 0.9998
DL 0.01913
BEC 0.016



207 Pb [1] / ISTD: 209 Bi
y = 3.585E-3 x + 6.768E-5
R 0.9997
DL 0.01036
BEC 0.01888



208 Pb [1] / ISTD: 209 Bi

y = 1.617E-2 x + 2.680E-4

R	0.9998
DL	0.00386
BEC	0.01657

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP12514	2/12/2019	9:45	2/12/2019	15:10	JC79879-11A	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	8	158274	94	0	94
1	End	8	158274	94	0	94
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812117	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP12514-MB1	N/A	N	50	50	AB		
MP12514-B1	N/A	N	50	50	AB	ABCD	
MP12514-S1	12	Y	10	50	AB	ABCD	CLOUDY/SEDIMENT
MP12514-S2	12	Y	10	50	AB	ABCD	CLOUDY/SEDIMENT
MP12514-SD1	12	Y	10	50	AB		CLOUDY/SEDIMENT
JC79879-10A	11	Y	10	50	AB		CLOUDY/SEDIMENT
JC79879-10AF	24	Y	50	50	AB		
JC79879-11A	12	Y	10	50	AB		CLOUDY/SEDIMENT
JC79879-11AF	24	Y	50	50	AB		
JC79879-12A	10	Y	10	50	AB		CLOUDY/SEDIMENT
JC79879-12AF	22	Y	50	50	AB		
JC79879-13	9	Y	50	50	AB		
JC79879-13F	22	Y	50	50	AB		
JC79879-9A	9	Y	10	50	AB		CLOUDY/SEDIMENT
JC79879-9AF	21	Y	50	50	AB		
JC82216-3	1	Y	50	50	AB		
JC82216-3F	2	Y	50	50	AB		
JC82500-1	1	Y	50	50	AB		
JC82500-1F	2	Y	50	50	AB		
JC82631-1	1	Y	50	50	AB		
MP12514-B2	N/A	N	50	50	AB	EFGHI	
MP12514-B3	N/A	Y	50	50	AB		*FILTERMET 2/2/19
MP12514-MB2	N/A	Y	50	50	AB		*FILTERMET 2/2/19
MP12514-S3	12	Y	10	50	AB	EFGHI	CLOUDY/SEDIMENT
MP12514-S4	12	Y	10	50	AB	EFGHI	CLOUDY/SEDIMENT

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E	MINERALS 1000PPM	0.2
F	AG 20PPM	0.625
G	ACCUTEST 13B REV1	0.2
H	ACCUTEST 14B REV1	0.2

Comments: *SEE FILTRATION MP FOR SPIKE LOT INFORMATION

Analyst TAYLORG **Approved by** Wendyz **Approved on** 2/12/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

Document Control #: NJ-MET-PREP-AQ-01 (2456468.4378704432) Validated by: Validated on:

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP12514	2/12/2019	9:45	2/12/2019	15:10	JC79879-11A	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	8	158274	94	0	94
1	End	8	158274	94	0	94
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812117	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP12514-MB1	N/A	N	50	50	AB		
MP12514-B1	N/A	N	50	50	AB	ABCD	
MP12514-S1	12	Y	10	50	AB	ABCD	CLOUDY/SEDIMENT
MP12514-S2	12	Y	10	50	AB	ABCD	CLOUDY/SEDIMENT
MP12514-SD1	12	Y	10	50	AB		CLOUDY/SEDIMENT
JC79879-10A	11	Y	10	50	AB		CLOUDY/SEDIMENT
JC79879-10AF	24	Y	50	50	AB		
JC79879-11A	12	Y	10	50	AB		CLOUDY/SEDIMENT
JC79879-11AF	24	Y	50	50	AB		
JC79879-12A	10	Y	10	50	AB		CLOUDY/SEDIMENT
JC79879-12AF	22	Y	50	50	AB		
JC79879-13	9	Y	50	50	AB		
JC79879-13F	22	Y	50	50	AB		
JC79879-9A	9	Y	10	50	AB		CLOUDY/SEDIMENT
JC79879-9AF	21	Y	50	50	AB		
JC82216-3	1	Y	50	50	AB		
JC82216-3F	2	Y	50	50	AB		
JC82500-1	1	Y	50	50	AB		
JC82500-1F	2	Y	50	50	AB		
JC82631-1	1	Y	50	50	AB		
MP12514-B2	N/A	N	50	50	AB	EFGHI	
MP12514-B3	N/A	Y	50	50	AB		*FILTERMET 2/2/19
MP12514-MB2	N/A	Y	50	50	AB		*FILTERMET 2/2/19
MP12514-S3	12	Y	10	50	AB	EFGHI	CLOUDY/SEDIMENT
MP12514-S4	12	Y	10	50	AB	EFGHI	CLOUDY/SEDIMENT

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E	MINERALS 1000PPM	0.2
F	AG 20PPM	0.2
G	ACCUTEST 13B REV1	0.2
H	ACCUTEST 14B REV1	0.2
I	SE 20PPM	0.8

Comments: *SEE FILTRATION MP FOR SPIKE LOT INFORMATION

Analyst TAYLORG **Approved by** _____ **Approved on** _____

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

Document Control #: NJ-MET-PREP-AQ-01 (2456468 4378704432) Validated by: Validated on:

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 12514 **Date:** 2/12/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST -13A Rev1)	7/16/2019	MP-015-1129
Spiking Solution - (ACCUTEST -14A Rev1)	7/16/2019	MP-015-1130
Spiking Solution - 5000 mg/l Minerals	11/27/2019	N2-MEB672948 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	K2-SI668066 MFG: INO. VENT
Spiking Solution - Bi 1000ppm	11/5/2019	M2-B1658289 MFG: INO. VENT
Spiking Solution - Se 20ppm	7/3/2019	MP-015-1127
Spiking Solution - Li 1000ppm	1/24/2020	N2-LI665824 MFG: INO. VENT
Spiking Solution- Ag 20 ppm	8/5/2019	MP-015-1132
Spiking Solution - (ACCUTEST -13B Rev1)	6/4/2019	MP-015-1118
Spiking Solution - (ACCUTEST -14B Rev1)	5/19/2019	MP-015-1111
Spiking Solution -1000ppm Minerals	6/4/2019	MP-015-1117
Spiking Solution- P		
Nitric Acid	2/11/2021	LOT: 205793 MFG: BAKER
Nitric Acid (1:1)	8/6/2019	MP-018-42-139 1:1 HNO3
Hydrochloric Acid	2/11/2021	LOT: 214365 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	8/11/2019	MP-018-42-141 1:1 HCL
Hydrogen Peroxide	2/4/2021	LOT: 182019 MFG: FISHER
Soil Lab Control/Soil LC	3/21/2020	LOT : D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 23656541 MFG: CHEMWARE
Digestion Tubes	N/A	LOT: 1812117 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 9802858 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F7NA69768 MFG: FISHER

Spike witnessed By: CH

Validated By:

Validated On:

AA014-06 (Metals Digest Stds)-DAYT-MET-0039-06-FORM-Metals Digestion Reagants Info Log.xls
1/17/18

7.2.1

7

Date 2/13/2019 Analyst QT MP # 12514A

Post spike for ICP Method 6010D

QC sample #

Spiking solution	Elements	Spike added (Y/N)	Vendor	Intermediate Lot #	Exp. Date	Conc. (mg/l)	Amt of Spike added (ml)	Digestate sample volume (ml)	Final Digestate volume in ml (Spike+ Sample)	Final Conc at the instrument (mg/l)
Mixed ICP intermediate Metals Solution (ACCUTEST-13A-REV1)	Ba,Be,B Cd,Cr,Co,Cu,Pb, Mn,Ni,P,Se,Sr,TL, V,Zn	Yes	Inhouse	MP-015-1119	6/7/19	200	0.2	19.25	20	2
Mixed ICP intermediate Metals Solution (ACCUTEST-14A-REV1)	Sb,As,Mo,Sn,Ti, W,Zr	Yes	Inhouse	MP-015-1120	6/7/19	200	0.2			2
Ag Spike Intermediate	Ag	Yes	Inhouse	MP-015-1116	5/28/19	20	0.25			0.25
Metals Mix	Ca,Al,Fe,Mg,K, Na	Yes	Inorganic Ventures	N2-MEB 672948	11/27/19	5000	0.1			25
S spike	S					200	0.2			2
Bi Spike	Bi					200	0.2			2
Li Spike	Li					200	0.2			2
Si spike	Si					1000	0.1			5

Form: DAYT-MET-0095-01-FORM
Rev. Date : 7/10/2018

Reviewed by:

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL), Devens, MA

AC001.M01.05

SGS Job Number: JC84299

Sampling Date: 03/12/19



Report to:

Sovereign Consulting
9 Payson Road Suite 150
Foxborough, MA 02035
SPassafaro@SovCon.com

ATTN: Steve Passafaro

Total number of pages in report: **567**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: JC84299

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01.05

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC84299-1	03/12/19	13:40	CJT	03/12/19	AQ	Effluent	EFFLUENT
JC84299-2	03/12/19	11:49	CJT	03/12/19	AQ	Ground Water	EW-01
JC84299-3	03/12/19	11:50	CJT	03/12/19	AQ	Ground Water	EW-04

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Sovereign Consulting	**Job No**	JC84299
Site:	Shepley's Hill (SHL), Devens, MA	**Report Date**	3/27/2019 6:34:12 PM

On 03/12/2019, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 0.6 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC84299 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

Metals Analysis By Method SW846 6010D

Matrix: AQ **Batch ID:** MP13130

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC84297-1MS, JC84297-1MSD, JC84297-1SDL were used as the QC samples for metals.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP13130A

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC84297-1PS, JC84297-1MS, JC84297-1MSD, JC84297-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic are outside control limits for sample MP13130A-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

General Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP20182

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC83928-1ADUP, JC83928-1AMS were used as the QC samples for Sulfate.

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** GP19895

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC83793-4DUP, JC83793-4MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** R176718

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JC84299-1 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

General Chemistry By Method SM4500NO2 B-11

Matrix:	AQ	Batch ID:	GN92829

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC84257-2DUP, JC84257-2MS were used as the QC samples for Nitrogen, Nitrite.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC84299
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 03/12/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC84299-1	**EFFLUENT**					
Arsenic		38.4	3.0	2.0	ug/l	SW846 6020B
Barium		14.7 J	200	100	ug/l	SW846 6010D
Magnesium		5510	5000	500	ug/l	SW846 6010D
Manganese		43.4	15	5.0	ug/l	SW846 6010D
Chloride		32.6	2.0	1.0	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate [a]		0.098 J	0.11	0.11	mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite		0.098 J	0.10	0.10	mg/l	EPA 353.2/LACHAT
Sulfate		7.9	2.0	1.0	mg/l	EPA 300/SW846 9056A
JC84299-2	**EW-01**					
Arsenic		1610	30	20	ug/l	SW846 6020B
Iron		64600	100	50	ug/l	SW846 6010D
Manganese		2090	15	5.0	ug/l	SW846 6010D
JC84299-3	**EW-04**					
Arsenic		3280	75	50	ug/l	SW846 6020B
Iron		41800	100	50	ug/l	SW846 6010D
Manganese		2420	15	5.0	ug/l	SW846 6010D

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: EFFLUENT
Lab Sample ID: JC84299-1
Matrix: AQ - Effluent
Project: Shepley's Hill (SHL), Devens, MA

Date Sampled: 03/12/19
Date Received: 03/12/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	38.4	3.0	2.0	0.94	ug/l	2	03/14/19	03/15/19	ZC	SW846 6020B [1]	SW846 3010A [4]
Barium	14.7 J	200	100	13	ug/l	1	03/14/19	03/18/19	ND	SW846 6010D [2]	SW846 3010A [3]
Magnesium	5510	5000	500	140	ug/l	1	03/14/19	03/18/19	ND	SW846 6010D [2]	SW846 3010A [3]
Manganese	43.4	15	5.0	1.4	ug/l	1	03/14/19	03/18/19	ND	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA46313
(2) Instrument QC Batch: MA46321
(3) Prep QC Batch: MP13130
(4) Prep QC Batch: MP13130A

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	JC84299-1	**Date Sampled:**	03/12/19
Matrix:	AQ - Effluent	**Date Received:**	03/12/19
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL), Devens, MA		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chloride	32.6	2.0	1.0	0.16	mg/l	1	03/27/19 01:46	NV	EPA 300/SW846 9056A
Nitrogen, Nitrate [a]	0.098 J	0.11	0.11	0.093	mg/l	1	03/14/19 14:58	KI	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.098 J	0.10	0.10	0.090	mg/l	1	03/14/19 14:58	KI	EPA 353.2/LACHAT
Nitrogen, Nitrite	0.0050 U	0.010	0.0050	0.0030	mg/l	1	03/13/19 22:21	MO	SM4500NO2 B-11
Sulfate	7.9	2.0	1.0	0.38	mg/l	1	03/27/19 01:46	NV	EPA 300/SW846 9056A

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: EW-01
Lab Sample ID: JC84299-2
Matrix: AQ - Ground Water
Project: Shepley's Hill (SHL), Devens, MA

Date Sampled: 03/12/19
Date Received: 03/12/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	1610	30	20	9.4	ug/l	20	03/14/19	03/18/19	RP	SW846 6020B [2]	SW846 3010A [4]
Iron	64600	100	50	32	ug/l	1	03/14/19	03/18/19	ND	SW846 6010D [1]	SW846 3010A [3]
Manganese	2090	15	5.0	1.4	ug/l	1	03/14/19	03/18/19	ND	SW846 6010D [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA46321
(2) Instrument QC Batch: MA46322
(3) Prep QC Batch: MP13130
(4) Prep QC Batch: MP13130A

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: EW-04
Lab Sample ID: JC84299-3
Matrix: AQ - Ground Water
Project: Shepley's Hill (SHL), Devens, MA

Date Sampled: 03/12/19
Date Received: 03/12/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3280	75	50	24	ug/l	50	03/14/19	03/18/19	RP	SW846 6020B [2]	SW846 3010A [4]
Iron	41800	100	50	32	ug/l	1	03/14/19	03/18/19	ND	SW846 6010D [1]	SW846 3010A [3]
Manganese	2420	15	5.0	1.4	ug/l	1	03/14/19	03/18/19	ND	SW846 6010D [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA46321
(2) Instrument QC Batch: MA46322
(3) Prep QC Batch: MP13130
(4) Prep QC Batch: MP13130A

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody
- QC Evaluation: DOD QSM5 Limits

SGS

GW

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

PAGE 1 OF 1 E

FED-EX Tracking # 4401 749 5500
Bottle Order Control #
SGS Quote #
SGS Job # JC84299

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Street Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steve Passafaro (spassafaro@sovcon.com) E-mail:
Phone #: (508) 339-3200 Fax #: (
Sampler(s) Name(s): Sovereign Staff Phone #:

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project #: AC001.M01
Client Purchase Order #:
Project Manager: Steve Passafaro

Billing Information (if different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Lab Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Total As - 6020A	Total Ba, Mn, Mg - 6010C	Chloride 300.0	Nitrate - 353.2	Sulfate - 300.0	Total Fe & Mn - 6010C	LAB USE ONLY
1	Effluent		3/12/19	13:40	CJT	GW	5 ~~1~~ 21			X	X	X				X	X	X	X	X		A38
2	EW-01		3/12/19	11:49	CJT	GW	2			X						X					X	B24
3	EW-04		3/12/19	11:50	CJT	GW	2			X						X					X	

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [X] 5 Day RUSH - All
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available via LabLink

Approved by (SGS Project Manager)/Date:

INITIAL ASESSMENT LBO

LABEL VERIFICATION

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [X] Other See QAPP

Commercial "A" = Results Only; Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

See Project QAPP for all specfic project requirements

SGS-ACCUTEST MARLBOR 3/12

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler	Date Time	Received By	Relinquished By	Date Time	Received By
1 [signature]	3/12/19 1500	1 [signature]	2 [signature]	3/12/19 1830	2 FEDEX
3 FEDEX	3/12/19 0930	3 [signature]	4		4
5		5	Custody Seal # 070586	☐ Intact ☐ Not intact	Preserved where applicable ☑ On Ice ☑ Cooler Temp. 1.6°C IP

Form:SM088-03C (revised 2/12/18)

http://www.sgs.com/en/terms-and-conditions.

5.1

5

JC84299: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC84299 **Client:** _____ **Project:** _____

Date / Time Received: 3/12/2019 6:30:00 PM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (1.6);

Cooler Temps (Corrected) °C: Cooler 1: (0.6);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

Sovereign Consulting

Job No: JC84299

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01.05

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC84299-1	Collected: 12-MAR-19 13:40 By: CJT		Received: 12-MAR-19 By: AS			
EFFLUENT						
JC84299-1	SM4500NO2 B-11	13-MAR-19 22:21	MO			NO2
JC84299-1	EPA353.2/SM4500NO2B	14-MAR-19 14:58	KI			NO3O
JC84299-1	EPA 353.2/LACHAT	14-MAR-19 14:58	KI	14-MAR-19	KI	NO32
JC84299-1	SW846 6020B	15-MAR-19 16:11	ZC	14-MAR-19	MR	ASMS
JC84299-1	SW846 6010D	18-MAR-19 16:35	ND	14-MAR-19	MR	BA,MG,MN
JC84299-1	EPA 300/SW846 9056A	27-MAR-19 01:46	NV	26-MAR-19	NV	CHL,SO4
JC84299-2	Collected: 12-MAR-19 11:49 By: CJT		Received: 12-MAR-19 By: AS			
EW-01						
JC84299-2	SW846 6020B	18-MAR-19 12:39	RP	14-MAR-19	MR	ASMS
JC84299-2	SW846 6010D	18-MAR-19 16:40	ND	14-MAR-19	MR	FE,MN
JC84299-3	Collected: 12-MAR-19 11:50 By: CJT		Received: 12-MAR-19 By: AS			
EW-04						
JC84299-3	SW846 6020B	18-MAR-19 12:44	RP	14-MAR-19	MR	ASMS
JC84299-3	SW846 6010D	18-MAR-19 16:46	ND	14-MAR-19	MR	FE,MN

SGS Internal Chain of Custody

Job Number: JC84299
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Received: 03/12/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84299-1.1	Secured Storage	Dwayne Johnson	03/14/19 13:24	Retrieve from Storage
JC84299-1.1	Dwayne Johnson	Secured Staging Area	03/14/19 13:24	Return to Storage
JC84299-1.1	Secured Staging Area	Moustafa Ramadan	03/14/19 17:34	Retrieve from Storage
JC84299-1.1	Moustafa Ramadan	Secured Storage	03/14/19 18:01	Return to Storage
JC84299-1.1.1	Moustafa Ramadan	Metals Digestion	03/14/19 17:45	Digestate from JC84299-1.1
JC84299-1.1.1	Metals Digestion	Moustafa Ramadan	03/14/19 17:45	Digestate from JC84299-1.1
JC84299-1.1.1	Moustafa Ramadan	Metals Digestate Storage	03/14/19 17:45	Return to Storage
JC84299-1.1.1	Metals Digestate Storage	Nancy Duan	03/18/19 12:25	Retrieve from Storage
JC84299-1.1.1	Nancy Duan	Metals Digestate Storage	03/18/19 12:26	Return to Storage
JC84299-1.3	Secured Storage	Dwayne Johnson	03/26/19 12:26	Retrieve from Storage
JC84299-1.3	Dwayne Johnson	Secured Staging Area	03/26/19 12:27	Return to Storage
JC84299-1.3	Secured Staging Area	Natasha Verma	03/26/19 15:09	Retrieve from Storage
JC84299-1.3	Natasha Verma	Secured Storage	03/26/19 18:28	Return to Storage
JC84299-1.4	Secured Storage	Todd Shoemaker	03/14/19 10:29	Retrieve from Storage
JC84299-1.4	Todd Shoemaker	Secured Staging Area	03/14/19 10:30	Return to Storage
JC84299-1.4	Secured Staging Area	Kimberly Ignace	03/14/19 19:41	Retrieve from Storage
JC84299-1.4	Kimberly Ignace	Secured Storage	03/14/19 19:41	Return to Storage
JC84299-1.5	Secured Storage	Sahara Feliciano	03/13/19 18:07	Retrieve from Storage
JC84299-1.5	Sahara Feliciano	Secured Staging Area	03/13/19 18:07	Return to Storage
JC84299-1.5	Secured Staging Area	Michael Olcott	03/13/19 18:19	Retrieve from Storage
JC84299-1.5	Michael Olcott	Secured Storage	03/14/19 00:33	Return to Storage
JC84299-2.1	Secured Storage	Dwayne Johnson	03/14/19 13:24	Retrieve from Storage
JC84299-2.1	Dwayne Johnson	Secured Staging Area	03/14/19 13:24	Return to Storage
JC84299-2.1	Secured Staging Area	Moustafa Ramadan	03/14/19 17:34	Retrieve from Storage
JC84299-2.1	Moustafa Ramadan	Secured Storage	03/14/19 18:01	Return to Storage
JC84299-2.1.1	Moustafa Ramadan	Metals Digestion	03/14/19 17:45	Digestate from JC84299-2.1
JC84299-2.1.1	Metals Digestion	Moustafa Ramadan	03/14/19 17:45	Digestate from JC84299-2.1
JC84299-2.1.1	Moustafa Ramadan	Metals Digestate Storage	03/14/19 17:45	Return to Storage
JC84299-2.1.1	Metals Digestate Storage	Nancy Duan	03/18/19 12:25	Retrieve from Storage
JC84299-2.1.1	Nancy Duan	Metals Digestate Storage	03/18/19 12:26	Return to Storage
JC84299-3.1	Secured Storage	Dwayne Johnson	03/14/19 13:24	Retrieve from Storage
JC84299-3.1	Dwayne Johnson	Secured Staging Area	03/14/19 13:24	Return to Storage
JC84299-3.1	Secured Staging Area	Moustafa Ramadan	03/14/19 17:34	Retrieve from Storage
JC84299-3.1	Moustafa Ramadan	Secured Storage	03/14/19 18:01	Return to Storage
JC84299-3.1.1	Moustafa Ramadan	Metals Digestion	03/14/19 17:45	Digestate from JC84299-3.1
JC84299-3.1.1	Metals Digestion	Moustafa Ramadan	03/14/19 17:45	Digestate from JC84299-3.1

SGS Internal Chain of Custody

Job Number: JC84299
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Received: 03/12/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84299-3.1.1	Moustafa Ramadan	Metals Digestate Storage	03/14/19 17:45	Return to Storage
JC84299-3.1.1	Metals Digestate Storage	Nancy Duan	03/18/19 12:25	Retrieve from Storage
JC84299-3.1.1	Nancy Duan	Metals Digestate Storage	03/18/19 12:26	Return to Storage

QC Evaluation: DOD QSM5 Limits

Job Number: JC84299
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 03/12/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP13130	SW846 6010D						
MP13130-B1	7440-39-3	Barium	BSP	REC	101.5	%	88-113
MP13130-B1	7439-89-6	Iron	BSP	REC	102.4	%	87-115
MP13130-B1	7439-95-4	Magnesium	BSP	REC	103.2	%	85-113
MP13130-B1	7439-96-5	Manganese	BSP	REC	100.5	%	90-114
MP13130-S1*	7440-39-3	Barium	MS	REC	102.1	%	88-113
MP13130-S1*	7439-89-6	Iron	MS	REC	103.2	%	87-115
MP13130-S1*	7439-95-4	Magnesium	MS	REC	102.4	%	85-113
MP13130-S1*	7439-96-5	Manganese	MS	REC	101.9	%	90-114
MP13130-S2*	7440-39-3	Barium	MSD	REC	102.6	%	88-113
MP13130-S2*	7440-39-3	Barium	MSD	RPD	.5	%	20
MP13130-S2*	7439-89-6	Iron	MSD	REC	104.4	%	87-115
MP13130-S2*	7439-89-6	Iron	MSD	RPD	1	%	20
MP13130-S2*	7439-95-4	Magnesium	MSD	REC	104.4	%	85-113
MP13130-S2*	7439-95-4	Magnesium	MSD	RPD	1.3	%	20
MP13130-S2*	7439-96-5	Manganese	MSD	REC	101.4	%	90-114
MP13130-S2*	7439-96-5	Manganese	MSD	RPD	.5	%	20
MP13130A	SW846 6020B						
MP13130A-B2	7440-38-2	Arsenic	BSP	REC	92	%	84-116
MP13130A-S3*	7440-38-2	Arsenic	MS	REC	90	%	84-116
MP13130A-S4*	7440-38-2	Arsenic	MSD	REC	90.7	%	84-116
MP13130A-S4*	7440-38-2	Arsenic	MSD	RPD	.8	%	20
GP20182	EPA 300/SW846 9056A						
GP20182-B1	16887-00-6	Chloride	BSP	REC	96.4	%	87-111
GP20182-B1	14808-79-8	Sulfate	BSP	REC	96.6	%	87-112
GP20182-S1*	14808-79-8	Sulfate	MS	REC	105.1	%	87-112
GP20182-D1*	14808-79-8	Sulfate	DUP	RPD	.3	%	15

* Sample used for QC is not from job JC84299

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:08	MA46313-STD1	1		STDA
12:13	MA46313-STD2	1		STDA
12:18	MA46313-STD3	1		STDB
12:23	MA46313-STD4	1		STDB
12:28	MA46313-STD5	1		STDC
12:33	MA46313-STD6	1		STDD
12:38	MA46313-STD7	1		STDE
12:43	MA46313-STD8	1		STDF
12:48	MA46313-STD9	1		STDG
12:53	MA46313-STD10	1		STDH
12:58	MA46313-STD11	1		STDI
13:03	MA46313-STD12	1		STDJ
13:08	ZZZZZZ	1		
13:17	ZZZZZZ	1		
13:22	MA46313-ICVA1	1		
13:27	MA46313-ICV1	1		60ppb Al.
13:32	MA46313-ICB1	1		
13:37	MA46313-CCVA1	1		
13:42	MA46313-CCB1	1		
13:47	MA46313-CRI1	1		
13:52	MA46313-ICSA1	1		
13:57	MA46313-ICSAB1	1		
14:04	ZZZZZZ	1		
14:09	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:19	ZZZZZZ	1		
14:23	ZZZZZZ	1		
14:30	ZZZZZZ	1		
14:37	MA46313-CCVA2	1		
14:42	MA46313-CCB2	1		
14:47	MP13022-SD1	10		
14:52	MP13130A-MB1	2		
14:57	MP13130A-B2	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:10	MP13130A-S3	2		Ba and Mn overrange
15:15	MP13130A-S4	2		Ba and Mn overrange
15:20	JC84297-1	2		(sample used for QC only; not part of login JC84299)
15:26	MP13130A-SD1	10		
15:32	ZZZZZZ	10		
15:38	ZZZZZZ	10		
15:43	MA46313-CCVA3	1		
15:51	MA46313-CCB3	1		
15:56	ZZZZZZ	10		
16:01	ZZZZZZ	10		
16:06	MP13130A-PS1	2		
16:11	JC84299-1	2		
16:16	JC84299-2	2		overrange
16:20	JC84299-3	2		overrange
---------->	Last reportable sample/prep for job JC84299			
16:26	ZZZZZZ	2		
16:31	ZZZZZZ	2		
16:35	MA46313-CCVA4	1		
16:40	MA46313-CCB4	1		
---------->	Last reportable CCB for job JC84299			
16:46	ZZZZZZ	2		
16:50	MP13123-MB1	5		
16:56	MP13123-B1	5		
17:01	MP13123-S1	5		Need PS for Sb, Ni and Zn
17:05	MP13123-S2	5		
17:10	JC84266-10	5		(sample used for QC only; not part of login JC84299)
17:15	MP13123-SD1	25		
17:20	MA46313-CCVA5	1		
17:25	MA46313-CCB5	1		
17:30	ZZZZZZ	5		
17:35	ZZZZZZ	5		
17:40	ZZZZZZ	5		
17:45	ZZZZZZ	5		
17:50	ZZZZZZ	1		
17:55	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:00	ZZZZZZ	5		
18:05	ZZZZZZ	5		
18:10	ZZZZZZ	5		
18:15	MA46313-CCVA6	1		
18:20	MA46313-CCB6	1		
18:25	MP13125A-MB1	2		
18:30	ZZZZZZ	2		
18:35	MP13125A-S3	2		
18:40	MP13125A-S4	2		
18:45	ZZZZZZ	1		
18:50	JC84271-4	2		(sample used for QC only; not part of login JC84299)
18:55	MP13125A-SD1	10		
19:00	MA46313-CCVA7	1		
19:05	MA46313-CCB7	1		
19:10	ZZZZZZ	2		
19:15	ZZZZZZ	2		
19:20	MP13125A-B3	2		
19:25	ZZZZZZ	2		
19:30	ZZZZZZ	2		
19:35	ZZZZZZ	2		
19:40	MP13061-S3	5		
19:45	MP13061-S4	5		
19:50	ZZZZZZ	5		
19:55	MA46313-CCVA8	1		
20:00	MA46313-CCB8	1		
20:05	ZZZZZZ	5		
20:10	ZZZZZZ	100		
20:15	ZZZZZZ	50		
20:20	ZZZZZZ	50		
20:25	ZZZZZZ	5		
20:30	ZZZZZZ	2		
20:35	ZZZZZZ	10		
20:40	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:45	MA46313-CCVA9	1		
20:50	MA46313-CCB9	1		
20:55	MP13155-MB1	1		
21:00	MP13155-B1	1		
21:05	MP13155-S1	1		
21:10	MP13155-S2	1		
21:15	ZZZZZZ	1		
21:20	JC84397-6	1		(sample used for QC only; not part of login JC84299)
21:25	ZZZZZZ	1		
21:30	ZZZZZZ	1		
21:35	ZZZZZZ	1		
21:40	MA46313-CCVA10	1		
21:45	MA46313-CCB10	1		
21:50	ZZZZZZ	1		
21:55	ZZZZZZ	1		
22:00	ZZZZZZ	1		
22:05	ZZZZZZ	1		
22:10	ZZZZZZ	1		
22:15	ZZZZZZ	1		
22:20	ZZZZZZ	1		
22:25	MA46313-CCVA11	1		
22:30	MA46313-CCB11	1		
22:35	ZZZZZZ	1		
22:40	ZZZZZZ	1		
22:45	ZZZZZZ	1		
22:50	ZZZZZZ	1		
22:55	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Element: Dilution	As
13:08	ZZZZZZ	1	
13:17	ZZZZZZ	1	
13:22	MA46313-ICVA1	1	X
13:27	MA46313-ICV1	1	
13:32	MA46313-ICB1	1	X
13:37	MA46313-CCVA1	1	X
13:42	MA46313-CCB1	1	X
13:47	MA46313-CRI1	1	X
13:52	MA46313-ICSA1	1	X
13:57	MA46313-ICSAB1	1	X
14:04	ZZZZZZ	1	
14:09	ZZZZZZ	1	
14:14	ZZZZZZ	1	
14:19	ZZZZZZ	1	
14:23	ZZZZZZ	1	
14:30	ZZZZZZ	1	
14:37	MA46313-CCVA2	1	X
14:42	MA46313-CCB2	1	X
14:47	MP13022-SD1	10	
14:52	MP13130A-MB1	2	X
14:57	MP13130A-B2	2	X
15:10	MP13130A-S3	2	X
15:15	MP13130A-S4	2	X
15:20	JC84297-1	2	X (a)
15:26	MP13130A-SD1	10	X
15:32	ZZZZZZ	10	
15:38	ZZZZZZ	10	
15:43	MA46313-CCVA3	1	X
15:51	MA46313-CCB3	1	X
15:56	ZZZZZZ	10	
16:01	ZZZZZZ	10	
16:06	MP13130A-PS1	2	X
16:11	JC84299-1	2	X
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Element: Dilution	As	
16:16	JC84299-2	2		
16:20	JC84299-3	2		
16:26	ZZZZZZ	2		
16:31	ZZZZZZ	2		
16:35	MA46313-CCVA4	1	X	
16:40	MA46313-CCB4	1	X	
16:46	ZZZZZZ	2		
16:50	MP13123-MB1	5	X	
16:56	MP13123-B1	5	X	
17:01	MP13123-S1	5	X	
17:05	MP13123-S2	5	X	
17:10	JC84266-10	5	X	(a)
17:15	MP13123-SD1	25	X	
17:20	MA46313-CCVA5	1	X	
17:25	MA46313-CCB5	1	X	
17:30	ZZZZZZ	5		
17:35	ZZZZZZ	5		
17:40	ZZZZZZ	5		
17:45	ZZZZZZ	5		
17:50	ZZZZZZ	1		
17:55	ZZZZZZ	5		
18:00	ZZZZZZ	5		
18:05	ZZZZZZ	5		
18:10	ZZZZZZ	5		
18:15	MA46313-CCVA6	1	X	
18:20	MA46313-CCB6	1	X	
18:25	MP13125A-MB1	2	X	
18:30	ZZZZZZ	2		
18:35	MP13125A-S3	2	X	
18:40	MP13125A-S4	2	X	
18:45	ZZZZZZ	1		
18:50	JC84271-4	2	X	(a)
18:55	MP13125A-SD1	10	X	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Element: Dilution	As
19:00	MA46313-CCVA7	1	X
19:05	MA46313-CCB7	1	X
19:10	ZZZZZZ	2	
19:15	ZZZZZZ	2	
19:20	MP13125A-B3	2	X
19:25	ZZZZZZ	2	
19:30	ZZZZZZ	2	
19:35	ZZZZZZ	2	
19:40	MP13061-S3	5	
19:45	MP13061-S4	5	
19:50	ZZZZZZ	5	
19:55	MA46313-CCVA8	1	X
20:00	MA46313-CCB8	1	X
20:05	ZZZZZZ	5	
20:10	ZZZZZZ	100	
20:15	ZZZZZZ	50	
20:20	ZZZZZZ	50	
20:25	ZZZZZZ	5	
20:30	ZZZZZZ	2	
20:35	ZZZZZZ	10	
20:40	ZZZZZZ	2	
20:45	MA46313-CCVA9	1	X
20:50	MA46313-CCB9	1	X
20:55	MP13155-MB1	1	X
21:00	MP13155-B1	1	X
21:05	MP13155-S1	1	X
21:10	MP13155-S2	1	X
21:15	ZZZZZZ	1	
21:20	JC84397-6	1	(a)
21:25	ZZZZZZ	1	
21:30	ZZZZZZ	1	
21:35	ZZZZZZ	1	
21:40	MA46313-CCVA10	1	X
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Element: Dilution	As
21:45	MA46313-CCB10	1	X
21:50	ZZZZZZ	1	
21:55	ZZZZZZ	1	
22:00	ZZZZZZ	1	
22:05	ZZZZZZ	1	
22:10	ZZZZZZ	1	
22:15	ZZZZZZ	1	
22:20	ZZZZZZ	1	
22:25	MA46313-CCVA11	1	X
22:30	MA46313-CCB11	1	X
22:35	ZZZZZZ	1	
22:40	ZZZZZZ	1	
22:45	ZZZZZZ	1	
22:50	ZZZZZZ	1	
22:55	ZZZZZZ	1	

(a) Sample used for QC only; not part of login JC84299.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
12:08	MA46313-STD1	100	100	100	100	100	100	100	100
12:13	MA46313-STD2	100	100	100	100	100	100	100	100
12:18	MA46313-STD3	97.755	97.565	99.769	99.057	97.972	99.642	100.13	98.637
12:23	MA46313-STD4	98.292	97.589	99.105	98.948	98.387	98.32	98.727	98.23
12:28	MA46313-STD5	97.782	96.096	99.524	99.005	97.145	98.856	98.807	98.291
12:33	MA46313-STD6	97.59	97.732	97.886	97.453	98.206	97.866	97.989	98.909
12:38	MA46313-STD7	95.537	96.155	97.298	95.895	95.89	96.985	96.213	97.322
12:43	MA46313-STD8	94.428	94.045	96.436	95.862	96.016	96.467	94.887	96.964
12:48	MA46313-STD9	92.904	94.133	96.221	96.28	95.015	96.438	96.73	96.762
12:53	MA46313-STD10	93.71	95.397	97.331	95.875	95.374	96.676	96.264	97.621
12:58	MA46313-STD11	92.478	94.98	97.373	95.235	95.147	96.061	94.228	95.291
13:03	MA46313-STD12	91.423	95.033	97.909	94.831	94.426	95.343	93.448	93.888
13:08	ZZZZZZ	93.618	98.233	98.85	98.092	99.174	98.935	98.409	99.123
13:17	ZZZZZZ	95.928	100.067	101.334	98.876	99.853	100.309	99.077	100.19
13:22	MA46313-ICVA1	90.974	94.071	97.445	93.134	95.077	95.375	92.055	96.261
13:27	MA46313-ICV1	91.387	94.483	96.511	95.671	96.441	96.222	96.223	96.779
13:32	MA46313-ICB1	91.479	95.423	98.211	97.893	96.524	97.773	96.848	96.963
13:37	MA46313-CCVA1	89.484	94.061	96.852	95.148	94.597	94.154	93.685	95.748
13:42	MA46313-CCB1	90.955	96.561	97.166	97.288	97.452	96.752	97.476	96.875
13:47	MA46313-CRI1	92.953	96.708	98.591	98.096	97.957	97.49	97.927	98.833
13:52	MA46313-ICSA1	85.378	90.84	89.49	85.667	90.17	84.06	80.427	83.917
13:57	MA46313-ICSAB1	79.102	86.226	85.72	86.76	87.896	82.229	81.565	81.845
14:04	ZZZZZZ	No results reported for the elements associated with this internal standard.							
14:09	ZZZZZZ	No results reported for the elements associated with this internal standard.							
14:14	ZZZZZZ	78.536	87.609	89.842	100.453	94.298	92.565	101.833	95.289
14:19	ZZZZZZ	82.627	91.004	88.813	94.248	92.032	84.651	87.777	86.277
14:23	ZZZZZZ	78.824	89.457	87.791	104.52	95.25	90.958	105.598	96.478
14:30	ZZZZZZ	84.722	94.713	91.929	105.734	99.885	94.231	105.763	100.631
14:37	MA46313-CCVA2	84.705	94.183	91.592	103.392	97.993	91.504	101.028	99.992
14:42	MA46313-CCB2	85.653	94.645	92.244	105.899	99.751	94.118	105.164	100.388
14:47	MP13022-SD1	84.487	94.524	92.962	103.366	98.04	93.5	102.771	99.015
14:52	MP13130A-MB1	83.138	91.001	89.337	106.174	94.321	87.786	103.025	94.848
14:57	MP13130A-B2	84.635	90.962	88.153	105.695	94.572	86.453	101.634	95.952

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
15:10	MP13130A-S3	83.909	92.8	89.09	105.69	92.649	86.149	100.504	94.001
15:15	MP13130A-S4	85.932	94.151	90.408	107.103	94.715	87.425	102.404	94.966
15:20	JC84297-1	86.826	95.187	90.004	107.566	95.608	87.384	103.309	96.145
15:26	MP13130A-SD1	91.499	100.17	97.405	105.447	103.802	97.967	104.878	104.584
15:32	ZZZZZZ	91.926	100.149	96.207	105.117	103.048	94.614	103.512	103.304
15:38	ZZZZZZ	92.637	101.923	97.926	104.29	103.765	96.56	102.859	104.302
15:43	MA46313-CCVA3	90.646	98.79	97.105	103.433	101.089	93.652	100.558	102.245
15:51	MA46313-CCB3	89.452	97.917	95.142	101.784	100.659	94.294	101.265	100.631
15:56	ZZZZZZ	89.64	96.511	93.713	101.945	99.182	91.678	100.009	100.049
16:01	ZZZZZZ	91.953	100.897	97.682	102.151	102.971	96.46	100.416	103.452
16:06	MP13130A-PS1	85.144	93.574	89.064	101.781	93.268	85.061	97.646	94.566
16:11	JC84299-1	87.153	95.472	90.921	104.813	94.668	86.988	99.472	95.417
16:16	JC84299-2	88.977	96.67	90.868	102.395	97.802	87.53	98.077	95.695
16:20	JC84299-3	89.158	97.595	91.961	104.542	98.61	88.727	101.749	97.092
16:26	ZZZZZZ	88.37	99.615	91.356	105.498	99.033	87.83	101.191	97.764
16:31	ZZZZZZ	88.592	98.648	92.893	106.599	98.005	88.949	101.247	98.014
16:35	MA46313-CCVA4	97.011	107.846	104.107	107.648	108.228	99.929	105.482	108.781
16:40	MA46313-CCB4	95.647	106.974	101.367	104.925	106.418	98.736	104.501	107.122
16:46	ZZZZZZ	87.332	98.144	91.084	103.165	96.251	86.655	99.116	96.369
16:50	MP13123-MB1	95.493	104.184	99.513	104.989	106.344	97.103	103.703	106.15
16:56	MP13123-B1	94.348	103.017	97.485	102.692	104.192	94.436	100.042	104.698
17:01	MP13123-S1	92.305	117.207	109.788	112.133	103.263	91.676	93.874	101.413
17:05	MP13123-S2	87.763	112.513	106.303	110.467	98.518	88.545	91.699	96.236
17:10	JC84266-10	89.121	110.729	104.851	108.418	100.207	90.435	94.052	97.57
17:15	MP13123-SD1	93.614	106.069	102.24	102.827	105.725	99.065	99.806	105.193
17:20	MA46313-CCVA5	89.358	100.506	96.373	98.262	100.759	92.165	95.835	101.884
17:25	MA46313-CCB5	93.947	103.865	97.923	101.872	104.943	96.034	100.887	105.031
17:30	ZZZZZZ	86.189	118.161	112.169	113.944	99.528	89.417	91.362	93.843
17:35	ZZZZZZ	89.128	117.992	111.225	115.293	104.062	95.233	98.38	101.971
17:40	ZZZZZZ	84.812	112.453	109.979	113.431	100.031	93.687	95.584	95.184
17:45	ZZZZZZ	81.912	119.077	113.624	116.967	97.352	85.686	88.216	91.961
17:50	ZZZZZZ	82.504	94.71	89.036	95.212	96.69	88.35	94.701	97.148
17:55	ZZZZZZ	81.031	132.522	!a125.24	125.493	100.593	85.919	86.372	90.658

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
18:00	ZZZZZZ	77.511	104.568	98.937	102.176	95.02	86.458	88.258	90.882
18:05	ZZZZZZ	75.665	107.327	101.185	105.202	93.745	84.694	88.008	88.762
18:10	ZZZZZZ	74.886	98.742	93.741	96.751	92.466	83.607	85.299	88.874
18:15	MA46313-CCVA6	76.006	90.413	85.193	89.188	92.733	83.54	87.474	93.773
18:20	MA46313-CCB6	78.564	92.672	87.975	92.726	95.284	87.449	93.463	95.571
18:25	MP13125A-MB1	79.365	92.36	86.89	96.323	94.16	85.065	93.945	94.21
18:30	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:35	MP13125A-S3	68.029 !a	82.995	76.112	86.619	82.395	73.397	83.701	82.793
18:40	MP13125A-S4	68.474 !a	84.083	74.841	87.526	81.797	72.758	83.089	82.456
18:45	ZZZZZZ	73.838	87.893	82.682	89.231	92.51	83.67	90.846	92.261
18:50	JC84271-4	66.735 !a	79.132	72.079	84.207	78.981	70.338	80.288	79.22
18:55	MP13125A-SD1	71.099	84.907	78.507	85.854	87.455	79.344	85.878	88.251
19:00	MA46313-CCVA7	69.829 !a	83.401	77.98	85.405	86.813	78.898	84.196	87.496
19:05	MA46313-CCB7	70.221	83.291	77.569	85.392	87.029	79.36	86.208	87.297
19:10	ZZZZZZ	67.48 !a	76.875	71.881	85.934	81.53	71.624	84.736	81.095
19:15	ZZZZZZ	65.759 !a	78.217	72.19	84.265	80.499	71.14	82.605	79.657
19:20	MP13125A-B3	68.247 !a	79.093	74.095	86.742	83.094	73.539	84.034	83.505
19:25	ZZZZZZ	66.248 !a	78.671	72.273	84.052	80.223	69.835 !a	81.378	79.874
19:30	ZZZZZZ	64.211 !a	76.511	70.096	80.657	76.789	67.346 !a	76.363	76.469
19:35	ZZZZZZ	65.729 !	76.715	72.461	85.995	81.838	72.82	85	81.514
19:40	MP13061-S3	67.574 !a	78.923	73.763	84.279	82.495	74.236	83.732	83.511
19:45	MP13061-S4	68.133 !a	79.555	73.938	83.946	83.369	74.207	83.083	83.65
19:50	ZZZZZZ	67.439 !a	78.78	73.079	83.426	82.745	73.184	82.584	82.86
19:55	MA46313-CCVA8	74.262	88.117	81.639	86.132	89.804	81.748	86.531	91.532
20:00	MA46313-CCB8	74.302	86.756	81.791	88.435	90.513	81.909	88.331	91.431
20:05	ZZZZZZ	67.471 !a	79.135	73.539	84.061	83.273	73.973	83.891	83.264
20:10	ZZZZZZ	69.001 !a	79.219	79.703	86.719	84.808	80.189	88.181	84.816
20:15	ZZZZZZ	71.938	85.525	79.537	86.472	88.037	79.48	85.994	88.625
20:20	ZZZZZZ	72.902	85.559	80.468	86.421	88.755	80.73	86.509	89.318
20:25	ZZZZZZ	76.029	89.481	82.276	87.692	82.133	74.324	79.165	82.516
20:30	ZZZZZZ	72.205	85.102	75.587	87.571	86.872	76.09	86.837	87.304
20:35	ZZZZZZ	76.422	94.163	87.351	89.272	87.384	80.331	81.711	87.669
20:40	ZZZZZZ	69.268 !	81.254	75.065	87.58	84.947	74.722	86.031	85.914

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
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File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
20:45	MA46313-CCVA9	74.59	87.886	81.254	89.702	90.775	81.533	88.155	91.689
20:50	MA46313-CCB9	73.646	87.351	80.564	88.16	90.743	81.064	88.904	90.897
20:55	MP13155-MB1	75.635	89.009	81.956	89.324	92.206	83.375	89.764	92.321
21:00	MP13155-B1	75.382	88.673	82.87	87.862	91.858	82.125	87.66	92.881
21:05	MP13155-S1	70.594	86.847	80.563	85.587	85.678	78.546	82.843	87.177
21:10	MP13155-S2	69.492	87.313	81.118	86.002	86.896	79.427	83.095	87.457
21:15	ZZZZZZ	73.796	89.665	81.958	87.793	92.617	82.822	88.661	92.656
21:20	JC84397-6	72.007	90.035	83.382	87.693	89.654	81.743	86.188	89.741
21:25	ZZZZZZ	70.075	86.941	78.504	83.36	86.237	76.508	81.586	86.694
21:30	ZZZZZZ	72.484	85.36	79.827	87.9	89.531	81.169	88.283	89.926
21:35	ZZZZZZ	86.035	101.269	91.605	92.975	86.48	89.261	99.464	86.387
21:40	MA46313-CCVA10	91.686	104.911	90.343	97.183	105.405	88.595	95.28	106.046
21:45	MA46313-CCB10	64.431	77.135	71.443	85.42	83.9	74.968	87.026	83.907
21:50	ZZZZZZ	65.172	79.456	74.188	84.383	83.34	73.997	82.029	83.424
21:55	ZZZZZZ	66.916	80.033	74.976	86.017	84.456	75.304	84.497	84.587
22:00	ZZZZZZ	69.141	82.448	75.395	86.253	88.603	77.547	87.454	88.225
22:05	ZZZZZZ	67.78	79.753	74.932	85.189	84.974	76.795	85.871	85.61
22:10	ZZZZZZ	68.715	84.508	75.48	83.45	81.93	73.024	80.119	82.407
22:15	ZZZZZZ	72.833	82.599	78.048	88.801	87.852	80.003	88.86	87.944
22:20	ZZZZZZ	73.956	84.461	77.012	87.443	88.444	78.291	87.694	88.847
22:25	MA46313-CCVA11	70.949	82.503	75.288	85.038	87.099	76.003	85.128	87.728
22:30	MA46313-CCB11	72.051	83.523	77.051	87.997	88.091	79.191	89.153	87.977
22:35	ZZZZZZ	73.448	85.177	78.912	87.551	89.468	80.311	88.813	89.369
22:40	ZZZZZZ	75.311	86.272	78.774	89.168	90.384	80.63	89.041	90.961
22:45	ZZZZZZ	75.442	86.8	78.095	87.894	90.9	79.608	88.882	91.315
22:50	ZZZZZZ	75.707	87.554	80.058	89.315	91.428	80.903	89.531	91.501
22:55	ZZZZZZ	75.765	87.507	79.91	89.193	97.134	81.54	89.901	96.928

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#1	Lithium	60-125 %	60-125 %
Istd#2	Scandium (45-1)	60-125 %	60-125 %
Istd#3	Scandium (45-2)	60-125 %	60-125 %
Istd#4	Scandium (45-3)	60-125 %	60-125 %
Istd#5	Germanium (72-1)	60-125 %	60-125 %
Istd#6	Germanium (72-2)	60-125 %	60-125 %
Istd#7	Germanium (72-3)	60-125 %	60-125 %
Istd#8	Germanium (74-1)	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC84299
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Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
12:08	MA46313-STD1	100	100	100	100	100	100	100	100
12:13	MA46313-STD2	100	100	100	100	100	100	100	100
12:18	MA46313-STD3	99.592	98.651	99.049	99.24	100.584	100.553	99.773	97.498
12:23	MA46313-STD4	99.203	98.668	98.078	98.471	98.999	99.423	99.582	98.867
12:28	MA46313-STD5	100.078	98.902	97.527	98.651	99.704	98.319	99.705	95.787
12:33	MA46313-STD6	99.057	97.52	99.397	97.262	98.881	100.369	98.123	98.265
12:38	MA46313-STD7	97.658	95.719	96.681	96.513	97.278	97.307	97.035	98.54
12:43	MA46313-STD8	97.312	95.303	96.028	95.771	96.854	97.459	96.701	97.115
12:48	MA46313-STD9	96.867	96.965	95.849	95.015	97.527	96.964	96.004	97.304
12:53	MA46313-STD10	97.947	97.274	94.453	94.844	96.754	96.526	96.561	95.177
12:58	MA46313-STD11	96.3	94.087	92.157	92.685	93.175	95.002	94.74	94.514
13:03	MA46313-STD12	95.577	93.447	91.626	90.728	90.822	93.786	93.826	94.372
13:08	ZZZZZZ	99.867	98.447	98.972	97.081	99.433	100.729	97.799	97.931
13:17	ZZZZZZ	101.416	99.314	100.126	98.296	99.984	100.009	99.022	99.145
13:22	MA46313-ICVA1	95.998	92.803	92.777	91.085	90.817	94.717	93.265	93.613
13:27	MA46313-ICV1	96.956	96.177	96.412	94.313	97.315	96.704	94.864	97.176
13:32	MA46313-ICB1	98.515	97.674	97.61	95.084	98.231	96.447	96.232	95.157
13:37	MA46313-CCVA1	95.731	93.85	92.369	89.685	91.947	93.431	91.968	93.817
13:42	MA46313-CCB1	97.609	96.728	97.268	94.079	98.695	98.284	94.733	95.046
13:47	MA46313-CRI1	98.563	97.887	98.214	94.243	98.613	99.387	95.321	96.12
13:52	MA46313-ICSA1	81.47	76.959	78.846	72.561	70.994	83.738	79.473	86.218
13:57	MA46313-ICSAB1	79.536	78.258	77.664	71.616	72.045	83.118	77.596	86.993
14:04	ZZZZZZ	No results reported for the elements associated with this internal standard.							
14:09	ZZZZZZ	No results reported for the elements associated with this internal standard.							
14:14	ZZZZZZ	92.888	100.964	96.576	92.537	102.445	99.083	91.705	99.264
14:19	ZZZZZZ	82.263	84.577	81.895	74.162	76.412	87.463	79.392	92.111
14:23	ZZZZZZ	91.373	105.41	98.736	93.058	106.188	102.053	90.179	103.432
14:30	ZZZZZZ	94.974	105.801	102.513	96.063	106.43	106.252	92.766	104.921
14:37	MA46313-CCVA2	92.673	101.475	97.096	89.895	98.809	101.283	89.25	101.891
14:42	MA46313-CCB2	94.754	104.921	101.218	94.427	105.493	103.047	92.293	103.433
14:47	MP13022-SD1	93.872	102.919	95.948	90.179	99.502	99.554	90.272	101.958
14:52	MP13130A-MB1	88.933	102.769	98.323	91.196	106	100.855	87.808	103.452
14:57	MP13130A-B2	87.008	101.302	95.952	88.167	101.557	99.79	85.39	102.127

INTERNAL STANDARD SUMMARY

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Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
15:10	MP13130A-S3	86.959	99.88	91.719	85.772	97.56	94.918	84.502	99.155
15:15	MP13130A-S4	87.865	102.419	92.872	86.555	98.373	97.473	85.355	101.497
15:20	JC84297-1	88.291	103.37	95.311	87.302	100.666	99.547	85.85	102.172
15:26	MP13130A-SD1	98.401	104.588	100.464	92.946	102.593	103.637	92.861	102.626
15:32	ZZZZZZ	95.796	103.16	101.861	93.897	103.499	104.419	92.143	101.965
15:38	ZZZZZZ	97.117	103.343	101.851	93.634	102.068	102.458	92.81	100.755
15:43	MA46313-CCVA3	95.35	100.68	97.704	89.652	97.331	98.947	90.254	97.816
15:51	MA46313-CCB3	94.546	101.447	99.363	91.548	100.799	100.498	91.354	97.281
15:56	ZZZZZZ	92.262	99.73	97.906	90.306	99.946	100.374	89.256	97.753
16:01	ZZZZZZ	96.154	100.738	101.587	92.241	100.575	101.513	91.865	97.652
16:06	MP13130A-PS1	85.859	97.563	91.792	83.721	95.646	94.765	83.741	96.298
16:11	JC84299-1	87.509	99.332	93.598	85.551	97.694	97.091	85.556	98.818
16:16	JC84299-2	87.254	97.229	93.165	84.401	94.473	97.354	84.944	98.122
16:20	JC84299-3	88.594	100.416	95.115	87.087	98.078	98.788	86.523	99.65
16:26	ZZZZZZ	89.041	100.567	96.294	85.944	98.507	99.058	85.186	100.129
16:31	ZZZZZZ	88.758	101.223	96.151	87.389	99.453	100.035	86.34	100.431
16:35	MA46313-CCVA4	100.718	104.818	102.439	93.721	100.081	103.67	94.193	100.373
16:40	MA46313-CCB4	98.875	103.436	104.568	95.07	103.563	105.506	95.442	100.295
16:46	ZZZZZZ	87.181	99.138	94.594	84.854	96.971	98.159	85.016	97.983
16:50	MP13123-MB1	97.719	103.351	103.377	94.099	103.138	104.226	93.247	100.3
16:56	MP13123-B1	94.407	99.985	100.733	90.184	98.243	101.747	90.77	98.184
17:01	MP13123-S1	90.781	93.025	96.577	85.224	89.447	98.541	87.271	94.085
17:05	MP13123-S2	87.217	90.681	92.676	82.261	87.442	94.711	84.212	91.805
17:10	JC84266-10	89.451	92.267	93.325	83.661	88.171	95.008	85.645	91.895
17:15	MP13123-SD1	98.823	99.231	101.071	91.375	95.878	99.389	92.838	94.459
17:20	MA46313-CCVA5	92.408	96.13	96.486	86.684	93.174	98.371	88.293	94.617
17:25	MA46313-CCB5	96.477	100.394	103.069	92.886	100.621	102.488	92.493	98.036
17:30	ZZZZZZ	86.019	87.16	89.181	79.417	83.252	91.728	82.425	88.43
17:35	ZZZZZZ	93.124	96.445	96.597	87.499	92.605	98.794	88.758	94.519
17:40	ZZZZZZ	89.918	91.985	89.691	83.143	86.815	93.017	85.8	89.71
17:45	ZZZZZZ	84.327	86.153	88.358	78.688	82.345	90.588	81.639	87.961
17:50	ZZZZZZ	89.031	94.666	95.481	86.22	95.304	96.57	85.691	91.985
17:55	ZZZZZZ	81.608	82.22	85.51	75.535	78.025	88.66	79.374	88.085

INTERNAL STANDARD SUMMARY

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Analyst: ZC Run ID: MA46313
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Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
18:00	ZZZZZZ	82.938	85.199	87.027	77.362	81.879	89.89	79.569	87.902
18:05	ZZZZZZ	81.282	83.909	85.178	76.689	81.11	87.401	78.75	86.116
18:10	ZZZZZZ	81.487	82.91	85.322	77.145	80.665	87.872	79.463	86.55
18:15	MA46313-CCVA6	83.777	88.332	89.451	80.165	86.597	91.353	81.286	89.307
18:20	MA46313-CCB6	87.428	92.973	94.408	85.36	93.843	93.829	85.135	90.817
18:25	MP13125A-MB1	84.551	94.107	94.733	85.089	96.372	95.4	84.166	94.157
18:30	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:35	MP13125A-S3	74.151	83.12	79.598	70.998	80.814	84.889	73.39	86.689
18:40	MP13125A-S4	72.546	83.319	79.596	70.862	80.743	84.903	73.022	86.924
18:45	ZZZZZZ	84.088	90.154	92.647	82.825	92.99	93.731	82.661	91.489
18:50	JC84271-4	70.768	80.437	77.913	68.841 !a	80.018	82.32	70.721	86.897
18:55	MP13125A-SD1	80.287	86.373	85.767	76.511	86.469	89.522	77.823	88.458
19:00	MA46313-CCVA7	78.987	84.666	84.642	75.956	84.7	87.706	77.27	87.398
19:05	MA46313-CCB7	79.349	86.422	88.175	78.592	89.473	90.328	78.926	87.631
19:10	ZZZZZZ	73.05	84.964	83.835	75.082	89.288	87.686	74.147	88.146
19:15	ZZZZZZ	71.334	82.168	80.131	70.96	83.2	84.353	72.278	85.994
19:20	MP13125A-B3	73.918	85.313	83.945	74.794	87.2	86.997	74.687	89.588
19:25	ZZZZZZ	70.64	80.595	78.321	69.64 !a	80.806	83.93	71.833	87.355
19:30	ZZZZZZ	67.897 !a	76.918	75.029	65.888 !a	75.856	81.011	68.63 !a	84.294
19:35	ZZZZZZ	73.58	85.305	83.352	75.203	88.939	86.59	74.369	87.65
19:40	MP13061-S3	74.571	83.625	82.741	73.738	84.997	86.717	74.294	87.017
19:45	MP13061-S4	74.472	83.603	83.834	73.473	84.919	87.217	74.661	88.586
19:50	ZZZZZZ	74.144	83.165	83.11	72.913	85.179	86.406	74.866	87.207
19:55	MA46313-CCVA8	82.02	85.824	87.16	77.897	85.425	90.103	79.856	88.9
20:00	MA46313-CCB8	82.993	88.706	91.155	81.027	90.879	92.11	81.812	89.487
20:05	ZZZZZZ	74.449	83.299	83.657	73.574	85.091	86.988	74.609	86.979
20:10	ZZZZZZ	81.473	87.663	82.809	78.747	88.971	85.206	80.1	83.192
20:15	ZZZZZZ	80.197	86.329	87.581	77.28	87.344	89.584	79.399	87.535
20:20	ZZZZZZ	80.49	86.372	87.645	77.803	87.32	89.874	79.715	88.647
20:25	ZZZZZZ	74.481	79.032	78.102	68.041 !a	75.06	82.762	73.583	84.416
20:30	ZZZZZZ	76.756	86.151	89.816	77.947	90.597	91.829	77.425	91.981
20:35	ZZZZZZ	80.339	81.447	82.811	71.508	76.057	87.522	78.433	87.798
20:40	ZZZZZZ	75.668	86.48	86.519	75.547	88.788	90.623	76.744	91.725

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
20:45	MA46313-CCVA9	82.183	88.611	89.129	78.5	89.078	91.832	81.321	91.095
20:50	MA46313-CCB9	82.429	88.607	92.442	80.821	91.885	93.333	82.114	92.462
20:55	MP13155-MB1	84.083	89.571	92.571	81.83	92.211	93.38	83.771	92.423
21:00	MP13155-B1	82.509	87.842	90.676	79.84	88.209	92.796	82.322	91.113
21:05	MP13155-S1	78.876	82.658	82.321	72.957	79.989	87.772	77.815	87.801
21:10	MP13155-S2	79.658	83.267	83.306	73.654	80.236	86.784	78.207	88.156
21:15	ZZZZZZ	83.794	89.068	94.03	81.991	90.912	95.591	83.593	92.901
21:20	JC84397-6	82.992	85.449	85.361	76.424	83.027	89.67	81.316	89.911
21:25	ZZZZZZ	77.118	81.701	83.916	72.764	79.538	87.428	77.513	89.254
21:30	ZZZZZZ	81.202	88.763	90.565	79.797	91.053	91.61	81.533	90.288
21:35	ZZZZZZ	89.187	99.611	76.008	64.353	68.447	81.173	73.45	81.474
21:40	MA46313-CCVA10	90.047	95.807	100.299	84.698	92.849	103.051	86.988	99.659
21:45	MA46313-CCB10	74.988	86.968	86.324	75.878	89.313	90.096	76.773	90.014
21:50	ZZZZZZ	74.619	82.375	79.684	70.571	80.058	84.932	74.374	88.746
21:55	ZZZZZZ	76.078	84.84	82.971	73.302	83.624	87.183	76.654	88.936
22:00	ZZZZZZ	78.97	87.857	89.942	78.648	90.384	92.832	79.517	92.144
22:05	ZZZZZZ	77.079	85.779	85.971	76.458	87.485	89.202	78.552	89.313
22:10	ZZZZZZ	73.597	79.636	79.571	69.135	76.801	85.562	74.616	87.64
22:15	ZZZZZZ	80.273	89.18	87.567	79.752	91.258	91.727	80.848	90.035
22:20	ZZZZZZ	79.149	87.793	89.437	78.451	90.199	92.953	79.563	91.437
22:25	MA46313-CCVA11	77.014	85.29	85.38	74.634	84.902	89.367	76.758	90.125
22:30	MA46313-CCB11	79.005	88.147	88.247	78.745	90.437	92.818	79.714	90.936
22:35	ZZZZZZ	80.856	88.657	90.484	79.832	90.677	92.814	81.24	90.227
22:40	ZZZZZZ	81.006	89.51	91.326	79.775	91.807	93.637	80.933	92.751
22:45	ZZZZZZ	79.717	89.049	91.21	78.981	90.851	94.582	80.376	92.121
22:50	ZZZZZZ	81.069	89.581	92.415	80.01	90.893	93.136	81.253	90.939
22:55	ZZZZZZ	82.413	89.631	91.493	80.672	91.878	93.93	81.467	91.619

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#9	Germanium (74-2)	60-125 %	60-125 %
Istd#10	Germanium (74-3)	60-125 %	60-125 %
Istd#11	Rhodium (103-1)	60-125 %	60-125 %
Istd#12	Rhodium (103-2)	60-125 %	60-125 %
Istd#13	Rhodium (103-3)	60-125 %	60-125 %
Istd#14	Indium (115-1)	60-125 %	60-125 %
Istd#15	Indium (115-2)	60-125 %	60-125 %
Istd#16	Terbium (159-1)	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
12:08	MA46313-STD1	100	100	100	100	100	100
12:13	MA46313-STD2	100	100	100	100	100	100
12:18	MA46313-STD3	99.655	100.119	98.959	99.777	98.814	99.767
12:23	MA46313-STD4	98.892	99.472	98.253	99.317	98.976	98.992
12:28	MA46313-STD5	98.514	99.72	98.393	99.078	97.742	98.536
12:33	MA46313-STD6	97.224	99.179	99.86	97.555	99.256	97.606
12:38	MA46313-STD7	96.648	98.051	98.353	96.736	98.219	97.341
12:43	MA46313-STD8	96.5	98.093	98.026	97.087	98.935	97.357
12:48	MA46313-STD9	95.334	99.171	96.652	95.366	98.447	95.45
12:53	MA46313-STD10	95.683	98.109	96.206	95.682	95.956	94.859
12:58	MA46313-STD11	94.742	95.768	95.927	95.155	92.52	91.297
13:03	MA46313-STD12	93.286	94.603	94.967	94.397	89.985	88.434
13:08	ZZZZZZ	96.299	99.281	98.791	96.32	98.472	95.768
13:17	ZZZZZZ	96.769	99.178	98.138	96.652	98.038	96.626
13:22	MA46313-ICVA1	92.822	93.566	95.084	92.895	91.703	89.766
13:27	MA46313-ICV1	92.605	96.708	96.256	92.668	96.155	92.629
13:32	MA46313-ICB1	93.362	97.729	95.185	93.166	95.037	93.126
13:37	MA46313-CCVA1	90.713	94.615	94.617	90.592	89.71	87.619
13:42	MA46313-CCB1	92.164	98.207	95.729	91.695	95.796	92.207
13:47	MA46313-CRI1	92.547	98.14	96.181	92.445	95.061	92.484
13:52	MA46313-ICSA1	80.652	78.662	87.264	81.158	74.115	70.011
13:57	MA46313-ICSAB1	80.329	79.699	87.469	81.058	75.075	69.792 !a
14:04	ZZZZZZ	No results reported for the elements associated with this internal standard.					
14:09	ZZZZZZ	No results reported for the elements associated with this internal standard.					
14:14	ZZZZZZ	92.96	101.79	100.035	92.861	100.389	93.771
14:19	ZZZZZZ	82.823	83.576	92.712	84.109	79.009	72.098
14:23	ZZZZZZ	93.143	105.917	105.233	93.84	104.359	94.857
14:30	ZZZZZZ	95.14	104.399	105.566	94.74	105.67	95.397
14:37	MA46313-CCVA2	91.773	100.755	103.384	92.528	98.767	90.057
14:42	MA46313-CCB2	93.049	104.269	104.016	92.729	103.123	94.143
14:47	MP13022-SD1	91.383	101.908	101.359	92.621	96.659	89.874
14:52	MP13130A-MB1	91.668	106.71	104.074	91.964	104.72	93.518
14:57	MP13130A-B2	90.493	104.595	104.129	90.535	100.026	88.951

INTERNAL STANDARD SUMMARY

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File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
15:10	MP13130A-S3	88.818	100.982	100.453	89.331	94.04	85.973
15:15	MP13130A-S4	89.545	102.227	101.52	90.57	94.419	85.614
15:20	JC84297-1	90.198	104.634	102.876	90.859	96.759	86.474
15:26	MP13130A-SD1	91.679	102.704	103.06	91.794	100.568	92.442
15:32	ZZZZZZ	91.696	102.312	103.396	92.378	100.667	92.203
15:38	ZZZZZZ	91.127	101.372	101.049	91.888	98.775	91.482
15:43	MA46313-CCVA3	89.305	98.479	99.227	90.085	93.121	86.876
15:51	MA46313-CCB3	88.908	99.465	97.717	89.06	96.119	89.635
15:56	ZZZZZZ	88.251	99.514	98.051	88.934	96.41	88.803
16:01	ZZZZZZ	89.282	99.056	98.305	89.781	96.159	90.148
16:06	MP13130A-PS1	86.411	98.712	97.457	86.999	90.797	82.529
16:11	JC84299-1	87.85	101.024	99.279	88.746	91.245	83.448
16:16	JC84299-2	87.275	97.323	99.503	88.029	91.068	82.315
16:20	JC84299-3	88.809	100.006	99.79	89.344	93.89	85.19
16:26	ZZZZZZ	89.038	100.399	101.579	89.163	93.486	84.335
16:31	ZZZZZZ	89.508	102.339	101.414	90.066	93.359	84.908
16:35	MA46313-CCVA4	92.301	99.688	100.651	92.983	93.589	88.585
16:40	MA46313-CCB4	91.603	101.712	100.654	91.946	96.868	91.46
16:46	ZZZZZZ	87.552	100.184	98.239	87.487	92.247	83.49
16:50	MP13123-MB1	90.983	101.129	100.698	90.606	98.237	91.817
16:56	MP13123-B1	89.84	98.748	97.899	90.032	93.839	87.362
17:01	MP13123-S1	85.573	89.823	97.213	88.743	87.358	81.409
17:05	MP13123-S2	83.67	88.908	95.879	86.819	85.802	79.342
17:10	JC84266-10	83.279	88.255	94.518	86.503	85.999	80.562
17:15	MP13123-SD1	88.058	94.208	95.035	88.135	91.125	87.588
17:20	MA46313-CCVA5	87.101	94.15	95.18	87.394	89.846	84.044
17:25	MA46313-CCB5	88.94	98.146	97.141	89.315	95.333	89.194
17:30	ZZZZZZ	80.25	83.709	94.705	86.248	83.802	77.434
17:35	ZZZZZZ	86.596	91.387	99.797	91.101	91.035	84.497
17:40	ZZZZZZ	82.904	86.137	94.125	87.414	84.575	79.823
17:45	ZZZZZZ	80.561	83.668	93.031	85.361	82.277	76.76
17:50	ZZZZZZ	83.895	93.492	92.297	84.2	89.835	84.267
17:55	ZZZZZZ	79.307	80.766	100.114	91.08	78.181	72.749

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
18:00	ZZZZZZ	79.612	83.655	95.113	86.598	81.964	76.277
18:05	ZZZZZZ	78.819	82.294	94.213	86.512	79.789	75.153
18:10	ZZZZZZ	79.036	82.778	90.274	82.916	79.503	76.224
18:15	MA46313-CCVA6	81.249	88.402	90.183	82.015	84.979	79.033
18:20	MA46313-CCB6	83.295	92.612	90.037	83.596	88.806	83.677
18:25	MP13125A-MB1	84.595	95.803	94.241	84.866	91.188	84.617
18:30	ZZZZZZ	No results reported for the elements associated with this internal standard.					
18:35	MP13125A-S3	77.366	87.24	88.401	78.648	78.724	71.641
18:40	MP13125A-S4	77.713	87.586	88.664	78.883	78.729	71.818
18:45	ZZZZZZ	82.752	93.07	91.854	83.16	90.631	84.337
18:50	JC84271-4	76.357	87.532	86.8	77.36	78.442	71.618
18:55	MP13125A-SD1	79.244	90.113	88.621	80.745	86.966	79.985
19:00	MA46313-CCVA7	79.246	87.631	87.675	80.019	84.084	78.415
19:05	MA46313-CCB7	79.778	90.488	87.904	80.852	88.165	81.91
19:10	ZZZZZZ	78.601	92.499	89.163	79.557	88.527	79.718
19:15	ZZZZZZ	76.835	88.979	87.758	78.319	82.218	75.094
19:20	MP13125A-B3	78.965	90.796	90.019	80.033	86.655	77.913
19:25	ZZZZZZ	76.967	88.218	87.868	77.769	80.361	72.977
19:30	ZZZZZZ	74.177	83.869	85.353	75.907	75.391	68.609 !a
19:35	ZZZZZZ	78.379	91.705	88.364	78.856	86.491	79.767
19:40	MP13061-S3	78.181	89.279	87.708	78.98	84.592	77.806
19:45	MP13061-S4	78.35	89.011	88.151	79.002	85.197	77.6
19:50	ZZZZZZ	77.554	89.359	88.241	78.674	85.853	78.328
19:55	MA46313-CCVA8	80.589	87.898	89.14	81.34	85.442	79.456
20:00	MA46313-CCB8	81.433	90.946	88.333	81.921	88.101	82.99
20:05	ZZZZZZ	77.652	89.074	87.886	78.694	85.293	78.289
20:10	ZZZZZZ	80.401	90.388	82.229	80.979	82.22	81.582
20:15	ZZZZZZ	79.907	89.949	88.331	80.416	86.446	80.171
20:20	ZZZZZZ	80.483	89.574	88.235	81.451	86.911	80.84
20:25	ZZZZZZ	76.45	82.141	84.341	76.684	70.884	65.58 !a
20:30	ZZZZZZ	80.958	93.732	91.953	81.913	90.409	81.965
20:35	ZZZZZZ	79.083	82.603	88.03	79.83	73.522	68.251 !a
20:40	ZZZZZZ	81.425	93.076	92.218	81.912	88.116	79.942

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46313
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
20:45	MA46313-CCVA9	82.799	93.346	91.536	83.502	86.648	81.348
20:50	MA46313-CCB9	82.913	93.163	91.21	83.502	90.437	84.528
20:55	MP13155-MB1	83.766	93.811	92.221	84.58	91.156	86.164
21:00	MP13155-B1	82.982	90.657	91.351	83.684	87.987	82.938
21:05	MP13155-S1	80.509	86.935	89.943	83.006	79.016	74.832
21:10	MP13155-S2	80.841	86.738	90.358	83.416	79.51	75.104
21:15	ZZZZZZ	83.286	91.33	91.79	84.179	91.1	84.886
21:20	JC84397-6	82.587	88.684	92.208	85.111	81.039	77.259
21:25	ZZZZZZ	79.152	86.389	88.883	80.731	79.946	74.422
21:30	ZZZZZZ	81.333	92.377	89.924	81.974	88.641	83.072
21:35	ZZZZZZ	72.328	74.996	81.986	72.806	63.975	58.302 !a
21:40	MA46313-CCVA10	87.518	94.847	99.634	88.321	93.485	85.206
21:45	MA46313-CCB10	79.687	92.15	90.214	80.819	91.059	83.007
21:50	ZZZZZZ	78.291	87.437	88.41	79.649	80.13	73.989
21:55	ZZZZZZ	80.022	90.374	89.524	81.262	83.992	77.456
22:00	ZZZZZZ	81.35	92.45	91.279	82.135	90.739	83.924
22:05	ZZZZZZ	81.075	91.08	89.659	82.461	88.328	82.448
22:10	ZZZZZZ	77.967	84.819	87.832	79.049	78.258	72.378
22:15	ZZZZZZ	82.64	93.276	90.244	83.661	89.517	85.334
22:20	ZZZZZZ	81.129	92.465	91.97	82.265	91.826	84.095
22:25	MA46313-CCVA11	79.354	88.665	90.489	80.151	86.344	79.043
22:30	MA46313-CCB11	80.895	91.94	90.973	82.155	90.943	83.562
22:35	ZZZZZZ	81.722	92.033	90.408	82.479	89.294	83.905
22:40	ZZZZZZ	81.857	93.018	91.754	82.91	91.595	84.293
22:45	ZZZZZZ	81.018	92.61	91.662	81.78	91.704	83.161
22:50	ZZZZZZ	81.586	92.005	91.129	82.412	91	83.932
22:55	ZZZZZZ	82.187	92.937	91.578	82.848	91.331	84.489

! = Outside limits.

LEGEND:		CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#17	Terbium (159-2)	60-125 %	60-125 %
Istd#18	Terbium (159-3)	60-125 %	60-125 %
Istd#19	Holmium (165-1)	60-125 %	60-125 %
Istd#20	Holmium (165-2)	60-125 %	60-125 %
Istd#21	Bismuth (209-1)	60-125 %	60-125 %
Istd#22	Bismuth (209-2)	60-125 %	60-125 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46313 Units: ug/l

Time: / Sample ID:				13:32 ICB1		13:42 CCB1		14:42 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.00369	<1.5	0.00734	<1.5	0.0124	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46313 Units: ug/l

Time: / Sample ID:				15:51 CCB3		16:40 CCB4	
Metal	RL	IDL	LOD	raw	final	raw	final
Aluminum	25	.28	20				
Antimony	2.0	.094	1.5				
Arsenic	0.50	.013	1.0	0.0125	<1.5	0.0363	<1.5
Barium	1.0	.008	0.50				
Beryllium	0.50	.004	0.25				
Boron	25	.65	20				
Cadmium	0.50	.004	2.0				
Calcium	250	6.1	50				
Chromium	1.0	.014	3.0				
Cobalt	0.50	.002	0.25				
Copper	2.0	.021	4.0				
Iron	25	.43	13				
Lead	0.50	.009	1.0				
Magnesium	250	.15	130				
Manganese	1.0	.007	1.0				
Molybdenum	1.0	.015	0.50				
Nickel	1.0	.017	3.0				
Potassium	250	.71	50				
Selenium	0.50	.072	0.50				
Silver	0.50	.004	0.50				
Sodium	250	1	100				
Strontium	5.0	.003	5.0				
Thallium	0.50	.004	0.50				
Tin	5.0	.071	2.5				
Titanium	1.0	.035	1.0				
Vanadium	1.0	.009	1.0				
Zinc	5.0	.029	7.5				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46313 Units: ug/l

Time:		13:22			13:27			13:37	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	60	59.3	98.8				50	49.8	99.6
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46313 Units: ug/l

Time:		14:37			15:43			16:35	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	50	51.0	102.0	50	49.3	98.6	50	48.8	97.6
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46313 Units: ug/l

Time:			13:47	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25	anr	
Antimony	2.0	0.25	anr	
Arsenic	0.50	0.50	0.468	93.6
Barium	1.0	0.50	anr	
Beryllium	0.50	0.25	anr	
Boron	25	2.5		
Cadmium	0.50	0.25	anr	
Calcium	250	125		
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25	anr	
Copper	2.0	2.0	anr	
Iron	25	25	anr	
Lead	0.50	0.25	anr	
Magnesium	250	125		
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50	anr	
Nickel	1.0	2.0	anr	
Potassium	250	125		
Selenium	0.50	0.50	anr	
Silver	0.50	1.0	anr	
Sodium	250	125	anr	
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50	anr	
Titanium	1.0	0.50		
Vanadium	1.0	2.0	anr	
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031519M1L.CSV Date Analyzed: 03/15/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46313 Units: ug/l

Time:			13:52		13:57	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	90600	90.6	91900	91.9
Antimony			0.108		0.0992	
Arsenic		20	0.0734		19.1	95.5
Barium			0.145		0.178	
Beryllium			0.00163		0.00969	
Boron		50	1.59		45.1	90.2
Cadmium		20	-0.119		18.5	92.5
Calcium	100000	100000	92600	92.6	96700	96.7
Chromium		20	0.153		20.5	102.5
Cobalt		20	0.0605		19.3	96.5
Copper		20	0.263		19.2	96.0
Iron	100000	100000	88300	88.3	91700	91.7
Lead			0.100		0.124	
Magnesium	100000	100000	86700	86.7	88600	88.6
Manganese		20	0.364		20.6	103.0
Molybdenum	2000	2000	2110	105.5	2190	109.5
Nickel		20	0.429		18.5	92.5
Potassium	100000	100000	93900	93.9	96300	96.3
Selenium		20	-0.0777		19.0	95.0
Silver		20	0.0324		20.7	103.5
Sodium	100000	100000	88100	88.1	90800	90.8
Strontium	2000	2000	2040	102.0	2260	113.0
Thallium			0.00708		0.00898	
Tin	2000	2000	1830	91.5	2000	100.0
Titanium	2000	2000	1780	89.0	1850	92.5
Vanadium		20	0.0128		20.4	102.0
Zinc		20	0.233		17.1	85.5

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:44	MA46321-STD1	1		STDA
13:49	MA46321-STD2	1		STDB
13:55	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:05	MA46321-ICV1	1		
14:12	MA46321-ICB1	1		
14:17	MA46321-CCV1	1		
14:22	MA46321-CCB1	1		
14:27	MA46321-CRI1	1		
14:32	MA46321-CRID1	1		
14:38	MA46321-ICSA1	1		
14:43	MA46321-ICSAB1	1		
14:48	MA46321-HSTD1	1		
14:54	MA46321-HSTD2	1		
14:59	ZZZZZZ	1		
15:05	ZZZZZZ	1		
15:10	ZZZZZZ	1		
15:15	MA46321-CCV2	1		
15:20	MA46321-CCB2	1		
15:25	MA46321-CRI2	1		
15:30	MA46321-CRID2	1		
15:35	MP13130-MB1	1		
15:40	MP13130-B1	1		
15:45	MP13130-S1	1		
15:50	MP13130-S2	1		
15:55	JC84297-1	1		(sample used for QC only; not part of login JC84299)
16:00	MP13130-SD1	5		
16:05	MP13130-PS1	1		
16:10	MA46321-CCV3	1		
16:15	MA46321-CCB3	1		
16:20	ZZZZZZ	1		
16:25	ZZZZZZ	1		
16:30	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	16:35	JC84299-1	1		
	16:40	JC84299-2	1		
	16:46	JC84299-3	1		
---------->		Last reportable sample/prep for job JC84299			
	16:51	ZZZZZZ	1		
	16:56	ZZZZZZ	1		
	17:01	ZZZZZZ	1		
	17:06	MA46321-CCV4	1		
	17:11	MA46321-CCB4	1		
	17:16	MA46321-ICSA2	1		
	17:21	MA46321-ICSAB2	1		
	17:27	ZZZZZZ	1		
	17:32	MP13167-MB1	1		
	17:37	MP13167-B1	1		
	17:42	MP13167-B2	1		
	17:47	MP13167-S1	1		Na high
	17:52	MP13167-S2	1		Na high
	17:57	JC84383-4	1		(sample used for QC only; not part of login JC84299)
	18:02	MA46321-CCV5	1		
	18:07	MA46321-CCB5	1		
---------->		Last reportable CCB for job JC84299			
	18:12	MP13167-SD1	5		Na high
	18:18	ZZZZZZ	1		
	18:23	ZZZZZZ	1		
	18:28	ZZZZZZ	1		
	18:33	ZZZZZZ	1		
	18:38	ZZZZZZ	1		
	18:43	ZZZZZZ	1		
	18:48	ZZZZZZ	1		
	18:54	ZZZZZZ	1		
	18:59	MA46321-CCV6	1		
	19:04	MA46321-CCB6	1		
	19:09	ZZZZZZ	1		
	19:14	ZZZZZZ	1		
	19:19	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:24	ZZZZZZ	1		
19:29	ZZZZZZ	1		
19:34	ZZZZZZ	1		
19:39	ZZZZZZ	1		
19:44	ZZZZZZ	1		
19:49	ZZZZZZ	1		
19:55	ZZZZZZ	1		
20:00	MA46321-CCV7	1		
20:05	MA46321-CCB7	1		
20:10	ZZZZZZ	1		
20:15	ZZZZZZ	1		
20:20	ZZZZZZ	1		
20:25	ZZZZZZ	1		
20:30	ZZZZZZ	1		
20:35	ZZZZZZ	1		
20:41	ZZZZZZ	1		
20:46	ZZZZZZ	1		
20:51	ZZZZZZ	1		
20:56	ZZZZZZ	1		
21:01	ZZZZZZ	1		
21:06	ZZZZZZ	1		
21:12	ZZZZZZ	1		
21:17	MA46321-CCV8	1		
21:22	MA46321-CCB8	1		
21:27	MP13171-MB1	1		
21:32	MP13171-B1	1		
21:37	MP13171-S1	1		Needs post spike f0r Sb, K
21:42	MP13171-S2	1		%sol
21:47	JC84460-1	1		(sample used for QC only; not part of login JC84299)
21:52	MP13171-SD1	5		%sol
21:57	ZZZZZZ	1		
22:02	ZZZZZZ	1		
22:08	MA46321-CCV9	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:13	MA46321-CCB9	1		
22:18	ZZZZZZ	1		
22:23	ZZZZZZ	1		
22:28	ZZZZZZ	1		
22:34	ZZZZZZ	1		
22:39	ZZZZZZ	1		
22:44	ZZZZZZ	1		
22:49	ZZZZZZ	1		
22:54	ZZZZZZ	1		
22:59	ZZZZZZ	1		
23:05	MA46321-CCV10	1		
23:10	MA46321-CCB10	1		
23:15	ZZZZZZ	1		
23:20	ZZZZZZ	1		
23:25	ZZZZZZ	1		
23:30	ZZZZZZ	1		
23:35	ZZZZZZ	1		
23:40	ZZZZZZ	1		
23:45	ZZZZZZ	1		
23:50	ZZZZZZ	1		
23:55	MP13156-MB1	1		
00:00	MP13156-B1	1		
00:05	MA46321-CCV11	1		
00:10	MA46321-CCB11	1		
00:15	MP13156-S1	1		
00:20	MP13156-S2	1		
00:25	JC84446-2	1		(sample used for QC only; not part of login JC84299)
00:30	MP13156-SD1	5		
00:35	ZZZZZZ	1		
00:41	ZZZZZZ	1		
00:46	ZZZZZZ	1		
00:51	ZZZZZZ	1		
00:57	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:02	ZZZZZZ	1		
01:07	MA46321-CCV12	1		
01:12	MA46321-CCB12	1		
01:18	ZZZZZZ	1		
01:23	ZZZZZZ	1		
01:28	ZZZZZZ	1		
01:34	ZZZZZZ	1		
01:39	ZZZZZZ	1		
01:44	ZZZZZZ	1		
01:49	ZZZZZZ	1		
01:54	ZZZZZZ	1		
01:59	ZZZZZZ	1		
02:04	ZZZZZZ	1		
02:09	MA46321-CCV13	1		
02:14	MA46321-CCB13	1		
02:19	ZZZZZZ	1		
02:24	ZZZZZZ	1		
02:29	ZZZZZZ	1		
02:34	MP13175-MB1	5		
02:40	MP13175-B1	5		
02:45	MP13175-S1	5		
02:50	MP13175-S2	5		
02:55	JC84030-10A	5		(sample used for QC only; not part of login JC84299)
03:00	MP13175-SD1	25		
03:05	MA46321-CCV14	1		
03:10	MA46321-CCB14	1		
03:15	ZZZZZZ	5		
03:20	ZZZZZZ	5		
03:25	ZZZZZZ	5		
03:31	ZZZZZZ	5		
03:36	ZZZZZZ	5		
03:41	ZZZZZZ	5		
03:46	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
03:51	ZZZZZZ	5		
03:57	ZZZZZZ	5		
04:02	ZZZZZZ	5		
04:07	MA46321-CCV15	1		
04:12	MA46321-CCB15	1		
04:17	ZZZZZZ	5		
04:22	ZZZZZZ	5		
04:27	ZZZZZZ	5		
04:33	ZZZZZZ	5		
04:38	ZZZZZZ	5		
04:43	ZZZZZZ	5		
04:48	ZZZZZZ	5		
04:54	ZZZZZZ	5		
04:59	ZZZZZZ	5		
05:04	MA46321-CCV16	1		
05:09	MA46321-CCB16	1		
05:14	MP13178-MB1	1		
05:19	MP13178-B1	1		
05:24	MP13178-S1	1		Needs post spike for Sb, Cr, K, S
05:29	MP13178-S2	1		
05:34	JC84322-4	1		(sample used for QC only; not part of login JC84299)
05:39	MP13178-SD1	5		
05:44	ZZZZZZ	1		
05:49	ZZZZZZ	1		
05:54	ZZZZZZ	1		
05:59	ZZZZZZ	1		
06:04	MA46321-CCV17	1		
06:09	MA46321-CCB17	1		
06:14	ZZZZZZ	1		
06:20	ZZZZZZ	1		
06:24	ZZZZZZ	1		
06:29	MP13199-MB1	5		
06:35	MP13199-MB2	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
06:40	MP13199-B1	5		
06:45	MP13199-B2	5		
06:50	ZZZZZZ	5		
06:55	MA46321-CCV18	1		
07:00	MA46321-CCB18	1		
07:05	ZZZZZZ	1		
07:10	ZZZZZZ	1		
07:15	ZZZZZZ	1		
07:20	ZZZZZZ	1		
07:25	ZZZZZZ	1		
07:30	ZZZZZZ	1		
07:36	ZZZZZZ	1		
07:41	ZZZZZZ	1		
07:46	ZZZZZZ	1		
07:51	MA46321-CCV19	1		
07:56	MA46321-CCB19	1		
08:01	ZZZZZZ	1		
08:07	ZZZZZZ	1		
08:12	ZZZZZZ	1		
08:17	MP13199-B1	5		
08:22	MP13199-S1	5		
08:27	MP13199-S2	5		
08:32	JC84322-1A	5		(sample used for QC only; not part of login JC84299)
08:38	MP13199-SD1	25		
08:43	MP13171-B1	1		
08:48	MA46321-CCV20	1		
08:53	MA46321-CCB20	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
13:55	ZZZZZZ	1					
14:00	ZZZZZZ	1					
14:05	MA46321-ICV1	1	X	X	X	X	
14:12	MA46321-ICB1	1	X	X	X	X	
14:17	MA46321-CCV1	1	X	X	X	X	
14:22	MA46321-CCB1	1	X	X	X	X	
14:27	MA46321-CRI1	1					
14:32	MA46321-CRID1	1					
14:38	MA46321-ICSA1	1	X	X	X	X	
14:43	MA46321-ICSAB1	1	X	X	X	X	
14:48	MA46321-HSTD1	1	X	X	X	X	
14:54	MA46321-HSTD2	1	X	X	X	X	
14:59	ZZZZZZ	1					
15:05	ZZZZZZ	1					
15:10	ZZZZZZ	1					
15:15	MA46321-CCV2	1	X	X	X	X	
15:20	MA46321-CCB2	1	X	X	X	X	
15:25	MA46321-CRI2	1	X	X	X	X	
15:30	MA46321-CRID2	1	X	X	X	X	
15:35	MP13130-MB1	1	X	X	X	X	
15:40	MP13130-B1	1	X	X	X	X	
15:45	MP13130-S1	1	X	X	X	X	
15:50	MP13130-S2	1	X	X	X	X	
15:55	JC84297-1	1					(a)
16:00	MP13130-SD1	5	X	X	X	X	
16:05	MP13130-PS1	1					
16:10	MA46321-CCV3	1	X	X	X	X	
16:15	MA46321-CCB3	1	X	X	X	X	
16:20	ZZZZZZ	1					
16:25	ZZZZZZ	1					
16:30	ZZZZZZ	1					
16:35	JC84299-1	1	X		X	X	
16:40	JC84299-2	1		X		X	
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
16:46	JC84299-3	1		X		X	
16:51	ZZZZZZ	1					
16:56	ZZZZZZ	1					
17:01	ZZZZZZ	1					
17:06	MA46321-CCV4	1	X	X	X	X	
17:11	MA46321-CCB4	1	X	X	X	X	
17:16	MA46321-ICSA2	1	X	X	X	X	
17:21	MA46321-ICSAB2	1	X	X	X	X	
17:27	ZZZZZZ	1					
17:32	MP13167-MB1	1		X			
17:37	MP13167-B1	1		X			
17:42	MP13167-B2	1		X			
17:47	MP13167-S1	1		X			
17:52	MP13167-S2	1		X			
17:57	JC84383-4	1					(a)
18:02	MA46321-CCV5	1	X	X	X	X	
18:07	MA46321-CCB5	1	X	X	X	X	
18:12	MP13167-SD1	5		X			
18:18	ZZZZZZ	1					
18:23	ZZZZZZ	1					
18:28	ZZZZZZ	1					
18:33	ZZZZZZ	1					
18:38	ZZZZZZ	1					
18:43	ZZZZZZ	1					
18:48	ZZZZZZ	1					
18:54	ZZZZZZ	1					
18:59	MA46321-CCV6	1	X	X	X	X	
19:04	MA46321-CCB6	1	X	X	X	X	
19:09	ZZZZZZ	1					
19:14	ZZZZZZ	1					
19:19	ZZZZZZ	1					
19:24	ZZZZZZ	1					
19:29	ZZZZZZ	1					
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
19:34	ZZZZZZ	1					
19:39	ZZZZZZ	1					
19:44	ZZZZZZ	1					
19:49	ZZZZZZ	1					
19:55	ZZZZZZ	1					
20:00	MA46321-CCV7	1	X	X	X	X	
20:05	MA46321-CCB7	1	X	X	X	X	
20:10	ZZZZZZ	1					
20:15	ZZZZZZ	1					
20:20	ZZZZZZ	1					
20:25	ZZZZZZ	1					
20:30	ZZZZZZ	1					
20:35	ZZZZZZ	1					
20:41	ZZZZZZ	1					
20:46	ZZZZZZ	1					
20:51	ZZZZZZ	1					
20:56	ZZZZZZ	1					
21:01	ZZZZZZ	1					
21:06	ZZZZZZ	1					
21:12	ZZZZZZ	1					
21:17	MA46321-CCV8	1	X	X	X	X	
21:22	MA46321-CCB8	1	X	X	X	X	
21:27	MP13171-MB1	1	X	X	X	X	
21:32	MP13171-B1	1					
21:37	MP13171-S1	1	X	X	X	X	
21:42	MP13171-S2	1	X	X	X	X	
21:47	JC84460-1	1					(a)
21:52	MP13171-SD1	5	X	X	X	X	
21:57	ZZZZZZ	1					
22:02	ZZZZZZ	1					
22:08	MA46321-CCV9	1	X	X	X	X	
22:13	MA46321-CCB9	1	X	X	X	X	
22:18	ZZZZZZ	1					
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
22:23	ZZZZZZ	1					
22:28	ZZZZZZ	1					
22:34	ZZZZZZ	1					
22:39	ZZZZZZ	1					
22:44	ZZZZZZ	1					
22:49	ZZZZZZ	1					
22:54	ZZZZZZ	1					
22:59	ZZZZZZ	1					
23:05	MA46321-CCV10	1	X	X	X	X	
23:10	MA46321-CCB10	1	X	X	X	X	
23:15	ZZZZZZ	1					
23:20	ZZZZZZ	1					
23:25	ZZZZZZ	1					
23:30	ZZZZZZ	1					
23:35	ZZZZZZ	1					
23:40	ZZZZZZ	1					
23:45	ZZZZZZ	1					
23:50	ZZZZZZ	1					
23:55	MP13156-MB1	1	X	X	X	X	
00:00	MP13156-B1	1	X	X	X	X	
00:05	MA46321-CCV11	1	X	X	X	X	
00:10	MA46321-CCB11	1	X	X	X	X	
00:15	MP13156-S1	1	X	X	X	X	
00:20	MP13156-S2	1	X	X	X	X	
00:25	JC84446-2	1	X	X	X	X	(a)
00:30	MP13156-SD1	5	X	X	X	X	
00:35	ZZZZZZ	1					
00:41	ZZZZZZ	1					
00:46	ZZZZZZ	1					
00:51	ZZZZZZ	1					
00:57	ZZZZZZ	1					
01:02	ZZZZZZ	1					
01:07	MA46321-CCV12	1	X	X	X	X	
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
01:12	MA46321-CCB12	1	X	X	X	X	
01:18	ZZZZZZ	1					
01:23	ZZZZZZ	1					
01:28	ZZZZZZ	1					
01:34	ZZZZZZ	1					
01:39	ZZZZZZ	1					
01:44	ZZZZZZ	1					
01:49	ZZZZZZ	1					
01:54	ZZZZZZ	1					
01:59	ZZZZZZ	1					
02:04	ZZZZZZ	1					
02:09	MA46321-CCV13	1	X	X	X	X	
02:14	MA46321-CCB13	1	X	X	X	X	
02:19	ZZZZZZ	1					
02:24	ZZZZZZ	1					
02:29	ZZZZZZ	1					
02:34	MP13175-MB1	5	X				
02:40	MP13175-B1	5	X				
02:45	MP13175-S1	5	X				
02:50	MP13175-S2	5	X				
02:55	JC84030-10A	5	X				(a)
03:00	MP13175-SD1	25	X				
03:05	MA46321-CCV14	1	X	X	X	X	
03:10	MA46321-CCB14	1	X	X	X	X	
03:15	ZZZZZZ	5					
03:20	ZZZZZZ	5					
03:25	ZZZZZZ	5					
03:31	ZZZZZZ	5					
03:36	ZZZZZZ	5					
03:41	ZZZZZZ	5					
03:46	ZZZZZZ	5					
03:51	ZZZZZZ	5					
03:57	ZZZZZZ	5					
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
04:02	ZZZZZZ	5					
04:07	MA46321-CCV15	1	X	X	X	X	
04:12	MA46321-CCB15	1	X	X	X	X	
04:17	ZZZZZZ	5					
04:22	ZZZZZZ	5					
04:27	ZZZZZZ	5					
04:33	ZZZZZZ	5					
04:38	ZZZZZZ	5					
04:43	ZZZZZZ	5					
04:48	ZZZZZZ	5					
04:54	ZZZZZZ	5					
04:59	ZZZZZZ	5					
05:04	MA46321-CCV16	1	X	X	X	X	
05:09	MA46321-CCB16	1	X	X	X	X	
05:14	MP13178-MB1	1	X	X	X	X	
05:19	MP13178-B1	1	X	X	X	X	
05:24	MP13178-S1	1	X	X	X	X	
05:29	MP13178-S2	1	X	X	X	X	
05:34	JC84322-4	1	X	X	X	X	(a)
05:39	MP13178-SD1	5	X	X	X	X	
05:44	ZZZZZZ	1					
05:49	ZZZZZZ	1					
05:54	ZZZZZZ	1					
05:59	ZZZZZZ	1					
06:04	MA46321-CCV17	1	X	X	X	X	
06:09	MA46321-CCB17	1	X	X	X	X	
06:14	ZZZZZZ	1					
06:20	ZZZZZZ	1					
06:24	ZZZZZZ	1					
06:29	MP13199-MB1	5	X				
06:35	MP13199-MB2	5	X				
06:40	MP13199-B1	5					
06:45	MP13199-B2	5	X				
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
06:50	ZZZZZZ	5					
06:55	MA46321-CCV18	1	X	X	X	X	
07:00	MA46321-CCB18	1	X	X	X	X	
07:05	ZZZZZZ	1					
07:10	ZZZZZZ	1					
07:15	ZZZZZZ	1					
07:20	ZZZZZZ	1					
07:25	ZZZZZZ	1					
07:30	ZZZZZZ	1					
07:36	ZZZZZZ	1					
07:41	ZZZZZZ	1					
07:46	ZZZZZZ	1					
07:51	MA46321-CCV19	1	X	X	X	X	
07:56	MA46321-CCB19	1	X	X	X	X	
08:01	ZZZZZZ	1					
08:07	ZZZZZZ	1					
08:12	ZZZZZZ	1					
08:17	MP13199-B1	5	X				
08:22	MP13199-S1	5	X				
08:27	MP13199-S2	5	X				
08:32	JC84322-1A	5	X				(a)
08:38	MP13199-SD1	25	X				
08:43	MP13171-B1	1	X	X	X	X	
08:48	MA46321-CCV20	1	X	X	X	X	
08:53	MA46321-CCB20	1	X	X	X	X	

(a) Sample used for QC only; not part of login JC84299.

Element:	B a	F e	M g	M n

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:44	MA46321-STD1	6540 R	146940 R	23510 R	8511 R
13:49	MA46321-STD2	6015	134150	23032	7545
13:55	ZZZZZZ	6228	139330	23293	7738
14:00	ZZZZZZ	6439	145680	23416	8416
14:05	MA46321-ICV1	6215	138010	22914	7731
14:12	MA46321-ICB1	6361	143880	23090	8307
14:17	MA46321-CCV1	6361	140520	23695	7887
14:22	MA46321-CCB1	6422	145000	23228	8363
14:27	MA46321-CRI1	No results reported for the elements associated with this internal standard.			
14:32	MA46321-CRID1	No results reported for the elements associated with this internal standard.			
14:38	MA46321-ICSA1	5732	126130	22378	7076
14:43	MA46321-ICSAB1	5709	125790	22284	7069
14:48	MA46321-HSTD1	6302	142990	23739	8343
14:54	MA46321-HSTD2	5811	130470	22636	7096
14:59	ZZZZZZ	6573	146440	23717	8646
15:05	ZZZZZZ	6395	148770	23825	8549
15:10	ZZZZZZ	6575	149200	23600	8521
15:15	MA46321-CCV2	6199	138920	23027	7694
15:20	MA46321-CCB2	6447	146420	23264	8375
15:25	MA46321-CRI2	6483	146190	23434	8274
15:30	MA46321-CRID2	6637	150290	23891	8540
15:35	MP13130-MB1	6617	151030	23959	8563
15:40	MP13130-B1	6400	142770	23508	7943
15:45	MP13130-S1	6369	141200	23603	7863
15:50	MP13130-S2	6276	140990	23672	7773
15:55	JC84297-1	6453	145070	23732	8105
16:00	MP13130-SD1	6522	146650	23582	8386
16:05	MP13130-PS1	6347	139290	23300	7864
16:10	MA46321-CCV3	6333	141560	23411	7844
16:15	MA46321-CCB3	6505	147520	23531	8457
16:20	ZZZZZZ	6487	147470	24206	8146
16:25	ZZZZZZ	6496	145840	24509	8155
16:30	ZZZZZZ	6432	146280	23825	8094

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:35	JC84299-1	6540	150170	23917	8140
16:40	JC84299-2	6457	145520	23952	8110
16:46	JC84299-3	6511	147790	24056	8250
16:51	ZZZZZZ	6563	149350	23920	8547
16:56	ZZZZZZ	6433	146810	24049	8382
17:01	ZZZZZZ	6815	150080	24275	8986
17:06	MA46321-CCV4	6359	141820	23145	7844
17:11	MA46321-CCB4	6511	148660	23615	8483
17:16	MA46321-ICSA2	5825	127680	22780	7160
17:21	MA46321-ICSAB2	5715	125540	22301	7101
17:27	ZZZZZZ	6471	144570	24001	8168
17:32	MP13167-MB1	6496	148900	23677	8459
17:37	MP13167-B1	6328	142790	23539	7892
17:42	MP13167-B2	6292	141520	23464	7873
17:47	MP13167-S1	5725	127060	22843	6890
17:52	MP13167-S2	5694	126620	22771	6865
17:57	JC84383-4	5751	127270	22798	6874
18:02	MA46321-CCV5	6295	140560	23273	7816
18:07	MA46321-CCB5	6524	151560	23647	8507
18:12	MP13167-SD1	6069	139350	23157	7460
18:18	ZZZZZZ	6289	140880	23651	7653
18:23	ZZZZZZ	6035	134190	23177	7244
18:28	ZZZZZZ	6088	134840	23419	7366
18:33	ZZZZZZ	5954	132700	23107	7167
18:38	ZZZZZZ	6551	149340	23744	8503
18:43	ZZZZZZ	5894	130650	22951	7054
18:48	ZZZZZZ	5682	126810	22610	6753
18:54	ZZZZZZ	6016	134210	23215	7264
18:59	MA46321-CCV6	6325	141590	23605	7864
19:04	MA46321-CCB6	6595	147990	23560	8600
19:09	ZZZZZZ	5921	131470	22845	7146
19:14	ZZZZZZ	5964	133310	23051	7192
19:19	ZZZZZZ	6522	148950	23580	8488

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:24	ZZZZZZ	6215	141110	23169	7825
19:29	ZZZZZZ	6436	143710	23240	8170
19:34	ZZZZZZ	6273	145470	23662	7959
19:39	ZZZZZZ	6097	136020	22786	7481
19:44	ZZZZZZ	3753 !	85099 !	21502	4254 !
19:49	ZZZZZZ	6284	141130	23092	7870
19:55	ZZZZZZ	6244	141990	23245	7843
20:00	MA46321-CCV7	6268	139650	24051	7768
20:05	MA46321-CCB7	6455	146830	23378	8409
20:10	ZZZZZZ	6515	147380	23479	8478
20:15	ZZZZZZ	6442	145050	23122	8346
20:20	ZZZZZZ	6393	999999 !	23036	8320
20:25	ZZZZZZ	6449	146550	23242	8366
20:30	ZZZZZZ	6423	148270	22972	8517
20:35	ZZZZZZ	6305	142730	22739	8230
20:41	ZZZZZZ	6522	146920	23277	8506
20:46	ZZZZZZ	6324	132960	23141	7641
20:51	ZZZZZZ	6530	151040	22985	8561
20:56	ZZZZZZ	6565	147700	23324	8636
21:01	ZZZZZZ	6076	135970	22457	7463
21:06	ZZZZZZ	5794	129050	21693	7191
21:12	ZZZZZZ	6442	145170	23094	8372
21:17	MA46321-CCV8	6144	136840	22613	7669
21:22	MA46321-CCB8	6471	143840	22811	8442
21:27	MP13171-MB1	6589	149970	24048	8555
21:32	MP13171-B1	No results reported for the elements associated with this internal standard.			
21:37	MP13171-S1	6347	139980	23724	7741
21:42	MP13171-S2	6430	141110	23870	7796
21:47	JC84460-1	6775	148650	25587	8189
21:52	MP13171-SD1	6425	146450	23826	8115
21:57	ZZZZZZ	5964	132100	22729	6954
22:02	ZZZZZZ	5865	131420	22918	6871
22:08	MA46321-CCV9	6257	139460	23070	7790

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:13	MA46321-CCB9	6409	143700	23134	8377
22:18	ZZZZZZ	6153	136420	23474	7265
22:23	ZZZZZZ	6482	143880	24473	7772
22:28	ZZZZZZ	6172	141060	23819	7263
22:34	ZZZZZZ	6497	144050	24357	7701
22:39	ZZZZZZ	5896	131030	22694	6966
22:44	ZZZZZZ	5712	127030	22109	6748
22:49	ZZZZZZ	5502	122260	21741	6604
22:54	ZZZZZZ	5622	126120	21995	6687
22:59	ZZZZZZ	6761	147480	24194	8378
23:05	MA46321-CCV10	6233	138230	22730	7767
23:10	MA46321-CCB10	6286	143110	22839	8246
23:15	ZZZZZZ	6697	153130	24208	8289
23:20	ZZZZZZ	6546	144670	23679	8296
23:25	ZZZZZZ	6775	144490	23575	8399
23:30	ZZZZZZ	6597	148260	24040	8210
23:35	ZZZZZZ	6627	147490	24133	8207
23:40	ZZZZZZ	6467	142910	999999 !a	8045
23:45	ZZZZZZ	6562	145360	24115	8096
23:50	ZZZZZZ	6491	143940	23505	8001
23:55	MP13156-MB1	6544	151310	23659	8503
00:00	MP13156-B1	6315	140950	22846	7888
00:05	MA46321-CCV11	6300	140830	23098	7815
00:10	MA46321-CCB11	6299	144340	22840	8261
00:15	MP13156-S1	6069	135170	22486	7464
00:20	MP13156-S2	6125	135180	22069	7501
00:25	JC84446-2	6233	138780	23035	7664
00:30	MP13156-SD1	6277	141860	22736	7997
00:35	ZZZZZZ	5816	128340	22302	6984
00:41	ZZZZZZ	6504	147680	23260	8442
00:46	ZZZZZZ	5392	120170	21531	6488
00:51	ZZZZZZ	5048	113760	21169	6086
00:57	ZZZZZZ	5664	127310	22112	6859

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:02	ZZZZZZ	5645	124030	21944	6813
01:07	MA46321-CCV12	6089	135110	21618	7608
01:12	MA46321-CCB12	6288	142450	22331	8236
01:18	ZZZZZZ	5682	126010	21871	6853
01:23	ZZZZZZ	5479	118860	21742	6575
01:28	ZZZZZZ	6353	145090	22775	8279
01:34	ZZZZZZ	6294	141430	22869	7862
01:39	ZZZZZZ	6324	142600	22023	8121
01:44	ZZZZZZ	6520	146280	22961	8311
01:49	ZZZZZZ	6427	144510	23374	7977
01:54	ZZZZZZ	6043	135130	22389	7395
01:59	ZZZZZZ	6434	146620	23312	8164
02:04	ZZZZZZ	6148	136720	22659	7503
02:09	MA46321-CCV13	6017	134030	22055	7538
02:14	MA46321-CCB13	6363	144340	22679	8326
02:19	ZZZZZZ	6219	140060	22556	7615
02:24	ZZZZZZ	6108	136950	22434	7618
02:29	ZZZZZZ	6556	149050	23473	8505
02:34	MP13175-MB1	6092	136900	22006	7462
02:40	MP13175-B1	6011	132560	21939	7332
02:45	MP13175-S1	6131	136260	22645	7420
02:50	MP13175-S2	6129	132630	22104	7433
02:55	JC84030-10A	6241	138210	23008	7540
03:00	MP13175-SD1	6286	139700	23178	7889
03:05	MA46321-CCV14	6235	138440	22648	7762
03:10	MA46321-CCB14	6431	145560	23317	8391
03:15	ZZZZZZ	6179	136310	22505	7489
03:20	ZZZZZZ	6148	133610	22125	7425
03:25	ZZZZZZ	6212	136690	22684	7478
03:31	ZZZZZZ	6096	133960	22340	7369
03:36	ZZZZZZ	6033	133760	22150	7359
03:41	ZZZZZZ	6038	134670	22259	7348
03:46	ZZZZZZ	6108	131930	21639	7404

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
03:51	ZZZZZZ	6072	134660	22313	7350
03:57	ZZZZZZ	6078	133940	22239	7371
04:02	ZZZZZZ	6121	135410	22655	7404
04:07	MA46321-CCV15	6166	133700	22260	7654
04:12	MA46321-CCB15	6521	146670	22815	8461
04:17	ZZZZZZ	6145	140450	22029	7471
04:22	ZZZZZZ	6166	137990	22981	7479
04:27	ZZZZZZ	6084	134480	22520	7416
04:33	ZZZZZZ	6018	133030	22145	7337
04:38	ZZZZZZ	5783	129120	21625	7057
04:43	ZZZZZZ	6005	133530	22565	7273
04:48	ZZZZZZ	5923	130590	21985	7234
04:54	ZZZZZZ	5960	132400	22104	7271
04:59	ZZZZZZ	5857	130340	21934	7167
05:04	MA46321-CCV16	6166	134070	21865	7697
05:09	MA46321-CCB16	6327	143630	22240	8283
05:14	MP13178-MB1	6473	148100	23293	8420
05:19	MP13178-B1	6285	140800	22798	7872
05:24	MP13178-S1	6305	139980	23140	7732
05:29	MP13178-S2	6303	140660	23150	7826
05:34	JC84322-4	6363	144280	23469	7769
05:39	MP13178-SD1	6486	147250	23028	8225
05:44	ZZZZZZ	6402	142580	23152	8047
05:49	ZZZZZZ	6011	135330	22767	7064
05:54	ZZZZZZ	6670	149550	23673	8170
05:59	ZZZZZZ	6576	144770	23682	8093
06:04	MA46321-CCV17	6221	138340	22582	7742
06:09	MA46321-CCB17	6344	146460	22124	8304
06:14	ZZZZZZ	6414	142560	23102	7920
06:20	ZZZZZZ	6506	141920	23523	8019
06:24	ZZZZZZ	6513	146800	23052	8170
06:29	MP13199-MB1	6042	134390	22448	7402
06:35	MP13199-MB2	6472	146460	23164	8439

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46321
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
06:40	MP13199-B1	No results reported for the elements associated with this internal standard.			
06:45	MP13199-B2	6488	145560	23109	8262
06:50	ZZZZZZ	5768	129500	21734	7065
06:55	MA46321-CCV18	6105	135080	22133	7634
07:00	MA46321-CCB18	6406	145360	22730	8380
07:05	ZZZZZZ	6579	145180	23482	8179
07:10	ZZZZZZ	6429	143970	23097	7971
07:15	ZZZZZZ	6603	146900	23773	8078
07:20	ZZZZZZ	6597	151360	24012	7878
07:25	ZZZZZZ	6573	146450	24050	7936
07:30	ZZZZZZ	6550	143380	23600	8135
07:36	ZZZZZZ	6605	146270	23923	8083
07:41	ZZZZZZ	6583	145390	23748	7930
07:46	ZZZZZZ	7261	160720	26314	8224
07:51	MA46321-CCV19	6068	134270	21952	7616
07:56	MA46321-CCB19	6367	143660	22258	8358
08:01	ZZZZZZ	6678	148190	24385	8032
08:07	ZZZZZZ	6387	138420	23282	7906
08:12	ZZZZZZ	6733	145130	24267	8086
08:17	MP13199-B1	6023	134320	22435	7365
08:22	MP13199-S1	6059	134350	22333	7374
08:27	MP13199-S2	6081	135390	22492	7407
08:32	JC84322-1A	5989	132870	22132	7343
08:38	MP13199-SD1	6118	137630	22016	7752
08:43	MP13171-B1	6212	138910	22340	7843
08:48	MA46321-CCV20	6167	139650	22120	7720
08:53	MA46321-CCB20	6465	146130	22811	8491

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA46321 Units: ug/l

Time:				14:12		14:22		15:20	
Sample ID:				ICB1		CCB1		CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	200	14	100						
Antimony	6.0	1.4	5.0						
Arsenic	3.0	1.5	3.0						
Barium	200	.5	100	0.100	<200	0.100	<200	-0.100	<200
Beryllium	1.0	.1	1.0						
Bismuth	20	1.8	10						
Boron	100	.8	100						
Cadmium	3.0	.3	2.0						
Calcium	5000	3.9	200						
Chromium	10	.3	5.0						
Cobalt	50	.3	10						
Copper	10	.6	8.0						
Iron	100	2.6	50	1.00	<100	3.10	<100	2.50	<100
Lead	3.0	1.6	3.0						
Lithium	50	2.1	20						
Magnesium	5000	16	500	8.20	<5000	2.90	<5000	8.80	<5000
Manganese	15	.1	5.0	0.300	<15	0.200	<15	0.100	<15
Molybdenum	20	.4	8.0						
Nickel	10	.5	8.0						
Phosphorus	50	1.9	25						
Potassium	10000	79	500						
Selenium	10	3	8.0						
Silicon	200	1.2	150						
Silver	10	.5	4.0						
Sodium	10000	9.9	1000						
Strontium	10	.3	2.0						
Sulfur	50	3.5	50						
Thallium	10	1.3	5.0						
Tin	10	.7	8.0						
Titanium	10	.5	4.0						
Tungsten	50	1.7	50						
Vanadium	50	.5	4.0						
Zinc	20	.2	10						

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA46321 Units: ug/l

Time: / Sample ID:				14:12 ICB1		14:22 CCB1		15:20 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Zirconium	10	.3	5.0						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA46321 Units: ug/l

Time:				16:15		17:11		18:07	
Sample ID:				CCB3		CCB4		CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	200	14	100						
Antimony	6.0	1.4	5.0						
Arsenic	3.0	1.5	3.0						
Barium	200	.5	100	0.100	<200	0.100	<200	-0.400	<200
Beryllium	1.0	.1	1.0						
Bismuth	20	1.8	10						
Boron	100	.8	100						
Cadmium	3.0	.3	2.0						
Calcium	5000	3.9	200						
Chromium	10	.3	5.0						
Cobalt	50	.3	10						
Copper	10	.6	8.0						
Iron	100	2.6	50	0.600	<100	1.20	<100	-1.70	<100
Lead	3.0	1.6	3.0						
Lithium	50	2.1	20						
Magnesium	5000	16	500	5.50	<5000	2.60	<5000	9.70	<5000
Manganese	15	.1	5.0	0.200	<15	0.300	<15	0.100	<15
Molybdenum	20	.4	8.0						
Nickel	10	.5	8.0						
Phosphorus	50	1.9	25						
Potassium	10000	79	500						
Selenium	10	3	8.0						
Silicon	200	1.2	150						
Silver	10	.5	4.0						
Sodium	10000	9.9	1000						
Strontium	10	.3	2.0						
Sulfur	50	3.5	50						
Thallium	10	1.3	5.0						
Tin	10	.7	8.0						
Titanium	10	.5	4.0						
Tungsten	50	1.7	50						
Vanadium	50	.5	4.0						
Zinc	20	.2	10						

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA46321 Units: ug/l

Time: / Sample ID:				16:15 CCB3		17:11 CCB4		18:07 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Zirconium	10	.3	5.0						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46321 Units: ug/l

Time:		14:05			14:17			15:15	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2010	100.5	2000	1960	98.0	2000	2030	101.5
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40000	100.0	40000	39600	99.0	40000	40200	100.5
Lead	anr								
Lithium	anr								
Magnesium	40000	40300	100.8	40000	40000	100.0	40000	40400	101.0
Manganese	2000	2030	101.5	2000	1990	99.5	2000	2020	101.0
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin	anr								
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46321 Units: ug/l

Time:		14:05			14:17			15:15	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46321 Units: ug/l

Time:		16:10			17:06			18:02	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	1990	99.5	2000	2030	101.5	2000	1990	99.5
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	39300	98.3	40000	40200	100.5	40000	39100	97.8
Lead	anr								
Lithium	anr								
Magnesium	40000	39600	99.0	40000	40300	100.8	40000	39300	98.3
Manganese	2000	2000	100.0	2000	1980	99.0	2000	1990	99.5
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin	anr								
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46321 Units: ug/l

Time:		16:10			17:06			18:02	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA46321 Units: ug/l

Time:		14:48			14:54	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	8000	8110	101.4			
Beryllium	anr					
Bismuth						
Boron	anr					
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron				200000	199000	99.5
Lead	anr					
Lithium	anr					
Magnesium				300000	300000	100.0
Manganese	8000	8050	100.6			
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Sulfur	anr					
Thallium	anr					
Tin	anr					
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

HIGH STANDARD CHECK SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA46321 Units: ug/l

Time:		14:48			14:54	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46321 Units: ug/l

Time:				15:25		15:30	
Sample ID:	CRI	CRIA	CRID	CRI2		CRID2	
Metal	True	True	True	Results	% Rec	Results	% Rec
Aluminum	200	500	100	anr			
Antimony	6.0	20	3.0	anr			
Arsenic	8.0	20	3.0	anr			
Barium	200		4.0	203	101.5	4.30	107.5
Beryllium	2.0		1.0	anr			
Bismuth	20						
Boron	100		10	anr			
Cadmium	3.0		1.0	anr			
Calcium	5000	2000	1000	anr			
Chromium	10		2.0	anr			
Cobalt	50		3.0	anr			
Copper	10		2.0	anr			
Iron	100	500		105	105.0		
Lead	3.0	20	2.5	anr			
Lithium	50			anr			
Magnesium	5000	2000	100	5360	107.2	115	115.0
Manganese	15		3.0	15.9	106.0	3.50	116.7
Molybdenum	20						
Nickel	10		4.0	anr			
Phosphorus	50						
Potassium	5000		2000	anr			
Selenium	10	20	5.0	anr			
Silicon	200						
Silver	5.0		2.0	anr			
Sodium	5000		1000	anr			
Strontium	10						
Sulfur	50			anr			
Thallium	10		2.0	anr			
Tin	10			anr			
Titanium	10						
Tungsten	50						
Vanadium	50		2.0	anr			
Zinc	20		10	anr			

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46321 Units: ug/l

Time:				15:25		15:30	
Sample ID:	CRI	CRIA	CRID	CRI2		CRID2	
Metal	True	True	True	Results	% Rec	Results	% Rec
Zirconium	10						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA46321 Units: ug/l

Time:			14:38		14:43		17:16		17:21	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	513000	102.6	521000	104.2	503000	100.6	517000	103.4
Antimony		1000	0.900		1120	112.0	1.30		1120	112.0
Arsenic		1000	-0.600		1140	114.0	1.40		1120	112.0
Barium		500	0.800		525	105.0	0.400		517	103.4
Beryllium		500	0.100		520	104.0	0.100		509	101.8
Bismuth		500	1.50		525	105.0	2.10		523	104.6
Boron		500	1.10		513	102.6	0.200		510	102.0
Cadmium		1000	-0.400		1040	104.0	-0.200		1040	104.0
Calcium	400000	400000	402000	100.5	399000	99.8	388000	97.0	391000	97.8
Chromium		500	1.30		506	101.2	1.40		500	100.0
Cobalt		500	1.00		504	100.8	1.20		502	100.4
Copper		500	-1.10		514	102.8	-1.60		508	101.6
Iron	200000	200000	202000	101.0	193000	96.5	195000	97.5	192000	96.0
Lead		1000	-1.50		984	98.4	1.00		975	97.5
Lithium		500	-1.60		566	113.2	0.200		554	110.8
Magnesium	500000	500000	516000	103.2	513000	102.6	501000	100.2	505000	101.0
Manganese		500	1.60		521	104.2	1.50		519	103.8
Molybdenum		500	0.100		514	102.8	0.300		508	101.6
Nickel		1000	-0.500		1000	100.0	-0.200		996	99.6
Phosphorus		500	17.2		552	110.4	20.5		495	99.0
Potassium			465		466		526		487	
Selenium		1000	-2.10		1110	111.0	0.300		1080	108.0
Silicon		500	5.50		516	103.2	7.40		508	101.6
Silver		1000	1.00		1070	107.0	0.700		1060	106.0
Sodium			80.0		72.3		97.9		73.8	
Strontium		500	-0.300		589	117.8	-0.300		577	115.4
Sulfur		500	13.5		520	104.0	16.5		502	100.4
Thallium		1000	0.600		1020	102.0	1.30		976	97.6
Tin		500	-1.40		497	99.4	-0.600		489	97.8
Titanium		500	-1.50		522	104.4	-0.800		517	103.4
Tungsten		500	0.700		493	98.6	-1.40		492	98.4
Vanadium		500	-1.60		512	102.4	-1.60		507	101.4
Zinc		1000	-1.70		987	98.7	-1.60		979	97.9

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC031819M2L.ICP Date Analyzed: 03/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA46321 Units: ug/l

Time:			14:38		14:43		17:16		17:21	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	0.800		554	110.8	0.900		549	109.8

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:13	MA46322-STD1	1		STDA
10:18	MA46322-STD2	1		STDA
10:23	MA46322-STD3	1		STDA
10:31	MA46322-STD4	1		STDB
10:36	MA46322-STD5	1		STDC
10:41	MA46322-STD6	1		STDD
10:46	MA46322-STD7	1		STDE
10:51	MA46322-STD8	1		STDF
10:56	MA46322-STD9	1		STDG
11:01	MA46322-STD10	1		STDH
11:06	MA46322-STD11	1		STDI
11:11	MA46322-STD12	1		STDJ
11:16	ZZZZZZ	1		
11:23	MA46322-ICVA1	1		
11:34	MA46322-ICV1	1		
11:39	MA46322-ICB1	1		
11:44	MA46322-CCVA1	1		
11:49	MA46322-CCB1	1		
11:54	MA46322-CRI1	1		
12:02	MA46322-ICSA1	1		
12:07	MA46322-ICSAB1	1		
12:19	MA46322-CCVA2	1		
12:24	MA46322-CCB2	1		
12:29	ZZZZZZ	10		
12:34	ZZZZZZ	5		
12:39	JC84299-2	20		
12:44	JC84299-3	50		
12:49	ZZZZZZ	100		
12:54	ZZZZZZ	100		
12:59	ZZZZZZ	2		
13:04	ZZZZZZ	100		
13:09	ZZZZZZ	2		
13:14	MA46322-CCVA3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:19	MA46322-CCB3	1		
13:24	ZZZZZZ	100		
13:29	ZZZZZZ	5		
13:34	ZZZZZZ	100		
13:39	ZZZZZZ	5		
13:44	MP13123-S1	10		
13:49	MP13123-S2	10		
13:53	JC84266-10	10		(sample used for QC only; not part of login JC84299)
13:58	MP13123-SD1	50		
14:03	ZZZZZZ	25		
14:08	MA46322-CCVA4	1		
14:13	MA46322-CCB4	1		
14:18	ZZZZZZ	25		
14:23	ZZZZZZ	1		
14:28	ZZZZZZ	1		
14:33	MP13155-S1	5		
14:38	MP13155-S2	5		
14:43	JC84397-6	5		(sample used for QC only; not part of login JC84299)
14:48	MP13029-MB1	1		
14:53	MP13029-B1	1		
14:58	MP13029-S1	1		Zn overrange
15:03	MA46322-CCVA5	1		
15:08	MA46322-CCB5	1		
15:13	MP13029-S2	1		Zn overrange
15:18	JC84152-4	1		(sample used for QC only; not part of login JC84299)
15:23	ZZZZZZ	10		
15:28	ZZZZZZ	1		
15:33	ZZZZZZ	50		
15:38	ZZZZZZ	2		
15:43	ZZZZZZ	2		
15:48	ZZZZZZ	2		
15:53	ZZZZZZ	2		
15:58	MA46322-CCVA6	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:03	MA46322-CCB6	1		
16:08	ZZZZZZ	2		
16:15	ZZZZZZ	5		
16:20	ZZZZZZ	5		
16:25	ZZZZZZ	5		
16:30	ZZZZZZ	5		
16:35	ZZZZZZ	5		
16:43	MP13130A-S3	5		
16:48	MP13130A-S4	5		
---------->	Last reportable sample/prep for job JC84299			
16:53	MP13123-PS1	5		
16:58	MA46322-CCVA7	1		
17:03	MA46322-CCB7	1		
---------->	Last reportable CCB for job JC84299			
17:08	MP13156A-MB1	2		
17:13	MP13156A-B2	2		
17:18	ZZZZZZ	2		
17:23	MP13156A-S3	2		
17:28	MP13156A-S4	2		
17:33	JC84446-2	2		(sample used for QC only; not part of login JC84299)
17:38	MP13156A-SD1	10		
17:43	ZZZZZZ	2		
17:48	ZZZZZZ	2		
17:53	MA46322-CCVA8	1		
17:57	MA46322-CCB8	1		
18:02	ZZZZZZ	2		
18:07	ZZZZZZ	2		
18:12	ZZZZZZ	2		
18:17	MP13182A-MB1	2		
18:22	MP13182A-B2	2		
18:27	MP13182A-S5	2		
18:32	MP13182A-S6	2		
18:37	JC84439-2	2		(sample used for QC only; not part of login JC84299)
18:42	MP13182A-SD1	10		
18:47	MA46322-CCVA9	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:52	MA46322-CCB9	1		
18:57	MP13182A-S7	2		
19:02	MP13182A-S8	2		
19:07	JC84439-2F	2		(sample used for QC only; not part of login JC84299)
19:12	MP13182A-SD2	10		
19:17	ZZZZZZ	2		
19:22	ZZZZZZ	2		
19:27	ZZZZZZ	2		
19:32	ZZZZZZ	2		
19:37	ZZZZZZ	2		
19:42	MA46322-CCVA10	1		
19:47	MA46322-CCB10	1		
19:52	ZZZZZZ	2		
19:57	ZZZZZZ	2		
20:02	ZZZZZZ	2		
20:07	ZZZZZZ	2		
20:12	ZZZZZZ	1		
20:17	ZZZZZZ	2		
20:22	ZZZZZZ	2		
20:27	ZZZZZZ	2		
20:32	ZZZZZZ	2		
20:37	MA46322-CCVA11	1		
20:42	MA46322-CCB11	1		
20:46	ZZZZZZ	2		
20:52	ZZZZZZ	2		
20:56	ZZZZZZ	2		
21:01	ZZZZZZ	2		
21:06	MP13147A-MB1	2		
21:11	MP13147A-MB2	2		
21:16	MP13147A-B2	2		
21:21	MP13147A-B3	25		
21:26	MP13147A-S3	2		Need PS for As.
21:31	MA46322-CCVA12	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:36	MA46322-CCB12	1		
21:41	MP13147A-S4	2		Need PS for As.
21:46	JC84282-8	2		(sample used for QC only; not part of login JC84299)
21:51	MP13147A-SD1	10		
21:56	ZZZZZZ	2		
22:01	ZZZZZZ	1		
22:06	ZZZZZZ	2		
22:11	ZZZZZZ	2		
22:16	ZZZZZZ	2		
22:21	ZZZZZZ	2		
22:26	MA46322-CCVA13	1		
22:31	MA46322-CCB13	1		
22:36	ZZZZZZ	2		
22:41	ZZZZZZ	2		
22:46	ZZZZZZ	2		
22:51	ZZZZZZ	1		
22:56	ZZZZZZ	2		
23:01	ZZZZZZ	2		
23:06	ZZZZZZ	1		
23:11	ZZZZZZ	2		
23:16	ZZZZZZ	2		
23:21	MA46322-CCVA14	1		
23:26	MA46322-CCB14	1		
23:31	ZZZZZZ	2		
23:35	ZZZZZZ	2		
23:40	ZZZZZZ	1		
23:45	ZZZZZZ	2		
23:50	MA46322-CCVA15	1		
23:55	MA46322-CCB15	1		
00:00	ZZZZZZ	1		
00:05	ZZZZZZ	1		
00:10	ZZZZZZ	1		
00:15	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:20	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Element: Dilution	As
11:16	ZZZZZZ	1	
11:23	MA46322-ICVA1	1	X
11:34	MA46322-ICV1	1	
11:39	MA46322-ICB1	1	X
11:44	MA46322-CCVA1	1	X
11:49	MA46322-CCB1	1	X
11:54	MA46322-CRI1	1	X
12:02	MA46322-ICSA1	1	X
12:07	MA46322-ICSAB1	1	X
12:19	MA46322-CCVA2	1	X
12:24	MA46322-CCB2	1	X
12:29	ZZZZZZ	10	
12:34	ZZZZZZ	5	
12:39	JC84299-2	20	X
12:44	JC84299-3	50	X
12:49	ZZZZZZ	100	
12:54	ZZZZZZ	100	
12:59	ZZZZZZ	2	
13:04	ZZZZZZ	100	
13:09	ZZZZZZ	2	
13:14	MA46322-CCVA3	1	X
13:19	MA46322-CCB3	1	X
13:24	ZZZZZZ	100	
13:29	ZZZZZZ	5	
13:34	ZZZZZZ	100	
13:39	ZZZZZZ	5	
13:44	MP13123-S1	10	
13:49	MP13123-S2	10	
13:53	JC84266-10	10	(a)
13:58	MP13123-SD1	50	
14:03	ZZZZZZ	25	
14:08	MA46322-CCVA4	1	X
14:13	MA46322-CCB4	1	X
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Element: Dilution	As	
14:18	ZZZZZZ	25		
14:23	ZZZZZZ	1		
14:28	ZZZZZZ	1		
14:33	MP13155-S1	5		
14:38	MP13155-S2	5		
14:43	JC84397-6	5		(a)
14:48	MP13029-MB1	1	X	
14:53	MP13029-B1	1	X	
14:58	MP13029-S1	1	X	
15:03	MA46322-CCVA5	1	X	
15:08	MA46322-CCB5	1	X	
15:13	MP13029-S2	1	X	
15:18	JC84152-4	1		(a)
15:23	ZZZZZZ	10		
15:28	ZZZZZZ	1		
15:33	ZZZZZZ	50		
15:38	ZZZZZZ	2		
15:43	ZZZZZZ	2		
15:48	ZZZZZZ	2		
15:53	ZZZZZZ	2		
15:58	MA46322-CCVA6	1	X	
16:03	MA46322-CCB6	1	X	
16:08	ZZZZZZ	2		
16:15	ZZZZZZ	5		
16:20	ZZZZZZ	5		
16:25	ZZZZZZ	5		
16:30	ZZZZZZ	5		
16:35	ZZZZZZ	5		
16:43	MP13130A-S3	5		
16:48	MP13130A-S4	5		
16:53	MP13123-PS1	5		
16:58	MA46322-CCVA7	1	X	
17:03	MA46322-CCB7	1	X	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Element: Dilution	As	
17:08	MP13156A-MB1	2	X	
17:13	MP13156A-B2	2	X	
17:18	ZZZZZZ	2		
17:23	MP13156A-S3	2	X	
17:28	MP13156A-S4	2	X	
17:33	JC84446-2	2	X	(a)
17:38	MP13156A-SD1	10	X	
17:43	ZZZZZZ	2		
17:48	ZZZZZZ	2		
17:53	MA46322-CCVA8	1	X	
17:57	MA46322-CCB8	1	X	
18:02	ZZZZZZ	2		
18:07	ZZZZZZ	2		
18:12	ZZZZZZ	2		
18:17	MP13182A-MB1	2	X	
18:22	MP13182A-B2	2	X	
18:27	MP13182A-S5	2	X	
18:32	MP13182A-S6	2	X	
18:37	JC84439-2	2	X	(a)
18:42	MP13182A-SD1	10	X	
18:47	MA46322-CCVA9	1	X	
18:52	MA46322-CCB9	1	X	
18:57	MP13182A-S7	2	X	
19:02	MP13182A-S8	2	X	
19:07	JC84439-2F	2	X	(a)
19:12	MP13182A-SD2	10	X	
19:17	ZZZZZZ	2		
19:22	ZZZZZZ	2		
19:27	ZZZZZZ	2		
19:32	ZZZZZZ	2		
19:37	ZZZZZZ	2		
19:42	MA46322-CCVA10	1	X	
19:47	MA46322-CCB10	1	X	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Element: Dilution	As	
19:52	ZZZZZZ	2		
19:57	ZZZZZZ	2		
20:02	ZZZZZZ	2		
20:07	ZZZZZZ	2		
20:12	ZZZZZZ	1		
20:17	ZZZZZZ	2		
20:22	ZZZZZZ	2		
20:27	ZZZZZZ	2		
20:32	ZZZZZZ	2		
20:37	MA46322-CCVA11	1	X	
20:42	MA46322-CCB11	1	X	
20:46	ZZZZZZ	2		
20:52	ZZZZZZ	2		
20:56	ZZZZZZ	2		
21:01	ZZZZZZ	2		
21:06	MP13147A-MB1	2	X	
21:11	MP13147A-MB2	2	X	
21:16	MP13147A-B2	2	X	
21:21	MP13147A-B3	25	X	
21:26	MP13147A-S3	2	X	
21:31	MA46322-CCVA12	1	X	
21:36	MA46322-CCB12	1	X	
21:41	MP13147A-S4	2	X	
21:46	JC84282-8	2	X	(a)
21:51	MP13147A-SD1	10	X	
21:56	ZZZZZZ	2		
22:01	ZZZZZZ	1		
22:06	ZZZZZZ	2		
22:11	ZZZZZZ	2		
22:16	ZZZZZZ	2		
22:21	ZZZZZZ	2		
22:26	MA46322-CCVA13	1	X	
22:31	MA46322-CCB13	1	X	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Element: Dilution	As
22:36	ZZZZZZ	2	
22:41	ZZZZZZ	2	
22:46	ZZZZZZ	2	
22:51	ZZZZZZ	1	
22:56	ZZZZZZ	2	
23:01	ZZZZZZ	2	
23:06	ZZZZZZ	1	
23:11	ZZZZZZ	2	
23:16	ZZZZZZ	2	
23:21	MA46322-CCVA14	1	X
23:26	MA46322-CCB14	1	X
23:31	ZZZZZZ	2	
23:35	ZZZZZZ	2	
23:40	ZZZZZZ	1	
23:45	ZZZZZZ	2	
23:50	MA46322-CCVA15	1	X
23:55	MA46322-CCB15	1	X
00:00	ZZZZZZ	1	
00:05	ZZZZZZ	1	
00:10	ZZZZZZ	1	
00:15	ZZZZZZ	1	
00:20	ZZZZZZ	1	

(a) Sample used for QC only; not part of login JC84299.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
10:13	MA46322-STD1	100	100	100	100	100	100	100	100
10:18	MA46322-STD2	100	100	100	100	100	100	100	100
10:23	MA46322-STD3	100	100	100	100	100	100	100	100
10:31	MA46322-STD4	99.945	99.72	101.044	99.556	99.385	95.916	97.963	98.802
10:36	MA46322-STD5	99.667	99.867	103.935	98.802	98.686	97.28	97.817	98.796
10:41	MA46322-STD6	99.092	99.62	100.274	97.153	98.312	93.823	96.58	97.941
10:46	MA46322-STD7	96.835	96.043	97.872	96.218	96.461	92.322	94.889	96.603
10:51	MA46322-STD8	94.946	95.142	96.361	95.184	94.788	90.926	92.993	94.572
10:56	MA46322-STD9	95.118	96.291	97.505	96.957	94.941	93.612	96.251	95.799
11:01	MA46322-STD10	97.751	97.893	99.947	97.946	97.159	94.196	97.597	98.433
11:06	MA46322-STD11	97.18	99.597	100.969	97.387	97.371	95.251	95.948	96.651
11:11	MA46322-STD12	94.614	98.938	99.73	95.565	96.304	93.107	93.781	95.308
11:16	ZZZZZZ	96.407	99.306	101.965	98.138	98.898	95.393	98.691	98.961
11:23	MA46322-ICVA1	94.466	96.887	99.389	93.507	95.57	93.232	91.308	96.019
11:34	MA46322-ICV1	95.542	97.254	100.439	97.161	96.669	95.563	96.222	96.816
11:39	MA46322-ICB1	96.455	97.864	100.627	97.006	97.436	95.086	96.007	97.268
11:44	MA46322-CCVA1	93.326	95.912	98.406	93.399	95.572	91.56	91.581	95.704
11:49	MA46322-CCB1	96.509	99.883	99.007	96.087	98.568	93.038	95.972	98.39
11:54	MA46322-CRI1	95.42	97.825	99.12	96.754	97.579	94.579	96.14	97.116
12:02	MA46322-ICSA1	84.799	90.996	90.355	83.243	91.397	82.572	79.522	81.901
12:07	MA46322-ICSAB1	79.736	87.129	89.996	89.094	90.235	82.524	83.732	81.304
12:19	MA46322-CCVA2	83.113	93.584	93.424	98.12	96.23	89.6	96.301	96.825
12:24	MA46322-CCB2	87.073	95.802	96.645	102.747	99.563	93.42	101.843	99.065
12:29	ZZZZZZ	84.032	93.05	92.96	100.356	95.952	92.972	104.837	96.129
12:34	ZZZZZZ	83.354	92.997	93.031	101.498	93.92	87.288	98.865	94.355
12:39	JC84299-2	86.457	96.56	95.745	101.798	98.427	92.287	100.535	98.494
12:44	JC84299-3	88.582	97.188	97.39	101.992	99.397	92.994	100.862	99.245
12:49	ZZZZZZ	89.465	99.621	98.742	103.202	100.453	93.157	102.045	100.396
12:54	ZZZZZZ	90.522	99.345	97.926	102.143	100.988	93.662	100.965	100.683
12:59	ZZZZZZ	89.714	97.343	97.12	104.097	97.052	89.649	99.786	96.945
13:04	ZZZZZZ	90.415	100.048	100.582	101.194	99.022	94.221	98.412	98.785
13:09	ZZZZZZ	90.744	97.494	98.013	106.174	98.133	90.167	100.696	98.35
13:14	MA46322-CCVA3	94.2	103.363	97.979	99.06	100.872	91.31	96.09	101.448

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
13:19	MA46322-CCB3	89.814	96.907	93.931	101.045	97.314	90.092	99.343	96.893
13:24	ZZZZZZ	104.329	108.923	114.08	107.075	92.714	92.822	91.764	92.479
13:29	ZZZZZZ	101.67	107.924	98.529	102.919	105.562	92.128	101.198	105.342
13:34	ZZZZZZ	93.963	100.575	100.441	99.515	94.549	89.616	92.887	94.273
13:39	ZZZZZZ	90.068	95.362	94.709	101.595	96.233	88.654	97.574	95.769
13:44	MP13123-S1	90.66	105.754	107.335	110.815	98.725	91.816	99.35	97.412
13:49	MP13123-S2	93.22	110.816	109.898	109.884	101.575	94.356	98.583	99.807
13:53	JC84266-10	93.904	109.236	108.588	110.556	102.706	94.751	99.504	101.059
13:58	MP13123-SD1	95.842	106.056	108.181	106.422	104.434	99.571	103.111	104.127
14:03	ZZZZZZ	95.473	108.497	107.009	109.522	104.645	97.095	103.929	103.473
14:08	MA46322-CCVA4	98.637	107.352	104.329	103.664	104.907	96.31	100.038	105.903
14:13	MA46322-CCB4	100.978	109.24	106.946	107.823	107.349	99.411	105.708	107.412
14:18	ZZZZZZ	99.312	108.273	106.751	107.154	104.508	97.047	102.057	103.454
14:23	ZZZZZZ	102.61	110.079	107.995	111.71	107.971	101.681	109.504	107.644
14:28	ZZZZZZ	99.83	107.775	104.344	102.955	105.53	96.771	100.957	106.51
14:33	MP13155-S1	91.027	97.037	100.485	101.464	96.943	94.742	98.828	96.89
14:38	MP13155-S2	93.334	102.412	100.692	100.159	100.29	94.043	97.478	100.395
14:43	JC84397-6	91.974	101.749	99.541	99.999	100.252	93.592	99.072	100.271
14:48	MP13029-MB1	94.622	101.461	99.887	103.109	101.328	94.952	101.34	101.736
14:53	MP13029-B1	91.107	98.312	95.18	96.487	98.716	88.825	94.174	99.276
14:58	MP13029-S1	87.82	95.696	94.935	94.766	94.165	88.66	92.496	95.375
15:03	MA46322-CCVA5	88.087	95.842	93.465	94.431	95.557	87.932	91.701	96.122
15:08	MA46322-CCB5	90.684	97.396	94.379	97.824	96.488	88.466	96.238	96.245
15:13	MP13029-S2	87.484	94.901	92.815	93.428	92.891	87.074	91.357	93.946
15:18	JC84152-4	88.482	97.255	94.993	96.02	95.222	89.588	94.064	95.498
15:23	ZZZZZZ	96.737	105.865	106.639	101.592	96.118	92.978	93.566	95.613
15:28	ZZZZZZ	103.683	115.743	111.15	105.223	96.846	90.297	89.929	96.473
15:33	ZZZZZZ	116.891	123.652	121.217	116.167	107.335	100.932	102.377	106.895
15:38	ZZZZZZ	105.223	108.556	104.924	114.116	105.759	95.539	109.116	105.764
15:43	ZZZZZZ	104.951	111.136	106.613	118.7	107.836	96.217	110.622	108.081
15:48	ZZZZZZ	110.268	116.046	110.866	121.813	112.567	99.735	114.501	112.247
15:53	ZZZZZZ	112.523	118.053	113.033	121.886	113.864	100.579	113.516	113.945
15:58	MA46322-CCVA6	112.646	119.334	112.981	112.878	115.754	103.044	108.314	115.87

INTERNAL STANDARD SUMMARY

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Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:03	MA46322-CCB6	108.387	114.269	109.651	115.26	111.695	103.138	111.734	112.667
16:08	ZZZZZZ	109.4	113.419	109.187	117.806	109.669	97.961	111.829	110.435
16:15	ZZZZZZ	111.565	115.69	112.985	110.795	113.235	103.444	109.109	112.904
16:20	ZZZZZZ	111.934	115.43	109.016	110.215	111.447	100.094	105.803	111.554
16:25	ZZZZZZ	110.423	114.183	108.454	111.659	111.144	98.755	107.078	111.388
16:30	ZZZZZZ	109.075	113.202	109.021	110.731	110.308	99.557	106.294	110.084
16:35	ZZZZZZ	109.024	114.69	109.833	110.713	109.882	100.004	105.911	110.322
16:43	MP13130A-S3	107.205	112.695	107.059	109.58	107.528	97.423	105.287	107.753
16:48	MP13130A-S4	110.225	115.799	107.457	110.314	111.85	98.366	106.004	112.01
16:53	MP13123-PS1	112.801	134.477	!a127.483	122.813	117.891	103.557	105.795	113.373
16:58	MA46322-CCVA7	110.651	119.274	112.369	111.18	114.007	102.587	106.515	114.771
17:03	MA46322-CCB7	117.51	126.352	115.167	119.392	120.199	106.192	115.106	120.103
17:08	MP13156A-MB1	113.683	120.352	114.271	120.852	115.557	101.204	114.494	115.093
17:13	MP13156A-B2	115.596	122.01	114.205	121.657	115.388	100.542	113.518	115.527
17:18	ZZZZZZ	117.031	121.483	113.53	122.443	115.548	101.201	115.222	114.616
17:23	MP13156A-S3	109.044	118.194	110.347	117.743	104.888	94.7	107	105.4
17:28	MP13156A-S4	108.05	117.681	105.1	113.576	104.579	91.768	102.533	104.941
17:33	JC84446-2	104.987	113.972	101.382	110.668	102.657	88.047	100.635	102.275
17:38	MP13156A-SD1	108.141	113.05	105.061	105.769	108.085	97.206	103.249	108.433
17:43	ZZZZZZ	102.252	110.541	98.736	108.697	98.976	85.555	98.331	98.469
17:48	ZZZZZZ	101.653	106.822	98.274	109.871	101.612	88.089	104.913	101.371
17:53	MA46322-CCVA8	108.129	113.582	106.307	107.937	108.798	97.113	102.822	109.468
17:57	MA46322-CCB8	108.083	111.29	104.601	106.471	107.767	95.831	103.425	107.896
18:02	ZZZZZZ	101.595	107.456	99.105	106.786	97.755	85.891	97.779	97.265
18:07	ZZZZZZ	104.161	114.036	100.537	109.134	100.095	88.002	100.249	99.729
18:12	ZZZZZZ	102.595	109.045	98.319	112.449	99.503	86.396	102.696	99.335
18:17	MP13182A-MB1	105.197	110.373	101.966	112.656	105.897	91.157	106.337	105.296
18:22	MP13182A-B2	103.729	107.329	101.74	114.201	103.293	90.672	106.043	102.839
18:27	MP13182A-S5	99.186	103.028	101.117	110.869	95.407	87.721	100.372	95.361
18:32	MP13182A-S6	102.71	110.14	96.793	108.315	99.603	84.108	97.807	99.706
18:37	JC84439-2	102.078	109.498	97.323	106.946	99.444	83.731	97.051	98.22
18:42	MP13182A-SD1	109.971	113.075	103.252	109.24	106.636	94.411	104.017	106.82
18:47	MA46322-CCVA9	107.152	112.499	104.295	104.577	106.214	93.656	99.548	106.722

INTERNAL STANDARD SUMMARY

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Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
18:52	MA46322-CCB9	108.319	113.076	103.949	103.35	107.317	96.254	100.957	106.823
18:57	MP13182A-S7	99.282	106.652	96.669	104.392	96.351	82.316	94.781	96.844
19:02	MP13182A-S8	100.002	107.175	96.063	104.465	97.039	82.922	94.808	97.312
19:07	JC84439-2F	100.002	106.861	95.353	104.868	96.078	82.769	95.017	95.823
19:12	MP13182A-SD2	108.135	112.42	102.884	101.501	105.485	93.181	98.98	105.371
19:17	ZZZZZZ	99.582	104.821	93.545	102.257	96.021	82.64	95.444	95.576
19:22	ZZZZZZ	99.133	105.113	93.828	102.778	97.012	83.298	95.77	96.356
19:27	ZZZZZZ	97.184	103.911	92.911	99.35	91.655	78.72	88.426	91.043
19:32	ZZZZZZ	98.75	104.833	94.304	102.158	92.643	79.362	90.943	92.643
19:37	ZZZZZZ	96.162	105.196	92.592	101.567	93.39	79.897	92.052	93.187
19:42	MA46322-CCVA10	105.034	109.527	101.379	101.564	104.04	91.091	97.199	104.77
19:47	MA46322-CCB10	106.529	108.19	99.789	100.042	103.086	90.955	97.665	102.946
19:52	ZZZZZZ	99.213	103.401	94.819	105.142	98.277	85.043	98.446	97.894
19:57	ZZZZZZ	103.29	106.206	93.786	89.892	82.716	72.053	72.978	82.894
20:02	ZZZZZZ	100.879	105.987	94.026	96.134	90.205	77.934	84.016	90.175
20:07	ZZZZZZ	98.256	107.661	96.605	100.764	96.733	83.911	92.444	95.276
20:12	ZZZZZZ	110.128	115.126	104.507	104.408	109.214	95.777	100.831	109.159
20:17	ZZZZZZ	99.288	109.481	94.283	93.65	86.525	74.435	77.377	85.472
20:22	ZZZZZZ	100.366	107.253	97.085	98.943	91.949	80.633	86.231	92.169
20:27	ZZZZZZ	101.248	108.031	95.224	101.676	98.875	83.916	93.328	98.239
20:32	ZZZZZZ	103.579	107.812	96.239	100.593	95.343	81.409	89.852	95.51
20:37	MA46322-CCVA11	107.022	111.012	100.412	99.924	103.398	91.464	96.016	104.5
20:42	MA46322-CCB11	107.971	111.522	102.564	100.727	105.211	93.302	97.98	105.189
20:46	ZZZZZZ	103.661	107.896	98.523	104.93	102.212	87.956	99.246	101.377
20:52	ZZZZZZ	100.572	108.672	97.873	103.305	98.03	85.23	94.931	97.985
20:56	ZZZZZZ	98.552	106.052	93.41	99.144	92.881	78.814	87.182	92.702
21:01	ZZZZZZ	94.627	105.389	91.691	99.988	93.287	79.485	90.347	93.383
21:06	MP13147A-MB1	100.466	105.472	94.991	104.811	100.368	85.656	98.819	100.031
21:11	MP13147A-MB2	103.212	107.325	97.175	105.787	101.553	86.95	99.497	101.158
21:16	MP13147A-B2	100.467	104.244	95.205	104.491	99.327	85.07	97.088	99.558
21:21	MP13147A-B3	111.595	114.233	103.147	99.299	108.435	94.095	96.384	108.761
21:26	MP13147A-S3	100.523	108.707	93.434	94.672	87.961	74.195	78.197	88.016
21:31	MA46322-CCVA12	107.251	110.989	100.857	98.579	103.988	90.29	93.701	104.221

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21:36	MA46322-CCB12	107.619	109.422	99.662	99.275	103.272	90.659	95.772	103.76
21:41	MP13147A-S4	101.386	108.654	93.107	93.204	87.703	73.689	77.411	87.771
21:46	JC84282-8	99.968	106.145	91.213	92.426	87.022	73.259	78.111	86.622
21:51	MP13147A-SD1	110.815	111.977	100.572	95.773	100.007	89.045	88.649	99.679
21:56	ZZZZZZ	98.348	104.783	91.671	96.18	94.775	81.057	88.724	94.114
22:01	ZZZZZZ	110.434	111.207	102.729	98.518	105.226	92.653	94.731	105.247
22:06	ZZZZZZ	96.937	105.723	90.587	91.383	84.569	72.317	76.86	84.696
22:11	ZZZZZZ	95.846	105.7	89.843	93.784	87.942	74.807	80.229	87.418
22:16	ZZZZZZ	95.335	106.162	88.776	89.662	84.103	70.121	74.606	83.261
22:21	ZZZZZZ	95.895	105.451	88.898	97.229	94.845	78.527	88.457	94.393
22:26	MA46322-CCVA13	106.587	112.615	99.057	96.882	103.565	89.383	92.135	103.972
22:31	MA46322-CCB13	106.186	109.861	98.395	97.18	103.32	90.459	94.646	103.618
22:36	ZZZZZZ	95.192	105.845	90.786	93.788	90.896	76.521	82.773	90.153
22:41	ZZZZZZ	96.462	103.889	90.553	96.887	95.634	80.089	89.844	94.949
22:46	ZZZZZZ	94.327	103.181	88.418	95.285	92.743	78.186	87.163	92.842
22:51	ZZZZZZ	107.632	110.709	98.136	96.282	103.367	89.661	92.749	103.416
22:56	ZZZZZZ	94.225	99.041	84.956	86.408	80.283	66.843 !a	71.997	80.053
23:01	ZZZZZZ	89.282	97.405	83.877	80.389	69.491 !a	59.01 !a	60.701 !a	69.408 !a
23:06	ZZZZZZ	104.243	108.606	95.369	91.698	100.967	87.929	88.666	100.633
23:11	ZZZZZZ	94.148	102.68	86.852	88.033	83.425	70.416	73.643	83.167
23:16	ZZZZZZ	93.239	104.391	88.504	91.8	87.752	72.834	79.091	87.554
23:21	MA46322-CCVA14	103.494	107.893	95.883	93.091	100.329	86.799	87.969	100.9
23:26	MA46322-CCB14	106.304	109.846	98.739	94.905	102.96	90.12	91.248	102.138
23:31	ZZZZZZ	96.5	104.36	88.593	85.341	82.534	68.278 !a	68.931 !a	81.621
23:35	ZZZZZZ	93.542	104.017	85.829	82.169	78.722	65.176 !a	65.641 !a	78.339
23:40	ZZZZZZ	105.663	108.696	95.556	91.167	101.07	86.19	87.782	100.744
23:45	ZZZZZZ	96.26	103.407	90.423	91.75	91.465	78.109	81.371	90.597
23:50	MA46322-CCVA15	102.11	106.075	94.587	90.153	98.07	85.495	86.288	98.542
23:55	MA46322-CCB15	106.45	111.257	98.057	93.551	102.166	89.427	90.142	102.316
00:00	ZZZZZZ	106.989	110.714	97.94	92.358	102.295	88.879	88.888	102.37
00:05	ZZZZZZ	104.651	107.451	92.948	90.75	99.977	85.28	87.897	100.007
00:10	ZZZZZZ	103.676	105.955	94.157	90.599	98.754	85.896	87.494	98.507
00:15	ZZZZZZ	102.973	106.041	94.287	90.035	98.602	86.085	86.742	98.628

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Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
00:20	ZZZZZZ	103.139	105.403	94.588	89.579	98.217	86.154	86.397	98.574

! = Outside limits.

LEGEND: Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	60-125 %	60-125 %
Istd#2	Scandium (45-1)	60-125 %	60-125 %
Istd#3	Scandium (45-2)	60-125 %	60-125 %
Istd#4	Scandium (45-3)	60-125 %	60-125 %
Istd#5	Germanium (72-1)	60-125 %	60-125 %
Istd#6	Germanium (72-2)	60-125 %	60-125 %
Istd#7	Germanium (72-3)	60-125 %	60-125 %
Istd#8	Germanium (74-1)	60-125 %	60-125 %

(a) No samples reported for the elements associated with this internal standard.

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Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
10:13	MA46322-STD1	100	100	100	100	100	100	100	100
10:18	MA46322-STD2	100	100	100	100	100	100	100	100
10:23	MA46322-STD3	100	100	100	100	100	100	100	100
10:31	MA46322-STD4	96.157	98.268	98.541	100.53	99.556	99.395	100.664	101.055
10:36	MA46322-STD5	97.41	98.438	99.182	101.907	99.844	98.554	101.935	100.483
10:41	MA46322-STD6	94.88	95.757	98.282	98.901	97.907	97.347	98.196	99.301
10:46	MA46322-STD7	92.907	95.145	97.809	97.109	96.638	97.675	96.499	98.451
10:51	MA46322-STD8	91.013	93.237	94.196	95.042	94.854	96.062	94.267	97.65
10:56	MA46322-STD9	93.441	96.651	95.703	96.464	97.478	96.012	96.547	97.678
11:01	MA46322-STD10	95.428	98.198	97.557	97.788	97.885	98.228	98.186	99.911
11:06	MA46322-STD11	95.202	95.664	94.801	95.513	94.535	94.975	97.19	97.973
11:11	MA46322-STD12	92.858	92.855	93.179	93.044	91.353	95.343	95.426	97.005
11:16	ZZZZZZ	96.523	99.69	99.494	99.488	99.223	99.255	99.284	99.021
11:23	MA46322-ICVA1	92.893	92.407	93.157	94.162	90.798	95.349	95.892	96.375
11:34	MA46322-ICV1	95.063	95.785	97.563	98.628	97.999	96.974	99.367	98.346
11:39	MA46322-ICB1	94.476	96.311	97.868	98.068	97.453	97.84	98.598	99.823
11:44	MA46322-CCVA1	91.701	91.784	92.615	92.348	91.259	93.838	94.083	97.421
11:49	MA46322-CCB1	93.783	95.472	100.465	96.861	97.018	99.57	96.84	102.231
11:54	MA46322-CRI1	94.201	95.68	97.014	96.88	97.807	97.325	97.175	98.09
12:02	MA46322-ICSA1	79.303	75.726	78.674	75.435	70.958	83.393	82.008	89.146
12:07	MA46322-ICSAB1	79.197	80.053	78.904	75.732	74.325	83.177	81.424	90.414
12:19	MA46322-CCVA2	89.561	96.507	95.797	92.47	96.338	98.829	91.397	103.096
12:24	MA46322-CCB2	93.411	101.882	102.659	98.798	104.049	103.004	96.407	104.816
12:29	ZZZZZZ	92.983	104.441	97.869	94.254	100.177	99.547	92.235	101.831
12:34	ZZZZZZ	87.316	98.522	95.303	92.746	100.199	99.035	90.506	102.495
12:39	JC84299-2	91.716	100.224	99.369	95.929	101.318	102.076	94.342	104.066
12:44	JC84299-3	93.652	100.666	100.367	97.99	102.863	103.647	95.742	105.087
12:49	ZZZZZZ	94.54	102.081	101.95	98.782	104.076	103.452	96.012	104.566
12:54	ZZZZZZ	94.272	100.759	101.355	96.846	101.612	103.271	95.541	103.924
12:59	ZZZZZZ	90.082	100.736	100.1	96.848	103.692	102.033	92.998	106.02
13:04	ZZZZZZ	93.757	99.176	97.604	95.041	98.302	100.095	94.164	102.608
13:09	ZZZZZZ	90.036	100.709	99.431	94.909	101.84	101.453	91.934	104.986
13:14	MA46322-CCVA3	92.058	96.353	100.319	92.917	95.259	103.459	91.686	104.778

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
13:19	MA46322-CCB3	89.394	99.242	99.045	92.36	101.382	99.916	90.851	100.888
13:24	ZZZZZZ	92.479	91.503	85.461	83.032	81.124	90.956	92.072	93.606
13:29	ZZZZZZ	92.005	100.903	107.751	98.022	104.357	110.387	95.112	110.604
13:34	ZZZZZZ	89.905	93.044	91.635	87.283	89.584	95.966	91.364	100.411
13:39	ZZZZZZ	89.142	98.242	97.889	92.703	100.535	101.031	91.453	104.763
13:44	MP13123-S1	91.466	98.677	97.557	94.162	98.766	100.514	93.153	104.302
13:49	MP13123-S2	93.641	97.17	100.325	95.988	96.379	102.521	95.116	104.897
13:53	JC84266-10	94.087	99.213	100.615	96.458	98.341	102.755	95.59	103.943
13:58	MP13123-SD1	99.092	101.877	105.236	102.514	103.132	105.147	100.309	105.146
14:03	ZZZZZZ	96.344	102.735	104.464	99.321	103.178	105.228	97.316	104.751
14:08	MA46322-CCVA4	96.874	100.537	103.005	97.389	99.383	105.633	97.113	106.684
14:13	MA46322-CCB4	100.278	105.52	109.022	102.659	107.253	109.946	101.395	108.978
14:18	ZZZZZZ	96.42	101.513	103.369	98.314	101.903	104.321	97.676	104.644
14:23	ZZZZZZ	101.745	109.159	107.194	103.754	111.434	106.956	102.782	107.041
14:28	ZZZZZZ	96.888	100.444	105.23	97.414	100.754	106.039	97.275	107.01
14:33	MP13155-S1	94.618	99	95.425	95.077	98.668	97.153	95.469	98.111
14:38	MP13155-S2	93.824	97.788	99.709	94.537	97.365	101.872	95.215	102.773
14:43	JC84397-6	93.787	97.99	99.107	94.129	98.267	102.112	94.392	102.383
14:48	MP13029-MB1	95.255	101.525	102.702	97.506	103.9	103.507	96.596	103.634
14:53	MP13029-B1	89.828	95.012	98.661	91.041	95.463	99.11	90.839	101.957
14:58	MP13029-S1	88.427	93.003	92.903	88.753	91.715	95.835	90.027	97.998
15:03	MA46322-CCVA5	88.111	91.855	94.198	88.156	92.077	98.102	88.588	101.144
15:08	MA46322-CCB5	88.06	96.582	99.988	91.665	99.619	101.886	90.406	101.73
15:13	MP13029-S2	86.727	91.636	92.847	87.015	91.102	96.351	88.241	99.064
15:18	JC84152-4	89.232	93.885	96.703	90.258	95.074	98.474	91.02	101.151
15:23	ZZZZZZ	93.332	93.278	92.494	87.482	87.698	96.692	93.053	99.643
15:28	ZZZZZZ	90.242	90.196	92.724	82.328	80.003	97.488	91.872	102.18
15:33	ZZZZZZ	101.423	101.806	100.806	93	92.096	103.477	99.784	106.107
15:38	ZZZZZZ	96.113	109.414	110.879	102.875	113.935	113.144	99.406	115.126
15:43	ZZZZZZ	96.686	111.48	110.156	101.854	112.522	112.629	98.928	116.758
15:48	ZZZZZZ	99.913	114.223	114	104.399	115.346	115.483	100.916	119.979
15:53	ZZZZZZ	101.015	114.38	114.749	105.349	114.79	117.756	102.005	121.34
15:58	MA46322-CCVA6	103.275	108.496	113.952	103.048	107.78	115.769	103.827	116.219

INTERNAL STANDARD SUMMARY

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Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:03	MA46322-CCB6	102.793	111.323	114.411	105.278	114.713	114.843	104.013	115.141
16:08	ZZZZZZ	98.02	111.76	112.451	102.395	111.765	114.189	99.821	117.949
16:15	ZZZZZZ	103.696	108.778	114.952	106.366	110.886	114.93	104.827	114.73
16:20	ZZZZZZ	99.447	106.975	111.928	100.303	106.379	113.15	99.6	115.645
16:25	ZZZZZZ	98.906	107.77	111.866	100.618	106.567	111.815	99.697	113.977
16:30	ZZZZZZ	100.416	107.177	109.747	100.897	107.061	111.595	100.524	112.225
16:35	ZZZZZZ	100.211	106.309	110.763	100.631	107.468	111.09	100.166	113.069
16:43	MP13130A-S3	97.627	106.142	107.67	98.007	105.595	110.741	98.555	112.693
16:48	MP13130A-S4	98.049	105.996	112.274	99.525	106.189	114.888	98.924	115.818
16:53	MP13123-PS1	101.834	104.068	110.725	99.594	100.391	111.631	101.674	110.899
16:58	MA46322-CCVA7	102.228	106.938	111.433	101.404	105.633	113.514	101.771	115.046
17:03	MA46322-CCB7	105.665	114.793	122.229	107.771	117.817	121.727	106.445	120.479
17:08	MP13156A-MB1	101.83	114.214	118.355	106.898	116.45	118.611	103.401	119.133
17:13	MP13156A-B2	101.039	112.886	116.259	104.142	113.133	116.46	101.405	118.682
17:18	ZZZZZZ	101.588	114.476	118.039	106.09	117.134	118.426	101.964	119.898
17:23	MP13156A-S3	94.808	107.093	101.796	94.393	102.013	105.965	94.557	109.755
17:28	MP13156A-S4	90.722	102.986	102.318	91.205	98.405	108.732	91.605	111.676
17:33	JC84446-2	88.277	101.367	101.24	89.13	98.266	106.387	89.794	111.579
17:38	MP13156A-SD1	96.959	103.408	108.021	96.32	102.046	110.113	97.681	111.073
17:43	ZZZZZZ	86.193	98.177	95.997	84.73	95.188	103.785	86.628	108.377
17:48	ZZZZZZ	88.408	104.312	103.888	92.556	105.126	107.372	90.529	112.503
17:53	MA46322-CCVA8	96.364	102.682	106.282	95.944	101.826	109.833	96.215	111.912
17:57	MA46322-CCB8	95.782	104.275	109.623	98.908	106.124	111.013	98.034	111.541
18:02	ZZZZZZ	85.655	97.621	97.264	86.332	95.347	102.008	87.133	106.958
18:07	ZZZZZZ	87.527	99.998	100.024	87.737	96.571	104.597	88.517	108.83
18:12	ZZZZZZ	86.337	102.075	99.015	87.539	101.096	105.264	88.156	109.083
18:17	MP13182A-MB1	91.883	107.156	110.511	97.591	109.43	112.049	93.434	115.223
18:22	MP13182A-B2	90.24	107.603	103.558	94.677	107.196	107.852	91.585	110.797
18:27	MP13182A-S5	87.368	100.408	92.217	87.068	95.872	96.997	87.493	101.261
18:32	MP13182A-S6	84.278	98.012	97.737	84.334	94.947	103.285	84.828	108.437
18:37	JC84439-2	83.929	97.277	97.792	84.994	94.427	103.87	86.063	108.805
18:42	MP13182A-SD1	94.526	104.55	105.015	92.644	103.339	107.742	94.25	107.79
18:47	MA46322-CCVA9	94.184	100.289	104.809	93.086	98.159	107.292	94.093	108.438

INTERNAL STANDARD SUMMARY

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Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
18:52	MA46322-CCB9	95.526	101.089	108.902	96.583	103.143	110.187	96.425	107.97
18:57	MP13182A-S7	83.027	94.485	95.662	83.538	91.654	100.777	84.701	105.859
19:02	MP13182A-S8	83.251	95.112	95.63	83.3	91.848	102.068	83.698	105.961
19:07	JC84439-2F	82.8	95.575	95.718	83.343	92.626	101.647	84.397	105.773
19:12	MP13182A-SD2	93.436	99.439	103.982	90.761	96.863	107.131	93.211	107.564
19:17	ZZZZZZ	82.819	95.093	96.887	84.315	94.733	101.23	84.812	106.141
19:22	ZZZZZZ	83.118	95.373	96.336	84.556	94.528	101.147	83.893	105.573
19:27	ZZZZZZ	78.868	88.827	89.65	77.866	84.943	95.697	80.385	100.892
19:32	ZZZZZZ	80.045	91.16	92.986	79.849	88.261	99.867	82.669	104.299
19:37	ZZZZZZ	79.973	92.009	92.567	80.471	89.547	97.794	81.663	101.839
19:42	MA46322-CCVA10	91.357	98.035	101.249	89.648	94.87	104.676	91.555	105.853
19:47	MA46322-CCB10	91.992	97.71	104.568	92.802	98.885	105.805	92.859	104.575
19:52	ZZZZZZ	85.489	98.612	102.815	89.615	101.926	103.999	87.66	108.177
19:57	ZZZZZZ	72.319	72.877	78.029	64.624 !a	64.62 !a	84.084	73.257	86.957
20:02	ZZZZZZ	78.55	83.894	87.351	74.421	78.444	93.119	79.253	95.836
20:07	ZZZZZZ	83.514	91.762	94.409	83.253	89.665	99.334	85.114	103.399
20:12	ZZZZZZ	96.404	100.687	109.839	95.681	101.399	111.997	97.064	108.128
20:17	ZZZZZZ	73.455	77.049	81.658	67.539 !a	69.634 !a	87.083	75.095	90.899
20:22	ZZZZZZ	79.809	85.827	90.064	76.299	80.746	95.512	81.702	98.444
20:27	ZZZZZZ	83.599	93.548	96.934	83.159	90.075	101.853	85.287	105.092
20:32	ZZZZZZ	81.552	89.482	95.054	80.953	86.38	100.646	84.954	104.144
20:37	MA46322-CCVA11	91.741	96.279	102.256	88.786	93.031	104.072	91.079	103.285
20:42	MA46322-CCB11	93.512	97.991	106.761	93.317	98.48	107.752	94.69	103.886
20:46	ZZZZZZ	88.596	99.228	107.123	91.901	101.418	106.057	90.833	108.871
20:52	ZZZZZZ	85.663	94.724	97.62	84.589	91.558	102.366	86.612	104.242
20:56	ZZZZZZ	78.867	86.399	92.118	77.113	81.929	98.101	81.464	101.79
21:01	ZZZZZZ	80.395	90.829	92.424	79.384	87.518	98.763	81.43	102.375
21:06	MP13147A-MB1	85.833	98.083	103.514	89.945	100.417	106.284	88.406	106.507
21:11	MP13147A-MB2	87.074	99.352	105.509	90.92	101.549	107.676	89.227	107.666
21:16	MP13147A-B2	85.439	97.839	100.872	87.656	97.277	104.759	87.201	105.817
21:21	MP13147A-B3	95.041	97.122	106.822	90.693	94.852	106.904	93.444	105.542
21:26	MP13147A-S3	74.562	78.765	84.145	69.744 !a	71.417	90.323	76.79	95.343
21:31	MA46322-CCVA12	90.379	94.294	100.412	86.968	90.802	103.397	89.953	101.708

INTERNAL STANDARD SUMMARY

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Analyst: RP Run ID: MA46322
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Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
21:36	MA46322-CCB12	90.651	96.265	104.832	90.591	95.84	106.233	91.992	103.144
21:41	MP13147A-S4	73.948	77.259	84.575	68.786 !a	70.37	90.282	76.17	94.425
21:46	JC84282-8	72.954	77.964	83.385	68.741 !a	70.959	89.303	75.162	93.67
21:51	MP13147A-SD1	88.614	88.328	95.857	82.214	83.556	98.864	87.772	98.021
21:56	ZZZZZZ	81.428	88.795	92.816	79.621	85.976	96.922	82.196	99.233
22:01	ZZZZZZ	92.897	95.165	104.952	92.048	94.726	106.459	94.229	101.614
22:06	ZZZZZZ	72.223	76.27	79.606	65.957 !a	68.959 !a	86.049	72.647	88.383
22:11	ZZZZZZ	74.12	79.77	85.026	70.613	74.599	90.81	76.018	93.876
22:16	ZZZZZZ	70.368	74.008	79.6	64.702 !a	67.139 !a	86.7	71.854	89.691
22:21	ZZZZZZ	78.119	88.239	93.452	77.733	84.851	99.517	79.524	101.82
22:26	MA46322-CCVA13	89.297	92.227	99.909	86.075	88.558	102.555	88.922	100.022
22:31	MA46322-CCB13	90.809	93.556	104.233	88.663	92.735	105.16	91.271	101.333
22:36	ZZZZZZ	76.585	82.25	87.483	73.758	77.616	93.287	78.642	95.952
22:41	ZZZZZZ	80.118	89.514	95.322	79.861	87.172	99.096	82.206	99.657
22:46	ZZZZZZ	77.865	86.397	91.841	76.945	83.504	97.012	80.414	99.785
22:51	ZZZZZZ	88.492	92.555	103.879	87.966	91.517	103.903	90.339	99.906
22:56	ZZZZZZ	67.135 !a	71.797	75.798	61.316 !a	64.182 !a	81.768	68.676 !a	84.128
23:01	ZZZZZZ	59.414 !a	60.168 !a	59.989 !a	50.297 !a	49.906 !a	70.257	60.926 !a	72.207
23:06	ZZZZZZ	87.304	88.842	100.153	86.049	88.906	101.919	88.478	98.104
23:11	ZZZZZZ	70.225	74.082	79.829	65.156 !a	67.618 !a	85.727	71.821	87.79
23:16	ZZZZZZ	73.462	79.194	85.021	69.858 !a	73.874	90.133	75.468	93.841
23:21	MA46322-CCVA14	86.784	89.115	97.599	82.571	85.356	99.246	86.415	98
23:26	MA46322-CCB14	90.167	91.609	102.831	87.76	90.589	103.129	91.134	97.571
23:31	ZZZZZZ	68.607 !a	69.404 !a	78.085	62.54 !a	61.934 !a	84.911	71.563	86.47
23:35	ZZZZZZ	65.11 !a	65.144 !a	74.256	58.084 !a	57.175 !a	80.982	67.933 !a	83.804
23:40	ZZZZZZ	86.659	87.801	99.67	84.723	87.253	100.699	87.921	95.633
23:45	ZZZZZZ	77.306	82.033	88.978	75.059	78.778	94.117	80.006	93.675
23:50	MA46322-CCVA15	85.19	87.117	94.999	80.596	82.566	97.352	85.151	94.255
23:55	MA46322-CCB15	89.598	90.372	101.31	86.454	88.447	102.323	90.203	97.02
00:00	ZZZZZZ	88.43	88.732	102.285	86.047	87.475	101.7	89.724	97.104
00:05	ZZZZZZ	85.649	87.323	99.95	82.388	86.103	100.465	85.796	95.482
00:10	ZZZZZZ	86.126	87.462	99.218	83.869	86.157	99.97	87.732	94.89
00:15	ZZZZZZ	85.536	86.292	99.25	83.361	85.928	98.665	86.68	94.102

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Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
00:20	ZZZZZZ	86.334	86.723	98.213	83.382	85.272	99.153	87.072	93.064

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#9	Germanium (74-2)	60-125 %	60-125 %
Istd#10	Germanium (74-3)	60-125 %	60-125 %
Istd#11	Rhodium (103-1)	60-125 %	60-125 %
Istd#12	Rhodium (103-2)	60-125 %	60-125 %
Istd#13	Rhodium (103-3)	60-125 %	60-125 %
Istd#14	Indium (115-1)	60-125 %	60-125 %
Istd#15	Indium (115-2)	60-125 %	60-125 %
Istd#16	Terbium (159-1)	60-125 %	60-125 %

(a) No samples reported for the elements associated with this internal standard.

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Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
10:13	MA46322-STD1	100	100	100	100	100	100
10:18	MA46322-STD2	100	100	100	100	100	100
10:23	MA46322-STD3	100	100	100	100	100	100
10:31	MA46322-STD4	100.623	99.484	101.056	101.007	100.039	100.465
10:36	MA46322-STD5	102.052	99.622	100.242	101.88	99.309	101.599
10:41	MA46322-STD6	98.25	97.987	99.875	98.56	98.443	98.665
10:46	MA46322-STD7	97.07	97.793	99.554	96.681	99.122	96.959
10:51	MA46322-STD8	95.563	96.35	97.977	95.813	97.24	95.528
10:56	MA46322-STD9	96.708	98.522	97.752	97.004	97.09	96.539
11:01	MA46322-STD10	97.798	98.823	98.344	97.944	97.289	97.188
11:06	MA46322-STD11	97.442	96.864	98.535	98.297	94.758	94.004
11:11	MA46322-STD12	96.068	95.095	97.683	96.727	92.388	91.009
11:16	ZZZZZZ	98.223	98.977	98.683	98.369	98.76	98.387
11:23	MA46322-ICVA1	96.4	93.932	97.329	96.747	93.808	93.067
11:34	MA46322-ICV1	97.535	97.699	98.17	97.419	98.49	97.464
11:39	MA46322-ICB1	96.733	97.349	97.523	96.639	98.595	97.06
11:44	MA46322-CCVA1	94.247	93.936	96.936	94.601	93.498	91.177
11:49	MA46322-CCB1	95.204	97.018	100.348	95.931	100.561	95.686
11:54	MA46322-CRI1	96.095	97.612	97.951	96.081	97.595	95.546
12:02	MA46322-ICSA1	84.673	79.465	88.792	85.396	76.056	74.121
12:07	MA46322-ICSAB1	85.216	82.259	90.031	86.069	76.647	74.775
12:19	MA46322-CCVA2	94.293	98.957	102.77	94.704	98.663	92.499
12:24	MA46322-CCB2	96.791	102.82	103.672	96.951	104.31	98.171
12:29	ZZZZZZ	93.871	100.756	101.859	94.307	100.606	94.341
12:34	ZZZZZZ	93.862	102.912	102.027	94.046	100.928	93.518
12:39	JC84299-2	96.144	102.376	102.788	96.636	103.376	96.149
12:44	JC84299-3	97.037	102.402	102.946	96.369	102.617	97.467
12:49	ZZZZZZ	95.669	102.55	103.288	96.283	103.856	96.831
12:54	ZZZZZZ	95.583	101.465	103.142	96.297	103.203	96.283
12:59	ZZZZZZ	95.658	103.878	104.462	96.061	104.829	95.601
13:04	ZZZZZZ	95.506	100.044	101.435	96.048	97.762	92.793
13:09	ZZZZZZ	94.816	103.017	104.191	95.071	101.626	92.879
13:14	MA46322-CCVA3	93.56	97.634	104.956	94.206	100.223	90.837

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
13:19	MA46322-CCB3	90.486	100.648	99.302	90.556	100.24	91.83
13:24	ZZZZZZ	89.124	86.593	92.408	89.383	74.059	72.923
13:29	ZZZZZZ	97.476	105.934	108.322	98.507	109.642	99.172
13:34	ZZZZZZ	94.084	97.288	99.731	94.404	89.768	84.001
13:39	ZZZZZZ	94.754	103.933	103.756	95.346	102.175	93.187
13:44	MP13123-S1	94.683	100.394	104.242	97.11	99.398	92.075
13:49	MP13123-S2	97.691	97.705	105.355	98.807	98.691	92.663
13:53	JC84266-10	96.677	98.372	103.851	97.519	98.303	92.917
13:58	MP13123-SD1	100.911	101.614	104.298	100.535	102.912	99.452
14:03	ZZZZZZ	96.919	102.447	104.195	98.148	101.713	96.654
14:08	MA46322-CCVA4	97.026	100.574	104.776	97.328	100.093	93.607
14:13	MA46322-CCB4	99.126	105.356	106.046	98.747	106.898	99.188
14:18	ZZZZZZ	96.38	101.549	104.101	97.36	101.4	94.792
14:23	ZZZZZZ	100.144	108.876	104.971	100.097	105.066	100.835
14:28	ZZZZZZ	96.784	101.452	105.143	97.593	103.525	95.163
14:33	MP13155-S1	95.561	100.677	96.889	96.616	94.976	93.223
14:38	MP13155-S2	94.835	100.806	102.17	95.293	98.863	92.643
14:43	JC84397-6	94.189	100.231	101.449	95.042	99.528	92.075
14:48	MP13029-MB1	95.369	103.135	100.95	95.699	104.209	97.263
14:53	MP13029-B1	91.284	97.264	99.529	91.883	97.787	90.541
14:58	MP13029-S1	91.078	95.326	96.762	91.477	93.578	87.869
15:03	MA46322-CCVA5	89.863	95.134	98.072	90.723	95.338	87.961
15:08	MA46322-CCB5	90.153	99.901	99.528	90.665	100.484	91.644
15:13	MP13029-S2	89.784	95.566	96.542	90.604	93.476	86.94
15:18	JC84152-4	91.164	97.976	98.109	91.72	96.907	90.145
15:23	ZZZZZZ	93.273	94.146	96.98	93.512	84.679	81.482
15:28	ZZZZZZ	90.999	88.068	100.174	91.835	79.096	75.113
15:33	ZZZZZZ	97.318	96.682	104.018	98.21	87.689	83.123
15:38	ZZZZZZ	102.404	115.05	112.442	102.762	112.564	102.455
15:43	ZZZZZZ	103.011	114.716	114.946	102.884	111.305	99.881
15:48	ZZZZZZ	106.352	116.672	116.659	104.583	112.763	101.19
15:53	ZZZZZZ	105.342	115.408	118.27	105.679	112.693	101.17
15:58	MA46322-CCVA6	103.771	109.716	114.411	103.853	109.619	100.208

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
16:03	MA46322-CCB6	102.888	116.109	111.786	102.887	112.224	103.384
16:08	ZZZZZZ	102.443	113.211	114.668	102.494	109.864	99.019
16:15	ZZZZZZ	103.657	109.872	111.307	103.886	114.372	105.243
16:20	ZZZZZZ	100.273	107.898	112.609	100.527	109.767	98.64
16:25	ZZZZZZ	101.857	108.403	110.392	100.158	107.677	97.944
16:30	ZZZZZZ	100.197	108.44	109.263	100.354	107.385	98.77
16:35	ZZZZZZ	99.924	108.7	109.838	100.183	108.381	98.503
16:43	MP13130A-S3	98.816	107.971	108.508	99.153	106.493	97.027
16:48	MP13130A-S4	99.745	108.7	112.083	100.08	109.388	97.815
16:53	MP13123-PS1	99.882	101.945	111.421	102.966	103.017	95.058
16:58	MA46322-CCVA7	101.497	106.588	111.243	101.412	107.093	97.793
17:03	MA46322-CCB7	103.676	115.442	116.013	103.697	115.185	103.832
17:08	MP13156A-MB1	103.864	114.882	114.664	104.588	114.313	102.505
17:13	MP13156A-B2	103.219	113.201	115.532	103.198	111.239	98.532
17:18	ZZZZZZ	102.469	114.949	115.87	102.46	114.046	100.194
17:23	MP13156A-S3	97.693	106.75	105.845	97.519	96.554	87.883
17:28	MP13156A-S4	96.193	104.992	108.259	96.467	99.615	86.329
17:33	JC84446-2	94.661	105.173	107.223	95.222	99.831	86.108
17:38	MP13156A-SD1	97.636	105.311	106.988	97.199	106.446	95.192
17:43	ZZZZZZ	91.381	105.36	105.549	91.979	93.806	82.178
17:48	ZZZZZZ	94.569	109.401	108.215	95.131	106.646	92.009
17:53	MA46322-CCVA8	97.054	104.559	107.971	97.396	105.467	93.966
17:57	MA46322-CCB8	99.304	105.885	106.535	96.899	109.718	97.307
18:02	ZZZZZZ	91.562	102.083	104.232	92.035	94.511	83.23
18:07	ZZZZZZ	93.032	103.319	106.355	94.181	97.432	84.944
18:12	ZZZZZZ	92.768	107.822	106.099	93.27	98.251	86.017
18:17	MP13182A-MB1	96.761	110.333	111.201	96.936	110.118	95.588
18:22	MP13182A-B2	95.009	109.696	106.453	95.896	103.674	91.598
18:27	MP13182A-S5	92.237	102.503	98.526	92.61	88.092	83.061
18:32	MP13182A-S6	89.86	101.554	104.604	89.789	95.804	80.837
18:37	JC84439-2	90.693	101.701	104.738	91.481	95.713	82.414
18:42	MP13182A-SD1	93.913	106.572	104.417	94.03	102.664	91.452
18:47	MA46322-CCVA9	93.972	100.951	103.51	94.367	101.202	91.005

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
18:52	MA46322-CCB9	95.193	102.953	104.266	95.638	107.266	95.547
18:57	MP13182A-S7	89.109	99.075	102.098	90.448	93.805	81.262
19:02	MP13182A-S8	88.733	98.776	102.756	89.852	93.412	80.66
19:07	JC84439-2F	89.692	100.419	101.984	89.963	93.755	81.062
19:12	MP13182A-SD2	92.602	100.464	101.99	92.652	100.94	90.454
19:17	ZZZZZZ	89.133	100.706	101.999	89.751	97.758	83.852
19:22	ZZZZZZ	88.969	100.536	101.589	89.569	96.691	83.509
19:27	ZZZZZZ	84.449	93.466	96.912	85.216	82.096	74.25
19:32	ZZZZZZ	88.475	95.866	100.288	87.455	90.698	77.075
19:37	ZZZZZZ	86.733	97.411	100.137	88.233	91.664	78.473
19:42	MA46322-CCVA10	91.512	98.058	101.896	92.125	99.906	88.598
19:47	MA46322-CCB10	91.36	99.245	98.832	91.353	101.89	91.938
19:52	ZZZZZZ	90.683	103.944	102.463	91.202	102.198	89.32
19:57	ZZZZZZ	72.545	72.265	82.964	73.227	62.186 !a	56.883 !a
20:02	ZZZZZZ	81.41	85.739	92.569	82.24	74.243	68.521 !a
20:07	ZZZZZZ	88.953	96.597	99.573	90.121	90.426	80.416
20:12	ZZZZZZ	94.209	100.993	102.399	94.293	104.688	94.073
20:17	ZZZZZZ	76.421	77.837	88.352	78.191	66.808 !a	60.843 !a
20:22	ZZZZZZ	83.627	88.093	93.789	84.984	76.039	70.535
20:27	ZZZZZZ	88.559	96.952	100.733	89.452	92.955	80.601
20:32	ZZZZZZ	87.448	93.048	100.206	88.101	90.096	77.658
20:37	MA46322-CCVA11	90.742	95.816	98.995	91.13	96.961	87.3
20:42	MA46322-CCB11	91.975	98.33	99.292	92.411	101.381	91.996
20:46	ZZZZZZ	92.54	102.394	102.465	92.758	102.442	90.698
20:52	ZZZZZZ	89.622	96.626	99.907	89.701	93.301	81.697
20:56	ZZZZZZ	84.557	89.696	97.485	85.645	84.053	74.054
21:01	ZZZZZZ	85.893	94.544	99.088	86.365	89.067	77.002
21:06	MP13147A-MB1	90.365	101.792	102.14	91.021	102.918	89.473
21:11	MP13147A-MB2	91.47	102.74	102.997	91.662	102.816	89.838
21:16	MP13147A-B2	89.419	99.763	101.958	90.093	99.374	86.396
21:21	MP13147A-B3	90.355	95.274	99.774	90.775	99.806	90.172
21:26	MP13147A-S3	78.627	79.608	91.092	79.676	71.988	64.606 !a
21:31	MA46322-CCVA12	88.862	93.257	97.965	89.684	95.405	85.759

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
21:36	MA46322-CCB12	89.622	95.306	98.109	89.948	98.625	89.463
21:41	MP13147A-S4	78.076	78.454	89.591	78.867	71.179	63.842 !a
21:46	JC84282-8	77.441	79.145	88.923	78.226	70.736	64.01 !a
21:51	MP13147A-SD1	86.408	88.12	93.88	86.976	86.177	78.961
21:56	ZZZZZZ	84.529	91.407	94.723	85.102	89.303	78.418
22:01	ZZZZZZ	91.272	94.52	96.446	90.896	97.556	90.424
22:06	ZZZZZZ	74.378	76.04	85.547	74.821	66.833 !a	60.866 !a
22:11	ZZZZZZ	78.872	82.257	90.588	79.82	73.414	66.883 !a
22:16	ZZZZZZ	73.709	75.167	85.259	74.254	66.717 !a	60.105 !a
22:21	ZZZZZZ	83.513	90.47	97.931	84.447	88.77	76.534
22:26	MA46322-CCVA13	87.92	90.508	96.023	88.354	94.48	84.25
22:31	MA46322-CCB13	87.968	92.23	94.893	88.115	97.547	87.486
22:36	ZZZZZZ	80.902	84.143	92.292	82.069	77.411	70.822
22:41	ZZZZZZ	84.064	91.607	95.303	84.835	91.593	79.098
22:46	ZZZZZZ	82.911	88.782	94.261	83.521	84.872	75.693
22:51	ZZZZZZ	87.541	91.234	95.138	87.7	96.985	86.77
22:56	ZZZZZZ	69.115 !a	70.675	80.053	69.85 !a	61.872 !a	55.758 !a
23:01	ZZZZZZ	59.648 !a	57.222 !a	67.984 !a	60.08 !a	47.497 !a	43.976 !a
23:06	ZZZZZZ	85.796	89.542	93.088	85.834	93.515	85.365
23:11	ZZZZZZ	73.182	74.584	83.289	73.594	65.285 !a	59.713 !a
23:16	ZZZZZZ	78.11	81.294	88.391	78.752	72.448	66.156 !a
23:21	MA46322-CCVA14	85.156	87.601	93.023	85.42	90.587	81.665
23:26	MA46322-CCB14	87.486	89.529	93.24	87.291	95.495	86.439
23:31	ZZZZZZ	72.206	69.72 !a	82.429	72.38	62.993 !a	57.294 !a
23:35	ZZZZZZ	67.705 !a	65.014 !a	78.939	68.179 !a	58.391 !a	52.737 !a
23:40	ZZZZZZ	84.252	87.089	90.694	84.538	92.117	83.832
23:45	ZZZZZZ	81.051	84.506	89.746	81.973	76.678	72.256
23:50	MA46322-CCVA15	82.951	84.452	89.81	83.558	84.387	79.365
23:55	MA46322-CCB15	85.43	87.077	91.219	85.808	93.013	84.86
00:00	ZZZZZZ	85.123	86.351	91.443	84.832	91.976	84.311
00:05	ZZZZZZ	82.207	85.651	89.7	82.21	91.091	81.874
00:10	ZZZZZZ	83.22	85.628	88.413	83.572	91.149	83.098
00:15	ZZZZZZ	82.965	85.369	88.185	83.324	91.028	82.579

INTERNAL STANDARD SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
Analyst: RP Run ID: MA46322
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
00:20	ZZZZZZ	83.121	84.545	88.541	82.689	90.873	82.485

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#17	Terbium (159-2)	60-125 %	60-125 %
Istd#18	Terbium (159-3)	60-125 %	60-125 %
Istd#19	Holmium (165-1)	60-125 %	60-125 %
Istd#20	Holmium (165-2)	60-125 %	60-125 %
Istd#21	Bismuth (209-1)	60-125 %	60-125 %
Istd#22	Bismuth (209-2)	60-125 %	60-125 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46322 Units: ug/l

Time: / Sample ID:				11:39 ICB1		11:49 CCB1		12:24 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	-0.00368	<1.5	-0.00177	<1.5	0.00203	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46322 Units: ug/l

Time: / Sample ID:				13:19 CCB3		14:13 CCB4		15:08 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.00466	<1.5	0.00588	<0.50	0.0118	<1.0
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46322 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	LOD	16:03 CCB6 raw	16:03 CCB6 final	17:03 CCB7 raw	17:03 CCB7 final
Aluminum	25	.28	20				
Antimony	2.0	.094	1.5				
Arsenic	0.50	.013	1.0	0.0126	<1.0	0.00471	<0.50
Barium	1.0	.008	0.50				
Beryllium	0.50	.004	0.25				
Boron	25	.65	20				
Cadmium	0.50	.004	2.0				
Calcium	250	6.1	50				
Chromium	1.0	.014	3.0				
Cobalt	0.50	.002	0.25				
Copper	2.0	.021	4.0				
Iron	25	.43	13				
Lead	0.50	.009	1.0				
Magnesium	250	.15	130				
Manganese	1.0	.007	1.0				
Molybdenum	1.0	.015	0.50				
Nickel	1.0	.017	3.0				
Potassium	250	.71	50				
Selenium	0.50	.072	0.50				
Silver	0.50	.004	0.50				
Sodium	250	1	100				
Strontium	5.0	.003	5.0				
Thallium	0.50	.004	0.50				
Tin	5.0	.071	2.5				
Titanium	1.0	.035	1.0				
Vanadium	1.0	.009	1.0				
Zinc	5.0	.029	7.5				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46322 Units: ug/l

Time:		11:23			11:34			11:44	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	60	59.1	98.5				50	48.7	97.4
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46322 Units: ug/l

Time:		12:19			13:14			14:08	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	50	50.1	100.2	50	48.0	96.0	50	48.9	97.8
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46322 Units: ug/l

Time:		15:03			15:58			16:58	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	50	49.1	98.2	50	48.4	96.8	50	48.3	96.6
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46322 Units: ug/l

Time:			11:54	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25	anr	
Antimony	2.0	0.25	anr	
Arsenic	0.50	0.50	0.513	102.6
Barium	1.0	0.50	anr	
Beryllium	0.50	0.25	anr	
Boron	25	2.5		
Cadmium	0.50	0.25	anr	
Calcium	250	125		
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25		
Copper	2.0	2.0	anr	
Iron	25	25	anr	
Lead	0.50	0.25	anr	
Magnesium	250	125		
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50		
Nickel	1.0	2.0	anr	
Potassium	250	125		
Selenium	0.50	0.50	anr	
Silver	0.50	1.0	anr	
Sodium	250	125		
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0		
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA031819M3L.CSV Date Analyzed: 03/18/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46322 Units: ug/l

Time:			12:02		12:07	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	92100	92.1	92900	92.9
Antimony			0.0873		0.0887	
Arsenic		20	0.0618		19.1	95.5
Barium			0.129		0.175	
Beryllium			0.00242		0.00920	
Boron		50	1.13		44.8	89.6
Cadmium		20	-0.117		18.4	92.0
Calcium	100000	100000	93100	93.1	97200	97.2
Chromium		20	0.326		20.3	101.5
Cobalt		20	0.0568		19.0	95.0
Copper		20	0.200		18.8	94.0
Iron	100000	100000	85800	85.8	88300	88.3
Lead			0.0961		0.116	
Magnesium	100000	100000	86700	86.7	88500	88.5
Manganese		20	0.380		20.3	101.5
Molybdenum	2000	2000	2100	105.0	2160	108.0
Nickel		20	0.426		18.2	91.0
Potassium	100000	100000	94600	94.6	96200	96.2
Selenium		20	0.0648		19.1	95.5
Silver		20	0.0289		20.4	102.0
Sodium	100000	100000	89000	89.0	90900	90.9
Strontium	2000	2000	2020	101.0	2210	110.5
Thallium			0.00203		0.00633	
Tin	2000	2000	1860	93.0	2030	101.5
Titanium	2000	2000	1790	89.5	1830	91.5
Vanadium		20	0.0163		20.2	101.0
Zinc		20	0.184		17.4	87.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/14/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	46		
Antimony	6.0	1.4	4.7		
Arsenic	5.0	1.5	2.8		
Barium	200	.5	13	-0.70	<200
Beryllium	2.0	.1	.5		
Bismuth	20	1.8	4		
Boron	200	.8	63		
Cadmium	3.0	.3	1		
Calcium	5000	3.9	99		
Chromium	10	.3	2		
Cobalt	50	.3	2.6		
Copper	10	.6	5.9		
Iron	100	2.6	32	2.9	<100
Lead	5.0	1.6	1.8		
Lithium	50	2.1	7.3		
Magnesium	5000	16	140	0.40	<5000
Manganese	15	.1	1.4	0.20	<15
Molybdenum	20	.4	3.6		
Nickel	10	.5	1.7		
Phosphorus	50	1.9	18		
Potassium	10000	79	200		
Selenium	10	3	4.9		
Silicon	200	1.2	100		
Silver	10	.5	1.9		
Sodium	10000	9.9	570		
Strontium	10	.3	1		
Sulfur	100	3.5	45		
Thallium	10	1.3	1.8		
Tin	10	.7	3.7		
Titanium	10	.5	2.5		
Tungsten	100	1.7	40		
Vanadium	50	.5	1.8		
Zinc	20	.2	6.9		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/14/19

Metal	RL	IDL	MDL	MB raw	final
Zirconium	10	.3	4.1		

Associated samples MP13130: JC84299-1, JC84299-2, JC84299-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/14/19

Metal	JC84297-1 Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium	119	2160	2000	102.1	75-125
Beryllium					
Bismuth					
Boron	anr				
Cadmium					
Calcium					
Chromium	anr				
Cobalt					
Copper					
Iron	3490	29300	25000	103.2	75-125
Lead					
Lithium	anr				
Magnesium	12300	37900	25000	102.4	75-125
Manganese	113	2150	2000	101.9	75-125
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium					
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/14/19

Metal	JC84297-1 Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP13130: JC84299-1, JC84299-2, JC84299-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/14/19

Metal	JC84297-1 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium	119	2170	2000	102.6	0.5	20
Beryllium						
Bismuth						
Boron	anr					
Cadmium						
Calcium						
Chromium	anr					
Cobalt						
Copper						
Iron	3490	29600	25000	104.4	1.0	20
Lead						
Lithium	anr					
Magnesium	12300	38400	25000	104.4	1.3	20
Manganese	113	2140	2000	101.4	0.5	20
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/14/19

Metal	JC84297-1 Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zirconium					

Associated samples MP13130: JC84299-1, JC84299-2, JC84299-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/14/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium	2030	2000	101.5	80-120
Beryllium				
Bismuth				
Boron	anr			
Cadmium				
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	25600	25000	102.4	80-120
Lead				
Lithium	anr			
Magnesium	25800	25000	103.2	80-120
Manganese	2010	2000	100.5	80-120
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/14/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP13130: JC84299-1, JC84299-2, JC84299-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/14/19

Metal	JC84297-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium	119	124	4.1	0-10
Beryllium				
Bismuth				
Boron	anr			
Cadmium				
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	3490	3680	5.5	0-10
Lead				
Lithium	anr			
Magnesium	12300	12900	5.1	0-10
Manganese	113	123	8.8	0-10
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/14/19

Metal	JC84297-1 Original SDL 1:5	%DIF	QC Limits
Zirconium			

Associated samples MP13130: JC84299-1, JC84299-2, JC84299-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130A
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 03/14/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.55	32		
Antimony	4.0	.19	1.7		
Arsenic	3.0	.026	.94	0.18	<3.0
Barium	2.0	.016	.73		
Beryllium	1.0	.008	.15		
Boron	50	1.3	14		
Cadmium	6.0	.008	.17		
Calcium	500	12	64		
Chromium	8.0	.028	.62		
Cobalt	1.0	.004	.17		
Copper	10	.042	1.9		
Iron	50	.86	19		
Lead	3.0	.018	.52		
Magnesium	500	.3	46		
Manganese	4.0	.014	.63		
Molybdenum	2.0	.03	.45		
Nickel	8.0	.034	.95		
Potassium	500	1.4	68		
Selenium	2.0	.14	.55		
Silver	2.0	.008	.16		
Sodium	500	2.1	140		
Strontium	20	.006	2.4		
Thallium	2.0	.008	.17		
Tin	10	.14	2.6		
Titanium	4.0	.07	1.6		
Vanadium	3.0	.018	1.8		
Zinc	20	.058	5.4		

Associated samples MP13130A: JC84299-1, JC84299-2, JC84299-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130A
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 03/14/19

Metal	JC84297-1 Original	MS	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	anr				
Antimony	anr				
Arsenic	0.12	72.1	80	90.0	75-125
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium					
Chromium					
Cobalt	anr				
Copper					
Iron	anr				
Lead	anr				
Magnesium					
Manganese	anr				
Molybdenum	anr				
Nickel	anr				
Potassium					
Selenium	anr				
Silver	anr				
Sodium					
Strontium					
Thallium	anr				
Tin	anr				
Titanium					
Vanadium	anr				
Zinc	anr				

Associated samples MP13130A: JC84299-1, JC84299-2, JC84299-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130A
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 03/14/19

Metal	JC84297-1 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	0.12	72.7	80	90.7	0.8	20
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium						
Chromium						
Cobalt	anr					
Copper						
Iron	anr					
Lead	anr					
Magnesium						
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium	anr					
Tin	anr					
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP13130A: JC84299-1, JC84299-2, JC84299-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130A
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 03/14/19

Metal	BSP Result	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	73.6	80	92.0	80-120
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium				
Cobalt	anr			
Copper				
Iron	anr			
Lead	anr			
Magnesium				
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin	anr			
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP13130A: JC84299-1, JC84299-2, JC84299-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130A
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 03/14/19

Metal	JC84297-1 Original	SDL 2:10	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	0.122	0.181	49.2 (a)	0-10
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium				
Cobalt	anr			
Copper				
Iron	anr			
Lead	anr			
Magnesium				
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin	anr			
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP13130A: JC84299-1, JC84299-2, JC84299-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP13130A
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 03/14/19

Metal	Sample ml	Final ml	JC84297-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.14	10	.1215538	.1111002	75.11964	0.2	4	80	93.8	75-125
Barium										
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP13130A: JC84299-1, JC84299-2, JC84299-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Instrument Detection Limits

Job Number: JC84299
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Aluminum	.045
Aluminum	.276
Antimony	.094
Arsenic	.12
Arsenic	.013
Barium	.008
Beryllium	.004
Boron	.648
Cadmium	.007
Cadmium	.004
Calcium	6.11
Chromium	.036
Chromium	.014
Cobalt	.0041
Cobalt	.002
Copper	.1044
Copper	.021
Iron	1.21
Iron	.432
Lead	.009
Magnesium	.033
Magnesium	.152
Manganese	.006
Manganese	.007
Molybdenum	.015
Nickel	.046
Nickel	.017
Potassium	.506
Potassium	.707
Selenium	.503
Selenium	.072
Silver	.004
Sodium	.357
Sodium	1.037
Strontium	.003
Thallium	.004
Tin	.025
Tin	.071
Titanium	.035
Titanium	.035
Vanadium	.112
Vanadium	.009
Zinc	.041
Zinc	.029

Instrument Detection Limits

Job Number: JC84299
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l

The above applies to the following instrument runs:
MA46313,MA46322

Instrument Detection Limits

Job Number: JC84299
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: SSTRACE3 **Effective Date:** 02/18/19

Analyte	IDL ug/l
Aluminum	14.3
Antimony	1.4
Arsenic	1.5
Barium	.5
Beryllium	.1
Bismuth	1.8
Boron	.8
Cadmium	.3
Calcium	3.9
Chromium	.3
Cobalt	.3
Copper	.6
Iron	2.6
Lead	1.6
Lithium	2.1
Magnesium	16.3
Manganese	.1
Molybdenum	.4
Nickel	.5
Phosphorus	1.9
Potassium	79
Selenium	3
Silicon	1.2
Silver	.5
Sodium	9.9
Sulfur	3.5
Strontium	.3
Thallium	1.3
Tin	.7
Titanium	.5
Tungsten	1.7
Vanadium	.5
Yttrium	5
Zinc	.2
Zirconium	.3

The above applies to the following instrument runs:
MA46321

Instrument Linear Ranges

Job Number: JC84299
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC84299
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA46313,MA46322

Instrument Linear Ranges

Job Number: JC84299
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: SSTRACE3 **Effective Date:** 07/16/18

Analyte	Linear Range ug/l
Aluminum	300000
Antimony	8000
Arsenic	8000
Barium	8000
Beryllium	8000
Bismuth	8000
Boron	8000
Cadmium	8000
Calcium	200000
Chromium	8000
Cobalt	8000
Copper	8000
Iron	200000
Lead	8000
Lithium	8000
Magnesium	300000
Manganese	8000
Molybdenum	8000
Nickel	8000
Palladium	8000
Phosphorus	8000
Potassium	200000
Selenium	8000
Silicon	25000
Silver	625
Sodium	200000
Sulfur	100000
Strontium	8000
Thallium	8000
Tin	8000
Titanium	8000
Tungsten	8000
Vanadium	8000
Zinc	8000
Zirconium	8000

The above applies to the following instrument runs:
MA46321

Metals Analysis

Raw Data

Quantitation Report

File Name 001CALB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 12:08
Sample Name STDA 4
Sample Type CalBlk
Comment 0
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	75.16	42.67	1.077E-05	Pulse	0.25	3
B			1	0.033	ug/l	22.76	4,807.48	1.215E-03	Pulse	0.15	3
Ca			1	-0.436	ug/l	-44.82	12,778.69	2.000E-03	Pulse	0.10	3
Sr			1	0.001	ug/l	59.38	1,043.41	1.232E-04	Pulse	0.10	3
Mo			1	0.004	ug/l	47.74	96.67	1.141E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	92.57	53.33	5.816E-06	Pulse	0.10	3
Sn			1	0.207	ug/l	5.80	13,336.23	1.452E-03	Pulse	0.10	3
Sb			1	0.002	ug/l	46.85	240.01	2.052E-05	Pulse	0.10	3
Ba			1	0.002	ug/l	286.81	140.01	1.195E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	91.54	283.35	4.142E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-351.52	460.03	6.739E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	93.53	460.03	6.742E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	106.63	1,870.12	2.742E-04	Pulse	0.10	3
Na			2	-0.039	ug/l	-180.43	7,688.51	4.246E-02	Pulse	0.30	3
Mg			2	0.019	ug/l	164.50	110.00	6.072E-04	Pulse	0.30	3
Al			2	0.352	ug/l	33.30	178.89	9.882E-04	Pulse	0.30	3
K			2	-0.631	ug/l	-99.10	7,159.39	3.954E-02	Pulse	0.30	3
Ca			2	1.519	ug/l	32.54	73.33	4.048E-04	Pulse	0.30	3
Ti			2	0.013	ug/l	122.96	10.00	5.525E-05	Pulse	0.30	3
V			2	0.006	ug/l	109.00	427.79	2.362E-03	Pulse	0.30	3
Cr			2	-0.006	ug/l	-94.82	1,035.60	5.718E-03	Pulse	0.30	3
Mn			2	-0.004	ug/l	-21.61	35.55	1.964E-04	Pulse	0.30	3
Fe			2	-0.057	ug/l	-26.11	3,541.53	1.956E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-106.69	75.56	4.172E-04	Pulse	0.30	3
Ni			2	0.005	ug/l	22.90	94.44	5.215E-04	Pulse	0.30	3
Cu			2	-0.001	ug/l	-227.28	630.02	3.479E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.034	ug/l	-135.06	803.36	4.436E-03	Pulse	0.30	3
As			2	0.014	ug/l	34.52	21.33	1.178E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-99.91	12.22	1.134E-05	Pulse	0.30	3
Sn			2	0.047	ug/l	55.92	2,226.85	2.068E-03	Pulse	0.30	3
Se			3	0.330	ug/l	77.23	119.80	5.306E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,956,777.32	0.57	100.0	Pulse	0.10	3
1	Sc		6,391,049.07	1.36	100.0	Analog	0.10	3
1	Ge		1,197,880.53	0.80	100.0	Pulse	0.10	3
1	Ge		1,668,843.31	0.96	100.0	Pulse	0.10	3
1	Rh		8,470,001.12	1.16	100.0	Analog	0.10	3
1	In		9,180,527.82	0.97	100.0	Analog	0.10	3
1	Tb		11,696,481.49	0.85	100.0	Analog	0.10	3
1	Ho		1,136,378.92	0.27	100.0	Pulse	0.10	3
1	Bi		6,825,390.11	1.10	100.0	Analog	0.10	3
2	Sc		181,089.84	0.31	100.0	Pulse	0.30	3
2	Ge		108,637.82	1.13	100.0	Pulse	0.30	3
2	Ge		164,395.35	0.71	100.0	Pulse	0.30	3
2	Rh		3,505,949.93	0.46	100.0	Pulse	0.30	3
2	In		1,076,782.26	0.55	100.0	Pulse	0.30	3
2	Tb		4,224,839.00	0.63	100.0	Pulse	0.30	3
2	Ho		421,456.35	0.12	100.0	Pulse	0.30	3
2	Bi		2,802,261.35	0.48	100.0	Pulse	0.30	3
3	Sc		240,009.98	2.41	100.0	Pulse	0.30	3
3	Ge		148,481.60	3.07	100.0	Pulse	0.30	3
3	Ge		225,398.79	2.40	100.0	Pulse	0.30	3
3	Rh		2,677,334.75	3.02	100.0	Pulse	0.30	3
3	Tb		4,096,351.09	2.87	100.0	Mix	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 12:13
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	2129.46	21.33	5.319E-06	Pulse	0.25	3
B			1	0.000	ug/l	---	4,382.89	1.096E-03	Pulse	0.15	3
Ca			1	-0.258	ug/l	-118.35	13,355.88	2.054E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	957.26	990.08	1.152E-04	Pulse	0.10	3
Mo			1	0.002	ug/l	151.82	60.00	6.999E-06	Pulse	0.10	3
Ag			1	0.000	ug/l	322.51	40.00	4.323E-06	Pulse	0.10	3
Sn			1	0.199	ug/l	4.10	13,219.32	1.429E-03	Pulse	0.10	3
Sb			1	0.000	ug/l	---	190.01	1.587E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	-1404.51	120.00	1.002E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	---	183.34	2.665E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	1320.68	483.36	7.029E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	979.27	426.69	6.199E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	475.89	1,750.10	2.544E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	7,993.06	4.280E-02	Pulse	0.30	3
Mg			2	0.000	ug/l	---	98.89	5.299E-04	Pulse	0.30	3
Al			2	0.000	ug/l	---	96.67	5.183E-04	Pulse	0.30	3
K			2	-0.152	ug/l	-199.91	7,611.82	4.076E-02	Pulse	0.30	3
Ca			2	-0.026	ug/l	-910.90	33.33	1.783E-04	Pulse	0.30	3
Ti			2	0.001	ug/l	1475.98	7.78	4.157E-05	Pulse	0.30	3
V			2	0.001	ug/l	633.69	401.12	2.147E-03	Pulse	0.30	3
Cr			2	-0.001	ug/l	-1105.16	1,121.16	6.002E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	55.55	2.976E-04	Pulse	0.30	3
Fe			2	-0.078	ug/l	-9.33	3,483.74	1.865E-02	Pulse	0.30	3
Co			2	0.000	ug/l	---	90.00	4.821E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	---	75.56	4.051E-04	Pulse	0.30	3
Cu			2	0.000	ug/l	-989.09	656.69	3.517E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.000	ug/l	---	886.71	4.748E-03	Pulse	0.30	3
As			2	0.000	ug/l	-795.13	9.67	5.173E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	---	14.44	1.307E-05	Pulse	0.30	3
Sn			2	0.047	ug/l	41.10	2,284.64	2.068E-03	Pulse	0.30	3
Se			3	0.000	ug/l	---	36.67	1.646E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,000,678.90	0.93	100.0	Pulse	0.10	3
1	Sc		6,501,398.65	0.80	100.0	Analog	0.10	3
1	Ge		1,212,407.72	0.15	100.0	Pulse	0.10	3
1	Ge		1,681,864.77	0.49	100.0	Pulse	0.10	3
1	Rh		8,590,058.83	0.41	100.0	Analog	0.10	3
1	In		9,253,504.77	0.10	100.0	Analog	0.10	3
1	Tb		11,963,725.24	1.09	100.0	Analog	0.10	3
1	Ho		1,152,589.23	0.38	100.0	Pulse	0.10	3
1	Bi		6,880,336.36	0.72	100.0	Analog	0.10	3
2	Sc		186,755.50	0.64	100.0	Pulse	0.30	3
2	Ge		112,013.51	0.50	100.0	Pulse	0.30	3
2	Ge		168,123.18	0.28	100.0	Pulse	0.30	3
2	Rh		3,565,918.33	0.31	100.0	Pulse	0.30	3
2	In		1,104,841.78	0.20	100.0	Pulse	0.30	3
2	Tb		4,283,738.02	0.52	100.0	Pulse	0.30	3
2	Ho		425,671.13	0.47	100.0	Pulse	0.30	3
2	Bi		2,832,826.07	0.34	100.0	Pulse	0.30	3
3	Sc		234,345.30	0.93	100.0	Pulse	0.30	3
3	Ge		147,153.30	0.76	100.0	Pulse	0.30	3
3	Ge		223,196.49	0.83	100.0	Pulse	0.30	3
3	Rh		2,626,788.09	0.61	100.0	Pulse	0.30	3
3	Tb		4,033,249.84	0.33	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 12:18
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

Quantitation Report

File Name 004CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 12:23
Sample Name STDB
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.496	ug/l	1.88	7,360.34	1.872E-03	Pulse	0.25	3
B			1	24.349	ug/l	0.72	356,246.00	9.059E-02	Pulse	0.15	3
Ca			1	252.718	ug/l	0.67	500,755.46	7.893E-02	Pulse	0.10	3
Sr			1	4.954	ug/l	0.63	474,088.72	5.627E-02	Pulse	0.10	3
Mo			1	0.973	ug/l	1.03	17,700.32	2.101E-03	Pulse	0.10	3
Ag			1	0.479	ug/l	0.78	23,261.18	2.528E-03	Pulse	0.10	3
Sn			1	4.567	ug/l	0.84	143,875.77	1.564E-02	Pulse	0.10	3
Sb			1	1.961	ug/l	1.75	61,953.07	5.237E-03	Pulse	0.10	3
Ba			1	1.001	ug/l	3.79	13,266.15	1.122E-03	Pulse	0.10	3
Tl			1	0.492	ug/l	1.70	38,932.16	5.717E-03	Pulse	0.10	3
Pb			1	0.487	ug/l	3.90	13,289.77	1.951E-03	Pulse	0.10	3
Pb			1	0.509	ug/l	4.48	12,162.11	1.786E-03	Pulse	0.10	3
Pb			1	0.496	ug/l	0.93	54,237.36	7.964E-03	Pulse	0.10	3
Na			2	256.209	ug/l	0.49	426,166.25	2.303E+00	Pulse	0.30	3
Mg			2	257.172	ug/l	0.49	198,183.58	1.071E+00	Pulse	0.30	3
Al			2	26.044	ug/l	2.01	6,531.34	3.529E-02	Pulse	0.30	3
K			2	247.176	ug/l	0.26	124,474.32	6.725E-01	Pulse	0.30	3
Ca			2	278.530	ug/l	2.94	7,590.71	4.101E-02	Pulse	0.30	3
Ti			2	0.979	ug/l	3.65	215.56	1.165E-03	Pulse	0.30	3
V			2	0.987	ug/l	1.38	7,476.20	4.039E-02	Pulse	0.30	3
Cr			2	1.009	ug/l	2.73	10,612.42	5.734E-02	Pulse	0.30	3
Mn			2	0.987	ug/l	2.04	4,705.16	2.542E-02	Pulse	0.30	3
Fe			2	25.439	ug/l	0.80	204,456.49	1.105E+00	Pulse	0.30	3
Co			2	0.504	ug/l	1.80	8,673.49	4.686E-02	Pulse	0.30	3
Ni			2	0.987	ug/l	3.06	4,704.06	2.542E-02	Pulse	0.30	3
Cu			2	2.017	ug/l	1.02	25,926.05	1.401E-01	Pulse	0.30	3
Zn			2	5.032	ug/l	4.37	9,377.26	5.067E-02	Pulse	0.30	3
As			2	0.506	ug/l	2.37	453.34	2.449E-03	Pulse	1.00	3
Cd			2	0.518	ug/l	2.51	1,410.34	1.282E-03	Pulse	0.30	3
Sn			2	4.378	ug/l	1.94	23,625.59	2.147E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.547	ug/l	2.39	169.87	7.713E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,932,350.33	0.65	98.3	Pulse	0.10	3
1	Sc		6,344,647.83	0.24	97.6	Analog	0.10	3
1	Ge		1,192,846.78	0.67	98.4	Pulse	0.10	3
1	Ge		1,652,102.53	0.64	98.2	Pulse	0.10	3
1	Rh		8,424,953.41	0.66	98.1	Analog	0.10	3
1	In		9,200,084.45	0.82	99.4	Analog	0.10	3
1	Tb		11,828,201.49	1.32	98.9	Analog	0.10	3
1	Ho		1,132,455.04	0.71	98.3	Pulse	0.10	3
1	Bi		6,809,912.61	0.21	99.0	Analog	0.10	3
2	Sc		185,084.84	0.10	99.1	Pulse	0.30	3
2	Ge		110,131.78	0.49	98.3	Pulse	0.30	3
2	Ge		166,782.75	0.76	99.2	Pulse	0.30	3
2	Rh		3,511,387.50	0.37	98.5	Pulse	0.30	3
2	In		1,100,224.50	0.32	99.6	Pulse	0.30	3
2	Tb		4,236,262.33	0.06	98.9	Pulse	0.30	3
2	Ho		422,763.47	0.22	99.3	Pulse	0.30	3
2	Bi		2,804,268.22	0.08	99.0	Pulse	0.30	3
3	Sc		231,879.15	0.48	98.9	Pulse	0.30	3
3	Ge		145,280.14	0.30	98.7	Pulse	0.30	3
3	Ge		220,223.43	0.46	98.7	Pulse	0.30	3
3	Rh		2,600,482.95	0.15	99.0	Pulse	0.30	3
3	Tb		4,011,947.20	0.46	99.5	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 12:28
Sample Name STDC
Sample Type CalStd
Comment 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.965	ug/l	0.58	73,063.95	1.868E-02	Pulse	0.25	3
B			1	5.050	ug/l	0.11	76,894.94	1.966E-02	Pulse	0.15	3
Ca			1	7.855	ug/l	0.10	28,234.80	4.519E-03	Pulse	0.10	3
Sr			1	4.964	ug/l	0.54	472,368.25	5.639E-02	Pulse	0.10	3
Mo			1	5.029	ug/l	1.60	90,897.78	1.085E-02	Pulse	0.10	3
Ag			1	5.008	ug/l	0.57	240,167.43	2.640E-02	Pulse	0.10	3
Sn			1	5.557	ug/l	0.92	171,564.76	1.886E-02	Pulse	0.10	3
Sb			1	4.988	ug/l	1.92	152,351.14	1.330E-02	Pulse	0.10	3
Ba			1	5.088	ug/l	1.85	64,836.22	5.659E-03	Pulse	0.10	3
Tl			1	4.861	ug/l	1.87	377,990.95	5.621E-02	Pulse	0.10	3
Pb			1	4.972	ug/l	1.87	129,681.63	1.928E-02	Pulse	0.10	3
Pb			1	4.933	ug/l	0.56	112,846.12	1.678E-02	Pulse	0.10	3
Pb			1	4.954	ug/l	0.84	519,992.05	7.732E-02	Pulse	0.10	3
Na			2	6.001	ug/l	5.78	17,789.45	9.573E-02	Pulse	0.30	3
Mg			2	4.960	ug/l	1.13	3,934.95	2.117E-02	Pulse	0.30	3
Al			2	5.240	ug/l	2.88	1,396.74	7.514E-03	Pulse	0.30	3
K			2	5.018	ug/l	2.27	10,030.87	5.397E-02	Pulse	0.30	3
Ca			2	36.686	ug/l	5.51	1,033.38	5.560E-03	Pulse	0.30	3
Ti			2	5.036	ug/l	6.76	1,082.27	5.821E-03	Pulse	0.30	3
V			2	4.924	ug/l	0.15	35,884.34	1.931E-01	Pulse	0.30	3
Cr			2	4.930	ug/l	1.03	47,693.91	2.566E-01	Pulse	0.30	3
Mn			2	4.950	ug/l	2.08	23,470.12	1.263E-01	Pulse	0.30	3
Fe			2	5.131	ug/l	1.72	44,666.88	2.403E-01	Pulse	0.30	3
Co			2	4.944	ug/l	1.42	84,597.36	4.552E-01	Pulse	0.30	3
Ni			2	4.926	ug/l	2.21	23,286.57	1.253E-01	Pulse	0.30	3
Cu			2	4.946	ug/l	1.91	62,897.16	3.384E-01	Pulse	0.30	3
Zn			2	4.753	ug/l	2.11	8,943.65	4.812E-02	Pulse	0.30	3
As			2	5.013	ug/l	1.24	4,422.28	2.379E-02	Pulse	1.00	3
Cd			2	4.954	ug/l	2.21	13,384.75	1.215E-02	Pulse	0.30	3
Sn			2	5.381	ug/l	0.91	28,608.29	2.597E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	4.983	ug/l	0.98	1,256.98	5.694E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,911,953.20	0.52	97.8	Pulse	0.10	3
1	Sc		6,247,578.87	0.68	96.1	Analog	0.10	3
1	Ge		1,177,788.60	0.90	97.1	Pulse	0.10	3
1	Ge		1,653,128.94	0.60	98.3	Pulse	0.10	3
1	Rh		8,377,588.42	0.76	97.5	Analog	0.10	3
1	In		9,097,950.22	0.59	98.3	Analog	0.10	3
1	Tb		11,459,671.08	1.70	95.8	Analog	0.10	3
1	Ho		1,134,065.06	1.18	98.4	Pulse	0.10	3
1	Bi		6,724,960.11	0.65	97.7	Analog	0.10	3
2	Sc		185,866.28	0.95	99.5	Pulse	0.30	3
2	Ge		110,732.43	0.67	98.9	Pulse	0.30	3
2	Ge		168,255.11	0.45	100.1	Pulse	0.30	3
2	Rh		3,517,810.14	0.48	98.7	Pulse	0.30	3
2	In		1,101,582.07	0.59	99.7	Pulse	0.30	3
2	Tb		4,220,073.03	0.21	98.5	Pulse	0.30	3
2	Ho		421,746.93	0.13	99.1	Pulse	0.30	3
2	Bi		2,791,347.25	0.36	98.5	Pulse	0.30	3
3	Sc		232,014.44	0.42	99.0	Pulse	0.30	3
3	Ge		145,398.41	0.83	98.8	Pulse	0.30	3
3	Ge		220,745.10	0.41	98.9	Pulse	0.30	3
3	Rh		2,619,021.35	0.43	99.7	Pulse	0.30	3
3	Tb		4,021,947.34	0.60	99.7	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 12:33
Sample Name	STDD
Sample Type	CalStd
Comment	25
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	25.040	ug/l	0.69	367,649.29	9.417E-02	Pulse	0.25	3
B			1	24.261	ug/l	0.97	352,426.13	9.027E-02	Pulse	0.15	3
Ca			1	38.966	ug/l	0.60	88,783.76	1.397E-02	Pulse	0.10	3
Sr			1	24.691	ug/l	1.86	2,390,726.47	2.800E-01	Pulse	0.10	3
Mo			1	24.825	ug/l	1.23	457,157.78	5.355E-02	Pulse	0.10	3
Ag			1	24.675	ug/l	1.22	1,207,815.87	1.301E-01	Pulse	0.10	3
Sn			1	24.861	ug/l	1.89	758,327.77	8.166E-02	Pulse	0.10	3
Sb			1	24.607	ug/l	1.07	770,356.92	6.553E-02	Pulse	0.10	3
Ba			1	24.957	ug/l	1.98	325,819.27	2.772E-02	Pulse	0.10	3
Tl			1	24.625	ug/l	1.12	1,943,971.48	2.847E-01	Pulse	0.10	3
Pb			1	25.187	ug/l	0.77	665,104.13	9.739E-02	Pulse	0.10	3
Pb			1	25.053	ug/l	0.88	580,211.40	8.496E-02	Pulse	0.10	3
Pb			1	25.059	ug/l	1.04	2,664,195.93	3.901E-01	Pulse	0.10	3
Na			2	27.727	ug/l	1.07	52,526.46	2.873E-01	Pulse	0.30	3
Mg			2	25.789	ug/l	1.48	19,717.14	1.079E-01	Pulse	0.30	3
Al			2	26.040	ug/l	1.19	6,450.18	3.528E-02	Pulse	0.30	3
K			2	26.205	ug/l	4.14	19,756.21	1.081E-01	Pulse	0.30	3
Ca			2	186.290	ug/l	3.06	5,025.27	2.749E-02	Pulse	0.30	3
Ti			2	24.504	ug/l	1.22	5,149.75	2.817E-02	Pulse	0.30	3
V			2	25.312	ug/l	1.18	179,833.49	9.838E-01	Pulse	0.30	3
Cr			2	25.255	ug/l	1.06	235,767.43	1.290E+00	Pulse	0.30	3
Mn			2	25.481	ug/l	1.74	118,590.71	6.488E-01	Pulse	0.30	3
Fe			2	26.685	ug/l	0.40	211,640.37	1.158E+00	Pulse	0.30	3
Co			2	25.310	ug/l	0.98	425,594.94	2.328E+00	Pulse	0.30	3
Ni			2	25.422	ug/l	0.98	117,881.16	6.449E-01	Pulse	0.30	3
Cu			2	25.230	ug/l	1.09	312,894.27	1.712E+00	Pulse	0.30	3
Zn			2	25.516	ug/l	0.62	43,432.91	2.376E-01	Pulse	0.30	3
As			2	25.015	ug/l	1.02	21,662.96	1.185E-01	Pulse	1.00	3
Cd			2	25.176	ug/l	1.66	66,889.81	6.170E-02	Pulse	0.30	3
Sn			2	25.448	ug/l	0.61	125,636.57	1.159E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	25.049	ug/l	1.31	6,085.53	2.796E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,904,251.08	0.17	97.6	Pulse	0.10	3
1	Sc		6,353,931.99	0.72	97.7	Analog	0.10	3
1	Ge		1,190,663.16	0.66	98.2	Pulse	0.10	3
1	Ge		1,663,520.71	0.73	98.9	Pulse	0.10	3
1	Rh		8,538,244.04	1.03	99.4	Analog	0.10	3
1	In		9,287,665.78	1.05	100.4	Analog	0.10	3
1	Tb		11,756,188.16	0.67	98.3	Analog	0.10	3
1	Ho		1,150,976.62	0.26	99.9	Pulse	0.10	3
1	Bi		6,829,177.40	0.49	99.3	Analog	0.10	3
2	Sc		182,806.91	0.88	97.9	Pulse	0.30	3
2	Ge		109,622.93	0.72	97.9	Pulse	0.30	3
2	Ge		166,537.47	0.37	99.1	Pulse	0.30	3
2	Rh		3,468,297.08	0.90	97.3	Pulse	0.30	3
2	In		1,084,107.35	0.61	98.1	Pulse	0.30	3
2	Tb		4,164,827.20	1.10	97.2	Pulse	0.30	3
2	Ho		415,264.37	0.71	97.6	Pulse	0.30	3
2	Bi		2,764,999.20	0.55	97.6	Pulse	0.30	3
3	Sc		228,376.94	0.73	97.5	Pulse	0.30	3
3	Ge		144,194.05	0.13	98.0	Pulse	0.30	3
3	Ge		217,660.66	0.64	97.5	Pulse	0.30	3
3	Rh		2,597,399.69	0.68	98.9	Pulse	0.30	3
3	Tb		4,000,128.59	0.50	99.2	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 12:38
Sample Name STDE
Sample Type CalStd
Comment 50
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.506	ug/l	0.67	725,921.31	1.899E-01	Pulse	0.25	3
B			1	48.422	ug/l	1.25	684,438.29	1.791E-01	Pulse	0.15	3
Ca			1	72.667	ug/l	0.55	151,367.09	2.421E-02	Pulse	0.10	3
Sr			1	50.623	ug/l	1.60	4,766,814.83	5.740E-01	Pulse	0.10	3
Mo			1	51.128	ug/l	0.98	915,802.07	1.103E-01	Pulse	0.10	3
Ag			1	50.677	ug/l	0.93	2,405,009.70	2.671E-01	Pulse	0.10	3
Sn			1	50.632	ug/l	0.63	1,490,175.60	1.655E-01	Pulse	0.10	3
Sb			1	49.738	ug/l	1.68	1,561,049.98	1.324E-01	Pulse	0.10	3
Ba			1	49.859	ug/l	1.35	652,571.03	5.536E-02	Pulse	0.10	3
Tl			1	50.594	ug/l	1.97	3,951,310.25	5.848E-01	Pulse	0.10	3
Pb			1	50.936	ug/l	1.11	1,330,324.20	1.969E-01	Pulse	0.10	3
Pb			1	51.127	ug/l	1.47	1,171,153.26	1.733E-01	Pulse	0.10	3
Pb			1	50.965	ug/l	1.78	5,358,998.99	7.932E-01	Pulse	0.10	3
Na			2	52.750	ug/l	0.32	92,317.90	5.081E-01	Pulse	0.30	3
Mg			2	51.289	ug/l	1.43	38,877.84	2.140E-01	Pulse	0.30	3
Al			2	52.570	ug/l	1.27	12,846.12	7.070E-02	Pulse	0.30	3
K			2	49.849	ug/l	2.23	30,613.65	1.685E-01	Pulse	0.30	3
Ca			2	354.204	ug/l	2.57	9,467.24	5.211E-02	Pulse	0.30	3
Ti			2	49.526	ug/l	1.73	10,339.99	5.690E-02	Pulse	0.30	3
V			2	50.040	ug/l	0.44	353,026.64	1.943E+00	Pulse	0.30	3
Cr			2	50.194	ug/l	0.73	464,702.28	2.557E+00	Pulse	0.30	3
Mn			2	50.348	ug/l	0.39	232,874.69	1.282E+00	Pulse	0.30	3
Fe			2	52.951	ug/l	0.93	413,487.18	2.276E+00	Pulse	0.30	3
Co			2	50.399	ug/l	1.17	842,293.07	4.636E+00	Pulse	0.30	3
Ni			2	50.479	ug/l	0.72	232,611.28	1.280E+00	Pulse	0.30	3
Cu			2	50.227	ug/l	0.75	618,541.35	3.404E+00	Pulse	0.30	3
Zn			2	50.075	ug/l	0.91	83,890.34	4.617E-01	Pulse	0.30	3
As			2	49.923	ug/l	0.97	42,963.41	2.365E-01	Pulse	1.00	3
Cd			2	50.526	ug/l	1.32	132,747.23	1.238E-01	Pulse	0.30	3
Sn			2	50.800	ug/l	0.55	246,038.64	2.295E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	50.198	ug/l	1.64	11,933.67	5.587E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,822,117.65	0.51	95.5	Pulse	0.10	3
1	Sc		6,251,390.95	0.74	96.2	Analog	0.10	3
1	Ge		1,162,582.53	0.57	95.9	Pulse	0.10	3
1	Ge		1,636,828.00	0.70	97.3	Pulse	0.10	3
1	Rh		8,304,986.13	1.03	96.7	Analog	0.10	3
1	In		9,004,310.63	0.33	97.3	Analog	0.10	3
1	Tb		11,789,017.32	1.52	98.5	Analog	0.10	3
1	Ho		1,133,602.38	0.17	98.4	Pulse	0.10	3
1	Bi		6,757,830.73	1.82	98.2	Analog	0.10	3
2	Sc		181,709.87	1.01	97.3	Pulse	0.30	3
2	Ge		108,636.51	0.86	97.0	Pulse	0.30	3
2	Ge		164,185.94	0.56	97.7	Pulse	0.30	3
2	Rh		3,441,559.17	1.44	96.5	Pulse	0.30	3
2	In		1,072,080.16	0.81	97.0	Pulse	0.30	3
2	Tb		4,140,135.81	1.14	96.6	Pulse	0.30	3
2	Ho		411,776.34	1.23	96.7	Pulse	0.30	3
2	Bi		2,757,491.07	0.91	97.3	Pulse	0.30	3
3	Sc		224,724.88	1.46	95.9	Pulse	0.30	3
3	Ge		141,580.61	1.30	96.2	Pulse	0.30	3
3	Ge		213,641.78	1.56	95.7	Pulse	0.30	3
3	Rh		2,555,294.20	1.65	97.3	Pulse	0.30	3
3	Tb		3,954,622.34	1.97	98.1	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 12:43
Sample Name	STDF
Sample Type	CalStd
Comment	100
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	99.922	ug/l	0.64	1,419,503.96	3.758E-01	Pulse	0.25	3
B			1	96.827	ug/l	0.68	1,348,581.20	3.570E-01	Pulse	0.15	3
Ca			1	143.242	ug/l	2.81	279,107.50	4.566E-02	Pulse	0.10	3
Sr			1	101.713	ug/l	0.85	9,512,598.40	1.153E+00	Analog	0.10	3
Mo			1	101.162	ug/l	1.24	1,799,760.54	2.182E-01	Pulse	0.10	3
Ag			1	100.827	ug/l	0.35	4,792,469.41	5.314E-01	Pulse	0.10	3
Sn			1	99.740	ug/l	0.70	2,933,294.23	3.253E-01	Pulse	0.10	3
Sb			1	100.231	ug/l	0.97	3,100,581.52	2.669E-01	Pulse	0.10	3
Ba			1	100.096	ug/l	0.53	1,291,188.89	1.111E-01	Pulse	0.10	3
Tl			1	99.804	ug/l	1.87	7,852,969.68	1.154E+00	Analog	0.10	3
Pb			1	99.391	ug/l	0.51	2,614,660.53	3.841E-01	Pulse	0.10	3
Pb			1	100.411	ug/l	0.37	2,316,783.61	3.403E-01	Pulse	0.10	3
Pb			1	100.193	ug/l	0.36	10,612,776.77	1.559E+00	Mix	0.10	3
Na			2	106.494	ug/l	0.94	176,857.02	9.821E-01	Pulse	0.30	3
Mg			2	103.106	ug/l	1.17	77,367.44	4.296E-01	Pulse	0.30	3
Al			2	102.688	ug/l	1.14	24,781.61	1.376E-01	Pulse	0.30	3
K			2	100.871	ug/l	1.00	53,812.70	2.988E-01	Pulse	0.30	3
Ca			2	712.486	ug/l	1.47	18,840.88	1.046E-01	Pulse	0.30	3
Ti			2	100.979	ug/l	1.04	20,884.34	1.160E-01	Pulse	0.30	3
V			2	99.742	ug/l	0.98	697,023.55	3.871E+00	Pulse	0.30	3
Cr			2	99.618	ug/l	1.23	912,967.92	5.070E+00	Pulse	0.30	3
Mn			2	99.708	ug/l	1.12	457,005.92	2.538E+00	Pulse	0.30	3
Fe			2	105.366	ug/l	1.04	811,536.98	4.506E+00	Pulse	0.30	3
Co			2	99.726	ug/l	0.81	1,651,815.32	9.172E+00	Pulse	0.30	3
Ni			2	99.659	ug/l	0.81	455,058.45	2.527E+00	Pulse	0.30	3
Cu			2	99.185	ug/l	0.64	1,210,001.76	6.719E+00	Pulse	0.30	3
Zn			2	99.832	ug/l	1.38	164,906.16	9.157E-01	Pulse	0.30	3
As			2	99.285	ug/l	1.63	84,671.50	4.702E-01	Pulse	1.00	3
Cd			2	99.695	ug/l	0.44	261,017.22	2.443E-01	Pulse	0.30	3
Sn			2	99.436	ug/l	0.29	478,046.35	4.475E-01	Pulse	0.30	3
Se			3	99.086	ug/l	0.85	23,422.09	1.101E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,777,752.93	0.11	94.4	Pulse	0.10	3
1	Sc		6,114,262.62	1.36	94.0	Analog	0.10	3
1	Ge		1,164,103.19	0.52	96.0	Pulse	0.10	3

Quantitation Report

1	Ge		1,630,799.61	0.59	97.0	Pulse	0.10	3
1	Rh		8,248,830.92	0.92	96.0	Analog	0.10	3
1	In		9,018,400.45	0.43	97.5	Analog	0.10	3
1	Tb		11,618,562.75	0.49	97.1	Analog	0.10	3
1	Ho		1,129,836.31	0.53	98.0	Pulse	0.10	3
1	Bi		6,807,064.06	0.01	98.9	Analog	0.10	3
2	Sc		180,099.95	1.28	96.4	Pulse	0.30	3
2	Ge		108,055.69	0.52	96.5	Pulse	0.30	3
2	Ge		163,603.64	0.76	97.3	Pulse	0.30	3
2	Rh		3,415,103.27	0.35	95.8	Pulse	0.30	3
2	In		1,068,389.57	0.63	96.7	Pulse	0.30	3
2	Tb		4,133,788.58	0.57	96.5	Pulse	0.30	3
2	Ho		413,272.89	0.82	97.1	Pulse	0.30	3
2	Bi		2,757,941.14	0.40	97.4	Pulse	0.30	3
3	Sc		224,646.93	0.52	95.9	Pulse	0.30	3
3	Ge		139,629.60	0.11	94.9	Pulse	0.30	3
3	Ge		212,712.52	0.95	95.3	Pulse	0.30	3
3	Rh		2,544,162.40	0.49	96.9	Pulse	0.30	3
3	Tb		3,956,347.90	0.91	98.1	Pulse	0.30	3

Quantitation Report

File Name 009CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 12:48
Sample Name STDG
Sample Type CalStd
Comment 500MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	19.76	196.00	5.274E-05	Pulse	0.25	3
B			1	202.153	ug/l	0.65	2,765,716.49	7.441E-01	Pulse	0.15	3
Ca			1	513.193	ug/l	1.69	967,389.73	1.581E-01	Pulse	0.10	3
Sr			1	0.022	ug/l	3.43	2,933.70	3.563E-04	Pulse	0.10	3
Mo			1	0.122	ug/l	1.71	2,190.25	2.660E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	20.51	666.70	7.437E-05	Pulse	0.10	3
Sn			1	-0.003	ug/l	-140.94	6,908.50	7.700E-04	Pulse	0.10	3
Sb			1	0.611	ug/l	1.99	19,112.30	1.642E-03	Pulse	0.10	3
Ba			1	0.015	ug/l	8.13	313.35	2.692E-05	Pulse	0.10	3
Tl			1	0.030	ug/l	2.26	2,560.32	3.780E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	19.76	1,096.75	1.619E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	16.66	1,013.40	1.495E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	13.19	4,353.76	6.425E-04	Pulse	0.10	3
Na			2	512.242	ug/l	4.77	818,453.45	4.561E+00	Pulse	0.30	3
Mg			2	513.100	ug/l	4.38	383,325.36	2.136E+00	Pulse	0.30	3
Al			2	513.562	ug/l	4.81	123,129.88	6.861E-01	Pulse	0.30	3
K			2	503.467	ug/l	4.31	238,208.23	1.327E+00	Pulse	0.30	3
Ca			2	505.181	ug/l	3.69	13,327.68	7.424E-02	Pulse	0.30	3
Ti			2	0.030	ug/l	98.35	13.34	7.515E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-102.30	363.34	2.020E-03	Pulse	0.30	3
Cr			2	-0.033	ug/l	-10.78	785.58	4.375E-03	Pulse	0.30	3
Mn			2	0.032	ug/l	12.55	200.00	1.115E-03	Pulse	0.30	3
Fe			2	514.790	ug/l	4.47	3,936,104.43	2.193E+01	Pulse	0.30	3
Co			2	0.030	ug/l	4.88	585.57	3.262E-03	Pulse	0.30	3
Ni			2	0.025	ug/l	20.11	187.78	1.048E-03	Pulse	0.30	3
Cu			2	0.048	ug/l	29.11	1,215.62	6.791E-03	Pulse	0.30	3
Zn			2	0.207	ug/l	50.39	1,193.39	6.640E-03	Pulse	0.30	3
As			2	0.022	ug/l	22.19	28.67	1.599E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	54.52	17.66	1.667E-05	Pulse	0.30	3
Sn			2	-0.151	ug/l	-13.86	1,254.51	1.181E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	200.156	ug/l	0.23	48,103.95	2.223E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,716,810.46	0.23	92.9	Pulse	0.10	3
1	Sc		6,119,991.78	0.59	94.1	Analog	0.10	3
1	Ge		1,151,968.73	0.22	95.0	Pulse	0.10	3
1	Ge		1,627,402.79	0.59	96.8	Pulse	0.10	3
1	Rh		8,233,513.21	0.12	95.8	Analog	0.10	3
1	In		8,972,531.52	0.77	97.0	Analog	0.10	3
1	Tb		11,641,144.00	0.69	97.3	Analog	0.10	3
1	Ho		1,114,006.10	0.58	96.7	Pulse	0.10	3
1	Bi		6,773,453.23	0.66	98.4	Analog	0.10	3
2	Sc		179,698.88	4.30	96.2	Pulse	0.30	3
2	Ge		108,023.53	3.43	96.4	Pulse	0.30	3
2	Ge		162,856.13	4.20	96.9	Pulse	0.30	3
2	Rh		3,388,155.56	4.65	95.0	Pulse	0.30	3
2	In		1,060,693.04	4.33	96.0	Pulse	0.30	3
2	Tb		4,083,859.42	4.36	95.3	Pulse	0.30	3
2	Ho		405,945.50	4.61	95.4	Pulse	0.30	3
2	Bi		2,703,923.29	3.97	95.4	Pulse	0.30	3
3	Sc		225,627.05	0.47	96.3	Pulse	0.30	3
3	Ge		142,341.68	0.96	96.7	Pulse	0.30	3
3	Ge		216,421.71	0.32	97.0	Pulse	0.30	3
3	Rh		2,561,834.20	0.31	97.5	Pulse	0.30	3
3	Tb		3,999,804.42	0.27	99.2	Pulse	0.30	3

Quantitation Report

File Name 010CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 12:53
Sample Name STDH
Sample Type CalStd
Comment 1000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	24.72	57.33	1.530E-05	Pulse	0.25	3
B			1	3.391	ug/l	2.63	50,820.48	1.356E-02	Pulse	0.15	3
Ca			1	999.485	ug/l	0.06	1,896,912.37	3.058E-01	Pulse	0.10	3
Sr			1	0.015	ug/l	7.05	2,246.93	2.769E-04	Pulse	0.10	3
Mo			1	0.037	ug/l	5.58	673.37	8.297E-05	Pulse	0.10	3
Ag			1	0.006	ug/l	3.07	323.35	3.620E-05	Pulse	0.10	3
Sn			1	-0.120	ug/l	-12.23	3,493.87	3.915E-04	Pulse	0.10	3
Sb			1	0.215	ug/l	7.27	6,701.64	5.886E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	77.93	156.68	1.376E-05	Pulse	0.10	3
Tl			1	0.010	ug/l	20.09	923.41	1.400E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	25.31	810.05	1.228E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	33.53	650.04	9.852E-05	Pulse	0.10	3
Pb			1	0.011	ug/l	13.46	2,793.54	4.233E-04	Pulse	0.10	3
Na			2	1012.503	ug/l	1.34	1,630,916.08	8.973E+00	Pulse	0.30	3
Mg			2	1015.129	ug/l	1.09	767,953.48	4.225E+00	Pulse	0.30	3
Al			2	1004.911	ug/l	1.67	243,935.80	1.342E+00	Pulse	0.30	3
K			2	1003.287	ug/l	1.26	473,281.75	2.604E+00	Pulse	0.30	3
Ca			2	1002.709	ug/l	0.99	26,750.47	1.472E-01	Pulse	0.30	3
Ti			2	0.008	ug/l	119.88	8.89	4.889E-05	Pulse	0.30	3
V			2	0.009	ug/l	56.83	444.46	2.444E-03	Pulse	0.30	3
Cr			2	-0.039	ug/l	-18.47	738.91	4.065E-03	Pulse	0.30	3
Mn			2	0.021	ug/l	12.82	150.00	8.249E-04	Pulse	0.30	3
Fe			2	1032.720	ug/l	0.50	7,993,341.07	4.398E+01	Analog	0.30	3
Co			2	0.052	ug/l	8.83	956.70	5.261E-03	Pulse	0.30	3
Ni			2	0.035	ug/l	2.54	233.34	1.284E-03	Pulse	0.30	3
Cu			2	0.028	ug/l	11.09	983.37	5.410E-03	Pulse	0.30	3
Zn			2	0.066	ug/l	88.25	972.26	5.349E-03	Pulse	0.30	3
As			2	0.014	ug/l	49.23	22.00	1.208E-04	Pulse	1.00	3
Cd			2	-0.002	ug/l	-170.62	9.96	9.376E-06	Pulse	0.30	3
Sn			2	-0.287	ug/l	-11.43	607.80	5.704E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	400.123	ug/l	0.34	96,434.04	4.442E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,749,022.69	1.08	93.7	Pulse	0.10	3
1	Sc		6,202,155.74	0.93	95.4	Analog	0.10	3
1	Ge		1,156,319.10	0.42	95.4	Pulse	0.10	3
1	Ge		1,641,845.91	0.70	97.6	Pulse	0.10	3
1	Rh		8,113,568.84	0.94	94.5	Analog	0.10	3
1	In		8,932,009.48	1.16	96.5	Analog	0.10	3
1	Tb		11,386,712.75	0.22	95.2	Analog	0.10	3
1	Ho		1,108,858.79	0.07	96.2	Pulse	0.10	3
1	Bi		6,602,074.07	1.47	96.0	Analog	0.10	3
2	Sc		181,771.48	0.85	97.3	Pulse	0.30	3
2	Ge		108,290.57	0.32	96.7	Pulse	0.30	3
2	Ge		164,671.10	0.67	97.9	Pulse	0.30	3
2	Rh		3,382,067.36	0.64	94.8	Pulse	0.30	3
2	In		1,066,843.37	1.08	96.6	Pulse	0.30	3
2	Tb		4,098,817.20	0.77	95.7	Pulse	0.30	3
2	Ho		407,292.13	0.10	95.7	Pulse	0.30	3
2	Bi		2,687,188.36	0.34	94.9	Pulse	0.30	3
3	Sc		224,678.31	0.73	95.9	Pulse	0.30	3
3	Ge		141,656.36	0.15	96.3	Pulse	0.30	3
3	Ge		217,112.60	0.15	97.3	Pulse	0.30	3
3	Rh		2,541,511.36	0.62	96.8	Pulse	0.30	3
3	Tb		3,956,969.98	0.56	98.1	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 12:58
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	13.94	48.00	1.297E-05	Pulse	0.25	3
B			1	2.131	ug/l	1.09	33,023.40	8.926E-03	Pulse	0.15	3
Ca			1	5043.773	ug/l	1.39	9,476,516.32	1.535E+00	Analog	0.10	3
Sr			1	0.044	ug/l	9.74	4,797.56	6.057E-04	Pulse	0.10	3
Mo			1	0.021	ug/l	41.03	393.35	4.957E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	42.84	196.67	2.232E-05	Pulse	0.10	3
Sn			1	-0.121	ug/l	-6.46	3,400.51	3.866E-04	Pulse	0.10	3
Sb			1	0.146	ug/l	4.62	4,560.87	4.033E-04	Pulse	0.10	3
Ba			1	0.006	ug/l	36.86	186.68	1.652E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	12.60	600.04	9.428E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	5.08	580.03	9.111E-05	Pulse	0.10	3
Pb			1	0.007	ug/l	38.93	540.04	8.486E-05	Pulse	0.10	3
Pb			1	0.010	ug/l	12.24	2,606.87	4.096E-04	Pulse	0.10	3
Na			2	5141.072	ug/l	2.37	8,253,036.62	4.539E+01	Analog	0.30	3
Mg			2	5018.256	ug/l	0.79	3,797,742.91	2.088E+01	Pulse	0.30	3
Al			2	5058.696	ug/l	0.84	1,228,205.02	6.754E+00	Pulse	0.30	3
K			2	5033.787	ug/l	0.61	2,345,681.92	1.290E+01	Pulse	0.30	3
Ca			2	5007.725	ug/l	0.37	133,526.10	7.343E-01	Pulse	0.30	3
Ti			2	-0.030	ug/l	-31.17	1.11	6.128E-06	Pulse	0.30	3
V			2	0.000	ug/l	1163.42	384.45	2.114E-03	Pulse	0.30	3
Cr			2	-0.026	ug/l	-16.01	857.81	4.718E-03	Pulse	0.30	3
Mn			2	0.069	ug/l	13.63	374.45	2.058E-03	Pulse	0.30	3
Fe			2	5087.257	ug/l	0.48	39,378,161.77	2.165E+02	Analog	0.30	3
Co			2	0.234	ug/l	3.49	3,993.86	2.196E-02	Pulse	0.30	3
Ni			2	0.178	ug/l	3.61	895.59	4.925E-03	Pulse	0.30	3
Cu			2	0.028	ug/l	16.00	982.26	5.402E-03	Pulse	0.30	3
Zn			2	-0.041	ug/l	-47.36	795.58	4.374E-03	Pulse	0.30	3
As			2	0.025	ug/l	23.16	31.33	1.722E-04	Pulse	1.00	3
Cd			2	-0.002	ug/l	-32.26	7.76	7.408E-06	Pulse	0.30	3
Sn			2	-0.276	ug/l	-4.85	648.91	6.199E-04	Pulse	0.30	3
Se			3	0.054	ug/l	18.48	47.20	2.248E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,699,763.54	0.60	92.5	Pulse	0.10	3
1	Sc		6,175,008.66	1.02	95.0	Analog	0.10	3
1	Ge		1,153,574.70	0.82	95.1	Pulse	0.10	3

Quantitation Report

1	Ge		1,602,669.56	1.06	95.3	Pulse	0.10	3
1	Rh		7,916,325.71	1.14	92.2	Analog	0.10	3
1	In		8,790,994.62	1.07	95.0	Analog	0.10	3
1	Tb		11,307,418.16	0.82	94.5	Analog	0.10	3
1	Ho		1,105,648.63	1.46	95.9	Pulse	0.10	3
1	Bi		6,365,693.03	0.61	92.5	Analog	0.10	3
2	Sc		181,849.81	0.45	97.4	Pulse	0.30	3
2	Ge		107,600.98	0.59	96.1	Pulse	0.30	3
2	Ge		161,902.36	1.10	96.3	Pulse	0.30	3
2	Rh		3,305,074.87	0.22	92.7	Pulse	0.30	3
2	In		1,046,729.07	0.36	94.7	Pulse	0.30	3
2	Tb		4,058,480.81	0.48	94.7	Pulse	0.30	3
2	Ho		405,045.87	0.39	95.2	Pulse	0.30	3
2	Bi		2,586,280.87	0.20	91.3	Pulse	0.30	3
3	Sc		223,177.72	0.76	95.2	Pulse	0.30	3
3	Ge		138,660.05	1.79	94.2	Pulse	0.30	3
3	Ge		209,998.95	0.67	94.1	Pulse	0.30	3
3	Rh		2,447,507.33	0.20	93.2	Pulse	0.30	3
3	Tb		3,862,544.98	0.45	95.8	Pulse	0.30	3

Quantitation Report

File Name	012CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 13:03
Sample Name	STDJ
Sample Type	CalStd
Comment	10000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	29.69	62.67	1.714E-05	Pulse	0.25	3
B			1	1.572	ug/l	1.58	25,145.73	6.875E-03	Pulse	0.15	3
Ca			1	9942.178	ug/l	1.34	18,676,974.72	3.023E+00	Analog	0.10	3
Sr			1	0.095	ug/l	0.96	9,359.74	1.189E-03	Pulse	0.10	3
Mo			1	0.023	ug/l	29.29	420.02	5.341E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	28.51	156.67	1.805E-05	Pulse	0.10	3
Sn			1	0.710	ug/l	1.03	26,820.26	3.090E-03	Pulse	0.10	3
Sb			1	0.120	ug/l	3.34	3,783.95	3.352E-04	Pulse	0.10	3
Ba			1	0.016	ug/l	45.29	316.68	2.808E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	2.85	526.70	8.508E-05	Pulse	0.10	3
Pb			1	0.013	ug/l	53.87	753.38	1.215E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	52.86	650.04	1.050E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	13.55	3,066.92	4.952E-04	Pulse	0.10	3
Na			2	9927.446	ug/l	1.86	16,017,472.14	8.760E+01	Analog	0.30	3
Mg			2	9988.525	ug/l	0.75	7,600,689.98	4.157E+01	Analog	0.30	3
Al			2	9969.441	ug/l	0.45	2,433,783.10	1.331E+01	Pulse	0.30	3
K			2	9962.006	ug/l	0.19	4,660,402.59	2.549E+01	Pulse	0.30	3
Ca			2	9921.185	ug/l	0.56	265,965.24	1.455E+00	Pulse	0.30	3
Ti			2	-0.003	ug/l	-1009.83	6.67	3.656E-05	Pulse	0.30	3
V			2	0.010	ug/l	79.17	454.46	2.486E-03	Pulse	0.30	3
Cr			2	0.031	ug/l	24.11	1,390.07	7.603E-03	Pulse	0.30	3
Mn			2	0.154	ug/l	15.25	773.36	4.228E-03	Pulse	0.30	3
Fe			2	9946.022	ug/l	0.41	77,405,945.81	4.233E+02	Analog	0.30	3
Co			2	0.455	ug/l	2.48	7,747.45	4.237E-02	Pulse	0.30	3
Ni			2	0.381	ug/l	3.40	1,841.24	1.007E-02	Pulse	0.30	3
Cu			2	0.068	ug/l	11.21	1,485.64	8.124E-03	Pulse	0.30	3
Zn			2	0.768	ug/l	6.51	2,150.17	1.176E-02	Pulse	0.30	3
As			2	0.062	ug/l	4.52	63.33	3.464E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	120.44	17.76	1.713E-05	Pulse	0.30	3
Sn			2	0.561	ug/l	4.35	4,531.82	4.372E-03	Pulse	0.30	3
Se			3	-0.026	ug/l	-73.67	28.33	1.358E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,657,548.80	0.37	91.4	Pulse	0.10	3
1	Sc		6,178,473.66	1.40	95.0	Analog	0.10	3
1	Ge		1,144,827.72	0.84	94.4	Pulse	0.10	3

Quantitation Report

1	Ge		1,579,076.02	0.89	93.9	Pulse	0.10	3
1	Rh		7,870,732.17	0.54	91.6	Analog	0.10	3
1	In		8,678,519.00	0.57	93.8	Analog	0.10	3
1	Tb		11,290,430.66	0.54	94.4	Analog	0.10	3
1	Ho		1,094,575.63	1.50	95.0	Pulse	0.10	3
1	Bi		6,191,269.49	0.94	90.0	Analog	0.10	3
2	Sc		182,850.00	0.39	97.9	Pulse	0.30	3
2	Ge		106,796.68	0.43	95.3	Pulse	0.30	3
2	Ge		160,687.73	0.94	95.6	Pulse	0.30	3
2	Rh		3,235,287.86	0.48	90.7	Pulse	0.30	3
2	In		1,036,626.91	0.16	93.8	Pulse	0.30	3
2	Tb		3,996,111.93	0.43	93.3	Pulse	0.30	3
2	Ho		401,822.39	0.49	94.4	Pulse	0.30	3
2	Bi		2,505,176.43	0.12	88.4	Pulse	0.30	3
3	Sc		222,231.92	0.73	94.8	Pulse	0.30	3
3	Ge		137,511.65	0.55	93.4	Pulse	0.30	3
3	Ge		208,570.67	0.33	93.4	Pulse	0.30	3
3	Rh		2,385,697.48	0.20	90.8	Pulse	0.30	3
3	Tb		3,815,578.18	0.24	94.6	Pulse	0.30	3

Quantitation Report

File Name	013CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 13:08
Sample Name	rinseconf
Sample Type	Sample
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	73.01	50.67	1.353E-05	Pulse	0.25	3
B			1	1.228	ug/l	0.08	21,008.98	5.609E-03	Pulse	0.15	3
Ca			1	0.065	ug/l	234.37	13,742.85	2.152E-03	Pulse	0.10	3
Sr			1	-0.001	ug/l	-270.48	836.73	9.859E-05	Pulse	0.10	3
Mo			1	0.005	ug/l	55.44	116.67	1.376E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	69.75	113.34	1.222E-05	Pulse	0.10	3
Sn			1	0.221	ug/l	5.07	13,966.68	1.498E-03	Pulse	0.10	3
Sb			1	0.044	ug/l	9.04	1,566.81	1.337E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	-1754.48	116.67	9.922E-06	Pulse	0.10	3
Tl			1	0.003	ug/l	15.22	440.03	6.498E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	1539.03	476.69	7.028E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-28.32	326.68	4.819E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	110.01	1,793.45	2.646E-04	Pulse	0.10	3
Na			2	0.534	ug/l	13.48	8,770.14	4.751E-02	Pulse	0.30	3
Mg			2	0.454	ug/l	6.29	446.68	2.419E-03	Pulse	0.30	3
Al			2	0.225	ug/l	58.04	151.11	8.180E-04	Pulse	0.30	3
K			2	-0.301	ug/l	-163.08	7,455.08	4.038E-02	Pulse	0.30	3
Ca			2	1.348	ug/l	115.17	70.00	3.798E-04	Pulse	0.30	3
Ti			2	-0.019	ug/l	-81.22	3.33	1.803E-05	Pulse	0.30	3
V			2	0.000	ug/l	-2247.23	387.79	2.101E-03	Pulse	0.30	3
Cr			2	-0.007	ug/l	-85.23	1,046.71	5.670E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-149.29	45.56	2.469E-04	Pulse	0.30	3
Fe			2	0.707	ug/l	3.40	9,609.57	5.205E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-1878.58	87.78	4.757E-04	Pulse	0.30	3
Ni			2	-0.003	ug/l	-101.39	58.89	3.193E-04	Pulse	0.30	3
Cu			2	-0.004	ug/l	-97.92	600.02	3.250E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.030	ug/l	-153.36	825.59	4.473E-03	Pulse	0.30	3
As			2	0.004	ug/l	131.26	13.67	7.399E-05	Pulse	1.00	3
Cd			2	-0.004	ug/l	-39.63	4.44	4.098E-06	Pulse	0.30	3
Sn			2	0.056	ug/l	61.53	2,275.75	2.106E-03	Pulse	0.30	3
Se			3	-0.115	ug/l	-7.11	8.07	3.673E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,745,347.98	0.03	93.6	Pulse	0.10	3
1	Sc		6,386,511.99	1.08	98.2	Analog	0.10	3
1	Ge		1,202,388.05	0.64	99.2	Pulse	0.10	3
1	Ge		1,667,112.32	0.41	99.1	Pulse	0.10	3
1	Rh		8,501,756.33	0.96	99.0	Analog	0.10	3
1	In		9,320,959.67	1.63	100.7	Analog	0.10	3
1	Tb		11,716,195.66	1.28	97.9	Analog	0.10	3
1	Ho		1,138,659.33	1.38	98.8	Pulse	0.10	3
1	Bi		6,775,177.82	1.28	98.5	Analog	0.10	3
2	Sc		184,607.09	0.48	98.8	Pulse	0.30	3
2	Ge		110,820.55	0.64	98.9	Pulse	0.30	3
2	Ge		167,899.31	0.81	99.9	Pulse	0.30	3
2	Rh		3,461,811.81	0.51	97.1	Pulse	0.30	3
2	In		1,080,518.93	0.49	97.8	Pulse	0.30	3
2	Tb		4,125,194.14	0.72	96.3	Pulse	0.30	3
2	Ho		410,005.83	0.49	96.3	Pulse	0.30	3
2	Bi		2,712,946.56	0.07	95.8	Pulse	0.30	3
3	Sc		229,874.26	0.37	98.1	Pulse	0.30	3
3	Ge		144,811.36	0.95	98.4	Pulse	0.30	3
3	Ge		219,730.50	0.50	98.4	Pulse	0.30	3
3	Rh		2,611,882.39	0.52	99.4	Pulse	0.30	3
3	Tb		4,004,261.51	0.17	99.3	Pulse	0.30	3

Quantitation Report

File Name	014SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 13:17
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	58.26	50.67	1.319E-05	Pulse	0.25	3
B			1	0.836	ug/l	3.11	16,003.44	4.170E-03	Pulse	0.15	3
Ca			1	-0.613	ug/l	-34.92	12,658.67	1.946E-03	Pulse	0.10	3
Sr			1	0.001	ug/l	136.32	1,016.74	1.183E-04	Pulse	0.10	3
Mo			1	0.003	ug/l	43.60	90.01	1.046E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	170.53	63.33	6.829E-06	Pulse	0.10	3
Sn			1	0.208	ug/l	3.44	13,489.59	1.458E-03	Pulse	0.10	3
Sb			1	0.028	ug/l	17.20	1,060.08	8.946E-05	Pulse	0.10	3
Ba			1	0.003	ug/l	65.01	156.68	1.319E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	53.95	336.68	4.990E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-68.95	393.35	5.833E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-80.49	356.69	5.288E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-52.36	1,613.43	2.392E-04	Pulse	0.10	3
Na			2	-0.093	ug/l	-106.27	7,945.28	4.198E-02	Pulse	0.30	3
Mg			2	0.128	ug/l	39.43	201.12	1.063E-03	Pulse	0.30	3
Al			2	-0.058	ug/l	-47.44	83.33	4.404E-04	Pulse	0.30	3
K			2	-0.746	ug/l	-36.29	7,426.16	3.924E-02	Pulse	0.30	3
Ca			2	0.600	ug/l	12.66	51.11	2.701E-04	Pulse	0.30	3
Ti			2	-0.030	ug/l	-29.59	1.11	5.863E-06	Pulse	0.30	3
V			2	0.006	ug/l	83.38	443.34	2.343E-03	Pulse	0.30	3
Cr			2	-0.004	ug/l	-88.57	1,105.61	5.842E-03	Pulse	0.30	3
Mn			2	0.001	ug/l	45.69	63.33	3.346E-04	Pulse	0.30	3
Fe			2	0.042	ug/l	13.53	4,494.00	2.375E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-21550.36	91.11	4.815E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-161.97	72.22	3.817E-04	Pulse	0.30	3
Cu			2	-0.011	ug/l	-37.98	533.35	2.819E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.029	ug/l	-51.49	848.93	4.486E-03	Pulse	0.30	3
As			2	0.002	ug/l	241.11	11.67	6.160E-05	Pulse	1.00	3
Cd			2	-0.001	ug/l	-484.45	12.21	1.115E-05	Pulse	0.30	3
Sn			2	0.025	ug/l	64.52	2,154.62	1.969E-03	Pulse	0.30	3
Se			3	-0.122	ug/l	-2.24	6.47	2.918E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,837,788.62	0.49	95.9	Pulse	0.10	3
1	Sc		6,505,742.40	1.04	100.1	Analog	0.10	3
1	Ge		1,210,631.47	0.45	99.9	Pulse	0.10	3
1	Ge		1,685,052.21	0.50	100.2	Pulse	0.10	3
1	Rh		8,600,922.58	1.08	100.1	Analog	0.10	3
1	In		9,254,291.78	0.51	100.0	Analog	0.10	3
1	Tb		11,861,463.57	1.21	99.1	Analog	0.10	3
1	Ho		1,131,126.68	1.76	98.1	Pulse	0.10	3
1	Bi		6,745,367.81	0.34	98.0	Analog	0.10	3
2	Sc		189,247.49	0.38	101.3	Pulse	0.30	3
2	Ge		112,359.96	0.73	100.3	Pulse	0.30	3
2	Ge		170,504.32	0.37	101.4	Pulse	0.30	3
2	Rh		3,505,144.51	0.45	98.3	Pulse	0.30	3
2	In		1,094,041.40	0.37	99.0	Pulse	0.30	3
2	Tb		4,145,309.28	0.40	96.8	Pulse	0.30	3
2	Ho		411,420.18	0.18	96.7	Pulse	0.30	3
2	Bi		2,737,249.06	0.16	96.6	Pulse	0.30	3
3	Sc		231,710.64	0.68	98.9	Pulse	0.30	3
3	Ge		145,795.65	0.38	99.1	Pulse	0.30	3
3	Ge		221,666.44	0.48	99.3	Pulse	0.30	3
3	Rh		2,626,366.91	0.18	100.0	Pulse	0.30	3
3	Tb		4,000,103.17	0.44	99.2	Pulse	0.30	3

Quantitation Report

File Name 015_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 13:22
Sample Name ICVA
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	62.028	ug/l	0.20	848,952.37	2.333E-01	Pulse	0.25	3
B			1	123.644	ug/l	0.34	1,658,004.97	4.555E-01	Pulse	0.15	3
Ca			1	5398.951	ug/l	0.78	10,047,123.18	1.643E+00	Analog	0.10	3
Sr			1	63.530	ug/l	0.97	5,740,735.75	7.204E-01	Analog	0.10	3
Mo			1	60.663	ug/l	1.09	1,042,738.79	1.308E-01	Pulse	0.10	3
Ag			1	60.241	ug/l	0.44	2,782,806.94	3.175E-01	Pulse	0.10	3
Sn			1	58.570	ug/l	0.34	1,676,873.31	1.913E-01	Pulse	0.10	3
Sb			1	63.650	ug/l	0.20	1,898,082.05	1.695E-01	Pulse	0.10	3
Ba			1	63.896	ug/l	0.21	794,555.27	7.094E-02	Pulse	0.10	3
Tl			1	65.226	ug/l	0.98	4,756,977.32	7.540E-01	Pulse	0.10	3
Pb			1	65.271	ug/l	0.80	1,591,672.53	2.523E-01	Pulse	0.10	3
Pb			1	61.640	ug/l	0.74	1,318,360.45	2.090E-01	Pulse	0.10	3
Pb			1	63.306	ug/l	0.56	6,215,778.86	9.852E-01	Pulse	0.10	3
Na			2	5316.650	ug/l	2.55	8,537,171.33	4.694E+01	Analog	0.30	3
Mg			2	5214.203	ug/l	2.44	3,947,150.26	2.170E+01	Pulse	0.30	3
Al			2	5342.431	ug/l	2.76	1,297,375.50	7.133E+00	Pulse	0.30	3
K			2	5285.305	ug/l	2.78	2,463,032.06	1.354E+01	Pulse	0.30	3
Ca			2	5633.093	ug/l	2.49	150,236.61	8.259E-01	Pulse	0.30	3
Ti			2	55.681	ug/l	5.22	11,628.63	6.396E-02	Pulse	0.30	3
V			2	61.218	ug/l	2.53	432,252.97	2.376E+00	Pulse	0.30	3
Cr			2	59.700	ug/l	2.60	553,080.48	3.041E+00	Pulse	0.30	3
Mn			2	60.055	ug/l	2.55	278,048.65	1.529E+00	Pulse	0.30	3
Fe			2	5310.458	ug/l	3.27	41,109,325.03	2.260E+02	Analog	0.30	3
Co			2	59.397	ug/l	2.64	993,707.63	5.463E+00	Pulse	0.30	3
Ni			2	58.766	ug/l	2.87	271,038.70	1.490E+00	Pulse	0.30	3
Cu			2	57.841	ug/l	2.06	713,036.41	3.920E+00	Pulse	0.30	3
Zn			2	60.113	ug/l	2.38	100,643.44	5.533E-01	Pulse	0.30	3
As			2	59.348	ug/l	2.13	51,131.35	2.811E-01	Pulse	1.00	3
Cd			2	60.113	ug/l	3.08	151,717.92	1.473E-01	Pulse	0.30	3
Sn			2	57.626	ug/l	2.38	267,901.72	2.601E-01	Pulse	0.30	3
Se			3	259.981	ug/l	0.62	59,788.98	2.887E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,639,561.40	0.39	91.0	Pulse	0.10	3
1	Sc		6,115,953.24	0.61	94.1	Analog	0.10	3
1	Ge		1,152,719.38	0.22	95.1	Pulse	0.10	3

Quantitation Report

1	Ge		1,618,983.20	0.70	96.3	Pulse	0.10	3
1	Rh		7,969,621.13	0.68	92.8	Analog	0.10	3
1	In		8,764,671.95	0.75	94.7	Analog	0.10	3
1	Tb		11,199,606.50	0.52	93.6	Analog	0.10	3
1	Ho		1,095,931.21	0.33	95.1	Pulse	0.10	3
1	Bi		6,309,459.49	0.62	91.7	Analog	0.10	3
2	Sc		181,984.24	2.96	97.4	Pulse	0.30	3
2	Ge		106,832.56	1.67	95.4	Pulse	0.30	3
2	Ge		161,395.68	2.02	96.0	Pulse	0.30	3
2	Rh		3,248,018.76	2.70	91.1	Pulse	0.30	3
2	In		1,030,434.71	2.52	93.3	Pulse	0.30	3
2	Tb		3,976,234.98	2.37	92.8	Pulse	0.30	3
2	Ho		395,426.67	2.46	92.9	Pulse	0.30	3
2	Bi		2,542,917.26	2.25	89.8	Pulse	0.30	3
3	Sc		218,255.84	0.06	93.1	Pulse	0.30	3
3	Ge		135,461.46	0.40	92.1	Pulse	0.30	3
3	Ge		207,133.72	0.68	92.8	Pulse	0.30	3
3	Rh		2,385,562.34	0.55	90.8	Pulse	0.30	3
3	Tb		3,773,770.27	0.59	93.6	Pulse	0.30	3

Quantitation Report

File Name	016_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 13:27
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	20.12	126.67	3.461E-05	Pulse	0.25	3
B			1	1.795	ug/l	3.67	28,121.37	7.693E-03	Pulse	0.15	3
Ca			1	0.521	ug/l	73.29	14,069.78	2.291E-03	Pulse	0.10	3
Sr			1	0.007	ug/l	34.49	1,593.48	1.925E-04	Pulse	0.10	3
Mo			1	0.061	ug/l	12.13	1,126.75	1.360E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	21.02	636.70	7.121E-05	Pulse	0.10	3
Sn			1	-0.054	ug/l	-18.03	5,411.13	6.045E-04	Pulse	0.10	3
Sb			1	0.052	ug/l	8.16	1,796.84	1.544E-04	Pulse	0.10	3
Ba			1	0.005	ug/l	77.58	180.01	1.552E-05	Pulse	0.10	3
Tl			1	0.016	ug/l	13.23	1,383.45	2.092E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	38.24	863.39	1.305E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	36.16	646.71	9.784E-05	Pulse	0.10	3
Pb			1	0.015	ug/l	12.56	3,186.92	4.818E-04	Pulse	0.10	3
Na			2	-0.213	ug/l	-77.53	7,375.02	4.092E-02	Pulse	0.30	3
Mg			2	0.299	ug/l	20.81	320.01	1.775E-03	Pulse	0.30	3
Al			2	62.883	ug/l	2.02	15,223.68	8.447E-02	Pulse	0.30	3
K			2	-0.308	ug/l	-142.58	7,273.88	4.036E-02	Pulse	0.30	3
Ca			2	1.366	ug/l	30.17	68.89	3.823E-04	Pulse	0.30	3
Ti			2	0.019	ug/l	179.79	11.11	6.175E-05	Pulse	0.30	3
V			2	0.001	ug/l	568.01	390.01	2.165E-03	Pulse	0.30	3
Cr			2	-0.002	ug/l	-64.17	1,068.94	5.930E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	105.96	64.44	3.573E-04	Pulse	0.30	3
Fe			2	0.726	ug/l	6.77	9,527.29	5.287E-02	Pulse	0.30	3
Co			2	0.005	ug/l	75.23	165.56	9.197E-04	Pulse	0.30	3
Ni			2	0.002	ug/l	167.94	83.34	4.621E-04	Pulse	0.30	3
Cu			2	0.012	ug/l	46.34	780.03	4.326E-03	Pulse	0.30	3
Zn			2	-0.083	ug/l	-21.06	720.03	3.994E-03	Pulse	0.30	3
As			2	0.006	ug/l	80.75	14.33	7.955E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-176.76	9.92	9.468E-06	Pulse	0.30	3
Sn			2	-0.216	ug/l	-5.79	928.93	8.864E-04	Pulse	0.30	3
Se			3	-0.061	ug/l	-16.96	20.80	9.685E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,656,090.11	0.88	91.4	Pulse	0.10	3
1	Sc		6,142,693.03	0.89	94.5	Analog	0.10	3
1	Ge		1,169,259.85	0.55	96.4	Pulse	0.10	3
1	Ge		1,627,693.52	0.82	96.8	Pulse	0.10	3
1	Rh		8,281,870.92	0.86	96.4	Analog	0.10	3
1	In		8,948,478.41	1.04	96.7	Analog	0.10	3
1	Tb		11,625,829.41	1.76	97.2	Analog	0.10	3
1	Ho		1,109,439.96	1.02	96.3	Pulse	0.10	3
1	Bi		6,615,810.94	1.60	96.2	Analog	0.10	3
2	Sc		180,240.28	0.65	96.5	Pulse	0.30	3
2	Ge		107,781.63	0.11	96.2	Pulse	0.30	3
2	Ge		163,005.64	0.58	97.0	Pulse	0.30	3
2	Rh		3,363,137.16	0.37	94.3	Pulse	0.30	3
2	In		1,048,099.73	0.21	94.9	Pulse	0.30	3
2	Tb		3,966,953.04	0.38	92.6	Pulse	0.30	3
2	Ho		394,461.81	0.57	92.7	Pulse	0.30	3
2	Bi		2,624,008.65	0.11	92.6	Pulse	0.30	3
3	Sc		224,200.01	0.59	95.7	Pulse	0.30	3
3	Ge		141,595.16	0.37	96.2	Pulse	0.30	3
3	Ge		214,664.34	0.62	96.2	Pulse	0.30	3
3	Rh		2,556,246.36	0.42	97.3	Pulse	0.30	3
3	Tb		3,900,491.65	0.11	96.7	Pulse	0.30	3

Quantitation Report

File Name	017_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 13:32
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	56.69	44.00	1.201E-05	Pulse	0.25	3
B			1	1.031	ug/l	3.83	17,883.11	4.886E-03	Pulse	0.15	3
Ca			1	-0.638	ug/l	-43.17	12,024.78	1.939E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	2037.98	950.07	1.133E-04	Pulse	0.10	3
Mo			1	0.011	ug/l	40.88	230.01	2.744E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	27.92	146.68	1.644E-05	Pulse	0.10	3
Sn			1	0.230	ug/l	8.57	13,636.43	1.528E-03	Pulse	0.10	3
Sb			1	0.015	ug/l	19.04	633.37	5.563E-05	Pulse	0.10	3
Ba			1	0.002	ug/l	262.58	136.67	1.200E-05	Pulse	0.10	3
Tl			1	0.003	ug/l	11.97	380.02	5.811E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	3574.20	460.02	7.020E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-141.58	333.35	5.087E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	205.03	1,766.77	2.699E-04	Pulse	0.10	3
Na			2	-0.124	ug/l	-50.01	7,649.58	4.171E-02	Pulse	0.30	3
Mg			2	0.079	ug/l	5.78	157.78	8.602E-04	Pulse	0.30	3
Al			2	-0.107	ug/l	-81.79	68.89	3.753E-04	Pulse	0.30	3
K			2	-0.358	ug/l	-31.85	7,379.50	4.023E-02	Pulse	0.30	3
Ca			2	0.453	ug/l	80.12	45.56	2.485E-04	Pulse	0.30	3
Ti			2	-0.030	ug/l	-30.56	1.11	6.027E-06	Pulse	0.30	3
V			2	-0.004	ug/l	-119.93	357.79	1.950E-03	Pulse	0.30	3
Cr			2	-0.016	ug/l	-54.08	961.15	5.241E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	577.47	56.67	3.089E-04	Pulse	0.30	3
Fe			2	0.022	ug/l	83.88	4,197.25	2.289E-02	Pulse	0.30	3
Co			2	0.000	ug/l	307.12	93.34	5.087E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-249.02	68.89	3.756E-04	Pulse	0.30	3
Cu			2	-0.008	ug/l	-23.51	547.79	2.987E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.056	ug/l	-103.44	776.69	4.234E-03	Pulse	0.30	3
As			2	0.004	ug/l	31.57	13.00	7.088E-05	Pulse	1.00	3
Cd			2	-0.003	ug/l	-23.22	5.54	5.213E-06	Pulse	0.30	3
Sn			2	0.038	ug/l	21.24	2,155.73	2.027E-03	Pulse	0.30	3
Se			3	-0.116	ug/l	-3.39	7.87	3.607E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,659,783.93	0.97	91.5	Pulse	0.10	3
1	Sc		6,203,800.12	0.65	95.4	Analog	0.10	3
1	Ge		1,170,267.72	0.27	96.5	Pulse	0.10	3
1	Ge		1,630,779.66	0.78	97.0	Pulse	0.10	3
1	Rh		8,384,765.29	0.19	97.6	Analog	0.10	3
1	In		8,924,724.18	0.74	96.4	Analog	0.10	3
1	Tb		11,384,283.16	0.12	95.2	Analog	0.10	3
1	Ho		1,097,094.70	1.35	95.2	Pulse	0.10	3
1	Bi		6,538,859.28	1.18	95.0	Analog	0.10	3
2	Sc		183,413.97	0.37	98.2	Pulse	0.30	3
2	Ge		109,518.95	0.11	97.8	Pulse	0.30	3
2	Ge		165,627.27	0.46	98.5	Pulse	0.30	3
2	Rh		3,390,629.38	0.15	95.1	Pulse	0.30	3
2	In		1,063,209.54	0.57	96.2	Pulse	0.30	3
2	Tb		3,999,371.93	0.32	93.4	Pulse	0.30	3
2	Ho		396,582.22	0.12	93.2	Pulse	0.30	3
2	Bi		2,638,096.77	0.57	93.1	Pulse	0.30	3
3	Sc		229,407.34	0.34	97.9	Pulse	0.30	3
3	Ge		142,515.37	0.27	96.8	Pulse	0.30	3
3	Ge		218,004.28	0.46	97.7	Pulse	0.30	3
3	Rh		2,580,322.81	0.16	98.2	Pulse	0.30	3
3	Tb		3,941,642.20	0.11	97.7	Pulse	0.30	3

Quantitation Report

File Name	018_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 13:37
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	52.705	ug/l	0.46	709,523.73	1.982E-01	Pulse	0.25	3
B			1	102.726	ug/l	0.42	1,355,590.40	3.787E-01	Pulse	0.15	3
Ca			1	5093.347	ug/l	1.61	9,476,562.15	1.550E+00	Analog	0.10	3
Sr			1	53.652	ug/l	1.18	4,826,815.24	6.084E-01	Pulse	0.10	3
Mo			1	53.229	ug/l	1.38	910,874.65	1.148E-01	Pulse	0.10	3
Ag			1	50.984	ug/l	1.19	2,323,033.30	2.687E-01	Pulse	0.10	3
Sn			1	50.704	ug/l	1.21	1,432,715.55	1.657E-01	Pulse	0.10	3
Sb			1	52.294	ug/l	2.00	1,562,443.10	1.392E-01	Pulse	0.10	3
Ba			1	52.183	ug/l	1.68	650,187.31	5.794E-02	Pulse	0.10	3
Tl			1	52.759	ug/l	0.78	3,764,081.82	6.099E-01	Pulse	0.10	3
Pb			1	53.473	ug/l	0.86	1,275,676.49	2.067E-01	Pulse	0.10	3
Pb			1	53.137	ug/l	1.38	1,111,799.38	1.801E-01	Pulse	0.10	3
Pb			1	53.048	ug/l	0.62	5,095,634.27	8.256E-01	Pulse	0.10	3
Na			2	5021.994	ug/l	1.31	8,019,496.35	4.434E+01	Analog	0.30	3
Mg			2	4950.630	ug/l	0.13	3,726,571.80	2.060E+01	Pulse	0.30	3
Al			2	5000.017	ug/l	0.02	1,207,483.91	6.676E+00	Pulse	0.30	3
K			2	5023.122	ug/l	0.44	2,328,223.93	1.287E+01	Pulse	0.30	3
Ca			2	5312.052	ug/l	0.26	140,880.63	7.789E-01	Pulse	0.30	3
Ti			2	50.504	ug/l	2.17	10,494.52	5.802E-02	Pulse	0.30	3
V			2	51.532	ug/l	0.25	361,885.28	2.001E+00	Pulse	0.30	3
Cr			2	50.933	ug/l	0.37	469,373.78	2.595E+00	Pulse	0.30	3
Mn			2	50.901	ug/l	0.41	234,357.34	1.296E+00	Pulse	0.30	3
Fe			2	5104.662	ug/l	1.08	39,299,923.99	2.173E+02	Analog	0.30	3
Co			2	50.809	ug/l	0.49	845,318.96	4.673E+00	Pulse	0.30	3
Ni			2	50.177	ug/l	0.47	230,149.58	1.272E+00	Pulse	0.30	3
Cu			2	49.285	ug/l	0.69	604,194.37	3.340E+00	Pulse	0.30	3
Zn			2	50.286	ug/l	0.65	83,858.07	4.636E-01	Pulse	0.30	3
As			2	49.781	ug/l	0.58	42,647.95	2.358E-01	Pulse	1.00	3
Cd			2	50.910	ug/l	0.91	126,765.98	1.248E-01	Pulse	0.30	3
Sn			2	50.315	ug/l	0.61	230,983.63	2.273E-01	Pulse	0.30	3
Se			3	204.431	ug/l	0.13	47,552.53	2.270E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,579,971.92	0.70	89.5	Pulse	0.10	3
1	Sc		6,115,260.74	1.73	94.1	Analog	0.10	3
1	Ge		1,146,903.50	0.92	94.6	Pulse	0.10	3

Quantitation Report

1	Ge		1,610,351.85	0.22	95.7	Pulse	0.10	3
1	Rh		7,934,577.38	1.11	92.4	Analog	0.10	3
1	In		8,645,628.45	1.13	93.4	Analog	0.10	3
1	Tb		11,223,983.17	2.05	93.8	Analog	0.10	3
1	Ho		1,090,549.38	0.09	94.6	Pulse	0.10	3
1	Bi		6,172,328.03	0.89	89.7	Analog	0.10	3
2	Sc		180,875.94	0.43	96.9	Pulse	0.30	3
2	Ge		105,465.73	0.44	94.2	Pulse	0.30	3
2	Ge		160,946.74	1.01	95.7	Pulse	0.30	3
2	Rh		3,198,107.58	0.40	89.7	Pulse	0.30	3
2	In		1,016,102.43	0.75	92.0	Pulse	0.30	3
2	Tb		3,885,915.40	0.51	90.7	Pulse	0.30	3
2	Ho		385,623.21	0.70	90.6	Pulse	0.30	3
2	Bi		2,482,092.61	0.28	87.6	Pulse	0.30	3
3	Sc		222,974.58	1.12	95.1	Pulse	0.30	3
3	Ge		137,861.24	0.34	93.7	Pulse	0.30	3
3	Ge		209,469.19	0.22	93.8	Pulse	0.30	3
3	Rh		2,415,245.94	0.28	91.9	Pulse	0.30	3
3	Tb		3,816,078.60	0.57	94.6	Pulse	0.30	3

Quantitation Report

File Name 019_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 13:42
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	30.13	149.33	4.108E-05	Pulse	0.25	3
B			1	1.835	ug/l	5.00	28,524.30	7.840E-03	Pulse	0.15	3
Ca			1	-0.244	ug/l	-81.24	12,922.13	2.058E-03	Pulse	0.10	3
Sr			1	0.004	ug/l	8.48	1,360.11	1.628E-04	Pulse	0.10	3
Mo			1	0.070	ug/l	14.73	1,296.77	1.552E-04	Pulse	0.10	3
Ag			1	0.009	ug/l	16.38	490.02	5.390E-05	Pulse	0.10	3
Sn			1	0.270	ug/l	2.74	15,097.78	1.660E-03	Pulse	0.10	3
Sb			1	0.200	ug/l	4.68	6,221.47	5.470E-04	Pulse	0.10	3
Ba			1	0.002	ug/l	77.19	140.01	1.233E-05	Pulse	0.10	3
Tl			1	0.015	ug/l	8.61	1,283.44	1.947E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	30.00	760.05	1.153E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	67.36	660.04	1.002E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	21.85	3,030.23	4.597E-04	Pulse	0.10	3
Na			2	0.180	ug/l	108.87	8,055.36	4.439E-02	Pulse	0.30	3
Mg			2	0.325	ug/l	26.34	341.12	1.880E-03	Pulse	0.30	3
Al			2	0.235	ug/l	33.22	151.12	8.325E-04	Pulse	0.30	3
K			2	-0.252	ug/l	-126.19	7,349.49	4.050E-02	Pulse	0.30	3
Ca			2	0.638	ug/l	40.42	50.00	2.756E-04	Pulse	0.30	3
Ti			2	-0.003	ug/l	-1355.25	6.67	3.661E-05	Pulse	0.30	3
V			2	0.007	ug/l	19.39	435.57	2.400E-03	Pulse	0.30	3
Cr			2	-0.010	ug/l	-109.01	1,003.37	5.529E-03	Pulse	0.30	3
Mn			2	-0.003	ug/l	-166.45	41.11	2.263E-04	Pulse	0.30	3
Fe			2	0.464	ug/l	19.12	7,571.83	4.174E-02	Pulse	0.30	3
Co			2	0.005	ug/l	61.15	167.78	9.250E-04	Pulse	0.30	3
Ni			2	0.001	ug/l	249.78	78.89	4.347E-04	Pulse	0.30	3
Cu			2	0.000	ug/l	-6406.52	641.13	3.533E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.093	ug/l	-3.26	707.80	3.900E-03	Pulse	0.30	3
As			2	0.007	ug/l	15.13	16.00	8.816E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	587.36	14.35	1.371E-05	Pulse	0.30	3
Sn			2	0.119	ug/l	15.75	2,501.34	2.390E-03	Pulse	0.30	3
Se			3	-0.066	ug/l	-16.22	19.73	9.136E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,638,833.99	0.71	91.0	Pulse	0.10	3
1	Sc		6,277,803.45	0.53	96.6	Analog	0.10	3
1	Ge		1,181,515.42	0.47	97.5	Pulse	0.10	3
1	Ge		1,629,307.22	0.55	96.9	Pulse	0.10	3
1	Rh		8,355,375.09	0.08	97.3	Analog	0.10	3
1	In		9,094,717.20	0.49	98.3	Analog	0.10	3
1	Tb		11,371,056.50	1.33	95.0	Analog	0.10	3
1	Ho		1,103,360.58	0.04	95.7	Pulse	0.10	3
1	Bi		6,591,071.15	0.64	95.8	Analog	0.10	3
2	Sc		181,463.42	0.40	97.2	Pulse	0.30	3
2	Ge		108,375.70	0.79	96.8	Pulse	0.30	3
2	Ge		164,103.09	0.19	97.6	Pulse	0.30	3
2	Rh		3,354,797.44	0.40	94.1	Pulse	0.30	3
2	In		1,046,649.04	0.27	94.7	Pulse	0.30	3
2	Tb		3,948,051.65	0.36	92.2	Pulse	0.30	3
2	Ho		390,317.34	0.24	91.7	Pulse	0.30	3
2	Bi		2,612,059.27	0.48	92.2	Pulse	0.30	3
3	Sc		227,989.36	0.72	97.3	Pulse	0.30	3
3	Ge		143,439.65	0.65	97.5	Pulse	0.30	3
3	Ge		215,892.40	0.55	96.7	Pulse	0.30	3
3	Rh		2,592,514.27	0.62	98.7	Pulse	0.30	3
3	Tb		3,960,928.45	1.17	98.2	Pulse	0.30	3

Quantitation Report

File Name 020LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 13:47
Sample Name CRI
Sample Type LLCCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.515	ug/l	2.51	7,226.95	1.943E-03	Pulse	0.25	3
B			1	25.560	ug/l	0.49	353,433.33	9.504E-02	Pulse	0.15	3
Ca			1	254.013	ug/l	0.53	498,715.97	7.932E-02	Pulse	0.10	3
Sr			1	5.002	ug/l	0.33	479,391.31	5.682E-02	Pulse	0.10	3
Mo			1	0.997	ug/l	1.11	18,170.85	2.154E-03	Pulse	0.10	3
Ag			1	0.478	ug/l	3.22	23,217.79	2.525E-03	Pulse	0.10	3
Sn			1	4.584	ug/l	3.21	144,265.74	1.569E-02	Pulse	0.10	3
Sb			1	2.090	ug/l	0.59	64,165.19	5.580E-03	Pulse	0.10	3
Ba			1	1.025	ug/l	2.01	13,202.78	1.148E-03	Pulse	0.10	3
Tl			1	0.494	ug/l	3.09	37,528.54	5.739E-03	Pulse	0.10	3
Pb			1	0.505	ug/l	2.61	13,213.05	2.020E-03	Pulse	0.10	3
Pb			1	0.525	ug/l	0.77	12,031.98	1.840E-03	Pulse	0.10	3
Pb			1	0.517	ug/l	1.81	54,210.96	8.289E-03	Pulse	0.10	3
Na			2	245.688	ug/l	0.79	406,859.93	2.210E+00	Pulse	0.30	3
Mg			2	249.313	ug/l	0.61	191,129.75	1.038E+00	Pulse	0.30	3
Al			2	25.321	ug/l	3.33	6,319.04	3.432E-02	Pulse	0.30	3
K			2	248.971	ug/l	0.13	124,670.95	6.771E-01	Pulse	0.30	3
Ca			2	281.101	ug/l	1.49	7,620.70	4.139E-02	Pulse	0.30	3
Ti			2	1.121	ug/l	6.69	244.45	1.327E-03	Pulse	0.30	3
V			2	1.007	ug/l	2.26	7,576.26	4.115E-02	Pulse	0.30	3
Cr			2	0.989	ug/l	4.10	10,370.02	5.632E-02	Pulse	0.30	3
Mn			2	1.037	ug/l	1.95	4,914.12	2.669E-02	Pulse	0.30	3
Fe			2	25.609	ug/l	0.43	204,730.00	1.112E+00	Pulse	0.30	3
Co			2	0.493	ug/l	1.05	8,430.02	4.579E-02	Pulse	0.30	3
Ni			2	0.992	ug/l	2.06	4,705.17	2.555E-02	Pulse	0.30	3
Cu			2	2.010	ug/l	0.61	25,703.50	1.396E-01	Pulse	0.30	3
Zn			2	4.883	ug/l	3.21	9,079.26	4.931E-02	Pulse	0.30	3
As			2	0.468	ug/l	4.59	418.01	2.270E-03	Pulse	1.00	3
Cd			2	0.484	ug/l	7.42	1,262.55	1.199E-03	Pulse	0.30	3
Sn			2	4.463	ug/l	0.84	23,019.11	2.186E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.413	ug/l	6.07	136.00	6.224E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,718,757.44	0.21	93.0	Pulse	0.10	3
1	Sc		6,287,382.41	0.52	96.7	Analog	0.10	3
1	Ge		1,187,635.22	0.51	98.0	Pulse	0.10	3
1	Ge		1,662,245.39	0.64	98.8	Pulse	0.10	3
1	Rh		8,436,657.79	0.76	98.2	Analog	0.10	3
1	In		9,196,780.30	2.23	99.4	Analog	0.10	3
1	Tb		11,499,489.00	0.36	96.1	Analog	0.10	3
1	Ho		1,108,575.66	0.98	96.2	Pulse	0.10	3
1	Bi		6,540,524.90	1.18	95.1	Analog	0.10	3
2	Sc		184,123.24	0.46	98.6	Pulse	0.30	3
2	Ge		109,202.29	0.55	97.5	Pulse	0.30	3
2	Ge		165,706.78	0.23	98.6	Pulse	0.30	3
2	Rh		3,360,640.84	0.49	94.2	Pulse	0.30	3
2	In		1,053,149.78	0.32	95.3	Pulse	0.30	3
2	Tb		3,964,482.90	0.28	92.5	Pulse	0.30	3
2	Ho		393,512.06	0.24	92.4	Pulse	0.30	3
2	Bi		2,619,908.16	0.75	92.5	Pulse	0.30	3
3	Sc		229,882.32	0.83	98.1	Pulse	0.30	3
3	Ge		144,102.22	0.23	97.9	Pulse	0.30	3
3	Ge		218,480.43	0.26	97.9	Pulse	0.30	3
3	Rh		2,590,351.56	0.47	98.6	Pulse	0.30	3
3	Tb		3,958,239.15	0.11	98.1	Pulse	0.30	3

Quantitation Report

File Name	021ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 13:52
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	105.76	38.67	1.134E-05	Pulse	0.25	3
B			1	1.594	ug/l	1.54	23,750.31	6.953E-03	Pulse	0.15	3
Ca			1	92632.253	ug/l	1.60	166,238,124.19	2.815E+01	Analog	0.10	3
Sr			1	2040.644	ug/l	0.58	156,692,497.66	2.314E+01	Analog	0.10	3
Mo			1	2110.422	ug/l	0.77	30,830,232.04	4.552E+00	Analog	0.10	3
Ag			1	0.032	ug/l	9.08	1,353.45	1.748E-04	Pulse	0.10	3
Sn			1	1812.046	ug/l	1.12	45,681,262.65	5.896E+00	Analog	0.10	3
Sb			1	0.108	ug/l	7.01	3,133.76	3.037E-04	Pulse	0.10	3
Ba			1	0.145	ug/l	5.19	1,763.50	1.710E-04	Pulse	0.10	3
Tl			1	0.007	ug/l	11.53	553.37	1.085E-04	Pulse	0.10	3
Pb			1	0.100	ug/l	6.34	2,333.61	4.575E-04	Pulse	0.10	3
Pb			1	0.092	ug/l	8.44	1,910.19	3.745E-04	Pulse	0.10	3
Pb			1	0.100	ug/l	5.66	9,221.53	1.808E-03	Pulse	0.10	3
Na			2	88081.646	ug/l	0.62	129,840,901.51	7.769E+02	Analog	0.30	3
Mg			2	86667.820	ug/l	1.15	60,276,057.60	3.607E+02	Analog	0.30	3
Al			2	90554.418	ug/l	0.76	20,205,311.42	1.209E+02	Analog	0.30	3
K			2	93940.604	ug/l	0.29	40,110,963.96	2.400E+02	Analog	0.30	3
Ca			2	101554.088	ug/l	0.96	2,487,991.36	1.489E+01	Pulse	0.30	3
Ti			2	1783.173	ug/l	0.72	342,139.20	2.047E+00	Pulse	0.30	3
V			2	0.013	ug/l	49.31	435.57	2.605E-03	Pulse	0.30	3
Cr			2	0.153	ug/l	6.35	2,306.86	1.381E-02	Pulse	0.30	3
Mn			2	0.364	ug/l	3.93	1,597.88	9.562E-03	Pulse	0.30	3
Fe			2	88263.665	ug/l	0.91	627,841,237.27	3.757E+03	Analog	0.30	3
Co			2	0.061	ug/l	4.94	1,011.16	6.051E-03	Pulse	0.30	3
Ni			2	0.429	ug/l	11.40	1,884.58	1.128E-02	Pulse	0.30	3
Cu			2	0.263	ug/l	13.51	3,563.76	2.133E-02	Pulse	0.30	3
Zn			2	0.233	ug/l	18.33	1,148.94	6.877E-03	Pulse	0.30	3
As			2	0.073	ug/l	10.75	67.00	4.010E-04	Pulse	1.00	3
Cd			2	-0.119	ug/l	-44.29	-244.29	-2.781E-04	Pulse	0.30	3
Sn			2	1831.205	ug/l	0.27	7,206,924.44	8.208E+00	Analog	0.30	3
Se			3	-0.078	ug/l	-5.35	13.47	7.841E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,415,701.74	0.49	85.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,905,871.16	1.12	90.8	Analog	0.10	3
1	Ge		1,093,229.26	0.81	90.2	Pulse	0.10	3
1	Ge		1,411,376.13	1.01	83.9	Pulse	0.10	3
1	Rh		6,772,931.77	0.82	78.8	Analog	0.10	3
1	In		7,748,691.35	1.18	83.7	Analog	0.10	3
1	Tb		10,314,848.60	0.87	86.2	Analog	0.10	3
1	Ho		1,005,792.22	0.65	87.3	Pulse	0.10	3
1	Bi		5,099,351.48	0.72	74.1	Pulse	0.10	3
2	Sc		167,127.16	0.81	89.5	Pulse	0.30	3
2	Ge		94,158.84	0.54	84.1	Pulse	0.30	3
2	Ge		136,969.25	1.03	81.5	Pulse	0.30	3
2	Rh		2,587,470.66	0.64	72.6	Pulse	0.30	3
2	In		878,053.18	0.55	79.5	Pulse	0.30	3
2	Tb		3,454,904.31	0.25	80.7	Pulse	0.30	3
2	Ho		345,464.80	0.56	81.2	Pulse	0.30	3
2	Bi		1,983,280.41	0.22	70.0	Pulse	0.30	3
3	Sc		200,757.19	0.17	85.7	Pulse	0.30	3
3	Ge		118,351.55	0.31	80.4	Pulse	0.30	3
3	Ge		171,769.58	0.27	77.0	Pulse	0.30	3
3	Rh		1,864,855.41	0.47	71.0	Pulse	0.30	3
3	Tb		3,172,631.61	0.52	78.7	Pulse	0.30	3

Quantitation Report

File Name 022ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 13:57
Sample Name ICSAB
Sample Type ICSB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	37.85	132.00	4.166E-05	Pulse	0.25	3
B			1	45.052	ug/l	0.80	527,482.13	1.667E-01	Pulse	0.15	3
Ca			1	96702.989	ug/l	0.56	164,748,447.55	2.939E+01	Analog	0.10	3
Sr			1	2258.531	ug/l	1.07	170,826,077.45	2.561E+01	Analog	0.10	3
Mo			1	2186.366	ug/l	0.48	31,460,279.53	4.716E+00	Analog	0.10	3
Ag			1	20.666	ug/l	0.06	837,771.52	1.089E-01	Pulse	0.10	3
Sn			1	1957.004	ug/l	0.43	48,972,389.27	6.367E+00	Analog	0.10	3
Sb			1	0.099	ug/l	0.51	2,913.70	2.799E-04	Pulse	0.10	3
Ba			1	0.178	ug/l	7.09	2,166.90	2.082E-04	Pulse	0.10	3
Tl			1	0.009	ug/l	16.01	673.37	1.305E-04	Pulse	0.10	3
Pb			1	0.130	ug/l	1.98	2,963.77	5.738E-04	Pulse	0.10	3
Pb			1	0.124	ug/l	13.46	2,486.98	4.817E-04	Pulse	0.10	3
Pb			1	0.124	ug/l	5.34	11,238.77	2.176E-03	Pulse	0.10	3
Na			2	90824.589	ug/l	1.48	128,235,648.24	8.011E+02	Analog	0.30	3
Mg			2	88628.956	ug/l	1.65	59,040,786.54	3.688E+02	Analog	0.30	3
Al			2	91922.590	ug/l	1.10	19,644,734.78	1.227E+02	Analog	0.30	3
K			2	96328.811	ug/l	0.75	39,395,462.88	2.461E+02	Analog	0.30	3
Ca			2	105077.392	ug/l	0.83	2,465,794.55	1.540E+01	Pulse	0.30	3
Ti			2	1854.074	ug/l	1.04	340,738.03	2.129E+00	Pulse	0.30	3
V			2	20.351	ug/l	1.20	126,685.63	7.914E-01	Pulse	0.30	3
Cr			2	20.518	ug/l	0.63	167,920.54	1.049E+00	Pulse	0.30	3
Mn			2	20.577	ug/l	0.86	83,874.32	5.240E-01	Pulse	0.30	3
Fe			2	91749.494	ug/l	1.49	625,090,624.05	3.905E+03	Analog	0.30	3
Co			2	19.258	ug/l	0.71	283,609.54	1.772E+00	Pulse	0.30	3
Ni			2	18.489	ug/l	1.03	75,094.11	4.691E-01	Pulse	0.30	3
Cu			2	19.211	ug/l	1.13	208,772.02	1.304E+00	Pulse	0.30	3
Zn			2	17.093	ug/l	2.49	25,726.95	1.607E-01	Pulse	0.30	3
As			2	19.131	ug/l	0.98	14,510.11	9.064E-02	Pulse	1.00	3
Cd			2	18.508	ug/l	1.26	38,892.31	4.536E-02	Pulse	0.30	3
Sn			2	2000.281	ug/l	0.58	7,686,327.75	8.966E+00	Analog	0.30	3
Se			3	18.981	ug/l	0.89	3,707.49	2.123E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,164,630.31	0.64	79.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,605,923.88	1.43	86.2	Analog	0.10	3
1	Ge		1,065,663.52	1.20	87.9	Pulse	0.10	3
1	Ge		1,376,530.24	1.50	81.8	Pulse	0.10	3
1	Rh		6,671,351.78	0.36	77.7	Analog	0.10	3
1	In		7,691,337.31	1.12	83.1	Analog	0.10	3
1	Tb		10,407,584.64	2.10	87.0	Analog	0.10	3
1	Ho		1,008,154.72	0.98	87.5	Pulse	0.10	3
1	Bi		5,165,444.19	1.13	75.1	Pulse	0.10	3
2	Sc		160,086.89	0.95	85.7	Pulse	0.30	3
2	Ge		92,107.29	0.20	82.2	Pulse	0.30	3
2	Ge		133,718.14	1.09	79.5	Pulse	0.30	3
2	Rh		2,553,785.18	0.33	71.6	Pulse	0.30	3
2	In		857,310.87	0.37	77.6	Pulse	0.30	3
2	Tb		3,441,074.86	0.18	80.3	Pulse	0.30	3
2	Ho		345,038.65	0.65	81.1	Pulse	0.30	3
2	Bi		1,977,072.97	0.19	69.8	Pulse	0.30	3
3	Sc		203,317.48	0.85	86.8	Pulse	0.30	3
3	Ge		120,024.87	1.18	81.6	Pulse	0.30	3
3	Ge		174,669.78	0.90	78.3	Pulse	0.30	3
3	Rh		1,892,461.38	0.52	72.0	Pulse	0.30	3
3	Tb		3,214,441.40	0.92	79.7	Pulse	0.30	3

Quantitation Report

File Name	023LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 14:04
Sample Name	emptycupconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

Quantitation Report

File Name	024ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 14:09
Sample Name	emptycupconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

Quantitation Report

File Name	025LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 14:14
Sample Name	sampleconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.482	ug/l	3.68	5,713.03	1.818E-03	Pulse	0.25	3
B			1	25.131	ug/l	1.41	293,658.68	9.346E-02	Pulse	0.15	3
Ca			1	263.339	ug/l	0.13	467,928.37	8.215E-02	Pulse	0.10	3
Sr			1	5.160	ug/l	0.95	486,215.51	5.861E-02	Pulse	0.10	3
Mo			1	1.646	ug/l	1.97	29,477.97	3.554E-03	Pulse	0.10	3
Ag			1	0.486	ug/l	3.50	23,514.81	2.565E-03	Pulse	0.10	3
Sn			1	4.918	ug/l	1.48	153,835.21	1.678E-02	Pulse	0.10	3
Sb			1	1.956	ug/l	1.61	62,043.23	5.224E-03	Pulse	0.10	3
Ba			1	0.991	ug/l	4.08	13,182.73	1.110E-03	Pulse	0.10	3
Tl			1	0.490	ug/l	1.70	39,272.80	5.686E-03	Pulse	0.10	3
Pb			1	0.501	ug/l	3.26	13,860.37	2.007E-03	Pulse	0.10	3
Pb			1	0.502	ug/l	4.43	12,185.50	1.764E-03	Pulse	0.10	3
Pb			1	0.500	ug/l	2.36	55,482.79	8.032E-03	Pulse	0.10	3
Na			2	246.290	ug/l	0.69	371,644.12	2.215E+00	Pulse	0.30	3
Mg			2	244.596	ug/l	0.23	170,877.05	1.018E+00	Pulse	0.30	3
Al			2	29.702	ug/l	3.66	6,739.20	4.017E-02	Pulse	0.30	3
K			2	249.929	ug/l	0.87	114,015.92	6.796E-01	Pulse	0.30	3
Ca			2	282.584	ug/l	2.78	6,980.44	4.161E-02	Pulse	0.30	3
Ti			2	1.246	ug/l	8.14	246.67	1.470E-03	Pulse	0.30	3
V			2	1.045	ug/l	4.33	7,151.63	4.263E-02	Pulse	0.30	3
Cr			2	1.037	ug/l	1.53	9,853.03	5.872E-02	Pulse	0.30	3
Mn			2	0.986	ug/l	6.19	4,260.62	2.539E-02	Pulse	0.30	3
Fe			2	34.241	ug/l	1.76	248,198.31	1.479E+00	Pulse	0.30	3
Co			2	0.515	ug/l	0.78	8,029.81	4.786E-02	Pulse	0.30	3
Ni			2	1.020	ug/l	1.07	4,406.20	2.626E-02	Pulse	0.30	3
Cu			2	2.152	ug/l	0.78	25,039.16	1.492E-01	Pulse	0.30	3
Zn			2	5.110	ug/l	1.88	8,620.12	5.138E-02	Pulse	0.30	3
As			2	0.527	ug/l	9.80	427.68	2.549E-03	Pulse	1.00	3
Cd			2	0.491	ug/l	8.50	1,233.12	1.217E-03	Pulse	0.30	3
Sn			2	4.700	ug/l	2.47	23,221.63	2.292E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.383	ug/l	5.41	132.93	5.898E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,141,986.01	0.19	78.5	Pulse	0.10	3
1	Sc		5,695,804.92	1.08	87.6	Analog	0.10	3
1	Ge		1,143,279.98	1.00	94.3	Pulse	0.10	3
1	Ge		1,602,633.00	0.98	95.3	Pulse	0.10	3
1	Rh		8,295,942.80	0.91	96.6	Analog	0.10	3
1	In		9,168,634.18	0.33	99.1	Analog	0.10	3
1	Tb		11,875,725.24	0.90	99.3	Analog	0.10	3
1	Ho		1,152,994.59	0.21	100.0	Pulse	0.10	3
1	Bi		6,907,080.52	0.35	100.4	Analog	0.10	3
2	Sc		167,785.00	0.58	89.8	Pulse	0.30	3
2	Ge		103,685.73	0.80	92.6	Pulse	0.30	3
2	Ge		156,166.72	0.91	92.9	Pulse	0.30	3
2	Rh		3,299,797.30	0.81	92.5	Pulse	0.30	3
2	In		1,013,200.00	0.49	91.7	Pulse	0.30	3
2	Tb		3,982,150.40	0.38	93.0	Pulse	0.30	3
2	Ho		395,282.24	0.23	92.9	Pulse	0.30	3
2	Bi		2,656,363.43	0.44	93.8	Pulse	0.30	3
3	Sc		235,407.00	0.12	100.5	Pulse	0.30	3
3	Ge		149,850.70	0.21	101.8	Pulse	0.30	3
3	Ge		225,347.65	0.77	101.0	Pulse	0.30	3
3	Rh		2,691,016.84	0.59	102.4	Pulse	0.30	3
3	Tb		4,105,442.48	0.41	101.8	Pulse	0.30	3

Quantitation Report

File Name	026ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 14:19
Sample Name	icsabtestconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	18.95	108.00	3.266E-05	Pulse	0.25	3
B			1	45.821	ug/l	1.17	560,342.79	1.695E-01	Pulse	0.15	3
Ca			1	95988.525	ug/l	0.45	172,586,717.43	2.917E+01	Analog	0.10	3
Sr			1	2296.307	ug/l	1.61	183,115,343.94	2.603E+01	Analog	0.10	3
Mo			1	2198.413	ug/l	1.51	33,350,123.67	4.742E+00	Analog	0.10	3
Ag			1	20.709	ug/l	0.96	883,399.02	1.092E-01	Pulse	0.10	3
Sn			1	1956.590	ug/l	0.90	51,522,354.23	6.366E+00	Analog	0.10	3
Sb			1	0.093	ug/l	15.08	2,913.72	2.641E-04	Pulse	0.10	3
Ba			1	0.171	ug/l	7.02	2,206.92	2.001E-04	Pulse	0.10	3
Tl			1	0.006	ug/l	42.03	520.03	9.562E-05	Pulse	0.10	3
Pb			1	0.109	ug/l	0.78	2,660.35	4.894E-04	Pulse	0.10	3
Pb			1	0.108	ug/l	4.86	2,320.27	4.269E-04	Pulse	0.10	3
Pb			1	0.113	ug/l	1.00	10,902.04	2.005E-03	Pulse	0.10	3
Na			2	90140.686	ug/l	1.04	131,870,594.76	7.951E+02	Analog	0.30	3
Mg			2	87867.161	ug/l	0.05	60,650,870.92	3.657E+02	Analog	0.30	3
Al			2	89565.424	ug/l	0.83	19,832,572.54	1.196E+02	Analog	0.30	3
K			2	97170.474	ug/l	1.12	41,176,143.92	2.482E+02	Analog	0.30	3
Ca			2	104272.037	ug/l	0.38	2,535,286.77	1.529E+01	Pulse	0.30	3
Ti			2	1848.670	ug/l	0.29	352,030.39	2.122E+00	Pulse	0.30	3
V			2	20.600	ug/l	1.05	132,862.42	8.011E-01	Pulse	0.30	3
Cr			2	20.509	ug/l	0.75	173,911.48	1.049E+00	Pulse	0.30	3
Mn			2	20.236	ug/l	0.89	85,463.22	5.153E-01	Pulse	0.30	3
Fe			2	91488.139	ug/l	0.48	645,839,707.67	3.894E+03	Analog	0.30	3
Co			2	19.318	ug/l	0.59	294,763.95	1.777E+00	Pulse	0.30	3
Ni			2	18.506	ug/l	0.77	77,881.29	4.696E-01	Pulse	0.30	3
Cu			2	19.108	ug/l	0.69	215,155.94	1.297E+00	Pulse	0.30	3
Zn			2	17.297	ug/l	1.11	26,966.75	1.626E-01	Pulse	0.30	3
As			2	18.800	ug/l	1.52	14,774.35	8.908E-02	Pulse	1.00	3
Cd			2	18.665	ug/l	1.28	40,127.00	4.575E-02	Pulse	0.30	3
Sn			2	2010.954	ug/l	1.04	7,905,946.08	9.013E+00	Analog	0.30	3
Se			3	18.724	ug/l	0.53	3,953.28	2.094E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,305,638.10	0.25	82.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,916,518.04	0.91	91.0	Analog	0.10	3
1	Ge		1,115,802.30	0.85	92.0	Pulse	0.10	3
1	Ge		1,451,054.19	0.94	86.3	Pulse	0.10	3
1	Rh		7,034,832.18	2.00	81.9	Analog	0.10	3
1	In		8,093,366.58	0.16	87.5	Analog	0.10	3
1	Tb		11,019,957.75	1.58	92.1	Analog	0.10	3
1	Ho		1,068,582.92	1.68	92.7	Pulse	0.10	3
1	Bi		5,436,080.55	1.33	79.0	Pulse	0.10	3
2	Sc		165,863.90	0.45	88.8	Pulse	0.30	3
2	Ge		94,820.36	0.02	84.7	Pulse	0.30	3
2	Ge		138,303.55	0.52	82.3	Pulse	0.30	3
2	Rh		2,644,557.88	0.27	74.2	Pulse	0.30	3
2	In		877,152.79	0.49	79.4	Pulse	0.30	3
2	Tb		3,547,922.91	0.33	82.8	Pulse	0.30	3
2	Ho		358,025.87	0.48	84.1	Pulse	0.30	3
2	Bi		2,042,409.99	0.30	72.1	Pulse	0.30	3
3	Sc		220,865.16	0.58	94.2	Pulse	0.30	3
3	Ge		129,166.98	0.74	87.8	Pulse	0.30	3
3	Ge		188,772.72	0.24	84.6	Pulse	0.30	3
3	Rh		2,007,189.65	0.63	76.4	Pulse	0.30	3
3	Tb		3,370,827.85	0.56	83.6	Pulse	0.30	3

Quantitation Report

File Name	027LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 14:23
Sample Name	CRItestconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.478	ug/l	5.86	5,689.03	1.805E-03	Pulse	0.25	3
B			1	25.436	ug/l	0.78	298,255.65	9.459E-02	Pulse	0.15	3
Ca			1	259.085	ug/l	0.60	470,276.24	8.086E-02	Pulse	0.10	3
Sr			1	5.180	ug/l	0.34	499,046.33	5.884E-02	Pulse	0.10	3
Mo			1	1.632	ug/l	5.21	29,882.03	3.523E-03	Pulse	0.10	3
Ag			1	0.483	ug/l	2.53	24,079.01	2.550E-03	Pulse	0.10	3
Sn			1	4.902	ug/l	0.81	157,947.13	1.673E-02	Pulse	0.10	3
Sb			1	1.969	ug/l	1.38	65,065.35	5.258E-03	Pulse	0.10	3
Ba			1	1.015	ug/l	3.58	14,070.24	1.137E-03	Pulse	0.10	3
Tl			1	0.500	ug/l	3.39	41,676.14	5.805E-03	Pulse	0.10	3
Pb			1	0.494	ug/l	2.09	14,200.61	1.978E-03	Pulse	0.10	3
Pb			1	0.507	ug/l	4.54	12,782.71	1.781E-03	Pulse	0.10	3
Pb			1	0.501	ug/l	1.20	57,716.23	8.038E-03	Pulse	0.10	3
Na			2	250.387	ug/l	0.09	369,093.76	2.251E+00	Pulse	0.30	3
Mg			2	241.868	ug/l	0.83	165,113.36	1.007E+00	Pulse	0.30	3
Al			2	28.651	ug/l	6.42	6,355.71	3.877E-02	Pulse	0.30	3
K			2	250.432	ug/l	1.08	111,625.77	6.808E-01	Pulse	0.30	3
Ca			2	291.089	ug/l	5.09	7,026.02	4.285E-02	Pulse	0.30	3
Ti			2	1.134	ug/l	13.92	220.00	1.342E-03	Pulse	0.30	3
V			2	1.040	ug/l	2.19	6,961.54	4.246E-02	Pulse	0.30	3
Cr			2	1.039	ug/l	4.05	9,646.25	5.883E-02	Pulse	0.30	3
Mn			2	0.989	ug/l	1.72	4,177.25	2.548E-02	Pulse	0.30	3
Fe			2	33.438	ug/l	2.33	236,920.88	1.445E+00	Pulse	0.30	3
Co			2	0.528	ug/l	4.89	8,037.60	4.903E-02	Pulse	0.30	3
Ni			2	1.071	ug/l	0.51	4,517.34	2.755E-02	Pulse	0.30	3
Cu			2	2.205	ug/l	0.74	25,059.25	1.528E-01	Pulse	0.30	3
Zn			2	5.374	ug/l	5.03	8,819.15	5.379E-02	Pulse	0.30	3
As			2	0.542	ug/l	5.62	429.34	2.618E-03	Pulse	1.00	3
Cd			2	0.537	ug/l	3.77	1,323.09	1.328E-03	Pulse	0.30	3
Sn			2	4.801	ug/l	0.42	23,283.99	2.337E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.381	ug/l	4.89	138.27	5.877E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,153,501.31	1.29	78.8	Pulse	0.10	3
1	Sc		5,815,985.12	0.61	89.5	Analog	0.10	3
1	Ge		1,154,816.05	0.81	95.2	Pulse	0.10	3
1	Ge		1,622,622.89	1.03	96.5	Pulse	0.10	3
1	Rh		8,481,437.79	0.66	98.7	Analog	0.10	3
1	In		9,443,494.36	2.16	102.1	Analog	0.10	3
1	Tb		12,374,263.15	0.56	103.4	Analog	0.10	3
1	Ho		1,212,909.77	0.31	105.2	Pulse	0.10	3
1	Bi		7,180,261.98	1.50	104.4	Analog	0.10	3
2	Sc		163,954.89	0.31	87.8	Pulse	0.30	3
2	Ge		101,885.62	0.17	91.0	Pulse	0.30	3
2	Ge		153,619.24	0.28	91.4	Pulse	0.30	3
2	Rh		3,318,359.45	0.38	93.1	Pulse	0.30	3
2	In		996,336.88	0.22	90.2	Pulse	0.30	3
2	Tb		3,989,989.15	0.23	93.1	Pulse	0.30	3
2	Ho		399,448.27	0.41	93.8	Pulse	0.30	3
2	Bi		2,687,137.32	0.22	94.9	Pulse	0.30	3
3	Sc		244,937.57	0.28	104.5	Pulse	0.30	3
3	Ge		155,390.46	1.16	105.6	Pulse	0.30	3
3	Ge		235,271.39	0.39	105.4	Pulse	0.30	3
3	Rh		2,789,326.21	0.45	106.2	Pulse	0.30	3
3	Tb		4,271,897.74	0.46	105.9	Pulse	0.30	3

Quantitation Report

File Name 028CALB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 14:30
Sample Name sampleconf
Sample Type Sample
Comment 0
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	179.71	26.67	7.862E-06	Pulse	0.25	3
B			1	0.882	ug/l	4.57	14,697.74	4.336E-03	Pulse	0.15	3
Ca			1	1.804	ug/l	26.66	16,505.40	2.681E-03	Pulse	0.10	3
Sr			1	0.051	ug/l	7.26	6,124.74	6.954E-04	Pulse	0.10	3
Mo			1	0.124	ug/l	8.28	2,390.26	2.714E-04	Pulse	0.10	3
Ag			1	0.003	ug/l	19.18	203.34	2.068E-05	Pulse	0.10	3
Sn			1	0.293	ug/l	4.49	17,039.81	1.733E-03	Pulse	0.10	3
Sb			1	0.011	ug/l	12.04	563.37	4.490E-05	Pulse	0.10	3
Ba			1	-0.002	ug/l	-50.38	106.67	8.493E-06	Pulse	0.10	3
Tl			1	0.001	ug/l	70.75	270.01	3.718E-05	Pulse	0.10	3
Pb			1	-0.008	ug/l	-33.62	293.35	4.023E-05	Pulse	0.10	3
Pb			1	-0.007	ug/l	-27.16	283.35	3.901E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-19.03	1,173.40	1.616E-04	Pulse	0.10	3
Na			2	5.650	ug/l	12.58	15,906.49	9.264E-02	Pulse	0.30	3
Mg			2	2.466	ug/l	21.27	1,853.46	1.079E-02	Pulse	0.30	3
Al			2	1.952	ug/l	14.88	536.68	3.124E-03	Pulse	0.30	3
K			2	3.046	ug/l	19.89	8,400.00	4.893E-02	Pulse	0.30	3
Ca			2	4.137	ug/l	28.71	135.56	7.885E-04	Pulse	0.30	3
Ti			2	0.066	ug/l	1.40	20.00	1.165E-04	Pulse	0.30	3
V			2	0.000	ug/l	-1329.59	358.89	2.092E-03	Pulse	0.30	3
Cr			2	-0.001	ug/l	-450.41	1,023.38	5.962E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	256.76	61.11	3.552E-04	Pulse	0.30	3
Fe			2	2.613	ug/l	19.45	22,876.36	1.332E-01	Pulse	0.30	3
Co			2	0.001	ug/l	362.56	93.34	5.438E-04	Pulse	0.30	3
Ni			2	0.001	ug/l	461.48	73.33	4.268E-04	Pulse	0.30	3
Cu			2	0.028	ug/l	5.81	927.82	5.404E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.069	ug/l	-20.37	706.69	4.116E-03	Pulse	0.30	3
As			2	0.006	ug/l	110.65	13.67	7.955E-05	Pulse	1.00	3
Cd			2	0.003	ug/l	235.63	19.88	1.930E-05	Pulse	0.30	3
Sn			2	0.151	ug/l	8.32	2,598.03	2.535E-03	Pulse	0.30	3
Se			3	-0.117	ug/l	-1.69	8.33	3.528E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,389,465.80	0.46	84.7	Pulse	0.10	3
1	Sc		6,157,643.45	1.12	94.7	Analog	0.10	3
1	Ge		1,211,013.39	0.47	99.9	Pulse	0.10	3
1	Ge		1,692,485.65	0.11	100.6	Pulse	0.10	3
1	Rh		8,805,946.32	0.59	102.5	Analog	0.10	3
1	In		9,832,063.25	1.12	106.3	Analog	0.10	3
1	Tb		12,552,438.56	0.88	104.9	Analog	0.10	3
1	Ho		1,216,738.86	0.31	105.6	Pulse	0.10	3
1	Bi		7,270,484.06	1.80	105.7	Analog	0.10	3
2	Sc		171,683.12	0.91	91.9	Pulse	0.30	3
2	Ge		105,551.64	0.46	94.2	Pulse	0.30	3
2	Ge		159,673.07	0.49	95.0	Pulse	0.30	3
2	Rh		3,425,510.84	1.84	96.1	Mix	0.30	3
2	In		1,024,918.92	1.13	92.8	Pulse	0.30	3
2	Tb		4,075,563.73	2.79	95.1	Mix	0.30	3
2	Ho		403,281.32	0.91	94.7	Pulse	0.30	3
2	Bi		2,702,443.43	0.39	95.4	Pulse	0.30	3
3	Sc		247,782.75	1.67	105.7	Pulse	0.30	3
3	Ge		155,634.23	1.10	105.8	Pulse	0.30	3
3	Ge		236,144.97	0.93	105.8	Pulse	0.30	3
3	Rh		2,795,679.82	1.32	106.4	Pulse	0.30	3
3	Tb		4,210,657.75	1.43	104.4	Pulse	0.30	3

Quantitation Report

File Name	029_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 14:37
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.241	ug/l	0.54	640,243.77	1.889E-01	Pulse	0.25	3
B			1	103.262	ug/l	0.54	1,289,893.66	3.806E-01	Pulse	0.15	3
Ca			1	5058.381	ug/l	1.61	9,424,682.15	1.539E+00	Analog	0.10	3
Sr			1	54.022	ug/l	0.52	5,109,131.07	6.126E-01	Pulse	0.10	3
Mo			1	53.309	ug/l	0.31	959,031.26	1.150E-01	Pulse	0.10	3
Ag			1	49.906	ug/l	0.58	2,465,196.06	2.630E-01	Pulse	0.10	3
Sn			1	50.481	ug/l	0.82	1,546,461.80	1.650E-01	Pulse	0.10	3
Sb			1	52.203	ug/l	0.97	1,694,326.43	1.390E-01	Pulse	0.10	3
Ba			1	51.612	ug/l	1.79	698,514.83	5.731E-02	Pulse	0.10	3
Tl			1	52.611	ug/l	0.35	4,132,712.54	6.082E-01	Pulse	0.10	3
Pb			1	52.999	ug/l	0.59	1,392,100.55	2.049E-01	Pulse	0.10	3
Pb			1	53.012	ug/l	0.50	1,221,244.93	1.797E-01	Pulse	0.10	3
Pb			1	52.889	ug/l	0.23	5,593,440.33	8.231E-01	Pulse	0.10	3
Na			2	4919.908	ug/l	1.93	7,430,012.76	4.344E+01	Analog	0.30	3
Mg			2	4761.365	ug/l	0.21	3,389,461.60	1.982E+01	Pulse	0.30	3
Al			2	4644.449	ug/l	0.75	1,060,687.46	6.201E+00	Pulse	0.30	3
K			2	4923.612	ug/l	0.23	2,158,303.04	1.262E+01	Pulse	0.30	3
Ca			2	5234.796	ug/l	0.57	131,290.60	7.676E-01	Pulse	0.30	3
Ti			2	50.221	ug/l	2.54	9,868.59	5.770E-02	Pulse	0.30	3
V			2	52.613	ug/l	0.33	349,398.47	2.043E+00	Pulse	0.30	3
Cr			2	52.029	ug/l	0.30	453,421.13	2.651E+00	Pulse	0.30	3
Mn			2	50.742	ug/l	0.21	220,936.15	1.292E+00	Pulse	0.30	3
Fe			2	5131.312	ug/l	1.13	37,362,004.07	2.184E+02	Analog	0.30	3
Co			2	51.968	ug/l	0.56	817,632.73	4.780E+00	Pulse	0.30	3
Ni			2	51.852	ug/l	0.72	224,925.53	1.315E+00	Pulse	0.30	3
Cu			2	51.308	ug/l	0.52	594,803.60	3.477E+00	Pulse	0.30	3
Zn			2	50.587	ug/l	0.52	79,772.23	4.664E-01	Pulse	0.30	3
As			2	51.019	ug/l	0.55	41,333.23	2.416E-01	Pulse	1.00	3
Cd			2	51.874	ug/l	0.69	125,351.29	1.271E-01	Pulse	0.30	3
Sn			2	50.824	ug/l	0.36	226,409.51	2.296E-01	Pulse	0.30	3
Se			3	202.950	ug/l	0.67	51,041.98	2.254E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,388,789.80	0.40	84.7	Pulse	0.10	3
1	Sc		6,123,186.78	1.74	94.2	Analog	0.10	3
1	Ge		1,188,080.71	0.28	98.0	Pulse	0.10	3

Quantitation Report

1	Ge		1,681,737.63	0.34	100.0	Pulse	0.10	3
1	Rh		8,340,628.21	0.32	97.1	Analog	0.10	3
1	In		9,372,235.50	0.53	101.3	Analog	0.10	3
1	Tb		12,189,995.65	0.91	101.9	Analog	0.10	3
1	Ho		1,191,596.62	0.88	103.4	Pulse	0.10	3
1	Bi		6,795,520.73	0.35	98.8	Analog	0.10	3
2	Sc		171,053.35	0.51	91.6	Pulse	0.30	3
2	Ge		102,497.08	0.73	91.5	Pulse	0.30	3
2	Ge		155,805.45	0.45	92.7	Pulse	0.30	3
2	Rh		3,205,584.32	0.59	89.9	Pulse	0.30	3
2	In		986,074.37	0.64	89.3	Pulse	0.30	3
2	Tb		3,931,324.29	0.38	91.8	Pulse	0.30	3
2	Ho		393,863.81	0.54	92.5	Pulse	0.30	3
2	Bi		2,551,151.29	0.42	90.1	Pulse	0.30	3
3	Sc		242,294.67	0.94	103.4	Pulse	0.30	3
3	Ge		148,666.58	0.41	101.0	Pulse	0.30	3
3	Ge		226,489.43	1.02	101.5	Pulse	0.30	3
3	Rh		2,595,508.79	0.22	98.8	Pulse	0.30	3
3	Tb		4,063,690.53	0.27	100.8	Pulse	0.30	3

Quantitation Report

File Name 030_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 14:42
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	22.13	57.33	1.674E-05	Pulse	0.25	3
B			1	1.546	ug/l	0.84	23,218.47	6.776E-03	Pulse	0.15	3
Ca			1	0.475	ug/l	107.47	13,996.43	2.277E-03	Pulse	0.10	3
Sr			1	0.023	ug/l	11.68	3,203.92	3.688E-04	Pulse	0.10	3
Mo			1	0.113	ug/l	15.66	2,150.24	2.474E-04	Pulse	0.10	3
Ag			1	0.009	ug/l	18.03	500.03	5.248E-05	Pulse	0.10	3
Sn			1	0.296	ug/l	2.86	16,639.32	1.745E-03	Pulse	0.10	3
Sb			1	0.160	ug/l	6.26	5,467.85	4.415E-04	Pulse	0.10	3
Ba			1	0.002	ug/l	73.77	146.67	1.185E-05	Pulse	0.10	3
Tl			1	0.012	ug/l	14.84	1,136.76	1.602E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	36.78	606.70	8.551E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	43.20	583.37	8.221E-05	Pulse	0.10	3
Pb			1	0.007	ug/l	11.69	2,570.18	3.622E-04	Pulse	0.10	3
Na			2	2.344	ug/l	7.69	10,933.62	6.347E-02	Pulse	0.30	3
Mg			2	1.054	ug/l	15.12	846.70	4.916E-03	Pulse	0.30	3
Al			2	0.747	ug/l	16.57	261.12	1.516E-03	Pulse	0.30	3
K			2	1.361	ug/l	70.01	7,685.17	4.462E-02	Pulse	0.30	3
Ca			2	0.519	ug/l	104.28	44.45	2.582E-04	Pulse	0.30	3
Ti			2	0.044	ug/l	156.85	15.55	9.056E-05	Pulse	0.30	3
V			2	-0.005	ug/l	-71.44	332.23	1.929E-03	Pulse	0.30	3
Cr			2	-0.008	ug/l	-121.42	972.27	5.646E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	66.23	61.11	3.545E-04	Pulse	0.30	3
Fe			2	1.254	ug/l	3.19	12,974.13	7.532E-02	Pulse	0.30	3
Co			2	0.002	ug/l	43.51	112.23	6.515E-04	Pulse	0.30	3
Ni			2	0.005	ug/l	205.54	90.00	5.212E-04	Pulse	0.30	3
Cu			2	0.014	ug/l	37.95	766.69	4.452E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.046	ug/l	-96.58	745.58	4.329E-03	Pulse	0.30	3
As			2	0.012	ug/l	33.03	19.33	1.123E-04	Pulse	1.00	3
Cd			2	-0.002	ug/l	-89.20	7.67	7.511E-06	Pulse	0.30	3
Sn			2	0.149	ug/l	11.43	2,571.35	2.522E-03	Pulse	0.30	3
Se			3	-0.076	ug/l	-6.26	18.87	8.058E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,426,706.23	0.80	85.7	Pulse	0.10	3
1	Sc		6,153,274.49	1.88	94.6	Analog	0.10	3
1	Ge		1,209,386.75	0.40	99.8	Pulse	0.10	3
1	Ge		1,688,395.03	0.75	100.4	Pulse	0.10	3
1	Rh		8,694,716.12	1.67	101.2	Analog	0.10	3
1	In		9,535,487.56	0.80	103.0	Analog	0.10	3
1	Tb		12,374,448.15	2.31	103.4	Analog	0.10	3
1	Ho		1,198,881.99	0.65	104.0	Pulse	0.10	3
1	Bi		7,095,196.56	0.25	103.1	Analog	0.10	3
2	Sc		172,269.91	0.78	92.2	Pulse	0.30	3
2	Ge		105,425.35	0.73	94.1	Pulse	0.30	3
2	Ge		159,303.05	0.49	94.8	Pulse	0.30	3
2	Rh		3,367,202.09	0.23	94.4	Pulse	0.30	3
2	In		1,019,689.81	0.35	92.3	Pulse	0.30	3
2	Tb		3,985,970.67	0.48	93.0	Pulse	0.30	3
2	Ho		394,720.63	0.63	92.7	Pulse	0.30	3
2	Bi		2,666,911.84	0.35	94.1	Pulse	0.30	3
3	Sc		248,170.29	0.83	105.9	Pulse	0.30	3
3	Ge		154,752.22	0.26	105.2	Pulse	0.30	3
3	Ge		234,179.50	0.50	104.9	Pulse	0.30	3
3	Rh		2,771,085.52	0.38	105.5	Pulse	0.30	3
3	Tb		4,205,409.42	0.22	104.3	Pulse	0.30	3

Quantitation Report

File Name 031SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 14:47
Sample Name mp13022-sd1 4
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.109	ug/l	24.21	156.00	4.619E-05	Pulse	0.25	3
B			1	174.714	ug/l	0.64	220,754.71	6.531E-02	Pulse	0.15	3
Ca			1	76061.282	ug/l	1.78	14,215,649.37	2.313E+00	Analog	0.10	3
Sr			1	760.165	ug/l	1.79	7,103,615.94	8.619E-01	Analog	0.10	3
Mo			1	2.203	ug/l	4.62	3,943.96	4.786E-04	Pulse	0.10	3
Ag			1	0.052	ug/l	40.46	286.68	3.118E-05	Pulse	0.10	3
Sn			1	-1.237	ug/l	-0.35	3,483.87	3.782E-04	Pulse	0.10	3
Sb			1	0.511	ug/l	15.76	1,853.53	1.519E-04	Pulse	0.10	3
Ba			1	163.468	ug/l	1.23	221,483.21	1.816E-02	Pulse	0.10	3
Tl			1	0.054	ug/l	43.09	593.37	8.921E-05	Pulse	0.10	3
Pb			1	0.122	ug/l	48.73	776.71	1.167E-04	Pulse	0.10	3
Pb			1	0.119	ug/l	33.87	676.71	1.017E-04	Pulse	0.10	3
Pb			1	0.171	ug/l	8.58	3,443.65	5.178E-04	Pulse	0.10	3
Na			2	109032.681	ug/l	1.44	16,702,953.23	9.621E+01	Analog	0.30	3
Mg			2	46616.988	ug/l	0.74	3,368,065.14	1.940E+01	Pulse	0.30	3
Al			2	72.439	ug/l	1.43	1,769.01	1.019E-02	Pulse	0.30	3
K			2	8987.897	ug/l	1.19	405,707.99	2.337E+00	Pulse	0.30	3
Ca			2	78904.655	ug/l	0.49	200,839.56	1.157E+00	Pulse	0.30	3
Ti			2	3.279	ug/l	46.94	72.22	4.166E-04	Pulse	0.30	3
V			2	0.542	ug/l	8.09	731.14	4.212E-03	Pulse	0.30	3
Cr			2	0.374	ug/l	13.32	1,376.74	7.930E-03	Pulse	0.30	3
Mn			2	4177.687	ug/l	0.92	1,845,774.30	1.063E+01	Pulse	0.30	3
Fe			2	3146.079	ug/l	1.06	2,328,380.32	1.341E+01	Pulse	0.30	3
Co			2	1.053	ug/l	5.84	1,765.67	1.017E-02	Pulse	0.30	3
Ni			2	3.922	ug/l	4.29	1,796.78	1.035E-02	Pulse	0.30	3
Cu			2	8.548	ug/l	4.05	10,661.35	6.141E-02	Pulse	0.30	3
Zn			2	0.956	ug/l	28.95	975.60	5.620E-03	Pulse	0.30	3
As			2	4.923	ug/l	5.84	414.01	2.385E-03	Pulse	1.00	3
Cd			2	-0.018	ug/l	-44.14	8.71	8.731E-06	Pulse	0.30	3
Sn			2	-2.960	ug/l	-3.61	527.79	5.292E-04	Pulse	0.30	3
Se			3	-0.882	ug/l	-3.80	15.33	6.676E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,380,066.20	0.54	84.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,145,398.45	1.16	94.5	Analog	0.10	3
1	Ge		1,188,644.30	0.34	98.0	Pulse	0.10	3
1	Ge		1,665,306.49	0.50	99.0	Pulse	0.10	3
1	Rh		8,241,989.46	0.39	95.9	Analog	0.10	3
1	In		9,212,222.95	0.80	99.6	Analog	0.10	3
1	Tb		12,197,989.82	0.30	102.0	Analog	0.10	3
1	Ho		1,168,256.41	0.51	101.4	Pulse	0.10	3
1	Bi		6,650,446.15	0.72	96.7	Analog	0.10	3
2	Sc		173,612.47	0.69	93.0	Pulse	0.30	3
2	Ge		104,732.30	0.67	93.5	Pulse	0.30	3
2	Ge		157,821.03	0.48	93.9	Pulse	0.30	3
2	Rh		3,215,708.62	0.13	90.2	Pulse	0.30	3
2	In		997,358.84	0.23	90.3	Pulse	0.30	3
2	Tb		3,914,600.68	0.62	91.4	Pulse	0.30	3
2	Ho		394,259.66	0.28	92.6	Pulse	0.30	3
2	Bi		2,545,984.97	0.23	89.9	Pulse	0.30	3
3	Sc		242,233.32	0.39	103.4	Pulse	0.30	3
3	Ge		151,230.46	1.00	102.8	Pulse	0.30	3
3	Ge		229,711.38	0.94	102.9	Pulse	0.30	3
3	Rh		2,613,719.27	0.37	99.5	Pulse	0.30	3
3	Tb		4,110,204.70	0.25	101.9	Pulse	0.30	3

Quantitation Report

File Name	032SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 14:52
Sample Name	mp13130a-mb1 5
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	7.30	46.67	1.403E-05	Pulse	0.25	3
B			1	2.877	ug/l	3.02	21,233.58	6.383E-03	Pulse	0.15	3
Ca			1	15.320	ug/l	8.54	26,381.67	4.460E-03	Pulse	0.10	3
Sr			1	0.051	ug/l	4.62	3,377.16	3.997E-04	Pulse	0.10	3
Mo			1	0.112	ug/l	13.50	1,046.74	1.239E-04	Pulse	0.10	3
Ag			1	0.017	ug/l	19.42	456.69	4.888E-05	Pulse	0.10	3
Sn			1	0.129	ug/l	15.99	9,249.77	9.908E-04	Pulse	0.10	3
Sb			1	0.202	ug/l	9.54	3,523.87	2.847E-04	Pulse	0.10	3
Ba			1	0.023	ug/l	10.34	283.35	2.290E-05	Pulse	0.10	3
Tl			1	0.014	ug/l	11.19	776.72	1.078E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	21.95	570.03	7.911E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	588.73	450.02	6.246E-05	Pulse	0.10	3
Pb			1	0.007	ug/l	28.29	2,213.49	3.072E-04	Pulse	0.10	3
Na			2	11.539	ug/l	2.19	15,630.69	9.369E-02	Pulse	0.30	3
Mg			2	2.651	ug/l	3.84	1,008.93	6.047E-03	Pulse	0.30	3
Al			2	2.028	ug/l	12.40	312.23	1.872E-03	Pulse	0.30	3
K			2	2.034	ug/l	33.93	7,298.34	4.375E-02	Pulse	0.30	3
Ca			2	15.419	ug/l	7.83	218.89	1.312E-03	Pulse	0.30	3
Ti			2	0.267	ug/l	20.26	32.22	1.932E-04	Pulse	0.30	3
V			2	0.219	ug/l	9.11	1,061.16	6.362E-03	Pulse	0.30	3
Cr			2	0.387	ug/l	1.24	2,648.02	1.587E-02	Pulse	0.30	3
Mn			2	0.174	ug/l	18.24	418.90	2.510E-03	Pulse	0.30	3
Fe			2	5.283	ug/l	3.70	22,419.78	1.344E-01	Pulse	0.30	3
Co			2	0.024	ug/l	22.43	265.56	1.591E-03	Pulse	0.30	3
Ni			2	0.031	ug/l	21.86	132.23	7.926E-04	Pulse	0.30	3
Cu			2	0.250	ug/l	5.15	2,004.59	1.201E-02	Pulse	0.30	3
Zn			2	4.582	ug/l	7.01	4,279.50	2.565E-02	Pulse	0.30	3
As			2	0.176	ug/l	22.69	78.33	4.693E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.001	ug/l	1436.19	13.27	1.371E-05	Pulse	0.30	3
Sn			2	-0.211	ug/l	-15.27	1,341.19	1.383E-03	Pulse	0.30	3
Se			3	-0.211	ug/l	-9.45	10.87	4.738E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,326,103.63	0.77	83.1	Pulse	0.10	3
1	Sc		5,916,344.08	1.03	91.0	Analog	0.10	3
1	Ge		1,143,556.34	1.13	94.3	Pulse	0.10	3
1	Ge		1,595,215.13	0.77	94.8	Pulse	0.10	3
1	Rh		8,446,036.54	1.35	98.3	Analog	0.10	3
1	In		9,332,588.29	1.60	100.9	Analog	0.10	3
1	Tb		12,376,746.48	1.24	103.5	Analog	0.10	3
1	Ho		1,199,544.90	0.48	104.1	Pulse	0.10	3
1	Bi		7,205,103.85	0.42	104.7	Analog	0.10	3
2	Sc		166,841.00	0.59	89.3	Pulse	0.30	3
2	Ge		98,331.99	0.82	87.8	Pulse	0.30	3
2	Ge		149,517.45	0.39	88.9	Pulse	0.30	3
2	Rh		3,251,976.68	0.30	91.2	Pulse	0.30	3
2	In		970,144.91	0.65	87.8	Pulse	0.30	3
2	Tb		3,926,797.62	0.26	91.7	Pulse	0.30	3
2	Ho		391,466.15	0.27	92.0	Pulse	0.30	3
2	Bi		2,649,190.73	0.32	93.5	Pulse	0.30	3
3	Sc		248,813.64	0.49	106.2	Pulse	0.30	3
3	Ge		151,604.72	0.57	103.0	Pulse	0.30	3
3	Ge		229,377.92	0.08	102.8	Pulse	0.30	3
3	Rh		2,784,386.83	0.59	106.0	Pulse	0.30	3
3	Tb		4,303,876.64	0.55	106.7	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 14:57
Sample Name	mp13130a-b2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.232	ug/l	0.76	498,046.11	1.471E-01	Pulse	0.25	3
B			1	87.862	ug/l	0.85	550,443.45	1.626E-01	Pulse	0.15	3
Ca			1	4286.402	ug/l	1.10	3,863,999.22	6.534E-01	Pulse	0.10	3
Sr			1	88.357	ug/l	0.71	4,129,194.84	5.010E-01	Pulse	0.10	3
Mo			1	85.187	ug/l	0.75	757,236.97	9.187E-02	Pulse	0.10	3
Ag			1	83.374	ug/l	0.51	2,028,918.30	2.197E-01	Pulse	0.10	3
Sn			1	80.703	ug/l	0.56	1,219,337.04	1.321E-01	Pulse	0.10	3
Sb			1	80.203	ug/l	1.11	1,304,643.94	1.068E-01	Pulse	0.10	3
Ba			1	83.247	ug/l	1.44	564,692.62	4.622E-02	Pulse	0.10	3
Tl			1	85.259	ug/l	0.42	3,391,398.18	4.928E-01	Pulse	0.10	3
Pb			1	86.302	ug/l	0.78	1,147,997.38	1.668E-01	Pulse	0.10	3
Pb			1	86.248	ug/l	0.50	1,006,191.34	1.462E-01	Pulse	0.10	3
Pb			1	86.344	ug/l	0.11	4,624,307.01	6.719E-01	Pulse	0.10	3
Na			2	4108.269	ug/l	0.94	2,989,533.49	1.816E+01	Pulse	0.30	3
Mg			2	3998.081	ug/l	0.65	1,369,620.47	8.320E+00	Pulse	0.30	3
Al			2	3854.006	ug/l	0.95	423,596.25	2.573E+00	Pulse	0.30	3
K			2	4059.341	ug/l	1.37	860,235.31	5.226E+00	Pulse	0.30	3
Ca			2	4599.528	ug/l	0.30	55,529.84	3.373E-01	Pulse	0.30	3
Ti			2	81.402	ug/l	3.31	7,698.55	4.677E-02	Pulse	0.30	3
V			2	86.366	ug/l	0.34	276,066.47	1.677E+00	Pulse	0.30	3
Cr			2	87.385	ug/l	0.89	366,609.19	2.227E+00	Pulse	0.30	3
Mn			2	84.221	ug/l	1.52	176,461.32	1.072E+00	Pulse	0.30	3
Fe			2	4275.895	ug/l	0.82	14,984,258.85	9.102E+01	Analog	0.30	3
Co			2	86.897	ug/l	0.46	657,921.78	3.996E+00	Pulse	0.30	3
Ni			2	86.323	ug/l	0.97	180,205.46	1.095E+00	Pulse	0.30	3
Cu			2	85.299	ug/l	0.53	475,950.16	2.891E+00	Pulse	0.30	3
Zn			2	70.122	ug/l	1.26	53,449.94	3.247E-01	Pulse	0.30	3
As			2	73.553	ug/l	0.79	28,678.72	1.742E-01	Pulse	1.00	3
Cd			2	79.870	ug/l	0.24	92,331.68	9.787E-02	Pulse	0.30	3
Sn			2	81.916	ug/l	1.15	174,903.22	1.854E-01	Pulse	0.30	3
Se			3	331.716	ug/l	0.58	41,649.90	1.842E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,385,956.10	0.86	84.6	Pulse	0.10	3
1	Sc		5,913,828.04	0.40	91.0	Analog	0.10	3
1	Ge		1,146,593.03	0.56	94.6	Pulse	0.10	3

Quantitation Report

1	Ge		1,613,785.71	0.61	96.0	Pulse	0.10	3
1	Rh		8,242,295.29	0.40	96.0	Analog	0.10	3
1	In		9,234,073.20	0.73	99.8	Analog	0.10	3
1	Tb		12,218,235.24	0.67	102.1	Analog	0.10	3
1	Ho		1,200,176.13	1.26	104.1	Pulse	0.10	3
1	Bi		6,882,140.73	0.80	100.0	Analog	0.10	3
2	Sc		164,629.79	0.85	88.2	Pulse	0.30	3
2	Ge		96,838.67	1.33	86.5	Pulse	0.30	3
2	Ge		146,280.54	0.79	87.0	Pulse	0.30	3
2	Rh		3,143,973.76	0.41	88.2	Pulse	0.30	3
2	In		943,427.90	0.49	85.4	Pulse	0.30	3
2	Tb		3,876,491.37	0.50	90.5	Pulse	0.30	3
2	Ho		385,379.25	0.10	90.5	Pulse	0.30	3
2	Bi		2,519,831.85	0.43	89.0	Pulse	0.30	3
3	Sc		247,691.06	0.45	105.7	Pulse	0.30	3
3	Ge		149,558.02	0.73	101.6	Pulse	0.30	3
3	Ge		226,102.58	0.65	101.3	Pulse	0.30	3
3	Rh		2,667,687.33	0.06	101.6	Pulse	0.30	3
3	Tb		4,218,593.31	0.58	104.6	Pulse	0.30	3

Quantitation Report

File Name 034SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 15:10
Sample Name mp13130a-s3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	77.750	ug/l	0.61	490,745.96	1.462E-01	Pulse	0.25	3
B			1	129.489	ug/l	0.76	802,471.23	2.391E-01	Pulse	0.15	3
Ca			1	36984.621	ug/l	2.27	33,910,061.16	5.621E+00	Analog	0.10	3
Sr			1	575.392	ug/l	0.56	25,697,680.45	3.262E+00	Analog	0.10	3
Mo			1	87.012	ug/l	0.33	739,318.58	9.384E-02	Pulse	0.10	3
Ag			1	83.598	ug/l	1.03	1,934,787.63	2.203E-01	Pulse	0.10	3
Sn			1	82.435	ug/l	1.16	1,184,466.78	1.349E-01	Pulse	0.10	3
Sb			1	79.694	ug/l	1.85	1,258,457.66	1.061E-01	Pulse	0.10	3
Ba			1	206.868	ug/l	1.89	1,362,035.61	1.148E-01	Pulse	0.10	3
Tl			1	86.142	ug/l	0.99	3,221,467.35	4.979E-01	Pulse	0.10	3
Pb			1	86.734	ug/l	0.82	1,084,684.23	1.676E-01	Pulse	0.10	3
Pb			1	86.287	ug/l	0.52	946,420.22	1.463E-01	Pulse	0.10	3
Pb			1	86.543	ug/l	0.30	4,357,646.86	6.735E-01	Pulse	0.10	3
Na			2	17641.454	ug/l	1.00	12,951,569.49	7.784E+01	Analog	0.30	3
Mg			2	16267.034	ug/l	1.14	5,631,796.30	3.385E+01	Analog	0.30	3
Al			2	3770.288	ug/l	0.57	418,818.10	2.517E+00	Pulse	0.30	3
K			2	5695.570	ug/l	0.80	1,217,100.75	7.315E+00	Pulse	0.30	3
Ca			2	39329.727	ug/l	0.07	479,652.76	2.883E+00	Pulse	0.30	3
Ti			2	79.374	ug/l	1.78	7,587.37	4.560E-02	Pulse	0.30	3
V			2	85.409	ug/l	0.64	275,911.48	1.658E+00	Pulse	0.30	3
Cr			2	85.640	ug/l	0.34	363,143.66	2.183E+00	Pulse	0.30	3
Mn			2	198.807	ug/l	0.71	420,930.94	2.530E+00	Pulse	0.30	3
Fe			2	7869.339	ug/l	1.56	27,864,674.45	1.675E+02	Analog	0.30	3
Co			2	83.885	ug/l	0.98	641,866.33	3.858E+00	Pulse	0.30	3
Ni			2	82.431	ug/l	0.16	173,910.23	1.045E+00	Pulse	0.30	3
Cu			2	82.243	ug/l	0.90	463,794.20	2.788E+00	Pulse	0.30	3
Zn			2	67.848	ug/l	0.69	52,294.01	3.143E-01	Pulse	0.30	3
As			2	72.091	ug/l	0.07	28,407.54	1.707E-01	Pulse	1.00	3
Cd			2	78.516	ug/l	0.59	89,822.94	9.621E-02	Pulse	0.30	3
Sn			2	81.597	ug/l	1.02	172,417.99	1.847E-01	Pulse	0.30	3
Se			3	331.001	ug/l	0.77	40,976.20	1.838E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,356,914.76	1.03	83.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,033,276.16	1.65	92.8	Analog	0.10	3
1	Ge		1,123,287.79	1.31	92.6	Pulse	0.10	3
1	Ge		1,580,964.46	0.94	94.0	Pulse	0.10	3
1	Rh		7,878,714.67	1.04	91.7	Analog	0.10	3
1	In		8,783,234.44	1.80	94.9	Analog	0.10	3
1	Tb		11,862,664.41	1.88	99.2	Analog	0.10	3
1	Ho		1,157,812.56	1.09	100.5	Pulse	0.10	3
1	Bi		6,470,242.40	0.54	94.0	Analog	0.10	3
2	Sc		166,379.87	0.57	89.1	Pulse	0.30	3
2	Ge		96,498.89	0.51	86.1	Pulse	0.30	3
2	Ge		146,199.05	0.69	87.0	Pulse	0.30	3
2	Rh		3,058,543.21	0.28	85.8	Pulse	0.30	3
2	In		933,613.50	0.48	84.5	Pulse	0.30	3
2	Tb		3,804,735.68	0.72	88.8	Pulse	0.30	3
2	Ho		380,257.78	0.51	89.3	Pulse	0.30	3
2	Bi		2,435,474.63	0.58	86.0	Pulse	0.30	3
3	Sc		247,679.91	0.72	105.7	Pulse	0.30	3
3	Ge		147,895.18	0.90	100.5	Pulse	0.30	3
3	Ge		222,929.62	0.74	99.9	Pulse	0.30	3
3	Rh		2,562,701.98	0.29	97.6	Pulse	0.30	3
3	Tb		4,072,869.42	0.77	101.0	Pulse	0.30	3

Quantitation Report

File Name 035SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 15:15
Sample Name mp13130a-s4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	79.416	ug/l	0.75	513,356.17	1.493E-01	Pulse	0.25	3
B			1	133.492	ug/l	0.77	847,153.85	2.464E-01	Pulse	0.15	3
Ca			1	37409.283	ug/l	1.23	34,801,442.81	5.686E+00	Analog	0.10	3
Sr			1	585.123	ug/l	0.49	26,461,837.94	3.317E+00	Analog	0.10	3
Mo			1	89.051	ug/l	0.13	766,179.86	9.604E-02	Pulse	0.10	3
Ag			1	83.001	ug/l	1.53	1,972,686.22	2.187E-01	Pulse	0.10	3
Sn			1	83.177	ug/l	1.55	1,227,213.91	1.361E-01	Pulse	0.10	3
Sb			1	80.328	ug/l	0.74	1,298,659.33	1.069E-01	Pulse	0.10	3
Ba			1	209.897	ug/l	1.45	1,414,880.08	1.165E-01	Pulse	0.10	3
Tl			1	88.260	ug/l	0.24	3,313,890.06	5.101E-01	Pulse	0.10	3
Pb			1	89.106	ug/l	0.98	1,118,730.11	1.722E-01	Pulse	0.10	3
Pb			1	88.601	ug/l	0.49	975,720.32	1.502E-01	Pulse	0.10	3
Pb			1	88.987	ug/l	0.49	4,498,619.41	6.925E-01	Pulse	0.10	3
Na			2	17780.602	ug/l	1.56	13,247,076.42	7.845E+01	Analog	0.30	3
Mg			2	16277.307	ug/l	0.28	5,718,784.35	3.387E+01	Analog	0.30	3
Al			2	3816.805	ug/l	1.07	430,240.71	2.548E+00	Pulse	0.30	3
K			2	5772.978	ug/l	0.42	1,251,823.91	7.414E+00	Pulse	0.30	3
Ca			2	39672.766	ug/l	0.63	490,990.24	2.908E+00	Pulse	0.30	3
Ti			2	82.070	ug/l	0.40	7,960.88	4.715E-02	Pulse	0.30	3
V			2	87.374	ug/l	0.63	286,426.74	1.696E+00	Pulse	0.30	3
Cr			2	87.577	ug/l	0.31	376,825.88	2.232E+00	Pulse	0.30	3
Mn			2	201.283	ug/l	0.58	432,478.33	2.562E+00	Pulse	0.30	3
Fe			2	7983.345	ug/l	0.52	28,688,781.08	1.699E+02	Analog	0.30	3
Co			2	85.579	ug/l	0.91	664,501.45	3.936E+00	Pulse	0.30	3
Ni			2	84.074	ug/l	1.03	179,993.25	1.066E+00	Pulse	0.30	3
Cu			2	82.961	ug/l	0.66	474,763.83	2.812E+00	Pulse	0.30	3
Zn			2	69.268	ug/l	0.62	54,162.33	3.208E-01	Pulse	0.30	3
As			2	72.732	ug/l	1.08	29,082.76	1.723E-01	Pulse	1.00	3
Cd			2	80.475	ug/l	1.09	92,991.96	9.861E-02	Pulse	0.30	3
Sn			2	82.481	ug/l	0.73	176,032.42	1.867E-01	Pulse	0.30	3
Se			3	332.433	ug/l	0.95	42,198.90	1.846E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,437,877.57	0.14	85.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,121,163.24	1.19	94.2	Analog	0.10	3
1	Ge		1,148,330.22	1.31	94.7	Pulse	0.10	3
1	Ge		1,597,202.48	1.28	95.0	Pulse	0.10	3
1	Rh		7,977,761.96	1.27	92.9	Analog	0.10	3
1	In		9,019,622.92	1.39	97.5	Analog	0.10	3
1	Tb		12,142,857.32	0.35	101.5	Analog	0.10	3
1	Ho		1,170,110.06	1.47	101.5	Pulse	0.10	3
1	Bi		6,496,348.03	1.15	94.4	Analog	0.10	3
2	Sc		168,842.00	0.77	90.4	Pulse	0.30	3
2	Ge		97,928.26	0.82	87.4	Pulse	0.30	3
2	Ge		147,721.06	0.35	87.9	Pulse	0.30	3
2	Rh		3,086,479.18	0.25	86.6	Pulse	0.30	3
2	In		943,033.99	0.29	85.4	Pulse	0.30	3
2	Tb		3,835,854.01	0.16	89.5	Pulse	0.30	3
2	Ho		385,529.51	0.43	90.6	Pulse	0.30	3
2	Bi		2,425,291.16	0.40	85.6	Pulse	0.30	3
3	Sc		250,992.02	0.95	107.1	Pulse	0.30	3
3	Ge		150,690.53	0.80	102.4	Pulse	0.30	3
3	Ge		228,596.44	0.81	102.4	Pulse	0.30	3
3	Rh		2,584,057.12	0.23	98.4	Pulse	0.30	3
3	Tb		4,123,063.31	0.44	102.2	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 15:20
Sample Name jc84297-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.017	ug/l	26.59	130.67	3.763E-05	Pulse	0.25	3
B			1	43.920	ug/l	0.27	284,173.55	8.181E-02	Pulse	0.15	3
Ca			1	32256.589	ug/l	0.94	30,340,887.88	4.903E+00	Analog	0.10	3
Sr			1	472.620	ug/l	1.42	21,935,261.34	2.679E+00	Analog	0.10	3
Mo			1	0.684	ug/l	3.24	6,064.71	7.408E-04	Pulse	0.10	3
Ag			1	0.047	ug/l	11.18	1,173.42	1.274E-04	Pulse	0.10	3
Sn			1	0.257	ug/l	7.34	11,037.59	1.198E-03	Pulse	0.10	3
Sb			1	0.095	ug/l	3.64	1,746.83	1.429E-04	Pulse	0.10	3
Ba			1	122.053	ug/l	1.46	828,111.47	6.776E-02	Pulse	0.10	3
Tl			1	0.037	ug/l	13.27	1,603.48	2.409E-04	Pulse	0.10	3
Pb			1	0.076	ug/l	1.90	1,440.13	2.163E-04	Pulse	0.10	3
Pb			1	0.083	ug/l	17.34	1,340.11	2.014E-04	Pulse	0.10	3
Pb			1	0.080	ug/l	1.45	5,810.67	8.728E-04	Pulse	0.10	3
Na			2	13455.667	ug/l	0.54	9,981,055.71	5.938E+01	Analog	0.30	3
Mg			2	11804.703	ug/l	0.81	4,128,673.03	2.456E+01	Pulse	0.30	3
Al			2	8.250	ug/l	14.53	1,013.41	6.026E-03	Pulse	0.30	3
K			2	1643.415	ug/l	1.50	359,699.67	2.140E+00	Pulse	0.30	3
Ca			2	34484.544	ug/l	0.82	424,860.55	2.528E+00	Pulse	0.30	3
Ti			2	0.264	ug/l	49.24	32.22	1.916E-04	Pulse	0.30	3
V			2	0.314	ug/l	1.26	1,378.97	8.204E-03	Pulse	0.30	3
Cr			2	0.828	ug/l	2.86	4,551.79	2.708E-02	Pulse	0.30	3
Mn			2	114.502	ug/l	1.29	244,934.89	1.457E+00	Pulse	0.30	3
Fe			2	3691.527	ug/l	0.30	13,208,063.64	7.858E+01	Analog	0.30	3
Co			2	0.081	ug/l	10.66	704.47	4.193E-03	Pulse	0.30	3
Ni			2	0.130	ug/l	13.45	345.56	2.057E-03	Pulse	0.30	3
Cu			2	0.430	ug/l	4.28	3,040.32	1.809E-02	Pulse	0.30	3
Zn			2	0.709	ug/l	11.64	1,342.30	7.985E-03	Pulse	0.30	3
As			2	0.122	ug/l	19.86	57.33	3.412E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	147.53	16.37	1.727E-05	Pulse	0.30	3
Sn			2	-0.099	ug/l	-35.86	1,548.98	1.633E-03	Pulse	0.30	3
Se			3	-0.140	ug/l	-5.61	20.07	8.698E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,473,641.03	0.33	86.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,188,505.32	1.30	95.2	Analog	0.10	3
1	Ge		1,159,154.44	0.40	95.6	Pulse	0.10	3
1	Ge		1,617,030.34	0.54	96.1	Pulse	0.10	3
1	Rh		8,187,312.38	0.98	95.3	Analog	0.10	3
1	In		9,211,584.99	0.69	99.5	Analog	0.10	3
1	Tb		12,223,571.48	1.86	102.2	Analog	0.10	3
1	Ho		1,185,733.84	0.92	102.9	Pulse	0.10	3
1	Bi		6,657,332.40	0.95	96.8	Analog	0.10	3
2	Sc		168,087.14	0.88	90.0	Pulse	0.30	3
2	Ge		97,882.37	1.15	87.4	Pulse	0.30	3
2	Ge		148,437.96	0.26	88.3	Pulse	0.30	3
2	Rh		3,113,106.40	0.66	87.3	Pulse	0.30	3
2	In		948,511.16	0.53	85.9	Pulse	0.30	3
2	Tb		3,863,836.93	0.42	90.2	Pulse	0.30	3
2	Ho		386,761.57	0.21	90.9	Pulse	0.30	3
2	Bi		2,449,661.57	0.21	86.5	Pulse	0.30	3
3	Sc		252,075.91	0.16	107.6	Pulse	0.30	3
3	Ge		152,023.00	0.67	103.3	Pulse	0.30	3
3	Ge		230,717.24	0.53	103.4	Pulse	0.30	3
3	Rh		2,644,281.63	0.30	100.7	Pulse	0.30	3
3	Tb		4,220,163.30	0.59	104.6	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 15:26
Sample Name	mp13130a-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.078	ug/l	5.57	126.67	3.460E-05	Pulse	0.25	3
B			1	47.983	ug/l	0.87	68,566.50	1.873E-02	Pulse	0.15	3
Ca			1	32290.060	ug/l	1.06	6,403,743.24	9.833E-01	Analog	0.10	3
Sr			1	455.281	ug/l	0.69	4,455,450.77	5.163E-01	Pulse	0.10	3
Mo			1	0.929	ug/l	10.01	1,760.17	2.039E-04	Pulse	0.10	3
Ag			1	0.085	ug/l	2.65	466.69	4.866E-05	Pulse	0.10	3
Sn			1	-1.523	ug/l	-3.23	2,733.67	2.851E-04	Pulse	0.10	3
Sb			1	0.097	ug/l	31.96	513.36	4.177E-05	Pulse	0.10	3
Ba			1	123.745	ug/l	0.58	168,798.10	1.375E-02	Pulse	0.10	3
Tl			1	0.073	ug/l	20.76	770.05	1.113E-04	Pulse	0.10	3
Pb			1	0.028	ug/l	85.68	556.70	8.045E-05	Pulse	0.10	3
Pb			1	0.062	ug/l	35.88	570.04	8.237E-05	Pulse	0.10	3
Pb			1	0.060	ug/l	25.28	2,386.84	3.449E-04	Pulse	0.10	3
Na			2	12802.453	ug/l	0.25	2,061,832.77	1.133E+01	Pulse	0.30	3
Mg			2	11681.354	ug/l	0.79	884,395.00	4.862E+00	Pulse	0.30	3
Al			2	18.856	ug/l	5.10	552.24	3.036E-03	Pulse	0.30	3
K			2	1669.247	ug/l	0.82	85,047.54	4.675E-01	Pulse	0.30	3
Ca			2	33663.262	ug/l	0.54	89,799.78	4.937E-01	Pulse	0.30	3
Ti			2	0.448	ug/l	35.12	16.67	9.159E-05	Pulse	0.30	3
V			2	-0.024	ug/l	-96.90	366.68	2.016E-03	Pulse	0.30	3
Cr			2	0.085	ug/l	55.48	1,175.61	6.462E-03	Pulse	0.30	3
Mn			2	111.993	ug/l	1.24	51,898.88	2.853E-01	Pulse	0.30	3
Fe			2	3550.957	ug/l	0.53	2,753,211.07	1.514E+01	Pulse	0.30	3
Co			2	0.109	ug/l	18.14	270.01	1.484E-03	Pulse	0.30	3
Ni			2	0.132	ug/l	57.61	134.45	7.388E-04	Pulse	0.30	3
Cu			2	0.521	ug/l	9.43	1,284.51	7.061E-03	Pulse	0.30	3
Zn			2	-0.068	ug/l	-659.79	852.26	4.685E-03	Pulse	0.30	3
As			2	0.181	ug/l	13.85	25.33	1.393E-04	Pulse	1.00	3
Cd			2	0.097	ug/l	89.44	37.69	3.673E-05	Pulse	0.30	3
Sn			2	-3.238	ug/l	-3.08	415.56	4.049E-04	Pulse	0.30	3
Se			3	-0.924	ug/l	-13.69	14.20	6.211E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,660,580.61	0.50	91.5	Pulse	0.10	3
1	Sc		6,512,459.49	0.80	100.2	Analog	0.10	3
1	Ge		1,258,497.56	1.17	103.8	Pulse	0.10	3

Quantitation Report

1	Ge		1,758,961.75	0.96	104.6	Pulse	0.10	3
1	Rh		8,629,904.66	0.56	100.5	Analog	0.10	3
1	In		9,590,087.25	0.88	103.6	Analog	0.10	3
1	Tb		12,277,883.57	0.78	102.6	Analog	0.10	3
1	Ho		1,187,856.86	1.43	103.1	Pulse	0.10	3
1	Bi		6,919,450.52	0.17	100.6	Analog	0.10	3
2	Sc		181,909.31	0.35	97.4	Pulse	0.30	3
2	Ge		109,736.00	0.53	98.0	Pulse	0.30	3
2	Ge		165,434.22	0.56	98.4	Pulse	0.30	3
2	Rh		3,314,393.41	0.13	92.9	Pulse	0.30	3
2	In		1,025,966.06	0.36	92.9	Pulse	0.30	3
2	Tb		3,927,281.65	0.71	91.7	Pulse	0.30	3
2	Ho		390,740.22	0.04	91.8	Pulse	0.30	3
2	Bi		2,618,723.85	0.48	92.4	Pulse	0.30	3
3	Sc		247,109.61	20.06	105.4	Pulse	0.30	3
3	Ge		154,331.16	12.99	104.9	Pulse	0.30	3
3	Ge		233,435.98	13.67	104.6	Pulse	0.30	3
3	Rh		2,694,906.56	19.26	102.6	Pulse	0.30	3
3	Tb		4,142,315.46	19.09	102.7	Mix	0.30	3

Quantitation Report

File Name 038SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 15:32
Sample Name PE(aq)digconf
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	124.302	ug/l	1.05	171,916.57	4.675E-02	Pulse	0.25	3
B			1	1923.580	ug/l	0.78	2,604,058.99	7.081E-01	Pulse	0.15	3
Ca			1	180.022	ug/l	4.16	49,481.63	7.603E-03	Pulse	0.10	3
Sr			1	371.184	ug/l	0.77	3,683,051.51	4.209E-01	Pulse	0.10	3
Mo			1	439.571	ug/l	0.67	829,596.23	9.481E-02	Pulse	0.10	3
Ag			1	358.773	ug/l	1.04	1,826,957.47	1.891E-01	Pulse	0.10	3
Sn			1	2.276	ug/l	1.68	14,693.94	1.521E-03	Pulse	0.10	3
Sb			1	888.616	ug/l	1.54	2,885,782.25	2.366E-01	Pulse	0.10	3
Ba			1	2467.851	ug/l	0.89	3,341,941.20	2.740E-01	Pulse	0.10	3
Tl			1	740.959	ug/l	0.49	5,932,050.54	8.565E-01	Analog	0.10	3
Pb			1	1165.539	ug/l	1.25	3,119,348.70	4.504E-01	Pulse	0.10	3
Pb			1	1106.019	ug/l	1.14	2,596,223.97	3.749E-01	Pulse	0.10	3
Pb			1	1133.414	ug/l	1.11	12,213,939.03	1.764E+00	Analog	0.10	3
Na			2	76.731	ug/l	8.15	19,851.79	1.105E-01	Pulse	0.30	3
Mg			2	23.698	ug/l	14.80	1,867.91	1.039E-02	Pulse	0.30	3
Al			2	3731.257	ug/l	0.69	89,595.34	4.987E-01	Pulse	0.30	3
K			2	43.193	ug/l	23.71	9,376.06	5.218E-02	Pulse	0.30	3
Ca			2	2353.319	ug/l	1.45	6,231.26	3.468E-02	Pulse	0.30	3
Ti			2	1.104	ug/l	14.07	30.00	1.669E-04	Pulse	0.30	3
V			2	249.370	ug/l	0.32	174,151.89	9.693E-01	Pulse	0.30	3
Cr			2	304.096	ug/l	0.68	278,816.16	1.552E+00	Pulse	0.30	3
Mn			2	1283.931	ug/l	0.62	587,122.15	3.268E+00	Pulse	0.30	3
Fe			2	2954.211	ug/l	0.43	2,263,029.15	1.260E+01	Pulse	0.30	3
Co			2	164.920	ug/l	0.78	272,601.30	1.517E+00	Pulse	0.30	3
Ni			2	1887.983	ug/l	0.49	860,025.63	4.787E+00	Pulse	0.30	3
Cu			2	486.668	ug/l	0.06	592,653.71	3.299E+00	Pulse	0.30	3
Zn			2	1517.855	ug/l	0.64	249,712.17	1.390E+00	Pulse	0.30	3
As			2	286.935	ug/l	0.93	24,421.50	1.359E-01	Pulse	1.00	3
Cd			2	500.736	ug/l	1.26	124,923.15	1.227E-01	Pulse	0.30	3
Sn			2	0.908	ug/l	19.58	2,303.53	2.263E-03	Pulse	0.30	3
Se			3	451.054	ug/l	0.39	11,562.14	5.022E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,677,674.70	1.00	91.9	Pulse	0.10	3
1	Sc		6,511,054.49	2.08	100.1	Analog	0.10	3
1	Ge		1,249,357.46	1.24	103.0	Pulse	0.10	3

Quantitation Report

1	Ge		1,737,438.78	1.26	103.3	Pulse	0.10	3
1	Rh		8,749,896.12	0.73	101.9	Analog	0.10	3
1	In		9,662,398.21	1.30	104.4	Analog	0.10	3
1	Tb		12,198,808.99	1.60	102.0	Analog	0.10	3
1	Ho		1,191,727.14	1.15	103.4	Pulse	0.10	3
1	Bi		6,926,255.94	1.68	100.7	Analog	0.10	3
2	Sc		179,672.54	0.48	96.2	Pulse	0.30	3
2	Ge		105,980.30	0.95	94.6	Pulse	0.30	3
2	Ge		161,055.36	0.46	95.8	Pulse	0.30	3
2	Rh		3,348,297.78	0.67	93.9	Pulse	0.30	3
2	In		1,018,039.84	0.54	92.1	Pulse	0.30	3
2	Tb		3,928,002.90	1.07	91.7	Pulse	0.30	3
2	Ho		393,228.16	0.60	92.4	Pulse	0.30	3
2	Bi		2,611,940.80	0.22	92.2	Pulse	0.30	3
3	Sc		246,337.02	0.23	105.1	Pulse	0.30	3
3	Ge		152,321.16	0.63	103.5	Pulse	0.30	3
3	Ge		230,249.98	0.70	103.2	Pulse	0.30	3
3	Rh		2,718,704.20	0.38	103.5	Pulse	0.30	3
3	Tb		4,126,513.17	0.35	102.3	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 15:38
Sample Name	PE(epa)digconf
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	124.822	ug/l	0.94	173,978.60	4.694E-02	Pulse	0.25	3
B			1	1870.489	ug/l	0.93	2,551,994.76	6.886E-01	Pulse	0.15	3
Ca			1	279.886	ug/l	1.99	70,483.69	1.064E-02	Pulse	0.10	3
Sr			1	360.646	ug/l	1.33	3,577,753.91	4.090E-01	Pulse	0.10	3
Mo			1	423.629	ug/l	0.65	799,383.40	9.137E-02	Pulse	0.10	3
Ag			1	329.190	ug/l	0.59	1,644,970.65	1.735E-01	Pulse	0.10	3
Sn			1	1.859	ug/l	8.78	13,132.66	1.385E-03	Pulse	0.10	3
Sb			1	884.339	ug/l	1.25	2,838,123.08	2.355E-01	Pulse	0.10	3
Ba			1	2418.649	ug/l	1.47	3,236,543.60	2.685E-01	Pulse	0.10	3
Tl			1	709.381	ug/l	1.66	5,572,154.71	8.200E-01	Mix	0.10	3
Pb			1	1143.745	ug/l	1.78	3,003,544.12	4.420E-01	Pulse	0.10	3
Pb			1	1077.194	ug/l	1.23	2,481,183.20	3.651E-01	Pulse	0.10	3
Pb			1	1103.552	ug/l	1.76	11,668,639.94	1.717E+00	Analog	0.10	3
Na			2	87.606	ug/l	5.24	21,955.44	1.201E-01	Pulse	0.30	3
Mg			2	19.283	ug/l	0.27	1,564.54	8.555E-03	Pulse	0.30	3
Al			2	3630.432	ug/l	0.42	88,732.84	4.852E-01	Pulse	0.30	3
K			2	44.323	ug/l	19.21	9,594.15	5.247E-02	Pulse	0.30	3
Ca			2	2401.430	ug/l	3.72	6,470.24	3.538E-02	Pulse	0.30	3
Ti			2	0.760	ug/l	110.16	23.33	1.274E-04	Pulse	0.30	3
V			2	240.868	ug/l	0.81	171,224.84	9.363E-01	Pulse	0.30	3
Cr			2	292.820	ug/l	0.82	273,302.84	1.494E+00	Pulse	0.30	3
Mn			2	1246.202	ug/l	0.64	580,035.32	3.172E+00	Pulse	0.30	3
Fe			2	2827.917	ug/l	0.89	2,205,092.41	1.206E+01	Pulse	0.30	3
Co			2	157.594	ug/l	0.72	265,148.02	1.450E+00	Pulse	0.30	3
Ni			2	1811.019	ug/l	0.83	839,676.11	4.592E+00	Pulse	0.30	3
Cu			2	467.979	ug/l	0.61	580,082.77	3.172E+00	Pulse	0.30	3
Zn			2	1572.633	ug/l	0.71	263,308.69	1.440E+00	Pulse	0.30	3
As			2	287.300	ug/l	1.33	24,890.21	1.361E-01	Pulse	1.00	3
Cd			2	496.262	ug/l	1.02	124,706.95	1.216E-01	Pulse	0.30	3
Sn			2	0.105	ug/l	184.08	1,951.26	1.903E-03	Pulse	0.30	3
Se			3	469.294	ug/l	0.23	12,049.62	5.224E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,706,124.17	0.06	92.6	Pulse	0.10	3
1	Sc		6,626,445.32	1.25	101.9	Analog	0.10	3
1	Ge		1,258,060.32	1.04	103.8	Pulse	0.10	3

Quantitation Report

1	Ge		1,754,210.96	0.83	104.3	Pulse	0.10	3
1	Rh		8,749,068.62	1.57	101.9	Analog	0.10	3
1	In		9,480,971.47	0.54	102.5	Analog	0.10	3
1	Tb		12,054,023.15	0.63	100.8	Analog	0.10	3
1	Ho		1,164,683.11	1.88	101.0	Pulse	0.10	3
1	Bi		6,796,077.40	1.18	98.8	Analog	0.10	3
2	Sc		182,881.55	0.64	97.9	Pulse	0.30	3
2	Ge		108,159.82	1.01	96.6	Pulse	0.30	3
2	Ge		163,275.47	0.26	97.1	Pulse	0.30	3
2	Rh		3,338,912.78	0.64	93.6	Pulse	0.30	3
2	In		1,025,400.50	0.21	92.8	Pulse	0.30	3
2	Tb		3,903,649.98	0.23	91.1	Pulse	0.30	3
2	Ho		391,142.51	0.82	91.9	Pulse	0.30	3
2	Bi		2,591,513.92	0.61	91.5	Pulse	0.30	3
3	Sc		244,399.22	0.28	104.3	Pulse	0.30	3
3	Ge		151,360.28	0.27	102.9	Pulse	0.30	3
3	Ge		230,656.93	0.25	103.3	Pulse	0.30	3
3	Rh		2,681,118.99	0.27	102.1	Pulse	0.30	3
3	Tb		4,088,596.64	0.35	101.4	Pulse	0.30	3

Quantitation Report

File Name	040_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 15:43
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	51.016	ug/l	0.47	695,730.83	1.918E-01	Pulse	0.25	3
B			1	104.807	ug/l	0.46	1,400,935.32	3.863E-01	Pulse	0.15	3
Ca			1	5079.689	ug/l	0.80	9,927,919.23	1.546E+00	Analog	0.10	3
Sr			1	53.931	ug/l	1.00	5,131,760.03	6.115E-01	Pulse	0.10	3
Mo			1	53.040	ug/l	1.60	959,933.97	1.144E-01	Pulse	0.10	3
Ag			1	50.780	ug/l	0.80	2,450,514.29	2.676E-01	Pulse	0.10	3
Sn			1	50.489	ug/l	0.67	1,511,021.02	1.650E-01	Pulse	0.10	3
Sb			1	53.088	ug/l	0.93	1,654,109.09	1.414E-01	Pulse	0.10	3
Ba			1	52.248	ug/l	0.58	678,875.30	5.801E-02	Pulse	0.10	3
Tl			1	52.544	ug/l	0.99	3,891,347.86	6.074E-01	Pulse	0.10	3
Pb			1	53.360	ug/l	0.87	1,321,408.89	2.063E-01	Pulse	0.10	3
Pb			1	52.573	ug/l	0.48	1,141,908.26	1.782E-01	Pulse	0.10	3
Pb			1	52.807	ug/l	1.20	5,265,362.21	8.218E-01	Pulse	0.10	3
Na			2	4818.289	ug/l	1.50	7,714,050.53	4.254E+01	Analog	0.30	3
Mg			2	4762.979	ug/l	0.55	3,594,662.36	1.982E+01	Pulse	0.30	3
Al			2	4761.993	ug/l	0.82	1,152,980.06	6.358E+00	Pulse	0.30	3
K			2	4968.182	ug/l	0.67	2,308,814.42	1.273E+01	Pulse	0.30	3
Ca			2	5232.894	ug/l	0.54	139,141.95	7.673E-01	Pulse	0.30	3
Ti			2	48.619	ug/l	2.40	10,129.85	5.586E-02	Pulse	0.30	3
V			2	51.357	ug/l	0.68	361,590.30	1.994E+00	Pulse	0.30	3
Cr			2	50.887	ug/l	0.75	470,173.34	2.593E+00	Pulse	0.30	3
Mn			2	50.188	ug/l	0.43	231,672.05	1.278E+00	Pulse	0.30	3
Fe			2	4977.588	ug/l	0.53	38,422,792.91	2.119E+02	Analog	0.30	3
Co			2	50.720	ug/l	0.73	846,007.67	4.665E+00	Pulse	0.30	3
Ni			2	50.238	ug/l	0.12	231,038.78	1.274E+00	Pulse	0.30	3
Cu			2	49.410	ug/l	0.51	607,298.69	3.349E+00	Pulse	0.30	3
Zn			2	49.246	ug/l	0.84	82,353.62	4.541E-01	Pulse	0.30	3
As			2	49.341	ug/l	1.33	42,378.58	2.337E-01	Pulse	1.00	3
Cd			2	50.972	ug/l	0.18	124,559.64	1.249E-01	Pulse	0.30	3
Sn			2	50.158	ug/l	0.56	225,978.54	2.266E-01	Pulse	0.30	3
Se			3	202.550	ug/l	0.52	50,543.64	2.249E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,626,448.31	0.30	90.6	Pulse	0.10	3
1	Sc		6,422,723.65	0.47	98.8	Analog	0.10	3
1	Ge		1,225,609.15	0.99	101.1	Pulse	0.10	3

Quantitation Report

1	Ge		1,719,615.34	1.03	102.2	Pulse	0.10	3
1	Rh		8,392,816.96	2.23	97.7	Analog	0.10	3
1	In		9,156,071.69	1.01	98.9	Analog	0.10	3
1	Tb		11,702,397.33	1.25	97.8	Analog	0.10	3
1	Ho		1,143,677.51	1.35	99.2	Pulse	0.10	3
1	Bi		6,407,062.61	0.71	93.1	Analog	0.10	3
2	Sc		181,349.50	0.69	97.1	Pulse	0.30	3
2	Ge		104,902.35	0.55	93.7	Pulse	0.30	3
2	Ge		160,305.97	1.15	95.4	Pulse	0.30	3
2	Rh		3,196,926.33	0.27	89.7	Pulse	0.30	3
2	In		997,160.28	0.52	90.3	Pulse	0.30	3
2	Tb		3,825,572.21	0.32	89.3	Pulse	0.30	3
2	Ho		383,465.55	0.43	90.1	Pulse	0.30	3
2	Bi		2,461,050.53	0.18	86.9	Pulse	0.30	3
3	Sc		242,390.15	0.20	103.4	Pulse	0.30	3
3	Ge		147,973.83	0.90	100.6	Pulse	0.30	3
3	Ge		224,713.13	0.32	100.7	Pulse	0.30	3
3	Rh		2,556,681.98	0.49	97.3	Pulse	0.30	3
3	Tb		3,971,899.98	0.19	98.5	Pulse	0.30	3

Quantitation Report

File Name	041_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 15:51
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	50.75	68.00	1.905E-05	Pulse	0.25	3
B			1	2.667	ug/l	2.02	38,998.20	1.090E-02	Pulse	0.15	3
Ca			1	0.113	ug/l	200.08	13,792.85	2.167E-03	Pulse	0.10	3
Sr			1	0.013	ug/l	25.39	2,236.91	2.623E-04	Pulse	0.10	3
Mo			1	0.036	ug/l	13.03	683.37	8.006E-05	Pulse	0.10	3
Ag			1	0.010	ug/l	12.39	543.37	5.840E-05	Pulse	0.10	3
Sn			1	0.247	ug/l	5.69	14,731.47	1.584E-03	Pulse	0.10	3
Sb			1	0.087	ug/l	10.68	2,877.06	2.471E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	71.81	153.34	1.318E-05	Pulse	0.10	3
Tl			1	0.010	ug/l	5.17	976.74	1.477E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	15.82	913.40	1.381E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	29.77	723.38	1.094E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	4.21	3,506.97	5.303E-04	Pulse	0.10	3
Na			2	1.139	ug/l	12.86	9,390.49	5.285E-02	Pulse	0.30	3
Mg			2	0.690	ug/l	6.42	604.46	3.402E-03	Pulse	0.30	3
Al			2	0.366	ug/l	55.87	178.89	1.007E-03	Pulse	0.30	3
K			2	1.394	ug/l	20.71	7,944.18	4.471E-02	Pulse	0.30	3
Ca			2	1.146	ug/l	61.33	62.22	3.501E-04	Pulse	0.30	3
Ti			2	0.003	ug/l	1653.40	7.78	4.384E-05	Pulse	0.30	3
V			2	0.004	ug/l	298.56	403.34	2.270E-03	Pulse	0.30	3
Cr			2	-0.001	ug/l	-236.11	1,057.83	5.953E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	53.81	81.11	4.566E-04	Pulse	0.30	3
Fe			2	0.587	ug/l	11.46	8,344.44	4.696E-02	Pulse	0.30	3
Co			2	0.003	ug/l	35.40	126.67	7.129E-04	Pulse	0.30	3
Ni			2	0.001	ug/l	512.64	76.67	4.314E-04	Pulse	0.30	3
Cu			2	0.014	ug/l	7.59	800.03	4.502E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.108	ug/l	-48.03	668.91	3.764E-03	Pulse	0.30	3
As			2	0.013	ug/l	58.09	20.00	1.126E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	64.98	21.06	2.086E-05	Pulse	0.30	3
Sn			2	0.072	ug/l	52.83	2,199.07	2.179E-03	Pulse	0.30	3
Se			3	-0.081	ug/l	-6.98	16.93	7.477E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,578,707.20	1.12	89.5	Pulse	0.10	3
1	Sc		6,365,943.86	1.35	97.9	Analog	0.10	3
1	Ge		1,220,392.72	0.54	100.7	Pulse	0.10	3
1	Ge		1,692,472.79	0.89	100.6	Pulse	0.10	3
1	Rh		8,535,339.67	1.29	99.4	Analog	0.10	3
1	In		9,299,600.36	0.82	100.5	Analog	0.10	3
1	Tb		11,638,412.75	1.12	97.3	Analog	0.10	3
1	Ho		1,126,274.54	1.16	97.7	Pulse	0.10	3
1	Bi		6,613,288.03	0.11	96.1	Analog	0.10	3
2	Sc		177,683.31	0.21	95.1	Pulse	0.30	3
2	Ge		105,622.46	0.25	94.3	Pulse	0.30	3
2	Ge		158,954.35	1.12	94.5	Pulse	0.30	3
2	Rh		3,264,518.97	0.43	91.5	Pulse	0.30	3
2	In		1,009,312.13	0.10	91.4	Pulse	0.30	3
2	Tb		3,808,568.05	0.35	88.9	Pulse	0.30	3
2	Ho		379,104.66	0.66	89.1	Pulse	0.30	3
2	Bi		2,539,212.81	0.43	89.6	Pulse	0.30	3
3	Sc		238,526.52	1.09	101.8	Pulse	0.30	3
3	Ge		149,015.32	0.48	101.3	Pulse	0.30	3
3	Ge		226,426.63	0.31	101.4	Pulse	0.30	3
3	Rh		2,647,771.22	0.50	100.8	Pulse	0.30	3
3	Tb		4,011,655.54	0.82	99.5	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 15:56
Sample Name PEundconf
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	123.580	ug/l	0.53	166,672.56	4.648E-02	Pulse	0.25	3
B			1	1878.775	ug/l	0.32	2,480,358.58	6.916E-01	Pulse	0.15	3
Ca			1	159.282	ug/l	4.70	43,749.07	6.973E-03	Pulse	0.10	3
Sr			1	363.290	ug/l	1.91	3,464,217.14	4.120E-01	Pulse	0.10	3
Mo			1	428.430	ug/l	0.61	777,149.50	9.241E-02	Pulse	0.10	3
Ag			1	350.970	ug/l	1.10	1,718,048.72	1.850E-01	Pulse	0.10	3
Sn			1	2.339	ug/l	3.54	14,317.07	1.541E-03	Pulse	0.10	3
Sb			1	870.750	ug/l	0.24	2,711,397.77	2.318E-01	Pulse	0.10	3
Ba			1	2432.653	ug/l	0.52	3,158,507.66	2.701E-01	Pulse	0.10	3
Tl			1	712.354	ug/l	1.03	5,461,738.04	8.234E-01	Mix	0.10	3
Pb			1	1152.367	ug/l	0.54	2,954,073.29	4.453E-01	Pulse	0.10	3
Pb			1	1081.832	ug/l	0.68	2,432,449.13	3.667E-01	Pulse	0.10	3
Pb			1	1109.373	ug/l	0.22	11,450,838.78	1.726E+00	Analog	0.10	3
Na			2	48.677	ug/l	4.04	15,004.54	8.573E-02	Pulse	0.30	3
Mg			2	7.010	ug/l	8.13	603.35	3.447E-03	Pulse	0.30	3
Al			2	3615.742	ug/l	0.77	84,572.03	4.832E-01	Pulse	0.30	3
K			2	23.658	ug/l	40.76	8,259.92	4.719E-02	Pulse	0.30	3
Ca			2	2212.966	ug/l	3.50	5,708.85	3.262E-02	Pulse	0.30	3
Ti			2	1.202	ug/l	92.23	31.11	1.782E-04	Pulse	0.30	3
V			2	244.099	ug/l	0.60	166,054.77	9.488E-01	Pulse	0.30	3
Cr			2	295.023	ug/l	0.72	263,505.52	1.506E+00	Pulse	0.30	3
Mn			2	1258.230	ug/l	0.75	560,437.70	3.202E+00	Pulse	0.30	3
Fe			2	2856.988	ug/l	0.31	2,131,925.26	1.218E+01	Pulse	0.30	3
Co			2	159.247	ug/l	0.90	256,403.23	1.465E+00	Pulse	0.30	3
Ni			2	1835.266	ug/l	0.68	814,319.05	4.653E+00	Pulse	0.30	3
Cu			2	471.238	ug/l	0.42	558,993.20	3.194E+00	Pulse	0.30	3
Zn			2	1481.240	ug/l	0.75	237,385.08	1.356E+00	Pulse	0.30	3
As			2	280.087	ug/l	1.20	23,221.46	1.327E-01	Pulse	1.00	3
Cd			2	488.142	ug/l	0.65	117,967.23	1.196E-01	Pulse	0.30	3
Sn			2	0.787	ug/l	38.68	2,177.96	2.208E-03	Pulse	0.30	3
Se			3	442.901	ug/l	0.70	10,976.21	4.931E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,586,197.65	0.87	89.6	Pulse	0.10	3
1	Sc		6,274,559.91	0.47	96.5	Analog	0.10	3
1	Ge		1,202,494.64	0.62	99.2	Pulse	0.10	3

Quantitation Report

1	Ge		1,682,683.10	0.18	100.0	Pulse	0.10	3
1	Rh		8,410,151.75	1.32	97.9	Analog	0.10	3
1	In		9,288,109.66	0.74	100.4	Analog	0.10	3
1	Tb		11,694,857.33	0.29	97.8	Analog	0.10	3
1	Ho		1,130,125.77	0.58	98.1	Pulse	0.10	3
1	Bi		6,633,324.90	1.01	96.4	Analog	0.10	3
2	Sc		175,013.42	0.53	93.7	Pulse	0.30	3
2	Ge		102,691.69	0.29	91.7	Pulse	0.30	3
2	Ge		155,113.47	0.37	92.3	Pulse	0.30	3
2	Rh		3,220,239.32	0.23	90.3	Pulse	0.30	3
2	In		986,140.25	0.33	89.3	Pulse	0.30	3
2	Tb		3,780,460.41	0.41	88.3	Pulse	0.30	3
2	Ho		378,566.40	0.36	88.9	Pulse	0.30	3
2	Bi		2,515,640.32	0.44	88.8	Pulse	0.30	3
3	Sc		238,902.64	0.65	101.9	Pulse	0.30	3
3	Ge		147,166.54	0.43	100.0	Pulse	0.30	3
3	Ge		222,593.30	0.58	99.7	Pulse	0.30	3
3	Rh		2,625,361.28	0.27	99.9	Pulse	0.30	3
3	Tb		4,013,666.78	0.36	99.5	Pulse	0.30	3

Quantitation Report

File Name	043SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 16:01
Sample Name	PE(aq)digconf
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	128.046	ug/l	1.04	177,153.60	4.816E-02	Pulse	0.25	3
B			1	1909.992	ug/l	0.94	2,586,553.37	7.031E-01	Pulse	0.15	3
Ca			1	169.216	ug/l	1.64	47,716.30	7.274E-03	Pulse	0.10	3
Sr			1	358.681	ug/l	0.83	3,549,450.57	4.068E-01	Pulse	0.10	3
Mo			1	424.889	ug/l	1.02	799,733.63	9.165E-02	Pulse	0.10	3
Ag			1	354.782	ug/l	1.68	1,756,365.70	1.870E-01	Pulse	0.10	3
Sn			1	1.769	ug/l	6.79	12,735.61	1.356E-03	Pulse	0.10	3
Sb			1	890.573	ug/l	0.40	2,770,232.77	2.371E-01	Pulse	0.10	3
Ba			1	2460.769	ug/l	0.31	3,191,654.85	2.732E-01	Pulse	0.10	3
Tl			1	717.218	ug/l	0.87	5,485,123.46	8.291E-01	Mix	0.10	3
Pb			1	1154.290	ug/l	0.86	2,951,310.27	4.461E-01	Pulse	0.10	3
Pb			1	1087.903	ug/l	0.92	2,439,667.05	3.687E-01	Pulse	0.10	3
Pb			1	1112.639	ug/l	0.59	11,454,549.52	1.731E+00	Analog	0.10	3
Na			2	40.672	ug/l	7.27	14,352.86	7.867E-02	Pulse	0.30	3
Mg			2	4.862	ug/l	22.02	465.57	2.553E-03	Pulse	0.30	3
Al			2	3650.533	ug/l	1.62	88,999.90	4.879E-01	Pulse	0.30	3
K			2	22.297	ug/l	15.46	8,545.60	4.684E-02	Pulse	0.30	3
Ca			2	2207.569	ug/l	0.39	5,936.69	3.254E-02	Pulse	0.30	3
Ti			2	0.128	ug/l	249.01	10.00	5.483E-05	Pulse	0.30	3
V			2	241.882	ug/l	0.74	171,518.14	9.402E-01	Pulse	0.30	3
Cr			2	292.547	ug/l	0.97	272,370.02	1.493E+00	Pulse	0.30	3
Mn			2	1252.173	ug/l	0.95	581,367.62	3.187E+00	Pulse	0.30	3
Fe			2	2830.096	ug/l	0.49	2,201,343.39	1.207E+01	Pulse	0.30	3
Co			2	158.572	ug/l	0.83	266,129.94	1.459E+00	Pulse	0.30	3
Ni			2	1817.705	ug/l	0.37	840,700.65	4.608E+00	Pulse	0.30	3
Cu			2	467.302	ug/l	0.70	577,805.29	3.167E+00	Pulse	0.30	3
Zn			2	1586.207	ug/l	0.06	264,921.12	1.452E+00	Pulse	0.30	3
As			2	286.243	ug/l	0.63	24,737.30	1.356E-01	Pulse	1.00	3
Cd			2	505.104	ug/l	0.89	125,630.80	1.238E-01	Pulse	0.30	3
Sn			2	-0.046	ug/l	-193.44	1,862.35	1.835E-03	Pulse	0.30	3
Se			3	483.945	ug/l	0.60	12,111.13	5.387E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,678,748.13	0.09	92.0	Pulse	0.10	3
1	Sc		6,559,748.44	0.97	100.9	Analog	0.10	3
1	Ge		1,248,433.23	0.36	103.0	Pulse	0.10	3

Quantitation Report

1	Ge		1,739,924.82	0.80	103.5	Pulse	0.10	3
1	Rh		8,726,382.58	0.32	101.6	Analog	0.10	3
1	In		9,393,520.73	0.83	101.5	Analog	0.10	3
1	Tb		11,682,761.91	0.78	97.7	Analog	0.10	3
1	Ho		1,133,051.99	0.53	98.3	Pulse	0.10	3
1	Bi		6,616,072.82	0.15	96.2	Analog	0.10	3
2	Sc		182,427.37	0.54	97.7	Pulse	0.30	3
2	Ge		108,048.26	0.35	96.5	Pulse	0.30	3
2	Ge		161,657.03	0.31	96.2	Pulse	0.30	3
2	Rh		3,289,227.72	0.29	92.2	Pulse	0.30	3
2	In		1,014,966.41	0.69	91.9	Pulse	0.30	3
2	Tb		3,824,618.18	0.29	89.3	Pulse	0.30	3
2	Ho		382,170.66	0.44	89.8	Pulse	0.30	3
2	Bi		2,553,725.80	0.38	90.1	Pulse	0.30	3
3	Sc		239,385.00	0.52	102.2	Pulse	0.30	3
3	Ge		147,765.83	0.55	100.4	Pulse	0.30	3
3	Ge		224,843.93	0.82	100.7	Pulse	0.30	3
3	Rh		2,641,881.70	0.37	100.6	Pulse	0.30	3
3	Tb		3,995,159.70	0.85	99.1	Pulse	0.30	3

Quantitation Report

File Name 044SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 16:06
Sample Name mp13130a-ps1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	80.062	ug/l	0.20	512,781.22	1.505E-01	Pulse	0.25	3
B			1	134.823	ug/l	0.24	847,719.58	2.489E-01	Pulse	0.15	3
Ca			1	33878.546	ug/l	2.63	31,324,382.87	5.150E+00	Analog	0.10	3
Sr			1	533.792	ug/l	2.08	23,852,372.14	3.026E+00	Analog	0.10	3
Mo			1	87.565	ug/l	1.39	744,479.52	9.444E-02	Pulse	0.10	3
Ag			1	81.331	ug/l	1.57	1,879,326.12	2.143E-01	Pulse	0.10	3
Sn			1	82.668	ug/l	2.15	1,185,861.70	1.352E-01	Pulse	0.10	3
Sb			1	80.346	ug/l	0.39	1,232,429.46	1.070E-01	Pulse	0.10	3
Ba			1	199.968	ug/l	0.45	1,278,936.83	1.110E-01	Pulse	0.10	3
Tl			1	87.481	ug/l	1.47	3,158,531.83	5.056E-01	Pulse	0.10	3
Pb			1	88.422	ug/l	1.66	1,067,612.61	1.709E-01	Pulse	0.10	3
Pb			1	87.916	ug/l	1.05	931,005.64	1.490E-01	Pulse	0.10	3
Pb			1	87.944	ug/l	1.12	4,275,291.40	6.844E-01	Pulse	0.10	3
Na			2	16179.299	ug/l	0.83	11,874,705.36	7.139E+01	Analog	0.30	3
Mg			2	14791.728	ug/l	0.31	5,119,485.49	3.078E+01	Pulse	0.30	3
Al			2	3892.237	ug/l	0.53	432,235.35	2.599E+00	Pulse	0.30	3
K			2	5599.525	ug/l	0.86	1,196,344.47	7.193E+00	Pulse	0.30	3
Ca			2	36605.909	ug/l	0.35	446,305.61	2.683E+00	Pulse	0.30	3
Ti			2	82.977	ug/l	2.03	7,929.76	4.767E-02	Pulse	0.30	3
V			2	87.101	ug/l	1.40	281,281.54	1.691E+00	Pulse	0.30	3
Cr			2	87.204	ug/l	1.12	369,640.55	2.222E+00	Pulse	0.30	3
Mn			2	190.337	ug/l	1.14	402,877.40	2.422E+00	Pulse	0.30	3
Fe			2	7543.567	ug/l	1.50	26,704,046.16	1.606E+02	Analog	0.30	3
Co			2	85.196	ug/l	0.39	651,716.47	3.918E+00	Pulse	0.30	3
Ni			2	84.341	ug/l	0.92	177,882.72	1.069E+00	Pulse	0.30	3
Cu			2	82.450	ug/l	0.84	464,826.98	2.795E+00	Pulse	0.30	3
Zn			2	69.428	ug/l	0.52	53,480.11	3.215E-01	Pulse	0.30	3
As			2	75.120	ug/l	0.88	29,591.29	1.779E-01	Pulse	1.00	3
Cd			2	79.954	ug/l	1.33	90,645.21	9.797E-02	Pulse	0.30	3
Sn			2	82.959	ug/l	0.26	173,691.23	1.877E-01	Pulse	0.30	3
Se			3	339.181	ug/l	0.82	41,013.28	1.884E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,406,353.19	0.79	85.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,083,614.70	0.85	93.6	Analog	0.10	3
1	Ge		1,130,787.51	0.33	93.3	Pulse	0.10	3
1	Ge		1,590,470.50	0.57	94.6	Pulse	0.10	3
1	Rh		7,884,946.55	2.13	91.8	Analog	0.10	3
1	In		8,769,081.15	0.92	94.8	Analog	0.10	3
1	Tb		11,520,817.33	0.79	96.3	Analog	0.10	3
1	Ho		1,123,279.98	1.64	97.5	Pulse	0.10	3
1	Bi		6,247,148.66	0.61	90.8	Analog	0.10	3
2	Sc		166,332.03	0.58	89.1	Pulse	0.30	3
2	Ge		95,279.70	0.11	85.1	Pulse	0.30	3
2	Ge		144,348.46	0.06	85.9	Pulse	0.30	3
2	Rh		2,985,420.64	0.17	83.7	Pulse	0.30	3
2	In		925,200.57	0.09	83.7	Pulse	0.30	3
2	Tb		3,701,610.97	0.13	86.4	Pulse	0.30	3
2	Ho		370,328.31	0.89	87.0	Pulse	0.30	3
2	Bi		2,337,897.34	0.25	82.5	Pulse	0.30	3
3	Sc		238,519.97	0.33	101.8	Pulse	0.30	3
3	Ge		143,688.62	0.77	97.6	Pulse	0.30	3
3	Ge		217,756.49	0.94	97.6	Pulse	0.30	3
3	Rh		2,512,407.26	0.16	95.6	Pulse	0.30	3
3	Tb		3,981,287.34	0.14	98.7	Pulse	0.30	3

Quantitation Report

File Name 045SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 16:11
Sample Name jc84299-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.092	ug/l	12.60	621.36	1.783E-04	Pulse	0.25	3
B			1	117.441	ug/l	1.28	756,310.56	2.169E-01	Pulse	0.15	3
Ca			1	38907.381	ug/l	1.21	36,705,751.95	5.914E+00	Analog	0.10	3
Sr			1	308.524	ug/l	0.93	14,061,737.29	1.749E+00	Analog	0.10	3
Mo			1	0.416	ug/l	2.61	3,637.21	4.524E-04	Pulse	0.10	3
Ag			1	0.067	ug/l	6.58	1,630.15	1.815E-04	Pulse	0.10	3
Sn			1	0.242	ug/l	15.09	10,550.58	1.175E-03	Pulse	0.10	3
Sb			1	0.554	ug/l	4.43	8,906.22	7.536E-04	Pulse	0.10	3
Ba			1	15.353	ug/l	1.81	100,860.42	8.533E-03	Pulse	0.10	3
Tl			1	0.041	ug/l	4.55	1,650.15	2.629E-04	Pulse	0.10	3
Pb			1	0.153	ug/l	8.13	2,296.94	3.659E-04	Pulse	0.10	3
Pb			1	0.156	ug/l	5.34	2,046.90	3.261E-04	Pulse	0.10	3
Pb			1	0.159	ug/l	0.92	9,358.22	1.491E-03	Pulse	0.10	3
Na			2	21947.415	ug/l	1.41	16,440,871.01	9.683E+01	Analog	0.30	3
Mg			2	5183.351	ug/l	0.74	1,831,388.82	1.079E+01	Pulse	0.30	3
Al			2	7.540	ug/l	19.04	943.41	5.551E-03	Pulse	0.30	3
K			2	7533.453	ug/l	0.99	1,640,644.83	9.663E+00	Pulse	0.30	3
Ca			2	40081.854	ug/l	0.59	498,856.18	2.938E+00	Pulse	0.30	3
Ti			2	0.170	ug/l	35.81	23.33	1.375E-04	Pulse	0.30	3
V			2	0.338	ug/l	13.07	1,470.09	8.657E-03	Pulse	0.30	3
Cr			2	0.852	ug/l	3.06	4,700.74	2.769E-02	Pulse	0.30	3
Mn			2	44.267	ug/l	0.95	95,688.70	5.636E-01	Pulse	0.30	3
Fe			2	1085.243	ug/l	0.48	3,925,076.79	2.312E+01	Pulse	0.30	3
Co			2	0.675	ug/l	2.67	5,356.50	3.154E-02	Pulse	0.30	3
Ni			2	5.547	ug/l	1.81	12,008.94	7.072E-02	Pulse	0.30	3
Cu			2	19.361	ug/l	0.19	111,887.46	6.589E-01	Pulse	0.30	3
Zn			2	1.980	ug/l	9.36	2,340.19	1.378E-02	Pulse	0.30	3
As			2	38.429	ug/l	0.90	15,457.98	9.104E-02	Pulse	1.00	3
Cd			2	0.011	ug/l	28.78	25.37	2.683E-05	Pulse	0.30	3
Sn			2	-0.105	ug/l	-50.06	1,531.20	1.620E-03	Pulse	0.30	3
Se			3	-0.128	ug/l	-11.22	20.80	9.383E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,486,696.19	0.50	87.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,207,004.28	0.13	95.5	Analog	0.10	3
1	Ge		1,147,764.44	0.94	94.7	Pulse	0.10	3
1	Ge		1,604,780.34	0.84	95.4	Pulse	0.10	3
1	Rh		8,040,094.05	1.00	93.6	Analog	0.10	3
1	In		8,984,315.37	0.68	97.1	Analog	0.10	3
1	Tb		11,822,270.66	1.21	98.8	Analog	0.10	3
1	Ho		1,144,283.73	0.81	99.3	Pulse	0.10	3
1	Bi		6,277,967.82	0.48	91.2	Analog	0.10	3
2	Sc		169,799.68	0.78	90.9	Pulse	0.30	3
2	Ge		97,438.71	0.37	87.0	Pulse	0.30	3
2	Ge		147,122.81	0.85	87.5	Pulse	0.30	3
2	Rh		3,050,679.67	0.49	85.6	Pulse	0.30	3
2	In		945,254.44	0.32	85.6	Pulse	0.30	3
2	Tb		3,763,269.85	0.27	87.9	Pulse	0.30	3
2	Ho		377,764.96	0.64	88.7	Pulse	0.30	3
2	Bi		2,363,939.35	0.43	83.4	Pulse	0.30	3
3	Sc		245,624.02	0.60	104.8	Pulse	0.30	3
3	Ge		146,376.31	1.41	99.5	Pulse	0.30	3
3	Ge		221,705.33	0.26	99.3	Pulse	0.30	3
3	Rh		2,566,216.84	0.52	97.7	Pulse	0.30	3
3	Tb		4,074,548.17	0.51	101.0	Pulse	0.30	3

Quantitation Report

File Name	046SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 16:16
Sample Name	jc84299-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.035	ug/l	26.89	256.01	7.191E-05	Pulse	0.25	3
B			1	156.033	ug/l	0.66	1,024,627.21	2.878E-01	Pulse	0.15	3
Ca			1	46728.930	ug/l	1.44	44,629,294.33	7.102E+00	Analog	0.10	3
Sr			1	405.123	ug/l	1.33	18,379,222.23	2.297E+00	Analog	0.10	3
Mo			1	1.747	ug/l	3.54	15,104.29	1.887E-03	Pulse	0.10	3
Ag			1	0.061	ug/l	10.83	1,476.80	1.639E-04	Pulse	0.10	3
Sn			1	0.215	ug/l	11.59	10,177.04	1.130E-03	Pulse	0.10	3
Sb			1	0.259	ug/l	4.57	4,234.06	3.606E-04	Pulse	0.10	3
Ba			1	50.046	ug/l	0.92	326,204.61	2.779E-02	Pulse	0.10	3
Tl			1	0.036	ug/l	10.51	1,456.80	2.325E-04	Pulse	0.10	3
Pb			1	0.080	ug/l	12.50	1,400.11	2.234E-04	Pulse	0.10	3
Pb			1	0.059	ug/l	6.42	1,006.74	1.607E-04	Pulse	0.10	3
Pb			1	0.074	ug/l	5.90	5,163.89	8.241E-04	Pulse	0.10	3
Na			2	12696.738	ug/l	0.37	9,509,282.68	5.603E+01	Analog	0.30	3
Mg			2	6513.302	ug/l	0.46	2,299,993.38	1.355E+01	Pulse	0.30	3
Al			2	8.844	ug/l	7.95	1,090.05	6.422E-03	Pulse	0.30	3
K			2	8626.097	ug/l	0.16	1,876,592.43	1.106E+01	Pulse	0.30	3
Ca			2	48708.393	ug/l	0.03	605,883.24	3.570E+00	Pulse	0.30	3
Ti			2	0.238	ug/l	57.97	30.00	1.770E-04	Pulse	0.30	3
V			2	0.660	ug/l	4.53	2,530.23	1.491E-02	Pulse	0.30	3
Cr			2	0.782	ug/l	3.25	4,395.09	2.590E-02	Pulse	0.30	3
Mn			2	2071.656	ug/l	0.74	4,473,406.63	2.636E+01	Pulse	0.30	3
Fe			2	64536.177	ug/l	1.11	233,070,444.07	1.373E+03	Analog	0.30	3
Co			2	18.101	ug/l	0.25	141,337.13	8.329E-01	Pulse	0.30	3
Ni			2	6.196	ug/l	1.89	13,396.66	7.895E-02	Pulse	0.30	3
Cu			2	0.336	ug/l	9.58	2,532.45	1.492E-02	Pulse	0.30	3
Zn			2	2.226	ug/l	6.15	2,529.11	1.490E-02	Pulse	0.30	3
As			2	1420.727	ug/l	0.27	570,842.67	3.364E+00	Pulse	1.00	3
Cd			2	0.010	ug/l	116.56	23.81	2.534E-05	Pulse	0.30	3
Sn			2	-0.097	ug/l	-31.82	1,536.76	1.638E-03	Pulse	0.30	3
Se			3	-0.132	ug/l	-13.06	19.87	9.157E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,559,676.50	0.74	89.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,284,915.53	1.70	96.7	Analog	0.10	3
1	Ge		1,185,760.76	1.19	97.8	Pulse	0.10	3
1	Ge		1,609,463.52	1.15	95.7	Pulse	0.10	3
1	Rh		8,002,900.09	0.06	93.2	Analog	0.10	3
1	In		9,008,619.90	0.40	97.4	Analog	0.10	3
1	Tb		11,739,025.66	1.10	98.1	Analog	0.10	3
1	Ho		1,146,857.17	1.95	99.5	Pulse	0.10	3
1	Bi		6,265,768.45	0.61	91.1	Analog	0.10	3
2	Sc		169,701.49	0.41	90.9	Pulse	0.30	3
2	Ge		98,045.73	0.49	87.5	Pulse	0.30	3
2	Ge		146,693.51	0.33	87.3	Pulse	0.30	3
2	Rh		3,009,678.77	0.31	84.4	Pulse	0.30	3
2	In		938,491.44	0.53	84.9	Pulse	0.30	3
2	Tb		3,738,615.68	0.42	87.3	Pulse	0.30	3
2	Ho		374,712.86	0.11	88.0	Pulse	0.30	3
2	Bi		2,331,844.14	0.05	82.3	Pulse	0.30	3
3	Sc		239,956.88	0.35	102.4	Pulse	0.30	3
3	Ge		144,324.04	0.46	98.1	Pulse	0.30	3
3	Ge		217,011.42	0.44	97.2	Pulse	0.30	3
3	Rh		2,481,592.54	0.23	94.5	Pulse	0.30	3
3	Tb		3,925,260.54	0.18	97.3	Pulse	0.30	3

Quantitation Report

File Name	047SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 16:20
Sample Name	jc84299-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	24.28	121.33	3.400E-05	Pulse	0.25	3
B			1	55.044	ug/l	0.81	364,721.48	1.023E-01	Pulse	0.15	3
Ca			1	26948.808	ug/l	1.09	25,993,062.11	4.097E+00	Analog	0.10	3
Sr			1	202.637	ug/l	0.77	9,386,019.65	1.149E+00	Analog	0.10	3
Mo			1	2.427	ug/l	3.87	21,411.63	2.621E-03	Pulse	0.10	3
Ag			1	0.030	ug/l	18.30	770.05	8.415E-05	Pulse	0.10	3
Sn			1	0.158	ug/l	9.16	9,486.59	1.038E-03	Pulse	0.10	3
Sb			1	0.243	ug/l	5.91	4,040.69	3.388E-04	Pulse	0.10	3
Ba			1	15.495	ug/l	0.47	102,659.14	8.611E-03	Pulse	0.10	3
Tl			1	0.018	ug/l	17.40	856.73	1.325E-04	Pulse	0.10	3
Pb			1	0.032	ug/l	16.89	850.06	1.316E-04	Pulse	0.10	3
Pb			1	0.033	ug/l	37.01	756.72	1.172E-04	Pulse	0.10	3
Pb			1	0.037	ug/l	11.79	3,500.31	5.421E-04	Pulse	0.10	3
Na			2	6396.229	ug/l	0.90	4,851,541.75	2.825E+01	Pulse	0.30	3
Mg			2	3022.216	ug/l	1.07	1,080,067.94	6.289E+00	Pulse	0.30	3
Al			2	3.421	ug/l	7.12	481.12	2.802E-03	Pulse	0.30	3
K			2	3688.037	ug/l	1.21	815,988.75	4.751E+00	Pulse	0.30	3
Ca			2	27777.468	ug/l	0.33	349,687.30	2.036E+00	Pulse	0.30	3
Ti			2	0.133	ug/l	25.16	20.00	1.164E-04	Pulse	0.30	3
V			2	0.347	ug/l	8.45	1,516.76	8.832E-03	Pulse	0.30	3
Cr			2	0.759	ug/l	5.06	4,346.19	2.531E-02	Pulse	0.30	3
Mn			2	2413.454	ug/l	0.79	5,274,069.79	3.071E+01	Pulse	0.30	3
Fe			2	41527.685	ug/l	0.88	151,773,211.74	8.838E+02	Analog	0.30	3
Co			2	14.661	ug/l	1.37	115,867.06	6.747E-01	Pulse	0.30	3
Ni			2	6.289	ug/l	2.82	13,758.05	8.012E-02	Pulse	0.30	3
Cu			2	0.318	ug/l	6.60	2,457.99	1.431E-02	Pulse	0.30	3
Zn			2	2.152	ug/l	5.96	2,501.34	1.457E-02	Pulse	0.30	3
As			2	2900.578	ug/l	0.80	1,179,422.50	6.868E+00	Pulse	1.00	3
Cd			2	-0.002	ug/l	-365.52	10.14	1.065E-05	Pulse	0.30	3
Sn			2	-0.160	ug/l	-32.79	1,432.30	1.498E-03	Pulse	0.30	3
Se			3	-0.178	ug/l	-10.19	14.80	6.603E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,566,927.40	0.59	89.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,345,007.62	0.08	97.6	Analog	0.10	3
1	Ge		1,195,557.85	0.76	98.6	Pulse	0.10	3
1	Ge		1,632,951.69	1.16	97.1	Pulse	0.10	3
1	Rh		8,170,396.96	0.32	95.1	Analog	0.10	3
1	In		9,141,382.47	0.95	98.8	Analog	0.10	3
1	Tb		11,921,824.82	1.43	99.6	Analog	0.10	3
1	Ho		1,150,163.97	0.88	99.8	Pulse	0.10	3
1	Bi		6,459,954.90	1.07	93.9	Analog	0.10	3
2	Sc		171,741.58	0.48	92.0	Pulse	0.30	3
2	Ge		99,386.11	1.35	88.7	Pulse	0.30	3
2	Ge		148,947.75	0.48	88.6	Pulse	0.30	3
2	Rh		3,105,450.85	1.40	87.1	Pulse	0.30	3
2	In		955,943.00	0.85	86.5	Pulse	0.30	3
2	Tb		3,804,353.46	0.72	88.8	Pulse	0.30	3
2	Ho		380,313.13	1.25	89.3	Pulse	0.30	3
2	Bi		2,413,273.03	1.01	85.2	Pulse	0.30	3
3	Sc		244,988.30	0.14	104.5	Pulse	0.30	3
3	Ge		149,727.65	0.64	101.7	Pulse	0.30	3
3	Ge		224,125.90	0.68	100.4	Pulse	0.30	3
3	Rh		2,576,312.75	0.52	98.1	Pulse	0.30	3
3	Tb		4,033,472.34	0.84	100.0	Pulse	0.30	3

Quantitation Report

File Name	048SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 16:26
Sample Name	jc84297-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.452	ug/l	5.55	3,022.99	8.551E-04	Pulse	0.25	3
B			1	37.213	ug/l	0.46	245,650.54	6.948E-02	Pulse	0.15	3
Ca			1	29687.522	ug/l	1.65	29,223,562.90	4.513E+00	Analog	0.10	3
Sr			1	273.957	ug/l	1.38	12,845,981.48	1.553E+00	Analog	0.10	3
Mo			1	0.557	ug/l	1.97	5,000.95	6.045E-04	Pulse	0.10	3
Ag			1	0.018	ug/l	29.85	460.02	5.021E-05	Pulse	0.10	3
Sn			1	0.182	ug/l	16.96	9,860.13	1.076E-03	Pulse	0.10	3
Sb			1	0.176	ug/l	9.50	3,000.41	2.504E-04	Pulse	0.10	3
Ba			1	355.257	ug/l	0.73	2,362,406.47	1.972E-01	Pulse	0.10	3
Tl			1	0.009	ug/l	61.46	520.03	8.105E-05	Pulse	0.10	3
Pb			1	0.073	ug/l	10.68	1,353.44	2.105E-04	Pulse	0.10	3
Pb			1	0.079	ug/l	17.79	1,260.10	1.960E-04	Pulse	0.10	3
Pb			1	0.080	ug/l	3.47	5,623.98	8.742E-04	Pulse	0.10	3
Na			2	11587.900	ug/l	0.31	8,725,946.87	5.114E+01	Analog	0.30	3
Mg			2	11987.588	ug/l	0.71	4,255,720.39	2.494E+01	Pulse	0.30	3
Al			2	21.942	ug/l	6.69	2,586.91	1.516E-02	Pulse	0.30	3
K			2	1455.350	ug/l	0.81	324,139.73	1.900E+00	Pulse	0.30	3
Ca			2	31385.007	ug/l	0.65	392,499.37	2.301E+00	Pulse	0.30	3
Ti			2	0.497	ug/l	17.38	55.56	3.257E-04	Pulse	0.30	3
V			2	0.328	ug/l	7.56	1,445.64	8.473E-03	Pulse	0.30	3
Cr			2	0.991	ug/l	3.49	5,325.37	3.121E-02	Pulse	0.30	3
Mn			2	417.967	ug/l	0.33	907,426.00	5.319E+00	Pulse	0.30	3
Fe			2	33030.738	ug/l	1.19	119,925,501.90	7.029E+02	Analog	0.30	3
Co			2	0.017	ug/l	29.44	213.34	1.251E-03	Pulse	0.30	3
Ni			2	0.057	ug/l	16.53	193.33	1.133E-03	Pulse	0.30	3
Cu			2	0.278	ug/l	8.32	2,207.95	1.294E-02	Pulse	0.30	3
Zn			2	1.612	ug/l	4.28	2,064.60	1.210E-02	Pulse	0.30	3
As			2	0.912	ug/l	0.85	377.68	2.214E-03	Pulse	1.00	3
Cd			2	-0.001	ug/l	-362.11	10.90	1.158E-05	Pulse	0.30	3
Sn			2	-0.083	ug/l	-41.00	1,572.32	1.670E-03	Pulse	0.30	3
Se			3	-0.191	ug/l	-3.17	13.13	5.850E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,535,400.01	0.29	88.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,476,362.40	1.01	99.6	Analog	0.10	3
1	Ge		1,200,678.24	0.54	99.0	Pulse	0.10	3
1	Ge		1,644,250.39	0.37	97.8	Pulse	0.10	3
1	Rh		8,271,750.71	0.88	96.3	Analog	0.10	3
1	In		9,166,361.28	0.33	99.1	Analog	0.10	3
1	Tb		11,979,108.15	0.55	100.1	Analog	0.10	3
1	Ho		1,170,792.01	1.02	101.6	Pulse	0.10	3
1	Bi		6,432,182.61	0.91	93.5	Analog	0.10	3
2	Sc		170,612.76	0.40	91.4	Pulse	0.30	3
2	Ge		98,381.22	1.26	87.8	Pulse	0.30	3
2	Ge		149,699.37	0.86	89.0	Pulse	0.30	3
2	Rh		3,064,676.13	0.83	85.9	Pulse	0.30	3
2	In		941,168.76	0.67	85.2	Pulse	0.30	3
2	Tb		3,814,164.29	1.26	89.0	Mix	0.30	3
2	Ho		379,542.76	1.35	89.2	Pulse	0.30	3
2	Bi		2,389,059.77	0.94	84.3	Pulse	0.30	3
3	Sc		247,228.74	0.59	105.5	Pulse	0.30	3
3	Ge		148,905.65	0.52	101.2	Pulse	0.30	3
3	Ge		224,460.95	0.77	100.6	Pulse	0.30	3
3	Rh		2,587,564.83	0.72	98.5	Pulse	0.30	3
3	Tb		4,049,332.20	0.46	100.4	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 16:31
Sample Name jc84297-1f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	56.16	54.67	1.544E-05	Pulse	0.25	3
B			1	46.677	ug/l	1.25	307,911.63	8.688E-02	Pulse	0.15	3
Ca			1	32608.521	ug/l	0.98	31,788,038.69	4.957E+00	Analog	0.10	3
Sr			1	477.411	ug/l	1.27	22,351,593.00	2.706E+00	Analog	0.10	3
Mo			1	0.946	ug/l	2.81	8,459.24	1.024E-03	Pulse	0.10	3
Ag			1	0.017	ug/l	8.70	443.36	4.790E-05	Pulse	0.10	3
Sn			1	0.122	ug/l	9.87	9,059.63	9.787E-04	Pulse	0.10	3
Sb			1	0.112	ug/l	8.34	1,976.87	1.645E-04	Pulse	0.10	3
Ba			1	110.541	ug/l	1.19	737,376.84	6.137E-02	Pulse	0.10	3
Tl			1	0.011	ug/l	15.96	580.04	9.034E-05	Pulse	0.10	3
Pb			1	0.020	ug/l	19.60	693.38	1.080E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	29.22	606.70	9.449E-05	Pulse	0.10	3
Pb			1	0.026	ug/l	22.65	2,930.24	4.565E-04	Pulse	0.10	3
Na			2	13222.991	ug/l	2.65	10,122,430.43	5.836E+01	Analog	0.30	3
Mg			2	11794.153	ug/l	1.19	4,257,344.55	2.454E+01	Pulse	0.30	3
Al			2	3.238	ug/l	30.41	464.46	2.680E-03	Pulse	0.30	3
K			2	1668.326	ug/l	1.05	376,770.88	2.172E+00	Pulse	0.30	3
Ca			2	34399.384	ug/l	0.86	437,420.30	2.522E+00	Pulse	0.30	3
Ti			2	0.075	ug/l	26.23	14.44	8.327E-05	Pulse	0.30	3
V			2	0.417	ug/l	9.12	1,770.12	1.020E-02	Pulse	0.30	3
Cr			2	0.713	ug/l	0.75	4,191.69	2.416E-02	Pulse	0.30	3
Mn			2	103.616	ug/l	0.76	228,772.80	1.319E+00	Pulse	0.30	3
Fe			2	83.947	ug/l	0.34	313,726.00	1.808E+00	Pulse	0.30	3
Co			2	0.052	ug/l	14.18	501.13	2.887E-03	Pulse	0.30	3
Ni			2	0.101	ug/l	1.92	292.23	1.684E-03	Pulse	0.30	3
Cu			2	0.253	ug/l	7.24	2,097.94	1.210E-02	Pulse	0.30	3
Zn			2	0.379	ug/l	13.34	1,123.39	6.475E-03	Pulse	0.30	3
As			2	0.205	ug/l	7.10	93.33	5.381E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-625.90	10.75	1.128E-05	Pulse	0.30	3
Sn			2	-0.218	ug/l	-12.92	1,304.51	1.367E-03	Pulse	0.30	3
Se			3	-0.177	ug/l	-16.23	15.00	6.634E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,544,267.57	0.37	88.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,413,476.78	1.27	98.6	Analog	0.10	3
1	Ge		1,188,218.94	1.07	98.0	Pulse	0.10	3
1	Ge		1,648,467.06	0.96	98.0	Pulse	0.10	3
1	Rh		8,259,423.00	0.87	96.2	Analog	0.10	3
1	In		9,256,739.45	0.17	100.0	Analog	0.10	3
1	Tb		12,015,346.07	0.38	100.4	Analog	0.10	3
1	Ho		1,168,889.83	1.57	101.4	Pulse	0.10	3
1	Bi		6,423,424.49	1.11	93.4	Analog	0.10	3
2	Sc		173,483.34	0.73	92.9	Pulse	0.30	3
2	Ge		99,635.15	0.36	88.9	Pulse	0.30	3
2	Ge		149,222.56	0.64	88.8	Pulse	0.30	3
2	Rh		3,116,202.86	0.44	87.4	Pulse	0.30	3
2	In		953,918.23	0.87	86.3	Pulse	0.30	3
2	Tb		3,834,297.48	0.40	89.5	Pulse	0.30	3
2	Ho		383,383.44	0.63	90.1	Pulse	0.30	3
2	Bi		2,405,285.39	0.57	84.9	Pulse	0.30	3
3	Sc		249,809.05	0.61	106.6	Pulse	0.30	3
3	Ge		148,988.24	0.68	101.2	Pulse	0.30	3
3	Ge		225,926.42	0.55	101.2	Pulse	0.30	3
3	Rh		2,612,415.31	0.38	99.5	Pulse	0.30	3
3	Tb		4,127,584.42	0.17	102.3	Pulse	0.30	3

Quantitation Report

File Name	050_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 16:35
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	51.750	ug/l	1.27	755,248.50	1.946E-01	Pulse	0.25	3
B			1	104.248	ug/l	0.86	1,491,289.14	3.843E-01	Pulse	0.15	3
Ca			1	5116.755	ug/l	0.49	10,917,083.59	1.557E+00	Analog	0.10	3
Sr			1	54.635	ug/l	1.25	5,451,407.62	6.195E-01	Mix	0.10	3
Mo			1	53.934	ug/l	0.49	1,023,684.88	1.163E-01	Pulse	0.10	3
Ag			1	50.969	ug/l	0.79	2,576,899.44	2.686E-01	Pulse	0.10	3
Sn			1	50.394	ug/l	0.85	1,580,106.44	1.647E-01	Pulse	0.10	3
Sb			1	53.872	ug/l	1.26	1,722,377.84	1.434E-01	Pulse	0.10	3
Ba			1	52.970	ug/l	1.55	706,193.01	5.882E-02	Pulse	0.10	3
Tl			1	52.802	ug/l	0.62	3,930,130.15	6.104E-01	Pulse	0.10	3
Pb			1	53.417	ug/l	0.54	1,329,479.41	2.065E-01	Pulse	0.10	3
Pb			1	53.241	ug/l	0.43	1,162,247.22	1.805E-01	Pulse	0.10	3
Pb			1	53.186	ug/l	0.42	5,329,986.38	8.277E-01	Pulse	0.10	3
Na			2	4789.886	ug/l	1.01	8,221,757.45	4.229E+01	Analog	0.30	3
Mg			2	4767.398	ug/l	0.23	3,857,438.87	1.984E+01	Pulse	0.30	3
Al			2	4811.813	ug/l	0.68	1,249,041.97	6.425E+00	Pulse	0.30	3
K			2	4998.194	ug/l	0.45	2,490,272.33	1.281E+01	Pulse	0.30	3
Ca			2	5276.417	ug/l	1.13	150,414.29	7.737E-01	Pulse	0.30	3
Ti			2	50.017	ug/l	3.23	11,170.53	5.746E-02	Pulse	0.30	3
V			2	51.519	ug/l	0.16	388,891.33	2.000E+00	Pulse	0.30	3
Cr			2	50.970	ug/l	0.18	504,899.49	2.597E+00	Pulse	0.30	3
Mn			2	50.237	ug/l	0.88	248,626.57	1.279E+00	Pulse	0.30	3
Fe			2	4996.951	ug/l	0.34	41,353,380.58	2.127E+02	Analog	0.30	3
Co			2	50.531	ug/l	0.32	903,640.38	4.648E+00	Pulse	0.30	3
Ni			2	50.113	ug/l	0.77	247,073.74	1.271E+00	Pulse	0.30	3
Cu			2	49.243	ug/l	0.08	648,897.63	3.338E+00	Pulse	0.30	3
Zn			2	48.609	ug/l	0.28	87,164.00	4.483E-01	Pulse	0.30	3
As			2	48.799	ug/l	0.37	44,937.36	2.311E-01	Pulse	1.00	3
Cd			2	51.185	ug/l	0.14	130,539.04	1.254E-01	Pulse	0.30	3
Sn			2	50.207	ug/l	0.50	236,072.29	2.268E-01	Pulse	0.30	3
Se			3	202.650	ug/l	0.93	52,645.56	2.250E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,881,110.62	0.70	97.0	Pulse	0.10	3
1	Sc		7,011,491.15	1.07	107.8	Analog	0.10	3
1	Ge		1,312,170.29	0.95	108.2	Pulse	0.10	3

Quantitation Report

1	Ge		1,829,550.91	0.33	108.8	Pulse	0.10	3
1	Rh		8,799,593.83	0.27	102.4	Analog	0.10	3
1	In		9,593,075.65	1.15	103.7	Analog	0.10	3
1	Tb		12,008,322.74	1.22	100.4	Analog	0.10	3
1	Ho		1,160,092.20	1.04	100.7	Pulse	0.10	3
1	Bi		6,439,208.44	0.74	93.6	Analog	0.10	3
2	Sc		194,424.85	0.73	104.1	Pulse	0.30	3
2	Ge		111,934.03	0.90	99.9	Pulse	0.30	3
2	Ge		169,331.03	0.36	100.7	Pulse	0.30	3
2	Rh		3,342,030.07	0.14	93.7	Pulse	0.30	3
2	In		1,040,688.63	0.08	94.2	Pulse	0.30	3
2	Tb		3,953,932.48	0.47	92.3	Pulse	0.30	3
2	Ho		395,801.20	0.45	93.0	Pulse	0.30	3
2	Bi		2,509,445.18	0.28	88.6	Pulse	0.30	3
3	Sc		252,267.72	0.33	107.6	Pulse	0.30	3
3	Ge		155,219.92	0.23	105.5	Pulse	0.30	3
3	Ge		233,950.68	0.68	104.8	Pulse	0.30	3
3	Rh		2,628,904.76	0.11	100.1	Pulse	0.30	3
3	Tb		4,020,680.12	0.38	99.7	Pulse	0.30	3

Quantitation Report

File Name 051_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File
Method Path
Acq Time 3/15/2019 16:40
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/15/2019 15:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	3.57	136.00	3.554E-05	Pulse	0.25	3
B			1	2.673	ug/l	2.85	41,784.83	1.092E-02	Pulse	0.15	3
Ca			1	1.894	ug/l	24.27	18,834.67	2.708E-03	Pulse	0.10	3
Sr			1	0.036	ug/l	20.55	4,690.90	5.213E-04	Pulse	0.10	3
Mo			1	0.086	ug/l	11.82	1,703.50	1.894E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	14.14	653.37	6.692E-05	Pulse	0.10	3
Sn			1	0.284	ug/l	3.25	16,649.48	1.705E-03	Pulse	0.10	3
Sb			1	0.180	ug/l	1.63	5,941.41	4.952E-04	Pulse	0.10	3
Ba			1	0.018	ug/l	29.95	360.02	3.000E-05	Pulse	0.10	3
Tl			1	0.015	ug/l	6.06	1,343.44	2.016E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	22.67	890.06	1.335E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	66.69	666.71	1.001E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	5.45	3,450.30	5.177E-04	Pulse	0.10	3
Na			2	2.131	ug/l	8.78	11,660.81	6.159E-02	Pulse	0.30	3
Mg			2	1.320	ug/l	3.37	1,140.06	6.023E-03	Pulse	0.30	3
Al			2	0.957	ug/l	11.02	340.01	1.796E-03	Pulse	0.30	3
K			2	2.067	ug/l	15.15	8,789.09	4.643E-02	Pulse	0.30	3
Ca			2	3.522	ug/l	6.95	132.22	6.984E-04	Pulse	0.30	3
Ti			2	-0.009	ug/l	-94.69	5.56	2.937E-05	Pulse	0.30	3
V			2	0.007	ug/l	43.76	453.35	2.395E-03	Pulse	0.30	3
Cr			2	0.007	ug/l	146.07	1,210.06	6.393E-03	Pulse	0.30	3
Mn			2	0.029	ug/l	4.22	197.78	1.045E-03	Pulse	0.30	3
Fe			2	1.712	ug/l	1.78	17,953.42	9.484E-02	Pulse	0.30	3
Co			2	0.007	ug/l	16.81	206.67	1.091E-03	Pulse	0.30	3
Ni			2	0.015	ug/l	10.37	146.67	7.749E-04	Pulse	0.30	3
Cu			2	0.016	ug/l	17.67	880.04	4.649E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.213	ug/l	40.80	1,266.73	6.693E-03	Pulse	0.30	3
As			2	0.036	ug/l	25.31	42.67	2.255E-04	Pulse	1.00	3
Cd			2	0.006	ug/l	47.26	28.80	2.734E-05	Pulse	0.30	3
Sn			2	0.126	ug/l	48.18	2,550.35	2.419E-03	Pulse	0.30	3
Se			3	-0.055	ug/l	-2.33	23.87	1.034E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,826,545.87	0.27	95.6	Pulse	0.10	3
1	Sc		6,954,813.23	0.61	107.0	Analog	0.10	3
1	Ge		1,290,222.12	0.64	106.4	Pulse	0.10	3
1	Ge		1,801,646.64	0.23	107.1	Pulse	0.10	3
1	Rh		8,982,417.16	1.75	104.6	Analog	0.10	3
1	In		9,762,967.19	0.41	105.5	Analog	0.10	3
1	Tb		11,998,987.74	0.73	100.3	Analog	0.10	3
1	Ho		1,160,130.92	0.52	100.7	Pulse	0.10	3
1	Bi		6,664,851.36	0.45	96.9	Analog	0.10	3
2	Sc		189,308.17	0.46	101.4	Pulse	0.30	3
2	Ge		110,598.07	0.49	98.7	Pulse	0.30	3
2	Ge		166,232.51	0.23	98.9	Pulse	0.30	3
2	Rh		3,390,110.28	0.20	95.1	Pulse	0.30	3
2	In		1,054,480.22	0.64	95.4	Pulse	0.30	3
2	Tb		3,924,042.48	0.47	91.6	Pulse	0.30	3
2	Ho		391,386.61	1.13	91.9	Pulse	0.30	3
2	Bi		2,590,905.38	1.19	91.5	Pulse	0.30	3
3	Sc		245,885.88	0.08	104.9	Pulse	0.30	3
3	Ge		153,776.71	0.17	104.5	Pulse	0.30	3
3	Ge		230,865.82	0.47	103.4	Pulse	0.30	3
3	Rh		2,720,374.40	0.60	103.6	Pulse	0.30	3
3	Tb		4,102,303.86	0.40	101.7	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Method File	
Method Path	
Acq Time	3/15/2019 16:46
Sample Name	jc84297-2f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/15/2019 15:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.017	ug/l	35.63	132.00	3.782E-05	Pulse	0.25	3
B			1	36.846	ug/l	0.48	240,414.62	6.881E-02	Pulse	0.15	3
Ca			1	28426.545	ug/l	2.25	27,568,758.76	4.321E+00	Analog	0.10	3
Sr			1	231.186	ug/l	1.70	10,648,643.17	1.311E+00	Analog	0.10	3
Mo			1	0.678	ug/l	3.31	5,971.37	7.347E-04	Pulse	0.10	3
Ag			1	0.036	ug/l	15.46	906.73	9.991E-05	Pulse	0.10	3
Sn			1	0.260	ug/l	0.97	10,937.51	1.204E-03	Pulse	0.10	3
Sb			1	0.293	ug/l	14.16	4,761.22	4.060E-04	Pulse	0.10	3
Ba			1	91.241	ug/l	0.93	593,816.12	5.066E-02	Pulse	0.10	3
Tl			1	0.024	ug/l	3.50	1,046.75	1.649E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	10.70	803.39	1.266E-04	Pulse	0.10	3
Pb			1	0.037	ug/l	22.83	790.05	1.245E-04	Pulse	0.10	3
Pb			1	0.040	ug/l	6.57	3,583.66	5.648E-04	Pulse	0.10	3
Na			2	11806.202	ug/l	1.12	8,863,169.37	5.211E+01	Analog	0.30	3
Mg			2	12139.573	ug/l	0.55	4,296,761.08	2.526E+01	Pulse	0.30	3
Al			2	4.568	ug/l	20.70	606.72	3.567E-03	Pulse	0.30	3
K			2	1469.090	ug/l	0.72	326,154.23	1.917E+00	Pulse	0.30	3
Ca			2	29544.429	ug/l	0.58	368,377.77	2.166E+00	Pulse	0.30	3
Ti			2	0.418	ug/l	61.11	47.78	2.804E-04	Pulse	0.30	3
V			2	0.337	ug/l	8.45	1,468.98	8.638E-03	Pulse	0.30	3
Cr			2	0.614	ug/l	10.93	3,680.46	2.165E-02	Pulse	0.30	3
Mn			2	202.165	ug/l	1.16	437,600.25	2.573E+00	Pulse	0.30	3
Fe			2	309.735	ug/l	0.91	1,124,886.00	6.613E+00	Pulse	0.30	3
Co			2	0.022	ug/l	25.30	255.56	1.503E-03	Pulse	0.30	3
Ni			2	0.055	ug/l	15.98	187.78	1.104E-03	Pulse	0.30	3
Cu			2	0.236	ug/l	9.47	1,957.92	1.151E-02	Pulse	0.30	3
Zn			2	0.137	ug/l	35.19	913.37	5.370E-03	Pulse	0.30	3
As			2	0.196	ug/l	3.85	88.00	5.173E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	-575.71	11.95	1.272E-05	Pulse	0.30	3
Sn			2	-0.076	ug/l	-16.14	1,582.32	1.685E-03	Pulse	0.30	3
Se			3	-0.136	ug/l	-21.12	19.73	8.914E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,493,889.47	0.70	87.3	Pulse	0.10	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	10000	6268	6167.2	1.48
59	10000	7972	7940.2	0.66
89	20000	13023	12901.8	0.81
140	20000	12672	12879.2	2.08
205	10000	8799	8624.7	1.99
156/140	2	1.744 %	1.549 %	11.94
70/140	5	2.920 %	2.928 %	7.16
9	20	3	1.0	173.21
11	1000	799	775.2	3.39
88	50	18	25.7	29.24
95	20	2	3.0	33.33
107	20	3	1.7	91.65
121	20	6	7.3	56.77
137	20	3	8.0	78.06
208	100	58	51.0	13.73
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-36	V
Extract 2	-155.0	V	Cell Exit	-60	V
Omega Bias	-75	V	Deflect	15.8	V
Omega Lens	6.8	V	Plate Bias	-45	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.51E+2	Pa	S/C Temp (L)	2.1	℃
TMP Revolution	100.0	%	Carrier Gas(BP)	1.47E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

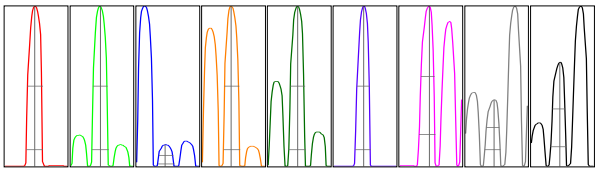
Batch Folder C:\Agilent\ICPMH\1\DATA\xa031519m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	203107	0.59	5.00	
24	641290	0.40	5.00	
25	87459	0.60	5.00	
26	99756	0.31	5.00	
59	975823	0.30	5.00	
115	1375688	0.50	5.00	
206	336891	0.19	5.00	
207	309690	0.19	5.00	
208	727372	0.34	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	201341	202464	203483	204281	203966
24	638137	641547	641233	645157	640377
25	86733	87226	87497	87718	88119
26	99239	99900	99717	100030	99892
59	973683	972582	979727	977561	975561
115	1366825	1376280	1373837	1386162	1375337
206	336854	337874	336156	336908	336660
207	310340	310267	309519	308931	309394
208	727745	727459	730633	727386	723637

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	31558	8.95	8.9 - 9.1		0.779	0.900	
24	102661	23.95	23.9 - 24.1		0.774	0.900	
25	13715	24.90	24.9 - 25.1		0.778	0.900	
26	15934	25.90	25.9 - 26.1		0.774	0.900	
59	159884	58.95	58.9 - 59.1		0.776	0.900	
115	240864	114.95	114.9 - 115.1		0.720	0.900	
206	55298	205.95	205.9 - 206.1		0.744	0.900	
207	49898	206.90	206.9 - 207.1		0.732	0.900	
208	120088	207.90	207.9 - 208.1		0.730	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

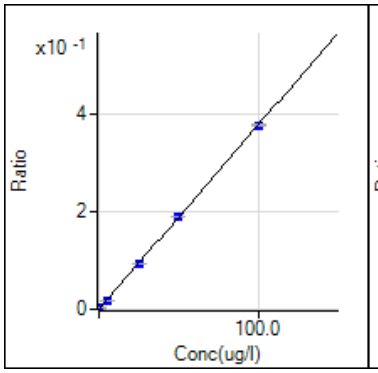
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.8	V			
Extract 2	-155.0	V	Cell Entrance	-36	V			
Omega Bias	-75	V	Cell Exit	-60	V			
Deflect	15.8	V						

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						



9 Be [1] / ISTD: 6 Li
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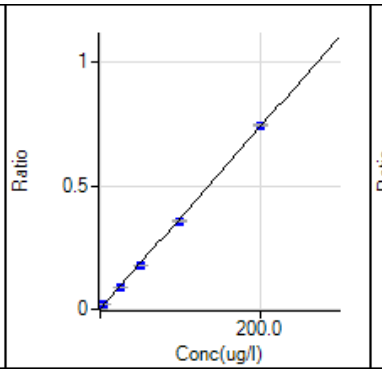
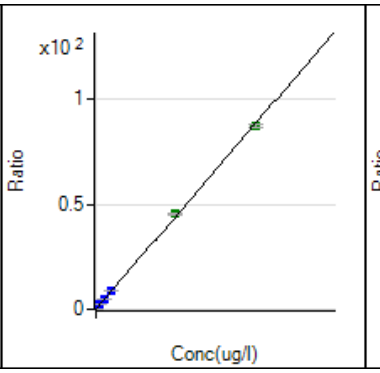
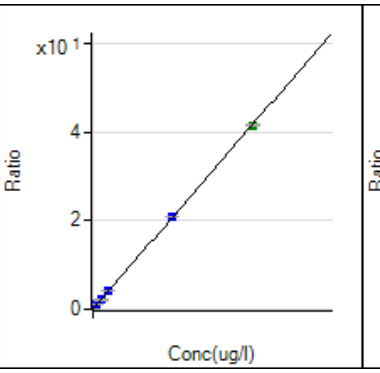
R 1.0000
DL 0.001793
BEC 0.001386



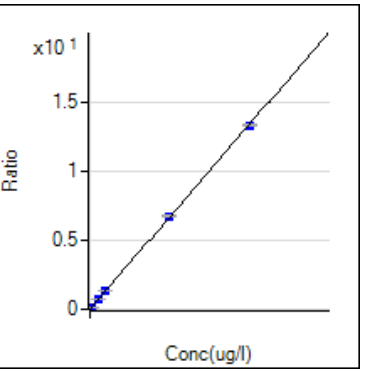
11 B [1] / ISTD: 6 Li
y = 3.675E-3 x + 1.096E-3
R 0.9998
DL 0.02801
BEC 0.2981



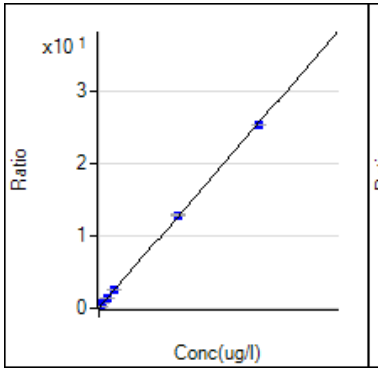
23 Na [2] / ISTD: 45 Sc
y = 8.820E-3 x + 4.280E-2
R 0.9999
DL 0.5361
BEC 4.853



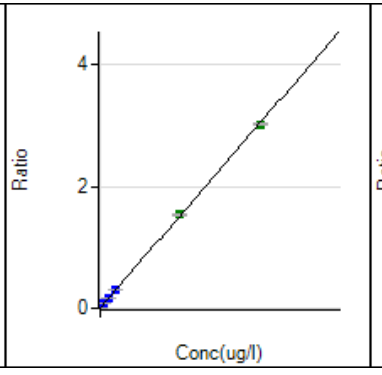
24 Mg [2] / ISTD: 45 Sc
y = 4.162E-3 x + 5.299E-4
R 1.0000
DL 0.07701
BEC 0.1273



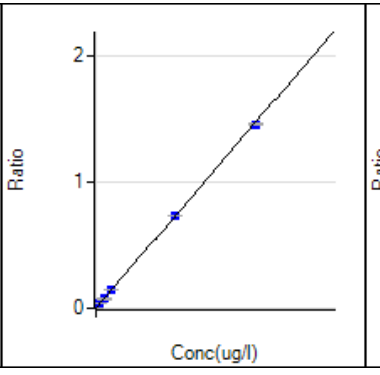
27 Al [2] / ISTD: 45 Sc
y = 1.335E-3 x + 5.183E-4
R 1.0000
DL 0.3351
BEC 0.3882



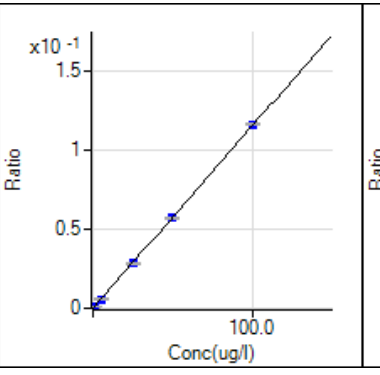
39 K [2] / ISTD: 45 Sc
y = 2.554E-3 x + 4.115E-2
R 1.0000
DL 0.9091
BEC 16.11



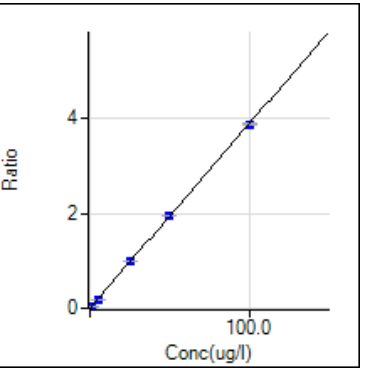
44 Ca [1] / ISTD: 45 Sc
y = 3.039E-4 x + 2.132E-3
R 1.0000
DL 0.9161
BEC 7.017



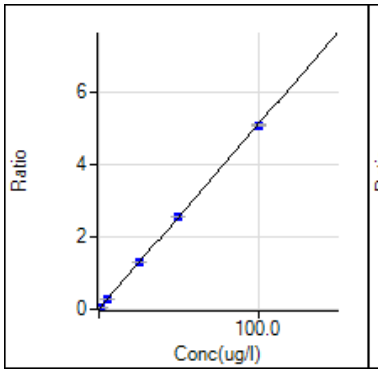
44 Ca [2] / ISTD: 45 Sc
y = 1.466E-4 x + 1.821E-4
R 1.0000
DL 0.707
BEC 1.242



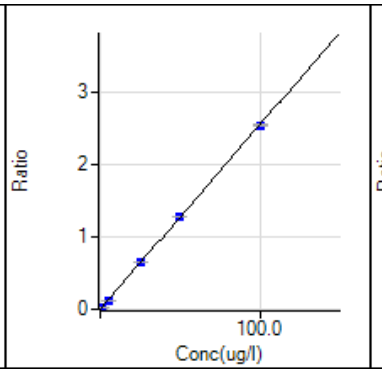
47 Ti [2] / ISTD: 45 Sc
y = 1.148E-3 x + 4.018E-5
R 0.9999
DL 0.05345
BEC 0.035



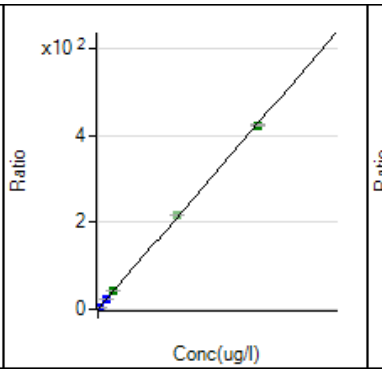
51 V [2] / ISTD: 45 Sc
y = 3.878E-2 x + 2.110E-3
R 1.0000
DL 0.01814
BEC 0.05441



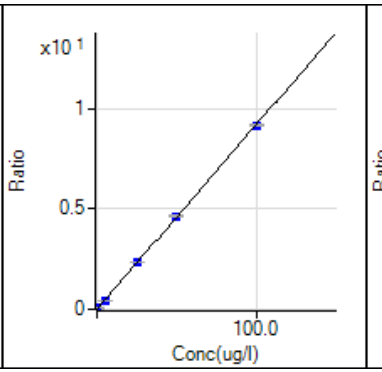
52 Cr [2] / ISTD: 45 Sc
y = 5.083E-2 x + 6.029E-3
R 1.0000
DL 0.01759
BEC 0.1186



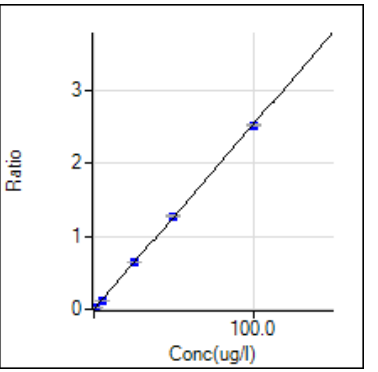
55 Mn [2] / ISTD: 45 Sc
y = 2.545E-2 x + 2.976E-4
R 1.0000
DL 0.004561
BEC 0.01169



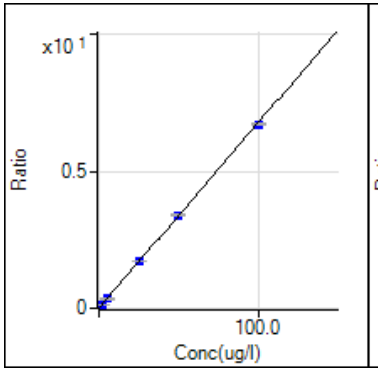
56 Fe [2] / ISTD: 45 Sc
y = 4.256E-2 x + 2.197E-2
R 1.0000
DL 0.0218
BEC 0.5162



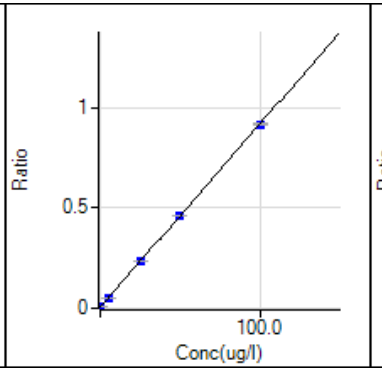
59 Co [2] / ISTD: 45 Sc
y = 9.197E-2 x + 4.821E-4
R 1.0000
DL 0.00164
BEC 0.005242



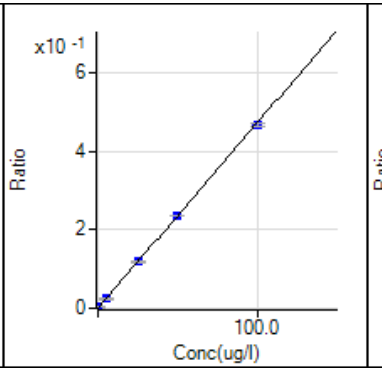
60 Ni [2] / ISTD: 45 Sc
y = 2.535E-2 x + 4.051E-4
R 1.0000
DL 0.01791
BEC 0.01598



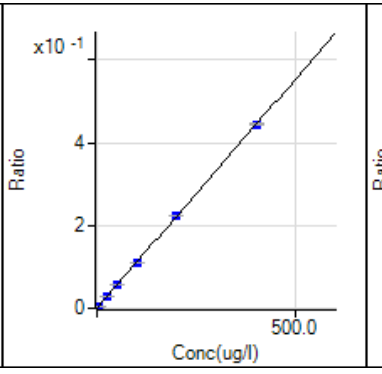
63 Cu [2] / ISTD: 45 Sc
y = 6.770E-2 x + 3.536E-3
R 1.0000
DL 0.008471
BEC 0.05223



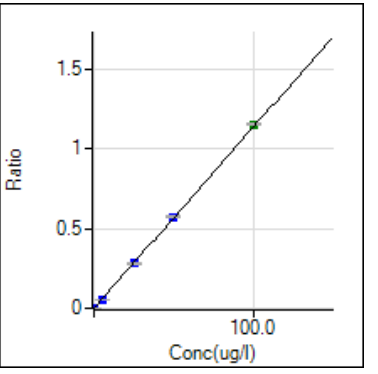
66 Zn [2] / ISTD: 45 Sc
y = 9.125E-3 x + 4.748E-3
R 1.0000
DL 0.1908
BEC 0.5203



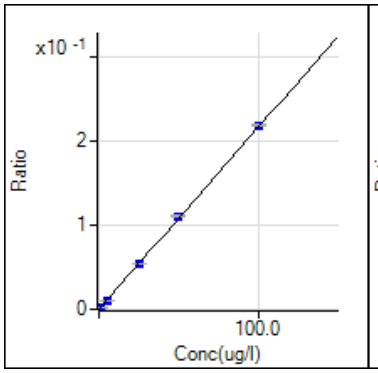
75 As [2] / ISTD: 45 Sc
y = 4.735E-3 x + 5.340E-5
R 1.0000
DL 0.008443
BEC 0.01128



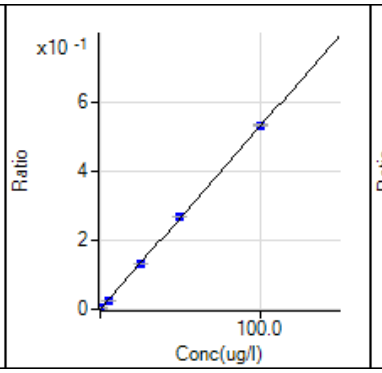
78 Se [3] / ISTD: 74 Ge
y = 1.110E-3 x + 1.646E-4
R 1.0000
DL 0.1975
BEC 0.1483



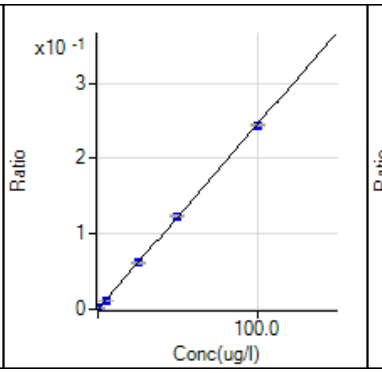
88 Sr [1] / ISTD: 103 Rh
y = 1.134E-2 x + 1.125E-4
R 1.0000
DL 0.006846
BEC 0.009923



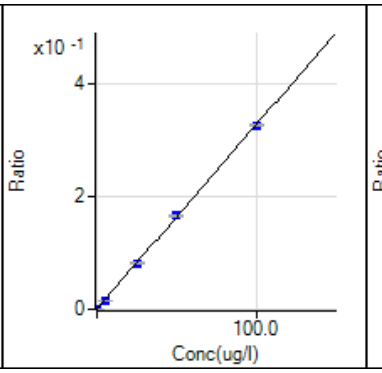
95 Mo [1] / ISTD: 103 Rh
y = 2.157E-3 x + 3.464E-6
R 1.0000
DL 0.007465
BEC 0.001606



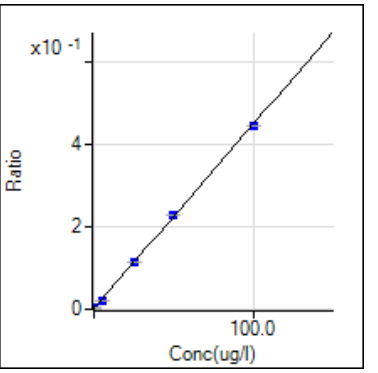
107 Ag [1] / ISTD: 115 In
y = 5.271E-3 x + 3.987E-6
R 1.0000
DL 0.000617
BEC 0.0007565



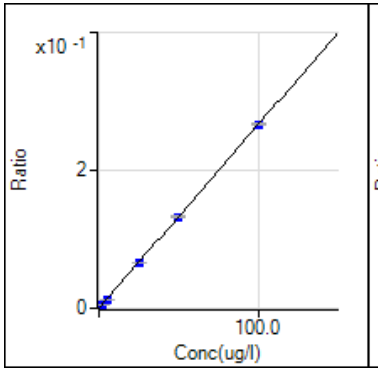
111 Cd [2] / ISTD: 115 In
y = 2.450E-3 x + 1.307E-5
R 1.0000
DL 0.009298
BEC 0.005335



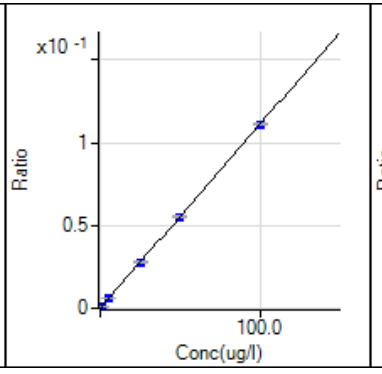
118 Sn [1] / ISTD: 115 In
y = 3.253E-3 x + 7.805E-4
R 0.9999
DL 0.02449
BEC 0.2399



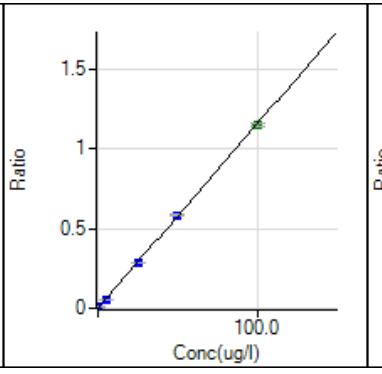
118 Sn [2] / ISTD: 115 In
y = 4.481E-3 x + 1.856E-3
R 0.9999
DL 0.05837
BEC 0.4141



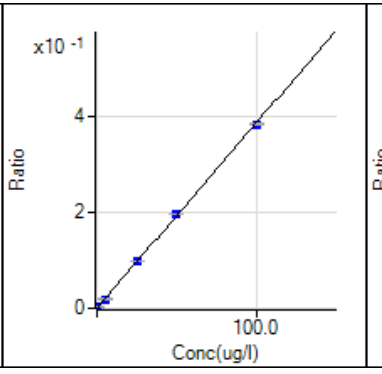
121 Sb [1] / ISTD: 159 Tb
y = 2.662E-3 x + 1.587E-5
R 1.0000
DL 0.002631
BEC 0.005959



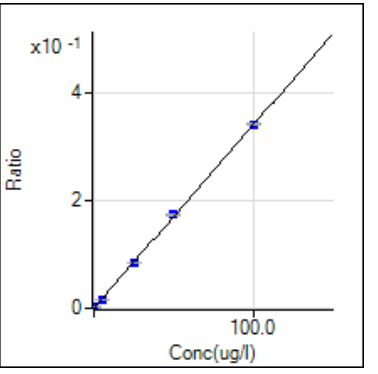
137 Ba [1] / ISTD: 159 Tb
y = 1.110E-3 x + 1.017E-5
R 1.0000
DL 0.00567
BEC 0.009157



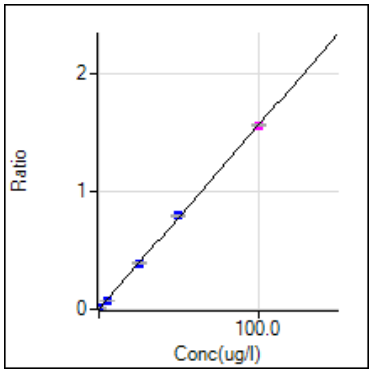
205 Tl [1] / ISTD: 209 Bi
y = 1.156E-2 x + 2.665E-5
R 1.0000
DL 0.003495
BEC 0.002305



206 Pb [1] / ISTD: 209 Bi
y = 3.864E-3 x + 6.963E-5
R 0.9999
DL 0.006756
BEC 0.01802



207 Pb [1] / ISTD: 209 Bi
y = 3.389E-3 x + 6.143E-5
R 1.0000
DL 0.004839
BEC 0.01813



208 Pb [1] / ISTD: 209 Bi

y = 1.556E-2 x + 2.513E-4

R	1.0000
DL	0.002829
BEC	0.01615

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/18/2019 13:44:49 Type: Cal
Method: SGS 3 NO Valve(v170) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0158**	**-.0007**	**.0005**	**-.0004**	**-.0001**	**.0028**	**.0000**	**-.0003**	**-.0002**
Stddev	.0003	.0001	.0001	.0001	.0001	.0001	.0000	.0002	.0000
%RSD	1.774	11.81	18.74	21.08	100.1	3.883	48.49	50.25	6.590
#1	.0161	-.0008	.0005	-.0005	-.0001	.0027	.0000	-.0002	-.0002
#2	.0157	-.0006	.0006	-.0005	.0000	.0028	.0001	-.0005	-.0002
#3	.0156	-.0006	.0004	-.0003	-.0001	.0029	.0000	-.0002	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0004**	**.0017**	**.0003**	**-.0004**	**.0008**	**.0001**	**.0014**	**.0003**	**.0083**
Stddev	.0001	.0015	.0001	.0001	.0002	.0001	.0001	.0004	.0002
%RSD	12.72	85.52	34.70	20.62	26.23	142.6	5.556	144.2	2.408
#1	.0005	.0034	.0004	-.0005	.0010	.0001	.0014	.0004	.0081
#2	.0004	.0009	.0002	-.0003	.0006	-.0000	.0014	-.0002	.0084
#3	.0004	.0008	.0003	-.0004	.0010	.0001	.0015	.0005	.0085

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0003**	**.0001**	**-.0027**	**-.0118**	**.0009**	**-.0010**	**.0030**	**.0007**	**-.0018**
Stddev	.0001	.0000	.0003	.0006	.0002	.0002	.0001	.0002	.0004
%RSD	39.61	22.51	11.57	5.077	16.08	18.49	3.214	24.00	19.67
#1	.0002	.0001	-.0027	-.0111	.0009	-.0011	.0031	.0006	-.0017
#2	.0003	.0001	-.0025	-.0121	.0008	-.0011	.0029	.0006	-.0022
#3	.0004	.0001	-.0031	-.0121	.0011	-.0008	.0029	.0009	-.0015

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0007**	**-.0007**	**.0005**	**-.0004**	**.0008**	**-.0047**
Stddev	.0001	.0002	.0000	.0001	.0003	.0004	.0001
%RSD	89.46	36.23	2.913	12.30	83.53	47.26	1.452
#1	.0000	.0006	-.0007	.0005	-.0005	.0008	-.0046
#2	.0001	.0009	-.0008	.0006	-.0000	.0013	-.0047
#3	.0002	.0005	-.0007	.0005	-.0007	.0005	-.0046

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/18/2019 13:44:49 Type: Cal
Method: SGS 3 NO Valve(v170) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146940.**	**23510.**	**6540.4**	**8511.0**
Stddev	2484.	86.	111.0	126.7
%RSD	1.6903	.36730	1.6969	1.4886
#1	148160.	23538.	6413.0	8367.0
#2	148580.	23413.	6592.1	8560.7
#3	144080.	23579.	6616.2	8605.3

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 3/18/2019 13:49:50 Type: Cal
Method: SGS 3 NO Valve(v170) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.697**	**10.84**	**4.275**	**3.286**	**.5993**	**.9303**	**3.413**	**2.615**	**.0725**
Stddev	.002	.21	.003	.001	.0015	.0017	.022	.001	.0001
%RSD	.0315	1.903	.0740	.0249	.2428	.1794	.6579	.0203	.1981
#1	6.698	10.64	4.278	3.287	.6010	.9323	3.439	2.615	.0726
#2	6.694	11.05	4.276	3.286	.5983	.9293	3.407	2.616	.0723
#3	6.697	10.82	4.272	3.285	.5988	.9295	3.395	2.615	.0725

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.8675**	**6.800**	**.4440**	**.4157**	**1.166**	**.3423**	**.5866**	**3.191**	**7.756**
Stddev	.0016	.005	.0018	.0038	.002	.0011	.0002	.007	.014
%RSD	.1802	.0698	.4016	.9104	.1290	.3198	.0418	.2124	.1787
#1	.8693	6.803	.4448	.4183	1.166	.3431	.5867	3.199	7.772
#2	.8670	6.803	.4452	.4175	1.167	.3429	.5868	3.186	7.752
#3	.8663	6.795	.4419	.4114	1.164	.3411	.5863	3.188	7.745

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.912**	**.9218**	**1.506**	**5.630**	**.9314**	**2.987**	**2.093**	**.9211**	**11.92**
Stddev	.015	.0005	.005	.011	.0010	.006	.003	.0041	.25
%RSD	.2948	.0573	.3355	.1996	.1103	.2048	.1251	.4416	2.119
#1	4.927	.9220	1.512	5.642	.9320	2.992	2.095	.9234	11.64
#2	4.911	.9223	1.505	5.630	.9319	2.988	2.094	.9235	12.12
#3	4.898	.9212	1.502	5.620	.9302	2.980	2.090	.9164	12.00

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.6618**	**1.440**	**1.896**	**.2026**	**.5988**	**1.658**	**.1635**
Stddev	.0006	.001	.024	.0019	.0011	.004	.0021
%RSD	.0854	.0495	1.268	.9598	.1898	.2598	1.302
#1	.6625	1.441	1.883	.2038	.5992	1.663	.1652
#2	.6616	1.440	1.923	.2036	.5997	1.656	.1643
#3	.6615	1.439	1.880	.2004	.5975	1.656	.1611

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 3/18/2019 13:49:50 Type: Cal
Method: SGS 3 NO Valve(v170) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**134150.**	**23032.**	**6015.0**	**7545.2**
Stddev	616.	145.	7.4	13.1
%RSD	.45891	.63165	.12231	.17413
#1	133700.	23064.	6019.7	7554.5
#2	134850.	22874.	6018.7	7550.9
#3	133900.	23160.	6006.5	7530.2

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 3/18/2019 13:55:15 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.994**	**2.041**	**2.010**	**2.046**	**1.991**	**1.978**	**1.979**	**2.050**	**.2466**
Stddev	.004	.002	.011	.011	.003	.002	.016	.009	.0008
%RSD	.1764	.1172	.5331	.5210	.1572	.1027	.7980	.4491	.3226
#1	1.998	2.043	2.022	2.058	1.995	1.980	1.994	2.060	.2472
#2	1.993	2.043	2.004	2.037	1.990	1.976	1.962	2.043	.2457
#3	1.991	2.039	2.003	2.042	1.988	1.979	1.980	2.046	.2470
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.983**	**2.021**	**2.013**	**2.085**	**2.040**	**2.004**	**2.019**	**39.99**	**40.38**
Stddev	.003	.011	.010	.005	.010	.006	.014	.10	.04
%RSD	.1467	.5476	.4822	.2492	.5054	.3059	.6895	.2427	.1001
#1	1.986	2.033	2.024	2.091	2.052	2.011	2.035	40.08	40.42
#2	1.982	2.017	2.008	2.082	2.033	2.000	2.010	40.00	40.38
#3	1.980	2.012	2.007	2.081	2.035	2.002	2.012	39.88	40.34
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.27**	**40.50**	**40.34**	**40.63**	**2.027**	**2.025**	**4.947**	**2.050**	**2.006**
Stddev	.05	.05	.11	.06	.011	.011	.028	.008	.002
%RSD	.1277	.1186	.2785	.1389	.5353	.5185	.5578	.3988	.0836
#1	40.28	40.54	40.41	40.69	2.040	2.038	4.978	2.059	2.007
#2	40.32	40.52	40.41	40.61	2.022	2.021	4.929	2.048	2.007
#3	40.22	40.45	40.21	40.58	2.020	2.018	4.933	2.043	2.004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 3/18/2019 13:55:15 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.009**	**1.986**	**2.023**	**1.904**	**2.024**	**2.019**	**1.951**
Stddev	.001	.008	.001	.006	.011	.006	.009
%RSD	.0423	.4047	.0496	.3396	.5548	.2851	.4556
#1	2.009	1.995	2.024	1.910	2.036	2.024	1.962
#2	2.008	1.984	2.023	1.906	2.017	2.020	1.946
#3	2.009	1.979	2.023	1.897	2.018	2.013	1.947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**139330.**	**23293.**	**6227.7**	**7737.6**
Stddev	205.	111.	35.3	32.3
%RSD	.14679	.47583	.56714	.41731
#1	139100.	23167.	6195.2	7703.3
#2	139370.	23373.	6222.7	7742.1
#3	139510.	23339.	6265.3	7767.4

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 3/18/2019 14:00:18 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0000**	**.0001**	**.0005**	**.0000**	**-.0000**	**.0001**	**.0002**	**-.0001**
Stddev	.0002	.0000	.0002	.0000	.0002	.0002	.0000	.0001	.0005
%RSD	229.4	272.3	270.4	9.403	537.2	580.8	26.30	46.05	518.7
#1	-.0002	-.0000	-.0001	.0005	.0002	-.0002	.0001	.0001	.0001
#2	-.0003	.0000	.0000	.0005	.0002	.0001	.0001	.0003	.0003
#3	.0002	-.0000	.0003	.0004	-.0002	-.0001	.0001	.0001	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0007**	**.0009**	**.0015**	**.0006**	**-.0024**	**.0015**	**-.0046**	**.0003**
Stddev	.0000	.0001	.0022	.0007	.0006	.0016	.0006	.0078	.0012
%RSD	9.016	18.01	229.5	47.16	93.71	65.92	36.36	171.4	414.5
#1	-.0003	-.0006	.0009	.0008	.0002	-.0034	.0018	-.0000	.0000
#2	-.0003	-.0007	.0031	.0022	.0004	-.0006	.0019	-.0136	-.0008
#3	-.0003	-.0008	-.0012	.0016	.0012	-.0033	.0009	-.0001	.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**-.0071**	**.2511**	**.0783**	**.0039**	**.0002**	**.0021**	**.0009**	**-.0001**
Stddev	.0022	.0056	.0083	.0143	.0003	.0002	.0014	.0001	.0001
%RSD	326.8	79.55	3.290	18.22	8.628	106.2	66.99	14.21	167.2
#1	-.0019	-.0016	.2423	.0894	.0043	.0001	.0012	.0009	.0001
#2	.0019	-.0068	.2587	.0832	.0039	.0003	.0014	.0010	-.0001
#3	-.0020	-.0128	.2521	.0622	.0036	.0000	.0038	.0008	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 3/18/2019 14:00:18 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0003**	**-.0001**	**.0009**	**.0001**	**.0005**	**.0043**
Stddev	.0002	.0002	.0002	.0017	.0012	.0007	.0010
%RSD	25.44	57.92	298.1	191.0	956.7	137.9	23.28
#1	.0007	.0006	.0001	.0003	-.0012	.0003	.0039
#2	.0011	.0003	-.0002	-.0005	.0003	-.0001	.0054
#3	.0007	.0002	-.0001	.0028	.0012	.0013	.0035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**145680.**	**23416.**	**6438.6**	**8415.7**
Stddev	278.	172.	8.0	17.4
%RSD	.19108	.73495	.12474	.20701
#1	145350.	23526.	6429.6	8395.8
#2	145840.	23505.	6445.1	8428.1
#3	145840.	23218.	6441.2	8423.2

Zoom In Zoom Out

Sample Name: icv 5 Acquired: 3/18/2019 14:05:26 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.014**	**2.059**	**2.018**	**2.080**	**1.989**	**1.990**	**2.025**	**2.046**	**.2457**
Stddev	.005	.007	.002	.003	.007	.005	.019	.001	.0012
%RSD	.2651	.3217	.0784	.1424	.3548	.2634	.9205	.0635	.4869
#1	2.020	2.065	2.020	2.083	1.982	1.985	2.010	2.047	.2453
#2	2.013	2.060	2.017	2.079	1.990	1.991	2.046	2.045	.2447
#3	2.009	2.052	2.018	2.077	1.996	1.995	2.019	2.045	.2470
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.992**	**2.008**	**2.033**	**2.081**	**2.034**	**1.998**	**2.028**	**39.88**	**40.39**
Stddev	.004	.001	.003	.002	.003	.003	.002	.17	.18
%RSD	.2136	.0565	.1511	.1032	.1251	.1434	.0848	.4273	.4433
#1	1.989	2.009	2.030	2.081	2.036	1.999	2.030	40.04	40.56
#2	1.991	2.007	2.034	2.079	2.034	1.995	2.028	39.90	40.41
#3	1.997	2.008	2.036	2.083	2.031	2.001	2.027	39.70	40.20
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.02**	**40.31**	**40.47**	**40.62**	**2.036**	**2.030**	**4.996**	**2.055**	**2.023**
Stddev	.17	.23	.11	.15	.001	.000	.005	.001	.006
%RSD	.4166	.5648	.2787	.3801	.0491	.0122	.1059	.0373	.2849
#1	40.19	40.46	40.54	40.77	2.035	2.029	5.002	2.055	2.028
#2	40.02	40.43	40.52	40.63	2.035	2.029	4.994	2.056	2.023
#3	39.86	40.05	40.34	40.46	2.037	2.030	4.992	2.055	2.017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: icv 5 Acquired: 3/18/2019 14:05:26 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.028**	**1.985**	**2.032**	**1.967**	**2.032**	**2.055**	**1.964**
Stddev	.003	.001	.004	.009	.004	.006	.007
%RSD	.1228	.0382	.2169	.4643	.1780	.3099	.3742
#1	2.026	1.984	2.027	1.957	2.033	2.062	1.957
#2	2.027	1.985	2.031	1.968	2.035	2.052	1.964
#3	2.031	1.985	2.036	1.975	2.028	2.050	1.971
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**138010.**	**22914.**	**6215.4**	**7731.2**
Stddev	284.	282.	6.8	11.6
%RSD	.20587	1.2300	.10921	.15032
#1	138160.	22698.	6207.6	7717.9
#2	138190.	22811.	6219.3	7739.3
#3	137690.	23233.	6219.4	7736.3

Zoom In Zoom Out

Sample Name: icb Acquired: 3/18/2019 14:12:40 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0004**	**.0001**	**.0001**	**.0005**	**.0003**	**-.0000**	**.0003**
Stddev	.0001	.0000	.0001	.0001	.0002	.0001	.0000	.0003	.0001
%RSD	108.8	32.63	30.39	155.3	255.5	23.75	15.61	6730.	55.13
#1	.0000	.0002	.0005	-.0000	-.0001	.0004	.0002	-.0001	.0001
#2	.0001	.0001	.0004	.0002	.0000	.0005	.0003	.0003	.0004
#3	.0003	.0001	.0003	.0001	.0004	.0006	.0002	-.0002	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0006**	**-.0001**	**.0007**	**.0003**	**.0003**	**.0006**	**-.0023**	**.0000**
Stddev	.0003	.0001	.0022	.0011	.0004	.0018	.0012	.0022	.0016
%RSD	291.4	13.53	2459.	164.8	137.2	599.3	194.5	98.45	3306.
#1	-.0002	-.0006	-.0004	.0016	.0007	.0021	-.0007	-.0044	-.0013
#2	.0003	-.0006	.0022	-.0006	-.0001	.0005	.0014	.0000	-.0004
#3	.0001	-.0007	-.0022	.0011	.0004	-.0016	.0011	-.0025	.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0082**	**.1621**	**.0305**	**.0023**	**.0001**	**.0012**	**.0003**	**.0001**
Stddev	.0005	.0061	.0267	.0147	.0009	.0001	.0009	.0006	.0001
%RSD	48.80	74.67	16.48	48.21	41.09	195.1	72.56	233.2	123.2
#1	.0007	.0016	.1886	.0402	.0025	.0002	.0021	.0010	.0002
#2	.0008	.0094	.1352	.0376	.0031	-.0000	.0013	-.0002	.0000
#3	.0016	.0136	.1624	.0136	.0012	.0000	.0003	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icb Acquired: 3/18/2019 14:12:40 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0015**	**.0000**	**-.0006**	**.0027**	**.0002**	**-.0023**
Stddev	.0005	.0009	.0001	.0006	.0031	.0009	.0031
%RSD	73.81	58.31	665.5	101.4	116.2	465.1	133.6
#1	.0011	.0015	.0001	-.0011	-.0009	.0010	-.0004
#2	.0003	.0023	-.0001	-.0008	.0049	-.0007	-.0007
#3	.0004	.0006	.0001	.0001	.0040	.0003	-.0059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143880.**	**23090.**	**6360.5**	**8307.0**
Stddev	365.	148.	35.7	27.4
%RSD	.25337	.64268	.56082	.32931
#1	143850.	22941.	6338.9	8286.6
#2	144260.	23238.	6340.9	8296.5
#3	143530.	23092.	6401.6	8338.1

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2019 14:17:47 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.961**	**2.018**	**1.960**	**2.008**	**1.968**	**1.948**	**1.986**	**2.013**	**.2430**
Stddev	.010	.003	.005	.001	.002	.003	.013	.003	.0003
%RSD	.4919	.1424	.2748	.0660	.0798	.1495	.6348	.1331	.1431
#1	1.972	2.020	1.962	2.009	1.967	1.945	1.986	2.013	.2431
#2	1.960	2.015	1.963	2.006	1.967	1.948	1.973	2.010	.2432
#3	1.952	2.019	1.954	2.008	1.970	1.950	1.999	2.015	.2426
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.952**	**1.970**	**1.951**	**1.992**	**2.005**	**1.936**	**1.976**	**39.53**	**39.77**
Stddev	.004	.004	.009	.028	.003	.010	.003	.05	.07
%RSD	.1893	.1817	.4809	1.399	.1455	.5159	.1434	.1323	.1760
#1	1.951	1.970	1.940	1.963	2.002	1.925	1.979	39.59	39.84
#2	1.949	1.973	1.955	1.995	2.006	1.938	1.977	39.49	39.70
#3	1.956	1.966	1.957	2.019	2.007	1.945	1.973	39.53	39.77
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.63**	**40.02**	**39.96**	**40.21**	**1.975**	**1.971**	**4.815**	**1.988**	**1.973**
Stddev	.09	.06	.09	.18	.003	.003	.007	.006	.007
%RSD	.2271	.1522	.2376	.4576	.1606	.1276	.1555	.2830	.3535
#1	39.73	40.09	40.06	40.42	1.978	1.969	4.811	1.982	1.981
#2	39.58	39.98	39.89	40.14	1.976	1.974	4.824	1.991	1.972
#3	39.58	39.98	39.91	40.07	1.972	1.971	4.811	1.991	1.967
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2019 14:17:47 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.973**	**1.937**	**1.987**	**1.814**	**1.981**	**1.994**	F **1.720**
Stddev	.005	.000	.004	.027	.001	.003	.041
%RSD	.2676	.0086	.2269	1.477	.0718	.1469	2.398
#1	1.970	1.937	1.986	1.785	1.982	1.996	1.677
#2	1.971	1.937	1.983	1.821	1.981	1.991	1.726
#3	1.980	1.938	1.992	1.837	1.980	1.995	1.759
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							2.000
Range							-10.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**140520.**	**23695.**	**6361.4**	**7887.3**
Stddev	22.	113.	34.6	27.8
%RSD	.01562	.47616	.54372	.35248
#1	140530.	23756.	6355.2	7881.5
#2	140540.	23764.	6330.3	7862.8
#3	140500.	23565.	6398.6	7917.5

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2019 14:22:49 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**.0005**	**.0006**	**.0001**	**.0001**	**.0002**	**.0003**	**.0000**
Stddev	.0001	.0000	.0002	.0001	.0003	.0002	.0000	.0002	.0003
%RSD	98.10	22.23	42.37	17.38	453.4	344.1	17.39	68.08	8674.
#1	.0001	.0001	.0004	.0006	-.0003	-.0001	.0002	.0001	-.0000
#2	.0002	.0002	.0003	.0005	.0003	.0000	.0002	.0004	.0003
#3	.0000	.0002	.0007	.0006	.0002	.0002	.0003	.0003	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0005**	**.0010**	**.0015**	**-.0000**	**-.0029**	**.0003**	**-.0036**	**.0017**
Stddev	.0004	.0002	.0010	.0007	.0006	.0011	.0012	.0057	.0029
%RSD	68.80	40.74	97.48	50.43	4316.	38.59	412.0	157.3	168.8
#1	.0006	-.0006	.0008	.0017	.0001	-.0039	.0016	-.0043	-.0014
#2	.0001	-.0007	.0021	.0007	-.0006	-.0017	-.0009	.0024	.0044
#3	.0009	-.0003	.0001	.0021	.0005	-.0032	.0003	-.0090	.0022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031**	**.0029**	**.2138**	**.0677**	**.0038**	**.0004**	**.0014**	**.0005**	**.0001**
Stddev	.0019	.0053	.0372	.0145	.0003	.0001	.0007	.0003	.0001
%RSD	61.03	182.3	17.39	21.39	7.602	18.52	45.16	61.46	97.40
#1	.0037	-.0011	.1895	.0687	.0036	.0005	.0008	.0002	.0002
#2	.0046	.0009	.2566	.0527	.0041	.0003	.0014	.0006	.0001
#3	.0010	.0090	.1953	.0816	.0037	.0004	.0021	.0008	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2019 14:22:49 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0002**	**.0002**	**.0012**	**.0004**	**.0029**	**-.0001**
Stddev	.0005	.0013	.0002	.0014	.0013	.0020	.0007
%RSD	77.34	701.0	90.84	117.6	334.1	67.82	998.6
#1	.0007	.0013	.0004	.0024	.0002	.0043	-.0009
#2	.0001	.0006	.0002	.0016	-.0008	.0038	.0004
#3	.0012	-.0013	.0000	-.0004	.0018	.0007	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**145000.**	**23228.**	**6422.2**	**8362.7**
Stddev	857.	155.	17.7	16.6
%RSD	.59097	.66795	.27516	.19907
#1	144070.	23374.	6436.2	8376.6
#2	145200.	23065.	6402.3	8344.3
#3	145750.	23245.	6428.0	8367.3

Zoom In Zoom Out

Sample Name: CRI Acquired: 3/18/2019 14:27:56 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2024**	**.0021**	**.0033**	**.0527**	**.0104**	**.0097**	**.0160**	**.0106**	**.0047**
Stddev	.0002	.0001	.0000	.0002	.0001	.0001	.0001	.0004	.0005
%RSD	.0757	3.176	1.499	.3918	1.174	.9542	.3322	3.526	11.44
#1	.2025	.0021	.0032	.0529	.0105	.0097	.0160	.0107	.0052
#2	.2024	.0022	.0033	.0526	.0104	.0096	.0160	.0109	.0048
#3	.2022	.0021	.0033	.0525	.0102	.0097	.0159	.0102	.0042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0508**	**.0203**	**.0067**	**.0109**	F **.0041**	F **.0076**	F **.0078**	**.2123**	**5.238**
Stddev	.0002	.0001	.0006	.0006	.0002	.0009	.0019	.0098	.014
%RSD	.4115	.5187	8.659	5.895	4.590	11.30	24.83	4.631	.2605
#1	.0507	.0205	.0074	.0116	.0043	.0068	.0064	.2149	5.232
#2	.0510	.0203	.0063	.0106	.0040	.0074	.0100	.2206	5.228
#3	.0506	.0203	.0065	.0104	.0039	.0085	.0069	.2014	5.254
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value					.0030	.0100	.0060		
Range					20.00%	-20.00%	20.00%		

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1050**	**5.377**	**5.401**	**5.389**	**.1055**	**.0208**	**.2035**	**.0102**	**.0103**
Stddev	.0013	.025	.046	.009	.0004	.0001	.0017	.0005	.0000
%RSD	1.218	.4565	.8515	.1710	.3574	.6206	.8545	4.835	.3833
#1	.1063	5.353	5.382	5.399	.1056	.0208	.2055	.0098	.0103
#2	.1037	5.402	5.367	5.380	.1058	.0207	.2027	.0100	.0103
#3	.1048	5.378	5.453	5.388	.1051	.0209	.2023	.0108	.0102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRI Acquired: 3/18/2019 14:27:56 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0104**	**.0505**	**.0106**	**.0512**	F **.0245**	**.0566**	**.0495**
Stddev	.0001	.0004	.0001	.0021	.0010	.0009	.0018
%RSD	.8564	.7337	1.340	4.098	3.938	1.573	3.644
#1	.0104	.0503	.0108	.0522	.0256	.0565	.0478
#2	.0103	.0503	.0105	.0526	.0239	.0575	.0494
#3	.0105	.0509	.0106	.0488	.0240	.0557	.0514
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value					.0200		
Range					20.00%		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146900.**	**23953.**	**6528.1**	**8330.1**
Stddev	153.	137.	16.7	12.8
%RSD	.10401	.57180	.25598	.15320
#1	146730.	23885.	6509.8	8318.3
#2	146980.	24111.	6532.0	8328.4
#3	147000.	23864.	6542.6	8343.6

Zoom In Zoom Out

Sample Name: CRID Acquired: 3/18/2019 14:32:57 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0044**	**.0011**	F **.0013**	F **.0036**	**.0021**	F **.0002**	F **.0036**	F **.0048**	**.0019**
Stddev	.0004	.0001	.0002	.0001	.0002	.0005	.0000	.0003	.0005
%RSD	8.233	4.923	12.45	3.307	11.00	220.8	.7433	6.773	26.29
#1	.0048	.0011	.0014	.0037	.0022	.0008	.0036	.0052	.0021
#2	.0045	.0012	.0014	.0037	.0023	-.0001	.0037	.0045	.0014
#3	.0040	.0011	.0011	.0035	.0018	-.0001	.0036	.0048	.0024
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value			.0010	.0030		.0020	.0030	.0040	
Range			20.00%	20.00%		-20.00%	20.00%	20.00%	

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0024**	**.0117**	**.0030**	F **.0030**	F **.0003**	F **.0031**	F **.0007**	**.1163**	**1.200**
Stddev	.0003	.0003	.0011	.0008	.0003	.0013	.0023	.0043	.001
%RSD	12.17	2.464	37.09	27.04	134.0	39.81	337.1	3.736	.1074
#1	.0027	.0120	.0017	.0032	.0000	.0045	.0029	.1189	1.201
#2	.0024	.0118	.0038	.0021	.0007	.0021	.0008	.1188	1.198
#3	.0021	.0114	.0035	.0037	.0001	.0027	-.0016	.1113	1.200
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value	.0020			.0020	.0025	.0050	.0030		
Range	20.00%			20.00%	-20.00%	-20.00%	-20.00%		

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029**	**.1121**	F **2.497**	F **1.340**	**.0063**	**.0002**	**.0021**	**-.0001**	**.0000**
Stddev	.0012	.0022	.040	.002	.0005	.0000	.0008	.0001	.0001
%RSD	41.12	2.003	1.589	.1492	8.267	25.06	38.23	113.0	162.9
#1	.0042	.1116	2.542	1.338	.0069	.0002	.0020	-.0002	-.0000
#2	.0022	.1102	2.469	1.339	.0060	.0001	.0030	-.0000	.0000
#3	.0022	.1146	2.479	1.342	.0060	.0001	.0014	-.0001	.0001
Check ?	None	Chk Pass	Chk Fail	Chk Fail	None	None	None	None	None
Value			2.000	1.000					
Range			20.00%	20.00%					

Zoom In Zoom Out

Sample Name: CRID Acquired: 3/18/2019 14:32:57 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0004**	**.0001**	**.0010**	**.0010**	**-.0012**	**.0025**
Stddev	.0003	.0003	.0002	.0008	.0031	.0033	.0029
%RSD	77.61	78.03	361.1	81.93	324.3	265.9	116.4
#1	-.0007	-.0007	.0003	.0010	-.0023	-.0035	-.0009
#2	-.0003	-.0001	.0001	.0018	.0039	-.0027	.0040
#3	-.0001	-.0004	-.0002	.0002	.0012	.0025	.0043
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148380.**	**23701.**	**6609.0**	**8524.9**
Stddev	665.	72.	142.7	145.3
%RSD	.44807	.30234	2.1598	1.7046
#1	147950.	23719.	6518.4	8434.1
#2	148050.	23621.	6534.9	8448.0
#3	149150.	23761.	6773.5	8692.5

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/18/2019 14:38:01 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0001**	**-.0004**	**.0010**	**.0013**	**-.0011**	**.0016**	**-.0005**	**.0010**
Stddev	.0005	.0001	.0003	.0004	.0002	.0005	.0002	.0004	.0003
%RSD	60.03	98.53	78.30	37.63	14.75	45.11	10.72	79.59	35.59
#1	.0011	.0001	-.0006	.0009	.0016	-.0006	.0018	-.0009	.0013
#2	.0003	.0002	-.0000	.0006	.0012	-.0016	.0015	-.0001	.0009
#3	.0012	.0000	-.0004	.0014	.0013	-.0010	.0014	-.0005	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0016**	**-.0017**	**-.0006**	**.0006**	**-.0015**	**-.0021**	**.0009**	**512.6**	**402.0**
Stddev	.0003	.0000	.0033	.0023	.0019	.0051	.0015	6.2	5.5
%RSD	16.02	2.495	568.4	425.2	123.7	242.3	157.0	1.206	1.367
#1	-.0016	-.0017	-.0008	.0015	-.0022	.0017	-.0004	508.7	403.3
#2	-.0013	-.0017	.0028	.0023	-.0029	-.0079	.0007	509.5	396.0
#3	-.0018	-.0017	-.0038	-.0021	.0006	-.0001	.0025	519.7	406.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**201.8**	**515.9**	**.4651**	**.0800**	**.0011**	**.0001**	**.0055**	**-.0014**	**-.0003**
Stddev	1.3	.7	.0537	.0124	.0007	.0005	.0009	.0006	.0001
%RSD	.6479	.1394	11.55	15.45	61.48	662.0	16.58	39.45	37.13
#1	203.1	515.4	.4667	.0901	.0006	-.0003	.0044	-.0008	-.0004
#2	201.7	515.6	.5180	.0662	.0019	.0007	.0061	-.0018	-.0002
#3	200.5	516.7	.4106	.0835	.0009	-.0002	.0059	-.0016	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/18/2019 14:38:01 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0015**	**.0007**	**.0008**	**.0135**	**.0015**	**-.0016**	**.0172**
Stddev	.0007	.0014	.0003	.0026	.0008	.0011	.0032
%RSD	46.08	185.5	40.95	18.98	54.30	67.65	18.65
#1	-.0008	.0010	.0004	.0106	.0006	-.0026	.0206
#2	-.0015	.0020	.0010	.0154	.0021	-.0018	.0142
#3	-.0022	-.0007	.0011	.0145	.0019	-.0004	.0168
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**126130.**	**22378.**	**5732.2**	**7076.0**
Stddev	667.	85.	7.3	6.9
%RSD	.52872	.37920	.12708	.09739
#1	126690.	22367.	5734.8	7071.4
#2	126310.	22467.	5724.0	7072.6
#3	125400.	22298.	5737.9	7083.9

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/18/2019 14:43:22 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5250**	**.5202**	**1.044**	**.5040**	**.5056**	**.5137**	**.5210**	**1.001**	**1.073**
Stddev	.0008	.0011	.002	.0006	.0017	.0017	.0004	.003	.002
%RSD	.1450	.2129	.1994	.1274	.3343	.3257	.0787	.3390	.2114
#1	.5258	.5212	1.045	.5044	.5054	.5127	.5205	1.004	1.072
#2	.5250	.5190	1.045	.5043	.5074	.5157	.5211	1.002	1.076
#3	.5242	.5203	1.041	.5032	.5040	.5128	.5213	.9972	1.071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5115**	**.9871**	**1.137**	**1.016**	**.9842**	**1.107**	**1.121**	**520.7**	**399.3**
Stddev	.0004	.0018	.001	.001	.0003	.007	.003	8.5	7.4
%RSD	.0863	.1776	.0538	.1366	.0300	.6162	.2471	1.641	1.861
#1	.5118	.9884	1.137	1.016	.9841	1.110	1.121	511.4	406.6
#2	.5110	.9879	1.137	1.018	.9845	1.112	1.123	528.3	391.8
#3	.5117	.9851	1.138	1.015	.9839	1.099	1.118	522.2	399.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**192.7**	**513.3**	**.4655**	**.0723**	**.5132**	**.5139**	**.5157**	**.4965**	**.5890**
Stddev	3.3	.4	.0625	.0124	.0013	.0010	.0009	.0011	.0003
%RSD	1.691	.0843	13.42	17.14	.2493	.2012	.1758	.2307	.0557
#1	190.3	513.7	.5003	.0580	.5126	.5142	.5165	.4952	.5894
#2	196.4	512.9	.5029	.0785	.5146	.5147	.5159	.4974	.5887
#3	191.3	513.2	.3934	.0804	.5123	.5127	.5147	.4970	.5890
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/18/2019 14:43:22 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5217**	**.4931**	**.5536**	**.5204**	**.5247**	**.5657**	**.5515**
Stddev	.0012	.0011	.0006	.0039	.0013	.0014	.0053
%RSD	.2354	.2271	.1127	.7478	.2493	.2503	.9584
#1	.5231	.4931	.5536	.5160	.5258	.5673	.5475
#2	.5208	.4919	.5542	.5232	.5251	.5648	.5575
#3	.5212	.4942	.5530	.5220	.5233	.5648	.5496
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**125790.**	**22284.**	**5708.5**	**7069.2**
Stddev	322.	24.	12.1	10.8
%RSD	.25614	.10855	.21223	.15223
#1	125680.	22303.	5722.5	7081.6
#2	126160.	22291.	5700.9	7063.7
#3	125540.	22257.	5702.2	7062.3

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/18/2019 14:48:40 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.105**	**8.158**	**8.007**	**8.034**	**8.186**	**8.241**	**8.045**	**8.053**	**.6046**
Stddev	.098	.148	.021	.014	.019	.013	.043	.016	.0017
%RSD	1.204	1.809	.2600	.1760	.2274	.1521	.5343	.1952	.2885
#1	8.144	8.255	8.030	8.049	8.205	8.255	8.090	8.070	.6066
#2	7.994	7.989	8.001	8.033	8.184	8.238	8.005	8.052	.6035
#3	8.177	8.232	7.990	8.021	8.168	8.231	8.039	8.038	.6037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.063**	**8.246**	**8.140**	**8.334**	**8.197**	**8.092**	**8.303**	**.1506**	**.0689**
Stddev	.016	.026	.028	.039	.016	.033	.028	.1172	.0828
%RSD	.1929	.3182	.3444	.4630	.1992	.4033	.3308	77.85	120.2
#1	8.080	8.275	8.172	8.377	8.215	8.127	8.332	.0850	.0264
#2	8.060	8.240	8.125	8.302	8.195	8.085	8.300	.0808	.0159
#3	8.049	8.223	8.122	8.323	8.182	8.063	8.277	.2859	.1643
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0279**	**.0522**	**.5772**	**.0889**	**8.147**	**8.323**	**24.91**	**8.528**	**8.113**
Stddev	.0439	.1132	.0226	.0036	.023	.027	.05	.030	.168
%RSD	157.3	216.6	3.908	4.047	.2798	.3265	.2026	.3548	2.065
#1	.0053	-.0135	.5692	.0894	8.172	8.354	24.96	8.563	8.285
#2	-.0001	-.0127	.5597	.0850	8.142	8.310	24.89	8.509	7.950
#3	.0786	.1829	.6026	.0922	8.127	8.305	24.86	8.511	8.105
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/18/2019 14:48:40 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.198**	**8.471**	**8.205**	**95.47**	**8.445**	**8.257**	**8.263**
Stddev	.076	.024	.124	.53	.017	.025	.051
%RSD	.9290	.2815	1.506	.5552	.2010	.3007	.6163
#1	8.283	8.498	8.082	96.08	8.463	8.286	8.308
#2	8.173	8.459	8.329	95.17	8.443	8.244	8.273
#3	8.137	8.455	8.205	95.15	8.429	8.242	8.208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142990.**	**23739.**	**6301.7**	**8343.1**
Stddev	234.	181.	22.4	22.0
%RSD	.16349	.76234	.35502	.26311
#1	143190.	23572.	6278.3	8323.4
#2	142730.	23931.	6304.0	8339.3
#3	143040.	23715.	6322.9	8366.7

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/18/2019 14:54:25 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0004**	**.0016**	**.0029**	**.0027**	**.0021**	**.0034**	**.0020**	**.0027**
Stddev	.0006	.0001	.0008	.0004	.0004	.0012	.0007	.0009	.0015
%RSD	45.51	20.04	50.44	12.59	15.92	58.72	20.57	44.11	54.32
#1	.0009	.0005	.0021	.0031	.0022	.0018	.0030	.0024	.0025
#2	.0010	.0003	.0020	.0032	.0027	.0010	.0031	.0027	.0014
#3	.0020	.0004	.0007	.0025	.0031	.0034	.0043	.0010	.0043
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0009**	**.0036**	**.0042**	**.0022**	**.0019**	**.0045**	**302.2**	**197.1**
Stddev	.0001	.0006	.0023	.0010	.0011	.0031	.0011	7.5	4.6
%RSD	25.31	61.94	64.09	23.03	47.94	163.7	24.46	2.467	2.313
#1	-.0006	.0010	.0040	.0044	.0012	.0009	.0033	297.5	193.7
#2	-.0005	.0014	.0011	.0031	.0033	.0054	.0053	298.3	195.3
#3	-.0004	.0003	.0056	.0050	.0022	-.0006	.0051	310.8	202.3
Check ?	None	None	None	None	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**198.5**	**299.6**	**192.0**	**193.6**	**.0061**	**.0025**	**.0111**	**.0013**	**.0001**
Stddev	6.9	13.6	6.5	7.5	.0011	.0001	.0005	.0006	.0001
%RSD	3.452	4.533	3.411	3.883	17.81	4.096	4.329	46.78	154.8
#1	194.5	291.9	189.2	189.9	.0060	.0025	.0109	.0012	.0002
#2	194.5	291.7	187.3	188.6	.0051	.0025	.0108	.0019	.0001
#3	206.4	315.3	199.5	202.2	.0072	.0023	.0117	.0007	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/18/2019 14:54:25 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0018**	**.0028**	**.0303**	**.0034**	**.0251**	**.0163**
Stddev	.0005	.0007	.0007	.0060	.0017	.0040	.0012
%RSD	51.89	40.49	25.44	19.90	48.68	15.95	7.259
#1	.0004	.0020	.0022	.0353	.0040	.0216	.0167
#2	.0009	.0010	.0025	.0319	.0048	.0242	.0172
#3	.0014	.0024	.0035	.0236	.0016	.0294	.0150
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**130470.**	**22636.**	**5810.6**	**7095.9**
Stddev	2960.	850.	9.3	7.9
%RSD	2.2686	3.7537	.16023	.11165
#1	133880.	23165.	5818.5	7102.7
#2	128980.	23087.	5800.3	7087.2
#3	128560.	21656.	5812.9	7097.8

Zoom In Zoom Out

Sample Name: FECONF Acquired: 3/18/2019 14:59:58 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0003**	**.0001**	**.0013**	**.0020**	**-.0006**	**.0029**	**.0011**	**.0012**
Stddev	.0002	.0000	.0001	.0003	.0004	.0010	.0002	.0004	.0003
%RSD	34.65	14.44	143.5	22.02	18.03	166.2	8.743	33.69	25.51
#1	.0005	.0002	.0001	.0013	.0016	-.0000	.0030	.0016	.0015
#2	.0004	.0003	.0001	.0010	.0023	-.0000	.0030	.0009	.0012
#3	.0008	.0003	-.0000	.0015	.0021	-.0017	.0026	.0009	.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0011**	**-.0012**	**.0002**	**.0015**	**.0001**	**.0004**	**-.0007**	**.0131**	**.0354**
Stddev	.0004	.0001	.0011	.0009	.0004	.0022	.0006	.0230	.0042
%RSD	31.82	6.900	474.9	57.73	367.0	596.7	80.83	175.8	11.76
#1	-.0009	-.0012	.0010	.0014	-.0001	.0028	-.0001	.0051	.0340
#2	-.0009	-.0011	.0007	.0007	.0005	-.0004	-.0008	-.0049	.0321
#3	-.0015	-.0013	-.0010	.0024	-.0001	-.0013	-.0012	.0391	.0401

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**194.0**	**.0088**	**.5648**	**.2360**	**.0022**	**.0010**	**.0061**	**-.0003**	**.0002**
Stddev	2.0	.0196	.0411	.0172	.0006	.0003	.0013	.0006	.0001
%RSD	1.018	222.8	7.282	7.300	27.57	32.67	21.97	211.1	34.23
#1	195.9	-.0080	.5516	.2511	.0029	.0009	.0074	.0004	.0002
#2	194.3	.0040	.6109	.2172	.0017	.0013	.0062	-.0007	.0001
#3	191.9	.0304	.5319	.2397	.0020	.0007	.0047	-.0005	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0001**	**.0015**	**.0046**	**.0081**	**-.0104**	**.0029**
Stddev	.0003	.0008	.0002	.0042	.0019	.0024	.0003
%RSD	32.90	638.4	14.44	92.73	24.11	22.77	10.48
#1	.0012	.0004	.0016	.0068	.0099	-.0112	.0025
#2	.0013	.0008	.0016	.0072	.0060	-.0078	.0031
#3	.0006	-.0008	.0012	-.0003	.0083	-.0123	.0029

Zoom In Zoom Out

Sample Name: FECONF Acquired: 3/18/2019 14:59:58 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146440.**	**23717.**	**6572.6**	**8646.3**
Stddev	63.	41.	87.7	93.4
%RSD	.04290	.17380	1.3336	1.0806
#1	146380.	23686.	6481.1	8548.4
#2	146500.	23764.	6655.8	8734.4
#3	146430.	23701.	6581.0	8656.2

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 3/18/2019 15:05:10 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**.0002**	**-.0000**	F **10.67**	**-.0001**	**-.0014**	**.0003**	**-.0004**
Stddev	.0007	.0002	.0002	.0003	.13	.0002	.0001	.0003	.0004
%RSD	675.5	94.65	76.69	2237.	1.192	169.5	8.088	85.26	93.17
#1	.0002	.0001	.0004	.0003	10.81	-.0001	-.0013	.0006	-.0006
#2	-.0006	.0001	.0002	-.0001	10.58	.0000	-.0015	.0001	.0000
#3	.0007	.0003	.0000	-.0003	10.61	-.0003	-.0013	.0002	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0016**	**-.0005**	**-.0007**	**.0001**	**-.0020**	**.0015**	**.0135**	**.0129**
Stddev	.0017	.0002	.0030	.0004	.0001	.0011	.0041	.0215	.0144
%RSD	132.8	13.41	622.9	54.75	113.8	54.75	267.2	159.6	111.5
#1	.0032	.0018	.0027	-.0009	-.0000	-.0013	-.0026	-.0065	.0035
#2	-.0001	.0015	-.0033	-.0010	.0001	-.0015	.0056	.0108	.0057
#3	.0008	.0014	-.0009	-.0003	.0001	-.0033	.0016	.0362	.0295

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0342**	**.0221**	**.2359**	**.0790**	**.0031**	**.0012**	**.0072**	**-.0010**	**.0002**
Stddev	.0334	.0090	.0128	.0082	.0002	.0002	.0014	.0002	.0002
%RSD	97.58	40.77	5.424	10.31	5.942	13.40	19.50	20.32	108.8
#1	.0131	.0141	.2286	.0724	.0031	.0014	.0063	-.0008	.0001
#2	.0168	.0204	.2284	.0881	.0030	.0012	.0088	-.0011	.0001
#3	.0726	.0319	.2506	.0765	.0033	.0011	.0064	-.0012	.0005

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0025**	**.0068**	**.0044**	**.0071**	**-.0007**	**.0024**	**-.0026**
Stddev	.0001	.0006	.0002	.0005	.0019	.0008	.0007
%RSD	5.923	8.742	4.460	6.362	284.6	33.39	27.38
#1	-.0025	.0062	.0046	.0067	-.0022	.0024	-.0026
#2	-.0023	.0074	.0044	.0070	.0015	.0016	-.0034
#3	-.0026	.0068	.0042	.0076	-.0014	.0032	-.0019

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 3/18/2019 15:05:10 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148770.**	**23825.**	**6395.1**	**8548.7**
Stddev	999.	254.	15.6	10.0
%RSD	.67145	1.0646	.24446	.11720
#1	147650.	24109.	6412.5	8558.8
#2	149070.	23619.	6390.5	8548.6
#3	149580.	23748.	6382.3	8538.7

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 3/18/2019 15:10:24 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0000**	**.0002**	**.0005**	**.0017**	**-.0000**	**.0001**	**-.0002**	**.0001**
Stddev	.0002	.0000	.0001	.0001	.0007	.0007	.0000	.0002	.0004
%RSD	139.4	290.0	54.68	31.28	41.86	1564.	19.99	129.4	285.1
#1	-.0001	-.0000	.0003	.0004	.0023	-.0009	.0001	.0000	.0006
#2	.0000	-.0000	.0003	.0006	.0018	.0005	.0002	-.0002	-.0001
#3	-.0003	.0000	.0001	.0004	.0009	.0003	.0001	-.0004	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0009**	**5.393**	**.0003**	**-.0010**	**-.0041**	**.0004**	**-.0014**	**-.0519**
Stddev	.0003	.0001	.008	.0006	.0002	.0013	.0021	.0095	.0032
%RSD	141.8	15.53	.1544	170.9	20.93	32.01	567.7	663.6	6.225
#1	.0006	-.0011	5.392	.0005	-.0012	-.0036	-.0018	-.0071	-.0541
#2	.0002	-.0008	5.385	.0007	-.0010	-.0056	.0005	-.0067	-.0534
#3	-.0001	-.0010	5.402	-.0003	-.0008	-.0032	.0024	.0095	-.0482

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0086**	**.0066**	**.1896**	**.0343**	**.0022**	**.0002**	**.0047**	**-.0002**	**-.0000**
Stddev	.0092	.0061	.0392	.0062	.0004	.0001	.0002	.0007	.0001
%RSD	106.3	91.90	20.66	18.22	16.45	46.80	3.321	406.0	119.2
#1	.0017	.0103	.1498	.0326	.0020	.0001	.0045	-.0003	.0000
#2	.0052	-.0004	.2281	.0291	.0027	.0002	.0047	.0006	-.0000
#3	.0190	.0100	.1908	.0412	.0021	.0003	.0048	-.0008	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0003**	**.0002**	**-.0001**	**-.0006**	**.0012**	**.0004**
Stddev	.0003	.0004	.0002	.0024	.0026	.0013	.0021
%RSD	122.4	129.3	119.5	2644.	419.8	107.7	545.2
#1	.0001	-.0001	.0003	.0018	-.0026	.0026	-.0019
#2	.0000	.0008	-.0001	.0007	.0023	.0010	.0022
#3	.0006	.0003	.0003	-.0028	-.0016	.0000	.0008

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 3/18/2019 15:10:24 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149200.**	**23600.**	**6575.3**	**8520.9**
Stddev	179.	62.	21.8	19.7
%RSD	.12006	.26212	.33137	.23156
#1	148990.	23614.	6562.2	8508.6
#2	149320.	23533.	6563.2	8510.4
#3	149280.	23654.	6600.4	8543.6

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/18/2019 15:15:30 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.031**	**2.062**	**2.041**	**2.073**	**2.018**	**2.008**	**2.022**	**2.081**	**.2509**
Stddev	.002	.004	.005	.009	.006	.005	.023	.007	.0002
%RSD	.1007	.1723	.2540	.4092	.2974	.2416	1.153	.3613	.0671
#1	2.033	2.066	2.038	2.065	2.017	2.006	2.036	2.073	.2508
#2	2.031	2.062	2.047	2.082	2.012	2.006	1.995	2.088	.2508
#3	2.029	2.059	2.038	2.073	2.024	2.014	2.036	2.081	.2511
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.004**	**2.045**	**2.058**	**2.104**	**2.074**	**2.026**	**2.075**	**40.11**	**40.45**
Stddev	.005	.007	.006	.014	.008	.008	.007	.10	.06
%RSD	.2293	.3204	.2864	.6665	.3790	.4160	.3196	.2472	.1388
#1	2.008	2.043	2.056	2.095	2.066	2.018	2.069	40.20	40.51
#2	1.999	2.052	2.064	2.120	2.081	2.035	2.082	40.12	40.45
#3	2.007	2.039	2.053	2.097	2.076	2.025	2.073	40.01	40.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.15**	**40.35**	**40.58**	**40.97**	**2.063**	**2.069**	**4.988**	**2.093**	**2.040**
Stddev	.06	.02	.10	.07	.007	.007	.019	.009	.002
%RSD	.1383	.0584	.2491	.1708	.3657	.3304	.3769	.4070	.1031
#1	40.21	40.37	40.67	41.05	2.056	2.066	4.972	2.092	2.042
#2	40.11	40.32	40.61	40.97	2.071	2.077	5.009	2.102	2.039
#3	40.12	40.35	40.47	40.91	2.061	2.065	4.984	2.085	2.038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/18/2019 15:15:30 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.060**	**2.038**	**2.072**	**1.961**	**2.061**	**2.032**	**2.003**
Stddev	.004	.007	.004	.013	.007	.002	.011
%RSD	.1867	.3673	.1845	.6711	.3298	.0983	.5581
#1	2.064	2.037	2.075	1.957	2.057	2.035	2.001
#2	2.056	2.046	2.068	1.975	2.069	2.032	2.015
#3	2.061	2.031	2.074	1.950	2.056	2.031	1.993
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**138920.**	**23027.**	**6199.1**	**7693.6**
Stddev	721.	73.	26.4	28.6
%RSD	.51932	.31626	.42577	.37223
#1	138230.	22944.	6189.5	7695.5
#2	139670.	23058.	6178.8	7664.1
#3	138860.	23079.	6228.9	7721.3

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/18/2019 15:20:32 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**.0001**	**.0004**	**.0001**	**-.0002**	**.0001**	**.0002**	**-.0002**
Stddev	.0003	.0001	.0001	.0002	.0001	.0001	.0001	.0004	.0003
%RSD	323.6	54.29	82.74	42.46	101.1	86.40	46.46	167.9	203.5
#1	-.0004	.0002	.0002	.0003	.0002	-.0000	.0002	.0001	.0002
#2	.0001	.0001	.0000	.0006	.0001	-.0002	.0001	.0006	-.0004
#3	.0001	.0000	.0002	.0003	.0000	-.0003	.0002	-.0001	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0005**	**-.0003**	**-.0000**	**-.0002**	**-.0006**	**-.0012**	**-.0138**	**.0023**
Stddev	.0004	.0001	.0006	.0014	.0010	.0006	.0008	.0148	.0013
%RSD	156.5	14.29	182.3	2947.	489.5	99.40	69.87	107.3	55.89
#1	.0006	-.0005	-.0005	-.0011	-.0002	-.0010	-.0012	-.0208	.0009
#2	.0004	-.0005	.0003	-.0006	-.0013	-.0008	-.0019	.0032	.0027
#3	-.0002	-.0006	-.0008	.0016	.0008	.0001	-.0003	-.0237	.0034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**.0088**	**.2423**	**.0640**	**.0032**	**.0002**	**.0017**	**.0004**	**.0002**
Stddev	.0018	.0081	.0291	.0099	.0002	.0004	.0006	.0003	.0002
%RSD	72.65	92.69	12.01	15.52	7.794	145.7	35.98	65.03	123.7
#1	.0017	.0079	.2171	.0746	.0034	.0006	.0016	.0004	.0003
#2	.0012	.0173	.2741	.0622	.0032	.0002	.0023	.0002	.0002
#3	.0045	.0011	.2356	.0550	.0029	-.0001	.0011	.0007	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/18/2019 15:20:32 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0002**	**.0002**	**.0024**	**-.0006**	**.0040**	**.0030**
Stddev	.0003	.0008	.0001	.0014	.0013	.0011	.0006
%RSD	70.27	348.5	21.46	57.01	215.9	27.02	21.42
#1	.0001	-.0011	.0002	.0011	-.0002	.0027	.0033
#2	.0007	.0003	.0002	.0022	-.0021	.0044	.0022
#3	.0005	.0001	.0003	.0038	.0004	.0047	.0033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146420.**	**23264.**	**6447.1**	**8374.9**
Stddev	95.	126.	9.7	6.6
%RSD	.06511	.53981	.14991	.07851
#1	146500.	23386.	6456.0	8374.6
#2	146440.	23272.	6436.8	8368.5
#3	146320.	23135.	6448.6	8381.6

Zoom In Zoom Out

Sample Name: CRI Acquired: 3/18/2019 15:25:39 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2028**	**.0020**	**.0032**	**.0527**	**.0099**	**.0104**	**.0159**	**.0105**	**.0047**
Stddev	.0009	.0001	.0002	.0003	.0004	.0005	.0000	.0004	.0005
%RSD	.4206	4.009	7.402	.5928	4.419	4.940	.2991	3.662	11.34
#1	.2019	.0020	.0031	.0523	.0104	.0106	.0159	.0110	.0042
#2	.2029	.0021	.0030	.0528	.0096	.0098	.0159	.0104	.0052
#3	.2035	.0021	.0034	.0529	.0098	.0107	.0158	.0102	.0047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0505**	**.0199**	**.0073**	**.0112**	**.0031**	**.0087**	**.0055**	**.2025**	**5.203**
Stddev	.0001	.0001	.0014	.0004	.0009	.0026	.0014	.0174	.012
%RSD	.1707	.4517	19.64	3.575	29.44	29.45	25.18	8.587	.2217
#1	.0506	.0200	.0079	.0110	.0021	.0058	.0055	.2099	5.190
#2	.0504	.0198	.0056	.0117	.0038	.0098	.0042	.2149	5.212
#3	.0505	.0199	.0082	.0110	.0034	.0106	.0069	.1826	5.208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1047**	**5.355**	**5.440**	**5.397**	**.1047**	**.0209**	**.2045**	**.0101**	**.0102**
Stddev	.0038	.011	.021	.006	.0007	.0000	.0007	.0003	.0001
%RSD	3.586	.2076	.3904	.1114	.6253	.1373	.3582	3.259	1.240
#1	.1045	5.357	5.417	5.398	.1052	.0208	.2051	.0104	.0101
#2	.1085	5.366	5.459	5.403	.1048	.0209	.2037	.0098	.0101
#3	.1010	5.344	5.445	5.391	.1039	.0209	.2047	.0100	.0103
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRI Acquired: 3/18/2019 15:25:39 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0105**	**.0499**	**.0106**	**.0523**	**.0220**	**.0562**	**.0486**
Stddev	.0002	.0020	.0002	.0004	.0002	.0008	.0017
%RSD	2.260	4.020	2.242	.8132	.9632	1.401	3.535
#1	.0102	.0511	.0106	.0528	.0218	.0553	.0498
#2	.0106	.0510	.0108	.0521	.0220	.0567	.0466
#3	.0107	.0476	.0103	.0521	.0222	.0567	.0493
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146190.**	**23434.**	**6482.8**	**8273.6**
Stddev	761.	168.	17.7	12.9
%RSD	.52027	.71743	.27362	.15571
#1	145420.	23391.	6465.7	8258.9
#2	146940.	23291.	6501.1	8283.0
#3	146230.	23619.	6481.8	8279.0

Zoom In Zoom Out

Sample Name: CRID Acquired: 3/18/2019 15:30:41 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0043**	**.0011**	F **.0013**	F **.0038**	**.0022**	F **-.0003**	**.0035**	**.0048**
Stddev	.0004	.0000	.0003	.0000	.0002	.0005	.0000	.0002
%RSD	9.034	4.153	18.99	1.282	8.150	144.9	1.067	3.656
#1	.0039	.0011	.0011	.0038	.0022	.0001	.0035	.0050
#2	.0045	.0012	.0016	.0037	.0021	-.0009	.0035	.0047
#3	.0045	.0011	.0013	.0038	.0024	-.0002	.0035	.0046
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value			.0010	.0030		.0020		
Range			20.00%	20.00%		-20.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**.0021**	**.0108**	**.0035**	F **.0038**	F **-.0008**	F **.0020**	F **-.0015**
Stddev	.0001	.0003	.0001	.0003	.0008	.0004	.0021	.0005
%RSD	3.700	15.49	.4735	7.518	22.17	45.56	106.3	30.55
#1	.0018	.0019	.0109	.0037	.0029	-.0008	.0016	-.0012
#2	.0018	.0019	.0108	.0037	.0038	-.0005	.0043	-.0013
#3	.0017	.0024	.0108	.0032	.0045	-.0012	.0001	-.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value					.0020	.0025	.0050	.0030
Range					20.00%	-20.00%	-20.00%	-20.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1135**	**1.165**	**.0040**	**.1150**	F **2.470**	F **1.333**	**.0059**	**.0002**
Stddev	.0024	.003	.0006	.0067	.015	.013	.0005	.0001
%RSD	2.113	.2143	15.49	5.867	.6187	.9785	7.698	84.78
#1	.1138	1.167	.0038	.1094	2.453	1.327	.0057	.0003
#2	.1110	1.167	.0046	.1225	2.482	1.348	.0055	.0001
#3	.1158	1.163	.0034	.1131	2.474	1.324	.0064	.0001
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Fail	None	None
Value					2.000	1.000		
Range					20.00%	20.00%		

Zoom In Zoom Out

Sample Name: CRID Acquired: 3/18/2019 15:30:41 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035**	**.0001**	**.0000**	**.0001**	**-.0012**	**.0003**	**.0006**	**-.0004**
Stddev	.0010	.0003	.0001	.0001	.0002	.0002	.0025	.0014
%RSD	28.38	245.3	325.1	197.2	13.68	59.53	411.2	310.6
#1	.0046	-.0000	-.0001	-.0000	-.0012	.0001	.0023	-.0005
#2	.0027	-.0000	.0000	-.0000	-.0010	.0004	.0018	-.0018
#3	.0031	.0004	.0001	.0002	-.0013	.0002	-.0023	.0009
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**-.0003**	**-.0001**
Stddev	.0019	.0009
%RSD	665.1	630.7
#1	.0012	-.0002
#2	.0004	-.0010
#3	-.0024	.0008
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150290.**	**23891.**	**6636.5**	**8539.7**
Stddev	454.	21.	20.3	13.2
%RSD	.30194	.08863	.30627	.15483
#1	149820.	23875.	6624.9	8543.0
#2	150320.	23884.	6660.0	8551.0
#3	150720.	23915.	6624.6	8525.1

Zoom In Zoom Out

Sample Name: mp13130-mb1 5 Acquired: 3/18/2019 15:35:45 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: dod

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**-.0000**	**.0003**	**.0001**	**.0003**	**.0002**	**.0002**	**-.0000**	**-.0002**
Stddev	.0004	.0000	.0002	.0001	.0002	.0003	.0000	.0003	.0005
%RSD	58.23	165.0	58.39	65.13	79.08	140.1	16.61	3969.	287.7
#1	-.0004	.0000	.0003	.0000	.0000	.0006	.0002	-.0003	.0003
#2	-.0005	-.0001	.0005	.0001	.0003	.0003	.0002	.0002	-.0002
#3	-.0011	-.0000	.0002	.0002	.0004	-.0001	.0001	.0000	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0015**	**.0000**	**.0009**	**-.0003**	**-.0025**	**-.0002**	**-.0117**	**.1175**
Stddev	.0000	.0000	.0011	.0014	.0006	.0016	.0013	.0197	.0017
%RSD	18.84	1.912	6095.	160.9	209.9	66.00	779.6	168.2	1.446
#1	-.0002	.0015	-.0006	.0013	-.0002	-.0012	.0013	-.0040	.1161
#2	-.0002	.0015	-.0006	.0020	-.0009	-.0020	-.0005	.0030	.1194
#3	-.0001	.0014	.0013	-.0007	.0003	-.0043	-.0013	-.0341	.1170

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029**	**.0004**	**.1437**	**.0243**	**.0014**	**.0004**	**.0106**	**-.0002**	**.0001**
Stddev	.0004	.0068	.0058	.0120	.0003	.0001	.0015	.0002	.0001
%RSD	13.91	1667.	4.064	49.31	22.30	32.61	13.85	115.0	41.52
#1	.0029	.0038	.1495	.0356	.0014	.0002	.0090	.0001	.0002
#2	.0034	.0049	.1439	.0117	.0010	.0004	.0109	-.0003	.0001
#3	.0026	-.0074	.1378	.0256	.0016	.0005	.0119	-.0003	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0007**	**.0002**	**.0039**	**-.0004**	**-.0004**	**.0031**
Stddev	.0003	.0004	.0001	.0015	.0012	.0008	.0006
%RSD	6123.	59.32	59.22	37.64	256.9	182.7	20.95
#1	-.0003	.0002	.0001	.0023	-.0011	-.0001	.0025
#2	.0003	.0009	.0002	.0052	-.0011	.0001	.0030
#3	.0000	.0009	.0004	.0042	.0009	-.0014	.0037

Zoom In Zoom Out

Sample Name: mp13130-mb1 5 Acquired: 3/18/2019 15:35:45 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: dod

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151030.**	**23959.**	**6617.1**	**8562.9**
Stddev	768.	136.	6.3	4.6
%RSD	.50873	.56861	.09465	.05375
#1	151260.	24010.	6623.7	8566.4
#2	150170.	23804.	6616.3	8557.7
#3	151650.	24062.	6611.2	8564.7

Zoom In Zoom Out

Sample Name: mp13130-b1 Acquired: 3/18/2019 15:40:48 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.026**	**2.063**	**2.010**	**2.058**	**2.003**	**2.007**	**2.012**	**2.061**	**.2534**
Stddev	.003	.004	.005	.007	.004	.004	.010	.006	.0008
%RSD	.1246	.2140	.2607	.3498	.1732	.1724	.4830	.2759	.3094
#1	2.028	2.062	2.016	2.066	2.007	2.011	2.003	2.067	.2543
#2	2.025	2.060	2.008	2.054	2.001	2.004	2.011	2.059	.2534
#3	2.024	2.068	2.006	2.053	2.000	2.006	2.022	2.057	.2527

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.993**	**2.016**	**2.043**	**2.129**	**2.061**	**1.997**	**2.064**	**25.47**	**25.72**
Stddev	.001	.005	.003	.003	.009	.004	.006	.03	.04
%RSD	.0574	.2601	.1464	.1329	.4602	.2214	.3110	.1235	.1695
#1	1.994	2.021	2.047	2.128	2.072	2.002	2.072	25.49	25.74
#2	1.992	2.016	2.041	2.133	2.057	1.996	2.060	25.43	25.67
#3	1.994	2.011	2.042	2.127	2.054	1.993	2.061	25.48	25.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.56**	**25.75**	**25.94**	**26.29**	**2.011**	**2.074**	**-.0229**	**2.102**	**2.032**
Stddev	.04	.06	.03	.05	.004	.005	.0006	.004	.001
%RSD	.1636	.2383	.1142	.1970	.1773	.2652	2.442	.1962	.0616
#1	25.57	25.79	25.97	26.35	2.015	2.079	-.0229	2.104	2.034
#2	25.51	25.68	25.91	26.27	2.011	2.073	-.0235	2.105	2.031
#3	25.59	25.79	25.94	26.26	2.007	2.068	-.0223	2.097	2.032

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.061**	**1.994**	**2.075**	**.0277**	**.0483**	**2.072**	**1.942**
Stddev	.002	.003	.001	.0024	.0019	.005	.011
%RSD	.0710	.1671	.0396	8.475	3.847	.2259	.5722
#1	2.061	1.998	2.075	.0253	.0502	2.070	1.929
#2	2.059	1.991	2.074	.0300	.0483	2.070	1.950
#3	2.062	1.994	2.075	.0279	.0465	2.078	1.947

Zoom In Zoom Out

Sample Name: mp13130-b1 Acquired: 3/18/2019 15:40:48 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142770.**	**23508.**	**6399.5**	**7942.8**
Stddev	411.	182.	15.8	17.0
%RSD	.28796	.77296	.24694	.21345
#1	143010.	23303.	6393.3	7929.2
#2	143010.	23649.	6387.7	7937.4
#3	142290.	23571.	6417.5	7961.8

Zoom In Zoom Out

Sample Name: mp13130-s1 Acquired: 3/18/2019 15:45:47 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.158**	**2.078**	**1.996**	**2.035**	**2.008**	**2.016**	**2.146**	**2.038**	**.2551**
Stddev	.001	.005	.055	.047	.003	.003	.019	.046	.0007
%RSD	.0349	.2270	2.766	2.310	.1642	.1375	.9002	2.262	.2810
#1	2.158	2.074	2.028	2.063	2.006	2.014	2.168	2.064	.2549
#2	2.159	2.078	2.027	2.062	2.006	2.015	2.132	2.066	.2546
#3	2.157	2.083	1.932	1.981	2.011	2.019	2.138	1.985	.2559

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.006**	**1.987**	**2.038**	**2.100**	**2.035**	**1.988**	**2.049**	**25.57**	**58.15**
Stddev	.001	.055	.058	.056	.046	.056	.056	.06	.09
%RSD	.0246	2.768	2.823	2.666	2.261	2.806	2.752	.2262	.1606
#1	2.006	2.020	2.069	2.122	2.062	2.016	2.085	25.54	58.09
#2	2.006	2.019	2.073	2.142	2.061	2.023	2.079	25.54	58.09
#3	2.007	1.924	1.971	2.037	1.982	1.923	1.984	25.64	58.25

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**29.26**	**37.92**	**27.79**	**39.84**	**2.035**	**2.055**	**8.655**	**2.074**	**2.486**
Stddev	.04	.04	.04	.03	.056	.059	.241	.063	.001
%RSD	.1400	.1051	.1438	.0733	2.743	2.849	2.781	3.052	.0386
#1	29.22	37.89	27.75	39.86	2.068	2.087	8.792	2.108	2.485
#2	29.26	37.91	27.78	39.86	2.067	2.091	8.796	2.114	2.486
#3	29.30	37.97	27.83	39.81	1.971	1.987	8.377	2.001	2.486

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.076**	**1.985**	**2.088**	**8.825**	**.0472**	**2.100**	**2.020**
Stddev	.001	.056	.001	.296	.0024	.003	.066
%RSD	.0335	2.814	.0300	3.355	5.063	.1506	3.250
#1	2.076	2.017	2.087	8.952	.0473	2.098	2.052
#2	2.076	2.017	2.087	9.036	.0448	2.099	2.063
#3	2.077	1.920	2.088	8.486	.0496	2.104	1.944

Zoom In Zoom Out

Sample Name: mp13130-s1 Acquired: 3/18/2019 15:45:47 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141200.**	**23603.**	**6368.8**	**7862.5**
Stddev	113.	68.	155.0	151.9
%RSD	.08010	.28913	2.4334	1.9326
#1	141070.	23526.	6268.7	7763.3
#2	141270.	23626.	6290.3	7786.8
#3	141270.	23656.	6547.3	8037.5

Zoom In Zoom Out

Sample Name: mp13130-s2 Acquired: 3/18/2019 15:50:45 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.170**	**2.081**	**2.039**	**2.072**	**2.015**	**2.021**	**2.138**	**2.073**	**.2570**
Stddev	.004	.003	.003	.006	.008	.006	.004	.004	.0006
%RSD	.2047	.1315	.1552	.2962	.4078	.3218	.1821	.1882	.2502
#1	2.166	2.080	2.042	2.078	2.012	2.019	2.133	2.077	.2568
#2	2.169	2.084	2.036	2.066	2.010	2.015	2.141	2.069	.2565
#3	2.174	2.079	2.039	2.072	2.025	2.028	2.139	2.072	.2578

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.015**	**2.030**	**2.086**	**2.137**	**2.072**	**2.028**	**2.103**	**25.82**	**58.92**
Stddev	.005	.003	.003	.011	.005	.007	.006	.02	.08
%RSD	.2595	.1517	.1638	.5134	.2581	.3325	.2690	.0822	.1300
#1	2.014	2.030	2.083	2.130	2.076	2.027	2.108	25.80	58.87
#2	2.010	2.026	2.089	2.150	2.066	2.035	2.097	25.83	59.01
#3	2.020	2.032	2.086	2.132	2.074	2.022	2.104	25.84	58.90

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**29.55**	**38.41**	**28.02**	**40.31**	**2.077**	**2.111**	**8.966**	**2.129**	**2.497**
Stddev	.03	.10	.03	.06	.001	.001	.006	.005	.002
%RSD	.1135	.2671	.1176	.1466	.0694	.0470	.0657	.2278	.0603
#1	29.53	38.34	27.99	40.26	2.078	2.112	8.972	2.125	2.495
#2	29.59	38.53	28.06	40.30	2.077	2.111	8.960	2.134	2.498
#3	29.53	38.37	28.02	40.38	2.075	2.110	8.967	2.127	2.498

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.091**	**2.042**	**2.105**	**9.170**	**.0464**	**2.107**	**2.072**
Stddev	.005	.000	.006	.071	.0023	.002	.011
%RSD	.2181	.0198	.2685	.7751	5.006	.0932	.5267
#1	2.090	2.042	2.106	9.127	.0449	2.108	2.073
#2	2.087	2.042	2.099	9.252	.0452	2.109	2.082
#3	2.096	2.041	2.110	9.132	.0491	2.105	2.060

Zoom In Zoom Out

Sample Name: mp13130-s2 Acquired: 3/18/2019 15:50:45 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**140990.**	**23672.**	**6276.4**	**7772.7**
Stddev	774.	27.	12.8	11.9
%RSD	.54881	.11407	.20396	.15328
#1	141280.	23701.	6286.4	7774.6
#2	141580.	23648.	6280.8	7783.5
#3	140110.	23667.	6262.0	7759.9

Zoom In Zoom Out

Sample Name: jc84297-1 Acquired: 3/18/2019 15:55:43 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1194**	**.0003**	**.0002**	**.0005**	**.0004**	**.0006**	**.1131**	**-.0001**	**.0001**
Stddev	.0004	.0001	.0002	.0001	.0004	.0002	.0016	.0002	.0004
%RSD	.3379	19.87	110.8	12.65	104.0	29.14	1.412	296.3	340.7
#1	.1199	.0003	-.0000	.0004	.0008	.0006	.1120	.0002	.0001
#2	.1192	.0003	.0002	.0006	.0005	.0004	.1125	-.0003	.0006
#3	.1191	.0002	.0004	.0005	-.0000	.0008	.1149	-.0002	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0006**	**.0010**	**-.0015**	**-.0026**	**-.0011**	**-.0043**	**31.95**
Stddev	.0002	.0000	.0017	.0004	.0005	.0016	.0008	.0142	.06
%RSD	71.58	47.36	272.7	40.08	31.61	61.47	73.27	328.6	.1787
#1	.0002	.0001	.0022	.0006	-.0015	-.0044	-.0010	-.0128	31.99
#2	.0001	.0001	.0008	.0014	-.0010	-.0015	-.0020	.0121	31.89
#3	.0004	.0000	-.0012	.0009	-.0020	-.0019	-.0004	-.0124	31.99

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.490**	**12.31**	**2.041**	**13.68**	**.0424**	**.0007**	**8.661**	**-.0015**	**.4307**
Stddev	.006	.02	.029	.01	.0005	.0001	.092	.0002	.0006
%RSD	.1833	.1717	1.405	.1001	1.221	20.81	1.059	11.24	.1448
#1	3.494	12.32	2.064	13.69	.0419	.0008	8.640	-.0014	.4313
#2	3.483	12.28	2.009	13.68	.0429	.0005	8.762	-.0015	.4300
#3	3.494	12.31	2.051	13.66	.0423	.0007	8.582	-.0017	.4308

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0020**	**-.0002**	**8.608**	**-.0011**	**.0371**	**.0505**
Stddev	.0003	.0004	.0002	.067	.0005	.0027	.0010
%RSD	172.9	21.65	81.55	.7747	46.23	7.140	1.980
#1	.0002	.0024	-.0002	8.639	-.0008	.0392	.0501
#2	-.0001	.0016	-.0001	8.653	-.0017	.0341	.0516
#3	.0005	.0021	-.0004	8.532	-.0009	.0380	.0498

Zoom In Zoom Out

Sample Name: jc84297-1 Acquired: 3/18/2019 15:55:43 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**145070.**	**23732.**	**6452.6**	**8104.8**
Stddev	1856.	61.	46.8	42.6
%RSD	1.2796	.25502	.72586	.52581
#1	146420.	23753.	6473.2	8122.5
#2	145830.	23664.	6399.0	8056.2
#3	142950.	23779.	6485.7	8135.7

Zoom In Zoom Out

Sample Name: mp13130-sd1 Acquired: 3/18/2019 16:00:44 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1243**	**.0037**	**.0038**	**.0050**	**.0030**	**.0041**	**.1230**	**.0033**	**-.0018**
Stddev	.0020	.0003	.0006	.0008	.0011	.0032	.0004	.0013	.0003
%RSD	1.611	7.777	16.41	15.38	36.27	78.61	.3504	38.08	18.83
#1	.1224	.0038	.0034	.0058	.0041	.0010	.1229	.0020	-.0017
#2	.1264	.0038	.0034	.0050	.0019	.0038	.1227	.0033	-.0021
#3	.1240	.0033	.0045	.0043	.0029	.0074	.1235	.0046	-.0015

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0028**	**.0021**	**.0028**	**.0089**	**.0045**	**-.0087**	**.0012**	**.0191**	**33.15**
Stddev	.0002	.0003	.0047	.0092	.0025	.0064	.0070	.0517	.08
%RSD	6.710	12.37	168.4	103.9	55.65	73.42	591.5	270.0	.2413
#1	.0029	.0018	.0063	.0011	.0050	-.0048	.0020	.0037	33.08
#2	.0029	.0023	.0046	.0065	.0018	-.0160	.0077	-.0231	33.12
#3	.0026	.0021	-.0025	.0190	.0067	-.0052	-.0062	.0767	33.23

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.682**	**12.94**	**2.827**	**14.45**	**.0548**	**.0047**	**8.920**	**.0010**	**.4512**
Stddev	.005	.08	.126	.09	.0008	.0003	.022	.0005	.0005
%RSD	.1239	.6164	4.472	.6460	1.512	6.486	.2473	48.67	.1021
#1	3.679	12.92	2.970	14.36	.0540	.0044	8.905	.0008	.4509
#2	3.680	12.87	2.730	14.44	.0548	.0047	8.945	.0015	.4510
#3	3.687	13.03	2.780	14.55	.0557	.0050	8.910	.0006	.4517

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**.0107**	**.0037**	**8.745**	**.0010**	**.0472**	**.0608**
Stddev	.0007	.0070	.0016	.010	.0055	.0028	.0087
%RSD	17.41	65.16	43.13	.1096	562.3	5.951	14.32
#1	.0038	.0179	.0021	8.734	-.0051	.0442	.0638
#2	.0045	.0040	.0037	8.751	.0023	.0474	.0676
#3	.0032	.0102	.0053	8.750	.0057	.0498	.0510

Zoom In Zoom Out

Sample Name: mp13130-sd1 Acquired: 3/18/2019 16:00:44 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146650.**	**23582.**	**6522.2**	**8386.2**
Stddev	635.	136.	23.7	22.2
%RSD	.43326	.57636	.36412	.26524
#1	146200.	23613.	6507.9	8370.5
#2	147370.	23700.	6509.0	8376.4
#3	146360.	23434.	6549.6	8411.7

Zoom In Zoom Out

Sample Name: mp13130-ps1 Acquired: 3/18/2019 16:05:46 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.217**	**2.133**	**2.051**	**2.084**	**2.073**	**2.073**	**2.188**	**2.086**	**.2491**
Stddev	.001	.003	.048	.043	.002	.001	.014	.042	.0004
%RSD	.0538	.1320	2.329	2.066	.0818	.0355	.6524	2.035	.1787
#1	2.218	2.131	2.089	2.117	2.071	2.073	2.201	2.118	.2490
#2	2.218	2.133	1.997	2.035	2.074	2.074	2.172	2.037	.2495
#3	2.216	2.137	2.067	2.100	2.073	2.073	2.190	2.101	.2486

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.062**	**2.039**	**2.113**	**2.152**	**2.083**	**2.032**	**2.097**	**25.54**	**57.43**
Stddev	.003	.046	.049	.046	.040	.050	.051	.05	.10
%RSD	.1524	2.273	2.314	2.132	1.923	2.469	2.434	.1947	.1690
#1	2.063	2.077	2.151	2.182	2.115	2.070	2.136	25.49	57.33
#2	2.065	1.988	2.058	2.099	2.038	1.975	2.039	25.55	57.42
#3	2.059	2.052	2.129	2.176	2.096	2.051	2.116	25.59	57.53

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**29.07**	**37.71**	**27.70**	**39.48**	**2.098**	**2.063**	**8.443**	**2.122**	**2.531**
Stddev	.05	.08	.05	.03	.049	.049	.199	.047	.002
%RSD	.1650	.2054	.1825	.0847	2.355	2.395	2.360	2.224	.0644
#1	29.02	37.70	27.65	39.44	2.138	2.102	8.598	2.161	2.529
#2	29.08	37.64	27.75	39.50	2.043	2.008	8.218	2.070	2.533
#3	29.11	37.79	27.69	39.50	2.114	2.080	8.513	2.136	2.531

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.123**	**1.943**	**2.140**	**8.585**	**.0465**	**.0342**	**2.042**
Stddev	.003	.049	.004	.235	.0024	.0012	.046
%RSD	.1601	2.513	.1838	2.736	5.146	3.546	2.260
#1	2.124	1.984	2.141	8.758	.0459	.0331	2.079
#2	2.127	1.889	2.144	8.317	.0492	.0355	1.990
#3	2.120	1.955	2.136	8.679	.0445	.0340	2.058

Zoom In Zoom Out

Sample Name: mp13130-ps1 Acquired: 3/18/2019 16:05:46 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**139290.**	**23300.**	**6346.7**	**7864.2**
Stddev	482.	182.	107.8	112.6
%RSD	.34572	.77909	1.6981	1.4314
#1	139800.	23500.	6249.7	7765.9
#2	138840.	23254.	6462.7	7987.0
#3	139240.	23145.	6327.5	7839.7

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2019 16:10:46 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.992**	**2.018**	**1.992**	**2.029**	**1.975**	**1.967**	**2.000**	**2.033**	**.2452**
Stddev	.005	.009	.003	.000	.004	.001	.018	.000	.0001
%RSD	.2631	.4412	.1503	.0143	.2031	.0343	.9005	.0183	.0355
#1	1.995	2.025	1.990	2.029	1.971	1.966	1.987	2.033	.2451
#2	1.986	2.008	1.991	2.030	1.979	1.967	2.021	2.033	.2453
#3	1.996	2.020	1.996	2.029	1.976	1.968	1.993	2.032	.2452
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.965**	**1.995**	**2.006**	**2.062**	**2.029**	**1.975**	**2.024**	**39.26**	**39.51**
Stddev	.003	.003	.004	.002	.001	.002	.004	.12	.15
%RSD	.1728	.1638	.1826	.0764	.0365	.0770	.2170	.3156	.3903
#1	1.963	1.991	2.003	2.060	2.028	1.976	2.019	39.37	39.64
#2	1.969	1.995	2.005	2.063	2.028	1.976	2.025	39.12	39.34
#3	1.965	1.997	2.010	2.062	2.030	1.973	2.027	39.27	39.55
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.29**	**39.58**	**39.69**	**40.10**	**2.014**	**2.025**	**4.868**	**2.047**	**1.997**
Stddev	.14	.09	.07	.06	.002	.004	.009	.006	.007
%RSD	.3632	.2298	.1730	.1539	.0926	.2055	.1796	.2715	.3508
#1	39.40	39.62	39.77	40.15	2.016	2.021	4.862	2.042	2.003
#2	39.13	39.47	39.67	40.03	2.012	2.024	4.863	2.046	1.989
#3	39.33	39.64	39.64	40.11	2.015	2.029	4.878	2.053	2.000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2019 16:10:46 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.014**	**1.992**	**2.029**	**1.916**	**2.011**	**1.997**	**1.952**
Stddev	.003	.005	.003	.006	.005	.007	.003
%RSD	.1282	.2329	.1410	.2958	.2306	.3644	.1479
#1	2.012	1.990	2.026	1.919	2.007	2.005	1.949
#2	2.013	1.990	2.032	1.910	2.010	1.991	1.955
#3	2.017	1.998	2.030	1.920	2.016	1.996	1.952
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141560.**	**23411.**	**6332.6**	**7843.5**
Stddev	256.	162.	20.9	9.7
%RSD	.18106	.69367	.32944	.12420
#1	141650.	23590.	6350.9	7851.1
#2	141750.	23272.	6337.1	7847.0
#3	141270.	23370.	6309.9	7832.5

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2019 16:15:47 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	F **.0008**	**.0010**	**.0004**	**.0003**	**.0002**	**.0006**	**-.0000**
Stddev	.0002	.0001	.0002	.0001	.0002	.0003	.0001	.0001	.0001
%RSD	148.8	134.2	24.94	13.01	37.00	87.58	24.11	21.59	365.7
#1	.0003	.0000	.0006	.0010	.0006	.0005	.0002	.0006	.0001
#2	-.0001	-.0000	.0008	.0010	.0003	.0003	.0002	.0004	-.0001
#3	.0002	.0002	.0010	.0012	.0003	.0000	.0003	.0006	-.0001
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.0007						
Low Limit			-.0007						

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0000**	**.0006**	**.0004**	**.0004**	**-.0023**	**.0000**	**-.0065**	**.0031**
Stddev	.0002	.0001	.0002	.0008	.0007	.0016	.0004	.0066	.0021
%RSD	197.5	289.5	36.66	197.6	175.7	69.27	21230.	101.5	67.67
#1	-.0002	-.0001	.0004	.0008	-.0003	-.0024	-.0001	-.0004	.0049
#2	-.0003	-.0002	.0005	.0009	.0003	-.0007	.0005	-.0055	.0008
#3	.0001	.0001	.0008	-.0005	.0012	-.0039	-.0004	-.0136	.0034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0055**	**.2955**	**.0792**	**.0045**	**.0013**	**.0032**	**.0007**	**.0001**
Stddev	.0016	.0121	.0463	.0051	.0008	.0002	.0006	.0004	.0001
%RSD	286.8	218.9	15.68	6.497	17.63	13.34	19.59	60.65	90.48
#1	.0011	.0164	.3323	.0791	.0051	.0011	.0027	.0005	.0002
#2	.0018	.0079	.3106	.0740	.0047	.0014	.0039	.0011	.0000
#3	-.0012	-.0076	.2435	.0843	.0036	.0014	.0029	.0004	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2019 16:15:47 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0037**	**.0001**	**.0001**	**.0004**	**.0030**	**.0014**
Stddev	.0003	.0008	.0002	.0030	.0006	.0009	.0023
%RSD	87.73	22.35	343.6	4382.	139.6	30.30	163.6
#1	.0005	.0040	-.0002	.0029	-.0000	.0030	-.0007
#2	.0000	.0043	.0001	.0005	.0002	.0040	.0039
#3	.0006	.0028	.0003	-.0031	.0010	.0022	.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**147520.**	**23531.**	**6505.0**	**8457.0**
Stddev	301.	218.	9.1	15.7
%RSD	.20387	.92849	.13956	.18581
#1	147410.	23444.	6495.4	8442.3
#2	147300.	23780.	6513.4	8455.1
#3	147870.	23370.	6506.3	8473.6

Zoom In Zoom Out

Sample Name: jc84297-2 Acquired: 3/18/2019 16:20:53 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3435**	**.0005**	**.0002**	**.0003**	**.0011**	**.0003**	**.4173**	**.0000**	**.0003**
Stddev	.0019	.0001	.0004	.0001	.0003	.0002	.0049	.0006	.0004
%RSD	.5406	13.29	185.6	26.13	29.43	50.11	1.181	2319.	123.9
#1	.3452	.0005	.0001	.0002	.0009	.0003	.4134	-.0003	.0006
#2	.3415	.0005	-.0001	.0003	.0010	.0002	.4156	-.0003	-.0001
#3	.3437	.0004	.0006	.0004	.0015	.0005	.4228	.0007	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0016**	**.0005**	**.0010**	**-.0011**	**-.0032**	**.0004**	**.0070**	**29.68**
Stddev	.0005	.0002	.0015	.0013	.0005	.0029	.0019	.0095	.13
%RSD	288.5	15.56	289.3	132.5	41.49	91.15	467.7	135.7	.4433
#1	.0006	.0013	-.0010	-.0001	-.0015	-.0003	.0016	.0142	29.80
#2	.0003	.0016	.0005	.0025	-.0006	-.0032	-.0018	-.0038	29.54
#3	-.0004	.0018	.0020	.0006	-.0012	-.0061	.0015	.0106	29.70

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**31.73**	**12.53**	**1.730**	**11.92**	**.0317**	**.0010**	**13.69**	**-.0019**	**.2434**
Stddev	.15	.06	.026	.06	.0006	.0001	.03	.0006	.0013
%RSD	.4736	.4731	1.510	.5171	1.812	5.861	.1824	31.03	.5288
#1	31.87	12.59	1.758	11.99	.0317	.0010	13.67	-.0023	.2447
#2	31.57	12.47	1.706	11.87	.0311	.0010	13.72	-.0012	.2422
#3	31.76	12.51	1.725	11.90	.0323	.0011	13.70	-.0022	.2433

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0003**	**-.0006**	**5.809**	**-.0004**	**.0275**	**1.930**
Stddev	.0001	.0011	.0002	.113	.0008	.0008	.045
%RSD	557.5	431.8	29.12	1.947	181.6	2.958	2.314
#1	.0001	-.0000	-.0004	5.688	-.0013	.0283	1.891
#2	-.0002	.0007	-.0007	5.826	-.0004	.0267	1.920
#3	.0000	-.0015	-.0007	5.912	.0003	.0275	1.979

Zoom In Zoom Out

Sample Name: jc84297-2 Acquired: 3/18/2019 16:20:53 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**147470.**	**24206.**	**6486.9**	**8146.3**
Stddev	1462.	192.	6.8	9.4
%RSD	.99123	.79401	.10552	.11519
#1	148780.	24009.	6482.1	8152.3
#2	147740.	24216.	6494.8	8151.1
#3	145890.	24393.	6483.9	8135.5

Zoom In Zoom Out

Sample Name: jc84297-1f Acquired: 3/18/2019 16:25:54 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1048**	**.0000**	**.0000**	**.0002**	**.0003**	**.0010**	**.1052**	**.0001**	**.0227**
Stddev	.0017	.0001	.0001	.0004	.0002	.0006	.0018	.0002	.0003
%RSD	1.590	1274.	1351.	185.2	83.79	59.99	1.752	356.6	1.236
#1	.1038	-.0000	-.0001	.0002	.0004	.0017	.1065	.0002	.0229
#2	.1039	.0001	.0001	.0007	.0003	.0004	.1060	-.0001	.0228
#3	.1067	-.0000	-.0000	-.0002	.0000	.0010	.1031	.0000	.0224

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0008**	**-.0011**	**-.0002**	**-.0016**	**-.0029**	**.0000**	**-.0057**	**31.71**
Stddev	.0000	.0001	.0007	.0008	.0009	.0009	.0019	.0058	.38
%RSD	15.60	15.95	58.79	333.7	58.74	31.38	10740.	102.1	1.195
#1	.0001	.0009	-.0008	.0006	-.0008	-.0031	.0022	.0002	31.39
#2	.0001	.0007	-.0019	-.0003	-.0026	-.0037	-.0007	-.0059	31.60
#3	.0002	.0007	-.0007	-.0010	-.0013	-.0019	-.0014	-.0113	32.13

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0797**	**12.26**	**1.839**	**13.63**	**.0412**	**.0010**	**8.361**	**-.0011**	**.4266**
Stddev	.0004	.15	.021	.15	.0010	.0003	.002	.0001	.0053
%RSD	.5066	1.220	1.171	1.084	2.465	30.68	.0267	9.606	1.253
#1	.0792	12.13	1.852	13.51	.0407	.0013	8.364	-.0010	.4218
#2	.0800	12.22	1.850	13.60	.0405	.0011	8.360	-.0012	.4257
#3	.0799	12.42	1.814	13.80	.0423	.0007	8.360	-.0011	.4323

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0022**	**-.0003**	**8.850**	**-.0015**	**.0337**	**.0325**
Stddev	.0002	.0020	.0002	.018	.0015	.0009	.0028
%RSD	1749.	92.17	60.87	.2053	103.4	2.763	8.720
#1	-.0000	.0001	-.0003	8.849	-.0029	.0339	.0328
#2	-.0002	.0024	-.0006	8.832	-.0016	.0328	.0295
#3	.0002	.0042	-.0002	8.868	.0001	.0346	.0352

Zoom In Zoom Out

Sample Name: jc84297-1f Acquired: 3/18/2019 16:25:54 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**145840.**	**24509.**	**6495.5**	**8154.8**
Stddev	1957.	190.	22.7	14.3
%RSD	1.3416	.77707	.35023	.17520
#1	144920.	24648.	6521.5	8168.4
#2	144520.	24588.	6485.2	8156.1
#3	148090.	24292.	6479.7	8139.9

Zoom In Zoom Out

Sample Name: jc84297-2f Acquired: 3/18/2019 16:30:56 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0893**	**.0000**	**.0003**	**.0001**	**.0003**	**.0003**	**.2047**	**-.0004**	**.0001**
Stddev	.0004	.0001	.0002	.0002	.0002	.0003	.0002	.0002	.0004
%RSD	.4307	1460.	74.68	412.9	80.78	103.2	.0811	54.91	305.6
#1	.0897	-.0001	.0006	.0000	.0002	.0001	.2045	-.0002	.0005
#2	.0892	.0001	.0003	.0003	.0001	.0006	.2049	-.0006	.0001
#3	.0889	.0000	.0001	-.0002	.0005	.0001	.2047	-.0003	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**-.0005**	**-.0000**	**-.0013**	**-.0033**	**.0002**	**-.0140**	**28.85**
Stddev	.0001	.0000	.0018	.0005	.0008	.0003	.0020	.0097	.08
%RSD	85.28	21.07	350.6	1226.	63.76	9.148	1086.	69.11	.2653
#1	.0000	.0002	-.0007	-.0004	-.0022	-.0036	-.0013	-.0219	28.93
#2	.0001	.0003	.0014	.0005	-.0007	-.0030	.0025	-.0032	28.78
#3	.0003	.0003	-.0022	-.0002	-.0010	-.0032	-.0006	-.0170	28.83

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2988**	**12.87**	**1.643**	**12.40**	**.0326**	**.0006**	**9.994**	**-.0025**	**.2139**
Stddev	.0022	.03	.027	.01	.0001	.0003	.007	.0007	.0001
%RSD	.7249	.2245	1.637	.1135	.2543	44.54	.0658	26.96	.0551
#1	.2976	12.88	1.618	12.39	.0326	.0007	9.994	-.0017	.2141
#2	.2974	12.83	1.672	12.38	.0327	.0007	9.988	-.0027	.2139
#3	.3013	12.88	1.640	12.41	.0325	.0003	10.00	-.0030	.2139

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0002**	**-.0006**	**5.998**	**-.0018**	**.0304**	**.0652**
Stddev	.0001	.0013	.0001	.038	.0015	.0023	.0009
%RSD	35.96	508.7	10.46	.6295	81.34	7.700	1.457
#1	-.0001	-.0017	-.0006	6.008	-.0020	.0330	.0661
#2	-.0002	.0005	-.0005	5.956	-.0002	.0284	.0642
#3	-.0003	.0004	-.0005	6.029	-.0032	.0298	.0653

Zoom In Zoom Out

Sample Name: jc84297-2f Acquired: 3/18/2019 16:30:56 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146280.**	**23825.**	**6431.7**	**8093.6**
Stddev	161.	58.	27.8	21.4
%RSD	.11004	.24173	.43183	.26439
#1	146390.	23775.	6415.5	8083.8
#2	146350.	23888.	6415.9	8078.9
#3	146090.	23812.	6463.8	8118.2

Zoom In Zoom Out

Sample Name: jc84299-1 Acquired: 3/18/2019 16:35:56 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0147**	**.0000**	**-.0000**	**.0009**	**.0005**	**.0185**	**.0434**	**.0055**	**-.0001**
Stddev	.0003	.0000	.0003	.0002	.0001	.0012	.0023	.0003	.0006
%RSD	2.178	157.1	6585.	16.60	26.92	6.292	5.303	5.591	579.5
#1	.0144	.0001	.0003	.0010	.0004	.0198	.0459	.0053	-.0005
#2	.0150	.0001	.0000	.0008	.0006	.0176	.0414	.0054	-.0003
#3	.0146	-.0000	-.0003	.0010	.0004	.0181	.0429	.0058	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0018**	**.0439**	**.0009**	**-.0007**	**-.0030**	**-.0011**	**-.0071**	**39.41**
Stddev	.0005	.0000	.0017	.0007	.0005	.0009	.0012	.0056	.09
%RSD	787.4	.6725	3.980	71.41	61.19	30.35	106.7	78.76	.2375
#1	-.0004	.0018	.0451	.0008	-.0003	-.0034	-.0004	-.0036	39.45
#2	.0005	.0018	.0419	.0016	-.0008	-.0037	-.0005	-.0042	39.47
#3	-.0002	.0018	.0447	.0003	-.0012	-.0020	-.0025	-.0135	39.30

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.081**	**5.511**	**7.950**	**23.16**	**.1074**	**.0005**	**7.979**	**-.0020**	**.2845**
Stddev	.001	.007	.015	.02	.0006	.0001	.017	.0004	.0006
%RSD	.1022	.1305	.1886	.0978	.5250	14.19	.2141	20.96	.2058
#1	1.082	5.503	7.955	23.16	.1072	.0005	7.960	-.0017	.2850
#2	1.081	5.517	7.962	23.19	.1070	.0005	7.984	-.0025	.2846
#3	1.080	5.512	7.934	23.14	.1080	.0004	7.992	-.0018	.2838

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0002**	**-.0006**	**1.624**	**-.0017**	**.0037**	**.0193**
Stddev	.0002	.0009	.0001	.002	.0014	.0014	.0032
%RSD	33.62	389.9	14.98	.1130	83.25	36.57	16.75
#1	-.0004	-.0005	-.0006	1.622	-.0001	.0034	.0187
#2	-.0005	.0013	-.0006	1.623	-.0028	.0025	.0164
#3	-.0007	-.0000	-.0005	1.626	-.0021	.0052	.0228

Zoom In Zoom Out

Sample Name: jc84299-1 Acquired: 3/18/2019 16:35:56 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150170.**	**23917.**	**6540.3**	**8139.9**
Stddev	6655.	103.	14.1	13.3
%RSD	4.4315	.42985	.21583	.16326
#1	142870.	23934.	6555.1	8155.2
#2	155910.	23807.	6527.0	8131.5
#3	151720.	24010.	6538.8	8132.9

Zoom In Zoom Out

Sample Name: jc84299-2 Acquired: 3/18/2019 16:40:55 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0491**	**-.0000**	**-.0004**	**.0187**	**.0011**	**.0005**	**2.092**	**.0065**	**.0005**
Stddev	.0002	.0000	.0002	.0002	.0001	.0004	.015	.0004	.0001
%RSD	.3909	73.61	53.32	1.299	7.196	82.84	.7089	6.271	24.67
#1	.0489	-.0001	-.0006	.0189	.0011	.0002	2.077	.0068	.0004
#2	.0490	-.0000	-.0004	.0185	.0010	.0004	2.091	.0060	.0007
#3	.0493	-.0000	-.0002	.0189	.0010	.0010	2.107	.0067	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0016**	**1.670**	**.0008**	**-.0024**	**-.0012**	**-.0010**	**.0030**	**48.06**
Stddev	.0002	.0000	.006	.0008	.0016	.0006	.0010	.0104	.05
%RSD	14.52	2.563	.3760	104.8	66.34	52.87	95.70	348.5	.0966
#1	.0014	.0016	1.675	.0002	-.0022	-.0013	-.0010	.0098	48.02
#2	.0014	.0016	1.663	.0017	-.0042	-.0005	-.0001	-.0090	48.04
#3	.0011	.0016	1.672	.0005	-.0009	-.0017	-.0021	.0082	48.11

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**64.56**	**6.927**	**9.120**	**13.38**	**.1459**	**.0017**	**9.420**	**-.0023**	**.3700**
Stddev	.07	.014	.046	.01	.0003	.0002	.005	.0001	.0004
%RSD	.1148	.1998	.5013	.0841	.2370	10.84	.0518	4.345	.0993
#1	64.48	6.929	9.151	13.37	.1458	.0018	9.422	-.0022	.3696
#2	64.56	6.912	9.142	13.40	.1455	.0017	9.415	-.0023	.3703
#3	64.63	6.939	9.068	13.39	.1462	.0015	9.424	-.0024	.3701

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0010**	**-.0000**	**1.551**	**-.0006**	**-.0007**	**.0731**
Stddev	.0003	.0012	.0001	.015	.0006	.0024	.0015
%RSD	146.7	120.1	1212.	.9389	92.36	327.3	2.073
#1	-.0003	-.0016	.0000	1.563	-.0010	.0014	.0716
#2	-.0004	.0004	-.0001	1.535	-.0008	-.0034	.0746
#3	.0001	-.0017	.0001	1.555	.0000	-.0003	.0733

Zoom In Zoom Out

Sample Name: jc84299-2 Acquired: 3/18/2019 16:40:55 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**145520.**	**23952.**	**6457.4**	**8110.2**
Stddev	508.	140.	14.9	12.1
%RSD	.34891	.58651	.23045	.14925
#1	145520.	24105.	6441.2	8097.2
#2	145010.	23921.	6460.7	8112.4
#3	146030.	23829.	6470.4	8121.1

Zoom In Zoom Out

Sample Name: jc84299-3 Acquired: 3/18/2019 16:46:01 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0150**	**-.0000**	**.0004**	**.0152**	**.0008**	**.0006**	**2.423**	**.0064**	**.0007**
Stddev	.0003	.0000	.0003	.0002	.0003	.0003	.022	.0002	.0005
%RSD	2.096	73.19	68.68	1.140	33.52	58.17	.9249	3.880	66.73
#1	.0148	-.0000	.0002	.0151	.0010	.0007	2.421	.0063	.0008
#2	.0154	-.0001	.0004	.0152	.0010	.0002	2.447	.0062	.0011
#3	.0149	-.0001	.0007	.0154	.0005	.0008	2.402	.0066	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0011**	**3.383**	**.0008**	**-.0014**	**-.0029**	**-.0015**	**-.0069**	**27.61**
Stddev	.0004	.0001	.003	.0009	.0006	.0021	.0024	.0106	.06
%RSD	33.97	4.928	.0971	106.8	41.80	70.18	165.0	154.7	.2196
#1	.0017	.0010	3.380	.0001	-.0008	-.0053	-.0037	-.0189	27.55
#2	.0012	.0011	3.386	.0017	-.0015	-.0023	.0011	.0010	27.61
#3	.0009	.0011	3.385	.0006	-.0020	-.0013	-.0019	-.0027	27.67

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.84**	**3.249**	**4.019**	**6.881**	**.0464**	**.0026**	**8.202**	**-.0006**	**.1893**
Stddev	.06	.015	.050	.026	.0007	.0002	.019	.0001	.0001
%RSD	.1445	.4585	1.251	.3757	1.452	6.181	.2343	13.90	.0574
#1	41.78	3.247	4.072	6.857	.0457	.0027	8.181	-.0005	.1892
#2	41.83	3.236	3.972	6.908	.0471	.0026	8.219	-.0006	.1894
#3	41.90	3.265	4.012	6.879	.0464	.0024	8.206	-.0006	.1892

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0006**	**-.0002**	**1.621**	**.0001**	**-.0003**	**.0557**
Stddev	.0003	.0002	.0003	.006	.0019	.0016	.0012
%RSD	977.8	27.45	180.3	.3757	3145.	547.5	2.198
#1	-.0003	-.0007	-.0001	1.620	.0022	.0013	.0563
#2	.0001	-.0005	-.0005	1.628	-.0015	-.0020	.0565
#3	.0002	-.0004	.0001	1.616	-.0005	-.0003	.0543

Zoom In Zoom Out

Sample Name: jc84299-3 Acquired: 3/18/2019 16:46:01 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**147790.**	**24056.**	**6510.5**	**8249.9**
Stddev	428.	86.	13.1	6.0
%RSD	.28959	.35619	.20172	.07284
#1	147900.	23996.	6523.9	8255.1
#2	147310.	24018.	6510.2	8251.4
#3	148140.	24154.	6497.6	8243.4

Zoom In Zoom Out

Sample Name: mp015-1145conf Acquired: 3/18/2019 16:51:07 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.914**	**1.933**	**1.892**	**1.923**	**1.900**	**1.921**	**1.953**	**1.921**	**-.0003**
Stddev	.002	.001	.001	.000	.002	.002	.035	.001	.0005
%RSD	.1041	.0673	.0503	.0177	.0767	.1143	1.790	.0556	149.4
#1	1.912	1.934	1.892	1.923	1.899	1.923	1.993	1.922	-.0007
#2	1.916	1.934	1.891	1.923	1.900	1.923	1.929	1.921	.0002
#3	1.914	1.931	1.893	1.923	1.902	1.919	1.937	1.919	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.856**	**1.910**	**.0017**	**1.985**	**1.945**	**1.835**	**.0002**	**-.0108**	**.0562**
Stddev	.000	.001	.0003	.004	.002	.002	.0015	.0111	.0034
%RSD	.0055	.0610	16.60	.2000	.0841	.1078	711.0	102.8	6.111
#1	1.856	1.909	.0016	1.985	1.946	1.833	.0002	-.0061	.0539
#2	1.856	1.911	.0015	1.989	1.945	1.834	.0017	-.0028	.0545
#3	1.857	1.911	.0020	1.981	1.943	1.837	-.0012	-.0234	.0601

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**.0227**	**.2621**	**.1082**	**1.892**	**-.0001**	**-.0769**	**.0001**	**1.925**
Stddev	.0017	.0021	.0401	.0047	.003	.0001	.0001	.0007	.002
%RSD	64.70	9.248	15.30	4.328	.1806	151.2	.1454	967.3	.1176
#1	.0046	.0202	.2160	.1093	1.895	.0000	-.0769	-.0006	1.924
#2	.0021	.0239	.2811	.1123	1.891	-.0002	-.0767	-.0000	1.928
#3	.0013	.0238	.2892	.1031	1.888	-.0001	-.0770	.0008	1.925

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0101**	**.0009**	**.0151**	**.0008**	**.0005**	**1.625**
Stddev	.0005	.0005	.0001	.0029	.0013	.0012	.007
%RSD	70.69	4.634	13.87	19.07	158.8	238.3	.4470
#1	-.0011	.0102	.0011	.0164	-.0000	-.0001	1.626
#2	-.0007	.0105	.0008	.0118	.0024	.0019	1.632
#3	-.0002	.0096	.0009	.0171	.0002	-.0003	1.618

Zoom In Zoom Out

Sample Name: mp015-1145conf Acquired: 3/18/2019 16:51:07 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149350.**	**23920.**	**6563.4**	**8546.5**
Stddev	98.	80.	3.2	.6
%RSD	.06560	.33355	.04900	.00701
#1	149440.	24012.	6567.1	8547.2
#2	149250.	23876.	6562.4	8546.4
#3	149350.	23871.	6560.9	8546.0

Zoom In Zoom Out

Sample Name: mp015-1146conf Acquired: 3/18/2019 16:56:10 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**.0002**	**.0015**	**-.0004**	**-.0005**	**.0011**	**.0002**	**-.0002**	**-.0002**
Stddev	.0003	.0001	.0004	.0003	.0003	.0002	.0001	.0002	.0006
%RSD	43.27	38.97	23.81	68.72	61.10	23.14	38.70	65.60	335.7
#1	-.0007	.0002	.0013	-.0008	-.0003	.0012	.0002	-.0002	.0002
#2	-.0011	.0001	.0013	-.0004	-.0009	.0008	.0002	-.0004	.0001
#3	-.0005	.0001	.0019	-.0001	-.0004	.0012	.0001	-.0001	-.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0000**	**1.940**	**.0050**	**-.0014**	**-.0025**	**2.020**	**.0063**	**-.0158**
Stddev	.0002	.0002	.002	.0008	.0004	.0014	.003	.0088	.0027
%RSD	22.81	701.7	.1004	16.64	29.41	56.51	.1600	140.2	17.03
#1	.0008	.0000	1.939	.0055	-.0010	-.0031	2.017	-.0034	-.0169
#2	.0012	-.0002	1.943	.0054	-.0018	-.0009	2.020	.0140	-.0177
#3	.0010	.0002	1.939	.0040	-.0013	-.0035	2.023	.0083	-.0127

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0022**	**.1214**	**.0174**	**.0067**	**2.032**	**.0711**	**2.092**	**.0001**
Stddev	.0014	.0072	.0106	.0107	.0004	.002	.0015	.003	.0001
%RSD	230.4	332.8	8.733	61.27	6.041	.1084	2.063	.1254	85.56
#1	-.0002	.0015	.1251	.0293	.0063	2.035	.0701	2.093	.0002
#2	.0022	.0025	.1297	.0089	.0071	2.033	.0728	2.094	.0000
#3	-.0002	-.0105	.1095	.0140	.0067	2.030	.0705	2.089	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.996**	**1.962**	**2.003**	**.0259**	**.0325**	**.0002**	**.0162**
Stddev	.003	.004	.004	.0010	.0026	.0020	.0023
%RSD	.1728	.1975	.1737	4.051	7.886	893.9	14.03
#1	1.992	1.960	2.001	.0261	.0303	-.0018	.0137
#2	1.999	1.960	2.007	.0248	.0353	.0002	.0181
#3	1.997	1.966	2.000	.0269	.0318	.0023	.0168

Zoom In Zoom Out

Sample Name: mp015-1146conf Acquired: 3/18/2019 16:56:10 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146810.**	**24049.**	**6433.1**	**8382.1**
Stddev	533.	551.	19.8	22.7
%RSD	.36299	2.2925	.30714	.27024
#1	147410.	24361.	6414.9	8365.5
#2	146600.	24374.	6430.4	8373.0
#3	146410.	23413.	6454.1	8407.9

Zoom In Zoom Out

Sample Name: mp13174-mb1conf Acquired: 3/18/2019 17:01:09 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0001**	**-.0002**	**.0005**	**-.0007**	**.0008**	**.0002**	**.0004**	**-.0003**
Stddev	.0003	.0001	.0002	.0002	.0001	.0003	.0000	.0002	.0003
%RSD	80.91	87.24	123.7	37.77	14.73	40.47	12.93	49.82	96.63
#1	.0003	.0002	-.0003	.0005	-.0007	.0005	.0002	.0002	-.0001
#2	.0006	.0002	.0001	.0003	-.0005	.0012	.0002	.0004	-.0006
#3	.0001	.0000	-.0003	.0007	-.0007	.0007	.0002	.0006	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0012**	**.0011**	**.0010**	**.0000**	**-.0031**	**.0005**	**-.0098**	**.0181**
Stddev	.0003	.0001	.0006	.0005	.0010	.0009	.0009	.0062	.0021
%RSD	98.25	10.21	53.88	53.67	2232.	29.84	174.5	62.87	11.62
#1	-.0000	.0013	.0018	.0015	-.0009	-.0020	.0015	-.0168	.0176
#2	-.0002	.0014	.0009	.0007	-.0000	-.0033	.0005	-.0079	.0205
#3	-.0005	.0011	.0006	.0006	.0011	-.0038	-.0004	-.0049	.0164

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035**	**-.0069**	**.0317**	**.0231**	**.0007**	**.0000**	**.0032**	**-.0008**	**.0004**
Stddev	.0022	.0133	.0130	.0113	.0004	.0001	.0011	.0003	.0001
%RSD	62.31	191.4	40.97	48.88	55.36	373.8	34.95	38.11	12.86
#1	.0020	-.0186	.0203	.0347	.0007	-.0000	.0030	-.0006	.0005
#2	.0025	-.0097	.0458	.0226	.0011	-.0000	.0044	-.0005	.0004
#3	.0060	.0075	.0289	.0121	.0003	.0001	.0022	-.0011	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0001**	**.0001**	**.0059**	**.0012**	**-.0048**	**.0032**
Stddev	.0002	.0005	.0001	.0010	.0017	.0026	.0012
%RSD	34.41	446.6	151.1	16.38	137.8	53.23	36.81
#1	.0009	.0002	.0000	.0067	.0026	-.0039	.0041
#2	.0005	-.0004	.0002	.0061	.0017	-.0077	.0019
#3	.0005	.0006	.0000	.0048	-.0007	-.0029	.0036

Zoom In Zoom Out

Sample Name: mp13174-mb1conf Acquired: 3/18/2019 17:01:09 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150080.**	**24275.**	**6815.3**	**8985.9**
Stddev	1110.	66.	124.4	121.9
%RSD	.73976	.27359	1.8254	1.3567
#1	150210.	24343.	6759.7	8924.5
#2	148920.	24210.	6728.3	8907.0
#3	151120.	24273.	6957.8	9126.3

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2019 17:06:14 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.027**	**2.073**	**1.988**	**2.030**	**1.974**	**1.970**	**1.979**	**2.033**	**.2453**
Stddev	.020	.019	.013	.012	.019	.019	.015	.011	.0029
%RSD	.9619	.8991	.6635	.5840	.9635	.9625	.7744	.5367	1.188
#1	2.040	2.081	2.004	2.044	1.963	1.960	1.992	2.045	.2438
#2	2.036	2.086	1.980	2.024	1.964	1.957	1.962	2.027	.2434
#3	2.005	2.052	1.981	2.023	1.996	1.991	1.984	2.026	.2487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.964**	**1.987**	**2.006**	**2.085**	**2.026**	**1.977**	**2.015**	**40.17**	**40.42**
Stddev	.018	.013	.015	.013	.013	.012	.013	.34	.37
%RSD	.9442	.6757	.7667	.6204	.6525	.6102	.6352	.8540	.9088
#1	1.954	2.002	2.022	2.096	2.041	1.991	2.030	40.29	40.63
#2	1.952	1.980	2.004	2.088	2.017	1.971	2.007	40.44	40.65
#3	1.985	1.978	1.991	2.071	2.020	1.969	2.009	39.78	40.00
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.24**	**40.34**	**40.64**	**40.91**	**2.002**	**2.023**	**4.856**	**2.044**	**2.041**
Stddev	.39	.41	.32	.36	.011	.015	.035	.014	.020
%RSD	.9678	1.010	.7904	.8739	.5514	.7621	.7195	.6994	.9720
#1	40.46	40.54	40.69	41.17	2.015	2.040	4.896	2.059	2.054
#2	40.47	40.61	40.94	41.07	1.999	2.017	4.840	2.042	2.052
#3	39.79	39.87	40.30	40.50	1.993	2.011	4.832	2.030	2.019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 3/18/2019 17:06:14 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.008**	**1.981**	**2.028**	**1.921**	**2.007**	**2.047**	**1.914**
Stddev	.018	.012	.019	.014	.010	.015	.005
%RSD	.9227	.5949	.9159	.7179	.4970	.7183	.2615
#1	1.999	1.994	2.018	1.929	2.018	2.054	1.916
#2	1.995	1.975	2.016	1.929	2.001	2.057	1.917
#3	2.029	1.972	2.050	1.905	2.001	2.030	1.908
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141820.**	**23145.**	**6359.1**	**7844.3**
Stddev	1376.	176.	36.5	39.3
%RSD	.97025	.75907	.57435	.50095
#1	142780.	23042.	6318.9	7803.0
#2	142430.	23045.	6390.2	7881.3
#3	140240.	23348.	6368.3	7848.4

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2019 17:11:16 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0003**	**.0004**	**.0001**	**.0002**	**.0003**	**.0003**	**-.0005**
Stddev	.0001	.0001	.0002	.0002	.0003	.0005	.0000	.0004	.0002
%RSD	220.6	43.26	66.82	40.91	241.4	268.8	5.471	131.5	36.09
#1	-.0001	.0001	.0003	.0005	.0004	-.0000	.0002	.0004	-.0005
#2	.0001	.0002	.0005	.0002	-.0000	-.0002	.0003	-.0001	-.0003
#3	.0002	.0001	.0001	.0005	-.0001	.0007	.0003	.0006	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0005**	**.0009**	**.0003**	**.0001**	**-.0012**	**.0024**	**.0016**	**.0046**
Stddev	.0001	.0000	.0008	.0007	.0005	.0017	.0018	.0034	.0010
%RSD	388.9	10.01	87.06	219.1	388.4	150.9	73.84	211.9	22.41
#1	-.0002	-.0004	.0017	-.0001	.0002	-.0005	.0040	.0000	.0048
#2	-.0000	-.0005	.0002	.0011	-.0004	-.0031	.0028	-.0007	.0035
#3	.0001	-.0005	.0008	-.0001	.0007	.0001	.0005	.0055	.0055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**.0026**	**.2255**	**.0363**	**.0025**	**.0003**	**.0024**	**.0013**	**.0003**
Stddev	.0014	.0083	.0656	.0155	.0007	.0002	.0007	.0002	.0000
%RSD	111.7	318.6	29.07	42.77	27.75	76.22	27.79	15.19	14.50
#1	.0023	.0019	.2578	.0463	.0018	.0000	.0020	.0014	.0003
#2	.0017	.0113	.2686	.0442	.0031	.0004	.0021	.0014	.0002
#3	-.0003	-.0053	.1501	.0184	.0026	.0003	.0032	.0011	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 3/18/2019 17:11:16 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0001**	**.0002**	**.0014**	**-.0006**	**-.0004**	**.0028**
Stddev	.0005	.0008	.0003	.0024	.0023	.0018	.0002
%RSD	56.29	607.9	210.2	168.0	403.0	406.4	8.364
#1	.0005	-.0001	-.0001	.0038	-.0032	.0013	.0030
#2	.0006	-.0010	.0005	-.0009	.0003	-.0022	.0030
#3	.0013	.0007	.0001	.0013	.0012	-.0004	.0026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148660.**	**23615.**	**6510.8**	**8483.0**
Stddev	823.	96.	10.1	.5
%RSD	.55350	.40447	.15503	.00545
#1	148830.	23680.	6511.6	8483.5
#2	147770.	23660.	6500.4	8482.9
#3	149390.	23506.	6520.6	8482.6

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/18/2019 17:16:22 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0001**	**-.0002**	**.0012**	**.0014**	**-.0016**	**.0015**	**-.0002**	**.0007**
Stddev	.0004	.0000	.0001	.0001	.0002	.0023	.0007	.0002	.0019
%RSD	98.72	48.12	67.20	5.278	15.48	140.9	45.04	117.7	253.5
#1	.0003	.0000	-.0003	.0012	.0015	.0010	.0023	-.0002	.0027
#2	.0000	.0001	-.0001	.0013	.0015	-.0032	.0012	.0001	.0004
#3	.0008	.0001	-.0001	.0012	.0011	-.0027	.0010	-.0003	-.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0016**	**-.0016**	**.0014**	**.0013**	**.0010**	**.0003**	**.0013**	**503.4**	**388.0**
Stddev	.0006	.0003	.0017	.0021	.0009	.0023	.0045	9.2	13.3
%RSD	35.47	16.17	125.1	160.2	88.78	875.9	337.8	1.835	3.436
#1	-.0023	-.0019	.0026	.0036	.0016	-.0006	.0023	513.9	402.5
#2	-.0014	-.0013	.0021	.0008	.0000	-.0014	.0053	499.6	376.3
#3	-.0012	-.0015	-.0006	-.0005	.0012	.0028	-.0036	496.7	385.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**194.7**	**500.7**	**.5262**	**.0979**	**.0002**	**.0003**	**.0074**	**-.0006**	**-.0003**
Stddev	6.9	10.3	.0538	.0113	.0020	.0005	.0019	.0010	.0002
%RSD	3.556	2.048	10.23	11.56	799.8	168.2	25.84	158.2	74.03
#1	202.7	512.5	.4645	.0856	-.0018	-.0002	.0092	.0005	-.0004
#2	191.0	493.7	.5638	.1079	.0021	.0008	.0054	-.0011	-.0000
#3	190.4	496.0	.5503	.1001	.0005	.0002	.0077	-.0014	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/18/2019 17:16:22 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**-.0014**	**.0009**	**.0165**	**.0021**	**.0002**	**.0205**
Stddev	.0002	.0019	.0005	.0007	.0008	.0020	.0025
%RSD	19.79	131.9	56.37	4.290	38.89	1111.	12.10
#1	-.0009	-.0011	.0015	.0161	.0013	.0025	.0215
#2	-.0009	.0003	.0008	.0161	.0029	-.0010	.0177
#3	-.0006	-.0034	.0004	.0173	.0021	-.0009	.0224
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**127680.**	**22780.**	**5825.0**	**7160.1**
Stddev	566.	437.	24.6	17.5
%RSD	.44346	1.9192	.42150	.24481
#1	128330.	22321.	5852.3	7180.2
#2	127270.	23191.	5804.6	7148.1
#3	127450.	22828.	5818.3	7152.1

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/18/2019 17:21:44 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5165**	**.5092**	**1.036**	**.5022**	**.5003**	**.5076**	**.5191**	**.9958**	**1.060**
Stddev	.0008	.0006	.001	.0004	.0016	.0017	.0005	.0007	.002
%RSD	.1453	.1171	.0769	.0896	.3172	.3398	.0938	.0730	.2151
#1	.5158	.5085	1.036	.5021	.5004	.5056	.5190	.9950	1.058
#2	.5173	.5093	1.037	.5026	.5019	.5086	.5197	.9958	1.063
#3	.5165	.5097	1.035	.5017	.4987	.5086	.5187	.9965	1.060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5069**	**.9790**	**1.120**	**.9756**	**.9747**	**1.080**	**1.117**	**516.7**	**390.5**
Stddev	.0011	.0003	.003	.0075	.0022	.004	.002	4.9	6.4
%RSD	.2264	.0282	.3060	.7715	.2287	.3810	.1331	.9478	1.649
#1	.5074	.9790	1.119	.9839	.9722	1.083	1.116	511.1	384.8
#2	.5078	.9793	1.124	.9737	.9762	1.076	1.116	519.5	397.5
#3	.5056	.9788	1.117	.9693	.9759	1.082	1.119	519.7	389.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**192.1**	**505.2**	**.4869**	**.0738**	**.5097**	**.5079**	**.5083**	**.4887**	**.5771**
Stddev	2.3	.8	.0376	.0156	.0018	.0011	.0015	.0013	.0004
%RSD	1.176	.1510	7.720	21.21	.3475	.2221	.3036	.2731	.0676
#1	190.0	504.3	.4855	.0908	.5114	.5087	.5099	.4899	.5773
#2	191.7	505.8	.4501	.0600	.5079	.5083	.5069	.4873	.5767
#3	194.5	505.3	.5252	.0705	.5099	.5066	.5082	.4889	.5774
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/18/2019 17:21:44 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5167**	**.4922**	**.5486**	**.5015**	**.5234**	**.5541**	**.4952**
Stddev	.0007	.0020	.0006	.0040	.0020	.0032	.0061
%RSD	.1375	.3980	.1177	.8017	.3738	.5829	1.223
#1	.5174	.4945	.5480	.5025	.5233	.5578	.5015
#2	.5160	.4910	.5493	.4971	.5215	.5517	.4948
#3	.5166	.4912	.5486	.5049	.5254	.5528	.4894
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**125540.**	**22301.**	**5715.4**	**7101.0**
Stddev	679.	196.	10.1	12.8
%RSD	.54054	.87888	.17728	.17955
#1	124790.	22524.	5720.5	7110.7
#2	125750.	22225.	5722.0	7105.8
#3	126100.	22154.	5703.7	7086.6

Zoom In Zoom Out

Sample Name: mp13174-b1conf Acquired: 3/18/2019 17:27:01 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.833**	**1.853**	**1.904**	**1.882**	**1.853**	**1.845**	**1.875**	**1.888**	**.2434**
Stddev	.027	.025	.001	.002	.007	.006	.013	.002	.0006
%RSD	1.486	1.373	.0410	.0822	.3660	.3013	.7135	.1273	.2617
#1	1.801	1.824	1.905	1.882	1.851	1.841	1.861	1.888	.2438
#2	1.851	1.872	1.904	1.881	1.861	1.851	1.875	1.886	.2438
#3	1.845	1.862	1.903	1.884	1.848	1.843	1.888	1.891	.2427

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.829**	**1.906**	**1.879**	**1.914**	**1.902**	**1.894**	**1.938**	**24.11**	**24.18**
Stddev	.002	.002	.003	.009	.002	.006	.004	.38	.32
%RSD	.1142	.1110	.1522	.4795	.0979	.3161	.1897	1.559	1.314
#1	1.828	1.908	1.882	1.920	1.902	1.900	1.940	23.68	23.81
#2	1.832	1.905	1.877	1.903	1.901	1.888	1.941	24.38	24.39
#3	1.828	1.904	1.877	1.918	1.904	1.895	1.934	24.26	24.34

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.91**	**24.37**	**24.37**	**24.66**	**1.912**	**1.874**	**-.0461**	**1.924**	**1.837**
Stddev	.33	.33	.36	.34	.002	.003	.0030	.003	.026
%RSD	1.390	1.348	1.479	1.383	.1004	.1471	6.419	.1589	1.435
#1	23.54	23.99	23.96	24.27	1.911	1.877	-.0429	1.927	1.807
#2	24.16	24.58	24.62	24.89	1.910	1.872	-.0469	1.921	1.856
#3	24.05	24.54	24.53	24.83	1.914	1.872	-.0487	1.924	1.849

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.874**	**1.813**	**1.886**	**.0257**	**.0410**	**-.0068**	**1.628**
Stddev	.002	.001	.003	.0016	.0012	.0009	.012
%RSD	.1024	.0432	.1398	6.068	2.886	13.03	.7571
#1	1.874	1.814	1.885	.0265	.0406	-.0059	1.638
#2	1.872	1.812	1.889	.0266	.0424	-.0076	1.614
#3	1.876	1.812	1.884	.0239	.0401	-.0068	1.632

Zoom In Zoom Out

Sample Name: mp13174-b1conf Acquired: 3/18/2019 17:27:01 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**144570.**	**24001.**	**6471.0**	**8168.1**
Stddev	904.	337.	10.7	17.9
%RSD	.62507	1.4023	.16459	.21924
#1	145610.	24389.	6476.9	8188.7
#2	144160.	23807.	6458.7	8156.9
#3	143940.	23806.	6477.3	8158.6

Zoom In Zoom Out

Sample Name: mp13167-mb1 7 Acquired: 3/18/2019 17:32:01 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0000**	**-.0001**	**.0003**	**.0001**	**.0001**	**.0001**	**.0000**	**.0001**
Stddev	.0002	.0000	.0001	.0001	.0001	.0001	.0000	.0001	.0008
%RSD	75.71	270.3	120.2	24.40	121.0	172.3	16.19	257.6	629.7
#1	-.0002	.0000	-.0002	.0003	.0001	-.0000	.0001	.0002	-.0008
#2	-.0001	.0001	-.0002	.0003	.0000	.0000	.0001	.0000	.0007
#3	-.0004	-.0000	.0000	.0002	.0003	.0002	.0001	-.0000	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0007**	**.0004**	**.0003**	**.0000**	**-.0014**	**.0027**	**-.0056**	**.0148**
Stddev	.0005	.0001	.0002	.0003	.0007	.0015	.0028	.0174	.0017
%RSD	213.2	14.90	47.04	112.2	8949.	107.2	102.7	314.1	11.38
#1	.0003	.0007	.0005	.0000	-.0007	-.0025	.0034	.0140	.0167
#2	-.0007	.0005	.0006	.0002	.0006	-.0019	.0050	-.0111	.0143
#3	-.0004	.0007	.0002	.0007	.0001	.0003	-.0004	-.0196	.0134

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**.0111**	**.1813**	**.0383**	**.0023**	**.0007**	**.0091**	**.0007**	**-.0000**
Stddev	.0018	.0170	.0339	.0132	.0006	.0002	.0009	.0002	.0001
%RSD	41.34	153.8	18.68	34.47	27.11	30.48	10.29	26.68	2028.
#1	.0054	.0006	.1423	.0471	.0017	.0010	.0080	.0006	-.0002
#2	.0051	.0019	.2036	.0231	.0030	.0006	.0096	.0006	.0000
#3	.0022	.0307	.1980	.0446	.0023	.0007	.0097	.0009	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0051**	**.0001**	**.0034**	**.0015**	**-.0011**	**.0055**
Stddev	.0001	.0011	.0001	.0036	.0006	.0038	.0016
%RSD	20.06	20.56	93.54	104.5	40.88	339.9	28.79
#1	.0003	.0055	.0001	.0015	.0016	.0025	.0067
#2	.0005	.0040	.0002	.0076	.0008	-.0051	.0037
#3	.0005	.0060	.0000	.0012	.0020	-.0008	.0061

Zoom In Zoom Out

Sample Name: mp13167-mb1 7 Acquired: 3/18/2019 17:32:01 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148900.**	**23677.**	**6495.8**	**8458.6**
Stddev	120.	194.	9.4	12.4
%RSD	.08030	.81944	.14467	.14620
#1	148990.	23474.	6505.7	8465.5
#2	148950.	23697.	6487.0	8444.3
#3	148770.	23860.	6494.7	8465.9

Zoom In Zoom Out

Sample Name: mp13167-b1 Acquired: 3/18/2019 17:37:06 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.045**	**2.104**	**2.040**	**2.084**	**2.030**	**2.037**	**2.033**	**2.081**	**.2555**
Stddev	.004	.007	.004	.004	.007	.008	.030	.003	.0001
%RSD	.1987	.3136	.2001	.1807	.3716	.3821	1.501	.1235	.0560
#1	2.049	2.110	2.036	2.080	2.036	2.045	2.068	2.079	.2556
#2	2.045	2.104	2.042	2.084	2.031	2.036	2.014	2.082	.2556
#3	2.041	2.097	2.043	2.087	2.021	2.029	2.017	2.084	.2554

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.018**	**2.044**	**2.076**	**2.171**	**2.082**	**2.018**	**2.107**	**25.95**	**26.22**
Stddev	.003	.003	.003	.011	.006	.005	.005	.09	.06
%RSD	.1301	.1445	.1344	.5189	.2894	.2568	.2330	.3461	.2273
#1	2.021	2.040	2.073	2.171	2.075	2.012	2.102	26.05	26.28
#2	2.017	2.046	2.076	2.182	2.084	2.022	2.112	25.94	26.20
#3	2.016	2.046	2.078	2.159	2.086	2.020	2.107	25.87	26.16

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.11**	**26.14**	**26.34**	**26.62**	**2.029**	**2.128**	**-.0223**	**2.150**	**2.062**
Stddev	.08	.03	.06	.04	.005	.005	.0009	.003	.006
%RSD	.3075	.1169	.2411	.1335	.2562	.2319	4.004	.1369	.2957
#1	26.19	26.10	26.40	26.66	2.024	2.122	-.0230	2.147	2.068
#2	26.11	26.15	26.35	26.59	2.030	2.131	-.0213	2.152	2.062
#3	26.03	26.16	26.27	26.60	2.034	2.129	-.0228	2.149	2.056

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.093**	**2.040**	**2.112**	**.0314**	**.0434**	**.0008**	**1.920**
Stddev	.001	.005	.003	.0029	.0028	.0009	.009
%RSD	.0664	.2414	.1443	9.143	6.565	113.8	.4501
#1	2.094	2.034	2.115	.0308	.0462	.0006	1.912
#2	2.091	2.043	2.112	.0345	.0434	.0000	1.921
#3	2.093	2.042	2.109	.0289	.0405	.0017	1.929

Zoom In Zoom Out

Sample Name: mp13167-b1 Acquired: 3/18/2019 17:37:06 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142790.**	**23539.**	**6327.5**	**7891.7**
Stddev	322.	128.	7.0	5.5
%RSD	.22528	.54372	.11108	.06989
#1	142500.	23627.	6319.6	7886.2
#2	142730.	23599.	6333.2	7897.2
#3	143130.	23393.	6329.7	7891.8

Zoom In Zoom Out

Sample Name: mp13167-b2 Acquired: 3/18/2019 17:42:06 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.057**	**2.110**	**2.055**	**2.102**	**2.043**	**2.047**	**2.045**	**2.096**	**.2574**
Stddev	.004	.002	.002	.003	.000	.003	.025	.003	.0002
%RSD	.1976	.1096	.1092	.1489	.0077	.1283	1.224	.1433	.0760
#1	2.062	2.112	2.056	2.100	2.043	2.044	2.024	2.095	.2572
#2	2.054	2.111	2.057	2.105	2.043	2.049	2.073	2.099	.2575
#3	2.056	2.108	2.053	2.100	2.043	2.049	2.038	2.093	.2575

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.035**	**2.060**	**2.076**	**2.107**	**2.095**	**2.011**	**2.123**	**26.05**	**26.24**
Stddev	.002	.002	.003	.013	.001	.004	.003	.01	.04
%RSD	.0991	.1154	.1579	.6321	.0228	.1736	.1282	.0568	.1456
#1	2.034	2.061	2.073	2.102	2.095	2.014	2.123	26.07	26.28
#2	2.037	2.061	2.079	2.122	2.095	2.011	2.125	26.04	26.23
#3	2.034	2.057	2.075	2.098	2.095	2.007	2.120	26.04	26.20

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.15**	**26.32**	**26.47**	**26.70**	**2.047**	**2.132**	**-.0363**	**2.156**	**2.068**
Stddev	.04	.03	.07	.02	.003	.003	.0006	.003	.004
%RSD	.1597	.0988	.2752	.0850	.1430	.1380	1.664	.1230	.1820
#1	26.19	26.29	26.53	26.73	2.044	2.132	-.0369	2.155	2.072
#2	26.15	26.33	26.49	26.69	2.050	2.134	-.0361	2.159	2.065
#3	26.10	26.34	26.39	26.69	2.047	2.128	-.0358	2.154	2.066

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.103**	**2.039**	**2.125**	**.0193**	**.0421**	**-.0019**	**1.837**
Stddev	.003	.002	.001	.0021	.0036	.0031	.019
%RSD	.1184	.1157	.0407	10.90	8.572	161.4	1.056
#1	2.104	2.040	2.125	.0195	.0425	-.0007	1.845
#2	2.105	2.041	2.126	.0213	.0455	.0004	1.851
#3	2.101	2.036	2.124	.0171	.0383	-.0055	1.815

Zoom In Zoom Out

Sample Name: mp13167-b2 Acquired: 3/18/2019 17:42:06 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141520.**	**23464.**	**6292.0**	**7873.0**
Stddev	498.	96.	10.2	8.6
%RSD	.35192	.40860	.16276	.10975
#1	141800.	23537.	6280.4	7865.8
#2	140940.	23356.	6299.6	7870.8
#3	141810.	23499.	6296.0	7882.6

Zoom In Zoom Out

Sample Name: mp13167-s1 Acquired: 3/18/2019 17:47:07 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.309**	**2.096**	**2.105**	**2.114**	**2.045**	**2.026**	**2.428**	**2.118**	**.2705**
Stddev	.002	.001	.004	.005	.004	.005	.016	.004	.0008
%RSD	.0920	.0313	.1836	.2201	.1853	.2663	.6431	.1971	.2886
#1	2.307	2.096	2.109	2.117	2.046	2.030	2.446	2.122	.2712
#2	2.310	2.096	2.105	2.117	2.041	2.020	2.424	2.118	.2708
#3	2.311	2.095	2.101	2.109	2.049	2.028	2.416	2.114	.2697

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.067**	**2.078**	**2.200**	**2.021**	**2.078**	**2.110**	**2.166**	**26.31**	**158.0**
Stddev	.002	.002	.001	.004	.006	.005	.006	.01	1.4
%RSD	.0804	.0817	.0545	.2132	.3082	.2291	.2834	.0546	.8548
#1	2.068	2.079	2.201	2.019	2.083	2.104	2.173	26.31	156.5
#2	2.065	2.078	2.201	2.019	2.080	2.111	2.166	26.32	158.2
#3	2.068	2.076	2.199	2.026	2.071	2.114	2.161	26.29	159.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**27.29**	**125.6**	**68.41**	F **588.9**	**3.180**	**2.128**	**7.593**	**2.089**	**3.291**
Stddev	.01	.0	.23	10.1	.003	.003	.015	.002	.003
%RSD	.0390	.0282	.3380	1.720	.0961	.1565	.2024	.0917	.0858
#1	27.29	125.5	68.17	595.2	3.183	2.131	7.604	2.091	3.288
#2	27.28	125.6	68.44	594.2	3.181	2.128	7.600	2.089	3.294
#3	27.30	125.6	68.63	577.2	3.177	2.124	7.576	2.087	3.291

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.125**	**2.077**	**2.150**	**11.63**	**.0521**	**.1008**	**2.101**
Stddev	.002	.002	.002	.01	.0036	.0035	.006
%RSD	.0836	.0939	.0893	.0573	6.958	3.427	.2770
#1	2.124	2.079	2.151	11.62	.0483	.0988	2.097
#2	2.125	2.077	2.148	11.63	.0525	.0988	2.099
#3	2.127	2.075	2.152	11.64	.0555	.1048	2.108

Zoom In Zoom Out

Sample Name: mp13167-s1 Acquired: 3/18/2019 17:47:07 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**127060.**	**22843.**	**5725.0**	**6889.9**
Stddev	107.	104.	19.0	23.6
%RSD	.08415	.45478	.33249	.34307
#1	126930.	22746.	5736.6	6907.9
#2	127120.	22952.	5735.4	6898.5
#3	127110.	22832.	5703.0	6863.1

Zoom In Zoom Out

Sample Name: mp13167-s2 Acquired: 3/18/2019 17:52:22 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.311**	**2.098**	**2.111**	**2.115**	**2.042**	**2.020**	**2.421**	**2.118**	**.2704**
Stddev	.003	.005	.004	.003	.003	.005	.027	.004	.0007
%RSD	.1346	.2334	.1910	.1503	.1375	.2356	1.122	.1774	.2640
#1	2.314	2.103	2.107	2.112	2.040	2.020	2.442	2.116	.2698
#2	2.312	2.098	2.112	2.118	2.045	2.025	2.431	2.123	.2712
#3	2.308	2.093	2.115	2.113	2.042	2.016	2.390	2.116	.2703

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.069**	**2.083**	**2.197**	**2.029**	**2.077**	**2.117**	**2.160**	**26.35**	**160.0**
Stddev	.001	.003	.010	.022	.005	.012	.005	.05	1.5
%RSD	.0410	.1479	.4588	1.100	.2612	.5749	.2228	.2060	.9360
#1	2.068	2.079	2.190	2.023	2.074	2.105	2.155	26.40	161.6
#2	2.069	2.084	2.209	2.054	2.083	2.129	2.164	26.35	159.4
#3	2.068	2.085	2.193	2.011	2.074	2.115	2.162	26.29	158.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**27.33**	**127.2**	**69.26**	F **546.4**	**3.213**	**2.124**	**7.780**	**2.085**	**3.304**
Stddev	.08	.3	.15	10.8	.004	.004	.021	.007	.007
%RSD	.2925	.2476	.2132	1.981	.1272	.1990	.2769	.3309	.2016
#1	27.41	127.5	69.29	551.7	3.209	2.120	7.756	2.078	3.308
#2	27.32	127.2	69.39	553.5	3.217	2.128	7.796	2.092	3.308
#3	27.25	126.9	69.10	533.9	3.214	2.124	7.789	2.086	3.296

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.114**	**2.063**	**2.140**	**11.87**	**.0507**	**.0776**	**2.170**
Stddev	.002	.005	.002	.14	.0019	.0006	.023
%RSD	.0804	.2474	.0817	1.207	3.766	.8365	1.060
#1	2.116	2.058	2.140	11.78	.0515	.0770	2.144
#2	2.113	2.067	2.142	12.03	.0520	.0777	2.180
#3	2.113	2.065	2.139	11.78	.0485	.0782	2.186

Zoom In Zoom Out

Sample Name: mp13167-s2 Acquired: 3/18/2019 17:52:22 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**126620.**	**22771.**	**5694.0**	**6865.0**
Stddev	124.	95.	8.9	3.1
%RSD	.09797	.41812	.15644	.04485
#1	126620.	22661.	5694.9	6867.3
#2	126750.	22824.	5702.4	6861.5
#3	126500.	22828.	5684.6	6866.3

Zoom In Zoom Out

Sample Name: jc84383-4 Acquired: 3/18/2019 17:57:36 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2675**	**.0003**	**.0002**	**.0010**	**.0021**	**.0055**	**.3740**	**.0028**	**.0000**
Stddev	.0012	.0000	.0001	.0004	.0001	.0004	.0005	.0006	.0006
%RSD	.4446	8.708	42.39	36.60	6.741	7.636	.1372	21.74	1213.
#1	.2689	.0003	.0001	.0008	.0020	.0050	.3744	.0032	.0004
#2	.2667	.0003	.0002	.0008	.0022	.0056	.3734	.0021	.0003
#3	.2670	.0003	.0003	.0014	.0022	.0059	.3741	.0031	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0028**	**.0121**	**.0066**	**-.0004**	**-.0001**	**-.0017**	**.0000**	**.3377**	**131.5**
Stddev	.0002	.0000	.0014	.0008	.0007	.0018	.0005	.0101	1.2
%RSD	8.384	.2898	20.50	222.9	603.2	105.6	1118.	3.005	.8754
#1	.0026	.0120	.0056	-.0003	-.0004	-.0037	-.0002	.3310	130.3
#2	.0028	.0121	.0060	.0004	-.0007	-.0001	-.0003	.3494	131.5
#3	.0031	.0121	.0081	-.0012	.0007	-.0015	.0006	.3326	132.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.754**	**100.1**	**43.38**	F **529.4**	**1.164**	**.0053**	**7.363**	**-.0014**	**1.245**
Stddev	.005	.1	.01	8.0	.001	.0002	.006	.0006	.003
%RSD	.2645	.0964	.0340	1.508	.0709	3.651	.0755	44.97	.2371
#1	1.759	100.2	43.38	520.8	1.164	.0052	7.359	-.0020	1.248
#2	1.750	100.0	43.37	530.8	1.165	.0055	7.369	-.0007	1.244
#3	1.753	100.2	43.40	536.6	1.163	.0051	7.361	-.0015	1.242

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0149**	**.0034**	**-.0004**	**11.72**	**-.0007**	**.0582**	**.2015**
Stddev	.0003	.0012	.0001	.10	.0007	.0001	.0008
%RSD	1.880	36.30	16.34	.8392	97.75	.1640	.4022
#1	.0150	.0038	-.0004	11.80	-.0015	.0582	.2020
#2	.0151	.0020	-.0004	11.75	-.0004	.0582	.2020
#3	.0146	.0044	-.0003	11.61	-.0002	.0583	.2006

Zoom In Zoom Out

Sample Name: jc84383-4 Acquired: 3/18/2019 17:57:36 Type: Unk
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**127270.**	**22798.**	**5750.8**	**6874.0**
Stddev	393.	102.	7.6	8.2
%RSD	.30864	.44794	.13195	.11935
#1	126860.	22817.	5756.4	6869.5
#2	127300.	22889.	5742.1	6868.9
#3	127650.	22687.	5753.8	6883.4

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/18/2019 18:02:52 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.987**	**2.030**	**2.006**	**2.040**	**1.992**	**1.980**	**1.992**	**2.038**	**.2465**
Stddev	.002	.004	.003	.003	.006	.006	.041	.004	.0006
%RSD	.0758	.2123	.1469	.1648	.2969	.3049	2.080	.1736	.2539
#1	1.988	2.030	2.009	2.041	1.986	1.974	1.965	2.040	.2459
#2	1.985	2.034	2.006	2.042	1.994	1.982	1.972	2.040	.2464
#3	1.988	2.025	2.003	2.036	1.997	1.985	2.040	2.034	.2472
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.983**	**2.007**	**2.023**	**2.074**	**2.036**	**1.983**	**2.050**	**39.06**	**39.24**
Stddev	.005	.003	.008	.028	.002	.011	.002	.06	.04
%RSD	.2584	.1524	.4042	1.333	.1155	.5544	.1094	.1633	.0897
#1	1.977	2.009	2.018	2.057	2.037	1.978	2.051	39.07	39.24
#2	1.984	2.008	2.032	2.106	2.038	1.995	2.047	39.12	39.27
#3	1.987	2.003	2.018	2.060	2.034	1.975	2.050	39.00	39.20
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.09**	**39.32**	**39.52**	**38.42**	**2.024**	**2.053**	**4.876**	**2.076**	**1.999**
Stddev	.04	.01	.04	.08	.001	.004	.006	.009	.001
%RSD	.1047	.0350	.1120	.2080	.0504	.1934	.1307	.4368	.0642
#1	39.08	39.32	39.55	38.41	2.024	2.053	4.878	2.069	2.000
#2	39.13	39.33	39.54	38.35	2.025	2.057	4.881	2.086	1.998
#3	39.05	39.31	39.47	38.50	2.023	2.049	4.869	2.072	1.999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/18/2019 18:02:52 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.034**	**2.005**	**2.058**	**1.939**	**2.018**	**2.003**	**1.901**
Stddev	.004	.003	.004	.024	.006	.007	.016
%RSD	.2121	.1437	.1990	1.259	.2781	.3432	.8504
#1	2.030	2.004	2.054	1.925	2.020	2.005	1.900
#2	2.032	2.009	2.058	1.967	2.023	2.010	1.918
#3	2.038	2.003	2.062	1.924	2.012	1.996	1.886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**140560.**	**23273.**	**6295.0**	**7816.3**
Stddev	290.	233.	2.2	5.8
%RSD	.20639	1.0006	.03512	.07411
#1	140880.	23144.	6297.4	7816.5
#2	140310.	23542.	6294.7	7810.4
#3	140490.	23132.	6293.0	7822.0

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/18/2019 18:07:53 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0000**	**-.0000**	**.0003**	**.0000**	**-.0001**	**.0001**	**-.0001**	**-.0002**
Stddev	.0000	.0000	.0002	.0001	.0001	.0003	.0000	.0003	.0003
%RSD	4.510	115.6	3604.	28.70	508.9	496.0	39.96	241.5	144.8
#1	-.0004	.0001	.0002	.0004	-.0001	-.0002	.0001	.0001	-.0005
#2	-.0004	.0000	-.0001	.0003	.0002	-.0002	.0001	-.0004	-.0001
#3	-.0004	-.0000	-.0001	.0002	-.0000	.0002	.0001	-.0001	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0008**	**-.0005**	**.0013**	**-.0005**	**-.0037**	**-.0003**	**-.0125**	**-.0005**
Stddev	.0003	.0001	.0014	.0007	.0006	.0006	.0013	.0188	.0022
%RSD	84.14	6.230	267.4	50.58	135.5	16.79	407.4	149.5	457.4
#1	-.0007	-.0008	-.0011	.0020	-.0006	-.0041	-.0017	-.0324	-.0012
#2	-.0001	-.0008	.0011	.0007	-.0011	-.0030	.0009	.0048	-.0023
#3	-.0003	-.0008	-.0016	.0012	.0002	-.0040	-.0002	-.0101	.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0017**	**.0097**	**.2479**	**.4495**	**.0049**	**.0002**	**.0012**	**-.0001**	**.0001**
Stddev	.0008	.0125	.0171	.0132	.0001	.0002	.0013	.0003	.0001
%RSD	47.64	129.5	6.899	2.930	2.846	92.58	110.1	325.2	238.9
#1	-.0008	.0138	.2307	.4644	.0050	.0004	-.0002	-.0003	-.0001
#2	-.0021	.0196	.2649	.4446	.0048	.0001	.0014	-.0003	.0001
#3	-.0022	-.0044	.2481	.4394	.0048	.0001	.0023	.0003	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/18/2019 18:07:53 Type: QC
Method: SGS 3 NO Valve(v170) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0008**	**.0001**	**-.0035**	**.0003**	**.0013**	**.0039**
Stddev	.0004	.0000	.0002	.0010	.0026	.0025	.0010
%RSD	2673.	2.826	184.8	29.70	760.4	191.6	25.38
#1	.0002	.0009	-.0001	-.0033	-.0027	-.0014	.0040
#2	.0003	.0008	.0002	-.0025	.0021	.0034	.0028
#3	-.0004	.0008	.0002	-.0045	.0016	.0018	.0048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151560.**	**23647.**	**6523.8**	**8506.5**
Stddev	3881.	130.	37.8	43.1
%RSD	2.5605	.55000	.57884	.50665
#1	149220.	23586.	6530.1	8503.8
#2	149430.	23797.	6558.0	8550.8
#3	156040.	23559.	6483.3	8464.8

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Ba 455.403 { 74}	☒	1	Zr	0.001245	0.000000	No
	Be 313.042 {108}	1	6	V	0.000890	0.000000	No
				Mo	-0.000047	0.000000	No
				Ti	-0.000311	0.000000	No
				Mn	0.000010	0.000000	No
				Cu	0.000014	0.000000	No
				Bi	0.000060	0.000000	No
	Cd 228.802 {448}	1	11	As	0.012414	0.000000	No
				Ni	-0.000499	0.000000	No
				Fe	-0.000001	0.000000	No
				V	0.000091	0.000000	No
				Ba	0.000064	0.000000	No
				Co	-0.001430	0.000000	No
				Sr	-0.000020	0.000000	No
				Mn	0.000050	0.000000	No
				Cu	-0.000026	0.000000	No
				Zn	-0.000018	0.000000	No
				W	-0.000482	0.000000	No
	Co 228.616 {448}	1	7	Fe	0.000009	0.000000	No
				Mo	-0.000790	0.000000	No
				Ni	0.000091	0.000000	No
				Ti	0.002192	0.000000	No
				Ba	0.000140	0.000000	No
				W	0.000327	0.000000	No
				Cd	-0.000510	0.000000	No
	Cr 267.716 {126}	1	9	Mn	0.000348	0.000000	No
				V	0.000090	0.000000	No
				Mo	-0.000082	0.000000	No
				Fe	-0.000020	0.000000	No
				Ti	0.000060	0.000000	No
				Ba	0.000045	0.000000	No
				Cu	0.000100	0.000000	No
				Sr	-0.000100	0.000000	No
				W	0.000404	0.000000	No
	Cu 324.754 {104}2	1	13	Cr	-0.000004	0.000000	No
				V	-0.000397	0.000000	No
				Mo	0.000544	0.000000	No
				Ti	-0.000208	0.000000	No
				Fe	-0.000271	0.000000	No
				Zn	-0.000041	0.000000	No
				Co	-0.001373	0.000000	No
				Si	0.000016	0.000000	No
				Mn	0.000003	0.000000	No
				Se	0.000050	0.000000	No
				Sb	0.000069	0.000000	No
				W	0.000000	0.000000	No
				Al	0.000004	0.000000	No
	Mn 257.610 {131}	1	4	Fe	-0.000097	0.000000	No
				Si	0.000010	0.000000	No
				Ba	0.000004	0.000000	No
				Ni	0.000028	0.000000	No
	Ni 231.604 {446}	1	8	Fe	0.000008	0.000000	No
				Zn	-0.000013	0.000000	No
				Be	0.000213	0.000000	No
				Co	-0.000220	0.000000	No
				Tl	0.000209	0.000000	No
				Mo	0.000026	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Cu	0.000050	0.000000	No
				Se	0.000100	0.000000	No
	Ag 328.068 {103}	1	14	Mn	0.000252	0.000000	No
				Mo	-0.000088	-0.000003	No
				Ti	-0.000270	0.000000	No
				Fe	-0.000237	0.000000	No
				Zn	-0.000020	0.000000	No
				Ca	-0.000001	0.000000	No
				Zr	0.007716	0.000000	No
				Sr	-0.000020	0.000000	No
				Mg	0.000000	0.000000	No
				Ba	0.000071	0.000000	No
				Cr	0.000022	0.000000	No
				V	-0.004545	0.000000	No
				Al	-0.000002	0.000000	No
				W	0.000000	0.000000	No
	V 292.402 {115}	1	6	Ti	0.000689	0.000000	No
				Mo	-0.000304	0.000000	No
				Fe	0.000019	0.000000	No
				Sr	-0.000100	0.000000	No
				Cr	-0.008100	0.000000	No
				Mn	-0.002177	0.000000	No
	Zn 206.200 {464}	1	9	Cr	-0.000850	0.000000	No
				Fe	0.000011	0.000000	No
				Si	0.000015	0.000000	No
				Mn	-0.000045	0.000000	No
				Ba	-0.000060	0.000000	No
				Sn	-0.000023	0.000000	No
				Cu	0.000148	0.000000	No
				As	0.000055	0.000000	No
				Be	0.000058	0.000000	No
	As 189.042 {478}	1	18	Al	0.000012	0.000000	No
				Fe	-0.000115	0.000000	No
				Ca	0.000004	0.000000	No
				Mo	0.002730	0.000000	No
				Cr	-0.011850	0.000000	No
				Ba	0.000186	0.000000	No
				Sn	-0.000130	0.000000	No
				Cd	-0.000328	0.000000	No
				Si	0.000024	0.000000	No
				Zn	-0.000082	0.000000	No
				Sr	-0.000045	0.000000	No
				W	0.010000	0.000000	No
				Cu	-0.000058	0.000000	No
				Co	0.000047	0.000000	No
				Zr	0.000036	0.000000	No
				Mn	0.000022	0.000000	No
				S	0.000003	0.000000	No
				Ti	0.000300	0.000000	No
	Tl 190.856 {477}	1	24	Cr	0.000315	0.000000	No
				Mo	-0.005500	0.000000	No
				Al	-0.000005	0.000000	No
				Fe	-0.000032	0.000000	No
				V	-0.025600	0.000000	No
				Mn	0.002090	0.000000	No
				Si	-0.000018	0.000000	No
				Ca	0.000000	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Ti	-0.001790	0.000000	No
				Mg	0.000000	0.000000	No
				Co	0.004680	0.000000	No
				Sr	0.000010	0.000000	No
				B	-0.000003	0.000000	No
				Ba	0.000034	0.000000	No
				Zn	-0.000023	0.000000	No
				As	0.000068	0.000000	No
				W	-0.017000	0.000000	No
				Cu	0.000142	0.000000	No
				Pb	-0.000020	0.000000	No
				S	0.000010	0.000000	No
				Sn	-0.000086	0.000000	No
				Li	0.000000	0.000000	No
				K	0.000000	0.000000	No
				Zr	0.000000	0.000000	No
	Pb 220.353 {453}	1	20	Al	-0.000174	0.000000	No
				Fe	0.000034	0.000000	No
				Ca	0.000005	0.000000	No
				Mn	0.000154	0.000000	No
				Mo	-0.000600	0.000000	No
				Cu	0.000154	0.000000	No
				Co	-0.000036	0.000000	No
				Ti	0.000000	0.000000	No
				Si	0.000133	0.000000	No
				Ba	-0.000022	0.000000	No
				Sb	-0.000084	0.000000	No
				Sr	-0.000033	0.000000	No
				W	-0.006200	0.000000	No
				Mg	-0.000000	0.000000	No
				Cd	0.000012	0.000000	No
				Cr	-0.000031	0.000000	No
				Zr	-0.000281	0.000000	No
				Ni	0.000171	0.000000	No
				S	0.000010	0.000000	No
				Zn	-0.000106	0.000000	No
	Se 196.090 {472}	1	23	Al	-0.000002	0.000000	No
				Ca	-0.000007	0.000000	No
				Mn	0.000594	0.000000	No
				Mo	0.000400	0.000000	No
				Fe	-0.000197	0.000000	No
				Co	-0.000182	0.000000	No
				Sr	-0.000011	0.000000	No
				Cu	-0.000087	0.000000	No
				W	0.010000	0.000000	No
				Si	0.000054	0.000000	No
				Be	-0.000347	0.000000	No
				Zn	0.000050	0.000000	No
				B	0.000028	0.000000	No
				Ti	-0.000020	0.000000	No
				Cd	0.000090	0.000000	No
				Zr	-0.000297	0.000000	No
				Ba	-0.000046	0.000000	No
				Mg	-0.000000	0.000000	No
				Pb	-0.000078	0.000000	No
				Ni	-0.000100	0.000000	No
				Cr	-0.000024	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			S	-0.000001	0.000000	No
			V	0.000188	0.000000	No
Sb 206.833 {463}	1	17	Fe	0.000021	0.000000	No
			Al	0.000015	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000616	0.000000	No
			Cr	0.024700	0.000000	No
			V	-0.003400	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	0.000480	0.000000	No
			Ti	0.001350	0.000000	No
			Sn	-0.009670	0.000000	No
			Mg	0.000003	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	0.000049	0.000000	No
			W	0.000000	0.000000	No
			Si	0.000130	0.000000	No
Al 396.152 { 85}	1	5	Si	0.000652	0.000000	No
			Ca	0.000018	0.000000	No
			Mo	0.043916	0.000000	No
			Zr	0.005268	0.000000	No
			Ti	-0.000583	0.000000	No
Ca 317.933 {106}	1	14	Fe	0.000012	0.000000	No
			W	0.003960	0.000000	No
			Tl	-0.000152	0.000000	No
			Be	0.001840	0.000000	No
			Ba	-0.001224	0.000000	No
			Cu	-0.000822	0.000000	No
			Cd	-0.007593	0.000000	No
			Ni	0.000667	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.000923	0.000000	No
			Co	-0.000408	0.000000	No
			Cr	0.000640	0.000000	No
			Al	-0.000000	0.000000	No
			As	0.010000	0.000000	No
Fe 259.940 {130}	1	10	Si	0.000819	0.000000	No
			Tl	-0.000051	0.000000	No
			Cr	0.000310	0.000000	No
			Mn	-0.000196	0.000000	No
			V	-0.000064	0.000000	No
			Cu	-0.000015	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	1	3	Mo	-0.013702	0.000000	No
			W	-0.006578	0.000000	No
			Mn	-0.002445	0.000000	No
K 766.490 { 44}	1	11	Fe	-0.000440	0.000000	No
			Al	0.000077	0.000000	No
			Ca	-0.000121	0.000000	No
			Mn	-0.007074	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Sn	-0.004700	0.000000	No
			Ba	-0.010574	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.011483	0.000000	No
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	1	4	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000180	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	1	1	Mo	0.038137	0.000000	No
Mo 202.030 {467}	1	2	Al	-0.000004	0.000000	No
			Fe	-0.000010	0.000000	No
Si 212.412 {459}	1	12	Sr	0.000366	0.000000	No
			Ni	0.002092	0.000000	No
			Mo	0.034932	0.000000	No
			V	0.036950	0.000000	No
			Ti	0.004593	0.000000	No
			Al	-0.000010	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.001987	0.000000	No
			Sn	0.007500	0.000000	No
			Zn	0.000385	0.000000	No
			Be	-0.000048	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	1	4	Ti	-0.000564	0.000000	No
			Fe	0.000004	0.000000	No
			Si	0.000131	0.000000	No
			Zr	0.000908	0.000000	No
Sr 407.771 { 83}	1	2	Ca	0.000018	0.000000	No
			Si	0.000033	0.000000	No
Ti 334.904 {101}	1	3	Cr	0.000189	0.000000	No
			Mo	0.001351	0.000000	No
			Si	0.000035	0.000000	No
Y 360.073 { 94}*	1	None				
Y 371.030 { 91}*	1	None				
Y 224.306 {451}*	1	None				
In 230.606 {446}*	1	None				
W 207.911 {462}	1	20	Si	0.000105	0.000000	No
			As	0.000100	0.000000	No
			Mn	0.000066	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.013026	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	0.000061	0.000000	No
			B	0.000009	0.000000	No
			Sb	-0.000300	0.000000	No
			Co	-0.001000	0.000000	No
			Ni	-0.003000	0.000000	No
			Be	-0.000185	0.000000	No
			Se	-0.000105	0.000000	No
			Cu	-0.000138	0.000000	No
			Tl	-0.000220	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Zr 339.198 { 99}	1	6	Mo	0.001069	0.000000	No
				Ti	0.000203	0.000000	No
				Fe	-0.000070	0.000000	No
				Si	0.000074	0.000000	No
				S	-0.000002	0.000000	No
				Cr	-0.000700	0.000000	No
	S 182.034 {485}	1	7	Mo	-0.004201	0.000000	No
				Al	-0.000034	0.000000	No
				Fe	0.000002	0.000000	No
				Mn	0.004620	0.000000	No
				W	-0.032564	0.000000	No
				Ca	0.000032	0.000000	No
				Mg	0.000005	0.000000	No
	Bi 223.061 {451}	1	9	Ti	-0.054822	0.000000	No
				V	-0.000704	0.000000	No
				Co	-0.002380	0.000000	No
				Ca	-0.000002	0.000000	No
				Mg	-0.000000	0.000000	No
				Fe	0.000187	0.000000	No
				Cr	0.001595	0.000000	No
				Cu	-0.001148	0.000000	No
				W	-0.020000	0.000000	No
	Li 670.784 { 50}	1	2	Ca	0.000023	0.000000	No
				Fe	0.000081	0.000000	No
	P 177.495 {490}	1	9	Mn	-0.006184	0.000000	No
				Al	-0.000060	0.000000	No
				V	-0.001953	0.000000	No
				Si	-0.001622	0.000000	No
				Ti	0.000000	-0.001185	No
				Mo	-0.001880	0.000000	No
				S	-0.000189	0.000000	No
				Co	-0.002198	0.000000	No
				Cu	-0.023500	0.000000	No

	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
	Ba 455.403 { 74}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.015802	1.668172	0.000000	1.000000
	Be 313.042 {108}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	-0.000672	2.708461	0.000000	1.000000
	Cd 228.802 {448}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000496	1.058037	0.000000	1.000000
	Co 228.616 {448}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	-0.000438	0.820220	0.000000	1.000000
	Cr 267.716 {126}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	-0.000062	0.149781	0.000000	1.000000
	Cu 324.754 {104}2	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.002792	0.233441	0.000000	1.000000
	Mn 257.610 {131}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000049	0.854965	0.000000	1.000000
	Ni 231.604 {446}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	-0.000302	0.653510	0.000000	1.000000
	Ag 328.068 {103}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	-0.000212	0.147333	0.000000	1.000000
	V 292.402 {115}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000430	0.218880	0.000000	1.000000
	Zn 206.200 {464}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.001728	1.700378	0.000000	1.000000
	As 189.042 {478}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000320	0.111038	0.000000	1.000000
	Tl 190.856 {477}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	-0.000412	0.108760	0.000000	1.000000
	Pb 220.353 {453}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000829	0.293982	0.000000	1.000000
	Se 196.090 {472}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000059	0.085044	0.000000	1.000000
	Sb 206.833 {463}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.001425	0.144364	0.000000	1.000000
	Al 396.152 { 85}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000265	0.039781	0.000000	1.000000
	Ca 317.933 {106}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.008337	0.096813	0.000000	1.000000
	Fe 259.940 {130}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000272	0.061383	0.000000	1.000000
	Mg 279.079 {121}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000129	0.011534	0.000000	1.000000
	K 766.490 { 44}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	-0.002746	0.018925	0.000000	1.000000
	Na 589.592 { 57}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	-0.011757	0.070568	0.000000	1.000000
	B 208.959 {462}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000934	0.224063	0.000000	1.000000
	Mo 202.030 {467}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	-0.001012	0.747102	0.000000	1.000000
	Si 212.412 {459}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.002998	0.201753	0.000000	1.000000
	Sn 189.989 {478}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000695	0.229930	0.000000	1.000000
	Sr 407.771 { 83}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	-0.001831	2.979395	0.000000	1.000000
	Ti 334.904 {101}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000098	0.165166	0.000000	1.000000
	Y 360.073 { 94}*	3/19/2019 9:41:14	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 371.030 { 91}*	3/19/2019 9:41:14	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	Y 224.306 {451}*	3/19/2019 9:41:14	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	In 230.606 {446}*	3/19/2019 9:41:14	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
	W 207.911 {462}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000663	0.357062	0.000000	1.000000
	Zr 339.198 { 99}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	-0.000743	0.474369	0.000000	1.000000
	S 182.034 {485}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000535	0.052195	0.000000	1.000000
	Bi 223.061 {451}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	-0.000410	0.161727	0.000000	1.000000
	Li 670.784 { 50}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	None	0.000849	0.413494	0.000000	1.000000
	P 177.495 {490}	3/19/2019 9:41:14	3/18/2019 13:55:10	Linear	1/Conc	-0.004650	0.044069	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ba 455.403 { 74}	1.000000	0.000000	0.000341	0.001135	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	1.000000	0.000000	0.000080	0.000268	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	1.000000	0.000000	0.000226	0.000755	OK.	1.000000	0.000000	1	0
	Co 228.616 {448}	1.000000	0.000000	0.000273	0.000910	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	1.000000	0.000000	0.000360	0.001200	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}2	1.000000	0.000000	0.000524	0.001748	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	1.000000	0.000000	0.000057	0.000189	OK.	1.000000	0.000000	1	0
	Ni 231.604 {446}	1.000000	0.000000	0.000392	0.001306	OK.	1.000000	0.000000	1	0
	Ag 328.068 {103}	1.000000	0.000000	0.000547	0.001822	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	1.000000	0.000000	0.000418	0.001394	OK.	1.000000	0.000000	1	0
	Zn 206.200 {464}	1.000000	0.000000	0.000117	0.000390	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	1.000000	0.000000	0.001582	0.005272	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	1.000000	0.000000	0.001360	0.004535	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	1.000000	0.000000	0.001225	0.004084	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	1.000000	0.000000	0.002404	0.008013	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	1.000000	0.000000	0.001826	0.006085	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	1.000000	0.000000	0.011825	0.039416	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	1.000000	0.000000	0.002824	0.009412	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	1.000000	0.000000	0.002274	0.007580	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	1.000000	0.000000	0.015347	0.051158	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	1.000000	0.000000	0.044379	0.147928	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	1.000000	0.000000	0.012517	0.041723	OK.	1.000000	0.000000	1	0
	B 208.959 {462}	1.000000	0.000000	0.000817	0.002725	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	1.000000	0.000000	0.000307	0.001022	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	1.000000	0.000000	0.001302	0.004340	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	1.000000	0.000000	0.000638	0.002128	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	1.000000	0.000000	0.000131	0.000435	OK.	1.000000	0.000000	1	0
	Ti 334.904 {101}	1.000000	0.000000	0.000437	0.001457	OK.	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	W 207.911 {462}	1.000000	0.000000	0.001272	0.004239	OK.	1.000000	0.000000	1	0
	Zr 339.198 { 99}	1.000000	0.000000	0.000216	0.000720	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	1.000000	0.000000	0.002598	0.008659	OK.	1.000000	0.000000	1	0
	Bi 223.061 {451}	1.000000	0.000000	0.002189	0.007297	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	1.000000	0.000000	0.002161	0.007202	OK.	1.000000	0.000000	1	0
	P 177.495 {490}	1.000000	0.000000	0.002496	0.008319	OK.	1.000000	0.000000	1	0

Quantitation Report

File Name 001CALB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 10:13
Sample Name STDA 4
Sample Type CalBlk
Comment 0
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	82.24	49.33	1.490E-05	Pulse	0.25	3
B			1	0.025	ug/l	95.38	7,604.12	2.297E-03	Pulse	0.15	3
Ca			1	-0.349	ug/l	-40.03	15,504.50	2.645E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-225.56	943.41	1.243E-04	Pulse	0.10	3
Mo			1	-0.001	ug/l	-130.60	70.00	9.218E-06	Pulse	0.10	3
Ag			1	0.000	ug/l	-116.11	23.33	2.902E-06	Pulse	0.10	3
Sn			1	-0.205	ug/l	-2.68	3,790.60	4.668E-04	Pulse	0.10	3
Sb			1	0.003	ug/l	104.70	210.01	2.020E-05	Pulse	0.10	3
Ba			1	0.001	ug/l	116.67	63.33	6.095E-06	Pulse	0.10	3
Tl			1	-0.001	ug/l	-15.86	283.34	4.693E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	243.37	526.69	8.717E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	73.53	550.03	9.110E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	79.23	2,310.16	3.824E-04	Pulse	0.10	3
Na			2	0.228	ug/l	44.84	6,450.19	3.956E-02	Pulse	0.30	3
Mg			2	0.016	ug/l	252.74	118.89	7.287E-04	Pulse	0.30	3
Al			2	0.048	ug/l	62.95	45.55	2.792E-04	Pulse	0.30	3
K			2	-0.254	ug/l	-61.36	6,576.94	4.033E-02	Pulse	0.30	3
Ca			2	-0.789	ug/l	-69.52	57.78	3.539E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00	0.000E+00	Pulse	0.30	3
V			2	0.001	ug/l	704.70	356.67	2.187E-03	Pulse	0.30	3
Cr			2	0.019	ug/l	80.11	1,067.27	6.545E-03	Pulse	0.30	3
Mn			2	0.001	ug/l	221.78	60.00	3.682E-04	Pulse	0.30	3
Fe			2	0.010	ug/l	176.44	3,130.33	1.920E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-35.54	77.78	4.769E-04	Pulse	0.30	3
Ni			2	0.007	ug/l	18.28	113.34	6.950E-04	Pulse	0.30	3
Cu			2	-0.003	ug/l	-472.13	1,138.95	6.985E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.117	ug/l	42.25	882.26	5.412E-03	Pulse	0.30	3
As			2	-0.001	ug/l	-760.61	11.33	6.934E-05	Pulse	1.00	3
Cd			2	0.003	ug/l	88.51	11.11	1.169E-05	Pulse	0.30	3
Sn			2	-0.004	ug/l	-429.88	592.24	6.232E-04	Pulse	0.30	3
Se			3	-0.008	ug/l	-17.63	1.47	7.259E-06	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,309,813.82	0.60	100.0	Pulse	0.10	3
1	Sc		5,860,442.83	1.66	100.0	Analog	0.10	3
1	Ge		1,080,573.13	0.36	100.0	Pulse	0.10	3
1	Ge		1,489,782.48	0.60	100.0	Pulse	0.10	3
1	Rh		7,592,903.85	0.11	100.0	Analog	0.10	3
1	In		8,122,934.02	2.56	100.0	Analog	0.10	3
1	Tb		10,390,303.18	0.49	100.0	Analog	0.10	3
1	Ho		1,002,254.98	0.52	100.0	Pulse	0.10	3
1	Bi		6,036,806.37	1.29	100.0	Analog	0.10	3
2	Sc		163,068.41	0.74	100.0	Pulse	0.30	3
2	Ge		98,824.82	0.65	100.0	Pulse	0.30	3
2	Ge		148,562.91	0.52	100.0	Pulse	0.30	3
2	Rh		3,173,922.31	0.10	100.0	Pulse	0.30	3
2	In		950,389.89	0.24	100.0	Pulse	0.30	3
2	Tb		3,817,868.74	0.60	100.0	Pulse	0.30	3
2	Ho		380,888.26	0.39	100.0	Pulse	0.30	3
2	Bi		2,560,094.41	0.40	100.0	Pulse	0.30	3
3	Sc		213,907.70	0.22	100.0	Pulse	0.30	3
3	Ge		134,232.48	0.61	100.0	Pulse	0.30	3
3	Ge		202,069.50	0.37	100.0	Pulse	0.30	3
3	Rh		2,370,753.86	0.28	100.0	Pulse	0.30	3
3	Tb		3,625,070.97	0.47	100.0	Pulse	0.30	3

Quantitation Report

File Name 002CALB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 10:18
Sample Name STDA
Sample Type CalBlk
Comment 0
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	426.08	36.00	1.088E-05	Pulse	0.25	3
B			1	0.013	ug/l	305.08	7,439.59	2.248E-03	Pulse	0.15	3
Ca			1	-0.144	ug/l	-98.22	15,804.69	2.708E-03	Pulse	0.10	3
Sr			1	-0.002	ug/l	-50.67	773.39	1.014E-04	Pulse	0.10	3
Mo			1	-0.002	ug/l	-116.16	53.33	6.984E-06	Pulse	0.10	3
Ag			1	0.000	ug/l	1045.68	40.00	4.911E-06	Pulse	0.10	3
Sn			1	-0.211	ug/l	-0.20	3,647.23	4.472E-04	Pulse	0.10	3
Sb			1	0.001	ug/l	91.78	156.68	1.524E-05	Pulse	0.10	3
Ba			1	0.002	ug/l	51.19	70.00	6.809E-06	Pulse	0.10	3
Tl			1	-0.001	ug/l	-72.40	293.35	4.828E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	182.21	536.70	8.840E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	128.66	506.70	8.362E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	92.82	2,213.49	3.650E-04	Pulse	0.10	3
Na			2	0.196	ug/l	135.04	6,495.76	3.926E-02	Pulse	0.30	3
Mg			2	0.000	ug/l	-8387.56	108.89	6.581E-04	Pulse	0.30	3
Al			2	0.051	ug/l	159.93	46.67	2.827E-04	Pulse	0.30	3
K			2	-0.124	ug/l	-525.34	6,724.77	4.067E-02	Pulse	0.30	3
Ca			2	-0.821	ug/l	-42.42	57.78	3.493E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00	0.000E+00	Pulse	0.30	3
V			2	0.004	ug/l	150.65	377.79	2.283E-03	Pulse	0.30	3
Cr			2	0.012	ug/l	16.15	1,022.27	6.181E-03	Pulse	0.30	3
Mn			2	0.004	ug/l	37.71	74.45	4.500E-04	Pulse	0.30	3
Fe			2	0.024	ug/l	27.62	3,275.93	1.981E-02	Pulse	0.30	3
Co			2	0.000	ug/l	477.59	101.11	6.111E-04	Pulse	0.30	3
Ni			2	0.006	ug/l	76.02	111.11	6.724E-04	Pulse	0.30	3
Cu			2	0.007	ug/l	209.40	1,267.84	7.664E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.097	ug/l	41.32	864.48	5.226E-03	Pulse	0.30	3
As			2	-0.001	ug/l	-547.28	11.33	6.838E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	441.69	4.44	4.650E-06	Pulse	0.30	3
Sn			2	0.014	ug/l	136.96	676.73	7.068E-04	Pulse	0.30	3
Se			3	-0.002	ug/l	-328.54	2.80	1.395E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,309,906.88	0.98	100.0	Pulse	0.10	3
1	Sc		5,835,272.62	0.81	100.0	Analog	0.10	3
1	Ge		1,079,000.53	0.42	100.0	Pulse	0.10	3
1	Ge		1,484,844.87	0.66	100.0	Pulse	0.10	3
1	Rh		7,635,979.47	0.80	100.0	Analog	0.10	3
1	In		8,156,425.53	0.73	100.0	Analog	0.10	3
1	Tb		10,286,068.81	0.74	100.0	Analog	0.10	3
1	Ho		995,948.37	0.59	100.0	Pulse	0.10	3
1	Bi		6,067,360.95	1.28	100.0	Analog	0.10	3
2	Sc		165,399.23	0.80	100.0	Pulse	0.30	3
2	Ge		99,571.59	0.69	100.0	Pulse	0.30	3
2	Ge		149,432.43	0.72	100.0	Pulse	0.30	3
2	Rh		3,185,457.72	0.33	100.0	Pulse	0.30	3
2	In		957,468.98	0.27	100.0	Pulse	0.30	3
2	Tb		3,814,170.40	0.65	100.0	Pulse	0.30	3
2	Ho		382,737.77	0.37	100.0	Pulse	0.30	3
2	Bi		2,579,610.38	0.20	100.0	Pulse	0.30	3
3	Sc		211,315.49	0.73	100.0	Pulse	0.30	3
3	Ge		133,279.36	0.16	100.0	Pulse	0.30	3
3	Ge		200,815.74	0.75	100.0	Pulse	0.30	3
3	Rh		2,365,424.49	0.71	100.0	Pulse	0.30	3
3	Tb		3,600,887.08	0.65	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 10:23
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	313.55	37.33	1.127E-05	Pulse	0.25	3
B			1	0.000	ug/l	---	7,275.06	2.197E-03	Pulse	0.15	3
Ca			1	-0.366	ug/l	-40.73	15,447.82	2.640E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	5754.25	980.07	1.290E-04	Pulse	0.10	3
Mo			1	0.000	ug/l	758.49	86.67	1.139E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	1067.88	40.00	4.903E-06	Pulse	0.10	3
Sn			1	-0.213	ug/l	-1.22	3,590.55	4.400E-04	Pulse	0.10	3
Sb			1	0.000	ug/l	712.43	143.34	1.387E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	168092.66	50.00	4.840E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	---	366.68	6.049E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	2947.80	493.36	8.120E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-1053.44	416.69	6.860E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	810.68	2,050.14	3.377E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	6,196.77	3.748E-02	Pulse	0.30	3
Mg			2	0.000	ug/l	-36301.29	108.89	6.587E-04	Pulse	0.30	3
Al			2	0.000	ug/l	---	35.56	2.150E-04	Pulse	0.30	3
K			2	-0.190	ug/l	-356.26	6,695.86	4.050E-02	Pulse	0.30	3
Ca			2	-0.127	ug/l	-280.60	74.44	4.503E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00		Pulse	0.30	3
V			2	0.001	ug/l	223.77	362.23	2.191E-03	Pulse	0.30	3
Cr			2	0.001	ug/l	890.35	927.82	5.612E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	56.67	3.427E-04	Pulse	0.30	3
Fe			2	0.000	ug/l	4166.30	3,100.33	1.875E-02	Pulse	0.30	3
Co			2	0.000	ug/l	---	97.78	5.916E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	---	83.33	5.040E-04	Pulse	0.30	3
Cu			2	0.000	ug/l	5888.80	1,187.84	7.184E-03	Pulse	0.30	3
Zn			2	0.000	ug/l	---	718.91	4.348E-03	Pulse	0.30	3
As			2	0.000	ug/l	-1580.19	12.00	7.256E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.000	ug/l	---	3.33	3.442E-06	Pulse	0.30	3
Sn			2	0.005	ug/l	107.81	644.47	6.641E-04	Pulse	0.30	3
Se			3	0.001	ug/l	521.55	3.47	1.694E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,311,687.67	0.65	100.0	Pulse	0.10	3
1	Sc		5,851,486.37	1.58	100.0	Analog	0.10	3
1	Ge		1,088,664.12	1.38	100.0	Pulse	0.10	3
1	Ge		1,506,281.02	0.89	100.0	Pulse	0.10	3
1	Rh		7,605,944.26	1.38	100.0	Analog	0.10	3
1	In		8,159,536.58	0.13	100.0	Analog	0.10	3
1	Tb		10,332,357.35	0.23	100.0	Analog	0.10	3
1	Ho		995,220.30	0.89	100.0	Pulse	0.10	3
1	Bi		6,070,105.74	0.72	100.0	Analog	0.10	3
2	Sc		165,335.18	0.20	100.0	Pulse	0.30	3
2	Ge		105,066.79	0.89	100.0	Pulse	0.30	3
2	Ge		157,322.08	1.50	100.0	Pulse	0.30	3
2	Rh		3,201,469.94	0.41	100.0	Pulse	0.30	3
2	In		970,336.43	0.47	100.0	Pulse	0.30	3
2	Tb		3,853,987.76	0.65	100.0	Pulse	0.30	3
2	Ho		384,133.31	0.64	100.0	Pulse	0.30	3
2	Bi		2,588,323.37	0.52	100.0	Pulse	0.30	3
3	Sc		214,745.58	0.61	100.0	Pulse	0.30	3
3	Ge		136,570.88	1.63	100.0	Pulse	0.30	3
3	Ge		205,091.09	1.04	100.0	Pulse	0.30	3
3	Rh		2,381,329.70	0.13	100.0	Pulse	0.30	3
3	Tb		3,638,028.19	0.24	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 10:31
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.485	ug/l	1.72	6,418.62	1.939E-03	Pulse	0.25	3
B			1	24.749	ug/l	0.80	330,135.77	9.974E-02	Pulse	0.15	3
Ca			1	251.390	ug/l	0.63	466,316.27	7.992E-02	Pulse	0.10	3
Sr			1	4.944	ug/l	1.36	430,797.65	5.748E-02	Pulse	0.10	3
Mo			1	0.963	ug/l	2.11	16,118.71	2.151E-03	Pulse	0.10	3
Ag			1	0.476	ug/l	2.53	20,840.95	2.571E-03	Pulse	0.10	3
Sn			1	4.547	ug/l	2.36	129,088.50	1.592E-02	Pulse	0.10	3
Sb			1	1.824	ug/l	3.00	52,073.70	4.986E-03	Pulse	0.10	3
Ba			1	0.987	ug/l	9.56	11,751.54	1.126E-03	Pulse	0.10	3
Tl			1	0.475	ug/l	1.95	34,431.08	5.671E-03	Pulse	0.10	3
Pb			1	0.495	ug/l	4.63	12,132.05	1.998E-03	Pulse	0.10	3
Pb			1	0.504	ug/l	2.42	11,064.56	1.822E-03	Pulse	0.10	3
Pb			1	0.491	ug/l	1.88	49,173.51	8.098E-03	Pulse	0.10	3
Na			2	252.625	ug/l	1.29	390,500.38	2.338E+00	Pulse	0.30	3
Mg			2	250.728	ug/l	1.49	180,953.76	1.083E+00	Pulse	0.30	3
Al			2	25.870	ug/l	2.04	5,776.61	3.458E-02	Pulse	0.30	3
K			2	247.992	ug/l	1.24	113,194.27	6.776E-01	Pulse	0.30	3
Ca			2	283.597	ug/l	2.08	6,967.09	4.171E-02	Pulse	0.30	3
Ti			2	0.930	ug/l	10.46	180.00	1.077E-03	Pulse	0.30	3
V			2	0.994	ug/l	2.15	6,991.55	4.185E-02	Pulse	0.30	3
Cr			2	1.010	ug/l	3.89	9,796.34	5.865E-02	Pulse	0.30	3
Mn			2	0.968	ug/l	5.69	4,170.58	2.495E-02	Pulse	0.30	3
Fe			2	24.541	ug/l	1.10	186,486.68	1.116E+00	Pulse	0.30	3
Co			2	0.500	ug/l	3.95	8,032.04	4.810E-02	Pulse	0.30	3
Ni			2	1.001	ug/l	4.87	4,482.89	2.684E-02	Pulse	0.30	3
Cu			2	2.006	ug/l	1.78	24,879.99	1.490E-01	Pulse	0.30	3
Zn			2	4.935	ug/l	1.97	8,222.15	4.922E-02	Pulse	0.30	3
As			2	0.502	ug/l	2.10	415.01	2.485E-03	Pulse	1.00	3
Cd			2	0.511	ug/l	5.88	1,253.76	1.283E-03	Pulse	0.30	3
Sn			2	4.728	ug/l	0.13	21,949.85	2.247E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.480	ug/l	4.14	110.40	5.477E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,309,860.51	0.22	99.9	Pulse	0.10	3
1	Sc		5,835,108.45	0.99	99.7	Analog	0.10	3
1	Ge		1,081,973.42	0.94	99.4	Pulse	0.10	3
1	Ge		1,488,240.19	0.94	98.8	Pulse	0.10	3
1	Rh		7,494,948.43	0.82	98.5	Analog	0.10	3
1	In		8,110,154.79	2.35	99.4	Analog	0.10	3
1	Tb		10,441,365.05	1.05	101.1	Analog	0.10	3
1	Ho		1,005,728.79	0.79	101.1	Pulse	0.10	3
1	Bi		6,072,470.12	0.80	100.0	Analog	0.10	3
2	Sc		167,061.56	1.49	101.0	Pulse	0.30	3
2	Ge		100,775.51	0.81	95.9	Pulse	0.30	3
2	Ge		151,275.95	0.75	96.2	Pulse	0.30	3
2	Rh		3,218,425.43	0.28	100.5	Pulse	0.30	3
2	In		976,779.85	0.18	100.7	Pulse	0.30	3
2	Tb		3,877,991.37	0.57	100.6	Pulse	0.30	3
2	Ho		388,000.15	0.40	101.0	Pulse	0.30	3
2	Bi		2,600,363.09	0.38	100.5	Pulse	0.30	3
3	Sc		213,791.24	0.42	99.6	Pulse	0.30	3
3	Ge		133,789.23	0.28	98.0	Pulse	0.30	3
3	Ge		201,539.80	0.45	98.3	Pulse	0.30	3
3	Rh		2,370,749.00	0.41	99.6	Pulse	0.30	3
3	Tb		3,619,272.08	0.62	99.5	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 10:36
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.977	ug/l	1.16	65,350.44	1.980E-02	Pulse	0.25	3
B			1	4.855	ug/l	2.27	70,409.33	2.133E-02	Pulse	0.15	3
Ca			1	7.813	ug/l	5.49	30,097.99	5.151E-03	Pulse	0.10	3
Sr			1	4.912	ug/l	0.61	430,832.18	5.711E-02	Pulse	0.10	3
Mo			1	4.939	ug/l	3.53	82,872.01	1.099E-02	Pulse	0.10	3
Ag			1	5.004	ug/l	1.54	216,815.22	2.696E-02	Pulse	0.10	3
Sn			1	5.560	ug/l	0.97	154,526.45	1.922E-02	Pulse	0.10	3
Sb			1	4.947	ug/l	1.82	140,135.91	1.350E-02	Pulse	0.10	3
Ba			1	5.020	ug/l	1.00	59,263.98	5.708E-03	Pulse	0.10	3
Tl			1	4.790	ug/l	0.62	341,657.32	5.668E-02	Pulse	0.10	3
Pb			1	4.995	ug/l	1.77	117,225.23	1.945E-02	Pulse	0.10	3
Pb			1	4.889	ug/l	1.84	102,947.17	1.708E-02	Pulse	0.10	3
Pb			1	4.933	ug/l	1.20	471,827.53	7.828E-02	Pulse	0.10	3
Na			2	6.708	ug/l	2.35	16,933.06	9.856E-02	Pulse	0.30	3
Mg			2	5.121	ug/l	4.99	3,910.50	2.277E-02	Pulse	0.30	3
Al			2	5.118	ug/l	1.68	1,205.62	7.014E-03	Pulse	0.30	3
K			2	4.971	ug/l	7.10	9,234.87	5.375E-02	Pulse	0.30	3
Ca			2	33.294	ug/l	9.67	913.37	5.310E-03	Pulse	0.30	3
Ti			2	4.653	ug/l	9.08	925.59	5.390E-03	Pulse	0.30	3
V			2	4.859	ug/l	3.03	33,706.52	1.962E-01	Pulse	0.30	3
Cr			2	4.878	ug/l	3.62	44,993.16	2.620E-01	Pulse	0.30	3
Mn			2	4.766	ug/l	4.39	20,868.83	1.215E-01	Pulse	0.30	3
Fe			2	4.859	ug/l	4.02	40,539.69	2.360E-01	Pulse	0.30	3
Co			2	4.893	ug/l	2.51	79,977.81	4.656E-01	Pulse	0.30	3
Ni			2	4.837	ug/l	2.06	21,950.25	1.278E-01	Pulse	0.30	3
Cu			2	4.822	ug/l	2.96	59,781.40	3.480E-01	Pulse	0.30	3
Zn			2	4.745	ug/l	2.33	8,158.79	4.749E-02	Pulse	0.30	3
As			2	4.898	ug/l	2.71	4,050.85	2.358E-02	Pulse	1.00	3
Cd			2	4.872	ug/l	4.08	12,059.56	1.220E-02	Pulse	0.30	3
Sn			2	5.521	ug/l	2.42	25,840.16	2.614E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	4.914	ug/l	1.18	1,101.71	5.457E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,300,669.80	0.42	99.7	Pulse	0.10	3
1	Sc		5,843,676.37	0.15	99.9	Analog	0.10	3
1	Ge		1,074,362.80	0.77	98.7	Pulse	0.10	3
1	Ge		1,488,150.03	0.81	98.8	Pulse	0.10	3
1	Rh		7,543,761.35	0.89	99.2	Analog	0.10	3
1	In		8,041,559.31	0.61	98.6	Analog	0.10	3
1	Tb		10,382,267.55	0.37	100.5	Analog	0.10	3
1	Ho		997,627.59	0.94	100.2	Pulse	0.10	3
1	Bi		6,028,162.62	1.14	99.3	Analog	0.10	3
2	Sc		171,840.92	2.33	103.9	Pulse	0.30	3
2	Ge		102,208.73	1.72	97.3	Pulse	0.30	3
2	Ge		153,247.61	2.12	97.4	Pulse	0.30	3
2	Rh		3,262,506.05	3.20	101.9	Pulse	0.30	3
2	In		989,109.25	2.71	101.9	Pulse	0.30	3
2	Tb		3,933,057.76	3.13	102.1	Pulse	0.30	3
2	Ho		391,355.77	3.67	101.9	Pulse	0.30	3
2	Bi		2,629,703.99	2.56	101.6	Pulse	0.30	3
3	Sc		212,172.11	0.73	98.8	Pulse	0.30	3
3	Ge		133,589.69	0.28	97.8	Pulse	0.30	3
3	Ge		201,887.45	1.20	98.4	Pulse	0.30	3
3	Rh		2,377,608.59	0.56	99.8	Pulse	0.30	3
3	Tb		3,624,278.88	1.01	99.6	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 10:41
Sample Name STDD
Sample Type CalStd
Comment 25
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	25.026	ug/l	0.60	326,565.26	9.951E-02	Pulse	0.25	3
B			1	24.573	ug/l	0.86	325,032.50	9.905E-02	Pulse	0.15	3
Ca			1	36.051	ug/l	0.91	80,545.75	1.382E-02	Pulse	0.10	3
Sr			1	24.799	ug/l	1.28	2,151,466.84	2.878E-01	Pulse	0.10	3
Mo			1	24.944	ug/l	1.39	414,419.02	5.544E-02	Pulse	0.10	3
Ag			1	25.255	ug/l	0.73	1,080,762.04	1.361E-01	Pulse	0.10	3
Sn			1	25.729	ug/l	1.04	673,641.99	8.481E-02	Pulse	0.10	3
Sb			1	25.001	ug/l	1.05	699,399.68	6.817E-02	Pulse	0.10	3
Ba			1	25.202	ug/l	1.43	293,811.50	2.864E-02	Pulse	0.10	3
Tl			1	24.615	ug/l	0.69	1,738,783.20	2.910E-01	Pulse	0.10	3
Pb			1	25.578	ug/l	1.64	593,062.49	9.925E-02	Pulse	0.10	3
Pb			1	25.157	ug/l	0.39	523,416.13	8.759E-02	Pulse	0.10	3
Pb			1	25.237	ug/l	0.90	2,384,388.91	3.990E-01	Pulse	0.10	3
Na			2	27.592	ug/l	1.07	47,866.27	2.887E-01	Pulse	0.30	3
Mg			2	25.368	ug/l	0.79	18,268.87	1.102E-01	Pulse	0.30	3
Al			2	25.642	ug/l	0.81	5,683.24	3.428E-02	Pulse	0.30	3
K			2	25.724	ug/l	4.10	17,743.97	1.070E-01	Pulse	0.30	3
Ca			2	176.587	ug/l	3.01	4,335.06	2.615E-02	Pulse	0.30	3
Ti			2	25.919	ug/l	1.92	4,977.47	3.002E-02	Pulse	0.30	3
V			2	25.031	ug/l	0.93	166,110.15	1.002E+00	Pulse	0.30	3
Cr			2	24.992	ug/l	1.34	218,690.56	1.319E+00	Pulse	0.30	3
Mn			2	25.018	ug/l	0.32	105,516.34	6.365E-01	Pulse	0.30	3
Fe			2	25.598	ug/l	1.17	192,915.36	1.164E+00	Pulse	0.30	3
Co			2	25.049	ug/l	1.22	394,720.73	2.381E+00	Pulse	0.30	3
Ni			2	25.112	ug/l	0.77	109,620.71	6.612E-01	Pulse	0.30	3
Cu			2	25.053	ug/l	1.37	294,789.66	1.778E+00	Pulse	0.30	3
Zn			2	24.980	ug/l	1.10	38,372.54	2.315E-01	Pulse	0.30	3
As			2	25.045	ug/l	1.03	19,942.81	1.203E-01	Pulse	1.00	3
Cd			2	25.298	ug/l	1.10	60,353.18	6.334E-02	Pulse	0.30	3
Sn			2	25.544	ug/l	1.10	113,000.59	1.186E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	25.094	ug/l	1.05	5,459.64	2.780E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,281,633.69	0.18	99.1	Pulse	0.10	3
1	Sc		5,829,227.83	1.51	99.6	Analog	0.10	3
1	Ge		1,070,290.66	1.40	98.3	Pulse	0.10	3
1	Ge		1,475,268.47	0.75	97.9	Pulse	0.10	3
1	Rh		7,475,260.93	1.23	98.3	Analog	0.10	3
1	In		7,943,063.86	0.73	97.3	Analog	0.10	3
1	Tb		10,260,089.02	0.34	99.3	Analog	0.10	3
1	Ho		993,975.46	0.51	99.9	Pulse	0.10	3
1	Bi		5,975,570.33	0.72	98.4	Analog	0.10	3
2	Sc		165,787.48	0.30	100.3	Pulse	0.30	3
2	Ge		98,577.11	1.41	93.8	Pulse	0.30	3
2	Ge		149,267.77	0.43	94.9	Pulse	0.30	3
2	Rh		3,166,279.80	0.79	98.9	Pulse	0.30	3
2	In		952,827.16	0.67	98.2	Pulse	0.30	3
2	Tb		3,786,528.60	0.18	98.2	Pulse	0.30	3
2	Ho		378,602.14	0.42	98.6	Pulse	0.30	3
2	Bi		2,553,772.12	0.72	98.7	Pulse	0.30	3
3	Sc		208,632.31	0.30	97.2	Pulse	0.30	3
3	Ge		131,899.52	0.65	96.6	Pulse	0.30	3
3	Ge		196,388.74	0.53	95.8	Pulse	0.30	3
3	Rh		2,331,482.68	0.28	97.9	Pulse	0.30	3
3	Tb		3,564,777.78	0.28	98.0	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 10:46
Sample Name STDE
Sample Type CalStd
Comment 50
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.274	ug/l	0.60	641,067.50	1.999E-01	Pulse	0.25	3
B			1	49.154	ug/l	0.81	628,337.58	1.959E-01	Pulse	0.15	3
Ca			1	73.321	ug/l	1.60	141,947.61	2.526E-02	Pulse	0.10	3
Sr			1	49.678	ug/l	0.93	4,288,409.41	5.765E-01	Pulse	0.10	3
Mo			1	50.096	ug/l	0.48	828,297.80	1.113E-01	Pulse	0.10	3
Ag			1	50.070	ug/l	1.93	2,149,705.28	2.698E-01	Pulse	0.10	3
Sn			1	50.193	ug/l	0.67	1,309,944.33	1.644E-01	Pulse	0.10	3
Sb			1	50.200	ug/l	0.31	1,392,225.03	1.369E-01	Pulse	0.10	3
Ba			1	50.304	ug/l	1.12	581,365.93	5.716E-02	Pulse	0.10	3
Tl			1	48.986	ug/l	0.68	3,483,978.28	5.790E-01	Pulse	0.10	3
Pb			1	50.315	ug/l	0.91	1,174,246.23	1.952E-01	Pulse	0.10	3
Pb			1	49.930	ug/l	0.56	1,045,618.03	1.738E-01	Pulse	0.10	3
Pb			1	50.181	ug/l	0.57	4,772,015.58	7.931E-01	Pulse	0.10	3
Na			2	53.230	ug/l	1.20	84,491.11	5.222E-01	Pulse	0.30	3
Mg			2	50.544	ug/l	0.65	35,423.74	2.189E-01	Pulse	0.30	3
Al			2	52.375	ug/l	2.91	11,292.77	6.979E-02	Pulse	0.30	3
K			2	50.101	ug/l	2.33	27,445.91	1.696E-01	Pulse	0.30	3
Ca			2	362.407	ug/l	4.05	8,602.35	5.317E-02	Pulse	0.30	3
Ti			2	51.087	ug/l	0.90	9,576.18	5.918E-02	Pulse	0.30	3
V			2	50.692	ug/l	1.39	327,976.21	2.027E+00	Pulse	0.30	3
Cr			2	50.554	ug/l	0.64	430,840.83	2.663E+00	Pulse	0.30	3
Mn			2	50.387	ug/l	1.24	207,351.89	1.281E+00	Pulse	0.30	3
Fe			2	50.853	ug/l	0.93	371,076.45	2.293E+00	Pulse	0.30	3
Co			2	50.729	ug/l	0.99	780,112.56	4.821E+00	Pulse	0.30	3
Ni			2	50.290	ug/l	1.23	214,179.88	1.324E+00	Pulse	0.30	3
Cu			2	50.323	ug/l	0.97	576,751.24	3.564E+00	Pulse	0.30	3
Zn			2	50.502	ug/l	0.40	75,001.23	4.635E-01	Pulse	0.30	3
As			2	50.391	ug/l	0.71	39,152.24	2.420E-01	Pulse	1.00	3
Cd			2	50.163	ug/l	1.93	117,595.30	1.256E-01	Pulse	0.30	3
Sn			2	50.076	ug/l	0.66	217,111.95	2.319E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	49.774	ug/l	0.84	10,757.46	5.513E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,206,887.38	0.57	96.8	Pulse	0.10	3
1	Sc		5,619,914.50	1.16	96.0	Analog	0.10	3
1	Ge		1,050,133.42	0.37	96.5	Pulse	0.10	3
1	Ge		1,455,119.09	0.64	96.6	Pulse	0.10	3
1	Rh		7,439,311.14	0.73	97.8	Analog	0.10	3
1	In		7,969,804.21	1.09	97.7	Analog	0.10	3
1	Tb		10,172,272.97	1.06	98.5	Analog	0.10	3
1	Ho		990,777.33	0.87	99.6	Pulse	0.10	3
1	Bi		6,016,815.74	0.36	99.1	Analog	0.10	3
2	Sc		161,816.64	0.78	97.9	Pulse	0.30	3
2	Ge		96,999.76	0.32	92.3	Pulse	0.30	3
2	Ge		146,163.50	0.70	92.9	Pulse	0.30	3
2	Rh		3,108,904.81	0.40	97.1	Pulse	0.30	3
2	In		936,360.90	0.43	96.5	Pulse	0.30	3
2	Tb		3,741,061.80	0.70	97.1	Pulse	0.30	3
2	Ho		371,383.98	0.41	96.7	Pulse	0.30	3
2	Bi		2,509,617.19	0.57	97.0	Pulse	0.30	3
3	Sc		206,623.76	0.74	96.2	Pulse	0.30	3
3	Ge		129,590.25	0.43	94.9	Pulse	0.30	3
3	Ge		195,133.95	0.36	95.1	Pulse	0.30	3
3	Rh		2,301,260.53	0.07	96.6	Pulse	0.30	3
3	Tb		3,557,742.50	0.39	97.8	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 10:51
Sample Name STDF
Sample Type CalStd
Comment 100
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	99.833	ug/l	0.64	1,248,118.00	3.969E-01	Pulse	0.25	3
B			1	96.765	ug/l	0.74	1,206,098.04	3.836E-01	Pulse	0.15	3
Ca			1	143.412	ug/l	1.68	260,367.13	4.677E-02	Pulse	0.10	3
Sr			1	101.103	ug/l	0.76	8,404,063.42	1.173E+00	Analog	0.10	3
Mo			1	100.492	ug/l	1.35	1,599,869.66	2.233E-01	Pulse	0.10	3
Ag			1	98.652	ug/l	1.09	4,165,652.02	5.315E-01	Pulse	0.10	3
Sn			1	99.744	ug/l	1.53	2,551,256.84	3.255E-01	Pulse	0.10	3
Sb			1	99.772	ug/l	0.30	2,744,387.77	2.720E-01	Pulse	0.10	3
Ba			1	99.493	ug/l	0.79	1,140,461.13	1.130E-01	Pulse	0.10	3
Tl			1	100.614	ug/l	1.90	7,019,008.44	1.189E+00	Analog	0.10	3
Pb			1	99.761	ug/l	0.40	2,283,477.99	3.869E-01	Pulse	0.10	3
Pb			1	99.286	ug/l	0.48	2,039,323.98	3.455E-01	Pulse	0.10	3
Pb			1	99.879	ug/l	0.40	9,315,604.49	1.578E+00	Pulse	0.10	3
Na			2	102.800	ug/l	0.57	155,095.76	9.735E-01	Pulse	0.30	3
Mg			2	100.940	ug/l	1.60	69,537.15	4.365E-01	Pulse	0.30	3
Al			2	100.786	ug/l	1.90	21,363.65	1.341E-01	Pulse	0.30	3
K			2	99.230	ug/l	0.27	47,115.00	2.957E-01	Pulse	0.30	3
Ca			2	722.330	ug/l	2.57	16,812.06	1.055E-01	Pulse	0.30	3
Ti			2	99.245	ug/l	2.56	18,313.54	1.150E-01	Pulse	0.30	3
V			2	99.439	ug/l	0.51	633,138.03	3.974E+00	Pulse	0.30	3
Cr			2	99.575	ug/l	0.97	834,635.64	5.239E+00	Pulse	0.30	3
Mn			2	99.814	ug/l	0.99	404,358.70	2.538E+00	Pulse	0.30	3
Fe			2	101.550	ug/l	1.10	726,592.78	4.561E+00	Pulse	0.30	3
Co			2	99.628	ug/l	0.66	1,508,361.64	9.468E+00	Pulse	0.30	3
Ni			2	99.835	ug/l	0.39	418,560.69	2.627E+00	Pulse	0.30	3
Cu			2	99.766	ug/l	0.72	1,124,646.62	7.059E+00	Pulse	0.30	3
Zn			2	99.757	ug/l	1.43	145,178.59	9.113E-01	Pulse	0.30	3
As			2	99.142	ug/l	0.76	75,830.34	4.760E-01	Pulse	1.00	3
Cd			2	99.850	ug/l	0.57	228,664.09	2.500E-01	Pulse	0.30	3
Sn			2	99.675	ug/l	0.77	421,577.88	4.609E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	98.939	ug/l	0.67	20,951.35	1.096E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,144,319.65	0.47	94.9	Pulse	0.10	3
1	Sc		5,567,226.79	1.08	95.1	Analog	0.10	3
1	Ge		1,031,924.72	0.28	94.8	Pulse	0.10	3
1	Ge		1,424,517.27	0.28	94.6	Pulse	0.10	3
1	Rh		7,164,491.56	1.53	94.2	Analog	0.10	3
1	In		7,838,189.91	0.87	96.1	Analog	0.10	3
1	Tb		10,089,522.14	0.67	97.6	Analog	0.10	3
1	Ho		975,090.95	0.57	98.0	Pulse	0.10	3
1	Bi		5,902,568.66	0.66	97.2	Analog	0.10	3
2	Sc		159,319.22	0.97	96.4	Pulse	0.30	3
2	Ge		95,533.38	0.80	90.9	Pulse	0.30	3
2	Ge		143,182.91	0.23	91.0	Pulse	0.30	3
2	Rh		3,042,744.67	1.02	95.0	Pulse	0.30	3
2	In		914,710.05	0.63	94.3	Pulse	0.30	3
2	Tb		3,682,973.32	0.38	95.6	Pulse	0.30	3
2	Ho		368,050.53	1.25	95.8	Pulse	0.30	3
2	Bi		2,472,568.31	1.18	95.5	Pulse	0.30	3
3	Sc		204,404.00	1.18	95.2	Pulse	0.30	3
3	Ge		127,001.32	0.21	93.0	Pulse	0.30	3
3	Ge		191,221.47	0.44	93.2	Pulse	0.30	3
3	Rh		2,258,779.98	0.30	94.9	Pulse	0.30	3
3	Tb		3,505,253.19	0.56	96.4	Pulse	0.30	3

Quantitation Report

File Name 009CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 10:56
Sample Name STDG
Sample Type CalStd
Comment 500MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	13.33	137.33	4.361E-05	Pulse	0.25	3
B			1	201.917	ug/l	1.32	2,513,743.51	7.980E-01	Pulse	0.15	3
Ca			1	508.139	ug/l	1.22	894,337.04	1.587E-01	Pulse	0.10	3
Sr			1	0.017	ug/l	9.94	2,390.29	3.284E-04	Pulse	0.10	3
Mo			1	0.108	ug/l	10.66	1,830.18	2.514E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	17.52	526.70	6.721E-05	Pulse	0.10	3
Sn			1	-0.156	ug/l	-5.81	4,900.95	6.255E-04	Pulse	0.10	3
Sb			1	0.578	ug/l	8.37	16,032.07	1.589E-03	Pulse	0.10	3
Ba			1	0.016	ug/l	13.98	230.01	2.278E-05	Pulse	0.10	3
Tl			1	0.026	ug/l	9.28	2,163.57	3.672E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	8.70	1,066.75	1.810E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	28.27	970.07	1.646E-04	Pulse	0.10	3
Pb			1	0.023	ug/l	4.02	4,127.05	7.003E-04	Pulse	0.10	3
Na			2	513.418	ug/l	0.23	759,684.78	4.712E+00	Pulse	0.30	3
Mg			2	505.101	ug/l	0.38	351,705.23	2.182E+00	Pulse	0.30	3
Al			2	515.456	ug/l	0.42	110,427.04	6.850E-01	Pulse	0.30	3
K			2	508.263	ug/l	0.22	216,959.12	1.346E+00	Pulse	0.30	3
Ca			2	500.591	ug/l	1.11	11,810.98	7.326E-02	Pulse	0.30	3
Ti			2	0.024	ug/l	86.60	4.45	2.756E-05	Pulse	0.30	3
V			2	-0.007	ug/l	-24.61	300.01	1.861E-03	Pulse	0.30	3
Cr			2	-0.023	ug/l	-22.54	705.58	4.377E-03	Pulse	0.30	3
Mn			2	0.039	ug/l	13.07	216.67	1.344E-03	Pulse	0.30	3
Fe			2	497.686	ug/l	0.93	3,591,619.03	2.228E+01	Pulse	0.30	3
Co			2	0.034	ug/l	12.05	620.02	3.847E-03	Pulse	0.30	3
Ni			2	0.020	ug/l	44.81	164.45	1.020E-03	Pulse	0.30	3
Cu			2	0.004	ug/l	209.30	1,203.39	7.465E-03	Pulse	0.30	3
Zn			2	0.243	ug/l	12.38	1,057.83	6.561E-03	Pulse	0.30	3
As			2	0.010	ug/l	12.33	20.00	1.241E-04	Pulse	1.00	3
Cd			2	0.007	ug/l	12.17	18.77	2.003E-05	Pulse	0.30	3
Sn			2	0.088	ug/l	22.80	980.05	1.046E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	200.337	ug/l	0.37	43,973.54	2.218E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,150,015.87	0.52	95.1	Pulse	0.10	3
1	Sc		5,634,440.12	0.34	96.3	Analog	0.10	3
1	Ge		1,033,589.28	1.02	94.9	Pulse	0.10	3
1	Ge		1,443,009.35	0.80	95.8	Pulse	0.10	3
1	Rh		7,279,135.52	0.54	95.7	Analog	0.10	3
1	In		7,834,157.07	0.33	96.0	Analog	0.10	3
1	Tb		10,092,441.10	0.67	97.7	Analog	0.10	3
1	Ho		972,850.69	0.74	97.8	Pulse	0.10	3
1	Bi		5,893,472.83	1.00	97.1	Analog	0.10	3
2	Sc		161,209.37	0.37	97.5	Pulse	0.30	3
2	Ge		98,355.34	1.21	93.6	Pulse	0.30	3
2	Ge		147,003.90	0.76	93.4	Pulse	0.30	3
2	Rh		3,088,252.31	0.47	96.5	Pulse	0.30	3
2	In		936,830.57	0.42	96.5	Pulse	0.30	3
2	Tb		3,727,103.88	0.56	96.7	Pulse	0.30	3
2	Ho		372,624.59	0.25	97.0	Pulse	0.30	3
2	Bi		2,498,750.80	0.56	96.5	Pulse	0.30	3
3	Sc		208,210.19	0.83	97.0	Pulse	0.30	3
3	Ge		131,450.56	0.51	96.3	Pulse	0.30	3
3	Ge		198,222.14	0.77	96.7	Pulse	0.30	3
3	Rh		2,321,280.60	0.29	97.5	Pulse	0.30	3
3	Tb		3,584,243.33	0.34	98.5	Pulse	0.30	3

Quantitation Report

File Name 010CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 11:01
Sample Name STDH
Sample Type CalStd
Comment 1000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	32.00	106.67	3.297E-05	Pulse	0.25	3
B			1	2.535	ug/l	1.33	39,457.23	1.219E-02	Pulse	0.15	3
Ca			1	1013.808	ug/l	2.07	1,797,902.37	3.139E-01	Pulse	0.10	3
Sr			1	0.010	ug/l	30.14	1,820.17	2.454E-04	Pulse	0.10	3
Mo			1	0.033	ug/l	11.78	620.04	8.354E-05	Pulse	0.10	3
Ag			1	0.005	ug/l	3.32	236.68	2.953E-05	Pulse	0.10	3
Sn			1	-0.233	ug/l	-1.78	3,023.74	3.772E-04	Pulse	0.10	3
Sb			1	0.192	ug/l	4.13	5,544.52	5.371E-04	Pulse	0.10	3
Ba			1	0.006	ug/l	36.97	116.67	1.129E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	27.06	763.39	1.292E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	12.31	760.05	1.287E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	14.16	526.70	8.919E-05	Pulse	0.10	3
Pb			1	0.007	ug/l	12.91	2,663.53	4.510E-04	Pulse	0.10	3
Na			2	1013.484	ug/l	0.72	1,531,085.04	9.266E+00	Pulse	0.30	3
Mg			2	994.141	ug/l	0.53	709,436.92	4.293E+00	Pulse	0.30	3
Al			2	1021.125	ug/l	1.43	224,186.28	1.357E+00	Pulse	0.30	3
K			2	1008.051	ug/l	1.11	434,393.11	2.629E+00	Pulse	0.30	3
Ca			2	1013.427	ug/l	1.86	24,429.09	1.478E-01	Pulse	0.30	3
Ti			2	0.006	ug/l	173.21	1.11	6.755E-06	Pulse	0.30	3
V			2	0.002	ug/l	543.83	363.34	2.199E-03	Pulse	0.30	3
Cr			2	-0.023	ug/l	-12.63	723.36	4.377E-03	Pulse	0.30	3
Mn			2	0.028	ug/l	30.91	175.56	1.063E-03	Pulse	0.30	3
Fe			2	1017.614	ug/l	1.97	7,523,732.76	4.553E+01	Analog	0.30	3
Co			2	0.051	ug/l	7.87	905.59	5.482E-03	Pulse	0.30	3
Ni			2	0.037	ug/l	18.34	245.56	1.485E-03	Pulse	0.30	3
Cu			2	-0.011	ug/l	-53.68	1,058.94	6.407E-03	Pulse	0.30	3
Zn			2	0.117	ug/l	45.53	894.48	5.416E-03	Pulse	0.30	3
As			2	0.010	ug/l	51.07	20.33	1.232E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	57.08	15.52	1.630E-05	Pulse	0.30	3
Sn			2	-0.018	ug/l	-50.01	530.01	5.562E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	400.978	ug/l	0.36	89,420.04	4.440E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,237,219.03	1.16	97.8	Pulse	0.10	3
1	Sc		5,728,220.33	2.26	97.9	Analog	0.10	3
1	Ge		1,057,735.19	0.69	97.2	Pulse	0.10	3
1	Ge		1,482,675.03	0.83	98.4	Pulse	0.10	3
1	Rh		7,420,142.60	0.50	97.6	Analog	0.10	3
1	In		8,014,975.04	0.78	98.2	Analog	0.10	3
1	Tb		10,323,132.77	0.48	99.9	Analog	0.10	3
1	Ho		978,737.69	0.54	98.3	Pulse	0.10	3
1	Bi		5,905,529.71	0.41	97.3	Analog	0.10	3
2	Sc		165,248.09	0.83	99.9	Pulse	0.30	3
2	Ge		98,969.02	0.42	94.2	Pulse	0.30	3
2	Ge		150,130.01	1.20	95.4	Pulse	0.30	3
2	Rh		3,130,642.58	0.12	97.8	Pulse	0.30	3
2	In		952,732.06	0.36	98.2	Pulse	0.30	3
2	Tb		3,769,108.46	0.16	97.8	Pulse	0.30	3
2	Ho		376,233.81	0.27	97.9	Pulse	0.30	3
2	Bi		2,515,533.93	0.39	97.2	Pulse	0.30	3
3	Sc		210,335.71	0.65	97.9	Pulse	0.30	3
3	Ge		133,289.44	0.49	97.6	Pulse	0.30	3
3	Ge		201,396.07	0.59	98.2	Pulse	0.30	3
3	Rh		2,330,973.52	0.50	97.9	Pulse	0.30	3
3	Tb		3,595,201.80	0.73	98.8	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 11:06
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	75.78	48.00	1.490E-05	Pulse	0.25	3
B			1	1.483	ug/l	0.93	25,886.67	8.044E-03	Pulse	0.15	3
Ca			1	5104.301	ug/l	0.87	9,147,092.78	1.570E+00	Analog	0.10	3
Sr			1	0.046	ug/l	5.89	4,767.57	6.613E-04	Pulse	0.10	3
Mo			1	0.019	ug/l	7.37	383.35	5.317E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	17.99	96.67	1.247E-05	Pulse	0.10	3
Sn			1	-0.234	ug/l	-1.89	2,897.04	3.738E-04	Pulse	0.10	3
Sb			1	0.116	ug/l	10.89	3,320.48	3.282E-04	Pulse	0.10	3
Ba			1	0.005	ug/l	76.22	103.34	1.023E-05	Pulse	0.10	3
Tl			1	0.003	ug/l	44.44	556.70	9.669E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	45.13	583.37	1.014E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	19.72	600.04	1.043E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	10.30	2,503.51	4.352E-04	Pulse	0.10	3
Na			2	5058.496	ug/l	0.21	7,695,371.36	4.610E+01	Analog	0.30	3
Mg			2	4935.986	ug/l	1.14	3,557,893.33	2.131E+01	Pulse	0.30	3
Al			2	5065.440	ug/l	1.46	1,123,343.60	6.730E+00	Pulse	0.30	3
K			2	5040.718	ug/l	0.81	2,167,046.72	1.298E+01	Pulse	0.30	3
Ca			2	5035.377	ug/l	0.75	122,311.00	7.327E-01	Pulse	0.30	3
Ti			2	0.011	ug/l	86.61	2.22	1.325E-05	Pulse	0.30	3
V			2	-0.007	ug/l	-83.68	307.78	1.842E-03	Pulse	0.30	3
Cr			2	-0.012	ug/l	-52.86	825.59	4.946E-03	Pulse	0.30	3
Mn			2	0.074	ug/l	2.03	370.01	2.216E-03	Pulse	0.30	3
Fe			2	4920.380	ug/l	1.50	36,739,837.43	2.201E+02	Analog	0.30	3
Co			2	0.239	ug/l	5.42	3,890.50	2.331E-02	Pulse	0.30	3
Ni			2	0.200	ug/l	1.53	963.37	5.770E-03	Pulse	0.30	3
Cu			2	-0.015	ug/l	-21.07	1,025.60	6.143E-03	Pulse	0.30	3
Zn			2	-0.015	ug/l	-468.10	702.25	4.209E-03	Pulse	0.30	3
As			2	0.030	ug/l	19.86	36.33	2.178E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	97.35	6.64	7.029E-06	Pulse	0.30	3
Sn			2	-0.009	ug/l	-77.27	564.46	5.986E-04	Pulse	0.30	3
Se			3	0.135	ug/l	7.26	32.40	1.651E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,218,291.93	1.11	97.2	Pulse	0.10	3
1	Sc		5,827,879.08	0.23	99.6	Analog	0.10	3
1	Ge		1,060,047.20	0.74	97.4	Pulse	0.10	3

Quantitation Report

1	Ge		1,455,841.39	0.37	96.7	Pulse	0.10	3
1	Rh		7,210,533.23	0.67	94.8	Analog	0.10	3
1	In		7,749,489.22	1.41	95.0	Analog	0.10	3
1	Tb		10,122,931.10	1.04	98.0	Analog	0.10	3
1	Ho		980,645.01	0.23	98.5	Pulse	0.10	3
1	Bi		5,751,932.83	0.88	94.8	Analog	0.10	3
2	Sc		166,937.89	0.77	101.0	Pulse	0.30	3
2	Ge		100,076.88	1.28	95.3	Pulse	0.30	3
2	Ge		149,774.42	0.69	95.2	Pulse	0.30	3
2	Rh		3,057,814.25	0.44	95.5	Pulse	0.30	3
2	In		943,071.94	0.78	97.2	Pulse	0.30	3
2	Tb		3,755,420.13	0.62	97.4	Pulse	0.30	3
2	Ho		377,591.10	0.64	98.3	Pulse	0.30	3
2	Bi		2,433,115.87	0.67	94.0	Pulse	0.30	3
3	Sc		209,134.22	0.72	97.4	Pulse	0.30	3
3	Ge		131,037.41	0.22	95.9	Pulse	0.30	3
3	Ge		196,198.26	0.27	95.7	Pulse	0.30	3
3	Rh		2,251,189.98	0.65	94.5	Pulse	0.30	3
3	Tb		3,523,935.00	0.38	96.9	Pulse	0.30	3

Quantitation Report

File Name	012CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 11:11
Sample Name	STDJ
Sample Type	CalStd
Comment	10000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	57.90	72.00	2.294E-05	Pulse	0.25	3
B			1	1.133	ug/l	1.45	20,875.47	6.662E-03	Pulse	0.15	3
Ca			1	9876.730	ug/l	2.62	17,567,235.99	3.034E+00	Analog	0.10	3
Sr			1	0.088	ug/l	3.12	8,129.03	1.147E-03	Pulse	0.10	3
Mo			1	0.019	ug/l	4.09	383.35	5.409E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	50.63	136.67	1.756E-05	Pulse	0.10	3
Sn			1	0.624	ug/l	3.07	24,616.65	3.164E-03	Pulse	0.10	3
Sb			1	0.110	ug/l	10.89	3,133.77	3.125E-04	Pulse	0.10	3
Ba			1	0.018	ug/l	13.76	250.01	2.495E-05	Pulse	0.10	3
Tl			1	0.003	ug/l	44.55	553.36	9.869E-05	Pulse	0.10	3
Pb			1	0.011	ug/l	28.44	683.38	1.218E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	34.56	556.70	9.923E-05	Pulse	0.10	3
Pb			1	0.008	ug/l	12.26	2,563.52	4.570E-04	Pulse	0.10	3
Na			2	9968.667	ug/l	0.78	14,973,271.07	9.081E+01	Analog	0.30	3
Mg			2	10065.387	ug/l	0.77	7,166,471.94	4.346E+01	Analog	0.30	3
Al			2	9964.373	ug/l	0.45	2,182,735.33	1.324E+01	Pulse	0.30	3
K			2	9946.765	ug/l	0.94	4,217,168.86	2.558E+01	Pulse	0.30	3
Ca			2	9976.222	ug/l	0.24	239,283.50	1.451E+00	Pulse	0.30	3
Ti			2	0.006	ug/l	173.21	1.11	6.750E-06	Pulse	0.30	3
V			2	0.002	ug/l	913.77	362.23	2.199E-03	Pulse	0.30	3
Cr			2	0.040	ug/l	5.31	1,262.29	7.655E-03	Pulse	0.30	3
Mn			2	0.160	ug/l	11.46	727.80	4.415E-03	Pulse	0.30	3
Fe			2	9729.025	ug/l	1.98	71,750,983.81	4.352E+02	Analog	0.30	3
Co			2	0.467	ug/l	4.71	7,417.31	4.498E-02	Pulse	0.30	3
Ni			2	0.384	ug/l	3.47	1,750.12	1.061E-02	Pulse	0.30	3
Cu			2	0.013	ug/l	67.41	1,328.96	8.061E-03	Pulse	0.30	3
Zn			2	0.789	ug/l	7.21	1,900.13	1.153E-02	Pulse	0.30	3
As			2	0.047	ug/l	38.84	49.00	2.969E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	167.84	7.76	8.340E-06	Pulse	0.30	3
Sn			2	0.806	ug/l	1.38	4,038.35	4.361E-03	Pulse	0.30	3
Se			3	0.043	ug/l	12.18	12.13	6.372E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,133,320.52	0.80	94.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,789,350.75	0.29	98.9	Analog	0.10	3
1	Ge		1,048,422.48	0.47	96.3	Pulse	0.10	3
1	Ge		1,435,602.74	0.88	95.3	Pulse	0.10	3
1	Rh		7,087,170.31	1.40	93.2	Analog	0.10	3
1	In		7,779,528.51	0.55	95.3	Analog	0.10	3
1	Tb		10,022,892.97	1.54	97.0	Analog	0.10	3
1	Ho		972,161.18	0.59	97.7	Pulse	0.10	3
1	Bi		5,608,026.58	0.76	92.4	Analog	0.10	3
2	Sc		164,889.05	0.55	99.7	Pulse	0.30	3
2	Ge		97,824.68	0.61	93.1	Pulse	0.30	3
2	Ge		146,085.98	0.35	92.9	Pulse	0.30	3
2	Rh		2,978,784.67	0.09	93.0	Pulse	0.30	3
2	In		925,953.65	0.80	95.4	Pulse	0.30	3
2	Tb		3,702,431.10	0.49	96.1	Pulse	0.30	3
2	Ho		371,561.91	0.76	96.7	Pulse	0.30	3
2	Bi		2,355,594.49	0.46	91.0	Pulse	0.30	3
3	Sc		205,221.40	0.64	95.6	Pulse	0.30	3
3	Ge		128,077.35	0.21	93.8	Pulse	0.30	3
3	Ge		190,436.65	0.23	92.9	Pulse	0.30	3
3	Rh		2,175,411.93	0.09	91.4	Pulse	0.30	3
3	Tb		3,459,585.56	0.17	95.1	Pulse	0.30	3

Quantitation Report

File Name	013CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 11:16
Sample Name	rinseconf
Sample Type	Sample
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	389.60	32.00	1.003E-05	Pulse	0.25	3
B			1	0.828	ug/l	3.12	17,440.31	5.462E-03	Pulse	0.15	3
Ca			1	0.166	ug/l	214.57	16,292.07	2.803E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-244.85	946.73	1.251E-04	Pulse	0.10	3
Mo			1	0.001	ug/l	216.17	106.67	1.408E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	50.38	116.67	1.439E-05	Pulse	0.10	3
Sn			1	-0.202	ug/l	-4.91	3,867.35	4.774E-04	Pulse	0.10	3
Sb			1	0.045	ug/l	6.07	1,393.45	1.362E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	122.28	66.67	6.520E-06	Pulse	0.10	3
Tl			1	0.002	ug/l	79.45	476.70	7.941E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-48.44	353.35	5.886E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-59.60	306.68	5.122E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-8.72	1,606.76	2.680E-04	Pulse	0.10	3
Na			2	0.501	ug/l	6.64	7,087.12	4.204E-02	Pulse	0.30	3
Mg			2	0.453	ug/l	17.06	441.12	2.614E-03	Pulse	0.30	3
Al			2	0.440	ug/l	35.85	134.45	7.989E-04	Pulse	0.30	3
K			2	0.064	ug/l	71.06	6,937.07	4.115E-02	Pulse	0.30	3
Ca			2	-0.102	ug/l	-1341.33	76.67	4.540E-04	Pulse	0.30	3
Ti			2	0.017	ug/l	99.40	3.33	1.975E-05	Pulse	0.30	3
V			2	-0.006	ug/l	-77.69	317.79	1.886E-03	Pulse	0.30	3
Cr			2	0.008	ug/l	53.61	1,004.49	5.959E-03	Pulse	0.30	3
Mn			2	0.001	ug/l	1233.89	61.11	3.611E-04	Pulse	0.30	3
Fe			2	0.713	ug/l	1.34	8,536.78	5.064E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-290.58	95.56	5.666E-04	Pulse	0.30	3
Ni			2	0.002	ug/l	29.30	93.33	5.535E-04	Pulse	0.30	3
Cu			2	-0.005	ug/l	-70.94	1,146.72	6.804E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.030	ug/l	196.30	778.92	4.620E-03	Pulse	0.30	3
As			2	-0.005	ug/l	-123.40	8.67	5.132E-05	Pulse	1.00	3
Cd			2	0.001	ug/l	199.12	6.66	6.918E-06	Pulse	0.30	3
Sn			2	0.011	ug/l	45.37	663.35	6.886E-04	Pulse	0.30	3
Se			3	0.023	ug/l	49.38	8.47	4.141E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,192,692.11	0.80	96.4	Pulse	0.10	3
1	Sc		5,810,881.79	0.62	99.3	Analog	0.10	3
1	Ge		1,076,665.43	0.28	98.9	Pulse	0.10	3
1	Ge		1,490,632.22	0.21	99.0	Pulse	0.10	3
1	Rh		7,567,461.56	0.43	99.5	Analog	0.10	3
1	In		8,098,726.63	0.45	99.3	Analog	0.10	3
1	Tb		10,231,236.30	0.28	99.0	Analog	0.10	3
1	Ho		982,111.29	1.44	98.7	Pulse	0.10	3
1	Bi		5,994,848.04	1.37	98.8	Analog	0.10	3
2	Sc		168,583.63	1.03	102.0	Pulse	0.30	3
2	Ge		100,226.63	0.92	95.4	Pulse	0.30	3
2	Ge		151,851.22	0.97	96.5	Pulse	0.30	3
2	Rh		3,185,083.62	0.38	99.5	Pulse	0.30	3
2	In		963,390.42	0.31	99.3	Pulse	0.30	3
2	Tb		3,785,519.85	0.27	98.2	Pulse	0.30	3
2	Ho		377,867.96	0.07	98.4	Pulse	0.30	3
2	Bi		2,546,576.64	0.11	98.4	Pulse	0.30	3
3	Sc		210,746.95	0.42	98.1	Pulse	0.30	3
3	Ge		134,782.73	0.43	98.7	Pulse	0.30	3
3	Ge		204,455.12	0.10	99.7	Pulse	0.30	3
3	Rh		2,362,829.14	0.42	99.2	Pulse	0.30	3
3	Tb		3,600,829.30	0.31	99.0	Pulse	0.30	3

Quantitation Report

File Name 014_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 11:23
Sample Name ICVA 5
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	60.489	ug/l	1.20	752,371.19	2.405E-01	Pulse	0.25	3
B			1	120.629	ug/l	0.66	1,494,221.33	4.776E-01	Pulse	0.15	3
Ca			1	5377.836	ug/l	2.45	9,372,306.11	1.653E+00	Analog	0.10	3
Sr			1	61.605	ug/l	2.27	5,063,807.64	7.148E-01	Mix	0.10	3
Mo			1	59.590	ug/l	1.15	938,274.52	1.324E-01	Pulse	0.10	3
Ag			1	58.607	ug/l	1.22	2,456,372.05	3.157E-01	Pulse	0.10	3
Sn			1	58.201	ug/l	0.91	1,481,362.11	1.904E-01	Pulse	0.10	3
Sb			1	62.032	ug/l	0.54	1,684,083.57	1.691E-01	Pulse	0.10	3
Ba			1	62.755	ug/l	1.12	709,984.15	7.130E-02	Pulse	0.10	3
Tl			1	63.117	ug/l	1.67	4,247,645.04	7.460E-01	Pulse	0.10	3
Pb			1	63.858	ug/l	1.61	1,410,096.23	2.477E-01	Pulse	0.10	3
Pb			1	59.908	ug/l	1.52	1,187,095.66	2.085E-01	Pulse	0.10	3
Pb			1	62.005	ug/l	1.59	5,579,139.13	9.799E-01	Pulse	0.10	3
Na			2	5254.579	ug/l	5.03	7,860,777.74	4.788E+01	Analog	0.30	3
Mg			2	5114.166	ug/l	3.28	3,626,383.46	2.208E+01	Pulse	0.30	3
Al			2	5308.040	ug/l	3.70	1,157,923.53	7.052E+00	Pulse	0.30	3
K			2	5222.493	ug/l	3.55	2,208,275.61	1.345E+01	Pulse	0.30	3
Ca			2	5604.216	ug/l	3.69	133,892.14	8.154E-01	Pulse	0.30	3
Ti			2	57.522	ug/l	4.54	10,942.59	6.663E-02	Pulse	0.30	3
V			2	60.568	ug/l	3.26	397,634.85	2.421E+00	Pulse	0.30	3
Cr			2	59.019	ug/l	3.60	510,255.57	3.107E+00	Pulse	0.30	3
Mn			2	60.031	ug/l	3.10	250,713.03	1.527E+00	Pulse	0.30	3
Fe			2	5141.287	ug/l	2.49	37,772,107.39	2.300E+02	Analog	0.30	3
Co			2	58.872	ug/l	3.21	918,780.83	5.595E+00	Pulse	0.30	3
Ni			2	58.399	ug/l	3.96	252,365.00	1.537E+00	Pulse	0.30	3
Cu			2	57.283	ug/l	3.50	666,075.98	4.056E+00	Pulse	0.30	3
Zn			2	57.962	ug/l	2.74	87,261.05	5.313E-01	Pulse	0.30	3
As			2	59.058	ug/l	3.18	46,566.89	2.836E-01	Pulse	1.00	3
Cd			2	58.991	ug/l	2.33	137,363.44	1.477E-01	Pulse	0.30	3
Sn			2	56.793	ug/l	2.79	244,481.61	2.629E-01	Pulse	0.30	3
Se			3	257.699	ug/l	0.43	54,079.68	2.854E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,128,406.35	0.93	94.5	Pulse	0.10	3
1	Sc		5,669,301.37	1.21	96.9	Analog	0.10	3
1	Ge		1,040,437.87	0.83	95.6	Pulse	0.10	3

Quantitation Report

1	Ge		1,446,315.29	0.85	96.0	Pulse	0.10	3
1	Rh		7,085,439.69	1.53	93.2	Analog	0.10	3
1	In		7,780,047.38	0.76	95.3	Analog	0.10	3
1	Tb		9,957,813.81	0.38	96.4	Analog	0.10	3
1	Ho		968,642.48	0.77	97.3	Pulse	0.10	3
1	Bi		5,694,220.54	1.25	93.8	Analog	0.10	3
2	Sc		164,324.25	3.09	99.4	Pulse	0.30	3
2	Ge		97,955.66	2.34	93.2	Pulse	0.30	3
2	Ge		146,141.49	3.09	92.9	Pulse	0.30	3
2	Rh		3,014,578.42	2.99	94.2	Pulse	0.30	3
2	In		930,473.89	2.88	95.9	Pulse	0.30	3
2	Tb		3,715,261.66	3.01	96.4	Pulse	0.30	3
2	Ho		371,638.13	3.11	96.7	Pulse	0.30	3
2	Bi		2,408,885.46	2.30	93.1	Pulse	0.30	3
3	Sc		200,802.37	0.69	93.5	Pulse	0.30	3
3	Ge		124,700.43	0.06	91.3	Pulse	0.30	3
3	Ge		189,517.54	0.36	92.4	Pulse	0.30	3
3	Rh		2,162,199.36	0.36	90.8	Pulse	0.30	3
3	Tb		3,417,275.14	0.26	93.9	Pulse	0.30	3

Quantitation Report

File Name 015_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 11:34
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	73.19	50.67	1.603E-05	Pulse	0.25	3
B			1	0.889	ug/l	0.85	18,038.85	5.701E-03	Pulse	0.15	3
Ca			1	-1.036	ug/l	-25.69	13,853.04	2.435E-03	Pulse	0.10	3
Sr			1	-0.002	ug/l	-89.88	813.40	1.097E-04	Pulse	0.10	3
Mo			1	0.010	ug/l	31.67	240.01	3.231E-05	Pulse	0.10	3
Ag			1	0.005	ug/l	32.94	240.01	3.036E-05	Pulse	0.10	3
Sn			1	-0.213	ug/l	-1.89	3,490.53	4.410E-04	Pulse	0.10	3
Sb			1	0.043	ug/l	11.61	1,336.78	1.315E-04	Pulse	0.10	3
Ba			1	0.005	ug/l	100.60	110.00	1.084E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	59.60	633.37	1.059E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	34.62	563.36	9.422E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	969.76	426.69	7.148E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-190.36	1,930.13	3.230E-04	Pulse	0.10	3
Na			2	0.062	ug/l	168.32	6,316.81	3.804E-02	Pulse	0.30	3
Mg			2	0.097	ug/l	19.30	178.89	1.077E-03	Pulse	0.30	3
Al			2	62.339	ug/l	2.12	13,787.96	8.303E-02	Pulse	0.30	3
K			2	-0.467	ug/l	-64.44	6,606.94	3.979E-02	Pulse	0.30	3
Ca			2	-1.199	ug/l	-23.54	48.89	2.943E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00	0.000E+00	Pulse	0.30	3
V			2	0.002	ug/l	195.24	368.90	2.222E-03	Pulse	0.30	3
Cr			2	0.013	ug/l	12.36	1,037.82	6.250E-03	Pulse	0.30	3
Mn			2	0.005	ug/l	13.60	80.00	4.817E-04	Pulse	0.30	3
Fe			2	0.239	ug/l	6.43	4,887.45	2.943E-02	Pulse	0.30	3
Co			2	0.001	ug/l	100.58	108.89	6.557E-04	Pulse	0.30	3
Ni			2	-0.004	ug/l	-121.70	64.44	3.878E-04	Pulse	0.30	3
Cu			2	-0.044	ug/l	-9.83	676.69	4.075E-03	Pulse	0.30	3
Zn			2	-0.150	ug/l	-20.40	495.57	2.984E-03	Pulse	0.30	3
As			2	-0.003	ug/l	-161.98	10.00	6.025E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.001	ug/l	229.30	5.54	5.746E-06	Pulse	0.30	3
Sn			2	0.017	ug/l	112.14	694.47	7.204E-04	Pulse	0.30	3
Se			3	0.025	ug/l	20.04	8.47	4.309E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,164,048.96	0.49	95.5	Pulse	0.10	3
1	Sc		5,690,821.79	1.15	97.3	Analog	0.10	3
1	Ge		1,052,400.53	0.62	96.7	Pulse	0.10	3
1	Ge		1,458,315.76	0.30	96.8	Pulse	0.10	3
1	Rh		7,420,573.43	0.66	97.6	Analog	0.10	3
1	In		7,912,596.42	1.65	97.0	Analog	0.10	3
1	Tb		10,161,456.93	1.14	98.3	Analog	0.10	3
1	Ho		977,010.71	0.39	98.2	Pulse	0.10	3
1	Bi		5,978,433.04	1.31	98.5	Analog	0.10	3
2	Sc		166,060.59	0.24	100.4	Pulse	0.30	3
2	Ge		100,404.54	0.80	95.6	Pulse	0.30	3
2	Ge		149,554.79	0.46	95.1	Pulse	0.30	3
2	Rh		3,157,552.03	0.45	98.6	Pulse	0.30	3
2	In		964,193.64	0.24	99.4	Pulse	0.30	3
2	Tb		3,758,976.10	0.59	97.5	Pulse	0.30	3
2	Ho		374,217.34	0.55	97.4	Pulse	0.30	3
2	Bi		2,522,686.91	0.45	97.5	Pulse	0.30	3
3	Sc		208,648.30	0.33	97.2	Pulse	0.30	3
3	Ge		131,411.13	0.50	96.2	Pulse	0.30	3
3	Ge		196,445.54	0.49	95.8	Pulse	0.30	3
3	Rh		2,333,683.52	0.18	98.0	Pulse	0.30	3
3	Tb		3,554,335.14	0.42	97.7	Pulse	0.30	3

Quantitation Report

File Name 016_ICB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 11:39
Sample Name ICB
Sample Type ICB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	3418.50	30.67	9.606E-06	Pulse	0.25	3
B			1	0.719	ug/l	2.58	16,070.13	5.031E-03	Pulse	0.15	3
Ca			1	-0.479	ug/l	-84.61	14,920.57	2.605E-03	Pulse	0.10	3
Sr			1	-0.001	ug/l	-249.42	903.39	1.212E-04	Pulse	0.10	3
Mo			1	0.002	ug/l	241.90	106.67	1.431E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	39.65	176.68	2.209E-05	Pulse	0.10	3
Sn			1	-0.205	ug/l	-4.28	3,723.91	4.664E-04	Pulse	0.10	3
Sb			1	0.016	ug/l	16.83	593.37	5.746E-05	Pulse	0.10	3
Ba			1	-0.001	ug/l	-98.60	40.00	3.874E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	-485.83	343.35	5.730E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-205.69	426.69	7.133E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-88.01	320.02	5.342E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-46.33	1,503.43	2.511E-04	Pulse	0.10	3
Na			2	0.030	ug/l	110.09	6,281.23	3.776E-02	Pulse	0.30	3
Mg			2	0.065	ug/l	89.46	156.67	9.409E-04	Pulse	0.30	3
Al			2	0.060	ug/l	142.58	48.89	2.947E-04	Pulse	0.30	3
K			2	-0.087	ug/l	-880.80	6,779.22	4.076E-02	Pulse	0.30	3
Ca			2	-0.648	ug/l	-107.54	62.22	3.745E-04	Pulse	0.30	3
Ti			2	0.029	ug/l	173.21	5.56	3.380E-05	Pulse	0.30	3
V			2	-0.008	ug/l	-32.42	304.45	1.829E-03	Pulse	0.30	3
Cr			2	0.011	ug/l	106.31	1,016.71	6.115E-03	Pulse	0.30	3
Mn			2	0.007	ug/l	117.07	87.78	5.263E-04	Pulse	0.30	3
Fe			2	0.094	ug/l	4.36	3,816.03	2.294E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-90.58	83.33	5.011E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	32.84	97.78	5.876E-04	Pulse	0.30	3
Cu			2	0.000	ug/l	-1039.30	1,190.06	7.153E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.035	ug/l	3.59	776.70	4.668E-03	Pulse	0.30	3
As			2	-0.004	ug/l	-136.23	9.33	5.606E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	9963.85	3.33	3.477E-06	Pulse	0.30	3
Sn			2	0.000	ug/l	3023.01	613.35	6.411E-04	Pulse	0.30	3
Se			3	0.019	ug/l	55.39	7.20	3.642E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,194,276.93	1.09	96.5	Pulse	0.10	3
1	Sc		5,726,514.71	1.13	97.9	Analog	0.10	3
1	Ge		1,060,748.32	0.53	97.4	Pulse	0.10	3
1	Ge		1,465,125.34	0.66	97.3	Pulse	0.10	3
1	Rh		7,443,762.18	1.56	97.9	Analog	0.10	3
1	In		7,983,255.23	0.84	97.8	Analog	0.10	3
1	Tb		10,314,079.84	2.10	99.8	Analog	0.10	3
1	Ho		970,564.18	0.99	97.5	Pulse	0.10	3
1	Bi		5,984,839.29	0.81	98.6	Analog	0.10	3
2	Sc		166,371.35	1.10	100.6	Pulse	0.30	3
2	Ge		99,903.60	0.81	95.1	Pulse	0.30	3
2	Ge		148,630.85	0.42	94.5	Pulse	0.30	3
2	Rh		3,139,630.71	0.57	98.1	Pulse	0.30	3
2	In		956,734.71	0.14	98.6	Pulse	0.30	3
2	Tb		3,728,092.63	0.46	96.7	Pulse	0.30	3
2	Ho		371,221.81	0.78	96.6	Pulse	0.30	3
2	Bi		2,512,227.33	0.35	97.1	Pulse	0.30	3
3	Sc		208,316.73	0.80	97.0	Pulse	0.30	3
3	Ge		131,117.92	0.73	96.0	Pulse	0.30	3
3	Ge		197,524.58	0.59	96.3	Pulse	0.30	3
3	Rh		2,320,681.71	0.91	97.5	Pulse	0.30	3
3	Tb		3,541,590.97	0.62	97.3	Pulse	0.30	3

Quantitation Report

File Name	017_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 11:44
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.192	ug/l	1.11	616,820.75	1.996E-01	Pulse	0.25	3
B			1	97.805	ug/l	1.50	1,198,167.84	3.877E-01	Pulse	0.15	3
Ca			1	4970.595	ug/l	1.45	8,578,458.21	1.528E+00	Analog	0.10	3
Sr			1	50.896	ug/l	1.77	4,160,072.54	5.906E-01	Pulse	0.10	3
Mo			1	51.536	ug/l	1.07	806,828.84	1.145E-01	Pulse	0.10	3
Ag			1	49.228	ug/l	0.87	2,030,730.86	2.652E-01	Pulse	0.10	3
Sn			1	50.094	ug/l	1.27	1,256,060.53	1.640E-01	Pulse	0.10	3
Sb			1	50.628	ug/l	0.79	1,389,386.34	1.380E-01	Pulse	0.10	3
Ba			1	49.387	ug/l	0.53	564,812.22	5.611E-02	Pulse	0.10	3
Tl			1	49.050	ug/l	0.72	3,290,306.41	5.798E-01	Pulse	0.10	3
Pb			1	50.493	ug/l	0.78	1,111,484.02	1.959E-01	Pulse	0.10	3
Pb			1	49.808	ug/l	0.47	983,868.94	1.734E-01	Pulse	0.10	3
Pb			1	50.023	ug/l	0.52	4,486,906.89	7.906E-01	Pulse	0.10	3
Na			2	4902.086	ug/l	1.05	7,268,900.82	4.467E+01	Analog	0.30	3
Mg			2	4756.115	ug/l	0.90	3,341,194.80	2.054E+01	Pulse	0.30	3
Al			2	4903.373	ug/l	0.95	1,059,808.88	6.514E+00	Pulse	0.30	3
K			2	4883.264	ug/l	1.03	2,046,211.79	1.258E+01	Pulse	0.30	3
Ca			2	5202.139	ug/l	1.25	123,147.15	7.570E-01	Pulse	0.30	3
Ti			2	51.043	ug/l	2.61	9,618.44	5.913E-02	Pulse	0.30	3
V			2	49.840	ug/l	0.88	324,234.56	1.993E+00	Pulse	0.30	3
Cr			2	48.973	ug/l	1.26	419,649.98	2.580E+00	Pulse	0.30	3
Mn			2	48.751	ug/l	1.00	201,714.44	1.240E+00	Pulse	0.30	3
Fe			2	4852.734	ug/l	2.03	35,313,060.82	2.171E+02	Analog	0.30	3
Co			2	48.407	ug/l	0.51	748,471.76	4.600E+00	Pulse	0.30	3
Ni			2	47.591	ug/l	0.96	203,802.45	1.253E+00	Pulse	0.30	3
Cu			2	47.325	ug/l	1.41	545,391.45	3.352E+00	Pulse	0.30	3
Zn			2	47.657	ug/l	1.40	71,202.30	4.376E-01	Pulse	0.30	3
As			2	48.747	ug/l	0.57	38,082.11	2.341E-01	Pulse	1.00	3
Cd			2	48.522	ug/l	1.06	110,900.83	1.215E-01	Pulse	0.30	3
Sn			2	49.747	ug/l	0.70	210,295.93	2.304E-01	Pulse	0.30	3
Se			3	196.911	ug/l	0.42	41,045.99	2.180E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,090,658.24	0.35	93.3	Pulse	0.10	3
1	Sc		5,612,304.50	0.41	95.9	Analog	0.10	3
1	Ge		1,040,459.41	0.57	95.6	Pulse	0.10	3

Quantitation Report

1	Ge		1,441,573.36	0.85	95.7	Pulse	0.10	3
1	Rh		7,044,275.10	0.56	92.6	Analog	0.10	3
1	In		7,656,709.79	0.27	93.8	Analog	0.10	3
1	Tb		10,065,924.64	1.24	97.4	Analog	0.10	3
1	Ho		964,722.31	1.00	96.9	Pulse	0.10	3
1	Bi		5,675,442.42	1.36	93.5	Analog	0.10	3
2	Sc		162,700.52	1.09	98.4	Pulse	0.30	3
2	Ge		96,199.49	1.00	91.6	Pulse	0.30	3
2	Ge		144,265.50	0.62	91.7	Pulse	0.30	3
2	Rh		2,956,484.95	0.25	92.3	Pulse	0.30	3
2	In		912,924.12	0.36	94.1	Pulse	0.30	3
2	Tb		3,632,272.08	0.78	94.2	Pulse	0.30	3
2	Ho		363,394.93	1.06	94.6	Pulse	0.30	3
2	Bi		2,359,963.80	0.50	91.2	Pulse	0.30	3
3	Sc		200,569.36	0.37	93.4	Pulse	0.30	3
3	Ge		125,073.12	0.82	91.6	Pulse	0.30	3
3	Ge		188,241.41	0.36	91.8	Pulse	0.30	3
3	Rh		2,173,175.40	0.41	91.3	Pulse	0.30	3
3	Tb		3,417,408.40	0.66	93.9	Pulse	0.30	3

Quantitation Report

File Name 018_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 11:49
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	70.75	89.33	2.826E-05	Pulse	0.25	3
B			1	1.257	ug/l	3.26	22,842.46	7.151E-03	Pulse	0.15	3
Ca			1	-0.236	ug/l	-172.34	15,641.39	2.680E-03	Pulse	0.10	3
Sr			1	0.002	ug/l	64.66	1,136.75	1.487E-04	Pulse	0.10	3
Mo			1	0.069	ug/l	16.32	1,260.10	1.648E-04	Pulse	0.10	3
Ag			1	0.008	ug/l	22.35	373.36	4.613E-05	Pulse	0.10	3
Sn			1	-0.161	ug/l	-5.41	4,960.96	6.113E-04	Pulse	0.10	3
Sb			1	0.080	ug/l	16.85	2,446.95	2.318E-04	Pulse	0.10	3
Ba			1	0.004	ug/l	73.25	103.34	9.782E-06	Pulse	0.10	3
Tl			1	0.012	ug/l	20.73	1,220.10	2.008E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	38.36	663.38	1.086E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	85.57	643.37	1.062E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	34.43	2,746.88	4.512E-04	Pulse	0.10	3
Na			2	0.172	ug/l	65.52	6,392.38	3.905E-02	Pulse	0.30	3
Mg			2	0.242	ug/l	30.80	278.90	1.704E-03	Pulse	0.30	3
Al			2	0.355	ug/l	30.15	112.23	6.864E-04	Pulse	0.30	3
K			2	-0.106	ug/l	-397.49	6,663.64	4.071E-02	Pulse	0.30	3
Ca			2	-0.235	ug/l	-186.41	71.11	4.346E-04	Pulse	0.30	3
Ti			2	0.006	ug/l	173.21	1.11	6.849E-06	Pulse	0.30	3
V			2	-0.002	ug/l	-200.06	336.68	2.056E-03	Pulse	0.30	3
Cr			2	0.012	ug/l	30.67	1,014.49	6.196E-03	Pulse	0.30	3
Mn			2	0.007	ug/l	44.61	85.55	5.225E-04	Pulse	0.30	3
Fe			2	0.422	ug/l	9.96	6,159.00	3.762E-02	Pulse	0.30	3
Co			2	0.002	ug/l	109.01	121.11	7.395E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	459.46	84.44	5.162E-04	Pulse	0.30	3
Cu			2	-0.003	ug/l	-343.96	1,144.50	6.993E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.032	ug/l	60.00	760.03	4.642E-03	Pulse	0.30	3
As			2	-0.002	ug/l	-234.26	10.67	6.521E-05	Pulse	1.00	3
Cd			2	0.007	ug/l	65.40	18.79	1.998E-05	Pulse	0.30	3
Sn			2	0.065	ug/l	24.60	884.48	9.411E-04	Pulse	0.30	3
Se			3	0.064	ug/l	9.34	17.07	8.719E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,196,070.19	3.78	96.5	Pulse	0.10	3
1	Sc		5,844,630.12	4.69	99.9	Analog	0.10	3
1	Ge		1,073,076.83	3.92	98.6	Pulse	0.10	3
1	Ge		1,482,037.01	3.92	98.4	Pulse	0.10	3
1	Rh		7,641,331.14	4.02	100.5	Analog	0.10	3
1	In		8,124,479.50	4.82	99.6	Analog	0.10	3
1	Tb		10,562,859.01	5.79	102.2	Analog	0.10	3
1	Ho		998,687.23	5.29	100.3	Pulse	0.10	3
1	Bi		6,104,175.12	5.42	100.6	Analog	0.10	3
2	Sc		163,693.50	0.89	99.0	Pulse	0.30	3
2	Ge		97,751.94	0.59	93.0	Pulse	0.30	3
2	Ge		147,540.87	0.84	93.8	Pulse	0.30	3
2	Rh		3,100,967.10	0.14	96.9	Pulse	0.30	3
2	In		939,674.98	0.37	96.8	Pulse	0.30	3
2	Tb		3,669,135.27	0.59	95.2	Pulse	0.30	3
2	Ho		368,502.44	0.57	95.9	Pulse	0.30	3
2	Bi		2,476,654.90	0.38	95.7	Pulse	0.30	3
3	Sc		206,342.69	0.62	96.1	Pulse	0.30	3
3	Ge		131,070.04	0.68	96.0	Pulse	0.30	3
3	Ge		195,804.15	0.61	95.5	Pulse	0.30	3
3	Rh		2,310,319.56	0.43	97.0	Pulse	0.30	3
3	Tb		3,529,525.55	0.89	97.0	Pulse	0.30	3

Quantitation Report

File Name	019LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 11:54
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.504	ug/l	2.85	6,359.93	2.013E-03	Pulse	0.25	3
B			1	25.214	ug/l	0.42	320,983.03	1.016E-01	Pulse	0.15	3
Ca			1	247.658	ug/l	0.20	450,909.20	7.877E-02	Pulse	0.10	3
Sr			1	4.898	ug/l	0.28	420,262.09	5.696E-02	Pulse	0.10	3
Mo			1	0.985	ug/l	0.86	16,232.07	2.200E-03	Pulse	0.10	3
Ag			1	0.464	ug/l	0.88	19,872.99	2.503E-03	Pulse	0.10	3
Sn			1	4.555	ug/l	0.93	126,639.95	1.595E-02	Pulse	0.10	3
Sb			1	1.872	ug/l	0.53	51,842.75	5.115E-03	Pulse	0.10	3
Ba			1	0.999	ug/l	4.64	11,544.69	1.139E-03	Pulse	0.10	3
Tl			1	0.479	ug/l	2.14	33,889.77	5.720E-03	Pulse	0.10	3
Pb			1	0.500	ug/l	2.47	11,955.27	2.018E-03	Pulse	0.10	3
Pb			1	0.502	ug/l	5.06	10,757.69	1.816E-03	Pulse	0.10	3
Pb			1	0.493	ug/l	2.70	48,089.04	8.116E-03	Pulse	0.10	3
Na			2	245.631	ug/l	0.33	372,671.33	2.274E+00	Pulse	0.30	3
Mg			2	244.259	ug/l	0.66	172,947.47	1.055E+00	Pulse	0.30	3
Al			2	25.073	ug/l	2.13	5,494.29	3.352E-02	Pulse	0.30	3
K			2	248.746	ug/l	0.67	111,369.77	6.796E-01	Pulse	0.30	3
Ca			2	280.445	ug/l	0.96	6,760.33	4.125E-02	Pulse	0.30	3
Ti			2	1.053	ug/l	2.82	200.00	1.220E-03	Pulse	0.30	3
V			2	1.002	ug/l	6.30	6,905.96	4.215E-02	Pulse	0.30	3
Cr			2	0.994	ug/l	1.60	9,475.02	5.782E-02	Pulse	0.30	3
Mn			2	0.995	ug/l	2.04	4,200.59	2.563E-02	Pulse	0.30	3
Fe			2	24.567	ug/l	0.64	183,145.98	1.118E+00	Pulse	0.30	3
Co			2	0.504	ug/l	1.54	7,938.68	4.844E-02	Pulse	0.30	3
Ni			2	0.963	ug/l	2.18	4,233.92	2.584E-02	Pulse	0.30	3
Cu			2	1.988	ug/l	1.50	24,205.72	1.477E-01	Pulse	0.30	3
Zn			2	5.028	ug/l	2.72	8,203.26	5.006E-02	Pulse	0.30	3
As			2	0.513	ug/l	5.62	415.34	2.534E-03	Pulse	1.00	3
Cd			2	0.490	ug/l	5.81	1,160.36	1.231E-03	Pulse	0.30	3
Sn			2	4.710	ug/l	1.81	21,112.05	2.239E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.512	ug/l	1.79	114.47	5.833E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,160,028.72	0.06	95.4	Pulse	0.10	3
1	Sc		5,724,241.16	0.43	97.8	Analog	0.10	3
1	Ge		1,062,310.53	0.93	97.6	Pulse	0.10	3
1	Ge		1,462,842.01	0.89	97.1	Pulse	0.10	3
1	Rh		7,378,798.02	0.91	97.0	Analog	0.10	3
1	In		7,941,280.45	0.40	97.3	Analog	0.10	3
1	Tb		10,134,973.18	0.66	98.1	Analog	0.10	3
1	Ho		974,832.27	0.86	98.0	Pulse	0.10	3
1	Bi		5,924,118.45	0.93	97.6	Analog	0.10	3
2	Sc		163,880.38	0.53	99.1	Pulse	0.30	3
2	Ge		99,371.49	0.98	94.6	Pulse	0.30	3
2	Ge		148,199.52	0.63	94.2	Pulse	0.30	3
2	Rh		3,101,581.89	0.22	96.9	Pulse	0.30	3
2	In		942,927.23	0.59	97.2	Pulse	0.30	3
2	Tb		3,703,501.80	0.76	96.1	Pulse	0.30	3
2	Ho		369,077.28	0.32	96.1	Pulse	0.30	3
2	Bi		2,473,037.82	0.23	95.5	Pulse	0.30	3
3	Sc		207,775.75	0.47	96.8	Pulse	0.30	3
3	Ge		131,299.60	0.59	96.1	Pulse	0.30	3
3	Ge		196,230.63	1.17	95.7	Pulse	0.30	3
3	Rh		2,329,100.19	0.55	97.8	Pulse	0.30	3
3	Tb		3,551,145.42	0.37	97.6	Pulse	0.30	3

Quantitation Report

File Name 020ICSA.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 12:02
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	46.09	53.33	1.900E-05	Pulse	0.25	3
B			1	1.129	ug/l	4.05	18,666.07	6.647E-03	Pulse	0.15	3
Ca			1	93066.756	ug/l	0.67	152,117,467.73	2.857E+01	Analog	0.10	3
Sr			1	2017.091	ug/l	0.89	140,028,791.25	2.340E+01	Analog	0.10	3
Mo			1	2097.939	ug/l	0.83	27,899,296.25	4.662E+00	Analog	0.10	3
Ag			1	0.029	ug/l	2.83	1,090.08	1.602E-04	Pulse	0.10	3
Sn			1	1817.103	ug/l	1.59	40,217,155.24	5.911E+00	Analog	0.10	3
Sb			1	0.087	ug/l	13.04	2,313.58	2.511E-04	Pulse	0.10	3
Ba			1	0.129	ug/l	13.40	1,390.12	1.510E-04	Pulse	0.10	3
Tl			1	0.002	ug/l	105.14	390.02	8.453E-05	Pulse	0.10	3
Pb			1	0.096	ug/l	5.55	2,096.89	4.541E-04	Pulse	0.10	3
Pb			1	0.092	ug/l	6.17	1,793.51	3.885E-04	Pulse	0.10	3
Pb			1	0.096	ug/l	3.89	8,558.02	1.854E-03	Pulse	0.10	3
Na			2	89039.815	ug/l	0.77	121,120,012.96	8.108E+02	Analog	0.30	3
Mg			2	86678.430	ug/l	1.14	55,910,405.56	3.743E+02	Analog	0.30	3
Al			2	92144.336	ug/l	1.24	18,286,523.16	1.224E+02	Analog	0.30	3
K			2	94637.086	ug/l	1.28	36,299,653.00	2.430E+02	Analog	0.30	3
Ca			2	101409.004	ug/l	0.48	2,203,025.54	1.475E+01	Pulse	0.30	3
Ti			2	1793.700	ug/l	0.28	310,396.04	2.078E+00	Pulse	0.30	3
V			2	0.016	ug/l	43.00	416.68	2.789E-03	Pulse	0.30	3
Cr			2	0.326	ug/l	74.36	3,389.02	2.272E-02	Pulse	0.30	3
Mn			2	0.380	ug/l	2.61	1,493.42	9.997E-03	Pulse	0.30	3
Fe			2	85781.126	ug/l	0.58	573,170,537.22	3.837E+03	Analog	0.30	3
Co			2	0.057	ug/l	11.46	894.48	5.986E-03	Pulse	0.30	3
Ni			2	0.426	ug/l	9.65	1,749.00	1.171E-02	Pulse	0.30	3
Cu			2	0.200	ug/l	7.86	3,187.02	2.134E-02	Pulse	0.30	3
Zn			2	0.184	ug/l	13.00	900.04	6.025E-03	Pulse	0.30	3
As			2	0.062	ug/l	10.68	55.33	3.705E-04	Pulse	1.00	3
Cd			2	-0.117	ug/l	-43.83	-231.53	-2.905E-04	Pulse	0.30	3
Sn			2	1857.066	ug/l	0.66	6,824,453.62	8.576E+00	Analog	0.30	3
Se			3	0.065	ug/l	14.59	13.60	8.756E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,808,267.41	0.98	84.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,324,617.00	1.05	91.0	Analog	0.10	3
1	Ge		995,001.97	0.69	91.4	Pulse	0.10	3
1	Ge		1,233,652.71	0.89	81.9	Pulse	0.10	3
1	Rh		5,983,881.37	0.64	78.7	Analog	0.10	3
1	In		6,804,487.20	0.51	83.4	Analog	0.10	3
1	Tb		9,210,832.15	0.94	89.1	Analog	0.10	3
1	Ho		883,675.74	1.33	88.8	Pulse	0.10	3
1	Bi		4,616,703.16	1.12	76.1	Pulse	0.10	3
2	Sc		149,388.47	0.41	90.4	Pulse	0.30	3
2	Ge		86,756.03	0.47	82.6	Pulse	0.30	3
2	Ge		124,761.69	0.37	79.3	Pulse	0.30	3
2	Rh		2,415,029.42	0.45	75.4	Pulse	0.30	3
2	In		795,753.52	0.58	82.0	Pulse	0.30	3
2	Tb		3,263,271.33	0.22	84.7	Pulse	0.30	3
2	Ho		328,034.61	0.42	85.4	Pulse	0.30	3
2	Bi		1,918,480.76	0.36	74.1	Pulse	0.30	3
3	Sc		178,761.21	0.45	83.2	Pulse	0.30	3
3	Ge		108,603.74	0.19	79.5	Pulse	0.30	3
3	Ge		155,307.66	0.30	75.7	Pulse	0.30	3
3	Rh		1,689,747.26	0.07	71.0	Pulse	0.30	3
3	Tb		2,890,953.56	0.63	79.5	Pulse	0.30	3

Quantitation Report

File Name	021ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 12:07
Sample Name	ICSAB
Sample Type	ICSB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	5.02	121.33	4.595E-05	Pulse	0.25	3
B			1	44.761	ug/l	0.73	471,672.62	1.786E-01	Pulse	0.15	3
Ca			1	97237.928	ug/l	1.70	152,148,604.40	2.985E+01	Analog	0.10	3
Sr			1	2210.583	ug/l	1.07	153,915,717.71	2.565E+01	Analog	0.10	3
Mo			1	2161.049	ug/l	0.27	28,822,149.57	4.803E+00	Analog	0.10	3
Ag			1	20.384	ug/l	0.45	745,332.46	1.098E-01	Pulse	0.10	3
Sn			1	1988.380	ug/l	1.65	43,891,546.01	6.468E+00	Analog	0.10	3
Sb			1	0.089	ug/l	5.72	2,380.26	2.547E-04	Pulse	0.10	3
Ba			1	0.175	ug/l	7.78	1,903.52	2.039E-04	Pulse	0.10	3
Tl			1	0.006	ug/l	29.19	630.04	1.353E-04	Pulse	0.10	3
Pb			1	0.117	ug/l	3.71	2,476.98	5.324E-04	Pulse	0.10	3
Pb			1	0.113	ug/l	3.13	2,156.92	4.635E-04	Pulse	0.10	3
Pb			1	0.116	ug/l	6.41	10,091.81	2.169E-03	Pulse	0.10	3
Na			2	90936.033	ug/l	1.29	123,207,439.55	8.281E+02	Analog	0.30	3
Mg			2	88488.071	ug/l	0.36	56,851,459.96	3.821E+02	Analog	0.30	3
Al			2	92915.882	ug/l	1.48	18,367,714.83	1.234E+02	Analog	0.30	3
K			2	96154.060	ug/l	0.51	36,736,544.09	2.469E+02	Analog	0.30	3
Ca			2	104489.301	ug/l	0.20	2,260,919.70	1.520E+01	Pulse	0.30	3
Ti			2	1834.572	ug/l	0.16	316,209.66	2.125E+00	Pulse	0.30	3
V			2	20.216	ug/l	0.86	120,468.92	8.097E-01	Pulse	0.30	3
Cr			2	20.325	ug/l	0.30	159,774.44	1.074E+00	Pulse	0.30	3
Mn			2	20.335	ug/l	0.76	76,982.06	5.174E-01	Pulse	0.30	3
Fe			2	88279.363	ug/l	0.49	587,535,372.21	3.949E+03	Analog	0.30	3
Co			2	19.032	ug/l	0.77	269,183.82	1.809E+00	Pulse	0.30	3
Ni			2	18.161	ug/l	0.96	71,173.72	4.783E-01	Pulse	0.30	3
Cu			2	18.806	ug/l	0.50	198,862.93	1.337E+00	Pulse	0.30	3
Zn			2	17.405	ug/l	1.06	24,193.51	1.626E-01	Pulse	0.30	3
As			2	19.103	ug/l	0.17	13,655.38	9.177E-02	Pulse	1.00	3
Cd			2	18.380	ug/l	0.37	36,358.13	4.602E-02	Pulse	0.30	3
Sn			2	2034.234	ug/l	0.65	7,422,004.15	9.394E+00	Analog	0.30	3
Se			3	19.063	ug/l	0.15	3,468.17	2.112E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,640,604.43	0.89	79.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,098,351.17	2.63	87.1	Mix	0.10	3
1	Ge		982,353.73	1.84	90.2	Pulse	0.10	3
1	Ge		1,224,663.89	1.61	81.3	Pulse	0.10	3
1	Rh		6,001,368.87	1.11	78.9	Analog	0.10	3
1	In		6,786,828.35	1.40	83.2	Analog	0.10	3
1	Tb		9,341,883.40	1.58	90.4	Analog	0.10	3
1	Ho		896,003.09	1.14	90.0	Pulse	0.10	3
1	Bi		4,652,557.64	0.92	76.6	Pulse	0.10	3
2	Sc		148,794.37	0.49	90.0	Pulse	0.30	3
2	Ge		86,705.72	1.38	82.5	Pulse	0.30	3
2	Ge		124,593.58	1.13	79.2	Pulse	0.30	3
2	Rh		2,424,543.51	0.53	75.7	Pulse	0.30	3
2	In		790,089.40	0.30	81.4	Pulse	0.30	3
2	Tb		3,284,216.60	0.38	85.2	Pulse	0.30	3
2	Ho		330,619.35	0.29	86.1	Pulse	0.30	3
2	Bi		1,935,406.87	0.31	74.8	Pulse	0.30	3
3	Sc		191,324.96	0.28	89.1	Pulse	0.30	3
3	Ge		114,353.73	0.88	83.7	Pulse	0.30	3
3	Ge		164,181.25	0.25	80.1	Pulse	0.30	3
3	Rh		1,769,932.15	0.57	74.3	Pulse	0.30	3
3	Tb		2,992,589.33	0.49	82.3	Pulse	0.30	3

Quantitation Report

File Name	022_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 12:19
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.525	ug/l	0.20	542,016.04	1.969E-01	Pulse	0.25	3
B			1	99.931	ug/l	1.00	1,090,137.63	3.961E-01	Pulse	0.15	3
Ca			1	4998.194	ug/l	1.16	8,416,359.25	1.537E+00	Analog	0.10	3
Sr			1	50.620	ug/l	1.48	4,279,589.94	5.874E-01	Pulse	0.10	3
Mo			1	51.510	ug/l	1.48	834,077.30	1.145E-01	Pulse	0.10	3
Ag			1	48.965	ug/l	2.10	2,126,971.74	2.638E-01	Pulse	0.10	3
Sn			1	50.317	ug/l	1.79	1,328,480.87	1.648E-01	Pulse	0.10	3
Sb			1	50.756	ug/l	1.65	1,473,879.14	1.384E-01	Pulse	0.10	3
Ba			1	48.651	ug/l	1.22	588,772.88	5.528E-02	Pulse	0.10	3
Tl			1	49.686	ug/l	0.09	3,517,296.20	5.873E-01	Pulse	0.10	3
Pb			1	51.122	ug/l	0.10	1,187,533.94	1.983E-01	Pulse	0.10	3
Pb			1	50.000	ug/l	1.04	1,042,207.93	1.740E-01	Pulse	0.10	3
Pb			1	50.574	ug/l	0.60	4,786,934.44	7.993E-01	Pulse	0.10	3
Na			2	4898.786	ug/l	0.76	6,895,689.17	4.464E+01	Analog	0.30	3
Mg			2	4625.865	ug/l	0.38	3,085,351.34	1.997E+01	Pulse	0.30	3
Al			2	4664.531	ug/l	0.26	957,217.12	6.197E+00	Pulse	0.30	3
K			2	4805.317	ug/l	0.12	1,911,849.79	1.238E+01	Pulse	0.30	3
Ca			2	5183.272	ug/l	0.59	116,496.75	7.542E-01	Pulse	0.30	3
Ti			2	50.861	ug/l	2.44	9,100.38	5.892E-02	Pulse	0.30	3
V			2	50.827	ug/l	0.52	313,925.03	2.032E+00	Pulse	0.30	3
Cr			2	50.131	ug/l	0.49	407,840.11	2.640E+00	Pulse	0.30	3
Mn			2	49.146	ug/l	0.45	193,067.73	1.250E+00	Pulse	0.30	3
Fe			2	4927.595	ug/l	0.26	34,046,939.76	2.204E+02	Analog	0.30	3
Co			2	50.191	ug/l	0.68	736,788.87	4.770E+00	Pulse	0.30	3
Ni			2	49.523	ug/l	0.73	201,339.21	1.303E+00	Pulse	0.30	3
Cu			2	49.325	ug/l	0.11	539,664.27	3.494E+00	Pulse	0.30	3
Zn			2	49.140	ug/l	0.04	69,681.41	4.511E-01	Pulse	0.30	3
As			2	50.091	ug/l	0.25	37,151.95	2.405E-01	Pulse	1.00	3
Cd			2	49.451	ug/l	0.96	109,802.16	1.238E-01	Pulse	0.30	3
Sn			2	50.065	ug/l	0.47	205,593.51	2.318E-01	Pulse	0.30	3
Se			3	195.782	ug/l	1.00	42,907.38	2.168E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,752,441.28	0.39	83.1	Pulse	0.10	3
1	Sc		5,476,064.71	0.23	93.6	Analog	0.10	3
1	Ge		1,047,626.86	0.44	96.2	Pulse	0.10	3

Quantitation Report

1	Ge		1,458,452.32	0.46	96.8	Pulse	0.10	3
1	Rh		7,286,245.73	0.75	95.8	Analog	0.10	3
1	In		8,063,965.52	1.41	98.8	Analog	0.10	3
1	Tb		10,652,211.09	1.13	103.1	Analog	0.10	3
1	Ho		1,022,789.23	0.62	102.8	Pulse	0.10	3
1	Bi		5,988,933.45	0.91	98.7	Analog	0.10	3
2	Sc		154,463.50	0.34	93.4	Pulse	0.30	3
2	Ge		94,139.68	0.56	89.6	Pulse	0.30	3
2	Ge		140,898.64	0.31	89.6	Pulse	0.30	3
2	Rh		2,960,400.58	0.41	92.5	Pulse	0.30	3
2	In		886,861.14	0.36	91.4	Pulse	0.30	3
2	Tb		3,634,040.13	0.63	94.3	Pulse	0.30	3
2	Ho		363,790.36	0.81	94.7	Pulse	0.30	3
2	Bi		2,394,175.60	0.49	92.5	Pulse	0.30	3
3	Sc		210,708.00	0.17	98.1	Pulse	0.30	3
3	Ge		131,519.71	0.72	96.3	Pulse	0.30	3
3	Ge		197,926.91	1.19	96.5	Pulse	0.30	3
3	Rh		2,294,130.60	0.51	96.3	Pulse	0.30	3
3	Tb		3,600,069.86	0.36	99.0	Pulse	0.30	3

Quantitation Report

File Name	023_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 12:24
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	43.49	76.00	2.637E-05	Pulse	0.25	3
B			1	1.384	ug/l	2.31	22,063.57	7.651E-03	Pulse	0.15	3
Ca			1	0.031	ug/l	847.71	15,481.23	2.762E-03	Pulse	0.10	3
Sr			1	0.024	ug/l	9.46	3,183.77	4.076E-04	Pulse	0.10	3
Mo			1	0.114	ug/l	2.53	2,056.88	2.634E-04	Pulse	0.10	3
Ag			1	0.009	ug/l	26.36	443.36	5.267E-05	Pulse	0.10	3
Sn			1	-0.121	ug/l	-5.04	6,214.79	7.396E-04	Pulse	0.10	3
Sb			1	0.087	ug/l	1.50	2,720.33	2.512E-04	Pulse	0.10	3
Ba			1	0.004	ug/l	56.02	100.00	9.238E-06	Pulse	0.10	3
Tl			1	0.012	ug/l	14.75	1,293.44	2.044E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	23.96	760.05	1.200E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	11.10	683.38	1.079E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	24.16	2,730.20	4.311E-04	Pulse	0.10	3
Na			2	3.256	ug/l	9.09	10,723.52	6.712E-02	Pulse	0.30	3
Mg			2	1.392	ug/l	4.78	1,065.60	6.670E-03	Pulse	0.30	3
Al			2	1.173	ug/l	15.32	283.34	1.774E-03	Pulse	0.30	3
K			2	1.922	ug/l	5.21	7,337.26	4.592E-02	Pulse	0.30	3
Ca			2	0.548	ug/l	233.24	87.78	5.484E-04	Pulse	0.30	3
Ti			2	0.012	ug/l	86.60	2.22	1.384E-05	Pulse	0.30	3
V			2	-0.008	ug/l	-67.83	290.01	1.816E-03	Pulse	0.30	3
Cr			2	0.019	ug/l	31.84	1,045.60	6.545E-03	Pulse	0.30	3
Mn			2	0.004	ug/l	82.04	71.11	4.450E-04	Pulse	0.30	3
Fe			2	1.557	ug/l	0.69	14,122.84	8.839E-02	Pulse	0.30	3
Co			2	0.001	ug/l	49.72	102.22	6.398E-04	Pulse	0.30	3
Ni			2	0.015	ug/l	109.54	143.34	8.952E-04	Pulse	0.30	3
Cu			2	0.013	ug/l	80.77	1,293.40	8.098E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.032	ug/l	154.04	741.14	4.638E-03	Pulse	0.30	3
As			2	0.002	ug/l	267.23	13.33	8.346E-05	Pulse	1.00	3
Cd			2	0.003	ug/l	133.13	9.85	1.051E-05	Pulse	0.30	3
Sn			2	0.122	ug/l	2.68	1,126.73	1.204E-03	Pulse	0.30	3
Se			3	0.064	ug/l	7.66	18.07	8.648E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,883,586.04	0.37	87.1	Pulse	0.10	3
1	Sc		5,605,841.79	0.91	95.8	Analog	0.10	3
1	Ge		1,083,901.60	0.58	99.6	Pulse	0.10	3
1	Ge		1,492,192.63	0.50	99.1	Pulse	0.10	3
1	Rh		7,808,215.72	0.79	102.7	Analog	0.10	3
1	In		8,404,671.03	1.22	103.0	Analog	0.10	3
1	Tb		10,830,013.59	0.34	104.8	Analog	0.10	3
1	Ho		1,031,764.56	0.32	103.7	Pulse	0.10	3
1	Bi		6,331,741.57	0.63	104.3	Analog	0.10	3
2	Sc		159,788.85	0.77	96.6	Pulse	0.30	3
2	Ge		98,153.03	0.50	93.4	Pulse	0.30	3
2	Ge		146,956.69	0.66	93.4	Pulse	0.30	3
2	Rh		3,162,982.44	0.59	98.8	Pulse	0.30	3
2	In		935,467.79	0.43	96.4	Pulse	0.30	3
2	Tb		3,730,307.08	0.44	96.8	Pulse	0.30	3
2	Ho		372,419.50	0.54	97.0	Pulse	0.30	3
2	Bi		2,540,982.88	0.85	98.2	Pulse	0.30	3
3	Sc		220,645.04	0.41	102.7	Pulse	0.30	3
3	Ge		139,087.32	0.53	101.8	Pulse	0.30	3
3	Ge		208,950.28	0.56	101.9	Pulse	0.30	3
3	Rh		2,477,751.85	0.53	104.0	Pulse	0.30	3
3	Tb		3,740,632.08	0.57	102.8	Pulse	0.30	3

Quantitation Report

File Name 024SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 12:29
Sample Name jc84297-2 5
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.479	ug/l	9.50	556.02	1.999E-04	Pulse	0.25	3
B			1	40.398	ug/l	2.30	50,421.79	1.812E-02	Pulse	0.15	3
Ca			1	31796.077	ug/l	1.61	5,328,828.25	9.787E-01	Analog	0.10	3
Sr			1	256.989	ug/l	1.15	2,220,098.14	2.983E-01	Pulse	0.10	3
Mo			1	1.274	ug/l	10.21	2,190.23	2.941E-04	Pulse	0.10	3
Ag			1	0.068	ug/l	22.74	333.35	4.105E-05	Pulse	0.10	3
Sn			1	-0.713	ug/l	-34.95	7,328.99	9.014E-04	Pulse	0.10	3
Sb			1	0.516	ug/l	16.38	1,616.81	1.535E-04	Pulse	0.10	3
Ba			1	358.665	ug/l	0.84	428,759.93	4.075E-02	Pulse	0.10	3
Tl			1	0.072	ug/l	13.45	886.72	1.452E-04	Pulse	0.10	3
Pb			1	0.098	ug/l	17.22	723.37	1.184E-04	Pulse	0.10	3
Pb			1	0.092	ug/l	57.47	623.38	1.021E-04	Pulse	0.10	3
Pb			1	0.088	ug/l	25.32	2,896.90	4.744E-04	Pulse	0.10	3
Na			2	11747.124	ug/l	0.23	1,649,742.68	1.073E+01	Pulse	0.30	3
Mg			2	12295.540	ug/l	0.37	816,089.98	5.310E+00	Pulse	0.30	3
Al			2	37.909	ug/l	34.22	806.78	5.251E-03	Pulse	0.30	3
K			2	1477.328	ug/l	0.47	64,590.50	4.202E-01	Pulse	0.30	3
Ca			2	32346.340	ug/l	0.72	72,367.01	4.708E-01	Pulse	0.30	3
Ti			2	1.000	ug/l	84.66	17.78	1.158E-04	Pulse	0.30	3
V			2	0.318	ug/l	52.24	523.35	3.406E-03	Pulse	0.30	3
Cr			2	1.156	ug/l	12.13	1,789.01	1.164E-02	Pulse	0.30	3
Mn			2	432.018	ug/l	0.58	168,880.49	1.099E+00	Pulse	0.30	3
Fe			2	33771.571	ug/l	0.77	23,219,164.63	1.511E+02	Analog	0.30	3
Co			2	0.010	ug/l	194.19	105.56	6.869E-04	Pulse	0.30	3
Ni			2	0.166	ug/l	80.69	144.45	9.399E-04	Pulse	0.30	3
Cu			2	0.649	ug/l	4.11	1,807.90	1.176E-02	Pulse	0.30	3
Zn			2	1.818	ug/l	26.03	922.26	6.001E-03	Pulse	0.30	3
As			2	0.601	ug/l	3.20	55.67	3.622E-04	Pulse	1.00	3
Cd			2	0.060	ug/l	89.67	16.56	1.852E-05	Pulse	0.30	3
Sn			2	1.338	ug/l	8.17	1,125.61	1.258E-03	Pulse	0.30	3
Se			3	0.616	ug/l	6.94	18.00	8.404E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,782,861.04	0.83	84.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,444,835.13	0.51	93.1	Analog	0.10	3
1	Ge		1,044,589.62	0.42	96.0	Pulse	0.10	3
1	Ge		1,447,966.90	0.25	96.1	Pulse	0.10	3
1	Rh		7,443,880.93	1.35	97.9	Analog	0.10	3
1	In		8,122,578.81	1.67	99.5	Analog	0.10	3
1	Tb		10,521,590.05	1.03	101.8	Analog	0.10	3
1	Ho		1,013,722.22	0.42	101.9	Pulse	0.10	3
1	Bi		6,106,886.16	0.18	100.6	Analog	0.10	3
2	Sc		153,695.90	0.21	93.0	Pulse	0.30	3
2	Ge		97,682.47	1.83	93.0	Pulse	0.30	3
2	Ge		146,282.40	2.49	93.0	Pulse	0.30	3
2	Rh		3,017,526.62	0.26	94.3	Pulse	0.30	3
2	In		894,990.52	0.57	92.2	Pulse	0.30	3
2	Tb		3,617,792.36	0.22	93.9	Pulse	0.30	3
2	Ho		362,265.00	0.74	94.3	Pulse	0.30	3
2	Bi		2,441,855.67	0.39	94.3	Pulse	0.30	3
3	Sc		215,510.63	0.36	100.4	Pulse	0.30	3
3	Ge		143,177.46	0.69	104.8	Pulse	0.30	3
3	Ge		214,200.08	0.58	104.4	Pulse	0.30	3
3	Rh		2,385,537.96	0.47	100.2	Pulse	0.30	3
3	Tb		3,665,535.69	0.41	100.8	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 12:34
Sample Name jc84297-2f
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	61.10	58.67	2.124E-05	Pulse	0.25	3
B			1	35.182	ug/l	0.57	82,618.91	2.993E-02	Pulse	0.15	3
Ca			1	28546.176	ug/l	1.73	9,550,747.15	1.755E+00	Analog	0.10	3
Sr			1	219.476	ug/l	2.67	3,691,042.75	5.094E-01	Pulse	0.10	3
Mo			1	0.824	ug/l	6.35	2,733.67	3.774E-04	Pulse	0.10	3
Ag			1	0.038	ug/l	38.62	370.02	4.575E-05	Pulse	0.10	3
Sn			1	-0.396	ug/l	-8.64	7,078.52	8.759E-04	Pulse	0.10	3
Sb			1	0.293	ug/l	4.79	1,830.17	1.728E-04	Pulse	0.10	3
Ba			1	88.665	ug/l	1.59	213,394.84	2.015E-02	Pulse	0.10	3
Tl			1	0.054	ug/l	12.82	1,150.09	1.877E-04	Pulse	0.10	3
Pb			1	-0.003	ug/l	-289.28	480.03	7.836E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	131.37	446.69	7.291E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-1582.77	2,043.47	3.336E-04	Pulse	0.10	3
Na			2	11950.400	ug/l	1.30	3,353,335.98	2.180E+01	Pulse	0.30	3
Mg			2	12101.770	ug/l	0.19	1,607,566.84	1.045E+01	Pulse	0.30	3
Al			2	185.797	ug/l	56.61	7,644.48	4.958E-02	Pulse	0.30	3
K			2	1633.352	ug/l	5.90	135,328.94	8.796E-01	Pulse	0.30	3
Ca			2	29573.258	ug/l	0.87	132,361.26	8.606E-01	Pulse	0.30	3
Ti			2	4.668	ug/l	47.87	166.67	1.081E-03	Pulse	0.30	3
V			2	1.133	ug/l	49.52	1,723.46	1.119E-02	Pulse	0.30	3
Cr			2	1.556	ug/l	30.34	3,374.86	2.192E-02	Pulse	0.30	3
Mn			2	202.585	ug/l	0.62	158,503.84	1.031E+00	Pulse	0.30	3
Fe			2	494.269	ug/l	22.81	683,626.40	4.440E+00	Pulse	0.30	3
Co			2	0.828	ug/l	59.33	2,518.05	1.633E-02	Pulse	0.30	3
Ni			2	1.181	ug/l	50.11	1,035.61	6.720E-03	Pulse	0.30	3
Cu			2	1.103	ug/l	45.62	3,506.00	2.276E-02	Pulse	0.30	3
Zn			2	2.164	ug/l	64.83	1,275.62	8.283E-03	Pulse	0.30	3
As			2	1.743	ug/l	61.21	269.34	1.747E-03	Pulse	1.00	3
Cd			2	1.591	ug/l	61.79	703.83	8.002E-04	Pulse	0.30	3
Sn			2	4.474	ug/l	55.98	4,195.16	4.771E-03	Pulse	0.30	3
Se			3	1.038	ug/l	18.04	49.67	2.457E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,760,421.36	0.38	83.4	Pulse	0.10	3
1	Sc		5,441,732.21	0.70	93.0	Analog	0.10	3
1	Ge		1,022,469.46	0.89	93.9	Pulse	0.10	3

Quantitation Report

1	Ge		1,421,255.86	1.16	94.4	Pulse	0.10	3
1	Rh		7,248,684.68	1.90	95.3	Analog	0.10	3
1	In		8,080,799.83	0.49	99.0	Analog	0.10	3
1	Tb		10,590,115.47	1.51	102.5	Analog	0.10	3
1	Ho		1,015,397.41	0.71	102.0	Pulse	0.10	3
1	Bi		6,126,441.99	0.14	100.9	Analog	0.10	3
2	Sc		153,812.33	0.64	93.0	Pulse	0.30	3
2	Ge		91,710.60	0.86	87.3	Pulse	0.30	3
2	Ge		137,367.24	0.91	87.3	Pulse	0.30	3
2	Rh		2,969,220.02	0.32	92.7	Pulse	0.30	3
2	In		878,214.44	0.43	90.5	Pulse	0.30	3
2	Tb		3,617,443.75	0.25	93.9	Pulse	0.30	3
2	Ho		361,263.88	0.25	94.0	Pulse	0.30	3
2	Bi		2,420,542.82	0.27	93.5	Pulse	0.30	3
3	Sc		217,961.44	0.59	101.5	Pulse	0.30	3
3	Ge		135,021.26	0.33	98.9	Pulse	0.30	3
3	Ge		202,060.22	0.73	98.5	Pulse	0.30	3
3	Rh		2,386,073.86	0.42	100.2	Pulse	0.30	3
3	Tb		3,743,953.04	0.30	102.9	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 12:39
Sample Name	jc84299-2
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.450	ug/l	4.62	282.68	9.875E-05	Pulse	0.25	3
B			1	160.169	ug/l	0.79	96,663.24	3.376E-02	Pulse	0.15	3
Ca			1	47367.406	ug/l	1.06	4,122,642.13	7.297E-01	Pulse	0.10	3
Sr			1	374.500	ug/l	0.65	1,642,807.79	2.174E-01	Pulse	0.10	3
Mo			1	2.695	ug/l	8.47	2,346.93	3.105E-04	Pulse	0.10	3
Ag			1	0.154	ug/l	8.01	383.35	4.600E-05	Pulse	0.10	3
Sn			1	-1.959	ug/l	-11.61	6,785.04	8.148E-04	Pulse	0.10	3
Sb			1	0.605	ug/l	7.11	1,026.74	9.549E-05	Pulse	0.10	3
Ba			1	51.394	ug/l	0.86	31,442.61	2.924E-03	Pulse	0.10	3
Tl			1	0.313	ug/l	16.18	1,540.13	2.453E-04	Pulse	0.10	3
Pb			1	0.318	ug/l	40.89	893.40	1.423E-04	Pulse	0.10	3
Pb			1	0.272	ug/l	62.31	736.72	1.173E-04	Pulse	0.10	3
Pb			1	0.302	ug/l	5.60	3,603.66	5.742E-04	Pulse	0.10	3
Na			2	12764.980	ug/l	0.34	925,907.39	5.849E+00	Pulse	0.30	3
Mg			2	6670.001	ug/l	0.65	228,059.64	1.441E+00	Pulse	0.30	3
Al			2	106.248	ug/l	13.18	1,151.17	7.273E-03	Pulse	0.30	3
K			2	8767.188	ug/l	0.44	184,636.36	1.166E+00	Pulse	0.30	3
Ca			2	49807.770	ug/l	0.61	57,402.72	3.626E-01	Pulse	0.30	3
Ti			2	1.819	ug/l	40.17	16.67	1.053E-04	Pulse	0.30	3
V			2	0.775	ug/l	22.69	583.35	3.685E-03	Pulse	0.30	3
Cr			2	1.647	ug/l	16.17	1,565.65	9.890E-03	Pulse	0.30	3
Mn			2	2119.256	ug/l	0.59	426,550.97	2.695E+00	Pulse	0.30	3
Fe			2	64752.785	ug/l	0.73	22,926,904.64	1.448E+02	Analog	0.30	3
Co			2	19.149	ug/l	0.50	14,496.49	9.157E-02	Pulse	0.30	3
Ni			2	7.039	ug/l	3.24	1,545.65	9.764E-03	Pulse	0.30	3
Cu			2	1.622	ug/l	11.34	2,043.48	1.291E-02	Pulse	0.30	3
Zn			2	7.761	ug/l	11.68	1,246.73	7.876E-03	Pulse	0.30	3
As			2	1608.250	ug/l	0.84	61,115.98	3.861E-01	Pulse	1.00	3
Cd			2	0.874	ug/l	26.04	103.19	1.129E-04	Pulse	0.30	3
Sn			2	2.966	ug/l	11.15	1,212.28	1.325E-03	Pulse	0.30	3
Se			3	1.712	ug/l	12.96	22.73	1.106E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,863,202.30	0.70	86.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,650,216.17	1.74	96.6	Analog	0.10	3
1	Ge		1,071,537.53	0.88	98.4	Pulse	0.10	3
1	Ge		1,483,589.25	0.52	98.5	Pulse	0.10	3
1	Rh		7,557,918.01	0.41	99.4	Analog	0.10	3
1	In		8,328,936.07	1.61	102.1	Analog	0.10	3
1	Tb		10,752,481.09	1.40	104.1	Analog	0.10	3
1	Ho		1,022,965.77	0.61	102.8	Pulse	0.10	3
1	Bi		6,275,010.74	1.35	103.4	Analog	0.10	3
2	Sc		158,300.90	0.23	95.7	Pulse	0.30	3
2	Ge		96,962.78	0.86	92.3	Pulse	0.30	3
2	Ge		144,289.93	0.48	91.7	Pulse	0.30	3
2	Rh		3,071,149.74	0.52	95.9	Pulse	0.30	3
2	In		915,438.25	0.97	94.3	Pulse	0.30	3
2	Tb		3,705,373.88	0.38	96.1	Pulse	0.30	3
2	Ho		371,212.06	0.73	96.6	Pulse	0.30	3
2	Bi		2,488,651.22	0.42	96.1	Pulse	0.30	3
3	Sc		218,605.95	0.86	101.8	Pulse	0.30	3
3	Ge		137,301.47	0.39	100.5	Pulse	0.30	3
3	Ge		205,549.83	0.98	100.2	Pulse	0.30	3
3	Rh		2,412,726.36	0.27	101.3	Pulse	0.30	3
3	Tb		3,724,470.27	0.17	102.4	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 12:44
Sample Name	jc84299-3
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	1.110	ug/l	12.36	286.68	9.767E-05	Pulse	0.25	3
B			1	79.286	ug/l	1.36	24,780.64	8.447E-03	Pulse	0.15	3
Ca			1	27623.873	ug/l	2.37	979,690.95	1.723E-01	Pulse	0.10	3
Sr			1	192.347	ug/l	0.77	341,680.16	4.476E-02	Pulse	0.10	3
Mo			1	6.425	ug/l	4.16	2,263.58	2.965E-04	Pulse	0.10	3
Ag			1	1.710	ug/l	13.54	1,596.81	1.888E-04	Pulse	0.10	3
Sn			1	-4.850	ug/l	-10.83	6,918.44	8.180E-04	Pulse	0.10	3
Sb			1	4.603	ug/l	6.29	2,867.04	2.639E-04	Pulse	0.10	3
Ba			1	15.892	ug/l	1.71	3,974.00	3.659E-04	Pulse	0.10	3
Tl			1	0.658	ug/l	28.18	1,343.45	2.160E-04	Pulse	0.10	3
Pb			1	0.768	ug/l	39.96	873.39	1.402E-04	Pulse	0.10	3
Pb			1	1.070	ug/l	11.82	900.06	1.444E-04	Pulse	0.10	3
Pb			1	0.759	ug/l	21.60	3,583.63	5.752E-04	Pulse	0.10	3
Na			2	6655.886	ug/l	2.26	201,165.76	1.250E+00	Pulse	0.30	3
Mg			2	3151.721	ug/l	2.85	43,919.05	2.728E-01	Pulse	0.30	3
Al			2	151.339	ug/l	5.62	682.25	4.236E-03	Pulse	0.30	3
K			2	3774.939	ug/l	0.72	37,807.15	2.348E-01	Pulse	0.30	3
Ca			2	28212.708	ug/l	3.46	13,283.18	8.252E-02	Pulse	0.30	3
Ti			2	6.226	ug/l	41.50	23.33	1.443E-04	Pulse	0.30	3
V			2	0.633	ug/l	41.27	425.57	2.642E-03	Pulse	0.30	3
Cr			2	1.809	ug/l	41.55	1,202.28	7.463E-03	Pulse	0.30	3
Mn			2	2432.892	ug/l	2.16	199,220.53	1.238E+00	Pulse	0.30	3
Fe			2	42517.006	ug/l	2.18	6,125,847.26	3.805E+01	Analog	0.30	3
Co			2	15.186	ug/l	5.27	4,740.74	2.945E-02	Pulse	0.30	3
Ni			2	6.568	ug/l	20.17	636.69	3.960E-03	Pulse	0.30	3
Cu			2	1.386	ug/l	12.21	1,471.19	9.136E-03	Pulse	0.30	3
Zn			2	2.444	ug/l	75.77	771.14	4.792E-03	Pulse	0.30	3
As			2	3278.805	ug/l	2.25	50,686.02	3.149E-01	Pulse	1.00	3
Cd			2	1.360	ug/l	17.94	66.53	7.153E-05	Pulse	0.30	3
Sn			2	6.823	ug/l	9.42	1,180.06	1.270E-03	Pulse	0.30	3
Se			3	0.888	ug/l	51.06	7.33	3.551E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,933,547.56	0.73	88.6	Pulse	0.10	3
1	Sc		5,686,935.54	2.49	97.2	Analog	0.10	3
1	Ge		1,082,101.47	1.46	99.4	Pulse	0.10	3

Quantitation Report

1	Ge		1,494,904.25	1.07	99.2	Pulse	0.10	3
1	Rh		7,633,830.51	0.61	100.4	Analog	0.10	3
1	In		8,457,078.46	0.56	103.6	Analog	0.10	3
1	Tb		10,857,996.09	1.33	105.1	Analog	0.10	3
1	Ho		1,024,541.99	1.36	102.9	Pulse	0.10	3
1	Bi		6,228,956.16	1.07	102.6	Analog	0.10	3
2	Sc		161,020.12	1.60	97.4	Pulse	0.30	3
2	Ge		97,706.17	0.43	93.0	Pulse	0.30	3
2	Ge		147,335.20	1.42	93.7	Pulse	0.30	3
2	Rh		3,137,125.64	1.59	98.0	Pulse	0.30	3
2	In		929,023.94	1.10	95.7	Pulse	0.30	3
2	Tb		3,739,778.19	2.35	97.0	Mix	0.30	3
2	Ho		370,186.70	0.51	96.4	Pulse	0.30	3
2	Bi		2,522,753.72	0.49	97.5	Pulse	0.30	3
3	Sc		219,022.67	0.31	102.0	Pulse	0.30	3
3	Ge		137,748.45	0.73	100.9	Pulse	0.30	3
3	Ge		206,457.15	0.14	100.7	Pulse	0.30	3
3	Rh		2,449,511.91	0.47	102.9	Pulse	0.30	3
3	Tb		3,725,414.99	0.21	102.4	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 12:49
Sample Name	jc84152-4conf
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	1.179	ug/l	18.64	166.67	5.625E-05	Pulse	0.25	3
B			1	58.060	ug/l	1.95	13,289.93	4.486E-03	Pulse	0.15	3
Ca			1	7125.937	ug/l	1.04	143,548.00	2.463E-02	Pulse	0.10	3
Sr			1	25.341	ug/l	7.51	23,774.91	3.069E-03	Pulse	0.10	3
Mo			1	4.331	ug/l	14.70	830.06	1.072E-04	Pulse	0.10	3
Ag			1	0.567	ug/l	18.64	296.68	3.517E-05	Pulse	0.10	3
Sn			1	-16.233	ug/l	-5.92	5,111.04	6.055E-04	Pulse	0.10	3
Sb			1	1.527	ug/l	28.37	590.03	5.458E-05	Pulse	0.10	3
Ba			1	15.137	ug/l	3.68	1,910.18	1.768E-04	Pulse	0.10	3
Tl			1	0.512	ug/l	25.74	763.38	1.210E-04	Pulse	0.10	3
Pb			1	0.674	ug/l	42.38	673.38	1.068E-04	Pulse	0.10	3
Pb			1	0.480	ug/l	59.71	546.70	8.669E-05	Pulse	0.10	3
Pb			1	0.457	ug/l	2.46	2,570.19	4.077E-04	Pulse	0.10	3
Na			2	10954.967	ug/l	1.61	168,955.86	1.035E+00	Pulse	0.30	3
Mg			2	1341.022	ug/l	2.84	9,560.59	5.856E-02	Pulse	0.30	3
Al			2	308.225	ug/l	8.52	703.36	4.310E-03	Pulse	0.30	3
K			2	628.730	ug/l	10.40	9,324.93	5.713E-02	Pulse	0.30	3
Ca			2	7220.686	ug/l	7.16	1,791.23	1.097E-02	Pulse	0.30	3
Ti			2	2.929	ug/l	91.70	5.56	3.392E-05	Pulse	0.30	3
V			2	-0.734	ug/l	-89.42	301.12	1.844E-03	Pulse	0.30	3
Cr			2	1.620	ug/l	39.46	1,046.71	6.413E-03	Pulse	0.30	3
Mn			2	12.890	ug/l	7.92	591.13	3.620E-03	Pulse	0.30	3
Fe			2	234.891	ug/l	5.24	20,208.16	1.238E-01	Pulse	0.30	3
Co			2	0.345	ug/l	68.46	150.00	9.194E-04	Pulse	0.30	3
Ni			2	0.851	ug/l	30.47	118.89	7.280E-04	Pulse	0.30	3
Cu			2	38.044	ug/l	1.25	5,562.11	3.407E-02	Pulse	0.30	3
Zn			2	107.858	ug/l	8.68	2,310.19	1.415E-02	Pulse	0.30	3
As			2	1.994	ug/l	35.81	27.67	1.694E-04	Pulse	1.00	3
Cd			2	1.482	ug/l	36.84	37.73	4.053E-05	Pulse	0.30	3
Sn			2	4.976	ug/l	39.34	810.03	8.696E-04	Pulse	0.30	3
Se			3	1.214	ug/l	32.87	6.13	2.930E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,962,806.82	0.14	89.5	Pulse	0.10	3
1	Sc		5,829,311.79	0.58	99.6	Analog	0.10	3
1	Ge		1,093,600.92	0.68	100.5	Pulse	0.10	3

Quantitation Report

1	Ge		1,512,250.97	0.12	100.4	Pulse	0.10	3
1	Rh		7,754,250.09	1.84	101.9	Analog	0.10	3
1	In		8,441,230.39	0.64	103.5	Analog	0.10	3
1	Tb		10,804,176.92	0.46	104.6	Analog	0.10	3
1	Ho		1,027,944.07	0.49	103.3	Pulse	0.10	3
1	Bi		6,304,153.45	0.60	103.9	Analog	0.10	3
2	Sc		163,255.28	0.62	98.7	Pulse	0.30	3
2	Ge		97,876.92	0.16	93.2	Pulse	0.30	3
2	Ge		148,731.53	0.65	94.5	Pulse	0.30	3
2	Rh		3,162,475.85	0.07	98.8	Pulse	0.30	3
2	In		931,639.59	0.37	96.0	Pulse	0.30	3
2	Tb		3,687,089.30	0.14	95.7	Pulse	0.30	3
2	Ho		369,856.51	0.45	96.3	Pulse	0.30	3
2	Bi		2,506,296.98	0.57	96.8	Pulse	0.30	3
3	Sc		221,621.55	0.26	103.2	Pulse	0.30	3
3	Ge		139,363.86	0.26	102.0	Pulse	0.30	3
3	Ge		209,358.98	0.11	102.1	Pulse	0.30	3
3	Rh		2,478,395.66	0.59	104.1	Pulse	0.30	3
3	Tb		3,730,784.16	0.21	102.5	Pulse	0.30	3

Quantitation Report

File Name 029SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 12:54
Sample Name jc83885-1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.626	ug/l	53.85	102.67	3.427E-05	Pulse	0.25	3
B			1	192.980	ug/l	1.48	29,388.02	9.803E-03	Pulse	0.15	3
Ca			1	197196.915	ug/l	2.38	3,533,781.62	6.081E-01	Pulse	0.10	3
Sr			1	1774.703	ug/l	0.64	1,588,119.61	2.060E-01	Pulse	0.10	3
Mo			1	6.277	ug/l	4.82	1,160.09	1.504E-04	Pulse	0.10	3
Ag			1	0.304	ug/l	8.68	176.68	2.097E-05	Pulse	0.10	3
Sn			1	-18.464	ug/l	-1.63	4,490.85	5.330E-04	Pulse	0.10	3
Sb			1	1.771	ug/l	24.05	656.71	6.124E-05	Pulse	0.10	3
Ba			1	21.550	ug/l	1.94	2,680.34	2.497E-04	Pulse	0.10	3
Tl			1	0.339	ug/l	18.49	630.04	1.006E-04	Pulse	0.10	3
Pb			1	3.041	ug/l	10.54	1,243.43	1.985E-04	Pulse	0.10	3
Pb			1	2.820	ug/l	20.10	1,053.42	1.681E-04	Pulse	0.10	3
Pb			1	2.673	ug/l	7.36	4,747.15	7.578E-04	Pulse	0.10	3
Na			2	358206.468	ug/l	1.66	5,286,908.26	3.265E+01	Analog	0.30	3
Mg			2	19517.834	ug/l	0.28	136,554.51	8.434E-01	Pulse	0.30	3
Al			2	863.475	ug/l	6.45	1,892.36	1.169E-02	Pulse	0.30	3
K			2	35732.916	ug/l	0.81	155,157.01	9.583E-01	Pulse	0.30	3
Ca			2	207627.174	ug/l	0.91	48,960.50	3.024E-01	Pulse	0.30	3
Ti			2	152.272	ug/l	16.41	285.57	1.764E-03	Pulse	0.30	3
V			2	1.179	ug/l	48.54	422.23	2.607E-03	Pulse	0.30	3
Cr			2	1.403	ug/l	79.43	1,020.04	6.299E-03	Pulse	0.30	3
Mn			2	276.474	ug/l	1.95	11,436.30	7.064E-02	Pulse	0.30	3
Fe			2	1094.802	ug/l	1.28	82,316.81	5.084E-01	Pulse	0.30	3
Co			2	11.027	ug/l	4.79	1,792.34	1.107E-02	Pulse	0.30	3
Ni			2	31.527	ug/l	2.71	1,424.53	8.799E-03	Pulse	0.30	3
Cu			2	25.270	ug/l	6.54	4,053.89	2.504E-02	Pulse	0.30	3
Zn			2	86.473	ug/l	3.48	1,976.81	1.221E-02	Pulse	0.30	3
As			2	1.339	ug/l	62.25	22.33	1.380E-04	Pulse	1.00	3
Cd			2	0.530	ug/l	31.25	15.49	1.671E-05	Pulse	0.30	3
Sn			2	2.002	ug/l	75.66	678.91	7.323E-04	Pulse	0.30	3
Se			3	1.803	ug/l	14.84	7.40	3.581E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,997,821.98	0.71	90.5	Pulse	0.10	3
1	Sc		5,813,159.50	1.75	99.3	Analog	0.10	3
1	Ge		1,099,421.52	0.89	101.0	Pulse	0.10	3

Quantitation Report

1	Ge		1,516,561.49	0.50	100.7	Pulse	0.10	3
1	Rh		7,708,967.18	1.10	101.4	Analog	0.10	3
1	In		8,426,419.62	0.42	103.3	Analog	0.10	3
1	Tb		10,737,826.09	1.59	103.9	Analog	0.10	3
1	Ho		1,026,487.95	1.27	103.1	Pulse	0.10	3
1	Bi		6,264,553.03	0.44	103.2	Analog	0.10	3
2	Sc		161,905.87	0.37	97.9	Pulse	0.30	3
2	Ge		98,407.74	0.03	93.7	Pulse	0.30	3
2	Ge		148,310.02	0.83	94.3	Pulse	0.30	3
2	Rh		3,100,491.13	0.25	96.8	Pulse	0.30	3
2	In		927,064.57	0.31	95.5	Pulse	0.30	3
2	Tb		3,683,752.77	0.58	95.6	Pulse	0.30	3
2	Ho		369,908.16	0.47	96.3	Pulse	0.30	3
2	Bi		2,492,116.22	0.78	96.3	Pulse	0.30	3
3	Sc		219,347.07	0.28	102.1	Pulse	0.30	3
3	Ge		137,889.26	0.59	101.0	Pulse	0.30	3
3	Ge		206,646.76	0.19	100.8	Pulse	0.30	3
3	Rh		2,419,712.47	0.44	101.6	Pulse	0.30	3
3	Tb		3,691,338.74	0.13	101.5	Pulse	0.30	3

Quantitation Report

File Name 030SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 12:59
Sample Name mp13130a-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	99.72	54.67	1.842E-05	Pulse	0.25	3
B			1	1.465	ug/l	1.67	15,106.99	5.085E-03	Pulse	0.15	3
Ca			1	18.286	ug/l	2.24	31,664.41	5.559E-03	Pulse	0.10	3
Sr			1	0.061	ug/l	1.57	3,677.25	4.830E-04	Pulse	0.10	3
Mo			1	0.062	ug/l	4.79	606.71	7.969E-05	Pulse	0.10	3
Ag			1	0.012	ug/l	17.84	313.35	3.766E-05	Pulse	0.10	3
Sn			1	-0.142	ug/l	-14.85	7,515.38	9.026E-04	Pulse	0.10	3
Sb			1	0.039	ug/l	13.25	723.38	6.603E-05	Pulse	0.10	3
Ba			1	0.040	ug/l	34.63	303.35	2.768E-05	Pulse	0.10	3
Tl			1	0.020	ug/l	20.09	1,136.76	1.787E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-1115.54	506.69	7.959E-05	Pulse	0.10	3
Pb			1	0.009	ug/l	29.51	550.03	8.647E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	80.89	2,163.48	3.400E-04	Pulse	0.10	3
Na			2	9.224	ug/l	1.88	12,761.59	7.947E-02	Pulse	0.30	3
Mg			2	2.893	ug/l	8.06	1,108.94	6.905E-03	Pulse	0.30	3
Al			2	4.082	ug/l	7.70	470.02	2.927E-03	Pulse	0.30	3
K			2	-0.142	ug/l	-755.15	6,552.47	4.080E-02	Pulse	0.30	3
Ca			2	17.920	ug/l	15.44	284.45	1.772E-03	Pulse	0.30	3
Ti			2	0.167	ug/l	32.70	15.56	9.690E-05	Pulse	0.30	3
V			2	0.151	ug/l	3.80	826.70	5.148E-03	Pulse	0.30	3
Cr			2	0.426	ug/l	5.48	2,689.14	1.675E-02	Pulse	0.30	3
Mn			2	0.090	ug/l	12.76	237.78	1.481E-03	Pulse	0.30	3
Fe			2	5.208	ug/l	0.20	21,708.82	1.352E-01	Pulse	0.30	3
Co			2	0.018	ug/l	25.49	228.89	1.426E-03	Pulse	0.30	3
Ni			2	0.019	ug/l	4.10	121.11	7.542E-04	Pulse	0.30	3
Cu			2	0.145	ug/l	19.43	1,975.70	1.230E-02	Pulse	0.30	3
Zn			2	0.842	ug/l	14.91	1,313.40	8.178E-03	Pulse	0.30	3
As			2	0.173	ug/l	13.15	78.67	4.899E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.014	ug/l	43.88	18.86	2.089E-05	Pulse	0.30	3
Sn			2	0.274	ug/l	12.91	1,147.84	1.272E-03	Pulse	0.30	3
Se			3	0.026	ug/l	48.57	6.20	2.999E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,971,037.50	0.67	89.7	Pulse	0.10	3
1	Sc		5,696,013.04	0.26	97.3	Analog	0.10	3
1	Ge		1,056,570.95	0.48	97.1	Pulse	0.10	3
1	Ge		1,460,264.14	0.93	96.9	Pulse	0.10	3
1	Rh		7,613,572.60	0.95	100.1	Analog	0.10	3
1	In		8,325,385.82	0.68	102.0	Analog	0.10	3
1	Tb		10,954,412.34	0.33	106.0	Analog	0.10	3
1	Ho		1,039,628.29	1.38	104.5	Pulse	0.10	3
1	Bi		6,363,228.03	0.83	104.8	Analog	0.10	3
2	Sc		160,573.42	0.52	97.1	Pulse	0.30	3
2	Ge		94,191.12	0.28	89.6	Pulse	0.30	3
2	Ge		141,719.05	0.68	90.1	Pulse	0.30	3
2	Rh		3,100,560.71	0.58	96.8	Pulse	0.30	3
2	In		902,396.68	0.29	93.0	Pulse	0.30	3
2	Tb		3,686,658.74	0.53	95.7	Pulse	0.30	3
2	Ho		369,001.66	0.25	96.1	Pulse	0.30	3
2	Bi		2,474,471.15	0.41	95.6	Pulse	0.30	3
3	Sc		223,544.40	0.22	104.1	Pulse	0.30	3
3	Ge		136,278.55	0.18	99.8	Pulse	0.30	3
3	Ge		206,599.87	0.34	100.7	Pulse	0.30	3
3	Rh		2,469,241.36	0.42	103.7	Pulse	0.30	3
3	Tb		3,779,113.32	0.10	103.9	Pulse	0.30	3

Quantitation Report

File Name 031SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 13:04
Sample Name jc84152-1conf
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.257	ug/l	38.20	58.67	1.960E-05	Pulse	0.25	3
B			1	65.751	ug/l	5.69	14,337.44	4.789E-03	Pulse	0.15	3
Ca			1	8648.144	ug/l	1.10	171,508.52	2.930E-02	Pulse	0.10	3
Sr			1	300.495	ug/l	1.69	259,710.33	3.499E-02	Pulse	0.10	3
Mo			1	2.537	ug/l	21.51	500.03	6.735E-05	Pulse	0.10	3
Ag			1	0.408	ug/l	35.05	216.68	2.657E-05	Pulse	0.10	3
Sn			1	-17.893	ug/l	-2.52	4,504.17	5.515E-04	Pulse	0.10	3
Sb			1	1.738	ug/l	18.74	640.04	6.036E-05	Pulse	0.10	3
Ba			1	8.626	ug/l	7.25	1,090.08	1.028E-04	Pulse	0.10	3
Tl			1	0.305	ug/l	39.62	573.36	9.658E-05	Pulse	0.10	3
Pb			1	2.614	ug/l	9.40	1,080.08	1.820E-04	Pulse	0.10	3
Pb			1	2.009	ug/l	6.68	830.06	1.399E-04	Pulse	0.10	3
Pb			1	2.146	ug/l	3.35	4,003.69	6.746E-04	Pulse	0.10	3
Na			2	2715472.879	ug/l	0.24	41,124,425.03	2.473E+02	Analog	0.30	3
Mg			2	1607.125	ug/l	2.08	11,649.66	7.005E-02	Pulse	0.30	3
Al			2	4606.604	ug/l	3.50	10,213.20	6.141E-02	Pulse	0.30	3
K			2	1809.505	ug/l	6.98	14,538.67	8.744E-02	Pulse	0.30	3
Ca			2	10176.197	ug/l	4.57	2,539.12	1.527E-02	Pulse	0.30	3
Ti			2	21.933	ug/l	17.05	42.22	2.541E-04	Pulse	0.30	3
V			2	2.029	ug/l	24.08	490.01	2.947E-03	Pulse	0.30	3
Cr			2	2.931	ug/l	21.50	1,181.17	7.102E-03	Pulse	0.30	3
Mn			2	23.439	ug/l	6.03	1,047.82	6.302E-03	Pulse	0.30	3
Fe			2	716.367	ug/l	1.05	56,397.95	3.391E-01	Pulse	0.30	3
Co			2	0.539	ug/l	42.87	183.34	1.103E-03	Pulse	0.30	3
Ni			2	3.138	ug/l	5.66	221.12	1.330E-03	Pulse	0.30	3
Cu			2	30.277	ug/l	3.82	4,752.97	2.858E-02	Pulse	0.30	3
Zn			2	491.667	ug/l	0.95	8,156.56	4.905E-02	Pulse	0.30	3
As			2	4.687	ug/l	7.32	49.67	2.987E-04	Pulse	1.00	3
Cd			2	0.444	ug/l	113.33	13.31	1.456E-05	Pulse	0.30	3
Sn			2	1.365	ug/l	60.08	642.24	7.029E-04	Pulse	0.30	3
Se			3	0.462	ug/l	85.84	4.27	2.097E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,994,248.55	0.50	90.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,854,272.62	0.99	100.0	Analog	0.10	3
1	Ge		1,078,022.28	0.90	99.0	Pulse	0.10	3
1	Ge		1,487,983.00	0.73	98.8	Pulse	0.10	3
1	Rh		7,423,729.48	1.89	97.6	Analog	0.10	3
1	In		8,167,315.68	0.91	100.1	Analog	0.10	3
1	Tb		10,601,842.76	0.43	102.6	Analog	0.10	3
1	Ho		1,009,501.65	1.04	101.4	Pulse	0.10	3
1	Bi		5,934,231.79	0.42	97.8	Analog	0.10	3
2	Sc		166,297.19	0.64	100.6	Pulse	0.30	3
2	Ge		98,994.70	0.29	94.2	Pulse	0.30	3
2	Ge		147,500.73	1.11	93.8	Pulse	0.30	3
2	Rh		3,042,710.85	0.42	95.0	Pulse	0.30	3
2	In		913,709.63	0.18	94.2	Pulse	0.30	3
2	Tb		3,680,805.41	0.21	95.5	Pulse	0.30	3
2	Ho		368,951.18	0.46	96.0	Pulse	0.30	3
2	Bi		2,401,792.40	0.13	92.8	Pulse	0.30	3
3	Sc		217,309.16	0.69	101.2	Pulse	0.30	3
3	Ge		134,401.83	0.90	98.4	Pulse	0.30	3
3	Ge		203,400.40	0.46	99.2	Pulse	0.30	3
3	Rh		2,340,895.19	0.37	98.3	Pulse	0.30	3
3	Tb		3,639,643.33	0.85	100.0	Pulse	0.30	3

Quantitation Report

File Name 032SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 13:09
Sample Name mp13130a-b2conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	77.993	ug/l	1.31	465,962.50	1.551E-01	Pulse	0.25	3
B			1	84.388	ug/l	0.94	506,351.04	1.685E-01	Pulse	0.15	3
Ca			1	4103.560	ug/l	0.78	3,608,566.82	6.326E-01	Pulse	0.10	3
Sr			1	82.854	ug/l	0.27	3,635,708.80	4.807E-01	Pulse	0.10	3
Mo			1	80.261	ug/l	0.10	674,540.95	8.919E-02	Pulse	0.10	3
Ag			1	79.578	ug/l	0.60	1,774,487.73	2.144E-01	Pulse	0.10	3
Sn			1	77.930	ug/l	0.81	1,058,344.51	1.279E-01	Pulse	0.10	3
Sb			1	76.833	ug/l	1.02	1,136,205.01	1.047E-01	Pulse	0.10	3
Ba			1	79.507	ug/l	0.57	489,974.66	4.517E-02	Pulse	0.10	3
Tl			1	79.253	ug/l	0.17	2,889,513.81	4.684E-01	Pulse	0.10	3
Pb			1	81.527	ug/l	0.23	975,445.69	1.581E-01	Pulse	0.10	3
Pb			1	80.625	ug/l	0.59	865,632.91	1.403E-01	Pulse	0.10	3
Pb			1	81.149	ug/l	0.30	3,956,335.91	6.413E-01	Pulse	0.10	3
Na			2	4002.498	ug/l	0.41	2,958,978.50	1.826E+01	Pulse	0.30	3
Mg			2	3870.812	ug/l	0.38	1,354,345.19	8.358E+00	Pulse	0.30	3
Al			2	3792.206	ug/l	0.28	408,229.22	2.519E+00	Pulse	0.30	3
K			2	3928.072	ug/l	0.15	823,717.40	5.083E+00	Pulse	0.30	3
Ca			2	4515.092	ug/l	0.80	53,274.64	3.288E-01	Pulse	0.30	3
Ti			2	79.297	ug/l	4.67	7,442.88	4.593E-02	Pulse	0.30	3
V			2	82.830	ug/l	0.42	268,420.91	1.656E+00	Pulse	0.30	3
Cr			2	83.051	ug/l	0.52	354,571.44	2.188E+00	Pulse	0.30	3
Mn			2	80.908	ug/l	0.41	166,735.68	1.029E+00	Pulse	0.30	3
Fe			2	4041.244	ug/l	0.64	14,648,876.64	9.040E+01	Analog	0.30	3
Co			2	82.126	ug/l	0.65	632,423.62	3.903E+00	Pulse	0.30	3
Ni			2	81.245	ug/l	0.36	173,281.67	1.069E+00	Pulse	0.30	3
Cu			2	80.967	ug/l	0.64	464,896.27	2.869E+00	Pulse	0.30	3
Zn			2	70.590	ug/l	0.50	52,705.28	3.252E-01	Pulse	0.30	3
As			2	70.134	ug/l	0.63	27,289.33	1.684E-01	Pulse	1.00	3
Cd			2	77.137	ug/l	1.07	86,141.89	9.656E-02	Pulse	0.30	3
Sn			2	77.869	ug/l	0.14	160,950.61	1.804E-01	Pulse	0.30	3
Se			3	327.112	ug/l	0.84	37,407.51	1.811E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,005,151.06	0.56	90.7	Pulse	0.10	3
1	Sc		5,704,857.21	0.52	97.5	Analog	0.10	3
1	Ge		1,068,333.81	1.10	98.1	Pulse	0.10	3

Quantitation Report

1	Ge		1,481,421.02	0.99	98.3	Pulse	0.10	3
1	Rh		7,562,695.93	0.40	99.4	Analog	0.10	3
1	In		8,278,083.67	0.95	101.5	Analog	0.10	3
1	Tb		10,847,490.67	0.54	105.0	Analog	0.10	3
1	Ho		1,036,932.35	0.43	104.2	Pulse	0.10	3
1	Bi		6,168,806.99	0.60	101.6	Analog	0.10	3
2	Sc		162,049.16	0.19	98.0	Pulse	0.30	3
2	Ge		94,735.24	0.43	90.2	Pulse	0.30	3
2	Ge		141,647.27	0.72	90.0	Pulse	0.30	3
2	Rh		3,038,471.96	0.37	94.9	Pulse	0.30	3
2	In		892,064.99	0.24	91.9	Pulse	0.30	3
2	Tb		3,654,205.97	0.71	94.8	Pulse	0.30	3
2	Ho		365,198.43	0.43	95.1	Pulse	0.30	3
2	Bi		2,404,021.22	0.40	92.9	Pulse	0.30	3
3	Sc		228,004.79	1.09	106.2	Pulse	0.30	3
3	Ge		137,520.79	0.26	100.7	Pulse	0.30	3
3	Ge		206,544.73	0.50	100.7	Pulse	0.30	3
3	Rh		2,425,152.47	0.43	101.8	Pulse	0.30	3
3	Tb		3,747,778.74	0.30	103.0	Pulse	0.30	3

Quantitation Report

File Name	033_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 13:14
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.748	ug/l	1.34	592,180.00	1.899E-01	Pulse	0.25	3
B			1	96.432	ug/l	2.23	1,192,209.50	3.823E-01	Pulse	0.15	3
Ca			1	4774.955	ug/l	4.37	8,868,457.37	1.468E+00	Analog	0.10	3
Sr			1	48.653	ug/l	1.91	4,306,620.46	5.646E-01	Pulse	0.10	3
Mo			1	49.330	ug/l	2.47	836,259.47	1.096E-01	Pulse	0.10	3
Ag			1	46.870	ug/l	3.39	2,129,871.22	2.525E-01	Pulse	0.10	3
Sn			1	47.473	ug/l	3.67	1,311,679.61	1.555E-01	Pulse	0.10	3
Sb			1	49.607	ug/l	2.21	1,463,609.25	1.352E-01	Pulse	0.10	3
Ba			1	47.576	ug/l	2.57	584,913.01	5.406E-02	Pulse	0.10	3
Tl			1	47.695	ug/l	2.91	3,427,801.61	5.638E-01	Pulse	0.10	3
Pb			1	48.878	ug/l	2.53	1,152,822.30	1.896E-01	Pulse	0.10	3
Pb			1	48.186	ug/l	2.69	1,019,797.14	1.677E-01	Pulse	0.10	3
Pb			1	48.452	ug/l	2.71	4,656,367.79	7.658E-01	Pulse	0.10	3
Na			2	4901.880	ug/l	0.94	7,236,566.94	4.467E+01	Analog	0.30	3
Mg			2	4634.734	ug/l	0.67	3,241,942.72	2.001E+01	Pulse	0.30	3
Al			2	4688.755	ug/l	0.73	1,009,075.41	6.229E+00	Pulse	0.30	3
K			2	4773.227	ug/l	1.46	1,991,658.05	1.229E+01	Pulse	0.30	3
Ca			2	5076.810	ug/l	0.37	119,669.10	7.387E-01	Pulse	0.30	3
Ti			2	49.043	ug/l	2.64	9,202.64	5.681E-02	Pulse	0.30	3
V			2	49.753	ug/l	0.45	322,279.91	1.989E+00	Pulse	0.30	3
Cr			2	48.983	ug/l	0.56	417,943.87	2.580E+00	Pulse	0.30	3
Mn			2	48.588	ug/l	0.91	200,177.34	1.236E+00	Pulse	0.30	3
Fe			2	4857.078	ug/l	0.81	35,195,249.71	2.173E+02	Analog	0.30	3
Co			2	48.786	ug/l	0.65	751,072.75	4.636E+00	Pulse	0.30	3
Ni			2	48.133	ug/l	1.75	205,227.50	1.267E+00	Pulse	0.30	3
Cu			2	47.751	ug/l	0.42	547,955.81	3.383E+00	Pulse	0.30	3
Zn			2	47.835	ug/l	0.72	71,155.37	4.393E-01	Pulse	0.30	3
As			2	47.966	ug/l	0.86	37,309.98	2.303E-01	Pulse	1.00	3
Cd			2	48.976	ug/l	0.43	109,089.25	1.226E-01	Pulse	0.30	3
Sn			2	49.468	ug/l	0.65	203,791.28	2.291E-01	Pulse	0.30	3
Se			3	193.625	ug/l	0.57	42,369.13	2.144E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,119,595.00	1.88	94.2	Pulse	0.10	3
1	Sc		6,048,281.58	5.06	103.4	Analog	0.10	3
1	Ge		1,098,156.42	3.00	100.9	Pulse	0.10	3

Quantitation Report

1	Ge		1,528,086.85	2.47	101.4	Pulse	0.10	3
1	Rh		7,630,204.05	2.19	100.3	Analog	0.10	3
1	In		8,441,744.18	3.77	103.5	Analog	0.10	3
1	Tb		10,825,988.59	2.94	104.8	Analog	0.10	3
1	Ho		1,044,542.20	4.50	105.0	Pulse	0.10	3
1	Bi		6,083,665.74	2.99	100.2	Analog	0.10	3
2	Sc		161,993.05	0.26	98.0	Pulse	0.30	3
2	Ge		95,936.81	0.80	91.3	Pulse	0.30	3
2	Ge		144,828.34	0.55	92.1	Pulse	0.30	3
2	Rh		2,974,697.04	0.18	92.9	Pulse	0.30	3
2	In		889,662.88	0.14	91.7	Pulse	0.30	3
2	Tb		3,605,794.58	0.18	93.6	Pulse	0.30	3
2	Ho		361,874.94	0.29	94.2	Pulse	0.30	3
2	Bi		2,351,153.86	0.18	90.8	Pulse	0.30	3
3	Sc		212,726.87	0.45	99.1	Pulse	0.30	3
3	Ge		131,230.99	0.24	96.1	Pulse	0.30	3
3	Ge		197,610.90	0.40	96.4	Pulse	0.30	3
3	Rh		2,268,441.02	0.25	95.3	Pulse	0.30	3
3	Tb		3,551,954.17	0.09	97.6	Pulse	0.30	3

Quantitation Report

File Name 034_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 13:19
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	7.84	130.67	4.393E-05	Pulse	0.25	3
B			1	1.248	ug/l	2.98	21,169.10	7.117E-03	Pulse	0.15	3
Ca			1	0.377	ug/l	80.03	16,268.49	2.868E-03	Pulse	0.10	3
Sr			1	0.012	ug/l	15.26	2,030.22	2.695E-04	Pulse	0.10	3
Mo			1	0.073	ug/l	21.64	1,303.44	1.729E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	6.64	573.36	7.032E-05	Pulse	0.10	3
Sn			1	-0.151	ug/l	-6.15	5,234.39	6.421E-04	Pulse	0.10	3
Sb			1	0.081	ug/l	9.67	2,423.61	2.324E-04	Pulse	0.10	3
Ba			1	0.009	ug/l	12.23	153.34	1.472E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	15.91	1,676.83	2.755E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	64.38	766.72	1.261E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	31.28	636.71	1.047E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	19.60	3,110.27	5.112E-04	Pulse	0.10	3
Na			2	1.980	ug/l	5.55	8,622.29	5.551E-02	Pulse	0.30	3
Mg			2	0.869	ug/l	15.11	686.69	4.412E-03	Pulse	0.30	3
Al			2	0.907	ug/l	16.38	220.00	1.420E-03	Pulse	0.30	3
K			2	0.925	ug/l	58.98	6,730.33	4.336E-02	Pulse	0.30	3
Ca			2	0.127	ug/l	404.58	75.55	4.873E-04	Pulse	0.30	3
Ti			2	0.037	ug/l	130.80	6.67	4.252E-05	Pulse	0.30	3
V			2	0.001	ug/l	174.46	336.68	2.167E-03	Pulse	0.30	3
Cr			2	0.016	ug/l	70.18	993.38	6.406E-03	Pulse	0.30	3
Mn			2	0.008	ug/l	67.36	83.33	5.386E-04	Pulse	0.30	3
Fe			2	1.034	ug/l	4.21	10,093.18	6.498E-02	Pulse	0.30	3
Co			2	0.004	ug/l	62.81	151.11	9.710E-04	Pulse	0.30	3
Ni			2	0.002	ug/l	168.56	84.44	5.441E-04	Pulse	0.30	3
Cu			2	0.017	ug/l	16.64	1,300.07	8.371E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.035	ug/l	127.35	723.36	4.664E-03	Pulse	0.30	3
As			2	0.005	ug/l	143.89	15.00	9.606E-05	Pulse	1.00	3
Cd			2	0.007	ug/l	55.93	17.70	1.997E-05	Pulse	0.30	3
Sn			2	0.091	ug/l	43.90	933.38	1.059E-03	Pulse	0.30	3
Se			3	0.069	ug/l	21.25	18.73	9.197E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,974,366.13	0.54	89.8	Pulse	0.10	3
1	Sc		5,670,494.08	1.74	96.9	Analog	0.10	3
1	Ge		1,059,424.72	1.02	97.3	Pulse	0.10	3
1	Ge		1,459,486.28	0.67	96.9	Pulse	0.10	3
1	Rh		7,533,276.14	0.81	99.0	Analog	0.10	3
1	In		8,152,657.51	0.43	99.9	Analog	0.10	3
1	Tb		10,424,133.18	0.90	100.9	Analog	0.10	3
1	Ho		988,274.36	0.84	99.3	Pulse	0.10	3
1	Bi		6,084,652.20	0.31	100.2	Analog	0.10	3
2	Sc		155,300.25	2.59	93.9	Pulse	0.30	3
2	Ge		94,656.30	2.37	90.1	Pulse	0.30	3
2	Ge		140,636.00	2.44	89.4	Pulse	0.30	3
2	Rh		2,956,866.69	3.30	92.4	Pulse	0.30	3
2	In		881,557.00	2.63	90.9	Pulse	0.30	3
2	Tb		3,487,331.88	3.31	90.5	Pulse	0.30	3
2	Ho		347,856.96	3.62	90.6	Pulse	0.30	3
2	Bi		2,376,849.14	3.03	91.8	Pulse	0.30	3
3	Sc		216,990.44	1.94	101.0	Pulse	0.30	3
3	Ge		135,673.74	0.50	99.3	Pulse	0.30	3
3	Ge		203,535.56	0.87	99.2	Pulse	0.30	3
3	Rh		2,414,235.94	1.47	101.4	Pulse	0.30	3
3	Tb		3,661,609.86	1.49	100.6	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 13:24
Sample Name	jc84152-2 4
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.280	ug/l	35.08	70.67	2.049E-05	Pulse	0.25	3
B			1	2306.440	ug/l	0.85	321,699.29	9.310E-02	Pulse	0.15	3
Ca			1	135790.709	ug/l	1.04	2,674,400.38	4.196E-01	Pulse	0.10	3
Sr			1	1803.228	ug/l	0.86	1,360,706.38	2.093E-01	Pulse	0.10	3
Mo			1	18.227	ug/l	4.03	2,703.67	4.160E-04	Pulse	0.10	3
Ag			1	4.731	ug/l	7.16	1,926.86	2.595E-04	Pulse	0.10	3
Sn			1	-15.241	ug/l	-3.58	4,734.25	6.378E-04	Pulse	0.10	3
Sb			1	5.073	ug/l	20.13	1,463.46	1.513E-04	Pulse	0.10	3
Ba			1	104.479	ug/l	5.62	11,529.71	1.192E-03	Pulse	0.10	3
Tl			1	0.923	ug/l	41.92	763.38	1.695E-04	Pulse	0.10	3
Pb			1	16.437	ug/l	7.42	3,227.16	7.179E-04	Pulse	0.10	3
Pb			1	14.549	ug/l	1.50	2,590.32	5.762E-04	Pulse	0.10	3
Pb			1	15.345	ug/l	2.17	12,405.86	2.760E-03	Pulse	0.10	3
Na			2	69586969.083	ug/l	1.37	1,194,863,241.41	6.336E+03	Analog	0.30	3
Mg			2	137404.788	ug/l	1.30	1,118,963.36	5.934E+00	Pulse	0.30	3
Al			2	2063.112	ug/l	2.82	5,208.65	2.762E-02	Pulse	0.30	3
K			2	143120.229	ug/l	1.09	700,630.20	3.715E+00	Pulse	0.30	3
Ca			2	142890.743	ug/l	1.02	39,285.08	2.083E-01	Pulse	0.30	3
Ti			2	106.267	ug/l	21.78	232.23	1.231E-03	Pulse	0.30	3
V			2	12.687	ug/l	3.68	1,358.96	7.204E-03	Pulse	0.30	3
Cr			2	4.616	ug/l	14.27	1,505.64	7.987E-03	Pulse	0.30	3
Mn			2	81.011	ug/l	3.36	3,949.41	2.094E-02	Pulse	0.30	3
Fe			2	5432.949	ug/l	1.55	461,775.87	2.449E+00	Pulse	0.30	3
Co			2	1.369	ug/l	6.75	356.68	1.892E-03	Pulse	0.30	3
Ni			2	2.613	ug/l	18.28	224.45	1.192E-03	Pulse	0.30	3
Cu			2	31.527	ug/l	1.04	5,556.56	2.946E-02	Pulse	0.30	3
Zn			2	96.699	ug/l	3.13	2,479.11	1.314E-02	Pulse	0.30	3
As			2	50.978	ug/l	7.25	475.01	2.521E-03	Pulse	1.00	3
Cd			2	9.753	ug/l	18.37	220.97	2.476E-04	Pulse	0.30	3
Sn			2	5.020	ug/l	16.10	778.92	8.717E-04	Pulse	0.30	3
Se			3	5.466	ug/l	11.22	14.33	7.637E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,455,060.86	1.97	104.3	Pulse	0.10	3
1	Sc		6,373,643.66	1.44	108.9	Analog	0.10	3
1	Ge		1,009,345.40	2.06	92.7	Pulse	0.10	3
1	Ge		1,392,998.68	2.21	92.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Rh		6,500,123.65	1.40	85.5	Analog	0.10	3
1	In		7,421,556.02	1.34	91.0	Analog	0.10	3
1	Tb		9,671,702.15	1.19	93.6	Analog	0.10	3
1	Ho		919,667.51	2.20	92.4	Pulse	0.10	3
1	Bi		4,495,473.79	0.90	74.1	Pulse	0.10	3
2	Sc		188,614.78	2.30	114.1	Pulse	0.30	3
2	Ge		97,524.83	2.36	92.8	Pulse	0.30	3
2	Ge		145,490.01	1.34	92.5	Pulse	0.30	3
2	Rh		2,658,238.57	0.76	83.0	Pulse	0.30	3
2	In		893,404.19	1.42	92.1	Pulse	0.30	3
2	Tb		3,434,813.26	1.27	89.1	Pulse	0.30	3
2	Ho		343,349.34	0.86	89.4	Pulse	0.30	3
2	Bi		1,887,473.67	0.68	72.9	Pulse	0.30	3
3	Sc		229,939.85	0.73	107.1	Pulse	0.30	3
3	Ge		125,322.72	0.52	91.8	Pulse	0.30	3
3	Ge		187,664.00	0.67	91.5	Pulse	0.30	3
3	Rh		1,931,821.24	0.28	81.1	Pulse	0.30	3
3	Tb		3,150,294.67	0.42	86.6	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 13:29
Sample Name mp13123-mb1conf
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.022	ug/l	6.33	89.33	2.651E-05	Pulse	0.25	3
B			1	4.371	ug/l	3.29	18,993.20	5.643E-03	Pulse	0.15	3
Ca			1	47.189	ug/l	7.90	35,689.28	5.649E-03	Pulse	0.10	3
Sr			1	0.183	ug/l	13.21	4,540.81	5.539E-04	Pulse	0.10	3
Mo			1	0.420	ug/l	16.62	1,620.16	1.975E-04	Pulse	0.10	3
Ag			1	0.064	ug/l	8.68	663.38	7.365E-05	Pulse	0.10	3
Sn			1	17.763	ug/l	4.68	114,250.74	1.269E-02	Pulse	0.10	3
Sb			1	0.165	ug/l	11.67	1,173.43	1.027E-04	Pulse	0.10	3
Ba			1	0.284	ug/l	29.43	793.63	6.944E-05	Pulse	0.10	3
Tl			1	0.031	ug/l	25.00	890.06	1.337E-04	Pulse	0.10	3
Pb			1	0.123	ug/l	21.31	1,170.09	1.758E-04	Pulse	0.10	3
Pb			1	0.092	ug/l	14.59	893.39	1.342E-04	Pulse	0.10	3
Pb			1	0.102	ug/l	3.30	4,380.42	6.582E-04	Pulse	0.10	3
Na			2	397.998	ug/l	6.69	124,205.70	7.623E-01	Pulse	0.30	3
Mg			2	9.914	ug/l	7.17	1,502.31	9.221E-03	Pulse	0.30	3
Al			2	9.379	ug/l	10.67	441.13	2.707E-03	Pulse	0.30	3
K			2	39.305	ug/l	4.73	9,964.18	6.117E-02	Pulse	0.30	3
Ca			2	42.056	ug/l	6.65	275.56	1.692E-03	Pulse	0.30	3
Ti			2	0.942	ug/l	37.83	35.55	2.182E-04	Pulse	0.30	3
V			2	0.243	ug/l	3.49	664.47	4.079E-03	Pulse	0.30	3
Cr			2	1.327	ug/l	4.75	3,178.13	1.951E-02	Pulse	0.30	3
Mn			2	0.276	ug/l	18.59	284.45	1.746E-03	Pulse	0.30	3
Fe			2	32.979	ug/l	0.99	51,112.53	3.137E-01	Pulse	0.30	3
Co			2	0.027	ug/l	49.41	178.89	1.098E-03	Pulse	0.30	3
Ni			2	1.243	ug/l	6.38	1,147.83	7.045E-03	Pulse	0.30	3
Cu			2	4.992	ug/l	4.08	12,664.97	7.775E-02	Pulse	0.30	3
Zn			2	5.366	ug/l	4.66	2,297.96	1.410E-02	Pulse	0.30	3
As			2	0.073	ug/l	46.40	23.33	1.434E-04	Pulse	1.00	3
Cd			2	0.046	ug/l	35.10	24.36	2.634E-05	Pulse	0.30	3
Sn			2	19.692	ug/l	2.10	17,372.30	1.883E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.115	ug/l	18.56	8.53	4.123E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,366,986.09	2.74	101.7	Pulse	0.10	3
1	Sc		6,315,186.78	1.49	107.9	Analog	0.10	3
1	Ge		1,149,213.34	1.23	105.6	Pulse	0.10	3
1	Ge		1,586,753.00	1.57	105.3	Pulse	0.10	3
1	Rh		8,195,513.84	1.43	107.8	Analog	0.10	3
1	In		9,007,031.28	0.87	110.4	Analog	0.10	3
1	Tb		11,428,022.33	0.21	110.6	Analog	0.10	3
1	Ho		1,078,047.06	0.60	108.3	Pulse	0.10	3
1	Bi		6,655,379.07	0.92	109.6	Analog	0.10	3
2	Sc		162,902.85	0.56	98.5	Pulse	0.30	3
2	Ge		96,796.23	0.81	92.1	Pulse	0.30	3
2	Ge		144,744.42	0.88	92.0	Pulse	0.30	3
2	Rh		3,138,159.53	0.93	98.0	Pulse	0.30	3
2	In		922,904.14	1.14	95.1	Pulse	0.30	3
2	Tb		3,756,700.13	0.64	97.5	Pulse	0.30	3
2	Ho		378,399.00	0.40	98.5	Pulse	0.30	3
2	Bi		2,566,880.38	0.59	99.2	Pulse	0.30	3
3	Sc		221,014.59	0.36	102.9	Pulse	0.30	3
3	Ge		138,206.58	0.50	101.2	Pulse	0.30	3
3	Ge		206,942.88	1.41	100.9	Pulse	0.30	3
3	Rh		2,485,072.54	0.48	104.4	Pulse	0.30	3
3	Tb		3,853,926.10	0.15	105.9	Pulse	0.30	3

Quantitation Report

File Name 037SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 13:34
Sample Name jc84152-3
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.218	ug/l	130.63	56.00	1.803E-05	Pulse	0.25	3
B			1	1200.828	ug/l	0.47	154,115.24	4.953E-02	Pulse	0.15	3
Ca			1	83798.025	ug/l	0.98	1,529,812.01	2.600E-01	Pulse	0.10	3
Sr			1	1286.909	ug/l	0.47	1,041,444.02	1.494E-01	Pulse	0.10	3
Mo			1	7.274	ug/l	9.26	1,203.43	1.726E-04	Pulse	0.10	3
Ag			1	0.863	ug/l	31.12	400.02	5.110E-05	Pulse	0.10	3
Sn			1	-18.542	ug/l	-1.80	4,154.04	5.304E-04	Pulse	0.10	3
Sb			1	2.165	ug/l	22.35	746.72	7.198E-05	Pulse	0.10	3
Ba			1	108.407	ug/l	1.19	12,829.09	1.236E-03	Pulse	0.10	3
Tl			1	0.186	ug/l	82.56	450.03	8.253E-05	Pulse	0.10	3
Pb			1	10.574	ug/l	8.82	2,673.69	4.906E-04	Pulse	0.10	3
Pb			1	11.020	ug/l	4.65	2,470.31	4.534E-04	Pulse	0.10	3
Pb			1	10.641	ug/l	2.03	10,988.69	2.017E-03	Pulse	0.10	3
Na			2	18341609.629	ug/l	1.18	277,332,220.09	1.670E+03	Analog	0.30	3
Mg			2	133139.945	ug/l	1.15	954,737.29	5.750E+00	Pulse	0.30	3
Al			2	4404.440	ug/l	0.85	9,752.91	5.873E-02	Pulse	0.30	3
K			2	65292.841	ug/l	0.82	285,154.23	1.717E+00	Pulse	0.30	3
Ca			2	90320.317	ug/l	1.00	21,888.90	1.318E-01	Pulse	0.30	3
Ti			2	168.087	ug/l	3.46	323.34	1.947E-03	Pulse	0.30	3
V			2	14.041	ug/l	12.92	1,286.74	7.745E-03	Pulse	0.30	3
Cr			2	9.201	ug/l	12.56	1,726.78	1.040E-02	Pulse	0.30	3
Mn			2	173.098	ug/l	4.79	7,363.96	4.435E-02	Pulse	0.30	3
Fe			2	4646.317	ug/l	0.24	348,220.50	2.097E+00	Pulse	0.30	3
Co			2	2.670	ug/l	20.90	520.01	3.129E-03	Pulse	0.30	3
Ni			2	5.661	ug/l	13.98	331.12	1.994E-03	Pulse	0.30	3
Cu			2	64.238	ug/l	0.29	8,732.41	5.259E-02	Pulse	0.30	3
Zn			2	568.280	ug/l	2.07	9,302.72	5.601E-02	Pulse	0.30	3
As			2	60.078	ug/l	5.72	491.01	2.958E-03	Pulse	1.00	3
Cd			2	3.014	ug/l	13.36	69.93	7.890E-05	Pulse	0.30	3
Sn			2	2.728	ug/l	12.55	678.91	7.658E-04	Pulse	0.30	3
Se			3	1.817	ug/l	34.88	6.87	3.597E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,111,775.69	0.49	94.0	Pulse	0.10	3
1	Sc		5,885,152.21	1.70	100.6	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		1,029,324.31	0.58	94.5	Pulse	0.10	3
1	Ge		1,420,011.49	1.24	94.3	Pulse	0.10	3
1	Rh		6,969,694.90	0.74	91.6	Analog	0.10	3
1	In		7,830,415.49	1.84	96.0	Analog	0.10	3
1	Tb		10,374,861.30	1.05	100.4	Analog	0.10	3
1	Ho		992,538.79	1.81	99.7	Pulse	0.10	3
1	Bi		5,449,016.58	0.72	89.8	Analog	0.10	3
2	Sc		166,063.61	0.75	100.4	Pulse	0.30	3
2	Ge		94,156.46	1.53	89.6	Pulse	0.30	3
2	Ge		141,441.07	0.45	89.9	Pulse	0.30	3
2	Rh		2,794,323.71	0.46	87.3	Pulse	0.30	3
2	In		886,536.69	0.56	91.4	Pulse	0.30	3
2	Tb		3,625,992.63	0.33	94.1	Pulse	0.30	3
2	Ho		362,637.55	0.28	94.4	Pulse	0.30	3
2	Bi		2,174,230.12	0.61	84.0	Pulse	0.30	3
3	Sc		213,703.68	0.31	99.5	Pulse	0.30	3
3	Ge		126,856.90	0.66	92.9	Pulse	0.30	3
3	Ge		190,824.33	0.67	93.0	Pulse	0.30	3
3	Rh		2,133,301.58	0.34	89.6	Pulse	0.30	3
3	Tb		3,539,376.67	0.56	97.3	Pulse	0.30	3

Quantitation Report

File Name 038SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 13:39
Sample Name mp13123-b1conf
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	197.541	ug/l	0.52	468,577.54	1.571E-01	Pulse	0.25	3
B			1	204.693	ug/l	0.93	487,830.81	1.636E-01	Pulse	0.15	3
Ca			1	10217.900	ug/l	0.56	3,515,680.78	6.300E-01	Pulse	0.10	3
Sr			1	205.383	ug/l	0.91	3,549,006.09	4.767E-01	Pulse	0.10	3
Mo			1	197.085	ug/l	1.02	652,288.50	8.761E-02	Pulse	0.10	3
Ag			1	98.734	ug/l	0.59	877,044.89	1.064E-01	Pulse	0.10	3
Sn			1	208.575	ug/l	1.57	1,127,658.61	1.368E-01	Pulse	0.10	3
Sb			1	191.608	ug/l	0.89	1,130,956.78	1.045E-01	Pulse	0.10	3
Ba			1	197.988	ug/l	1.43	486,997.57	4.499E-02	Pulse	0.10	3
Tl			1	200.629	ug/l	0.71	2,941,726.41	4.743E-01	Pulse	0.10	3
Pb			1	207.375	ug/l	0.96	997,836.00	1.609E-01	Pulse	0.10	3
Pb			1	204.023	ug/l	0.89	880,929.78	1.420E-01	Pulse	0.10	3
Pb			1	204.411	ug/l	0.85	4,007,865.18	6.462E-01	Pulse	0.10	3
Na			2	10163.802	ug/l	1.49	2,903,946.28	1.855E+01	Pulse	0.30	3
Mg			2	9661.248	ug/l	0.90	1,306,495.64	8.344E+00	Pulse	0.30	3
Al			2	9706.198	ug/l	0.97	403,839.43	2.579E+00	Pulse	0.30	3
K			2	9884.319	ug/l	1.21	801,057.61	5.116E+00	Pulse	0.30	3
Ca			2	11250.635	ug/l	2.24	51,304.32	3.277E-01	Pulse	0.30	3
Ti			2	191.237	ug/l	1.46	6,937.09	4.431E-02	Pulse	0.30	3
V			2	205.441	ug/l	1.06	257,319.99	1.643E+00	Pulse	0.30	3
Cr			2	206.611	ug/l	0.91	340,934.67	2.177E+00	Pulse	0.30	3
Mn			2	203.976	ug/l	0.98	162,470.69	1.038E+00	Pulse	0.30	3
Fe			2	10091.767	ug/l	1.08	14,138,533.33	9.030E+01	Analog	0.30	3
Co			2	203.971	ug/l	1.02	607,074.33	3.877E+00	Pulse	0.30	3
Ni			2	202.485	ug/l	1.53	166,914.68	1.066E+00	Pulse	0.30	3
Cu			2	202.701	ug/l	0.83	449,833.56	2.873E+00	Pulse	0.30	3
Zn			2	190.378	ug/l	1.53	54,883.53	3.505E-01	Pulse	0.30	3
As			2	184.075	ug/l	1.37	27,682.00	1.768E-01	Pulse	1.00	3
Cd			2	197.256	ug/l	0.67	87,651.39	9.877E-02	Pulse	0.30	3
Sn			2	210.524	ug/l	0.11	173,099.51	1.951E-01	Pulse	0.30	3
Se			3	447.171	ug/l	0.42	19,955.65	9.904E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,982,778.50	0.33	90.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,580,115.96	0.12	95.4	Analog	0.10	3
1	Ge		1,047,658.68	0.42	96.2	Pulse	0.10	3
1	Ge		1,442,547.48	0.38	95.8	Pulse	0.10	3
1	Rh		7,445,376.97	0.48	97.9	Analog	0.10	3
1	In		8,243,656.10	0.94	101.0	Analog	0.10	3
1	Tb		10,824,517.34	0.55	104.8	Analog	0.10	3
1	Ho		1,032,602.96	0.68	103.8	Pulse	0.10	3
1	Bi		6,202,145.32	0.06	102.2	Analog	0.10	3
2	Sc		156,587.85	0.86	94.7	Pulse	0.30	3
2	Ge		93,146.39	0.68	88.7	Pulse	0.30	3
2	Ge		140,240.09	1.02	89.1	Pulse	0.30	3
2	Rh		2,967,871.13	0.34	92.7	Pulse	0.30	3
2	In		887,399.32	0.17	91.5	Pulse	0.30	3
2	Tb		3,651,812.63	0.12	94.8	Pulse	0.30	3
2	Ho		366,254.60	0.21	95.3	Pulse	0.30	3
2	Bi		2,411,970.53	0.57	93.2	Pulse	0.30	3
3	Sc		218,170.65	0.51	101.6	Pulse	0.30	3
3	Ge		133,257.94	0.51	97.6	Pulse	0.30	3
3	Ge		201,485.51	0.24	98.2	Pulse	0.30	3
3	Rh		2,394,070.39	0.53	100.5	Pulse	0.30	3
3	Tb		3,781,109.43	0.69	103.9	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 13:44
Sample Name mp13123-s1 4
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	195.281	ug/l	0.70	233,149.74	7.765E-02	Pulse	0.25	3
B			1	208.211	ug/l	1.38	252,974.70	8.426E-02	Pulse	0.15	3
Ca			1	53404.317	ug/l	0.62	10,161,239.02	1.642E+00	Analog	0.10	3
Sr			1	296.851	ug/l	0.49	2,556,348.61	3.445E-01	Pulse	0.10	3
Mo			1	190.905	ug/l	0.34	314,879.66	4.244E-02	Pulse	0.10	3
Ag			1	94.555	ug/l	1.24	417,785.62	5.095E-02	Pulse	0.10	3
Sn			1	187.984	ug/l	1.07	510,658.35	6.227E-02	Pulse	0.10	3
Sb			1	85.114	ug/l	1.69	250,219.29	2.322E-02	Pulse	0.10	3
Ba			1	562.821	ug/l	0.12	689,139.94	6.395E-02	Pulse	0.10	3
Tl			1	192.016	ug/l	0.38	1,369,665.29	2.270E-01	Pulse	0.10	3
Pb			1	202.355	ug/l	1.59	473,889.67	7.854E-02	Pulse	0.10	3
Pb			1	198.516	ug/l	0.12	417,140.49	6.914E-02	Pulse	0.10	3
Pb			1	200.109	ug/l	0.58	1,909,502.96	3.165E-01	Pulse	0.10	3
Na			2	12463.875	ug/l	0.59	2,020,619.92	1.139E+01	Pulse	0.30	3
Mg			2	42591.515	ug/l	0.57	3,263,686.88	1.839E+01	Pulse	0.30	3
Al			2	173840.207	ug/l	0.58	4,098,360.53	2.309E+01	Pulse	0.30	3
K			2	10978.669	ug/l	0.33	507,448.54	2.859E+00	Pulse	0.30	3
Ca			2	53244.842	ug/l	1.00	137,483.19	7.747E-01	Pulse	0.30	3
Ti			2	5093.707	ug/l	0.45	104,709.60	5.900E-01	Pulse	0.30	3
V			2	503.180	ug/l	0.54	357,052.07	2.012E+00	Pulse	0.30	3
Cr			2	469.424	ug/l	0.37	438,817.90	2.473E+00	Pulse	0.30	3
Mn			2	2175.246	ug/l	0.85	981,528.61	5.531E+00	Pulse	0.30	3
Fe			2	133877.333	ug/l	0.41	106,267,286.89	5.988E+02	Analog	0.30	3
Co			2	274.129	ug/l	0.42	462,372.76	2.606E+00	Pulse	0.30	3
Ni			2	332.245	ug/l	0.68	155,221.29	8.747E-01	Pulse	0.30	3
Cu			2	772.171	ug/l	0.50	969,894.93	5.465E+00	Pulse	0.30	3
Zn			2	287.492	ug/l	0.69	47,157.52	2.657E-01	Pulse	0.30	3
As			2	166.403	ug/l	1.86	14,187.51	7.995E-02	Pulse	1.00	3
Cd			2	191.724	ug/l	1.22	43,389.06	4.800E-02	Pulse	0.30	3
Sn			2	189.407	ug/l	0.18	79,633.84	8.810E-02	Pulse	0.30	3
Se			3	445.421	ug/l	0.21	9,984.37	4.934E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,002,366.84	0.62	90.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,188,182.20	1.00	105.8	Analog	0.10	3
1	Ge		1,074,784.46	0.87	98.7	Pulse	0.10	3
1	Ge		1,467,293.11	1.41	97.4	Pulse	0.10	3
1	Rh		7,420,145.72	1.47	97.6	Analog	0.10	3
1	In		8,201,485.65	1.86	100.5	Analog	0.10	3
1	Tb		10,776,831.92	0.90	104.3	Analog	0.10	3
1	Ho		1,037,441.60	1.83	104.2	Pulse	0.10	3
1	Bi		6,033,542.20	0.71	99.4	Analog	0.10	3
2	Sc		177,461.72	0.59	107.3	Pulse	0.30	3
2	Ge		96,467.78	0.29	91.8	Pulse	0.30	3
2	Ge		143,896.73	0.46	91.5	Pulse	0.30	3
2	Rh		3,014,578.77	0.21	94.2	Pulse	0.30	3
2	In		903,897.24	0.22	93.2	Pulse	0.30	3
2	Tb		3,649,069.72	0.22	94.7	Pulse	0.30	3
2	Ho		373,033.66	0.20	97.1	Pulse	0.30	3
2	Bi		2,383,190.53	0.16	92.1	Pulse	0.30	3
3	Sc		237,970.54	0.20	110.8	Pulse	0.30	3
3	Ge		135,683.56	0.58	99.4	Pulse	0.30	3
3	Ge		202,376.73	0.33	98.7	Pulse	0.30	3
3	Rh		2,351,934.91	0.19	98.8	Pulse	0.30	3
3	Tb		3,652,347.77	0.42	100.4	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 13:49
Sample Name	mp13123-s2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	199.874	ug/l	1.35	245,366.80	7.948E-02	Pulse	0.25	3
B			1	214.248	ug/l	1.43	267,474.23	8.664E-02	Pulse	0.15	3
Ca			1	62080.705	ug/l	1.46	12,372,888.15	1.908E+00	Analog	0.10	3
Sr			1	319.796	ug/l	0.78	2,831,792.77	3.711E-01	Pulse	0.10	3
Mo			1	194.209	ug/l	0.85	329,407.80	4.317E-02	Pulse	0.10	3
Ag			1	97.044	ug/l	0.45	437,390.97	5.229E-02	Pulse	0.10	3
Sn			1	192.686	ug/l	0.62	533,698.04	6.380E-02	Pulse	0.10	3
Sb			1	88.895	ug/l	0.71	262,786.42	2.425E-02	Pulse	0.10	3
Ba			1	532.217	ug/l	0.55	655,404.33	6.047E-02	Pulse	0.10	3
Tl			1	200.590	ug/l	0.18	1,420,596.64	2.371E-01	Pulse	0.10	3
Pb			1	210.584	ug/l	0.65	489,608.90	8.173E-02	Pulse	0.10	3
Pb			1	206.513	ug/l	0.61	430,849.49	7.192E-02	Pulse	0.10	3
Pb			1	208.650	ug/l	0.75	1,976,748.00	3.300E-01	Pulse	0.10	3
Na			2	12520.728	ug/l	5.17	2,074,722.83	1.144E+01	Pulse	0.30	3
Mg			2	45908.784	ug/l	5.35	3,595,504.44	1.982E+01	Pulse	0.30	3
Al			2	165950.484	ug/l	5.26	3,998,775.95	2.205E+01	Pulse	0.30	3
K			2	10976.380	ug/l	5.40	518,528.43	2.859E+00	Pulse	0.30	3
Ca			2	63390.155	ug/l	5.74	167,254.46	9.223E-01	Pulse	0.30	3
Ti			2	6059.352	ug/l	5.81	127,290.13	7.019E-01	Pulse	0.30	3
V			2	553.169	ug/l	5.28	401,154.71	2.212E+00	Pulse	0.30	3
Cr			2	501.746	ug/l	5.42	479,295.04	2.643E+00	Pulse	0.30	3
Mn			2	3026.349	ug/l	5.22	1,395,748.90	7.695E+00	Pulse	0.30	3
Fe			2	141965.052	ug/l	5.82	115,154,053.20	6.350E+02	Analog	0.30	3
Co			2	310.026	ug/l	5.41	534,431.30	2.947E+00	Pulse	0.30	3
Ni			2	329.188	ug/l	4.68	157,218.63	8.666E-01	Pulse	0.30	3
Cu			2	833.724	ug/l	5.62	1,070,109.37	5.901E+00	Pulse	0.30	3
Zn			2	293.254	ug/l	5.63	49,143.32	2.710E-01	Pulse	0.30	3
As			2	171.854	ug/l	7.00	14,967.19	8.257E-02	Pulse	1.00	3
Cd			2	195.907	ug/l	5.43	45,184.52	4.905E-02	Pulse	0.30	3
Sn			2	196.657	ug/l	6.02	84,225.17	9.145E-02	Pulse	0.30	3
Se			3	462.489	ug/l	1.88	10,205.71	5.123E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,087,159.33	0.09	93.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,484,401.78	1.41	110.8	Analog	0.10	3
1	Ge		1,105,807.01	0.89	101.6	Pulse	0.10	3
1	Ge		1,503,370.87	1.05	99.8	Pulse	0.10	3
1	Rh		7,630,658.84	1.48	100.3	Analog	0.10	3
1	In		8,365,198.60	0.81	102.5	Analog	0.10	3
1	Tb		10,838,303.17	1.47	104.9	Analog	0.10	3
1	Ho		1,048,510.85	1.57	105.4	Pulse	0.10	3
1	Bi		5,990,633.66	0.46	98.7	Analog	0.10	3
2	Sc		181,699.64	5.04	109.9	Pulse	0.30	3
2	Ge		99,137.24	2.92	94.4	Pulse	0.30	3
2	Ge		147,317.30	3.28	93.6	Pulse	0.30	3
2	Rh		3,073,027.44	5.12	96.0	Pulse	0.30	3
2	In		922,944.94	5.27	95.1	Pulse	0.30	3
2	Tb		3,764,989.30	6.95	97.7	Mix	0.30	3
2	Ho		379,550.17	4.37	98.8	Pulse	0.30	3
2	Bi		2,398,410.32	3.61	92.7	Pulse	0.30	3
3	Sc		235,970.47	2.55	109.9	Pulse	0.30	3
3	Ge		134,635.52	2.10	98.6	Pulse	0.30	3
3	Ge		199,286.37	2.30	97.2	Pulse	0.30	3
3	Rh		2,295,113.04	3.67	96.4	Pulse	0.30	3
3	Tb		3,554,544.58	3.19	97.7	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 13:53
Sample Name jc84266-10
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	2.854	ug/l	2.51	3,557.76	1.144E-03	Pulse	0.25	3
B			1	21.364	ug/l	1.90	33,019.06	1.062E-02	Pulse	0.15	3
Ca			1	36079.909	ug/l	0.22	7,096,625.31	1.110E+00	Analog	0.10	3
Sr			1	96.652	ug/l	1.06	859,092.15	1.123E-01	Pulse	0.10	3
Mo			1	1.121	ug/l	5.70	1,990.20	2.601E-04	Pulse	0.10	3
Ag			1	0.170	ug/l	23.14	806.71	9.637E-05	Pulse	0.10	3
Sn			1	11.679	ug/l	4.14	41,339.77	4.932E-03	Pulse	0.10	3
Sb			1	0.357	ug/l	9.73	1,183.43	1.102E-04	Pulse	0.10	3
Ba			1	606.119	ug/l	0.50	739,583.87	6.887E-02	Pulse	0.10	3
Tl			1	0.558	ug/l	5.93	4,297.45	7.199E-04	Pulse	0.10	3
Pb			1	9.349	ug/l	3.68	22,113.87	3.706E-03	Pulse	0.10	3
Pb			1	8.675	ug/l	1.03	18,428.75	3.088E-03	Pulse	0.10	3
Pb			1	8.956	ug/l	0.83	86,424.74	1.448E-02	Pulse	0.10	3
Na			2	3470.388	ug/l	2.42	573,898.00	3.197E+00	Pulse	0.30	3
Mg			2	30355.748	ug/l	1.69	2,352,878.87	1.311E+01	Pulse	0.30	3
Al			2	205225.232	ug/l	1.53	4,893,990.09	2.726E+01	Pulse	0.30	3
K			2	2703.448	ug/l	1.95	131,938.72	7.350E-01	Pulse	0.30	3
Ca			2	35308.078	ug/l	3.19	92,231.53	5.139E-01	Pulse	0.30	3
Ti			2	4658.770	ug/l	1.54	96,870.76	5.397E-01	Pulse	0.30	3
V			2	399.335	ug/l	1.73	286,699.89	1.597E+00	Pulse	0.30	3
Cr			2	255.191	ug/l	1.53	241,754.14	1.347E+00	Pulse	0.30	3
Mn			2	2323.912	ug/l	2.03	1,060,635.44	5.909E+00	Pulse	0.30	3
Fe			2	140177.921	ug/l	1.91	112,544,377.75	6.270E+02	Analog	0.30	3
Co			2	135.353	ug/l	1.81	230,974.96	1.287E+00	Pulse	0.30	3
Ni			2	176.588	ug/l	1.50	83,490.82	4.651E-01	Pulse	0.30	3
Cu			2	600.735	ug/l	1.93	763,500.26	4.254E+00	Pulse	0.30	3
Zn			2	149.162	ug/l	1.93	25,122.68	1.400E-01	Pulse	0.30	3
As			2	5.881	ug/l	6.23	520.01	2.897E-03	Pulse	1.00	3
Cd			2	0.239	ug/l	17.33	58.79	6.333E-05	Pulse	0.30	3
Sn			2	14.308	ug/l	2.82	6,722.64	7.247E-03	Pulse	0.30	3
Se			3	1.869	ug/l	7.94	45.33	2.228E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,109,794.68	0.58	93.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,391,930.32	1.49	109.2	Analog	0.10	3
1	Ge		1,118,123.11	0.87	102.7	Pulse	0.10	3
1	Ge		1,522,227.11	1.33	101.1	Pulse	0.10	3
1	Rh		7,652,744.89	0.20	100.6	Analog	0.10	3
1	In		8,384,342.87	1.12	102.8	Analog	0.10	3
1	Tb		10,739,781.92	1.06	103.9	Analog	0.10	3
1	Ho		1,033,549.49	1.06	103.9	Pulse	0.10	3
1	Bi		5,967,100.95	1.20	98.3	Analog	0.10	3
2	Sc		179,533.39	1.72	108.6	Pulse	0.30	3
2	Ge		99,551.82	0.84	94.8	Pulse	0.30	3
2	Ge		148,019.15	1.40	94.1	Pulse	0.30	3
2	Rh		3,088,083.42	1.21	96.5	Pulse	0.30	3
2	In		927,549.10	1.12	95.6	Pulse	0.30	3
2	Tb		3,725,908.60	3.65	96.7	Mix	0.30	3
2	Ho		374,604.25	1.26	97.5	Pulse	0.30	3
2	Bi		2,404,993.31	0.71	92.9	Pulse	0.30	3
3	Sc		237,413.23	0.24	110.6	Pulse	0.30	3
3	Ge		135,893.70	0.05	99.5	Pulse	0.30	3
3	Ge		203,477.35	0.30	99.2	Pulse	0.30	3
3	Rh		2,341,834.70	0.15	98.3	Pulse	0.30	3
3	Tb		3,578,816.80	0.14	98.4	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 13:58
Sample Name mp13123-sd1
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	3.055	ug/l	14.16	800.03	2.523E-04	Pulse	0.25	3
B			1	39.773	ug/l	6.54	16,922.16	5.332E-03	Pulse	0.15	3
Ca			1	37313.383	ug/l	0.82	1,438,571.38	2.318E-01	Pulse	0.10	3
Sr			1	94.315	ug/l	0.44	176,191.41	2.201E-02	Pulse	0.10	3
Mo			1	1.246	ug/l	32.70	530.03	6.633E-05	Pulse	0.10	3
Ag			1	0.141	ug/l	14.06	170.01	1.982E-05	Pulse	0.10	3
Sn			1	2.823	ug/l	27.82	11,297.76	1.317E-03	Pulse	0.10	3
Sb			1	1.282	ug/l	1.89	900.07	8.284E-05	Pulse	0.10	3
Ba			1	613.798	ug/l	0.48	151,570.20	1.395E-02	Pulse	0.10	3
Tl			1	0.606	ug/l	8.21	1,273.44	2.038E-04	Pulse	0.10	3
Pb			1	8.735	ug/l	2.99	4,734.27	7.580E-04	Pulse	0.10	3
Pb			1	8.648	ug/l	6.15	4,197.42	6.717E-04	Pulse	0.10	3
Pb			1	8.388	ug/l	1.63	18,651.95	2.986E-03	Pulse	0.10	3
Na			2	3786.947	ug/l	4.66	129,902.52	7.271E-01	Pulse	0.30	3
Mg			2	31558.713	ug/l	4.69	486,971.46	2.726E+00	Pulse	0.30	3
Al			2	214100.360	ug/l	4.47	1,016,320.72	5.689E+00	Pulse	0.30	3
K			2	2807.895	ug/l	5.66	33,079.44	1.852E-01	Pulse	0.30	3
Ca			2	36413.814	ug/l	3.90	19,006.52	1.064E-01	Pulse	0.30	3
Ti			2	4749.404	ug/l	6.47	19,648.39	1.100E-01	Pulse	0.30	3
V			2	412.452	ug/l	4.92	59,239.50	3.316E-01	Pulse	0.30	3
Cr			2	263.611	ug/l	4.84	50,494.32	2.827E-01	Pulse	0.30	3
Mn			2	2415.596	ug/l	5.10	219,471.28	1.229E+00	Pulse	0.30	3
Fe			2	147724.287	ug/l	5.67	23,603,857.95	1.322E+02	Analog	0.30	3
Co			2	139.554	ug/l	5.16	47,479.13	2.658E-01	Pulse	0.30	3
Ni			2	184.151	ug/l	6.04	17,398.17	9.741E-02	Pulse	0.30	3
Cu			2	639.746	ug/l	5.10	162,835.27	9.116E-01	Pulse	0.30	3
Zn			2	158.879	ug/l	5.95	5,940.04	3.324E-02	Pulse	0.30	3
As			2	6.479	ug/l	23.82	124.00	6.957E-04	Pulse	1.00	3
Cd			2	0.133	ug/l	96.73	9.97	1.010E-05	Pulse	0.30	3
Sn			2	13.484	ug/l	11.92	1,831.24	1.885E-03	Pulse	0.30	3
Se			3	2.410	ug/l	14.25	14.47	6.922E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,173,997.78	1.02	95.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,205,864.28	1.20	106.1	Analog	0.10	3
1	Ge		1,136,937.04	0.89	104.4	Pulse	0.10	3
1	Ge		1,568,438.93	1.11	104.1	Pulse	0.10	3
1	Rh		8,004,195.72	0.94	105.2	Analog	0.10	3
1	In		8,579,506.95	0.65	105.1	Analog	0.10	3
1	Tb		10,864,093.59	0.64	105.1	Analog	0.10	3
1	Ho		1,037,996.47	0.61	104.3	Pulse	0.10	3
1	Bi		6,246,865.12	0.83	102.9	Analog	0.10	3
2	Sc		178,861.15	3.99	108.2	Pulse	0.30	3
2	Ge		104,616.11	2.82	99.6	Pulse	0.30	3
2	Ge		155,893.49	3.18	99.1	Pulse	0.30	3
2	Rh		3,281,949.94	4.01	102.5	Pulse	0.30	3
2	In		973,335.28	4.00	100.3	Pulse	0.30	3
2	Tb		3,889,115.12	6.07	100.9	Mix	0.30	3
2	Ho		386,188.61	4.32	100.5	Pulse	0.30	3
2	Bi		2,574,142.26	3.35	99.5	Pulse	0.30	3
3	Sc		228,536.79	1.08	106.4	Pulse	0.30	3
3	Ge		140,819.54	0.52	103.1	Pulse	0.30	3
3	Ge		208,940.20	0.82	101.9	Pulse	0.30	3
3	Rh		2,455,922.33	1.09	103.1	Pulse	0.30	3
3	Tb		3,696,746.52	1.26	101.6	Pulse	0.30	3

Quantitation Report

File Name	043SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 14:03
Sample Name	jc84266-4
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	2.577	ug/l	5.54	1,325.41	4.192E-04	Pulse	0.25	3
B			1	20.015	ug/l	3.96	16,924.33	5.353E-03	Pulse	0.15	3
Ca			1	21946.554	ug/l	0.64	1,728,155.55	2.722E-01	Pulse	0.10	3
Sr			1	81.133	ug/l	2.06	300,106.50	3.778E-02	Pulse	0.10	3
Mo			1	3.953	ug/l	4.11	2,880.37	3.623E-04	Pulse	0.10	3
Ag			1	0.607	ug/l	4.92	1,163.42	1.355E-04	Pulse	0.10	3
Sn			1	20.855	ug/l	2.87	33,028.79	3.846E-03	Pulse	0.10	3
Sb			1	1.068	ug/l	19.99	1,400.11	1.294E-04	Pulse	0.10	3
Ba			1	379.544	ug/l	0.84	186,731.28	1.725E-02	Pulse	0.10	3
Tl			1	0.800	ug/l	12.29	2,707.01	4.386E-04	Pulse	0.10	3
Pb			1	1822.783	ug/l	0.19	1,745,832.01	2.828E-01	Pulse	0.10	3
Pb			1	1702.101	ug/l	0.91	1,462,936.28	2.369E-01	Pulse	0.10	3
Pb			1	1752.852	ug/l	0.24	6,841,057.82	1.108E+00	Pulse	0.10	3
Na			2	1455.709	ug/l	0.65	100,436.70	5.677E-01	Pulse	0.30	3
Mg			2	6233.086	ug/l	1.15	190,576.09	1.077E+00	Pulse	0.30	3
Al			2	73141.957	ug/l	1.02	687,665.51	3.887E+00	Pulse	0.30	3
K			2	2772.149	ug/l	0.30	57,615.31	3.257E-01	Pulse	0.30	3
Ca			2	22502.988	ug/l	3.06	23,239.68	1.314E-01	Pulse	0.30	3
Ti			2	853.892	ug/l	2.86	6,999.46	3.957E-02	Pulse	0.30	3
V			2	391.999	ug/l	0.90	111,185.01	6.285E-01	Pulse	0.30	3
Cr			2	357.132	ug/l	0.12	133,820.13	7.564E-01	Pulse	0.30	3
Mn			2	639.742	ug/l	0.55	115,171.41	6.510E-01	Pulse	0.30	3
Fe			2	133662.152	ug/l	1.13	42,310,539.43	2.392E+02	Analog	0.30	3
Co			2	24.166	ug/l	3.11	16,353.79	9.245E-02	Pulse	0.30	3
Ni			2	35.167	ug/l	2.56	6,636.96	3.751E-02	Pulse	0.30	3
Cu			2	184.652	ug/l	0.73	93,639.63	5.293E-01	Pulse	0.30	3
Zn			2	482.634	ug/l	1.60	31,820.96	1.799E-01	Pulse	0.30	3
As			2	30.860	ug/l	0.51	1,061.37	5.999E-03	Pulse	1.00	3
Cd			2	1.233	ug/l	14.99	119.88	1.269E-04	Pulse	0.30	3
Sn			2	27.024	ug/l	1.47	5,317.63	5.631E-03	Pulse	0.30	3
Se			3	4.943	ug/l	3.62	49.47	2.348E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,161,779.58	0.16	95.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,348,663.66	0.62	108.5	Analog	0.10	3
1	Ge		1,139,236.91	0.70	104.6	Pulse	0.10	3
1	Ge		1,558,589.87	0.94	103.5	Pulse	0.10	3
1	Rh		7,945,437.59	1.80	104.5	Analog	0.10	3
1	In		8,586,091.28	1.60	105.2	Analog	0.10	3
1	Tb		10,823,199.01	0.95	104.8	Analog	0.10	3
1	Ho		1,036,972.61	1.28	104.2	Pulse	0.10	3
1	Bi		6,174,086.16	0.62	101.7	Analog	0.10	3
2	Sc		176,923.35	0.64	107.0	Pulse	0.30	3
2	Ge		102,015.06	0.17	97.1	Pulse	0.30	3
2	Ge		151,569.65	0.54	96.3	Pulse	0.30	3
2	Rh		3,179,747.37	0.17	99.3	Pulse	0.30	3
2	In		944,290.87	0.14	97.3	Pulse	0.30	3
2	Tb		3,735,248.46	0.18	96.9	Pulse	0.30	3
2	Ho		377,018.49	0.35	98.1	Pulse	0.30	3
2	Bi		2,501,708.72	0.24	96.7	Pulse	0.30	3
3	Sc		235,194.64	0.58	109.5	Pulse	0.30	3
3	Ge		141,936.81	0.17	103.9	Pulse	0.30	3
3	Ge		210,700.00	0.22	102.7	Pulse	0.30	3
3	Rh		2,457,018.93	0.33	103.2	Pulse	0.30	3
3	Tb		3,727,034.99	0.33	102.4	Pulse	0.30	3

Quantitation Report

File Name 044_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 14:08
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.208	ug/l	1.35	652,079.00	1.996E-01	Pulse	0.25	3
B			1	100.365	ug/l	1.44	1,299,224.39	3.978E-01	Pulse	0.15	3
Ca			1	4966.636	ug/l	2.28	9,591,731.73	1.527E+00	Analog	0.10	3
Sr			1	51.155	ug/l	1.79	4,650,229.93	5.936E-01	Pulse	0.10	3
Mo			1	51.848	ug/l	1.76	902,722.88	1.152E-01	Pulse	0.10	3
Ag			1	48.812	ug/l	1.12	2,266,386.89	2.630E-01	Pulse	0.10	3
Sn			1	49.295	ug/l	0.98	1,391,431.54	1.614E-01	Pulse	0.10	3
Sb			1	51.310	ug/l	1.00	1,541,960.81	1.399E-01	Pulse	0.10	3
Ba			1	49.263	ug/l	0.70	616,965.01	5.597E-02	Pulse	0.10	3
Tl			1	49.562	ug/l	1.09	3,559,297.24	5.858E-01	Pulse	0.10	3
Pb			1	51.323	ug/l	0.90	1,209,451.49	1.991E-01	Pulse	0.10	3
Pb			1	50.232	ug/l	1.01	1,062,216.83	1.748E-01	Pulse	0.10	3
Pb			1	50.523	ug/l	0.81	4,851,460.11	7.985E-01	Pulse	0.10	3
Na			2	4945.731	ug/l	1.47	7,773,573.86	4.507E+01	Analog	0.30	3
Mg			2	4689.489	ug/l	0.91	3,492,659.31	2.025E+01	Pulse	0.30	3
Al			2	4804.956	ug/l	0.43	1,101,078.19	6.384E+00	Pulse	0.30	3
K			2	4890.005	ug/l	0.53	2,172,417.62	1.259E+01	Pulse	0.30	3
Ca			2	5204.029	ug/l	0.43	130,615.39	7.572E-01	Pulse	0.30	3
Ti			2	50.591	ug/l	2.11	10,108.71	5.860E-02	Pulse	0.30	3
V			2	50.308	ug/l	0.74	346,968.86	2.012E+00	Pulse	0.30	3
Cr			2	49.838	ug/l	0.47	452,771.73	2.625E+00	Pulse	0.30	3
Mn			2	49.132	ug/l	0.78	215,527.76	1.250E+00	Pulse	0.30	3
Fe			2	4874.103	ug/l	1.31	37,604,495.17	2.180E+02	Analog	0.30	3
Co			2	49.237	ug/l	0.92	807,104.92	4.679E+00	Pulse	0.30	3
Ni			2	48.843	ug/l	0.76	221,750.32	1.286E+00	Pulse	0.30	3
Cu			2	47.968	ug/l	0.27	586,098.19	3.398E+00	Pulse	0.30	3
Zn			2	47.723	ug/l	1.33	75,591.82	4.382E-01	Pulse	0.30	3
As			2	48.902	ug/l	0.52	40,502.54	2.348E-01	Pulse	1.00	3
Cd			2	49.646	ug/l	0.25	117,125.78	1.243E-01	Pulse	0.30	3
Sn			2	49.763	ug/l	0.19	217,137.60	2.304E-01	Pulse	0.30	3
Se			3	196.986	ug/l	0.90	44,974.91	2.181E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,266,540.54	1.10	98.6	Pulse	0.10	3
1	Sc		6,281,678.03	1.53	107.4	Analog	0.10	3
1	Ge		1,142,080.14	0.41	104.9	Pulse	0.10	3

Quantitation Report

1	Ge		1,595,193.88	1.20	105.9	Pulse	0.10	3
1	Rh		7,834,494.26	0.98	103.0	Analog	0.10	3
1	In		8,619,169.42	1.56	105.6	Analog	0.10	3
1	Tb		11,022,924.42	0.77	106.7	Analog	0.10	3
1	Ho		1,042,754.59	0.66	104.8	Pulse	0.10	3
1	Bi		6,075,751.37	0.52	100.1	Analog	0.10	3
2	Sc		172,491.97	1.12	104.3	Pulse	0.30	3
2	Ge		101,190.18	0.54	96.3	Pulse	0.30	3
2	Ge		152,404.64	0.55	96.9	Pulse	0.30	3
2	Rh		3,117,872.58	0.77	97.4	Pulse	0.30	3
2	In		942,323.47	0.35	97.1	Pulse	0.30	3
2	Tb		3,739,367.91	0.52	97.0	Pulse	0.30	3
2	Ho		373,868.22	0.25	97.3	Pulse	0.30	3
2	Bi		2,422,856.15	0.31	93.6	Pulse	0.30	3
3	Sc		222,614.84	0.82	103.7	Pulse	0.30	3
3	Ge		136,622.47	0.44	100.0	Pulse	0.30	3
3	Ge		206,191.85	0.76	100.5	Pulse	0.30	3
3	Rh		2,366,639.49	0.16	99.4	Pulse	0.30	3
3	Tb		3,658,911.38	0.40	100.6	Pulse	0.30	3

Quantitation Report

File Name 045_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 14:13
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	18.59	85.33	2.552E-05	Pulse	0.25	3
B			1	1.115	ug/l	1.56	22,043.50	6.592E-03	Pulse	0.15	3
Ca			1	-0.253	ug/l	-97.99	17,089.40	2.675E-03	Pulse	0.10	3
Sr			1	0.005	ug/l	47.67	1,540.14	1.856E-04	Pulse	0.10	3
Mo			1	0.060	ug/l	10.24	1,203.43	1.452E-04	Pulse	0.10	3
Ag			1	0.009	ug/l	9.48	496.70	5.536E-05	Pulse	0.10	3
Sn			1	-0.160	ug/l	-1.04	5,504.53	6.136E-04	Pulse	0.10	3
Sb			1	0.071	ug/l	9.24	2,320.25	2.059E-04	Pulse	0.10	3
Ba			1	0.004	ug/l	8.26	103.34	9.173E-06	Pulse	0.10	3
Tl			1	0.015	ug/l	5.91	1,560.14	2.404E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	29.01	1,056.75	1.627E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	17.63	876.72	1.352E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	8.32	4,303.76	6.633E-04	Pulse	0.10	3
Na			2	5.343	ug/l	4.41	15,228.06	8.613E-02	Pulse	0.30	3
Mg			2	0.479	ug/l	14.72	482.23	2.729E-03	Pulse	0.30	3
Al			2	0.709	ug/l	10.02	204.45	1.157E-03	Pulse	0.30	3
K			2	0.077	ug/l	347.50	7,281.68	4.118E-02	Pulse	0.30	3
Ca			2	0.358	ug/l	263.86	92.22	5.208E-04	Pulse	0.30	3
Ti			2	0.016	ug/l	173.21	3.33	1.901E-05	Pulse	0.30	3
V			2	0.003	ug/l	82.02	395.56	2.237E-03	Pulse	0.30	3
Cr			2	0.014	ug/l	46.22	1,111.16	6.284E-03	Pulse	0.30	3
Mn			2	0.008	ug/l	49.08	94.45	5.339E-04	Pulse	0.30	3
Fe			2	0.828	ug/l	3.69	9,863.05	5.578E-02	Pulse	0.30	3
Co			2	0.002	ug/l	171.29	145.56	8.237E-04	Pulse	0.30	3
Ni			2	0.002	ug/l	294.20	97.78	5.537E-04	Pulse	0.30	3
Cu			2	0.010	ug/l	35.07	1,400.08	7.917E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.025	ug/l	146.10	808.92	4.576E-03	Pulse	0.30	3
As			2	0.006	ug/l	108.31	18.00	1.019E-04	Pulse	1.00	3
Cd			2	0.006	ug/l	13.77	17.72	1.801E-05	Pulse	0.30	3
Sn			2	0.072	ug/l	25.22	957.82	9.737E-04	Pulse	0.30	3
Se			3	0.064	ug/l	13.90	18.67	8.622E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,344,071.54	1.13	101.0	Pulse	0.10	3
1	Sc		6,392,172.82	2.77	109.2	Analog	0.10	3
1	Ge		1,168,671.36	0.77	107.3	Pulse	0.10	3
1	Ge		1,617,923.99	1.38	107.4	Pulse	0.10	3
1	Rh		8,292,118.62	1.84	109.0	Analog	0.10	3
1	In		8,971,095.98	0.56	109.9	Analog	0.10	3
1	Tb		11,259,962.75	1.71	109.0	Analog	0.10	3
1	Ho		1,055,394.28	1.30	106.0	Pulse	0.10	3
1	Bi		6,488,815.32	1.59	106.9	Analog	0.10	3
2	Sc		176,819.24	0.79	106.9	Pulse	0.30	3
2	Ge		104,448.06	0.90	99.4	Pulse	0.30	3
2	Ge		157,759.72	0.37	100.3	Pulse	0.30	3
2	Rh		3,286,599.17	0.09	102.7	Pulse	0.30	3
2	In		983,869.68	0.26	101.4	Pulse	0.30	3
2	Tb		3,820,315.13	0.14	99.1	Pulse	0.30	3
2	Ho		379,318.71	0.13	98.7	Pulse	0.30	3
2	Bi		2,567,295.87	0.27	99.2	Pulse	0.30	3
3	Sc		231,544.94	0.66	107.8	Pulse	0.30	3
3	Ge		144,366.62	0.78	105.7	Pulse	0.30	3
3	Ge		216,411.58	0.52	105.5	Pulse	0.30	3
3	Rh		2,554,049.48	0.42	107.3	Pulse	0.30	3
3	Tb		3,832,888.18	0.44	105.4	Pulse	0.30	3

Quantitation Report

File Name 046SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 14:18
Sample Name jc84266-18
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.458	ug/l	3.17	2,362.87	7.184E-04	Pulse	0.25	3
B			1	244.104	ug/l	0.59	133,795.16	4.068E-02	Pulse	0.15	3
Ca			1	107882.492	ug/l	0.59	8,409,635.50	1.327E+00	Analog	0.10	3
Sr			1	269.412	ug/l	0.84	983,950.01	1.252E-01	Pulse	0.10	3
Mo			1	11.106	ug/l	3.46	7,848.89	9.982E-04	Pulse	0.10	3
Ag			1	1.305	ug/l	9.35	2,433.62	2.859E-04	Pulse	0.10	3
Sn			1	69.475	ug/l	3.05	86,554.96	1.017E-02	Pulse	0.10	3
Sb			1	5.226	ug/l	4.36	6,301.50	5.829E-04	Pulse	0.10	3
Ba			1	770.094	ug/l	0.95	378,407.49	3.500E-02	Pulse	0.10	3
Tl			1	1.112	ug/l	8.06	3,610.58	5.862E-04	Pulse	0.10	3
Pb			1	2277.788	ug/l	1.89	2,174,417.57	3.533E-01	Pulse	0.10	3
Pb			1	2147.370	ug/l	1.82	1,839,505.70	2.989E-01	Pulse	0.10	3
Pb			1	2207.772	ug/l	1.56	8,588,056.85	1.395E+00	Pulse	0.10	3
Na			2	8649.165	ug/l	0.32	562,612.22	3.188E+00	Pulse	0.30	3
Mg			2	51099.063	ug/l	0.50	1,557,816.29	8.826E+00	Pulse	0.30	3
Al			2	163575.645	ug/l	0.59	1,534,209.56	8.693E+00	Pulse	0.30	3
K			2	8204.181	ug/l	0.40	155,928.60	8.835E-01	Pulse	0.30	3
Ca			2	107355.347	ug/l	0.57	110,296.68	6.249E-01	Pulse	0.30	3
Ti			2	4746.284	ug/l	0.35	38,815.23	2.199E-01	Pulse	0.30	3
V			2	601.846	ug/l	0.53	170,096.54	9.637E-01	Pulse	0.30	3
Cr			2	248.792	ug/l	0.31	93,296.80	5.286E-01	Pulse	0.30	3
Mn			2	4256.444	ug/l	0.54	764,105.89	4.329E+00	Pulse	0.30	3
Fe			2	213057.274	ug/l	0.40	67,280,939.55	3.812E+02	Analog	0.30	3
Co			2	144.447	ug/l	0.74	97,009.22	5.496E-01	Pulse	0.30	3
Ni			2	211.996	ug/l	0.70	39,467.24	2.236E-01	Pulse	0.30	3
Cu			2	748.742	ug/l	0.23	374,920.78	2.124E+00	Pulse	0.30	3
Zn			2	2263.194	ug/l	1.21	146,035.09	8.274E-01	Pulse	0.30	3
As			2	37.320	ug/l	1.53	1,277.72	7.239E-03	Pulse	1.00	3
Cd			2	8.986	ug/l	9.45	856.36	9.033E-04	Pulse	0.30	3
Sn			2	73.435	ug/l	1.99	13,462.53	1.420E-02	Pulse	0.30	3
Se			3	8.984	ug/l	4.58	86.13	4.138E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,288,887.50	0.49	99.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,335,600.32	0.31	108.3	Analog	0.10	3
1	Ge		1,137,736.94	0.59	104.5	Pulse	0.10	3
1	Ge		1,558,307.22	0.38	103.5	Pulse	0.10	3
1	Rh		7,862,155.71	0.40	103.4	Analog	0.10	3
1	In		8,512,145.83	2.00	104.3	Analog	0.10	3
1	Tb		10,812,161.92	1.22	104.6	Analog	0.10	3
1	Ho		1,036,030.58	0.33	104.1	Pulse	0.10	3
1	Bi		6,155,087.83	1.55	101.4	Analog	0.10	3
2	Sc		176,496.37	0.06	106.8	Pulse	0.30	3
2	Ge		101,964.26	1.51	97.0	Pulse	0.30	3
2	Ge		151,690.58	1.25	96.4	Pulse	0.30	3
2	Rh		3,147,480.78	0.28	98.3	Pulse	0.30	3
2	In		947,785.90	0.39	97.7	Pulse	0.30	3
2	Tb		3,714,472.07	0.50	96.4	Pulse	0.30	3
2	Ho		373,990.93	0.47	97.4	Pulse	0.30	3
2	Bi		2,453,514.69	0.39	94.8	Pulse	0.30	3
3	Sc		230,107.61	0.22	107.2	Pulse	0.30	3
3	Ge		139,380.62	0.11	102.1	Pulse	0.30	3
3	Ge		208,193.58	0.63	101.5	Pulse	0.30	3
3	Rh		2,426,642.40	0.53	101.9	Pulse	0.30	3
3	Tb		3,694,363.60	0.52	101.5	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 14:23
Sample Name mp13155-mb1conf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	19.09	68.00	1.999E-05	Pulse	0.25	3
B			1	0.896	ug/l	4.00	19,464.87	5.729E-03	Pulse	0.15	3
Ca			1	4.807	ug/l	11.21	27,199.90	4.228E-03	Pulse	0.10	3
Sr			1	0.013	ug/l	10.82	2,240.26	2.749E-04	Pulse	0.10	3
Mo			1	0.032	ug/l	31.02	666.71	8.148E-05	Pulse	0.10	3
Ag			1	0.014	ug/l	31.74	680.04	7.818E-05	Pulse	0.10	3
Sn			1	-0.242	ug/l	-4.00	3,010.40	3.450E-04	Pulse	0.10	3
Sb			1	0.037	ug/l	4.51	1,260.10	1.139E-04	Pulse	0.10	3
Ba			1	0.023	ug/l	27.25	340.01	3.073E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	52.09	536.70	8.394E-05	Pulse	0.10	3
Pb			1	0.055	ug/l	13.38	1,883.54	2.958E-04	Pulse	0.10	3
Pb			1	0.051	ug/l	13.19	1,583.48	2.480E-04	Pulse	0.10	3
Pb			1	0.051	ug/l	2.22	7,237.65	1.135E-03	Pulse	0.10	3
Na			2	6.842	ug/l	5.23	17,803.90	9.978E-02	Pulse	0.30	3
Mg			2	0.867	ug/l	9.64	784.47	4.401E-03	Pulse	0.30	3
Al			2	1.593	ug/l	5.52	416.68	2.332E-03	Pulse	0.30	3
K			2	0.998	ug/l	125.48	7,762.99	4.355E-02	Pulse	0.30	3
Ca			2	3.805	ug/l	22.64	182.23	1.022E-03	Pulse	0.30	3
Ti			2	0.210	ug/l	14.14	43.34	2.430E-04	Pulse	0.30	3
V			2	-0.001	ug/l	-409.78	375.56	2.100E-03	Pulse	0.30	3
Cr			2	0.053	ug/l	15.12	1,490.09	8.355E-03	Pulse	0.30	3
Mn			2	0.054	ug/l	13.74	306.67	1.721E-03	Pulse	0.30	3
Fe			2	2.398	ug/l	3.57	22,484.35	1.260E-01	Pulse	0.30	3
Co			2	0.002	ug/l	106.25	141.12	7.887E-04	Pulse	0.30	3
Ni			2	0.014	ug/l	66.30	155.56	8.761E-04	Pulse	0.30	3
Cu			2	0.028	ug/l	27.61	1,632.33	9.135E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.724	ug/l	14.19	1,949.02	1.093E-02	Pulse	0.30	3
As			2	0.011	ug/l	36.37	22.67	1.266E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	21.30	11.08	1.108E-05	Pulse	0.30	3
Sn			2	-0.030	ug/l	-46.09	498.91	5.007E-04	Pulse	0.30	3
Se			3	0.011	ug/l	22.33	6.40	2.858E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,398,109.32	1.81	102.6	Pulse	0.10	3
1	Sc		6,441,270.11	5.21	110.1	Analog	0.10	3
1	Ge		1,175,438.47	1.91	108.0	Pulse	0.10	3
1	Ge		1,621,427.58	2.79	107.6	Pulse	0.10	3
1	Rh		8,153,151.75	2.41	107.2	Analog	0.10	3
1	In		8,727,102.93	1.71	107.0	Analog	0.10	3
1	Tb		11,059,900.25	2.16	107.0	Analog	0.10	3
1	Ho		1,044,692.12	3.38	105.0	Pulse	0.10	3
1	Bi		6,377,589.07	3.01	105.1	Analog	0.10	3
2	Sc		178,554.50	3.33	108.0	Pulse	0.30	3
2	Ge		106,832.90	1.98	101.7	Pulse	0.30	3
2	Ge		160,066.97	1.03	101.7	Pulse	0.30	3
2	Rh		3,321,642.72	2.50	103.8	Pulse	0.30	3
2	In		997,330.86	2.60	102.8	Pulse	0.30	3
2	Tb		3,859,529.43	2.09	100.1	Pulse	0.30	3
2	Ho		384,504.89	2.49	100.1	Pulse	0.30	3
2	Bi		2,609,947.81	1.90	100.8	Pulse	0.30	3
3	Sc		239,891.31	3.71	111.7	Pulse	0.30	3
3	Ge		149,551.02	3.15	109.5	Pulse	0.30	3
3	Ge		223,876.41	2.20	109.2	Pulse	0.30	3
3	Rh		2,653,611.70	3.94	111.4	Pulse	0.30	3
3	Tb		3,960,947.90	3.67	108.9	Pulse	0.30	3

Quantitation Report

File Name 048SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 14:28
Sample Name mp13155-b1conf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	80.623	ug/l	1.85	1,059,571.46	3.206E-01	Pulse	0.25	3
B			1	79.622	ug/l	2.67	1,044,428.33	3.160E-01	Pulse	0.15	3
Ca			1	2035.446	ug/l	3.26	3,954,745.78	6.275E-01	Pulse	0.10	3
Sr			1	83.590	ug/l	3.06	7,758,032.17	9.699E-01	Analog	0.10	3
Mo			1	78.359	ug/l	3.57	1,392,867.22	1.741E-01	Pulse	0.10	3
Ag			1	79.193	ug/l	3.56	3,688,585.26	4.267E-01	Pulse	0.10	3
Sn			1	76.225	ug/l	3.06	2,153,194.24	2.490E-01	Pulse	0.10	3
Sb			1	80.700	ug/l	4.13	2,429,720.17	2.200E-01	Pulse	0.10	3
Ba			1	79.738	ug/l	4.29	1,000,446.21	9.060E-02	Pulse	0.10	3
Tl			1	81.934	ug/l	3.86	6,081,379.08	9.684E-01	Analog	0.10	3
Pb			1	80.490	ug/l	2.20	1,960,772.47	3.122E-01	Pulse	0.10	3
Pb			1	79.447	ug/l	2.61	1,736,564.14	2.765E-01	Pulse	0.10	3
Pb			1	80.078	ug/l	2.83	7,947,742.69	1.265E+00	Pulse	0.10	3
Na			2	1987.232	ug/l	0.65	3,128,027.37	1.813E+01	Pulse	0.30	3
Mg			2	1942.888	ug/l	1.16	1,447,342.86	8.390E+00	Pulse	0.30	3
Al			2	1972.759	ug/l	0.72	452,160.19	2.621E+00	Pulse	0.30	3
K			2	2013.681	ug/l	0.38	898,900.69	5.211E+00	Pulse	0.30	3
Ca			2	2528.990	ug/l	0.78	63,525.91	3.682E-01	Pulse	0.30	3
Ti			2	78.582	ug/l	2.95	15,704.20	9.103E-02	Pulse	0.30	3
V			2	81.251	ug/l	0.84	560,256.71	3.248E+00	Pulse	0.30	3
Cr			2	80.642	ug/l	0.84	732,143.03	4.244E+00	Pulse	0.30	3
Mn			2	79.790	ug/l	0.82	350,043.69	2.029E+00	Pulse	0.30	3
Fe			2	2017.641	ug/l	0.73	15,571,983.83	9.026E+01	Analog	0.30	3
Co			2	80.108	ug/l	0.80	1,313,329.22	7.613E+00	Pulse	0.30	3
Ni			2	79.289	ug/l	1.52	359,966.58	2.087E+00	Pulse	0.30	3
Cu			2	78.688	ug/l	0.84	960,796.49	5.569E+00	Pulse	0.30	3
Zn			2	78.336	ug/l	0.75	123,616.07	7.166E-01	Pulse	0.30	3
As			2	76.228	ug/l	1.15	63,135.93	3.660E-01	Pulse	1.00	3
Cd			2	81.367	ug/l	0.98	192,279.83	2.037E-01	Pulse	0.30	3
Sn			2	76.892	ug/l	0.71	335,744.64	3.557E-01	Pulse	0.30	3
Se			3	195.615	ug/l	0.75	44,621.67	2.166E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,306,041.91	1.88	99.8	Pulse	0.10	3
1	Sc		6,306,431.15	3.24	107.8	Analog	0.10	3
1	Ge		1,148,863.81	2.62	105.5	Pulse	0.10	3

Quantitation Report

1	Ge		1,604,341.17	2.48	106.5	Pulse	0.10	3
1	Rh		8,003,748.63	2.99	105.2	Analog	0.10	3
1	In		8,652,290.61	3.38	106.0	Analog	0.10	3
1	Tb		11,056,611.08	4.31	107.0	Analog	0.10	3
1	Ho		1,046,403.16	3.38	105.1	Pulse	0.10	3
1	Bi		6,284,084.28	2.88	103.5	Analog	0.10	3
2	Sc		172,516.71	0.69	104.3	Pulse	0.30	3
2	Ge		101,674.53	0.86	96.8	Pulse	0.30	3
2	Ge		152,426.50	0.74	96.9	Pulse	0.30	3
2	Rh		3,118,693.77	0.75	97.4	Pulse	0.30	3
2	In		943,895.00	0.30	97.3	Pulse	0.30	3
2	Tb		3,730,032.35	1.02	96.8	Pulse	0.30	3
2	Ho		374,885.83	0.53	97.6	Pulse	0.30	3
2	Bi		2,463,126.85	0.86	95.2	Pulse	0.30	3
3	Sc		221,090.28	0.99	103.0	Pulse	0.30	3
3	Ge		137,878.12	1.08	101.0	Pulse	0.30	3
3	Ge		206,002.61	0.77	100.4	Pulse	0.30	3
3	Rh		2,399,279.98	1.52	100.8	Pulse	0.30	3
3	Tb		3,690,860.41	1.36	101.5	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 14:33
Sample Name mp13155-s1 1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	85.806	ug/l	6.26	205,236.73	6.824E-02	Pulse	0.25	3
B			1	167.103	ug/l	6.42	402,748.15	1.339E-01	Pulse	0.15	3
Ca			1	25626.554	ug/l	4.71	8,932,228.20	1.576E+00	Analog	0.10	3
Sr			1	191.979	ug/l	6.49	3,224,825.79	4.456E-01	Pulse	0.10	3
Mo			1	109.191	ug/l	6.90	351,264.02	4.854E-02	Pulse	0.10	3
Ag			1	84.412	ug/l	6.08	719,323.04	9.096E-02	Pulse	0.10	3
Sn			1	81.473	ug/l	6.30	428,028.42	5.413E-02	Pulse	0.10	3
Sb			1	87.615	ug/l	6.25	483,060.56	4.778E-02	Pulse	0.10	3
Ba			1	124.328	ug/l	6.64	285,589.11	2.825E-02	Pulse	0.10	3
Tl			1	83.855	ug/l	6.60	1,139,871.78	1.983E-01	Pulse	0.10	3
Pb			1	86.210	ug/l	6.43	384,823.43	6.693E-02	Pulse	0.10	3
Pb			1	85.097	ug/l	7.00	340,755.36	5.928E-02	Pulse	0.10	3
Pb			1	85.121	ug/l	6.21	1,548,381.57	2.693E-01	Pulse	0.10	3
Na			2	36964.008	ug/l	0.40	11,189,573.72	6.735E+01	Analog	0.30	3
Mg			2	13542.400	ug/l	0.69	1,943,037.22	1.170E+01	Pulse	0.30	3
Al			2	2156.318	ug/l	1.74	95,213.32	5.731E-01	Pulse	0.30	3
K			2	19208.121	ug/l	0.48	1,645,279.76	9.903E+00	Pulse	0.30	3
Ca			2	24844.872	ug/l	0.81	120,120.01	7.230E-01	Pulse	0.30	3
Ti			2	83.545	ug/l	2.73	3,215.90	1.936E-02	Pulse	0.30	3
V			2	88.939	ug/l	1.50	118,389.77	7.127E-01	Pulse	0.30	3
Cr			2	84.415	ug/l	1.32	148,339.13	8.929E-01	Pulse	0.30	3
Mn			2	330.395	ug/l	1.40	279,168.74	1.680E+00	Pulse	0.30	3
Fe			2	4476.750	ug/l	1.76	6,655,894.32	4.007E+01	Analog	0.30	3
Co			2	86.770	ug/l	1.28	274,055.71	1.650E+00	Pulse	0.30	3
Ni			2	95.833	ug/l	0.83	83,862.79	5.048E-01	Pulse	0.30	3
Cu			2	88.921	ug/l	1.04	210,035.94	1.264E+00	Pulse	0.30	3
Zn			2	96.980	ug/l	1.58	30,017.54	1.807E-01	Pulse	0.30	3
As			2	81.358	ug/l	0.88	12,988.17	7.818E-02	Pulse	1.00	3
Cd			2	81.522	ug/l	1.78	37,813.23	4.082E-02	Pulse	0.30	3
Sn			2	78.823	ug/l	0.34	68,026.74	7.343E-02	Pulse	0.30	3
Se			3	199.917	ug/l	1.29	8,991.60	4.429E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,014,516.81	5.64	91.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,678,097.63	5.85	97.0	Analog	0.10	3
1	Ge		1,055,383.16	5.92	96.9	Pulse	0.10	3
1	Ge		1,459,432.89	6.09	96.9	Pulse	0.10	3
1	Rh		7,257,993.85	6.54	95.4	Analog	0.10	3
1	In		7,927,198.72	5.88	97.2	Analog	0.10	3
1	Tb		10,137,193.60	6.58	98.1	Analog	0.10	3
1	Ho		964,261.16	7.30	96.9	Pulse	0.10	3
1	Bi		5,765,128.87	6.41	95.0	Analog	0.10	3
2	Sc		166,137.64	0.75	100.5	Pulse	0.30	3
2	Ge		99,542.42	0.77	94.7	Pulse	0.30	3
2	Ge		148,854.98	0.74	94.6	Pulse	0.30	3
2	Rh		3,043,849.33	0.86	95.1	Pulse	0.30	3
2	In		926,372.34	0.90	95.5	Pulse	0.30	3
2	Tb		3,682,927.08	1.13	95.6	Pulse	0.30	3
2	Ho		371,133.76	0.85	96.6	Pulse	0.30	3
2	Bi		2,412,903.72	0.44	93.2	Pulse	0.30	3
3	Sc		217,890.16	1.27	101.5	Pulse	0.30	3
3	Ge		134,970.83	0.33	98.8	Pulse	0.30	3
3	Ge		203,040.97	0.92	99.0	Pulse	0.30	3
3	Rh		2,349,599.00	1.08	98.7	Pulse	0.30	3
3	Tb		3,662,660.97	0.81	100.7	Pulse	0.30	3

Quantitation Report

File Name 050SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 14:38
Sample Name mp13155-s2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	83.295	ug/l	1.32	204,761.44	6.625E-02	Pulse	0.25	3
B			1	160.169	ug/l	1.09	397,033.08	1.285E-01	Pulse	0.15	3
Ca			1	23908.233	ug/l	0.37	8,811,902.79	1.470E+00	Analog	0.10	3
Sr			1	183.737	ug/l	0.88	3,234,129.74	4.264E-01	Pulse	0.10	3
Mo			1	105.049	ug/l	0.31	354,176.95	4.670E-02	Pulse	0.10	3
Ag			1	80.944	ug/l	1.44	725,011.97	8.722E-02	Pulse	0.10	3
Sn			1	78.013	ug/l	0.95	431,206.71	5.188E-02	Pulse	0.10	3
Sb			1	83.659	ug/l	1.63	484,426.01	4.563E-02	Pulse	0.10	3
Ba			1	117.721	ug/l	1.63	284,048.24	2.675E-02	Pulse	0.10	3
Tl			1	80.877	ug/l	1.04	1,147,625.97	1.912E-01	Pulse	0.10	3
Pb			1	83.437	ug/l	0.46	388,749.70	6.478E-02	Pulse	0.10	3
Pb			1	81.290	ug/l	0.95	339,858.99	5.663E-02	Pulse	0.10	3
Pb			1	82.612	ug/l	0.92	1,568,416.44	2.614E-01	Pulse	0.10	3
Na			2	36763.636	ug/l	0.96	11,152,041.22	6.699E+01	Analog	0.30	3
Mg			2	13417.620	ug/l	1.00	1,929,040.20	1.159E+01	Pulse	0.30	3
Al			2	2158.083	ug/l	1.40	95,488.15	5.736E-01	Pulse	0.30	3
K			2	19090.556	ug/l	0.92	1,638,569.94	9.843E+00	Pulse	0.30	3
Ca			2	24752.892	ug/l	0.87	119,920.85	7.204E-01	Pulse	0.30	3
Ti			2	81.405	ug/l	2.99	3,139.23	1.886E-02	Pulse	0.30	3
V			2	89.118	ug/l	1.51	118,869.86	7.141E-01	Pulse	0.30	3
Cr			2	84.031	ug/l	0.83	147,971.81	8.889E-01	Pulse	0.30	3
Mn			2	331.492	ug/l	1.23	280,679.30	1.686E+00	Pulse	0.30	3
Fe			2	4506.152	ug/l	0.17	6,713,871.96	4.033E+01	Analog	0.30	3
Co			2	86.713	ug/l	0.50	274,448.90	1.649E+00	Pulse	0.30	3
Ni			2	96.656	ug/l	0.54	84,760.61	5.091E-01	Pulse	0.30	3
Cu			2	90.095	ug/l	1.01	213,233.00	1.281E+00	Pulse	0.30	3
Zn			2	98.679	ug/l	0.34	30,596.37	1.838E-01	Pulse	0.30	3
As			2	81.434	ug/l	1.14	13,026.87	7.825E-02	Pulse	1.00	3
Cd			2	81.517	ug/l	0.75	37,714.24	4.082E-02	Pulse	0.30	3
Sn			2	78.904	ug/l	1.15	67,915.38	7.351E-02	Pulse	0.30	3
Se			3	205.704	ug/l	10.98	9,069.24	4.557E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,090,930.97	0.69	93.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,992,622.62	1.36	102.4	Analog	0.10	3
1	Ge		1,091,816.26	0.41	100.3	Pulse	0.10	3
1	Ge		1,512,226.28	0.49	100.4	Pulse	0.10	3
1	Rh		7,583,845.93	0.48	99.7	Analog	0.10	3
1	In		8,312,262.61	0.19	101.9	Analog	0.10	3
1	Tb		10,618,838.80	1.51	102.8	Analog	0.10	3
1	Ho		1,016,817.75	0.94	102.2	Pulse	0.10	3
1	Bi		6,001,078.87	0.29	98.9	Analog	0.10	3
2	Sc		166,479.26	0.82	100.7	Pulse	0.30	3
2	Ge		98,808.20	0.30	94.0	Pulse	0.30	3
2	Ge		147,605.95	0.66	93.8	Pulse	0.30	3
2	Rh		3,026,588.28	0.36	94.5	Pulse	0.30	3
2	In		923,910.66	0.16	95.2	Pulse	0.30	3
2	Tb		3,654,914.86	0.96	94.8	Pulse	0.30	3
2	Ho		366,051.44	0.71	95.3	Pulse	0.30	3
2	Bi		2,397,896.99	0.70	92.6	Pulse	0.30	3
3	Sc		215,086.06	14.08	100.2	Pulse	0.30	3
3	Ge		133,126.38	11.18	97.5	Pulse	0.30	3
3	Ge		200,553.67	10.50	97.8	Pulse	0.30	3
3	Rh		2,318,570.53	14.25	97.4	Pulse	0.30	3
3	Tb		3,667,367.50	15.20	100.8	Mix	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 14:43
Sample Name	jc84397-6
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.507	ug/l	5.48	1,257.40	4.128E-04	Pulse	0.25	3
B			1	79.370	ug/l	1.78	197,241.53	6.476E-02	Pulse	0.15	3
Ca			1	21900.882	ug/l	2.04	8,019,005.30	1.347E+00	Analog	0.10	3
Sr			1	99.802	ug/l	2.12	1,746,016.38	2.317E-01	Pulse	0.10	3
Mo			1	23.314	ug/l	3.27	78,163.89	1.037E-02	Pulse	0.10	3
Ag			1	0.066	ug/l	8.30	633.37	7.609E-05	Pulse	0.10	3
Sn			1	-0.833	ug/l	-4.72	4,930.97	5.915E-04	Pulse	0.10	3
Sb			1	1.158	ug/l	6.47	6,808.40	6.441E-04	Pulse	0.10	3
Ba			1	36.074	ug/l	2.41	86,734.92	8.202E-03	Pulse	0.10	3
Tl			1	0.137	ug/l	3.74	2,320.28	3.839E-04	Pulse	0.10	3
Pb			1	0.160	ug/l	23.39	1,240.11	2.049E-04	Pulse	0.10	3
Pb			1	0.118	ug/l	8.12	920.07	1.523E-04	Pulse	0.10	3
Pb			1	0.143	ug/l	15.68	4,767.19	7.883E-04	Pulse	0.10	3
Na			2	35018.378	ug/l	2.05	10,500,264.86	6.381E+01	Analog	0.30	3
Mg			2	11567.041	ug/l	0.71	1,644,015.87	9.990E+00	Pulse	0.30	3
Al			2	161.335	ug/l	2.49	7,089.35	4.308E-02	Pulse	0.30	3
K			2	17226.566	ug/l	0.95	1,462,330.29	8.886E+00	Pulse	0.30	3
Ca			2	22524.815	ug/l	1.66	107,880.87	6.556E-01	Pulse	0.30	3
Ti			2	0.642	ug/l	28.96	24.45	1.488E-04	Pulse	0.30	3
V			2	5.569	ug/l	3.32	7,671.85	4.662E-02	Pulse	0.30	3
Cr			2	1.860	ug/l	1.45	4,132.78	2.511E-02	Pulse	0.30	3
Mn			2	251.825	ug/l	0.92	210,797.64	1.281E+00	Pulse	0.30	3
Fe			2	2382.614	ug/l	1.01	3,510,647.08	2.133E+01	Pulse	0.30	3
Co			2	5.256	ug/l	1.62	16,535.08	1.005E-01	Pulse	0.30	3
Ni			2	15.497	ug/l	2.21	13,502.32	8.205E-02	Pulse	0.30	3
Cu			2	9.821	ug/l	2.02	24,032.09	1.460E-01	Pulse	0.30	3
Zn			2	18.772	ug/l	3.90	6,332.41	3.848E-02	Pulse	0.30	3
As			2	4.619	ug/l	2.25	742.02	4.508E-03	Pulse	1.00	3
Cd			2	0.118	ug/l	31.78	57.40	6.271E-05	Pulse	0.30	3
Sn			2	0.316	ug/l	16.32	853.37	9.316E-04	Pulse	0.30	3
Se			3	1.807	ug/l	2.08	83.60	4.160E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,045,907.26	1.36	92.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,953,811.37	2.14	101.7	Analog	0.10	3
1	Ge		1,091,408.99	1.62	100.3	Pulse	0.10	3
1	Ge		1,510,363.05	1.51	100.3	Pulse	0.10	3
1	Rh		7,538,036.14	2.25	99.1	Analog	0.10	3
1	In		8,331,897.45	1.92	102.1	Analog	0.10	3
1	Tb		10,578,587.55	1.98	102.4	Analog	0.10	3
1	Ho		1,009,641.70	1.44	101.4	Pulse	0.10	3
1	Bi		6,041,456.37	2.10	99.5	Analog	0.10	3
2	Sc		164,576.91	0.94	99.5	Pulse	0.30	3
2	Ge		98,333.97	1.01	93.6	Pulse	0.30	3
2	Ge		147,547.50	0.41	93.8	Pulse	0.30	3
2	Rh		3,013,526.96	0.58	94.1	Pulse	0.30	3
2	In		915,923.67	0.43	94.4	Pulse	0.30	3
2	Tb		3,630,021.38	1.20	94.2	Pulse	0.30	3
2	Ho		365,086.65	1.84	95.0	Pulse	0.30	3
2	Bi		2,383,194.76	1.06	92.1	Pulse	0.30	3
3	Sc		214,743.47	0.80	100.0	Pulse	0.30	3
3	Ge		135,302.85	0.07	99.1	Pulse	0.30	3
3	Ge		200,969.55	0.50	98.0	Pulse	0.30	3
3	Rh		2,340,054.28	0.22	98.3	Pulse	0.30	3
3	Tb		3,646,433.33	0.27	100.2	Pulse	0.30	3

Quantitation Report

File Name 052SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 14:48
Sample Name mp13029-mb1 1
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	38.82	56.00	1.786E-05	Pulse	0.25	3
B			1	0.935	ug/l	3.07	18,428.07	5.881E-03	Pulse	0.15	3
Ca			1	15.456	ug/l	4.35	44,503.97	7.497E-03	Pulse	0.10	3
Sr			1	0.023	ug/l	3.85	3,120.42	3.995E-04	Pulse	0.10	3
Mo			1	0.027	ug/l	27.67	560.03	7.155E-05	Pulse	0.10	3
Ag			1	0.005	ug/l	5.72	250.01	2.961E-05	Pulse	0.10	3
Sn			1	-0.250	ug/l	-0.78	2,693.69	3.189E-04	Pulse	0.10	3
Sb			1	0.018	ug/l	11.31	660.04	6.166E-05	Pulse	0.10	3
Ba			1	0.034	ug/l	11.78	460.03	4.298E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	1.66	733.38	1.159E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	43.13	803.39	1.270E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	44.32	723.39	1.144E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	16.91	3,083.58	4.875E-04	Pulse	0.10	3
Na			2	274.336	ug/l	1.18	418,704.81	2.535E+00	Pulse	0.30	3
Mg			2	1.882	ug/l	1.70	1,451.20	8.787E-03	Pulse	0.30	3
Al			2	1.008	ug/l	9.23	256.67	1.554E-03	Pulse	0.30	3
K			2	3.065	ug/l	5.07	8,067.59	4.885E-02	Pulse	0.30	3
Ca			2	16.154	ug/l	19.83	465.57	2.818E-03	Pulse	0.30	3
Ti			2	0.087	ug/l	20.53	16.67	1.010E-04	Pulse	0.30	3
V			2	0.001	ug/l	509.09	358.90	2.173E-03	Pulse	0.30	3
Cr			2	-0.013	ug/l	-46.11	805.58	4.877E-03	Pulse	0.30	3
Mn			2	0.020	ug/l	56.30	140.00	8.486E-04	Pulse	0.30	3
Fe			2	0.820	ug/l	5.21	9,150.40	5.541E-02	Pulse	0.30	3
Co			2	0.001	ug/l	103.80	120.00	7.265E-04	Pulse	0.30	3
Ni			2	0.091	ug/l	18.52	478.90	2.901E-03	Pulse	0.30	3
Cu			2	0.380	ug/l	2.60	5,615.46	3.401E-02	Pulse	0.30	3
Zn			2	1.727	ug/l	5.50	3,310.37	2.005E-02	Pulse	0.30	3
As			2	0.000	ug/l	-4128.76	12.00	7.265E-05	Pulse	1.00	3
Cd			2	0.001	ug/l	220.29	5.53	5.890E-06	Pulse	0.30	3
Sn			2	-0.028	ug/l	-33.03	477.79	5.098E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.029	ug/l	57.24	10.00	4.827E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,133,580.33	0.74	94.6	Pulse	0.10	3
1	Sc		5,937,001.99	1.41	101.5	Analog	0.10	3
1	Ge		1,103,117.90	1.28	101.3	Pulse	0.10	3
1	Ge		1,532,424.14	1.15	101.7	Pulse	0.10	3
1	Rh		7,811,454.26	1.26	102.7	Analog	0.10	3
1	In		8,445,708.70	0.83	103.5	Analog	0.10	3
1	Tb		10,707,797.76	0.51	103.6	Analog	0.10	3
1	Ho		1,004,670.59	1.76	100.9	Pulse	0.10	3
1	Bi		6,325,579.91	0.03	104.2	Analog	0.10	3
2	Sc		165,147.99	0.56	99.9	Pulse	0.30	3
2	Ge		99,762.85	1.22	95.0	Pulse	0.30	3
2	Ge		149,857.12	1.41	95.3	Pulse	0.30	3
2	Rh		3,121,631.33	0.92	97.5	Pulse	0.30	3
2	In		937,306.52	0.91	96.6	Pulse	0.30	3
2	Tb		3,675,516.10	1.39	95.4	Pulse	0.30	3
2	Ho		367,612.96	0.97	95.7	Pulse	0.30	3
2	Bi		2,517,480.18	0.92	97.3	Pulse	0.30	3
3	Sc		221,421.06	3.39	103.1	Pulse	0.30	3
3	Ge		138,400.76	2.44	101.3	Pulse	0.30	3
3	Ge		208,217.78	3.22	101.5	Pulse	0.30	3
3	Rh		2,474,206.22	2.58	103.9	Pulse	0.30	3
3	Tb		3,752,064.15	2.90	103.1	Pulse	0.30	3

Quantitation Report

File Name 053SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 14:53
Sample Name mp13029-b1
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	83.658	ug/l	0.80	1,003,620.04	3.326E-01	Pulse	0.25	3
B			1	81.317	ug/l	1.43	973,632.98	3.227E-01	Pulse	0.15	3
Ca			1	2087.412	ug/l	0.80	3,701,695.25	6.435E-01	Pulse	0.10	3
Sr			1	86.042	ug/l	0.16	7,491,570.93	9.983E-01	Analog	0.10	3
Mo			1	79.517	ug/l	1.82	1,325,960.03	1.767E-01	Pulse	0.10	3
Ag			1	80.290	ug/l	0.99	3,497,945.99	4.326E-01	Pulse	0.10	3
Sn			1	77.856	ug/l	1.05	2,056,679.81	2.543E-01	Pulse	0.10	3
Sb			1	81.619	ug/l	1.82	2,343,807.05	2.225E-01	Pulse	0.10	3
Ba			1	81.071	ug/l	1.95	970,161.50	9.211E-02	Pulse	0.10	3
Tl			1	85.603	ug/l	2.59	6,005,387.41	1.012E+00	Analog	0.10	3
Pb			1	83.591	ug/l	1.16	1,924,157.00	3.242E-01	Pulse	0.10	3
Pb			1	81.837	ug/l	1.73	1,690,361.07	2.848E-01	Pulse	0.10	3
Pb			1	82.523	ug/l	1.45	7,740,232.91	1.304E+00	Pulse	0.10	3
Na			2	2014.495	ug/l	1.52	2,891,942.53	1.838E+01	Pulse	0.30	3
Mg			2	1959.342	ug/l	1.17	1,331,285.57	8.461E+00	Pulse	0.30	3
Al			2	2014.936	ug/l	1.49	421,202.62	2.677E+00	Pulse	0.30	3
K			2	2023.848	ug/l	1.24	823,961.22	5.237E+00	Pulse	0.30	3
Ca			2	2527.190	ug/l	0.90	57,902.23	3.680E-01	Pulse	0.30	3
Ti			2	80.103	ug/l	2.12	14,598.76	9.279E-02	Pulse	0.30	3
V			2	83.115	ug/l	1.11	522,716.38	3.322E+00	Pulse	0.30	3
Cr			2	82.727	ug/l	0.84	685,030.88	4.354E+00	Pulse	0.30	3
Mn			2	82.590	ug/l	1.52	330,454.35	2.100E+00	Pulse	0.30	3
Fe			2	2081.939	ug/l	0.79	14,655,981.08	9.314E+01	Analog	0.30	3
Co			2	82.093	ug/l	1.28	1,227,519.15	7.802E+00	Pulse	0.30	3
Ni			2	81.582	ug/l	1.73	337,797.43	2.147E+00	Pulse	0.30	3
Cu			2	81.055	ug/l	1.73	902,583.33	5.737E+00	Pulse	0.30	3
Zn			2	84.765	ug/l	0.89	121,949.25	7.750E-01	Pulse	0.30	3
As			2	79.680	ug/l	0.93	60,195.64	3.826E-01	Pulse	1.00	3
Cd			2	83.505	ug/l	1.77	184,231.01	2.091E-01	Pulse	0.30	3
Sn			2	77.463	ug/l	2.32	315,745.06	3.583E-01	Pulse	0.30	3
Se			3	207.733	ug/l	1.43	44,819.09	2.300E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,017,174.56	0.02	91.1	Pulse	0.10	3
1	Sc		5,752,733.66	0.97	98.3	Analog	0.10	3
1	Ge		1,074,685.04	1.66	98.7	Pulse	0.10	3

Quantitation Report

1	Ge		1,495,377.95	1.23	99.3	Pulse	0.10	3
1	Rh		7,504,135.72	1.30	98.7	Analog	0.10	3
1	In		8,086,945.35	1.00	99.1	Analog	0.10	3
1	Tb		10,534,519.84	1.37	102.0	Analog	0.10	3
1	Ho		990,530.90	0.54	99.5	Pulse	0.10	3
1	Bi		5,935,804.49	0.64	97.8	Analog	0.10	3
2	Sc		157,366.72	1.80	95.2	Pulse	0.30	3
2	Ge		93,325.26	2.31	88.8	Pulse	0.30	3
2	Ge		141,319.21	1.28	89.8	Pulse	0.30	3
2	Rh		2,914,639.47	1.92	91.0	Pulse	0.30	3
2	In		881,444.98	2.23	90.8	Pulse	0.30	3
2	Tb		3,518,058.75	1.93	91.3	Pulse	0.30	3
2	Ho		352,952.79	1.76	91.9	Pulse	0.30	3
2	Bi		2,343,500.81	1.60	90.5	Pulse	0.30	3
3	Sc		207,201.68	1.18	96.5	Pulse	0.30	3
3	Ge		128,614.86	0.80	94.2	Pulse	0.30	3
3	Ge		194,860.23	1.23	95.0	Pulse	0.30	3
3	Rh		2,273,296.85	0.66	95.5	Pulse	0.30	3
3	Tb		3,538,505.41	1.00	97.3	Pulse	0.30	3

Quantitation Report

File Name 054SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 14:58
Sample Name mp13029-s1
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	83.732	ug/l	1.61	968,173.48	3.329E-01	Pulse	0.25	3
B			1	88.119	ug/l	1.44	1,016,406.00	3.495E-01	Pulse	0.15	3
Ca			1	8316.791	ug/l	2.77	14,305,188.54	2.556E+00	Analog	0.10	3
Sr			1	112.286	ug/l	0.77	9,205,426.11	1.303E+00	Analog	0.10	3
Mo			1	83.087	ug/l	1.68	1,304,697.51	1.847E-01	Pulse	0.10	3
Ag			1	79.432	ug/l	1.76	3,346,109.43	4.279E-01	Pulse	0.10	3
Sn			1	79.226	ug/l	1.54	2,023,512.00	2.588E-01	Pulse	0.10	3
Sb			1	82.937	ug/l	0.94	2,289,390.95	2.261E-01	Pulse	0.10	3
Ba			1	96.175	ug/l	1.07	1,106,361.75	1.093E-01	Pulse	0.10	3
Tl			1	86.148	ug/l	2.24	5,783,473.04	1.018E+00	Analog	0.10	3
Pb			1	83.965	ug/l	1.09	1,849,587.58	3.256E-01	Pulse	0.10	3
Pb			1	82.710	ug/l	1.43	1,634,882.89	2.878E-01	Pulse	0.10	3
Pb			1	83.752	ug/l	1.35	7,517,405.30	1.323E+00	Pulse	0.10	3
Na			2	12990.943	ug/l	0.81	18,571,503.71	1.183E+02	Analog	0.30	3
Mg			2	3088.135	ug/l	1.58	2,092,838.88	1.333E+01	Pulse	0.30	3
Al			2	2020.272	ug/l	1.89	421,247.99	2.684E+00	Pulse	0.30	3
K			2	2580.198	ug/l	1.32	1,046,040.93	6.665E+00	Pulse	0.30	3
Ca			2	8616.103	ug/l	0.51	196,730.79	1.253E+00	Pulse	0.30	3
Ti			2	80.603	ug/l	0.91	14,654.39	9.337E-02	Pulse	0.30	3
V			2	82.807	ug/l	1.29	519,456.80	3.310E+00	Pulse	0.30	3
Cr			2	81.944	ug/l	1.51	676,804.28	4.312E+00	Pulse	0.30	3
Mn			2	91.565	ug/l	1.06	365,451.11	2.328E+00	Pulse	0.30	3
Fe			2	2120.058	ug/l	1.93	14,885,304.41	9.484E+01	Analog	0.30	3
Co			2	80.940	ug/l	1.54	1,207,209.33	7.692E+00	Pulse	0.30	3
Ni			2	79.910	ug/l	1.41	330,056.91	2.103E+00	Pulse	0.30	3
Cu			2	83.266	ug/l	1.28	924,895.76	5.893E+00	Pulse	0.30	3
Zn			2	128.008	ug/l	1.41	183,344.49	1.168E+00	Pulse	0.30	3
As			2	79.246	ug/l	0.90	59,715.16	3.805E-01	Pulse	1.00	3
Cd			2	81.956	ug/l	0.77	179,239.78	2.052E-01	Pulse	0.30	3
Sn			2	78.354	ug/l	0.16	316,618.11	3.624E-01	Pulse	0.30	3
Se			3	204.078	ug/l	0.88	43,102.44	2.260E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,908,308.94	0.88	87.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,599,631.79	2.02	95.7	Analog	0.10	3
1	Ge		1,025,142.04	0.82	94.2	Pulse	0.10	3
1	Ge		1,436,610.08	0.25	95.4	Pulse	0.10	3
1	Rh		7,066,146.14	0.72	92.9	Analog	0.10	3
1	In		7,819,693.93	0.73	95.8	Analog	0.10	3
1	Tb		10,125,531.10	0.68	98.0	Analog	0.10	3
1	Ho		962,996.63	0.82	96.8	Pulse	0.10	3
1	Bi		5,680,286.58	0.53	93.6	Analog	0.10	3
2	Sc		156,960.37	1.02	94.9	Pulse	0.30	3
2	Ge		93,152.02	0.37	88.7	Pulse	0.30	3
2	Ge		139,114.70	0.72	88.4	Pulse	0.30	3
2	Rh		2,841,410.79	0.49	88.8	Pulse	0.30	3
2	In		873,563.09	0.68	90.0	Pulse	0.30	3
2	Tb		3,510,128.47	0.38	91.1	Pulse	0.30	3
2	Ho		351,392.90	0.23	91.5	Pulse	0.30	3
2	Bi		2,274,336.99	0.29	87.9	Pulse	0.30	3
3	Sc		203,504.98	0.55	94.8	Pulse	0.30	3
3	Ge		126,322.86	0.67	92.5	Pulse	0.30	3
3	Ge		190,740.22	0.80	93.0	Pulse	0.30	3
3	Rh		2,184,025.47	0.83	91.7	Pulse	0.30	3
3	Tb		3,467,998.05	0.38	95.3	Pulse	0.30	3

Quantitation Report

File Name	055_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 15:03
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.873	ug/l	1.78	578,446.98	1.983E-01	Pulse	0.25	3
B			1	100.063	ug/l	2.74	1,156,729.43	3.966E-01	Pulse	0.15	3
Ca			1	5016.441	ug/l	0.21	8,650,959.87	1.543E+00	Analog	0.10	3
Sr			1	50.992	ug/l	1.11	4,239,585.77	5.917E-01	Pulse	0.10	3
Mo			1	51.446	ug/l	1.16	819,245.90	1.143E-01	Pulse	0.10	3
Ag			1	47.874	ug/l	1.88	2,064,550.91	2.579E-01	Pulse	0.10	3
Sn			1	49.080	ug/l	0.80	1,286,726.70	1.607E-01	Pulse	0.10	3
Sb			1	49.976	ug/l	1.29	1,423,852.95	1.363E-01	Pulse	0.10	3
Ba			1	47.856	ug/l	2.07	568,173.04	5.437E-02	Pulse	0.10	3
Tl			1	48.935	ug/l	0.32	3,347,367.87	5.784E-01	Pulse	0.10	3
Pb			1	50.161	ug/l	0.89	1,125,982.95	1.946E-01	Pulse	0.10	3
Pb			1	49.033	ug/l	0.71	987,683.47	1.707E-01	Pulse	0.10	3
Pb			1	49.490	ug/l	0.61	4,526,702.80	7.822E-01	Pulse	0.10	3
Na			2	4905.157	ug/l	2.01	6,907,235.14	4.470E+01	Analog	0.30	3
Mg			2	4729.124	ug/l	0.66	3,155,528.21	2.042E+01	Pulse	0.30	3
Al			2	4828.163	ug/l	0.89	991,183.64	6.414E+00	Pulse	0.30	3
K			2	4897.359	ug/l	0.82	1,949,131.80	1.261E+01	Pulse	0.30	3
Ca			2	5246.495	ug/l	1.29	117,963.42	7.634E-01	Pulse	0.30	3
Ti			2	49.808	ug/l	3.65	8,914.69	5.770E-02	Pulse	0.30	3
V			2	50.434	ug/l	0.17	311,638.26	2.017E+00	Pulse	0.30	3
Cr			2	49.853	ug/l	0.53	405,755.10	2.626E+00	Pulse	0.30	3
Mn			2	49.668	ug/l	0.11	195,202.80	1.263E+00	Pulse	0.30	3
Fe			2	4943.275	ug/l	1.45	34,168,098.64	2.211E+02	Analog	0.30	3
Co			2	49.400	ug/l	1.16	725,472.02	4.695E+00	Pulse	0.30	3
Ni			2	48.769	ug/l	0.41	198,360.43	1.284E+00	Pulse	0.30	3
Cu			2	48.184	ug/l	1.15	527,417.74	3.413E+00	Pulse	0.30	3
Zn			2	48.336	ug/l	1.02	68,580.17	4.438E-01	Pulse	0.30	3
As			2	49.107	ug/l	0.94	36,436.68	2.358E-01	Pulse	1.00	3
Cd			2	49.496	ug/l	1.00	106,520.93	1.239E-01	Pulse	0.30	3
Sn			2	50.396	ug/l	1.20	200,574.43	2.334E-01	Pulse	0.30	3
Se			3	197.759	ug/l	0.74	41,252.76	2.190E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,917,161.38	0.80	88.1	Pulse	0.10	3
1	Sc		5,608,181.38	0.14	95.8	Analog	0.10	3
1	Ge		1,040,291.13	1.04	95.6	Pulse	0.10	3

Quantitation Report

1	Ge		1,447,870.03	1.02	96.1	Pulse	0.10	3
1	Rh		7,164,674.68	0.67	94.2	Analog	0.10	3
1	In		8,004,651.61	0.47	98.1	Analog	0.10	3
1	Tb		10,450,575.68	1.33	101.1	Analog	0.10	3
1	Ho		976,028.66	1.53	98.1	Pulse	0.10	3
1	Bi		5,787,136.37	1.17	95.3	Analog	0.10	3
2	Sc		154,530.38	0.59	93.5	Pulse	0.30	3
2	Ge		92,387.52	0.75	87.9	Pulse	0.30	3
2	Ge		138,618.48	0.71	88.1	Pulse	0.30	3
2	Rh		2,822,280.10	0.89	88.2	Pulse	0.30	3
2	In		859,600.28	0.88	88.6	Pulse	0.30	3
2	Tb		3,463,317.29	0.78	89.9	Pulse	0.30	3
2	Ho		348,498.80	1.18	90.7	Pulse	0.30	3
2	Bi		2,276,702.34	1.04	88.0	Pulse	0.30	3
3	Sc		202,786.54	1.06	94.4	Pulse	0.30	3
3	Ge		125,236.64	0.55	91.7	Pulse	0.30	3
3	Ge		188,386.44	0.74	91.9	Pulse	0.30	3
3	Rh		2,192,657.20	1.19	92.1	Pulse	0.30	3
3	Tb		3,460,991.67	1.06	95.1	Pulse	0.30	3

Quantitation Report

File Name 056_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 15:08
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	52.51	133.33	4.572E-05	Pulse	0.25	3
B			1	1.926	ug/l	16.53	29,060.81	9.786E-03	Pulse	0.15	3
Ca			1	-0.200	ug/l	-654.83	15,104.08	2.691E-03	Pulse	0.10	3
Sr			1	0.010	ug/l	32.31	1,846.85	2.451E-04	Pulse	0.10	3
Mo			1	0.074	ug/l	8.00	1,316.77	1.746E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	17.36	690.04	8.432E-05	Pulse	0.10	3
Sn			1	-0.124	ug/l	-18.48	6,021.37	7.315E-04	Pulse	0.10	3
Sb			1	0.087	ug/l	13.54	2,603.66	2.512E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	37.85	193.34	1.849E-05	Pulse	0.10	3
Tl			1	0.020	ug/l	17.40	1,803.51	2.977E-04	Pulse	0.10	3
Pb			1	0.028	ug/l	27.36	1,143.42	1.898E-04	Pulse	0.10	3
Pb			1	0.028	ug/l	20.86	1,010.08	1.673E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	20.86	4,487.11	7.424E-04	Pulse	0.10	3
Na			2	3.393	ug/l	6.12	10,669.01	6.837E-02	Pulse	0.30	3
Mg			2	0.591	ug/l	7.29	501.12	3.211E-03	Pulse	0.30	3
Al			2	0.476	ug/l	17.60	132.22	8.475E-04	Pulse	0.30	3
K			2	0.973	ug/l	50.07	6,785.90	4.348E-02	Pulse	0.30	3
Ca			2	0.348	ug/l	377.94	81.11	5.193E-04	Pulse	0.30	3
Ti			2	0.068	ug/l	69.01	12.22	7.853E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-180.64	313.34	2.007E-03	Pulse	0.30	3
Cr			2	0.009	ug/l	95.12	938.93	6.019E-03	Pulse	0.30	3
Mn			2	0.001	ug/l	245.14	58.89	3.772E-04	Pulse	0.30	3
Fe			2	0.789	ug/l	3.52	8,427.80	5.400E-02	Pulse	0.30	3
Co			2	0.004	ug/l	58.02	158.89	1.018E-03	Pulse	0.30	3
Ni			2	0.005	ug/l	108.96	101.11	6.485E-04	Pulse	0.30	3
Cu			2	0.010	ug/l	95.83	1,228.95	7.878E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.058	ug/l	92.30	761.14	4.879E-03	Pulse	0.30	3
As			2	0.012	ug/l	61.44	20.33	1.302E-04	Pulse	1.00	3
Cd			2	0.007	ug/l	95.39	18.81	2.148E-05	Pulse	0.30	3
Sn			2	0.119	ug/l	18.27	1,043.38	1.189E-03	Pulse	0.30	3
Se			3	0.078	ug/l	14.54	20.27	1.023E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,003,166.48	13.22	90.7	Mix	0.10	3
1	Sc		5,699,133.15	15.42	97.4	Analog	0.10	3
1	Ge		1,050,428.81	11.98	96.5	Pulse	0.10	3
1	Ge		1,449,714.56	12.09	96.2	Pulse	0.10	3
1	Rh		7,605,014.26	17.06	100.0	Analog	0.10	3
1	In		8,313,457.03	15.44	101.9	Analog	0.10	3
1	Tb		10,511,112.35	16.53	101.7	Analog	0.10	3
1	Ho		990,524.31	15.73	99.5	Pulse	0.10	3
1	Bi		6,099,475.95	13.25	100.5	Analog	0.10	3
2	Sc		156,042.36	0.62	94.4	Pulse	0.30	3
2	Ge		92,948.88	0.85	88.5	Pulse	0.30	3
2	Ge		138,538.03	0.82	88.1	Pulse	0.30	3
2	Rh		2,934,639.26	0.39	91.7	Pulse	0.30	3
2	In		877,239.52	0.28	90.4	Pulse	0.30	3
2	Tb		3,474,471.81	0.62	90.2	Pulse	0.30	3
2	Ho		348,272.99	0.26	90.7	Pulse	0.30	3
2	Bi		2,372,055.60	0.31	91.6	Pulse	0.30	3
3	Sc		210,072.43	0.21	97.8	Pulse	0.30	3
3	Ge		131,432.67	1.02	96.2	Pulse	0.30	3
3	Ge		198,080.36	0.85	96.6	Pulse	0.30	3
3	Rh		2,372,245.05	0.49	99.6	Pulse	0.30	3
3	Tb		3,634,436.38	0.10	99.9	Pulse	0.30	3

Quantitation Report

File Name 057SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 15:13
Sample Name mp13029-s2
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	81.637	ug/l	1.07	940,409.77	3.246E-01	Pulse	0.25	3
B			1	86.015	ug/l	0.90	988,566.18	3.412E-01	Pulse	0.15	3
Ca			1	8206.800	ug/l	0.84	14,004,277.29	2.522E+00	Analog	0.10	3
Sr			1	109.662	ug/l	0.98	8,985,111.12	1.272E+00	Analog	0.10	3
Mo			1	81.505	ug/l	1.27	1,279,150.37	1.811E-01	Pulse	0.10	3
Ag			1	77.579	ug/l	1.22	3,285,578.60	4.180E-01	Pulse	0.10	3
Sn			1	77.787	ug/l	1.86	1,997,384.45	2.541E-01	Pulse	0.10	3
Sb			1	80.858	ug/l	3.12	2,254,767.41	2.204E-01	Pulse	0.10	3
Ba			1	94.136	ug/l	2.46	1,094,117.59	1.070E-01	Pulse	0.10	3
Tl			1	85.304	ug/l	1.82	5,720,736.17	1.008E+00	Analog	0.10	3
Pb			1	83.332	ug/l	0.96	1,833,691.33	3.232E-01	Pulse	0.10	3
Pb			1	82.160	ug/l	0.50	1,622,307.16	2.859E-01	Pulse	0.10	3
Pb			1	83.182	ug/l	0.59	7,458,276.35	1.314E+00	Pulse	0.10	3
Na			2	13030.197	ug/l	0.52	18,212,427.05	1.187E+02	Analog	0.30	3
Mg			2	3118.071	ug/l	0.74	2,066,106.10	1.346E+01	Pulse	0.30	3
Al			2	2031.220	ug/l	0.44	414,118.90	2.699E+00	Pulse	0.30	3
K			2	2586.162	ug/l	0.82	1,025,082.53	6.680E+00	Pulse	0.30	3
Ca			2	8677.796	ug/l	0.83	193,710.65	1.262E+00	Pulse	0.30	3
Ti			2	80.197	ug/l	3.19	14,254.06	9.290E-02	Pulse	0.30	3
V			2	83.102	ug/l	0.88	509,684.84	3.322E+00	Pulse	0.30	3
Cr			2	82.012	ug/l	0.48	662,296.83	4.316E+00	Pulse	0.30	3
Mn			2	91.810	ug/l	0.29	358,271.84	2.335E+00	Pulse	0.30	3
Fe			2	2121.415	ug/l	0.07	14,563,852.20	9.491E+01	Analog	0.30	3
Co			2	81.262	ug/l	0.64	1,185,041.90	7.723E+00	Pulse	0.30	3
Ni			2	80.401	ug/l	0.67	324,693.71	2.116E+00	Pulse	0.30	3
Cu			2	83.689	ug/l	0.76	908,873.44	5.923E+00	Pulse	0.30	3
Zn			2	125.112	ug/l	0.87	175,213.73	1.142E+00	Pulse	0.30	3
As			2	77.950	ug/l	0.90	57,428.42	3.743E-01	Pulse	1.00	3
Cd			2	81.252	ug/l	0.75	174,171.72	2.034E-01	Pulse	0.30	3
Sn			2	78.072	ug/l	0.90	309,209.74	3.611E-01	Pulse	0.30	3
Se			3	196.188	ug/l	1.29	40,824.84	2.172E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,897,187.36	0.73	87.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,553,146.58	0.08	94.9	Analog	0.10	3
1	Ge		1,011,273.16	2.10	92.9	Pulse	0.10	3
1	Ge		1,415,094.40	1.34	93.9	Pulse	0.10	3
1	Rh		7,061,867.39	0.74	92.8	Analog	0.10	3
1	In		7,861,793.02	1.50	96.4	Analog	0.10	3
1	Tb		10,235,598.60	3.48	99.1	Analog	0.10	3
1	Ho		960,807.38	2.24	96.5	Pulse	0.10	3
1	Bi		5,674,091.16	0.92	93.5	Analog	0.10	3
2	Sc		153,456.56	0.90	92.8	Pulse	0.30	3
2	Ge		91,485.82	1.09	87.1	Pulse	0.30	3
2	Ge		136,441.48	1.05	86.7	Pulse	0.30	3
2	Rh		2,785,773.85	0.64	87.0	Pulse	0.30	3
2	In		856,230.06	0.88	88.2	Pulse	0.30	3
2	Tb		3,460,275.83	0.32	89.8	Pulse	0.30	3
2	Ho		348,040.15	0.34	90.6	Pulse	0.30	3
2	Bi		2,250,279.56	0.52	86.9	Pulse	0.30	3
3	Sc		200,632.05	1.10	93.4	Pulse	0.30	3
3	Ge		124,766.67	0.74	91.4	Pulse	0.30	3
3	Ge		187,937.23	1.21	91.6	Pulse	0.30	3
3	Rh		2,169,448.39	1.35	91.1	Pulse	0.30	3
3	Tb		3,476,728.89	1.11	95.6	Pulse	0.30	3

Quantitation Report

File Name 058SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 15:18
Sample Name jc84152-4
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	19.89	192.00	6.559E-05	Pulse	0.25	3
B			1	6.691	ug/l	2.47	83,704.45	2.857E-02	Pulse	0.15	3
Ca			1	5910.271	ug/l	2.53	10,335,708.18	1.817E+00	Analog	0.10	3
Sr			1	21.554	ug/l	1.52	1,839,960.91	2.502E-01	Pulse	0.10	3
Mo			1	0.147	ug/l	0.45	2,490.27	3.386E-04	Pulse	0.10	3
Ag			1	0.061	ug/l	3.34	2,673.66	3.327E-04	Pulse	0.10	3
Sn			1	-0.073	ug/l	-7.79	7,191.90	8.949E-04	Pulse	0.10	3
Sb			1	0.096	ug/l	2.06	2,857.03	2.734E-04	Pulse	0.10	3
Ba			1	13.492	ug/l	1.26	160,229.18	1.533E-02	Pulse	0.10	3
Tl			1	0.022	ug/l	16.65	1,886.86	3.208E-04	Pulse	0.10	3
Pb			1	0.385	ug/l	4.08	9,263.23	1.575E-03	Pulse	0.10	3
Pb			1	0.355	ug/l	3.12	7,685.60	1.307E-03	Pulse	0.10	3
Pb			1	0.369	ug/l	1.68	36,268.67	6.166E-03	Pulse	0.10	3
Na			2	10717.213	ug/l	2.80	15,328,252.17	9.762E+01	Analog	0.30	3
Mg			2	1117.485	ug/l	1.85	757,769.33	4.826E+00	Pulse	0.30	3
Al			2	18.591	ug/l	6.22	3,910.60	2.491E-02	Pulse	0.30	3
K			2	541.737	ug/l	1.48	224,829.19	1.432E+00	Pulse	0.30	3
Ca			2	5952.185	ug/l	1.28	135,993.34	8.660E-01	Pulse	0.30	3
Ti			2	0.485	ug/l	51.45	87.78	5.623E-04	Pulse	0.30	3
V			2	0.075	ug/l	13.62	803.36	5.119E-03	Pulse	0.30	3
Cr			2	0.389	ug/l	4.07	4,079.45	2.598E-02	Pulse	0.30	3
Mn			2	10.015	ug/l	2.80	40,035.06	2.550E-01	Pulse	0.30	3
Fe			2	54.972	ug/l	2.12	389,015.56	2.478E+00	Pulse	0.30	3
Co			2	0.028	ug/l	15.21	510.02	3.251E-03	Pulse	0.30	3
Ni			2	0.271	ug/l	9.29	1,197.84	7.634E-03	Pulse	0.30	3
Cu			2	4.483	ug/l	0.74	50,897.33	3.241E-01	Pulse	0.30	3
Zn			2	46.326	ug/l	1.55	66,821.89	4.255E-01	Pulse	0.30	3
As			2	0.323	ug/l	4.43	255.00	1.623E-03	Pulse	1.00	3
Cd			2	0.010	ug/l	18.14	24.30	2.751E-05	Pulse	0.30	3
Sn			2	0.179	ug/l	15.51	1,294.51	1.465E-03	Pulse	0.30	3
Se			3	0.119	ug/l	4.73	28.47	1.478E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,930,245.60	1.68	88.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,690,883.66	2.41	97.3	Analog	0.10	3
1	Ge		1,036,650.03	1.53	95.2	Pulse	0.10	3
1	Ge		1,438,465.91	1.59	95.5	Pulse	0.10	3
1	Rh		7,355,152.81	1.39	96.7	Analog	0.10	3
1	In		8,034,988.56	1.62	98.5	Analog	0.10	3
1	Tb		10,451,315.88	1.55	101.2	Analog	0.10	3
1	Ho		976,405.56	1.77	98.1	Pulse	0.10	3
1	Bi		5,882,376.99	0.98	96.9	Analog	0.10	3
2	Sc		157,056.37	1.77	95.0	Pulse	0.30	3
2	Ge		94,127.72	1.27	89.6	Pulse	0.30	3
2	Ge		140,381.94	0.34	89.2	Pulse	0.30	3
2	Rh		2,889,595.16	1.02	90.3	Pulse	0.30	3
2	In		883,202.66	0.47	91.0	Pulse	0.30	3
2	Tb		3,513,467.01	0.86	91.2	Pulse	0.30	3
2	Ho		352,327.78	1.38	91.7	Pulse	0.30	3
2	Bi		2,333,234.98	0.85	90.1	Pulse	0.30	3
3	Sc		206,198.53	0.08	96.0	Pulse	0.30	3
3	Ge		128,463.48	0.70	94.1	Pulse	0.30	3
3	Ge		192,550.15	0.55	93.9	Pulse	0.30	3
3	Rh		2,264,030.26	0.39	95.1	Pulse	0.30	3
3	Tb		3,564,411.11	0.49	98.0	Pulse	0.30	3

Quantitation Report

File Name 059SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 15:23
Sample Name jc84152-1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.094	ug/l	2.19	149.33	4.662E-05	Pulse	0.25	3
B			1	48.560	ug/l	1.57	68,345.68	2.134E-02	Pulse	0.15	3
Ca			1	8006.279	ug/l	0.55	1,539,341.80	2.485E-01	Pulse	0.10	3
Sr			1	317.903	ug/l	2.01	2,594,696.57	3.689E-01	Pulse	0.10	3
Mo			1	0.835	ug/l	25.61	1,383.45	1.964E-04	Pulse	0.10	3
Ag			1	0.212	ug/l	13.90	933.40	1.186E-04	Pulse	0.10	3
Sn			1	-0.829	ug/l	-21.85	6,815.05	8.639E-04	Pulse	0.10	3
Sb			1	0.502	ug/l	12.75	1,543.47	1.497E-04	Pulse	0.10	3
Ba			1	6.170	ug/l	1.91	7,265.30	7.058E-04	Pulse	0.10	3
Tl			1	0.075	ug/l	16.65	770.05	1.494E-04	Pulse	0.10	3
Pb			1	2.192	ug/l	5.32	4,777.62	9.306E-04	Pulse	0.10	3
Pb			1	2.068	ug/l	8.75	4,050.69	7.894E-04	Pulse	0.10	3
Pb			1	2.053	ug/l	3.18	18,378.42	3.578E-03	Pulse	0.10	3
Na			2	2624234.338	ug/l	2.61	421,202,498.82	2.390E+03	Analog	0.30	3
Mg			2	1311.462	ug/l	1.98	99,928.55	5.669E-01	Pulse	0.30	3
Al			2	258.807	ug/l	1.34	6,101.19	3.460E-02	Pulse	0.30	3
K			2	1753.890	ug/l	1.70	86,591.85	4.912E-01	Pulse	0.30	3
Ca			2	9484.221	ug/l	2.14	24,391.34	1.384E-01	Pulse	0.30	3
Ti			2	9.477	ug/l	6.83	193.34	1.098E-03	Pulse	0.30	3
V			2	2.041	ug/l	13.17	1,811.23	1.029E-02	Pulse	0.30	3
Cr			2	1.040	ug/l	9.50	1,943.48	1.103E-02	Pulse	0.30	3
Mn			2	11.133	ug/l	4.65	5,047.49	2.865E-02	Pulse	0.30	3
Fe			2	437.231	ug/l	2.05	347,998.62	1.974E+00	Pulse	0.30	3
Co			2	0.219	ug/l	9.46	472.24	2.676E-03	Pulse	0.30	3
Ni			2	0.920	ug/l	14.03	516.68	2.925E-03	Pulse	0.30	3
Cu			2	3.717	ug/l	5.62	5,901.13	3.345E-02	Pulse	0.30	3
Zn			2	357.814	ug/l	1.43	58,111.18	3.297E-01	Pulse	0.30	3
As			2	4.950	ug/l	7.55	432.01	2.450E-03	Pulse	1.00	3
Cd			2	0.138	ug/l	10.78	34.37	3.803E-05	Pulse	0.30	3
Sn			2	1.358	ug/l	9.34	1,143.39	1.267E-03	Pulse	0.30	3
Se			3	0.379	ug/l	24.07	11.07	5.785E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,203,611.76	2.28	96.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,194,680.53	1.71	105.9	Analog	0.10	3
1	Ge		1,046,403.29	2.34	96.1	Pulse	0.10	3
1	Ge		1,440,199.77	2.40	95.6	Pulse	0.10	3
1	Rh		7,035,061.14	2.64	92.5	Analog	0.10	3
1	In		7,889,659.17	2.69	96.7	Analog	0.10	3
1	Tb		10,295,487.55	2.20	99.6	Analog	0.10	3
1	Ho		965,162.80	3.20	97.0	Pulse	0.10	3
1	Bi		5,140,118.15	4.22	84.7	Mix	0.10	3
2	Sc		176,311.77	2.36	106.6	Pulse	0.30	3
2	Ge		97,688.67	1.83	93.0	Pulse	0.30	3
2	Ge		146,831.40	1.26	93.3	Pulse	0.30	3
2	Rh		2,800,699.96	1.87	87.5	Pulse	0.30	3
2	In		902,927.27	2.20	93.1	Pulse	0.30	3
2	Tb		3,594,717.22	1.77	93.3	Pulse	0.30	3
2	Ho		359,208.89	1.68	93.5	Pulse	0.30	3
2	Bi		2,109,021.37	1.41	81.5	Pulse	0.30	3
3	Sc		218,164.98	1.30	101.6	Pulse	0.30	3
3	Ge		127,784.14	1.28	93.6	Pulse	0.30	3
3	Ge		191,305.59	1.59	93.3	Pulse	0.30	3
3	Rh		2,088,372.63	1.01	87.7	Pulse	0.30	3
3	Tb		3,425,056.05	0.93	94.1	Pulse	0.30	3

Quantitation Report

File Name 060SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 15:28
Sample Name jc83885-1
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.034	ug/l	8.05	502.68	1.464E-04	Pulse	0.25	3
B			1	133.749	ug/l	1.03	1,817,649.65	5.294E-01	Pulse	0.15	3
Ca			1	181130.244	ug/l	1.07	376,570,354.39	5.560E+01	Analog	0.10	3
Sr			1	1933.363	ug/l	1.29	158,168,070.98	2.243E+01	Analog	0.10	3
Mo			1	3.826	ug/l	0.42	60,043.28	8.513E-03	Pulse	0.10	3
Ag			1	0.031	ug/l	14.10	1,383.45	1.738E-04	Pulse	0.10	3
Sn			1	-0.198	ug/l	-2.39	3,887.33	4.887E-04	Pulse	0.10	3
Sb			1	0.600	ug/l	2.20	17,403.61	1.649E-03	Pulse	0.10	3
Ba			1	19.388	ug/l	1.41	232,600.38	2.203E-02	Pulse	0.10	3
Tl			1	0.010	ug/l	12.05	846.72	1.763E-04	Pulse	0.10	3
Pb			1	2.976	ug/l	1.43	55,785.71	1.162E-02	Pulse	0.10	3
Pb			1	2.799	ug/l	3.20	47,082.59	9.807E-03	Pulse	0.10	3
Pb			1	2.867	ug/l	1.71	219,096.95	4.563E-02	Pulse	0.10	3
Na			2	324292.889	ug/l	2.02	542,502,076.22	2.953E+03	Analog	0.30	3
Mg			2	18060.561	ug/l	2.22	14,327,177.21	7.798E+01	Analog	0.30	3
Al			2	115.232	ug/l	1.90	28,173.92	1.533E-01	Pulse	0.30	3
K			2	35409.480	ug/l	1.98	16,708,825.45	9.095E+01	Analog	0.30	3
Ca			2	205612.549	ug/l	1.92	5,493,280.48	2.990E+01	Analog	0.30	3
Ti			2	113.023	ug/l	2.42	24,060.49	1.309E-01	Pulse	0.30	3
V			2	1.650	ug/l	0.09	12,501.51	6.803E-02	Pulse	0.30	3
Cr			2	0.880	ug/l	1.14	9,523.96	5.183E-02	Pulse	0.30	3
Mn			2	244.676	ug/l	1.24	1,143,134.92	6.221E+00	Pulse	0.30	3
Fe			2	875.795	ug/l	0.96	7,201,280.55	3.919E+01	Analog	0.30	3
Co			2	8.715	ug/l	1.82	152,262.45	8.287E-01	Pulse	0.30	3
Ni			2	24.089	ug/l	2.22	116,529.63	6.343E-01	Pulse	0.30	3
Cu			2	2.642	ug/l	1.00	35,628.64	1.939E-01	Pulse	0.30	3
Zn			2	9.407	ug/l	2.19	16,512.85	8.987E-02	Pulse	0.30	3
As			2	0.535	ug/l	6.91	485.68	2.641E-03	Pulse	1.00	3
Cd			2	0.025	ug/l	34.14	58.33	6.555E-05	Pulse	0.30	3
Sn			2	0.011	ug/l	118.01	615.58	6.900E-04	Pulse	0.30	3
Se			3	0.518	ug/l	6.73	109.13	5.897E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,433,669.85	0.76	103.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,772,660.52	0.62	115.7	Analog	0.10	3
1	Ge		1,054,325.40	1.13	96.8	Pulse	0.10	3
1	Ge		1,453,149.46	1.32	96.5	Pulse	0.10	3
1	Rh		7,052,560.31	1.48	92.7	Analog	0.10	3
1	In		7,954,549.26	1.23	97.5	Analog	0.10	3
1	Tb		10,557,557.76	1.30	102.2	Analog	0.10	3
1	Ho		996,949.72	1.24	100.2	Pulse	0.10	3
1	Bi		4,801,232.33	0.20	79.1	Pulse	0.10	3
2	Sc		183,769.45	2.06	111.1	Pulse	0.30	3
2	Ge		94,871.92	0.67	90.3	Pulse	0.30	3
2	Ge		141,970.22	0.75	90.2	Pulse	0.30	3
2	Rh		2,635,708.85	0.92	82.3	Pulse	0.30	3
2	In		891,464.92	1.34	91.9	Pulse	0.30	3
2	Tb		3,507,086.88	1.33	91.0	Pulse	0.30	3
2	Ho		352,769.60	1.28	91.8	Pulse	0.30	3
2	Bi		1,944,165.76	1.15	75.1	Pulse	0.30	3
3	Sc		225,961.71	2.58	105.2	Pulse	0.30	3
3	Ge		122,816.76	1.49	89.9	Pulse	0.30	3
3	Ge		184,984.45	1.84	90.2	Pulse	0.30	3
3	Rh		1,905,143.95	1.64	80.0	Pulse	0.30	3
3	Tb		3,203,938.21	1.91	88.1	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 15:33
Sample Name jc84152-3
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.215	ug/l	23.29	102.67	2.646E-05	Pulse	0.25	3
B			1	1177.967	ug/l	2.66	367,781.42	9.505E-02	Pulse	0.15	3
Ca			1	82103.092	ug/l	2.33	3,665,012.76	5.068E-01	Pulse	0.10	3
Sr			1	1293.493	ug/l	3.79	2,299,891.42	3.003E-01	Pulse	0.10	3
Mo			1	7.228	ug/l	6.21	2,543.65	3.322E-04	Pulse	0.10	3
Ag			1	1.463	ug/l	5.17	1,370.11	1.623E-04	Pulse	0.10	3
Sn			1	-8.358	ug/l	-3.79	4,977.66	5.898E-04	Pulse	0.10	3
Sb			1	1.385	ug/l	11.63	970.07	8.848E-05	Pulse	0.10	3
Ba			1	108.379	ug/l	2.31	27,037.79	2.467E-03	Pulse	0.10	3
Tl			1	0.220	ug/l	29.76	600.04	1.124E-04	Pulse	0.10	3
Pb			1	11.823	ug/l	7.38	5,301.17	9.974E-04	Pulse	0.10	3
Pb			1	10.501	ug/l	12.03	4,257.45	8.007E-04	Pulse	0.10	3
Pb			1	10.878	ug/l	4.25	20,062.68	3.773E-03	Pulse	0.10	3
Na			2	17989592.128	ug/l	2.23	656,373,040.58	3.276E+03	Analog	0.30	3
Mg			2	128670.547	ug/l	1.61	2,226,578.24	1.111E+01	Pulse	0.30	3
Al			2	3068.700	ug/l	2.93	16,379.19	8.175E-02	Pulse	0.30	3
K			2	64906.302	ug/l	1.53	675,967.58	3.374E+00	Pulse	0.30	3
Ca			2	88796.840	ug/l	2.62	51,835.79	2.587E-01	Pulse	0.30	3
Ti			2	148.161	ug/l	2.10	687.80	3.433E-03	Pulse	0.30	3
V			2	14.610	ug/l	4.27	2,768.04	1.381E-02	Pulse	0.30	3
Cr			2	7.403	ug/l	13.55	2,674.70	1.334E-02	Pulse	0.30	3
Mn			2	155.353	ug/l	2.98	15,895.56	7.934E-02	Pulse	0.30	3
Fe			2	4321.371	ug/l	1.50	778,329.64	3.884E+00	Pulse	0.30	3
Co			2	2.298	ug/l	6.28	994.49	4.959E-03	Pulse	0.30	3
Ni			2	5.196	ug/l	15.15	647.80	3.238E-03	Pulse	0.30	3
Cu			2	28.587	ug/l	3.58	9,537.30	4.759E-02	Pulse	0.30	3
Zn			2	462.873	ug/l	3.22	17,731.94	8.851E-02	Pulse	0.30	3
As			2	55.127	ug/l	1.19	1,075.37	5.366E-03	Pulse	1.00	3
Cd			2	3.372	ug/l	31.12	166.55	1.723E-04	Pulse	0.30	3
Sn			2	2.390	ug/l	22.43	833.37	8.606E-04	Pulse	0.30	3
Se			3	1.498	ug/l	37.56	10.20	4.902E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,871,073.50	2.95	116.9	Mix	0.10	3
1	Sc		7,235,482.81	3.29	123.7	Analog	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		1,168,522.90	2.74	107.3	Pulse	0.10	3
1	Ge		1,610,135.13	3.66	106.9	Pulse	0.10	3
1	Rh		7,667,211.97	3.89	100.8	Analog	0.10	3
1	In		8,443,278.62	2.95	103.5	Analog	0.10	3
1	Tb		10,963,307.75	3.56	106.1	Analog	0.10	3
1	Ho		1,035,212.17	3.83	104.0	Pulse	0.10	3
1	Bi		5,322,812.84	3.89	87.7	Mix	0.10	3
2	Sc		200,414.88	2.27	121.2	Pulse	0.30	3
2	Ge		106,046.34	1.36	100.9	Pulse	0.30	3
2	Ge		159,560.08	0.85	101.4	Pulse	0.30	3
2	Rh		2,977,363.49	1.00	93.0	Pulse	0.30	3
2	In		968,237.93	0.85	99.8	Pulse	0.30	3
2	Tb		3,750,609.85	0.71	97.3	Pulse	0.30	3
2	Ho		377,259.21	1.13	98.2	Pulse	0.30	3
2	Bi		2,151,486.51	0.56	83.1	Pulse	0.30	3
3	Sc		249,463.18	3.05	116.2	Pulse	0.30	3
3	Ge		139,816.60	1.93	102.4	Pulse	0.30	3
3	Ge		208,794.94	2.07	101.8	Pulse	0.30	3
3	Rh		2,193,112.06	2.97	92.1	Pulse	0.30	3
3	Tb		3,517,322.71	3.26	96.7	Pulse	0.30	3

Quantitation Report

File Name 062SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 15:38
Sample Name mp13204-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	42.23	76.00	2.181E-05	Pulse	0.25	3
B			1	3.939	ug/l	1.98	34,709.18	9.960E-03	Pulse	0.15	3
Ca			1	25.145	ug/l	7.81	41,997.49	6.612E-03	Pulse	0.10	3
Sr			1	0.142	ug/l	12.40	8,015.72	9.509E-04	Pulse	0.10	3
Mo			1	0.052	ug/l	20.02	576.70	6.834E-05	Pulse	0.10	3
Ag			1	0.034	ug/l	20.92	880.06	9.507E-05	Pulse	0.10	3
Sn			1	-0.032	ug/l	-40.72	9,980.16	1.081E-03	Pulse	0.10	3
Sb			1	0.063	ug/l	28.42	1,170.36	9.847E-05	Pulse	0.10	3
Ba			1	0.060	ug/l	7.21	460.02	3.868E-05	Pulse	0.10	3
Tl			1	0.022	ug/l	13.93	1,300.11	1.903E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	18.50	963.40	1.410E-04	Pulse	0.10	3
Pb			1	0.035	ug/l	11.77	890.07	1.303E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	11.36	3,947.03	5.777E-04	Pulse	0.10	3
Na			2	111.023	ug/l	6.83	94,167.67	5.429E-01	Pulse	0.30	3
Mg			2	2.993	ug/l	7.50	1,235.61	7.121E-03	Pulse	0.30	3
Al			2	3.378	ug/l	27.30	426.69	2.459E-03	Pulse	0.30	3
K			2	4.054	ug/l	26.75	8,012.02	4.619E-02	Pulse	0.30	3
Ca			2	23.418	ug/l	13.69	376.67	2.171E-03	Pulse	0.30	3
Ti			2	0.266	ug/l	33.63	26.67	1.539E-04	Pulse	0.30	3
V			2	0.269	ug/l	4.28	1,303.40	7.514E-03	Pulse	0.30	3
Cr			2	0.439	ug/l	8.30	2,965.86	1.710E-02	Pulse	0.30	3
Mn			2	0.136	ug/l	7.82	360.01	2.075E-03	Pulse	0.30	3
Fe			2	5.042	ug/l	2.70	22,809.19	1.315E-01	Pulse	0.30	3
Co			2	0.019	ug/l	24.49	258.90	1.493E-03	Pulse	0.30	3
Ni			2	0.045	ug/l	37.53	190.00	1.095E-03	Pulse	0.30	3
Cu			2	0.294	ug/l	5.66	3,046.98	1.756E-02	Pulse	0.30	3
Zn			2	1.129	ug/l	3.29	1,644.55	9.480E-03	Pulse	0.30	3
As			2	0.208	ug/l	3.99	99.33	5.726E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.011	ug/l	50.23	16.64	1.726E-05	Pulse	0.30	3
Sn			2	0.429	ug/l	10.10	1,572.32	1.630E-03	Pulse	0.30	3
Se			3	0.037	ug/l	7.91	8.20	3.654E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,484,655.03	0.80	105.2	Pulse	0.10	3
1	Sc		6,352,151.37	0.15	108.6	Analog	0.10	3
1	Ge		1,151,361.10	1.16	105.8	Pulse	0.10	3
1	Ge		1,593,096.38	1.28	105.8	Pulse	0.10	3
1	Rh		8,433,400.50	0.62	110.9	Analog	0.10	3
1	In		9,232,016.57	2.13	113.1	Analog	0.10	3
1	Tb		11,895,225.24	0.96	115.1	Analog	0.10	3
1	Ho		1,119,047.72	1.97	112.4	Pulse	0.10	3
1	Bi		6,832,756.36	0.47	112.6	Analog	0.10	3
2	Sc		173,476.48	0.50	104.9	Pulse	0.30	3
2	Ge		100,379.80	1.23	95.5	Pulse	0.30	3
2	Ge		151,206.47	0.43	96.1	Pulse	0.30	3
2	Rh		3,293,502.72	0.22	102.9	Pulse	0.30	3
2	In		964,571.61	0.20	99.4	Pulse	0.30	3
2	Tb		3,946,625.82	0.18	102.4	Pulse	0.30	3
2	Ho		394,744.26	0.87	102.8	Pulse	0.30	3
2	Bi		2,651,870.80	0.62	102.5	Pulse	0.30	3
3	Sc		245,059.42	0.93	114.1	Pulse	0.30	3
3	Ge		149,021.31	0.87	109.1	Pulse	0.30	3
3	Ge		224,397.74	0.74	109.4	Pulse	0.30	3
3	Rh		2,713,171.83	0.44	113.9	Pulse	0.30	3
3	Tb		4,185,557.75	0.60	115.1	Pulse	0.30	3

Quantitation Report

File Name 063SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 15:43
Sample Name mp13204-b1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.193	ug/l	0.81	540,339.52	1.555E-01	Pulse	0.25	3
B			1	87.742	ug/l	0.56	608,636.28	1.751E-01	Pulse	0.15	3
Ca			1	4038.950	ug/l	1.10	4,048,858.90	6.226E-01	Pulse	0.10	3
Sr			1	83.645	ug/l	2.01	4,065,884.73	4.853E-01	Pulse	0.10	3
Mo			1	80.442	ug/l	1.03	748,956.16	8.939E-02	Pulse	0.10	3
Ag			1	79.799	ug/l	0.79	1,975,427.52	2.150E-01	Pulse	0.10	3
Sn			1	78.111	ug/l	1.31	1,177,616.88	1.281E-01	Pulse	0.10	3
Sb			1	76.398	ug/l	0.29	1,256,415.95	1.041E-01	Pulse	0.10	3
Ba			1	79.588	ug/l	0.69	545,428.16	4.521E-02	Pulse	0.10	3
Tl			1	80.878	ug/l	1.41	3,229,013.29	4.780E-01	Pulse	0.10	3
Pb			1	83.260	ug/l	1.60	1,090,850.11	1.615E-01	Pulse	0.10	3
Pb			1	81.171	ug/l	1.60	954,311.39	1.413E-01	Pulse	0.10	3
Pb			1	82.113	ug/l	1.39	4,383,873.55	6.490E-01	Pulse	0.10	3
Na			2	4145.896	ug/l	1.05	3,333,643.13	1.891E+01	Pulse	0.30	3
Mg			2	3955.187	ug/l	0.74	1,505,269.07	8.540E+00	Pulse	0.30	3
Al			2	3914.962	ug/l	0.47	458,419.77	2.601E+00	Pulse	0.30	3
K			2	4044.878	ug/l	0.83	922,411.52	5.233E+00	Pulse	0.30	3
Ca			2	4612.648	ug/l	1.86	59,197.84	3.358E-01	Pulse	0.30	3
Ti			2	79.981	ug/l	1.37	8,165.43	4.632E-02	Pulse	0.30	3
V			2	84.435	ug/l	0.71	297,621.12	1.688E+00	Pulse	0.30	3
Cr			2	85.021	ug/l	0.31	394,810.19	2.240E+00	Pulse	0.30	3
Mn			2	83.465	ug/l	0.74	187,094.96	1.061E+00	Pulse	0.30	3
Fe			2	4185.049	ug/l	0.51	16,500,899.90	9.361E+01	Analog	0.30	3
Co			2	83.726	ug/l	0.83	701,303.01	3.979E+00	Pulse	0.30	3
Ni			2	82.517	ug/l	1.31	191,431.85	1.086E+00	Pulse	0.30	3
Cu			2	81.385	ug/l	0.97	508,286.12	2.884E+00	Pulse	0.30	3
Zn			2	68.820	ug/l	0.79	55,911.27	3.172E-01	Pulse	0.30	3
As			2	70.020	ug/l	0.74	29,635.72	1.681E-01	Pulse	1.00	3
Cd			2	79.122	ug/l	0.25	95,079.51	9.905E-02	Pulse	0.30	3
Sn			2	79.619	ug/l	0.49	177,073.89	1.845E-01	Pulse	0.30	3
Se			3	333.621	ug/l	0.09	42,233.32	1.847E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,475,656.36	0.86	105.0	Pulse	0.10	3
1	Sc		6,503,126.57	1.26	111.1	Analog	0.10	3
1	Ge		1,173,971.93	1.11	107.8	Pulse	0.10	3

Quantitation Report

1	Ge		1,627,997.58	0.93	108.1	Pulse	0.10	3
1	Rh		8,378,430.71	0.90	110.2	Analog	0.10	3
1	In		9,190,028.16	0.90	112.6	Analog	0.10	3
1	Tb		12,063,886.49	1.71	116.8	Analog	0.10	3
1	Ho		1,143,970.09	1.25	114.9	Pulse	0.10	3
1	Bi		6,756,304.49	1.80	111.3	Analog	0.10	3
2	Sc		176,268.18	0.24	106.6	Pulse	0.30	3
2	Ge		101,091.73	0.22	96.2	Pulse	0.30	3
2	Ge		152,107.85	1.01	96.7	Pulse	0.30	3
2	Rh		3,260,817.51	0.38	101.9	Pulse	0.30	3
2	In		959,930.59	0.36	98.9	Pulse	0.30	3
2	Tb		3,970,030.68	0.19	103.0	Pulse	0.30	3
2	Ho		395,210.19	0.43	102.9	Pulse	0.30	3
2	Bi		2,585,246.15	0.25	99.9	Pulse	0.30	3
3	Sc		254,902.54	0.92	118.7	Pulse	0.30	3
3	Ge		151,077.58	1.27	110.6	Pulse	0.30	3
3	Ge		228,634.64	0.47	111.5	Pulse	0.30	3
3	Rh		2,679,527.95	0.84	112.5	Pulse	0.30	3
3	Tb		4,173,388.86	1.39	114.7	Pulse	0.30	3

Quantitation Report

File Name 064SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 15:48
Sample Name mp13204-b2conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.909	ug/l	1.68	572,869.98	1.569E-01	Pulse	0.25	3
B			1	89.761	ug/l	1.48	653,953.05	1.791E-01	Pulse	0.15	3
Ca			1	4096.096	ug/l	1.70	4,287,143.48	6.314E-01	Pulse	0.10	3
Sr			1	84.803	ug/l	1.14	4,266,342.13	4.920E-01	Pulse	0.10	3
Mo			1	81.000	ug/l	0.89	780,488.19	9.001E-02	Pulse	0.10	3
Ag			1	81.042	ug/l	1.68	2,056,645.13	2.183E-01	Pulse	0.10	3
Sn			1	78.861	ug/l	0.83	1,218,864.15	1.294E-01	Pulse	0.10	3
Sb			1	76.976	ug/l	0.81	1,300,879.95	1.049E-01	Pulse	0.10	3
Ba			1	80.309	ug/l	0.97	565,595.93	4.562E-02	Pulse	0.10	3
Tl			1	81.844	ug/l	1.55	3,310,826.51	4.837E-01	Pulse	0.10	3
Pb			1	84.364	ug/l	1.49	1,119,951.83	1.636E-01	Pulse	0.10	3
Pb			1	82.079	ug/l	1.18	977,773.89	1.429E-01	Pulse	0.10	3
Pb			1	83.262	ug/l	1.48	4,503,935.48	6.580E-01	Pulse	0.10	3
Na			2	4119.159	ug/l	0.69	3,444,224.52	1.879E+01	Pulse	0.30	3
Mg			2	3928.707	ug/l	0.99	1,554,757.06	8.483E+00	Pulse	0.30	3
Al			2	3920.217	ug/l	0.80	477,324.96	2.604E+00	Pulse	0.30	3
K			2	4038.150	ug/l	1.30	957,553.61	5.224E+00	Pulse	0.30	3
Ca			2	4531.325	ug/l	1.35	60,472.41	3.299E-01	Pulse	0.30	3
Ti			2	80.486	ug/l	4.47	8,542.30	4.662E-02	Pulse	0.30	3
V			2	83.804	ug/l	1.46	307,156.25	1.676E+00	Pulse	0.30	3
Cr			2	84.443	ug/l	1.21	407,743.98	2.225E+00	Pulse	0.30	3
Mn			2	83.119	ug/l	0.62	193,744.20	1.057E+00	Pulse	0.30	3
Fe			2	4152.357	ug/l	1.80	17,023,868.21	9.288E+01	Analog	0.30	3
Co			2	83.155	ug/l	1.22	724,249.80	3.952E+00	Pulse	0.30	3
Ni			2	82.381	ug/l	1.39	198,726.35	1.084E+00	Pulse	0.30	3
Cu			2	81.020	ug/l	0.73	526,180.22	2.871E+00	Pulse	0.30	3
Zn			2	68.102	ug/l	1.18	57,540.40	3.139E-01	Pulse	0.30	3
As			2	70.000	ug/l	0.90	30,807.87	1.681E-01	Pulse	1.00	3
Cd			2	78.296	ug/l	0.51	95,975.01	9.801E-02	Pulse	0.30	3
Sn			2	79.728	ug/l	0.64	180,880.50	1.847E-01	Pulse	0.30	3
Se			3	333.239	ug/l	0.67	43,222.06	1.845E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,651,739.65	0.53	110.3	Pulse	0.10	3
1	Sc		6,790,403.85	0.75	116.0	Analog	0.10	3
1	Ge		1,225,478.81	0.33	112.6	Pulse	0.10	3

Quantitation Report

1	Ge		1,690,752.52	0.75	112.2	Pulse	0.10	3
1	Rh		8,670,794.04	0.32	114.0	Analog	0.10	3
1	In		9,422,894.20	2.19	115.5	Analog	0.10	3
1	Tb		12,396,656.49	0.20	120.0	Analog	0.10	3
1	Ho		1,161,017.93	1.30	116.7	Pulse	0.10	3
1	Bi		6,844,847.82	0.49	112.8	Analog	0.10	3
2	Sc		183,299.76	1.00	110.9	Pulse	0.30	3
2	Ge		104,788.34	0.69	99.7	Pulse	0.30	3
2	Ge		157,184.57	0.23	99.9	Pulse	0.30	3
2	Rh		3,342,294.52	0.56	104.4	Pulse	0.30	3
2	In		979,224.67	0.68	100.9	Pulse	0.30	3
2	Tb		4,098,778.17	3.28	106.4	Mix	0.30	3
2	Ho		401,737.76	0.70	104.6	Pulse	0.30	3
2	Bi		2,619,121.98	0.07	101.2	Pulse	0.30	3
3	Sc		261,588.20	0.58	121.8	Pulse	0.30	3
3	Ge		156,375.29	0.51	114.5	Pulse	0.30	3
3	Ge		234,261.41	0.54	114.2	Pulse	0.30	3
3	Rh		2,746,774.20	0.37	115.3	Pulse	0.30	3
3	Tb		4,244,575.53	0.60	116.7	Pulse	0.30	3

Quantitation Report

File Name 065SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 15:53
Sample Name mp13204-b3conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.777	ug/l	2.19	583,478.39	1.566E-01	Pulse	0.25	3
B			1	89.670	ug/l	1.64	666,571.57	1.789E-01	Pulse	0.15	3
Ca			1	4103.785	ug/l	1.21	4,369,406.50	6.326E-01	Pulse	0.10	3
Sr			1	85.201	ug/l	2.22	4,313,931.29	4.944E-01	Pulse	0.10	3
Mo			1	81.366	ug/l	1.86	789,069.16	9.042E-02	Pulse	0.10	3
Ag			1	80.625	ug/l	2.03	2,086,510.43	2.172E-01	Pulse	0.10	3
Sn			1	78.252	ug/l	1.68	1,233,335.40	1.284E-01	Pulse	0.10	3
Sb			1	76.748	ug/l	1.61	1,311,586.96	1.046E-01	Pulse	0.10	3
Ba			1	80.303	ug/l	1.81	571,898.25	4.562E-02	Pulse	0.10	3
Tl			1	82.312	ug/l	1.17	3,327,520.47	4.865E-01	Pulse	0.10	3
Pb			1	85.506	ug/l	1.33	1,134,369.10	1.658E-01	Pulse	0.10	3
Pb			1	83.229	ug/l	1.35	990,780.66	1.449E-01	Pulse	0.10	3
Pb			1	84.170	ug/l	1.23	4,550,134.83	6.652E-01	Pulse	0.10	3
Na			2	4106.683	ug/l	0.45	3,501,035.83	1.873E+01	Pulse	0.30	3
Mg			2	3911.719	ug/l	0.83	1,578,361.98	8.446E+00	Pulse	0.30	3
Al			2	3868.707	ug/l	0.98	480,272.17	2.570E+00	Pulse	0.30	3
K			2	4001.936	ug/l	0.71	967,646.39	5.178E+00	Pulse	0.30	3
Ca			2	4482.994	ug/l	0.44	61,003.23	3.264E-01	Pulse	0.30	3
Ti			2	80.327	ug/l	4.51	8,693.48	4.652E-02	Pulse	0.30	3
V			2	83.504	ug/l	0.74	312,064.33	1.670E+00	Pulse	0.30	3
Cr			2	83.402	ug/l	0.98	410,625.73	2.197E+00	Pulse	0.30	3
Mn			2	81.867	ug/l	0.33	194,565.45	1.041E+00	Pulse	0.30	3
Fe			2	4090.574	ug/l	0.94	17,099,465.43	9.150E+01	Analog	0.30	3
Co			2	82.402	ug/l	0.38	731,783.13	3.916E+00	Pulse	0.30	3
Ni			2	81.692	ug/l	0.66	200,931.65	1.075E+00	Pulse	0.30	3
Cu			2	80.033	ug/l	0.72	529,957.89	2.836E+00	Pulse	0.30	3
Zn			2	67.371	ug/l	0.69	58,048.70	3.106E-01	Pulse	0.30	3
As			2	68.878	ug/l	1.00	30,907.72	1.654E-01	Pulse	1.00	3
Cd			2	77.998	ug/l	1.23	96,641.03	9.764E-02	Pulse	0.30	3
Sn			2	79.102	ug/l	0.42	181,400.05	1.833E-01	Pulse	0.30	3
Se			3	331.819	ug/l	0.52	43,097.36	1.837E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,726,407.60	1.71	112.5	Pulse	0.10	3
1	Sc		6,907,872.81	1.23	118.1	Analog	0.10	3
1	Ge		1,239,595.81	0.51	113.9	Pulse	0.10	3

Quantitation Report

1	Ge		1,716,339.14	0.77	113.9	Pulse	0.10	3
1	Rh		8,727,782.79	1.03	114.7	Analog	0.10	3
1	In		9,608,318.16	1.19	117.8	Analog	0.10	3
1	Tb		12,537,232.73	1.08	121.3	Analog	0.10	3
1	Ho		1,177,045.45	1.60	118.3	Pulse	0.10	3
1	Bi		6,840,561.15	1.12	112.7	Analog	0.10	3
2	Sc		186,882.68	0.46	113.0	Pulse	0.30	3
2	Ge		105,675.08	0.73	100.6	Pulse	0.30	3
2	Ge		158,918.36	0.63	101.0	Pulse	0.30	3
2	Rh		3,372,724.52	0.28	105.3	Pulse	0.30	3
2	In		989,790.43	0.38	102.0	Pulse	0.30	3
2	Tb		4,059,867.06	0.56	105.3	Pulse	0.30	3
2	Ho		405,949.47	0.21	105.7	Pulse	0.30	3
2	Bi		2,618,599.96	0.45	101.2	Pulse	0.30	3
3	Sc		261,744.28	0.53	121.9	Pulse	0.30	3
3	Ge		155,029.40	0.23	113.5	Pulse	0.30	3
3	Ge		234,582.97	0.44	114.4	Pulse	0.30	3
3	Rh		2,733,538.71	0.51	114.8	Pulse	0.30	3
3	Tb		4,198,570.11	0.10	115.4	Pulse	0.30	3

Quantitation Report

File Name	066_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 15:58
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.440	ug/l	2.73	733,122.44	1.966E-01	Pulse	0.25	3
B			1	101.501	ug/l	2.27	1,500,204.97	4.023E-01	Pulse	0.15	3
Ca			1	5021.987	ug/l	3.17	10,780,701.92	1.544E+00	Analog	0.10	3
Sr			1	51.601	ug/l	2.21	5,189,009.82	5.988E-01	Mix	0.10	3
Mo			1	50.666	ug/l	1.49	975,892.93	1.126E-01	Pulse	0.10	3
Ag			1	48.489	ug/l	1.32	2,467,729.34	2.612E-01	Pulse	0.10	3
Sn			1	48.805	ug/l	1.53	1,510,022.79	1.599E-01	Pulse	0.10	3
Sb			1	50.946	ug/l	1.76	1,667,702.53	1.389E-01	Pulse	0.10	3
Ba			1	49.233	ug/l	1.45	671,633.74	5.594E-02	Pulse	0.10	3
Tl			1	48.928	ug/l	1.12	3,847,933.07	5.783E-01	Pulse	0.10	3
Pb			1	50.506	ug/l	1.60	1,303,352.69	1.959E-01	Pulse	0.10	3
Pb			1	49.327	ug/l	1.60	1,142,254.98	1.717E-01	Pulse	0.10	3
Pb			1	49.816	ug/l	1.80	5,238,205.03	7.873E-01	Pulse	0.10	3
Na			2	4989.355	ug/l	2.51	8,492,840.77	4.547E+01	Analog	0.30	3
Mg			2	4697.314	ug/l	0.76	3,788,802.63	2.028E+01	Pulse	0.30	3
Al			2	4791.326	ug/l	0.94	1,188,985.82	6.365E+00	Pulse	0.30	3
K			2	4909.203	ug/l	0.94	2,361,761.29	1.264E+01	Pulse	0.30	3
Ca			2	5208.817	ug/l	0.89	141,569.99	7.579E-01	Pulse	0.30	3
Ti			2	50.428	ug/l	0.97	10,911.46	5.841E-02	Pulse	0.30	3
V			2	50.044	ug/l	1.28	373,769.76	2.001E+00	Pulse	0.30	3
Cr			2	49.551	ug/l	1.11	487,489.83	2.610E+00	Pulse	0.30	3
Mn			2	49.048	ug/l	1.16	232,997.73	1.247E+00	Pulse	0.30	3
Fe			2	4930.280	ug/l	1.31	41,193,833.92	2.205E+02	Analog	0.30	3
Co			2	48.721	ug/l	0.83	864,898.04	4.630E+00	Pulse	0.30	3
Ni			2	48.097	ug/l	0.82	236,468.37	1.266E+00	Pulse	0.30	3
Cu			2	47.272	ug/l	1.44	625,472.93	3.349E+00	Pulse	0.30	3
Zn			2	47.038	ug/l	0.30	80,696.72	4.320E-01	Pulse	0.30	3
As			2	48.389	ug/l	1.31	43,398.54	2.323E-01	Pulse	1.00	3
Cd			2	49.609	ug/l	1.12	125,120.94	1.242E-01	Pulse	0.30	3
Sn			2	49.986	ug/l	0.95	233,174.22	2.315E-01	Pulse	0.30	3
Se			3	197.835	ug/l	0.47	48,745.23	2.191E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,730,474.93	1.73	112.6	Pulse	0.10	3
1	Sc		6,982,821.35	1.47	119.3	Analog	0.10	3
1	Ge		1,260,176.49	0.29	115.8	Pulse	0.10	3

Quantitation Report

1	Ge		1,745,332.58	0.59	115.9	Pulse	0.10	3
1	Rh		8,667,137.37	1.11	114.0	Analog	0.10	3
1	In		9,446,248.43	0.08	115.8	Analog	0.10	3
1	Tb		12,008,133.15	1.26	116.2	Analog	0.10	3
1	Ho		1,138,646.44	1.71	114.4	Pulse	0.10	3
1	Bi		6,653,982.82	1.27	109.6	Analog	0.10	3
2	Sc		186,798.11	1.04	113.0	Pulse	0.30	3
2	Ge		108,264.95	0.68	103.0	Pulse	0.30	3
2	Ge		162,473.92	0.70	103.3	Pulse	0.30	3
2	Rh		3,299,054.52	0.88	103.0	Pulse	0.30	3
2	In		1,007,470.73	1.02	103.8	Pulse	0.30	3
2	Tb		3,999,337.48	0.87	103.8	Pulse	0.30	3
2	Ho		398,934.17	0.79	103.9	Pulse	0.30	3
2	Bi		2,593,716.70	0.75	100.2	Pulse	0.30	3
3	Sc		242,401.38	1.53	112.9	Pulse	0.30	3
3	Ge		147,924.83	1.17	108.3	Pulse	0.30	3
3	Ge		222,514.91	1.05	108.5	Pulse	0.30	3
3	Rh		2,566,598.79	1.81	107.8	Pulse	0.30	3
3	Tb		3,991,485.68	1.93	109.7	Pulse	0.30	3

Quantitation Report

File Name	067_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 16:03
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	37.89	144.00	4.000E-05	Pulse	0.25	3
B			1	1.740	ug/l	2.71	32,498.11	9.055E-03	Pulse	0.15	3
Ca			1	0.458	ug/l	74.53	19,345.24	2.893E-03	Pulse	0.10	3
Sr			1	0.012	ug/l	15.80	2,303.58	2.647E-04	Pulse	0.10	3
Mo			1	0.057	ug/l	15.84	1,206.77	1.384E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	15.93	780.05	8.319E-05	Pulse	0.10	3
Sn			1	-0.162	ug/l	-2.88	5,674.60	6.056E-04	Pulse	0.10	3
Sb			1	0.075	ug/l	9.37	2,580.32	2.169E-04	Pulse	0.10	3
Ba			1	0.011	ug/l	31.36	206.68	1.737E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	5.58	1,746.83	2.564E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	28.38	980.07	1.438E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	38.50	856.72	1.256E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	10.91	4,127.05	6.056E-04	Pulse	0.10	3
Na			2	9.472	ug/l	4.86	22,422.78	1.237E-01	Pulse	0.30	3
Mg			2	0.605	ug/l	8.08	593.35	3.271E-03	Pulse	0.30	3
Al			2	0.549	ug/l	17.12	171.12	9.449E-04	Pulse	0.30	3
K			2	0.698	ug/l	125.47	7,750.77	4.278E-02	Pulse	0.30	3
Ca			2	1.283	ug/l	71.49	118.89	6.554E-04	Pulse	0.30	3
Ti			2	0.042	ug/l	56.90	8.89	4.881E-05	Pulse	0.30	3
V			2	0.005	ug/l	84.81	421.12	2.322E-03	Pulse	0.30	3
Cr			2	0.010	ug/l	100.55	1,106.72	6.100E-03	Pulse	0.30	3
Mn			2	0.011	ug/l	23.24	114.44	6.306E-04	Pulse	0.30	3
Fe			2	0.747	ug/l	4.85	9,451.70	5.214E-02	Pulse	0.30	3
Co			2	0.004	ug/l	36.12	170.00	9.391E-04	Pulse	0.30	3
Ni			2	0.006	ug/l	38.11	122.23	6.748E-04	Pulse	0.30	3
Cu			2	0.013	ug/l	9.65	1,472.30	8.121E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.095	ug/l	42.26	944.48	5.212E-03	Pulse	0.30	3
As			2	0.013	ug/l	11.48	24.33	1.343E-04	Pulse	1.00	3
Cd			2	0.010	ug/l	20.12	28.79	2.853E-05	Pulse	0.30	3
Sn			2	0.080	ug/l	22.51	1,020.05	1.010E-03	Pulse	0.30	3
Se			3	0.077	ug/l	15.18	22.93	1.007E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,589,445.20	1.70	108.4	Pulse	0.10	3
1	Sc		6,686,414.27	2.22	114.3	Analog	0.10	3
1	Ge		1,215,986.41	1.05	111.7	Pulse	0.10	3
1	Ge		1,697,085.91	1.73	112.7	Pulse	0.10	3
1	Rh		8,702,015.70	1.82	114.4	Analog	0.10	3
1	In		9,370,649.47	0.68	114.8	Analog	0.10	3
1	Tb		11,896,831.07	1.08	115.1	Analog	0.10	3
1	Ho		1,112,512.69	1.32	111.8	Pulse	0.10	3
1	Bi		6,812,112.40	1.23	112.2	Analog	0.10	3
2	Sc		181,292.21	1.61	109.7	Pulse	0.30	3
2	Ge		108,363.93	1.06	103.1	Pulse	0.30	3
2	Ge		161,715.34	0.84	102.8	Pulse	0.30	3
2	Rh		3,370,431.60	0.84	105.3	Pulse	0.30	3
2	In		1,009,273.54	0.48	104.0	Pulse	0.30	3
2	Tb		3,965,290.68	0.63	102.9	Pulse	0.30	3
2	Ho		395,223.54	0.81	102.9	Pulse	0.30	3
2	Bi		2,675,920.24	0.53	103.4	Pulse	0.30	3
3	Sc		247,516.60	5.55	115.3	Pulse	0.30	3
3	Ge		152,596.39	3.46	111.7	Pulse	0.30	3
3	Ge		228,313.33	3.55	111.3	Pulse	0.30	3
3	Rh		2,731,683.57	5.01	114.7	Pulse	0.30	3
3	Tb		4,224,095.94	7.66	116.1	Mix	0.30	3

Quantitation Report

File Name 068SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 16:08
Sample Name mp13204-b4conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	79.280	ug/l	0.54	571,047.44	1.576E-01	Pulse	0.25	3
B			1	89.217	ug/l	0.56	644,963.88	1.780E-01	Pulse	0.15	3
Ca			1	4136.206	ug/l	1.96	4,230,931.08	6.376E-01	Pulse	0.10	3
Sr			1	84.471	ug/l	0.21	4,192,014.73	4.901E-01	Pulse	0.10	3
Mo			1	80.680	ug/l	0.75	766,874.96	8.966E-02	Pulse	0.10	3
Ag			1	80.697	ug/l	0.66	2,025,436.43	2.174E-01	Pulse	0.10	3
Sn			1	78.466	ug/l	1.36	1,199,420.84	1.287E-01	Pulse	0.10	3
Sb			1	76.919	ug/l	0.88	1,277,887.38	1.049E-01	Pulse	0.10	3
Ba			1	79.742	ug/l	0.51	552,092.25	4.530E-02	Pulse	0.10	3
Tl			1	81.510	ug/l	1.93	3,212,327.45	4.817E-01	Pulse	0.10	3
Pb			1	85.179	ug/l	1.29	1,101,666.42	1.652E-01	Pulse	0.10	3
Pb			1	82.716	ug/l	0.97	960,022.02	1.440E-01	Pulse	0.10	3
Pb			1	83.644	ug/l	1.33	4,408,138.50	6.611E-01	Pulse	0.10	3
Na			2	4114.024	ug/l	0.80	3,387,927.92	1.877E+01	Pulse	0.30	3
Mg			2	3955.925	ug/l	0.72	1,541,880.18	8.541E+00	Pulse	0.30	3
Al			2	3945.545	ug/l	0.70	473,147.43	2.621E+00	Pulse	0.30	3
K			2	4054.366	ug/l	1.03	946,859.09	5.245E+00	Pulse	0.30	3
Ca			2	4611.244	ug/l	0.41	60,609.54	3.357E-01	Pulse	0.30	3
Ti			2	80.428	ug/l	2.71	8,409.99	4.658E-02	Pulse	0.30	3
V			2	84.327	ug/l	0.67	304,412.86	1.686E+00	Pulse	0.30	3
Cr			2	84.212	ug/l	1.10	400,491.23	2.219E+00	Pulse	0.30	3
Mn			2	82.922	ug/l	0.14	190,366.68	1.055E+00	Pulse	0.30	3
Fe			2	4126.524	ug/l	0.94	16,662,620.45	9.230E+01	Analog	0.30	3
Co			2	83.176	ug/l	0.92	713,503.98	3.953E+00	Pulse	0.30	3
Ni			2	82.151	ug/l	0.41	195,185.02	1.081E+00	Pulse	0.30	3
Cu			2	80.602	ug/l	0.93	515,553.87	2.856E+00	Pulse	0.30	3
Zn			2	68.928	ug/l	0.88	57,348.57	3.177E-01	Pulse	0.30	3
As			2	69.756	ug/l	1.18	30,236.49	1.675E-01	Pulse	1.00	3
Cd			2	79.145	ug/l	0.83	95,965.28	9.908E-02	Pulse	0.30	3
Sn			2	79.802	ug/l	0.65	179,081.82	1.849E-01	Pulse	0.30	3
Se			3	332.753	ug/l	1.12	42,227.09	1.842E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,622,994.73	0.58	109.4	Pulse	0.10	3
1	Sc		6,636,697.61	1.19	113.4	Analog	0.10	3
1	Ge		1,193,927.33	0.47	109.7	Pulse	0.10	3

Quantitation Report

1	Ge		1,663,454.87	0.84	110.4	Pulse	0.10	3
1	Rh		8,552,950.08	0.78	112.5	Analog	0.10	3
1	In		9,317,300.99	0.53	114.2	Analog	0.10	3
1	Tb		12,186,957.74	0.60	117.9	Analog	0.10	3
1	Ho		1,141,197.79	1.69	114.7	Pulse	0.10	3
1	Bi		6,668,840.94	1.04	109.9	Analog	0.10	3
2	Sc		180,523.71	0.48	109.2	Pulse	0.30	3
2	Ge		102,924.17	0.74	98.0	Pulse	0.30	3
2	Ge		154,207.35	0.33	98.0	Pulse	0.30	3
2	Rh		3,278,159.73	0.28	102.4	Pulse	0.30	3
2	In		968,602.34	0.06	99.8	Pulse	0.30	3
2	Tb		3,948,127.20	0.59	102.4	Pulse	0.30	3
2	Ho		393,711.86	0.99	102.5	Pulse	0.30	3
2	Bi		2,562,939.90	0.29	99.0	Pulse	0.30	3
3	Sc		252,984.22	0.68	117.8	Pulse	0.30	3
3	Ge		152,726.36	0.56	111.8	Pulse	0.30	3
3	Ge		229,209.10	0.70	111.8	Pulse	0.30	3
3	Rh		2,661,503.30	0.43	111.8	Pulse	0.30	3
3	Tb		4,118,663.03	0.82	113.2	Pulse	0.30	3

Quantitation Report

File Name	069SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 16:15
Sample Name	mp13203-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.035	ug/l	30.03	136.00	3.688E-05	Pulse	0.25	3
B			1	6.253	ug/l	3.01	26,327.42	7.127E-03	Pulse	0.15	3
Ca			1	50.049	ug/l	2.76	39,434.52	5.825E-03	Pulse	0.10	3
Sr			1	0.193	ug/l	6.34	5,044.30	5.767E-04	Pulse	0.10	3
Mo			1	0.393	ug/l	4.07	1,623.48	1.856E-04	Pulse	0.10	3
Ag			1	0.062	ug/l	16.57	666.71	7.105E-05	Pulse	0.10	3
Sn			1	18.308	ug/l	3.80	122,270.72	1.304E-02	Pulse	0.10	3
Sb			1	0.131	ug/l	5.05	1,003.41	8.464E-05	Pulse	0.10	3
Ba			1	0.184	ug/l	8.17	553.36	4.672E-05	Pulse	0.10	3
Tl			1	0.054	ug/l	13.36	1,306.78	1.882E-04	Pulse	0.10	3
Pb			1	0.111	ug/l	13.33	1,156.76	1.666E-04	Pulse	0.10	3
Pb			1	0.111	ug/l	17.39	1,023.41	1.473E-04	Pulse	0.10	3
Pb			1	0.107	ug/l	2.81	4,680.47	6.741E-04	Pulse	0.10	3
Na			2	104.360	ug/l	4.06	42,477.46	2.275E-01	Pulse	0.30	3
Mg			2	10.787	ug/l	5.15	1,862.35	9.974E-03	Pulse	0.30	3
Al			2	7.274	ug/l	18.53	400.01	2.148E-03	Pulse	0.30	3
K			2	39.386	ug/l	9.15	11,428.45	6.121E-02	Pulse	0.30	3
Ca			2	49.525	ug/l	7.49	356.68	1.909E-03	Pulse	0.30	3
Ti			2	0.617	ug/l	22.96	26.66	1.430E-04	Pulse	0.30	3
V			2	0.129	ug/l	15.05	591.13	3.164E-03	Pulse	0.30	3
Cr			2	0.987	ug/l	9.35	2,973.63	1.593E-02	Pulse	0.30	3
Mn			2	0.241	ug/l	7.27	293.34	1.569E-03	Pulse	0.30	3
Fe			2	30.129	ug/l	4.67	53,803.84	2.883E-01	Pulse	0.30	3
Co			2	0.024	ug/l	33.54	196.67	1.050E-03	Pulse	0.30	3
Ni			2	1.296	ug/l	1.10	1,367.85	7.323E-03	Pulse	0.30	3
Cu			2	4.502	ug/l	3.68	13,223.18	7.083E-02	Pulse	0.30	3
Zn			2	6.062	ug/l	6.89	2,869.18	1.537E-02	Pulse	0.30	3
As			2	0.065	ug/l	18.30	25.33	1.358E-04	Pulse	1.00	3
Cd			2	0.065	ug/l	30.09	36.58	3.594E-05	Pulse	0.30	3
Sn			2	17.719	ug/l	2.67	17,292.16	1.700E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.250	ug/l	15.38	15.87	7.113E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,694,671.81	1.31	111.6	Pulse	0.10	3
1	Sc		6,769,599.48	1.08	115.7	Analog	0.10	3
1	Ge		1,232,745.76	1.75	113.2	Pulse	0.10	3
1	Ge		1,700,649.45	1.85	112.9	Pulse	0.10	3
1	Rh		8,743,199.04	1.66	115.0	Analog	0.10	3
1	In		9,377,788.03	0.97	114.9	Analog	0.10	3
1	Tb		11,854,358.99	1.85	114.7	Analog	0.10	3
1	Ho		1,107,746.13	2.39	111.3	Pulse	0.10	3
1	Bi		6,942,529.06	1.26	114.4	Analog	0.10	3
2	Sc		186,804.27	2.75	113.0	Pulse	0.30	3
2	Ge		108,685.70	1.70	103.4	Pulse	0.30	3
2	Ge		163,136.35	1.29	103.7	Pulse	0.30	3
2	Rh		3,405,270.77	2.43	106.4	Pulse	0.30	3
2	In		1,017,171.33	1.83	104.8	Pulse	0.30	3
2	Tb		3,994,937.76	2.41	103.7	Pulse	0.30	3
2	Ho		399,060.46	2.31	103.9	Pulse	0.30	3
2	Bi		2,724,016.98	1.85	105.2	Pulse	0.30	3
3	Sc		237,927.81	1.26	110.8	Pulse	0.30	3
3	Ge		149,011.52	1.07	109.1	Pulse	0.30	3
3	Ge		223,093.46	0.62	108.8	Pulse	0.30	3
3	Rh		2,640,557.19	1.34	110.9	Pulse	0.30	3
3	Tb		3,997,175.68	1.43	109.9	Pulse	0.30	3

Quantitation Report

File Name 070SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 16:20
Sample Name mp13203-b1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	197.326	ug/l	1.41	581,604.54	1.569E-01	Pulse	0.25	3
B			1	199.090	ug/l	1.82	589,775.67	1.591E-01	Pulse	0.15	3
Ca			1	9820.974	ug/l	0.64	4,090,694.31	6.057E-01	Pulse	0.10	3
Sr			1	199.549	ug/l	1.70	3,941,496.19	4.631E-01	Pulse	0.10	3
Mo			1	190.777	ug/l	2.13	721,659.29	8.480E-02	Pulse	0.10	3
Ag			1	97.103	ug/l	0.67	966,015.51	1.046E-01	Pulse	0.10	3
Sn			1	199.784	ug/l	1.52	1,209,990.92	1.311E-01	Pulse	0.10	3
Sb			1	192.142	ug/l	1.06	1,251,809.12	1.048E-01	Pulse	0.10	3
Ba			1	193.374	ug/l	1.06	525,019.26	4.394E-02	Pulse	0.10	3
Tl			1	193.542	ug/l	1.05	3,048,373.39	4.576E-01	Pulse	0.10	3
Pb			1	199.342	ug/l	0.67	1,030,383.47	1.547E-01	Pulse	0.10	3
Pb			1	194.763	ug/l	1.18	903,315.40	1.356E-01	Pulse	0.10	3
Pb			1	196.435	ug/l	0.99	4,137,178.43	6.210E-01	Pulse	0.10	3
Na			2	9864.013	ug/l	1.30	3,244,393.62	1.800E+01	Pulse	0.30	3
Mg			2	9552.603	ug/l	0.95	1,486,983.00	8.250E+00	Pulse	0.30	3
Al			2	9652.639	ug/l	1.07	462,287.97	2.565E+00	Pulse	0.30	3
K			2	9884.641	ug/l	0.87	922,143.68	5.116E+00	Pulse	0.30	3
Ca			2	11132.131	ug/l	0.46	58,439.67	3.242E-01	Pulse	0.30	3
Ti			2	191.883	ug/l	2.44	8,012.01	4.445E-02	Pulse	0.30	3
V			2	201.514	ug/l	0.54	290,546.17	1.612E+00	Pulse	0.30	3
Cr			2	202.408	ug/l	0.38	384,488.24	2.133E+00	Pulse	0.30	3
Mn			2	198.095	ug/l	0.88	181,626.45	1.008E+00	Pulse	0.30	3
Fe			2	9833.364	ug/l	0.68	15,858,086.59	8.798E+01	Analog	0.30	3
Co			2	197.411	ug/l	0.70	676,327.23	3.752E+00	Pulse	0.30	3
Ni			2	197.889	ug/l	1.29	187,774.23	1.042E+00	Pulse	0.30	3
Cu			2	198.221	ug/l	1.18	506,375.74	2.810E+00	Pulse	0.30	3
Zn			2	197.198	ug/l	1.52	65,411.77	3.629E-01	Pulse	0.30	3
As			2	185.384	ug/l	1.30	32,091.00	1.781E-01	Pulse	1.00	3
Cd			2	200.648	ug/l	0.59	97,099.78	1.005E-01	Pulse	0.30	3
Sn			2	206.842	ug/l	0.28	185,235.73	1.917E-01	Pulse	0.30	3
Se			3	488.347	ug/l	1.03	23,728.53	1.082E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,706,907.00	2.09	111.9	Mix	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,754,375.52	1.25	115.4	Analog	0.10	3
1	Ge		1,213,280.89	0.81	111.4	Pulse	0.10	3
1	Ge		1,680,309.82	1.89	111.6	Pulse	0.10	3
1	Rh		8,513,184.67	2.86	111.9	Analog	0.10	3
1	In		9,232,503.50	1.83	113.1	Analog	0.10	3
1	Tb		11,948,860.24	1.69	115.6	Analog	0.10	3
1	Ho		1,120,711.00	2.16	112.6	Pulse	0.10	3
1	Bi		6,662,985.53	2.07	109.8	Analog	0.10	3
2	Sc		180,241.88	0.48	109.0	Pulse	0.30	3
2	Ge		105,165.05	0.94	100.1	Pulse	0.30	3
2	Ge		156,451.56	0.56	99.4	Pulse	0.30	3
2	Rh		3,211,172.44	0.36	100.3	Pulse	0.30	3
2	In		966,455.05	0.46	99.6	Pulse	0.30	3
2	Tb		3,864,495.54	0.65	100.3	Pulse	0.30	3
2	Ho		386,159.19	0.38	100.5	Pulse	0.30	3
2	Bi		2,553,119.48	0.45	98.6	Pulse	0.30	3
3	Sc		236,682.19	0.38	110.2	Pulse	0.30	3
3	Ge		144,495.53	0.53	105.8	Pulse	0.30	3
3	Ge		219,396.89	1.13	107.0	Pulse	0.30	3
3	Rh		2,533,225.31	1.07	106.4	Pulse	0.30	3
3	Tb		3,925,354.98	0.70	107.9	Pulse	0.30	3

Quantitation Report

File Name	071SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 16:25
Sample Name	mp13203-b2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	201.515	ug/l	1.99	585,924.23	1.603E-01	Pulse	0.25	3
B			1	204.741	ug/l	2.03	598,101.33	1.636E-01	Pulse	0.15	3
Ca			1	10012.198	ug/l	1.63	4,124,505.04	6.174E-01	Pulse	0.10	3
Sr			1	201.120	ug/l	1.71	3,970,916.82	4.668E-01	Pulse	0.10	3
Mo			1	192.137	ug/l	1.96	726,548.90	8.541E-02	Pulse	0.10	3
Ag			1	98.458	ug/l	2.23	967,636.31	1.061E-01	Pulse	0.10	3
Sn			1	205.129	ug/l	2.14	1,227,285.03	1.346E-01	Pulse	0.10	3
Sb			1	195.771	ug/l	2.09	1,256,910.79	1.068E-01	Pulse	0.10	3
Ba			1	195.882	ug/l	2.41	524,078.59	4.451E-02	Pulse	0.10	3
Tl			1	197.167	ug/l	0.93	3,046,472.24	4.661E-01	Pulse	0.10	3
Pb			1	204.442	ug/l	0.89	1,036,645.09	1.586E-01	Pulse	0.10	3
Pb			1	199.202	ug/l	0.79	906,396.13	1.387E-01	Pulse	0.10	3
Pb			1	201.141	ug/l	0.93	4,155,914.37	6.359E-01	Pulse	0.10	3
Na			2	9975.494	ug/l	3.43	3,261,439.87	1.820E+01	Pulse	0.30	3
Mg			2	9657.246	ug/l	3.52	1,494,286.37	8.341E+00	Pulse	0.30	3
Al			2	9742.447	ug/l	3.58	463,789.51	2.589E+00	Pulse	0.30	3
K			2	9961.704	ug/l	3.76	923,662.95	5.156E+00	Pulse	0.30	3
Ca			2	11320.514	ug/l	3.83	59,065.23	3.297E-01	Pulse	0.30	3
Ti			2	198.517	ug/l	2.82	8,244.36	4.599E-02	Pulse	0.30	3
V			2	202.486	ug/l	3.50	290,191.52	1.620E+00	Pulse	0.30	3
Cr			2	202.467	ug/l	3.87	382,257.40	2.134E+00	Pulse	0.30	3
Mn			2	201.714	ug/l	3.83	183,820.40	1.026E+00	Pulse	0.30	3
Fe			2	10072.435	ug/l	4.64	16,141,958.80	9.012E+01	Analog	0.30	3
Co			2	200.263	ug/l	3.88	681,921.50	3.807E+00	Pulse	0.30	3
Ni			2	199.448	ug/l	3.77	188,110.84	1.050E+00	Pulse	0.30	3
Cu			2	203.333	ug/l	3.41	516,309.39	2.882E+00	Pulse	0.30	3
Zn			2	203.090	ug/l	4.21	66,930.20	3.736E-01	Pulse	0.30	3
As			2	188.987	ug/l	3.52	32,519.84	1.815E-01	Pulse	1.00	3
Cd			2	205.007	ug/l	3.33	99,212.61	1.027E-01	Pulse	0.30	3
Sn			2	208.136	ug/l	4.53	186,326.01	1.929E-01	Pulse	0.30	3
Se			3	491.658	ug/l	2.19	24,060.40	1.089E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,656,870.82	1.62	110.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,681,388.02	1.47	114.2	Analog	0.10	3
1	Ge		1,209,982.64	1.21	111.1	Pulse	0.10	3
1	Ge		1,677,816.54	1.13	111.4	Pulse	0.10	3
1	Rh		8,508,458.41	1.58	111.9	Analog	0.10	3
1	In		9,123,576.86	2.20	111.8	Analog	0.10	3
1	Tb		11,776,525.66	1.64	114.0	Analog	0.10	3
1	Ho		1,098,643.00	2.00	110.4	Pulse	0.10	3
1	Bi		6,536,126.15	1.01	107.7	Analog	0.10	3
2	Sc		179,311.93	3.68	108.5	Pulse	0.30	3
2	Ge		103,758.69	3.33	98.8	Pulse	0.30	3
2	Ge		155,600.28	2.29	98.9	Pulse	0.30	3
2	Rh		3,221,253.55	4.15	100.6	Pulse	0.30	3
2	In		967,399.50	4.38	99.7	Pulse	0.30	3
2	Tb		3,925,570.96	7.46	101.9	Mix	0.30	3
2	Ho		384,739.06	4.05	100.2	Pulse	0.30	3
2	Bi		2,535,098.51	3.82	97.9	Pulse	0.30	3
3	Sc		239,783.03	2.82	111.7	Pulse	0.30	3
3	Ge		146,238.00	2.50	107.1	Pulse	0.30	3
3	Ge		221,027.10	2.39	107.8	Pulse	0.30	3
3	Rh		2,537,711.84	2.45	106.6	Pulse	0.30	3
3	Tb		3,943,715.54	3.08	108.4	Pulse	0.30	3

Quantitation Report

File Name 072SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 16:30
Sample Name mp13203-b3
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	201.984	ug/l	0.48	580,206.42	1.606E-01	Pulse	0.25	3
B			1	204.488	ug/l	1.06	590,157.13	1.634E-01	Pulse	0.15	3
Ca			1	10041.055	ug/l	0.71	4,101,280.98	6.192E-01	Pulse	0.10	3
Sr			1	203.583	ug/l	1.22	3,943,703.17	4.725E-01	Pulse	0.10	3
Mo			1	195.736	ug/l	1.63	726,199.36	8.701E-02	Pulse	0.10	3
Ag			1	98.688	ug/l	1.67	968,184.90	1.063E-01	Pulse	0.10	3
Sn			1	203.754	ug/l	1.53	1,216,989.98	1.337E-01	Pulse	0.10	3
Sb			1	198.244	ug/l	1.27	1,253,456.57	1.081E-01	Pulse	0.10	3
Ba			1	199.045	ug/l	1.12	524,472.00	4.523E-02	Pulse	0.10	3
Tl			1	195.686	ug/l	1.08	3,015,483.91	4.626E-01	Pulse	0.10	3
Pb			1	202.128	ug/l	1.44	1,022,151.16	1.568E-01	Pulse	0.10	3
Pb			1	198.440	ug/l	0.66	900,514.73	1.382E-01	Pulse	0.10	3
Pb			1	200.225	ug/l	0.88	4,125,920.43	6.330E-01	Pulse	0.10	3
Na			2	9806.764	ug/l	0.57	3,225,771.96	1.790E+01	Pulse	0.30	3
Mg			2	9505.842	ug/l	0.51	1,479,776.40	8.210E+00	Pulse	0.30	3
Al			2	9671.108	ug/l	0.39	463,201.30	2.570E+00	Pulse	0.30	3
K			2	9869.053	ug/l	0.80	920,749.23	5.108E+00	Pulse	0.30	3
Ca			2	11074.855	ug/l	0.27	58,142.08	3.226E-01	Pulse	0.30	3
Ti			2	192.553	ug/l	4.84	8,039.83	4.461E-02	Pulse	0.30	3
V			2	198.835	ug/l	0.55	286,695.88	1.591E+00	Pulse	0.30	3
Cr			2	200.509	ug/l	0.94	380,895.79	2.113E+00	Pulse	0.30	3
Mn			2	198.656	ug/l	0.77	182,144.99	1.011E+00	Pulse	0.30	3
Fe			2	10001.348	ug/l	1.22	16,129,186.58	8.949E+01	Analog	0.30	3
Co			2	197.482	ug/l	0.49	676,602.66	3.754E+00	Pulse	0.30	3
Ni			2	197.197	ug/l	0.57	187,129.03	1.038E+00	Pulse	0.30	3
Cu			2	199.453	ug/l	0.34	509,549.39	2.827E+00	Pulse	0.30	3
Zn			2	201.660	ug/l	0.87	66,877.57	3.710E-01	Pulse	0.30	3
As			2	184.468	ug/l	1.42	31,933.35	1.772E-01	Pulse	1.00	3
Cd			2	201.231	ug/l	0.75	98,283.95	1.008E-01	Pulse	0.30	3
Sn			2	204.369	ug/l	0.72	184,726.34	1.894E-01	Pulse	0.30	3
Se			3	490.106	ug/l	0.44	23,860.45	1.086E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,612,211.28	1.04	109.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,623,999.07	0.82	113.2	Analog	0.10	3
1	Ge		1,200,883.86	0.79	110.3	Pulse	0.10	3
1	Ge		1,658,170.45	0.73	110.1	Pulse	0.10	3
1	Rh		8,347,330.50	1.38	109.7	Analog	0.10	3
1	In		9,105,599.01	1.02	111.6	Analog	0.10	3
1	Tb		11,595,452.75	0.28	112.2	Analog	0.10	3
1	Ho		1,087,410.27	0.99	109.3	Pulse	0.10	3
1	Bi		6,518,409.90	0.46	107.4	Analog	0.10	3
2	Sc		180,250.03	0.64	109.0	Pulse	0.30	3
2	Ge		104,601.52	1.48	99.6	Pulse	0.30	3
2	Ge		157,976.09	0.72	100.4	Pulse	0.30	3
2	Rh		3,230,189.53	0.80	100.9	Pulse	0.30	3
2	In		975,420.80	0.56	100.5	Pulse	0.30	3
2	Tb		3,861,567.76	0.75	100.2	Pulse	0.30	3
2	Ho		385,492.34	0.96	100.4	Pulse	0.30	3
2	Bi		2,556,476.43	0.56	98.8	Pulse	0.30	3
3	Sc		237,788.97	0.63	110.7	Pulse	0.30	3
3	Ge		145,167.03	0.84	106.3	Pulse	0.30	3
3	Ge		219,810.37	0.57	107.2	Pulse	0.30	3
3	Rh		2,549,483.65	0.49	107.1	Pulse	0.30	3
3	Tb		3,945,061.79	1.04	108.4	Pulse	0.30	3

Quantitation Report

File Name 073SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 16:35
Sample Name mp13203-b4
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	202.336	ug/l	2.40	580,728.71	1.609E-01	Pulse	0.25	3
B			1	205.973	ug/l	2.57	593,892.72	1.646E-01	Pulse	0.15	3
Ca			1	9919.389	ug/l	2.59	4,103,492.75	6.117E-01	Pulse	0.10	3
Sr			1	201.685	ug/l	2.84	3,941,095.36	4.681E-01	Pulse	0.10	3
Mo			1	193.065	ug/l	3.49	722,504.39	8.582E-02	Pulse	0.10	3
Ag			1	99.210	ug/l	2.84	968,491.29	1.069E-01	Pulse	0.10	3
Sn			1	205.709	ug/l	2.97	1,222,532.61	1.349E-01	Pulse	0.10	3
Sb			1	196.643	ug/l	2.35	1,252,122.79	1.072E-01	Pulse	0.10	3
Ba			1	197.241	ug/l	2.63	523,360.44	4.482E-02	Pulse	0.10	3
Tl			1	194.220	ug/l	2.90	3,019,310.58	4.592E-01	Pulse	0.10	3
Pb			1	202.318	ug/l	3.05	1,032,117.09	1.570E-01	Pulse	0.10	3
Pb			1	196.441	ug/l	3.92	899,153.45	1.368E-01	Pulse	0.10	3
Pb			1	198.195	ug/l	3.08	4,119,986.60	6.266E-01	Pulse	0.10	3
Na			2	9778.533	ug/l	0.38	3,240,508.34	1.785E+01	Pulse	0.30	3
Mg			2	9448.620	ug/l	0.61	1,481,826.23	8.160E+00	Pulse	0.30	3
Al			2	9596.885	ug/l	0.70	463,067.17	2.550E+00	Pulse	0.30	3
K			2	9778.488	ug/l	0.57	919,158.85	5.062E+00	Pulse	0.30	3
Ca			2	11176.037	ug/l	0.70	59,108.56	3.255E-01	Pulse	0.30	3
Ti			2	188.832	ug/l	0.33	7,944.20	4.375E-02	Pulse	0.30	3
V			2	198.928	ug/l	0.39	288,970.22	1.591E+00	Pulse	0.30	3
Cr			2	200.969	ug/l	0.70	384,617.04	2.118E+00	Pulse	0.30	3
Mn			2	198.790	ug/l	0.36	183,632.60	1.011E+00	Pulse	0.30	3
Fe			2	9900.995	ug/l	0.42	16,086,989.36	8.859E+01	Analog	0.30	3
Co			2	196.998	ug/l	0.43	679,980.13	3.745E+00	Pulse	0.30	3
Ni			2	197.016	ug/l	0.90	188,350.96	1.037E+00	Pulse	0.30	3
Cu			2	195.707	ug/l	0.56	503,726.00	2.774E+00	Pulse	0.30	3
Zn			2	195.127	ug/l	0.73	65,219.98	3.592E-01	Pulse	0.30	3
As			2	184.161	ug/l	0.38	32,119.72	1.769E-01	Pulse	1.00	3
Cd			2	201.060	ug/l	0.25	97,853.51	1.007E-01	Pulse	0.30	3
Sn			2	205.075	ug/l	0.58	184,695.75	1.900E-01	Pulse	0.30	3
Se			3	497.125	ug/l	1.29	24,003.59	1.101E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,610,528.78	2.64	109.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,711,054.90	2.81	114.7	Analog	0.10	3
1	Ge		1,196,250.81	2.71	109.9	Pulse	0.10	3
1	Ge		1,661,752.22	3.03	110.3	Pulse	0.10	3
1	Rh		8,424,540.50	3.27	110.8	Analog	0.10	3
1	In		9,064,427.46	2.94	111.1	Analog	0.10	3
1	Tb		11,682,695.66	3.41	113.1	Analog	0.10	3
1	Ho		1,093,128.03	3.07	109.8	Pulse	0.10	3
1	Bi		6,578,863.02	2.67	108.4	Analog	0.10	3
2	Sc		181,592.48	0.49	109.8	Pulse	0.30	3
2	Ge		105,071.10	1.33	100.0	Pulse	0.30	3
2	Ge		157,653.33	1.04	100.2	Pulse	0.30	3
2	Rh		3,221,685.29	0.45	100.6	Pulse	0.30	3
2	In		971,948.35	0.76	100.2	Pulse	0.30	3
2	Tb		3,851,066.10	0.71	99.9	Pulse	0.30	3
2	Ho		384,834.84	0.44	100.2	Pulse	0.30	3
2	Bi		2,549,564.90	0.40	98.5	Pulse	0.30	3
3	Sc		237,750.67	0.81	110.7	Pulse	0.30	3
3	Ge		144,643.33	0.92	105.9	Pulse	0.30	3
3	Ge		218,030.83	1.38	106.3	Pulse	0.30	3
3	Rh		2,559,176.63	1.59	107.5	Pulse	0.30	3
3	Tb		3,954,540.67	1.65	108.7	Pulse	0.30	3

Quantitation Report

File Name 074SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 16:43
Sample Name mp13130a-s3 5
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	81.938	ug/l	2.00	231,344.22	6.517E-02	Pulse	0.25	3
B			1	128.930	ug/l	0.72	368,614.51	1.038E-01	Pulse	0.15	3
Ca			1	36626.048	ug/l	0.27	14,845,377.28	2.251E+00	Analog	0.10	3
Sr			1	555.704	ug/l	1.62	10,559,323.80	1.290E+00	Analog	0.10	3
Mo			1	79.798	ug/l	1.05	290,524.02	3.548E-02	Pulse	0.10	3
Ag			1	78.309	ug/l	2.22	762,302.83	8.438E-02	Pulse	0.10	3
Sn			1	76.166	ug/l	2.87	457,758.57	5.067E-02	Pulse	0.10	3
Sb			1	79.117	ug/l	1.80	502,341.13	4.315E-02	Pulse	0.10	3
Ba			1	200.230	ug/l	2.63	529,680.89	4.550E-02	Pulse	0.10	3
Tl			1	79.379	ug/l	1.10	1,213,217.61	1.877E-01	Pulse	0.10	3
Pb			1	82.211	ug/l	1.78	412,557.65	6.383E-02	Pulse	0.10	3
Pb			1	79.928	ug/l	2.11	359,914.33	5.569E-02	Pulse	0.10	3
Pb			1	80.880	ug/l	1.74	1,653,915.35	2.559E-01	Pulse	0.10	3
Na			2	17682.070	ug/l	1.40	5,705,406.86	3.224E+01	Analog	0.30	3
Mg			2	15777.561	ug/l	2.48	2,411,016.78	1.363E+01	Pulse	0.30	3
Al			2	3961.488	ug/l	2.15	186,291.65	1.053E+00	Pulse	0.30	3
K			2	5657.705	ug/l	2.22	521,282.10	2.946E+00	Pulse	0.30	3
Ca			2	39593.682	ug/l	2.43	203,839.53	1.152E+00	Pulse	0.30	3
Ti			2	78.183	ug/l	5.43	3,203.69	1.811E-02	Pulse	0.30	3
V			2	81.875	ug/l	3.40	116,098.37	6.562E-01	Pulse	0.30	3
Cr			2	81.997	ug/l	3.57	153,471.10	8.675E-01	Pulse	0.30	3
Mn			2	194.523	ug/l	3.36	175,068.23	9.895E-01	Pulse	0.30	3
Fe			2	7562.977	ug/l	3.53	11,972,665.64	6.767E+01	Analog	0.30	3
Co			2	80.007	ug/l	2.46	269,157.68	1.521E+00	Pulse	0.30	3
Ni			2	79.616	ug/l	3.07	74,213.60	4.195E-01	Pulse	0.30	3
Cu			2	85.575	ug/l	2.65	215,333.47	1.217E+00	Pulse	0.30	3
Zn			2	86.921	ug/l	2.44	28,736.36	1.624E-01	Pulse	0.30	3
As			2	75.480	ug/l	1.58	12,837.05	7.254E-02	Pulse	1.00	3
Cd			2	81.633	ug/l	2.69	39,073.72	4.088E-02	Pulse	0.30	3
Sn			2	77.719	ug/l	3.57	69,207.42	7.242E-02	Pulse	0.30	3
Se			3	390.587	ug/l	0.75	18,831.59	8.651E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,550,301.74	0.68	107.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,594,312.19	0.47	112.7	Analog	0.10	3
1	Ge		1,170,614.38	0.71	107.5	Pulse	0.10	3
1	Ge		1,623,067.53	0.53	107.8	Pulse	0.10	3
1	Rh		8,189,303.21	0.91	107.7	Analog	0.10	3
1	In		9,035,925.51	1.50	110.7	Analog	0.10	3
1	Tb		11,643,803.99	1.44	112.7	Analog	0.10	3
1	Ho		1,079,898.19	1.12	108.5	Pulse	0.10	3
1	Bi		6,464,216.78	1.13	106.5	Analog	0.10	3
2	Sc		177,006.97	2.18	107.1	Pulse	0.30	3
2	Ge		102,358.74	1.88	97.4	Pulse	0.30	3
2	Ge		153,588.11	2.20	97.6	Pulse	0.30	3
2	Rh		3,137,659.04	2.60	98.0	Pulse	0.30	3
2	In		956,315.23	2.73	98.6	Pulse	0.30	3
2	Tb		3,808,358.18	2.33	98.8	Pulse	0.30	3
2	Ho		380,879.64	2.62	99.2	Pulse	0.30	3
2	Bi		2,511,361.50	2.29	97.0	Pulse	0.30	3
3	Sc		235,318.00	2.10	109.6	Pulse	0.30	3
3	Ge		143,791.75	1.67	105.3	Pulse	0.30	3
3	Ge		217,688.79	1.35	106.1	Pulse	0.30	3
3	Rh		2,514,561.98	2.08	105.6	Pulse	0.30	3
3	Tb		3,928,032.34	2.06	108.0	Pulse	0.30	3

Quantitation Report

File Name 075SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 16:48
Sample Name mp13130a-s4
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	80.559	ug/l	2.74	233,732.47	6.407E-02	Pulse	0.25	3
B			1	127.619	ug/l	2.85	375,015.39	1.028E-01	Pulse	0.15	3
Ca			1	36554.231	ug/l	5.35	15,194,086.02	2.247E+00	Analog	0.10	3
Sr			1	539.263	ug/l	4.56	10,671,499.01	1.251E+00	Analog	0.10	3
Mo			1	78.491	ug/l	4.17	297,634.19	3.490E-02	Pulse	0.10	3
Ag			1	76.888	ug/l	3.74	775,732.60	8.285E-02	Pulse	0.10	3
Sn			1	76.983	ug/l	0.75	480,125.36	5.121E-02	Pulse	0.10	3
Sb			1	79.185	ug/l	3.93	516,260.73	4.319E-02	Pulse	0.10	3
Ba			1	198.482	ug/l	3.82	539,184.85	4.510E-02	Pulse	0.10	3
Tl			1	78.792	ug/l	1.64	1,236,679.82	1.863E-01	Pulse	0.10	3
Pb			1	82.498	ug/l	1.35	425,187.75	6.405E-02	Pulse	0.10	3
Pb			1	80.058	ug/l	1.50	370,244.46	5.578E-02	Pulse	0.10	3
Pb			1	81.023	ug/l	2.34	1,701,290.40	2.563E-01	Pulse	0.10	3
Na			2	18116.010	ug/l	2.68	5,866,610.32	3.303E+01	Analog	0.30	3
Mg			2	15910.595	ug/l	2.05	2,440,634.76	1.374E+01	Pulse	0.30	3
Al			2	4031.094	ug/l	2.67	190,263.78	1.071E+00	Pulse	0.30	3
K			2	5751.755	ug/l	1.34	531,878.61	2.994E+00	Pulse	0.30	3
Ca			2	39916.526	ug/l	2.07	206,283.43	1.161E+00	Pulse	0.30	3
Ti			2	81.478	ug/l	1.92	3,353.72	1.888E-02	Pulse	0.30	3
V			2	83.232	ug/l	1.87	118,486.04	6.671E-01	Pulse	0.30	3
Cr			2	83.417	ug/l	1.35	156,747.46	8.824E-01	Pulse	0.30	3
Mn			2	199.284	ug/l	1.47	180,073.30	1.014E+00	Pulse	0.30	3
Fe			2	7699.703	ug/l	0.69	12,239,547.01	6.890E+01	Analog	0.30	3
Co			2	81.237	ug/l	2.22	274,330.43	1.545E+00	Pulse	0.30	3
Ni			2	81.444	ug/l	1.36	76,219.47	4.291E-01	Pulse	0.30	3
Cu			2	99.314	ug/l	3.12	250,628.19	1.411E+00	Pulse	0.30	3
Zn			2	102.066	ug/l	2.19	33,738.06	1.899E-01	Pulse	0.30	3
As			2	75.772	ug/l	2.38	12,933.45	7.282E-02	Pulse	1.00	3
Cd			2	82.456	ug/l	0.33	39,634.75	4.129E-02	Pulse	0.30	3
Sn			2	79.376	ug/l	1.84	70,971.84	7.395E-02	Pulse	0.30	3
Se			3	398.593	ug/l	0.30	19,192.14	8.829E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,650,291.89	3.34	110.2	Mix	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		6,775,965.52	5.61	115.8	Analog	0.10	3
1	Ge		1,217,665.42	3.42	111.8	Pulse	0.10	3
1	Ge		1,687,179.30	3.79	112.0	Pulse	0.10	3
1	Rh		8,539,490.50	4.48	112.3	Analog	0.10	3
1	In		9,374,310.58	4.87	114.9	Analog	0.10	3
1	Tb		11,966,767.32	4.11	115.8	Analog	0.10	3
1	Ho		1,115,469.26	5.13	112.1	Pulse	0.10	3
1	Bi		6,639,966.36	3.04	109.4	Analog	0.10	3
2	Sc		177,664.61	1.87	107.5	Pulse	0.30	3
2	Ge		103,350.38	0.73	98.4	Pulse	0.30	3
2	Ge		154,252.57	0.90	98.0	Pulse	0.30	3
2	Rh		3,186,247.17	1.44	99.5	Pulse	0.30	3
2	In		959,896.44	1.27	98.9	Pulse	0.30	3
2	Tb		3,844,157.21	1.33	99.7	Pulse	0.30	3
2	Ho		384,442.44	1.70	100.1	Pulse	0.30	3
2	Bi		2,531,758.93	1.18	97.8	Pulse	0.30	3
3	Sc		236,894.46	0.86	110.3	Pulse	0.30	3
3	Ge		144,770.68	0.45	106.0	Pulse	0.30	3
3	Ge		217,387.52	0.44	106.0	Pulse	0.30	3
3	Rh		2,528,721.63	0.88	106.2	Pulse	0.30	3
3	Tb		3,954,523.45	1.05	108.7	Pulse	0.30	3

Quantitation Report

File Name	076SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 16:53
Sample Name	mp13123-ps1 4
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	206.912	ug/l	0.32	614,676.96	1.645E-01	Pulse	0.25	3
B			1	217.462	ug/l	0.49	648,592.06	1.736E-01	Pulse	0.15	3
Ca			1	40623.233	ug/l	1.02	19,645,405.54	2.497E+00	Analog	0.10	3
Sr			1	304.872	ug/l	1.22	5,957,676.16	7.075E-01	Analog	0.10	3
Mo			1	207.140	ug/l	1.75	775,324.62	9.208E-02	Pulse	0.10	3
Ag			1	94.072	ug/l	2.51	923,191.60	1.014E-01	Pulse	0.10	3
Sn			1	208.772	ug/l	1.54	1,247,088.55	1.369E-01	Pulse	0.10	3
Sb			1	202.110	ug/l	0.63	1,262,747.85	1.102E-01	Pulse	0.10	3
Ba			1	773.869	ug/l	1.36	2,014,694.87	1.758E-01	Pulse	0.10	3
Tl			1	198.528	ug/l	0.55	2,934,907.98	4.693E-01	Pulse	0.10	3
Pb			1	211.259	ug/l	0.45	1,024,908.53	1.639E-01	Pulse	0.10	3
Pb			1	206.399	ug/l	1.11	898,559.75	1.437E-01	Pulse	0.10	3
Pb			1	207.909	ug/l	0.56	4,110,085.70	6.573E-01	Pulse	0.10	3
Na			2	11641.749	ug/l	1.78	4,475,287.32	2.124E+01	Pulse	0.30	3
Mg			2	36179.207	ug/l	2.73	6,583,364.60	3.124E+01	Analog	0.30	3
Al			2	197261.334	ug/l	1.13	11,045,349.56	5.241E+01	Analog	0.30	3
K			2	11245.862	ug/l	2.11	1,225,319.08	5.815E+00	Pulse	0.30	3
Ca			2	41474.452	ug/l	1.99	254,264.17	1.207E+00	Pulse	0.30	3
Ti			2	4319.022	ug/l	2.34	210,831.46	1.001E+00	Pulse	0.30	3
V			2	525.506	ug/l	1.85	885,069.34	4.200E+00	Pulse	0.30	3
Cr			2	396.749	ug/l	1.82	879,963.78	4.176E+00	Pulse	0.30	3
Mn			2	2192.650	ug/l	2.01	2,349,510.18	1.115E+01	Pulse	0.30	3
Fe			2	132451.944	ug/l	2.52	249,648,514.52	1.185E+03	Analog	0.30	3
Co			2	283.795	ug/l	1.68	1,136,664.30	5.394E+00	Pulse	0.30	3
Ni			2	316.941	ug/l	2.05	351,527.04	1.668E+00	Pulse	0.30	3
Cu			2	663.544	ug/l	1.46	1,978,327.28	9.388E+00	Pulse	0.30	3
Zn			2	301.430	ug/l	2.32	116,403.97	5.525E-01	Pulse	0.30	3
As			2	176.755	ug/l	2.56	35,770.57	1.698E-01	Pulse	1.00	3
Cd			2	196.795	ug/l	2.34	97,196.98	9.854E-02	Pulse	0.30	3
Sn			2	207.640	ug/l	1.38	189,789.95	1.924E-01	Pulse	0.30	3
Se			3	527.540	ug/l	0.83	24,937.11	1.168E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,735,621.22	1.23	112.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		7,868,931.76	0.42	134.5	Analog	0.10	3
1	Ge		1,283,437.72	1.38	117.9	Pulse	0.10	3
1	Ge		1,707,717.99	1.22	113.4	Pulse	0.10	3
1	Rh		8,421,678.63	1.69	110.7	Analog	0.10	3
1	In		9,108,573.04	1.02	111.6	Analog	0.10	3
1	Tb		11,458,485.25	1.74	110.9	Analog	0.10	3
1	Ho		1,108,886.13	0.73	111.4	Pulse	0.10	3
1	Bi		6,253,252.20	0.57	103.0	Analog	0.10	3
2	Sc		210,774.57	2.24	127.5	Pulse	0.30	3
2	Ge		108,804.20	2.32	103.6	Pulse	0.30	3
2	Ge		160,206.78	2.20	101.8	Pulse	0.30	3
2	Rh		3,188,456.12	2.29	99.6	Pulse	0.30	3
2	In		986,583.55	1.69	101.7	Pulse	0.30	3
2	Tb		3,849,456.65	2.07	99.9	Pulse	0.30	3
2	Ho		395,525.23	1.54	103.0	Pulse	0.30	3
2	Bi		2,460,406.29	1.64	95.1	Pulse	0.30	3
3	Sc		263,734.88	0.93	122.8	Pulse	0.30	3
3	Ge		144,485.61	0.62	105.8	Pulse	0.30	3
3	Ge		213,434.89	0.71	104.1	Pulse	0.30	3
3	Rh		2,390,647.96	0.31	100.4	Pulse	0.30	3
3	Tb		3,708,785.55	0.73	101.9	Pulse	0.30	3

Quantitation Report

File Name 077_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File
Method Path
Acq Time 3/18/2019 16:58
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/18/2019 17:16
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.278	ug/l	0.91	732,565.02	1.999E-01	Pulse	0.25	3
B			1	101.648	ug/l	0.74	1,476,118.00	4.028E-01	Pulse	0.15	3
Ca			1	4978.411	ug/l	1.85	10,683,255.67	1.531E+00	Analog	0.10	3
Sr			1	52.809	ug/l	1.62	5,194,358.15	6.128E-01	Mix	0.10	3
Mo			1	51.310	ug/l	1.92	966,318.34	1.140E-01	Pulse	0.10	3
Ag			1	49.016	ug/l	1.18	2,445,938.40	2.641E-01	Pulse	0.10	3
Sn			1	49.256	ug/l	0.69	1,494,188.83	1.613E-01	Pulse	0.10	3
Sb			1	51.112	ug/l	0.81	1,656,495.55	1.394E-01	Pulse	0.10	3
Ba			1	48.849	ug/l	1.04	659,777.79	5.550E-02	Pulse	0.10	3
Tl			1	48.948	ug/l	1.37	3,761,042.44	5.786E-01	Pulse	0.10	3
Pb			1	50.397	ug/l	1.47	1,270,662.25	1.955E-01	Pulse	0.10	3
Pb			1	49.197	ug/l	1.16	1,113,090.24	1.712E-01	Pulse	0.10	3
Pb			1	49.656	ug/l	1.19	5,101,605.05	7.848E-01	Pulse	0.10	3
Na			2	5006.178	ug/l	1.21	8,475,494.11	4.562E+01	Analog	0.30	3
Mg			2	4679.319	ug/l	0.06	3,753,899.44	2.021E+01	Pulse	0.30	3
Al			2	4836.293	ug/l	0.20	1,193,699.02	6.425E+00	Pulse	0.30	3
K			2	4920.939	ug/l	0.20	2,354,664.84	1.267E+01	Pulse	0.30	3
Ca			2	5218.458	ug/l	0.72	141,070.07	7.593E-01	Pulse	0.30	3
Ti			2	51.061	ug/l	2.40	10,988.18	5.915E-02	Pulse	0.30	3
V			2	50.061	ug/l	0.20	371,892.51	2.002E+00	Pulse	0.30	3
Cr			2	49.476	ug/l	0.30	484,142.55	2.606E+00	Pulse	0.30	3
Mn			2	49.525	ug/l	0.53	234,005.92	1.260E+00	Pulse	0.30	3
Fe			2	4960.756	ug/l	1.38	41,226,495.03	2.219E+02	Analog	0.30	3
Co			2	48.855	ug/l	0.51	862,601.77	4.643E+00	Pulse	0.30	3
Ni			2	48.129	ug/l	0.28	235,353.30	1.267E+00	Pulse	0.30	3
Cu			2	47.163	ug/l	1.00	620,708.48	3.341E+00	Pulse	0.30	3
Zn			2	47.349	ug/l	0.84	80,785.12	4.348E-01	Pulse	0.30	3
As			2	48.338	ug/l	0.65	43,121.82	2.321E-01	Pulse	1.00	3
Cd			2	49.660	ug/l	0.29	122,778.91	1.243E-01	Pulse	0.30	3
Sn			2	50.175	ug/l	0.52	229,428.20	2.323E-01	Pulse	0.30	3
Se			3	198.537	ug/l	1.18	48,212.07	2.198E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,664,404.53	0.45	110.7	Pulse	0.10	3
1	Sc		6,979,321.57	1.01	119.3	Analog	0.10	3
1	Ge		1,241,158.21	0.51	114.0	Pulse	0.10	3

Quantitation Report

1	Ge		1,728,771.28	1.15	114.8	Pulse	0.10	3
1	Rh		8,475,502.79	1.74	111.4	Analog	0.10	3
1	In		9,262,198.12	0.17	113.5	Analog	0.10	3
1	Tb		11,886,958.99	1.13	115.0	Analog	0.10	3
1	Ho		1,107,117.77	0.53	111.2	Pulse	0.10	3
1	Bi		6,500,634.28	0.51	107.1	Analog	0.10	3
2	Sc		185,784.94	0.38	112.4	Pulse	0.30	3
2	Ge		107,785.21	0.60	102.6	Pulse	0.30	3
2	Ge		160,827.90	0.37	102.2	Pulse	0.30	3
2	Rh		3,246,404.52	0.46	101.4	Pulse	0.30	3
2	In		987,523.43	0.63	101.8	Pulse	0.30	3
2	Tb		3,911,699.29	0.27	101.5	Pulse	0.30	3
2	Ho		389,558.65	0.56	101.4	Pulse	0.30	3
2	Bi		2,531,206.91	0.16	97.8	Pulse	0.30	3
3	Sc		238,753.74	1.47	111.2	Pulse	0.30	3
3	Ge		145,468.37	0.64	106.5	Pulse	0.30	3
3	Ge		219,320.70	1.41	106.9	Pulse	0.30	3
3	Rh		2,515,477.89	1.06	105.6	Pulse	0.30	3
3	Tb		3,877,696.10	0.86	106.6	Pulse	0.30	3

Quantitation Report

File Name	078_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 17:03
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	41.53	112.00	2.882E-05	Pulse	0.25	3
B			1	1.750	ug/l	7.04	35,321.55	9.095E-03	Pulse	0.15	3
Ca			1	-1.114	ug/l	-32.53	17,800.11	2.411E-03	Pulse	0.10	3
Sr			1	0.006	ug/l	40.63	1,860.20	2.007E-04	Pulse	0.10	3
Mo			1	0.064	ug/l	10.68	1,420.13	1.523E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	11.35	726.71	7.342E-05	Pulse	0.10	3
Sn			1	-0.152	ug/l	-12.61	6,364.89	6.404E-04	Pulse	0.10	3
Sb			1	0.120	ug/l	2.35	4,234.10	3.399E-04	Pulse	0.10	3
Ba			1	0.010	ug/l	48.53	200.01	1.590E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	12.91	2,013.55	2.886E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	37.19	926.73	1.329E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	78.77	813.38	1.168E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	25.02	4,080.39	5.851E-04	Pulse	0.10	3
Na			2	4.185	ug/l	6.72	14,391.81	7.559E-02	Pulse	0.30	3
Mg			2	0.485	ug/l	16.09	523.35	2.751E-03	Pulse	0.30	3
Al			2	0.918	ug/l	4.66	273.34	1.435E-03	Pulse	0.30	3
K			2	0.391	ug/l	88.71	7,994.21	4.199E-02	Pulse	0.30	3
Ca			2	-0.697	ug/l	-31.21	70.00	3.674E-04	Pulse	0.30	3
Ti			2	0.030	ug/l	48.98	6.67	3.491E-05	Pulse	0.30	3
V			2	0.005	ug/l	282.56	442.24	2.323E-03	Pulse	0.30	3
Cr			2	0.009	ug/l	128.16	1,143.39	6.010E-03	Pulse	0.30	3
Mn			2	0.017	ug/l	29.75	150.00	7.870E-04	Pulse	0.30	3
Fe			2	0.962	ug/l	1.43	11,757.66	6.175E-02	Pulse	0.30	3
Co			2	0.005	ug/l	29.37	202.23	1.063E-03	Pulse	0.30	3
Ni			2	0.015	ug/l	136.67	170.02	8.892E-04	Pulse	0.30	3
Cu			2	0.005	ug/l	59.60	1,435.64	7.539E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.004	ug/l	1637.18	834.48	4.387E-03	Pulse	0.30	3
As			2	0.005	ug/l	75.73	18.33	9.631E-05	Pulse	1.00	3
Cd			2	0.003	ug/l	111.83	11.02	1.069E-05	Pulse	0.30	3
Sn			2	0.087	ug/l	26.51	1,076.72	1.043E-03	Pulse	0.30	3
Se			3	0.083	ug/l	5.96	25.47	1.081E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,891,557.76	6.11	117.5	Mix	0.10	3
1	Sc		7,393,453.01	4.13	126.4	Analog	0.10	3
1	Ge		1,308,568.05	4.82	120.2	Pulse	0.10	3
1	Ge		1,809,089.35	4.73	120.1	Pulse	0.10	3
1	Rh		9,296,665.49	5.63	122.2	Analog	0.10	3
1	In		9,932,386.05	5.45	121.7	Analog	0.10	3
1	Tb		12,448,315.65	4.88	120.5	Analog	0.10	3
1	Ho		1,154,581.44	6.16	116.0	Pulse	0.10	3
1	Bi		6,991,827.81	4.08	115.2	Analog	0.10	3
2	Sc		190,412.14	1.35	115.2	Pulse	0.30	3
2	Ge		111,572.76	1.51	106.2	Pulse	0.30	3
2	Ge		166,233.83	1.48	105.7	Pulse	0.30	3
2	Rh		3,450,263.75	1.05	107.8	Pulse	0.30	3
2	In		1,032,877.43	1.13	106.4	Pulse	0.30	3
2	Tb		3,995,652.62	1.09	103.7	Pulse	0.30	3
2	Ho		398,334.14	1.12	103.7	Pulse	0.30	3
2	Bi		2,687,503.57	1.16	103.8	Pulse	0.30	3
3	Sc		256,388.55	2.34	119.4	Pulse	0.30	3
3	Ge		157,201.29	1.68	115.1	Pulse	0.30	3
3	Ge		235,430.13	0.89	114.8	Pulse	0.30	3
3	Rh		2,805,618.57	2.15	117.8	Pulse	0.30	3
3	Tb		4,199,828.58	2.06	115.4	Pulse	0.30	3

Quantitation Report

File Name	079SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Method File	
Method Path	
Acq Time	3/18/2019 17:08
Sample Name	mp13156a-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/18/2019 17:16
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

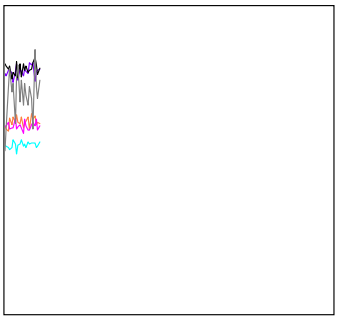
Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	8.02	125.33	3.328E-05	Pulse	0.25	3
B			1	3.607	ug/l	2.19	35,032.06	9.306E-03	Pulse	0.15	3
Ca			1	18.582	ug/l	4.91	39,460.98	5.604E-03	Pulse	0.10	3
Sr			1	0.038	ug/l	7.28	3,157.10	3.507E-04	Pulse	0.10	3
Mo			1	0.084	ug/l	15.84	936.74	1.040E-04	Pulse	0.10	3
Ag			1	0.042	ug/l	6.79	1,130.09	1.167E-04	Pulse	0.10	3
Sn			1	0.022	ug/l	229.69	11,317.75	1.170E-03	Pulse	0.10	3
Sb			1	0.262	ug/l	12.40	4,550.83	3.697E-04	Pulse	0.10	3
Ba			1	0.043	ug/l	5.18	360.02	2.924E-05	Pulse	0.10	3
Tl			1	0.027	ug/l	11.12	1,536.80	2.215E-04	Pulse	0.10	3
Pb			1	0.070	ug/l	17.15	1,506.80	2.172E-04	Pulse	0.10	3
Pb			1	0.066	ug/l	27.32	1,280.10	1.845E-04	Pulse	0.10	3
Pb			1	0.063	ug/l	16.81	5,760.66	8.305E-04	Pulse	0.10	3
Na			2	16.099	ug/l	4.30	20,924.14	1.108E-01	Pulse	0.30	3
Mg			2	2.301	ug/l	8.59	1,063.38	5.628E-03	Pulse	0.30	3
Al			2	6.631	ug/l	8.40	873.37	4.620E-03	Pulse	0.30	3
K			2	2.363	ug/l	46.13	8,314.38	4.402E-02	Pulse	0.30	3
Ca			2	18.140	ug/l	6.72	337.79	1.788E-03	Pulse	0.30	3
Ti			2	0.214	ug/l	100.50	23.33	1.242E-04	Pulse	0.30	3
V			2	0.296	ug/l	3.08	1,521.20	8.052E-03	Pulse	0.30	3
Cr			2	0.446	ug/l	7.02	3,268.13	1.729E-02	Pulse	0.30	3
Mn			2	0.102	ug/l	15.75	310.01	1.641E-03	Pulse	0.30	3
Fe			2	5.388	ug/l	2.21	26,301.07	1.392E-01	Pulse	0.30	3
Co			2	0.018	ug/l	24.72	271.12	1.434E-03	Pulse	0.30	3
Ni			2	0.034	ug/l	22.80	178.89	9.461E-04	Pulse	0.30	3
Cu			2	0.376	ug/l	5.59	3,863.84	2.046E-02	Pulse	0.30	3
Zn			2	0.782	ug/l	12.91	1,493.42	7.901E-03	Pulse	0.30	3
As			2	0.045	ug/l	5.82	34.33	1.817E-04	Pulse	1.00	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	10000	5571	5483.8	1.89
59	10000	7951	7875.7	2.19
89	20000	12349	12463.5	2.64
140	20000	12210	12211.0	2.03
205	10000	7972	7964.7	2.38
156/140	2	1.900 %	1.516 %	11.34
70/140	10	5.841 %	5.820 %	9.42
9	20	0	1.7	90.61
11	2000	1081	989.6	4.94
88	50	33	27.1	29.00
95	20	7	4.8	60.63
107	20	3	3.1	51.41
121	20	8	9.9	43.81
137	20	7	8.4	40.68
208	100	76	71.4	10.67
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-38	V
Extract 2	-140.0	V	Cell Exit	-60	V
Omega Bias	-75	V	Deflect	15.4	V
Omega Lens	6.9	V	Plate Bias	-45	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.57E+2	Pa	S/C Temp (L)	1.9	℃
TMP Revolution	100.0	%	Carrier Gas(BP)	1.44E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

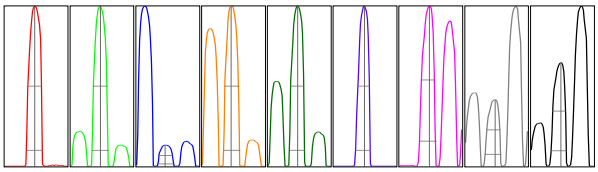
Batch Folder C:\Agilent\ICPMH\1\DATA\xa031819m3.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	166299	0.54	5.00	
24	568532	0.42	5.00	
25	76544	0.67	5.00	
26	88064	0.87	5.00	
59	855732	0.51	5.00	
115	1171071	0.37	5.00	
206	291000	0.53	5.00	
207	265846	0.55	5.00	
208	629403	0.50	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	164838	166455	166175	166933	167094
24	565733	569021	569183	566841	571882
25	75726	76930	76469	76584	77011
26	86850	88078	88914	88040	88439
59	848940	853811	858152	858252	859504
115	1163652	1174392	1173799	1172763	1170752
206	288834	291540	290848	290659	293118
207	263398	266939	265658	266378	266856
208	626251	630680	626005	633004	631076

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	26951	8.95	8.9 - 9.1		0.762	0.900	
24	94007	23.95	23.9 - 24.1		0.762	0.900	
25	12438	24.90	24.9 - 25.1		0.762	0.900	
26	14452	25.90	25.9 - 26.1		0.765	0.900	
59	145377	58.95	58.9 - 59.1		0.721	0.900	
115	212320	115.00	114.9 - 115.1		0.695	0.900	
206	48324	205.95	205.9 - 206.1		0.766	0.900	
207	43810	206.95	206.9 - 207.1		0.739	0.900	
208	105257	207.95	207.9 - 208.1		0.733	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

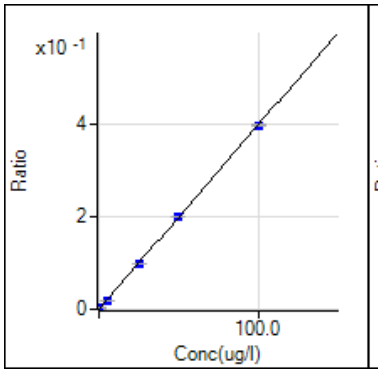
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.9	V			
Extract 2	-140.0	V	Cell Entrance	-38	V			
Omega Bias	-75	V	Cell Exit	-60	V			
Deflect	15.4	V						

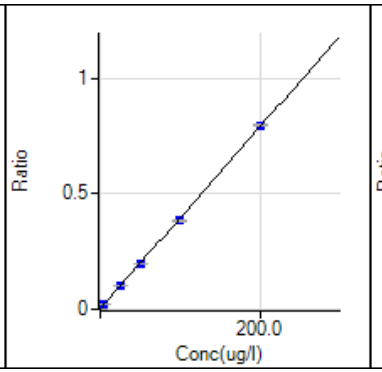
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

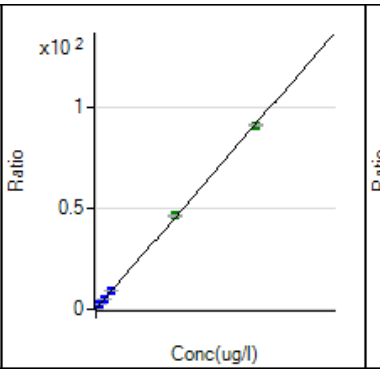
Calibration for C:\Agilent\ICPMH\1\DATA\xa031819m3.b\001CALB.d



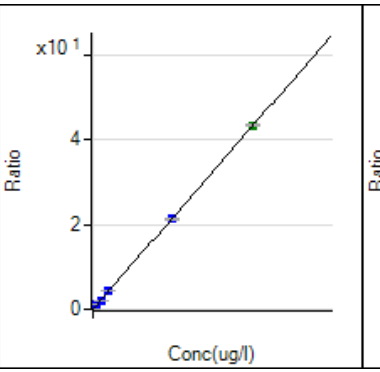
9 Be [1] / ISTD: 6 Li
y = 3.976E-3 x + 9.373E-6
R 1.0000
DL 0.004478
BEC 0.002357



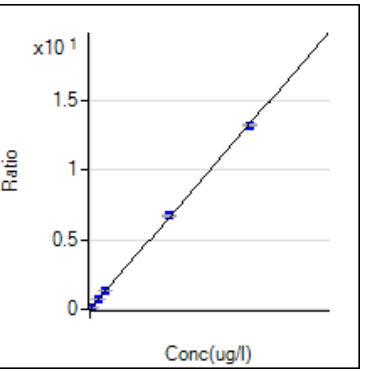
11 B [1] / ISTD: 6 Li
y = 3.941E-3 x + 2.197E-3
R 0.9998
DL 0.09322
BEC 0.5575



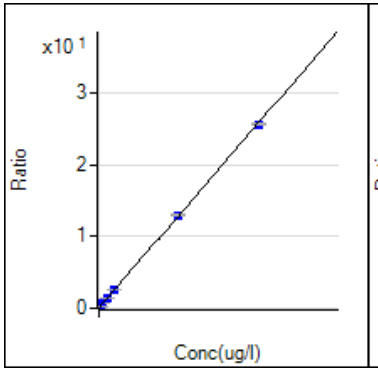
23 Na [2] / ISTD: 45 Sc
y = 9.105E-3 x + 3.748E-2
R 1.0000
DL 0.3817
BEC 4.116



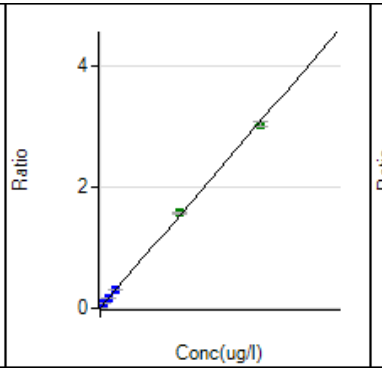
24 Mg [2] / ISTD: 45 Sc
y = 4.318E-3 x + 6.591E-4
R 1.0000
DL 0.1053
BEC 0.1526



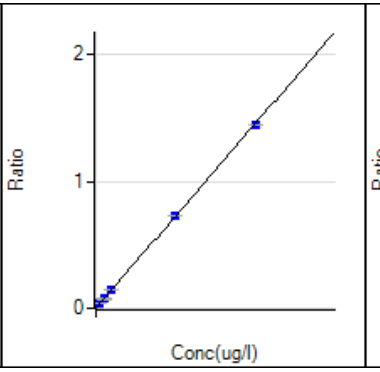
27 Al [2] / ISTD: 45 Sc
y = 1.328E-3 x + 2.150E-4
R 1.0000
DL 0.172
BEC 0.1619



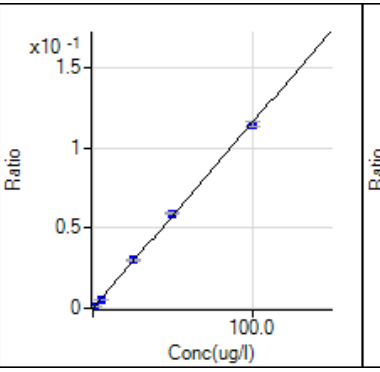
39 K [2] / ISTD: 45 Sc
y = 2.567E-3 x + 4.098E-2
R 1.0000
DL 2.03
BEC 15.96



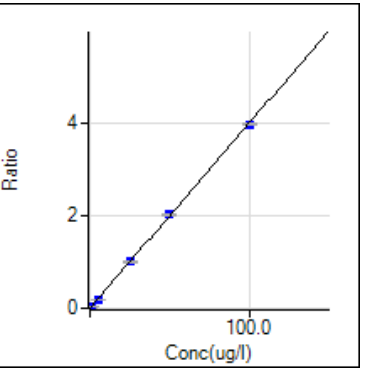
44 Ca [1] / ISTD: 45 Sc
y = 3.070E-4 x + 2.752E-3
R 0.9999
DL 0.4467
BEC 8.967



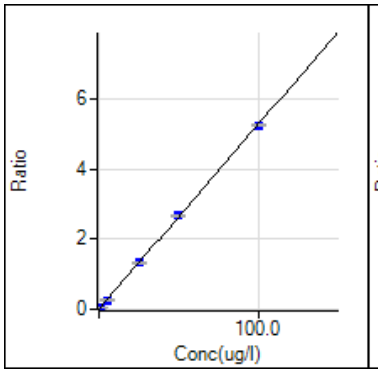
44 Ca [2] / ISTD: 45 Sc
y = 1.454E-4 x + 4.687E-4
R 1.0000
DL 1.066
BEC 3.223



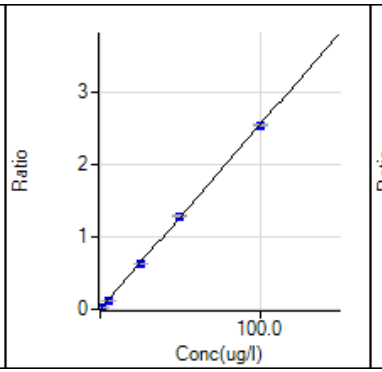
47 Ti [2] / ISTD: 45 Sc
y = 1.158E-3 x
R 0.9998
DL 0
BEC 0



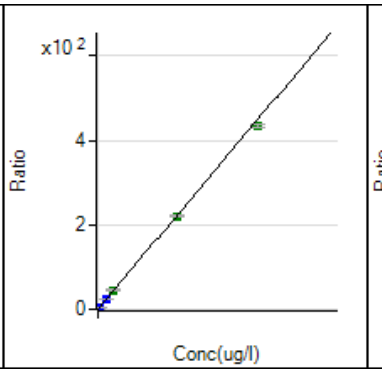
51 V [2] / ISTD: 45 Sc
y = 3.994E-2 x + 2.137E-3
R 1.0000
DL 0.009149
BEC 0.05349



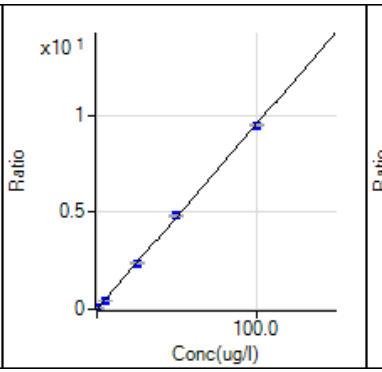
52 Cr [2] / ISTD: 45 Sc
y = 5.256E-2 x + 5.562E-3
R 1.0000
DL 0.02568
BEC 0.1058



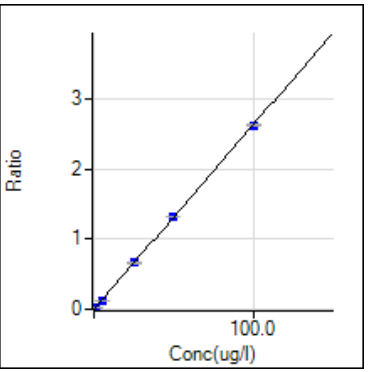
55 Mn [2] / ISTD: 45 Sc
y = 2.543E-2 x + 3.427E-4
R 1.0000
DL 0.006241
BEC 0.01348



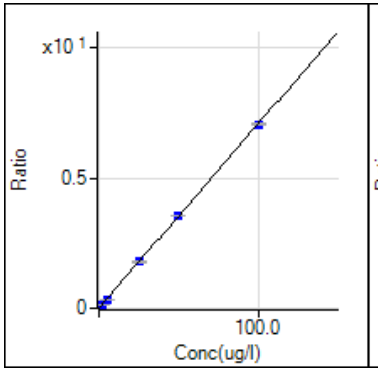
56 Fe [2] / ISTD: 45 Sc
y = 4.473E-2 x + 1.873E-2
R 1.0000
DL 0.05198
BEC 0.4188



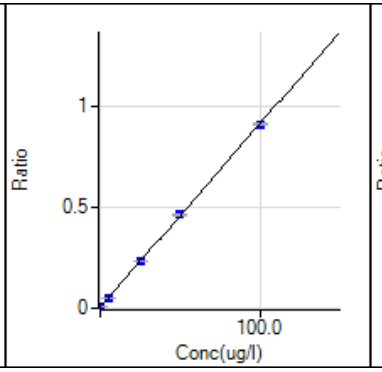
59 Co [2] / ISTD: 45 Sc
y = 9.503E-2 x + 5.916E-4
R 1.0000
DL 0.00393
BEC 0.006225



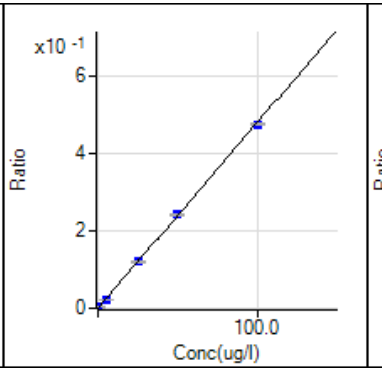
60 Ni [2] / ISTD: 45 Sc
y = 2.631E-2 x + 5.040E-4
R 1.0000
DL 0.008276
BEC 0.01916



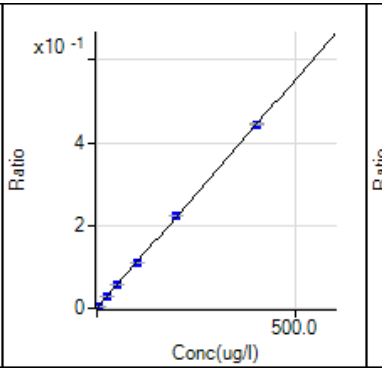
63 Cu [2] / ISTD: 45 Sc
y = 7.069E-2 x + 7.177E-3
R 1.0000
DL 0.01761
BEC 0.1015



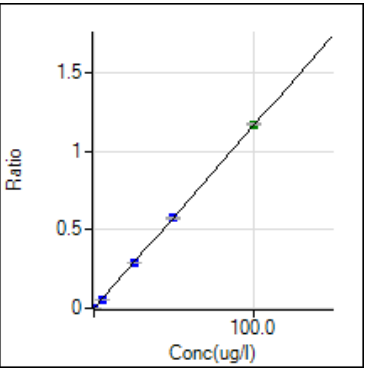
66 Zn [2] / ISTD: 45 Sc
y = 9.092E-3 x + 4.348E-3
R 1.0000
DL 0.05314
BEC 0.4782



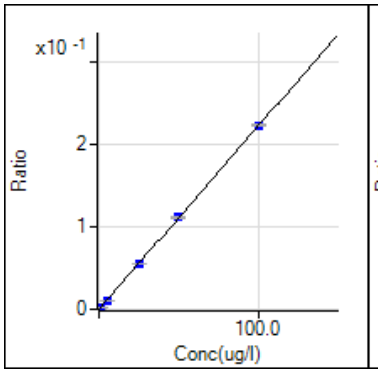
75 As [2] / ISTD: 45 Sc
y = 4.800E-3 x + 7.371E-5
R 1.0000
DL 0.01129
BEC 0.01535



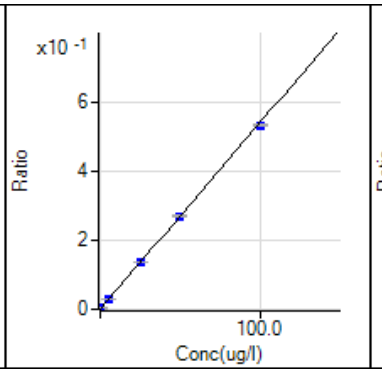
78 Se [3] / ISTD: 74 Ge
y = 1.107E-3 x + 1.585E-5
R 1.0000
DL 0.01544
BEC 0.01431



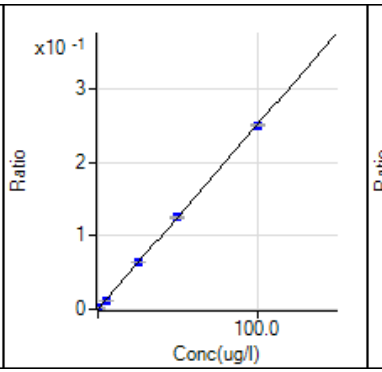
88 Sr [1] / ISTD: 103 Rh
y = 1.160E-2 x + 1.287E-4
R 1.0000
DL 0.003689
BEC 0.0111



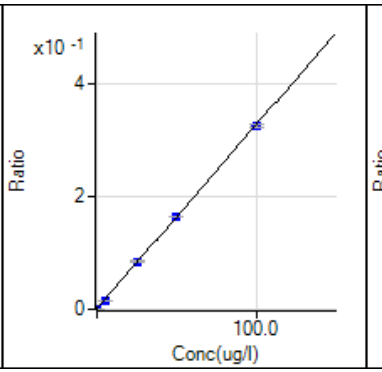
95 Mo [1] / ISTD: 103 Rh
y = 2.222E-3 x + 1.096E-5
R 1.0000
DL 0.004371
BEC 0.004931



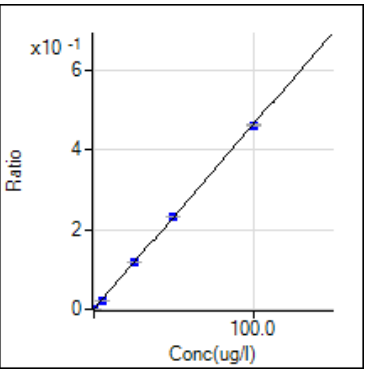
107 Ag [1] / ISTD: 115 In
y = 5.387E-3 x + 4.599E-6
R 1.0000
DL 0.001807
BEC 0.0008537



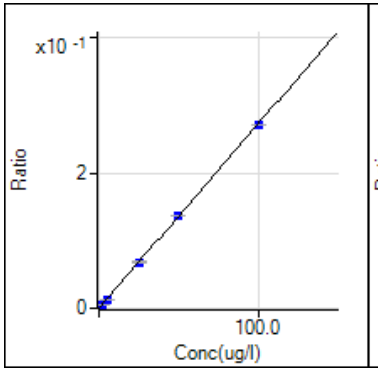
111 Cd [2] / ISTD: 115 In
y = 2.504E-3 x + 3.442E-6
R 1.0000
DL 0.004142
BEC 0.001375



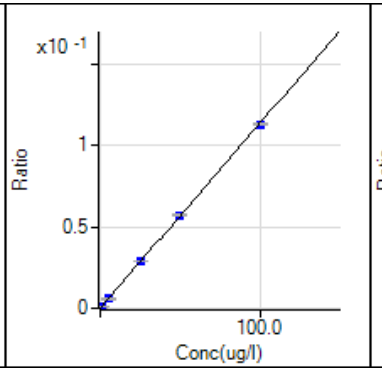
118 Sn [1] / ISTD: 115 In
y = 3.252E-3 x + 1.133E-3
R 0.9999
DL 0.007812
BEC 0.3485



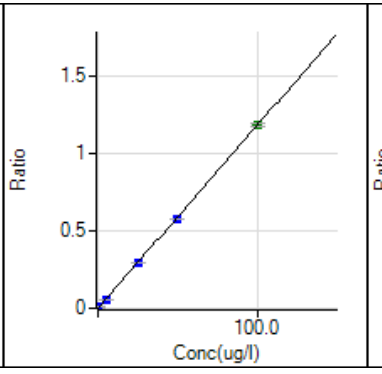
118 Sn [2] / ISTD: 115 In
y = 4.618E-3 x + 6.399E-4
R 1.0000
DL 0.01696
BEC 0.1386



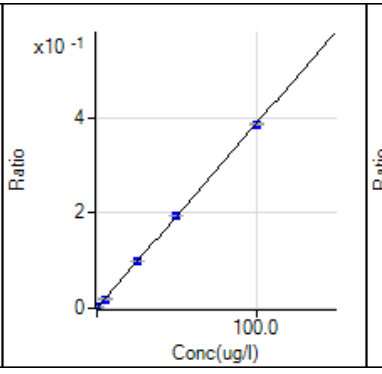
121 Sb [1] / ISTD: 159 Tb
y = 2.726E-3 x + 1.297E-5
R 1.0000
DL 0.007072
BEC 0.004756



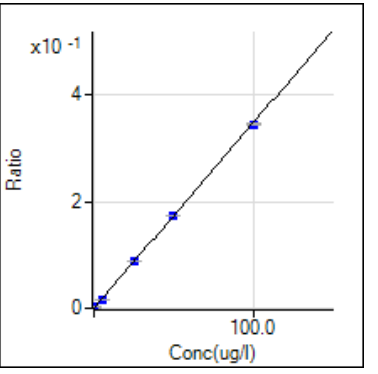
137 Ba [1] / ISTD: 159 Tb
y = 1.136E-3 x + 4.839E-6
R 1.0000
DL 0.002569
BEC 0.004259



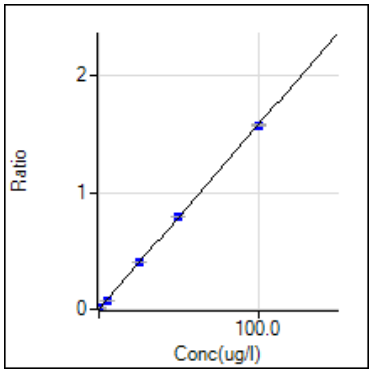
205 Tl [1] / ISTD: 209 Bi
y = 1.182E-2 x + 6.049E-5
R 0.9999
DL 0.004311
BEC 0.005118



206 Pb [1] / ISTD: 209 Bi
y = 3.877E-3 x + 8.062E-5
R 1.0000
DL 0.01308
BEC 0.02079



207 Pb [1] / ISTD: 209 Bi
y = 3.479E-3 x + 6.999E-5
R 1.0000
DL 0.01257
BEC 0.02012



208 Pb [1] / ISTD: 209 Bi

y = 1.580E-2 x + 3.356E-4

R	1.0000
DL	0.003236
BEC	0.02124

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP13130	3/14/2019	17:10	3/14/2019	22:40	JC84297-1	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	5	4156601	95	0	95
1	End	5	4156601	95	0	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812117	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP13130-MB1	N/A	N	50	50	AB		
MP13130-B1	N/A	N	50	50	AB	ABCDE	
MP13130-S1	11	Y	50	50	AB	ABCDE	
MP13130-S2	11	Y	50	50	AB	ABCDE	
MP13130-SD1	11	Y	50	50	AB		
JC84297-1	11	Y	50	50	AB		
JC84297-1F	12	Y	50	50	AB		
JC84297-2	11	Y	50	50	AB		
JC84297-2F	12	Y	50	50	AB		
JC84299-1	1	Y	50	50	AB		
JC84299-2	1	Y	50	50	AB		
JC84299-3	1	Y	50	50	AB		
MP13130-B2	N/A	N	50	50	AB	FGHIJ	
MP13130-S3	N/A	N	50	50	AB	FGHIJ	
MP13130-S4	N/A	N	50	50	AB	FGHIJ	

Reagents Groups		
Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups		
Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E	LITHIUM	0.1
F	AG 20PPM	0.2
G	ACCUTEST 13B REV1	0.2
H	ACCUTEST 14B REV1	0.2
I	Minerals 1000ppm	0.2
J	SE 20ppm	0.8

Comments: _____

Analyst MOUSTAFR Approved by _____ Approved on _____

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

Document Control #: NJ-MET-PREP-AQ-01 (2456468.4378704432) Validated by: Validated on:

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 13130 **Date:** 3/14/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	8/21/2019	MP-015-1137
Spiking Solution - (ACCUTEST-14A REV1)	8/21/2019	MP-015-1138
Spiking Solution - 5000 mg/l Minerals	2/15/2020	N2-MEB674932 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	1/16/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	8/5/2019	MP-015-1135
Spiking Solution - Li 1000ppm	1/24/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	9/5/2019	MP-015-1143
Spiking Solution - (ACCUTEST-13B REV1)	6/4/2019	MP-015-1118
Spiking Solution - (ACCUTEST-14B REV1)	7/3/2019	MP-015-1126
Spiking Solution - 1000ppm Minerals	6/4/2019	MP-015-1117
Spiking Solution- P		
Nitric Acid	3/13/2021	LOT: 205793 MFG: J.T. BAKER
Nitric Acid (1:1)	9/12/2019	MP-018-42-152 1:1 HNO3
Hydrochloric Acid	3/12/2021	LOT: 217157 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	9/7/2019	MP-018-42-150 1:1 HCL
Hydrogen Peroxide	2/26/2021	LOT: 183575 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812117 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: _____ Validated By: _____

Validated On: _____

Metals Prep Reagent
1/17/18

Date 3/18/19 Analyst Navy MP # ~~130618~~ 13130

Post spike for ICP Method 6010D

QC sample #

Spiking solution	Elements	Spike added (Y/N)	Vendor	Intermediate Lot #	Exp. Date	Conc. (mg/l)	Amt of Spike added (ml)	Digestate sample volume (ml)	Final Digestate volume in ml (Spike+ Sample)	Final Conc at the instrument (mg/l)
Mixed ICP intermediate Metals Solution (ACCUTEST-13A-REV1)	Ba,Be,B Cd,Cr,Co,Cu,Pb, Mn,Ni,P,Se,Sr,TL, V,Zn	Yes	Inhouse	MP-015-1119	6/7/19	200	0.2	19.25	20	2
Mixed ICP intermediate Metals Solution (ACCUTEST-14A-REV1)	Sb,As,Mo,Sn,Ti, W,Zr	Yes	Inhouse	MP-015-1120	6/7/19	200	0.2			2
Ag Spike Intermediate	Ag	Yes	Inhouse	MP-015-1116	5/28/19	20	0.25			0.25
Metals Mix	Ca,Al,Fe,Mg,K, Na	Yes	Inorganic Ventures	N2-MEB 672948	11/27/19	5000	0.1			25
S spike	S					200	0.2			2
Bi Spike	Bi					200	0.2			2
Li Spike	Li					200	0.2			2
Si spike	Si					1000	0.1			5

Form: DAYT-MET-0095-01-FORM
Rev. Date : 7/10/2018

Reviewed by:

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP13130	3/14/2019	17:10	3/14/2019	22:40	JC84297-1	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	5	4156601	95	0	95
1	End	5	4156601	95	0	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812117	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP13130-MB1	N/A	N	50	50	AB		
MP13130-B1	N/A	N	50	50	AB	ABCDE	
MP13130-S1	11	Y	50	50	AB	ABCDE	
MP13130-S2	11	Y	50	50	AB	ABCDE	
MP13130-SD1	11	Y	50	50	AB		
JC84297-1	11	Y	50	50	AB		
JC84297-1F	12	Y	50	50	AB		
JC84297-2	11	Y	50	50	AB		
JC84297-2F	12	Y	50	50	AB		
JC84299-1	1	Y	50	50	AB		
JC84299-2	1	Y	50	50	AB		
JC84299-3	1	Y	50	50	AB		
MP13130-B2	N/A	N	50	50	AB	FGHIJ	
MP13130-S3	N/A	N	50	50	AB	FGHIJ	
MP13130-S4	N/A	N	50	50	AB	FGHIJ	

Reagents Groups		
Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups		
Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E	LITHIUM	0.1
F	AG 20PPM	0.2
G	ACCUTEST 13B REV1	0.2
H	ACCUTEST 14B REV1	0.2
I	Minerals 1000ppm	0.2
J	SE 20ppm	0.8

Comments: _____

Analyst MOUSTAFR Approved by _____ Approved on _____

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 13130 **Date:** 3/14/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	8/21/2019	MP-015-1137
Spiking Solution - (ACCUTEST-14A REV1)	8/21/2019	MP-015-1138
Spiking Solution - 5000 mg/l Minerals	2/15/2020	N2-MEB674932 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	1/16/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	8/5/2019	MP-015-1135
Spiking Solution - Li 1000ppm	1/24/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	9/5/2019	MP-015-1143
Spiking Solution - (ACCUTEST-13B REV1)	6/4/2019	MP-015-1118
Spiking Solution - (ACCUTEST-14B REV1)	7/3/2019	MP-015-1126
Spiking Solution - 1000ppm Minerals	6/4/2019	MP-015-1117
Spiking Solution- P		
Nitric Acid	3/13/2021	LOT: 205793 MFG: J.T. BAKER
Nitric Acid (1:1)	9/12/2019	MP-018-42-152 1:1 HNO3
Hydrochloric Acid	3/12/2021	LOT: 217157 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	9/7/2019	MP-018-42-150 1:1 HCL
Hydrogen Peroxide	2/26/2021	LOT: 183575 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812117 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: _____ Validated By: _____

Validated On: _____

Metals Prep Reagent
1/17/18

Date 3/18/19 Analyst Nancy MP # ~~130618~~ 13130

Post spike for ICP Method 6010D

QC sample #

Spiking solution	Elements	Spike added (Y/N)	Vendor	Intermediate Lot #	Exp. Date	Conc. (mg/l)	Amt of Spike added (ml)	Digestate sample volume (ml)	Final Digestate volume in ml (Spike+ Sample)	Final Conc at the instrument (mg/l)
Mixed ICP intermediate Metals Solution (ACCUTEST-13A-REV1)	Ba,Be,B Cd,Cr,Co,Cu,Pb, Mn,Ni,P,Se,Sr,TL, V,Zn	Yes	Inhouse	MP-015-1119	6/7/19	200	0.2	19.25	20	2
Mixed ICP intermediate Metals Solution (ACCUTEST-14A-REV1)	Sb,As,Mo,Sn,Ti, W,Zr	Yes	Inhouse	MP-015-1120	6/7/19	200	0.2			2
Ag Spike Intermediate	Ag	Yes	Inhouse	MP-015-1116	5/28/19	20	0.25			0.25
Metals Mix	Ca,Al,Fe,Mg,K, Na	Yes	Inorganic Ventures	N2-MEB 672948	11/27/19	5000	0.1			25
S spike	S					200	0.2			2
Bi Spike	Bi					200	0.2			2
Li Spike	Li					200	0.2			2
Si spike	Si					1000	0.1			5

Form: DAYT-MET-0095-01-FORM
Rev. Date : 7/10/2018

Reviewed by:

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP20182/GN93321	2.0	1.1	mg/l	80	77.1	96.4	90-110%
Nitrogen, Nitrate + Nitrite	GP19895/GN92860	0.10	0.0	mg/l	2	2.14	107.0	90-110%
Nitrogen, Nitrite	GN92829	0.010	0.0	mg/l	0.04	0.039	97.5	90-110%
Sulfate	GP20182/GN93321	2.0	1.9	mg/l	80	77.3	96.6	90-110%

Associated Samples:
Batch GN92829: JC84299-1
Batch GP19895: JC84299-1
Batch GP20182: JC84299-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Nitrogen, Nitrate + Nitrite	GP19895/GN92860	JC83793-4	mg/l	0.012	0.0	0.0	0-33%
Nitrogen, Nitrite	GN92829	JC84257-2	mg/l	0.0	0.0	0.0	0-11%
Sulfate	GP20182/GN93321	JC83928-1A	mg/l	72.9	73.1	0.3	0-20%

Associated Samples:
Batch GN92829: JC84299-1
Batch GP19895: JC84299-1
Batch GP20182: JC84299-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Nitrate + Nitrite	GP19895/GN92860	JC83793-4	mg/l	0.012	1	0.99	99.0	90-110%
Nitrogen, Nitrite	GN92829	JC84257-2	mg/l	0.0	0.04	0.042	105.0	22-140%
Sulfate	GP20182/GN93321	JC83928-1A	mg/l	72.9	80	157	105.1	80-120%

Associated Samples:
Batch GN92829: JC84299-1
Batch GP19895: JC84299-1
Batch GP20182: JC84299-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: E031419W1.NO32 Date Analyzed: 03/14/19 Methods: EPA 353.2/LACHAT
Analyst: KI Run ID: GN92860
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:12	GN92860-STD1	1		STDA
14:13	GN92860-STD2	1		STDB
14:15	GN92860-STD3	1		STDC
14:16	GN92860-STD4	1		STDD
14:17	GN92860-STD5	1		STDE
14:18	GN92860-STD6	1		STDF
14:19	GN92860-STD7	1		STDG
14:21	GN92860-ICV1	1		
14:25	GN92860-ICV2	1		
14:26	GN92860-ICB1	1		
14:28	GN92860-CCV1	1		
14:29	GN92860-CCB1	1		
14:30	GP19895-MB1	1		
14:31	GP19895-B1	1		bsp failed, see rerun
14:32	GP19895-S1	1		bsp failed, see rerun
14:33	GP19895-S2	1		bsp failed, see rerun
14:34	GP19895-D1	1		bsp failed, see rerun
14:35	GP19895-B1	1		
14:37	GP19895-S1	1		
14:38	GP19895-S2	1		
14:39	GP19895-D1	1		
14:40	ZZZZZZ	1		
14:41	GN92860-CCV2	1		
14:42	GN92860-CCB2	1		
14:43	ZZZZZZ	1		
14:44	ZZZZZZ	1		
14:46	ZZZZZZ	1		
14:47	ZZZZZZ	1		
14:48	JC83793-4	1		(sample used for QC only; not part of login JC84299)
14:49	ZZZZZZ	1		
14:50	ZZZZZZ	1		
14:51	ZZZZZZ	1		
14:52	JC83801-1	1		(sample used for QC only; not part of login JC84299)

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: E031419W1.NO32 Date Analyzed: 03/14/19 Methods: EPA 353.2/LACHAT
Analyst: KI Run ID: GN92860
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:53	ZZZZZZ	1		
14:54	GN92860-CCV3	1		
14:56	GN92860-CCB3	1		
14:57	ZZZZZZ	1		
14:58	JC84299-1	1		
14:59	ZZZZZZ	1		
15:00	ZZZZZZ	1		
15:01	ZZZZZZ	1		
15:02	ZZZZZZ	1		
15:03	ZZZZZZ	1		
15:05	ZZZZZZ	1		
15:06	ZZZZZZ	1		
15:07	GP19901-MB1	1		
15:08	GN92860-CCV4	1		
15:09	GN92860-CCB4	1		
15:10	GP19901-B1	1		
15:11	GP19901-S1	1		
15:12	GP19901-S2	1		
15:14	GP19901-D1	1		
15:15	JC83874-4	1		(sample used for QC only; not part of login JC84299)
15:16	ZZZZZZ	1		
15:17	ZZZZZZ	1		
15:18	ZZZZZZ	1		
15:19	ZZZZZZ	1		
15:20	ZZZZZZ	1		
15:21	GN92860-CCV5	1		
15:23	GN92860-CCB5	1		
15:24	ZZZZZZ	1		
15:25	JC83919-1	1		(sample used for QC only; not part of login JC84299)
15:26	ZZZZZZ	1		
15:27	ZZZZZZ	1		
15:28	ZZZZZZ	1		
15:29	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: E031419W1.NO32 Date Analyzed: 03/14/19 Methods: EPA 353.2/LACHAT
Analyst: KI Run ID: GN92860
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:30	ZZZZZZ	1		
15:32	ZZZZZZ	1		
15:33	ZZZZZZ	1		
15:34	ZZZZZZ	1		
15:35	GN92860-CCV6	1		
15:36	GN92860-CCB6	1		
15:37	ZZZZZZ	1		
15:38	ZZZZZZ	1		
15:39	ZZZZZZ	2		
15:41	ZZZZZZ	4		
15:42	ZZZZZZ	5		
15:43	ZZZZZZ	10		
15:44	ZZZZZZ	2		
15:45	ZZZZZZ	4		
15:46	ZZZZZZ	5		
15:47	ZZZZZZ	10		
15:48	GN92860-CCV7	1		
15:49	GN92860-CCB7	1		
15:51	ZZZZZZ	2		
15:52	ZZZZZZ	4		
15:53	ZZZZZZ	2		
15:54	ZZZZZZ	4		
15:55	ZZZZZZ	1		
15:58	GN92860-CCV8	1		
15:59	GN92860-CCB8	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: E031419W1.NO32 Date Analyzed: 03/14/19 Methods: EPA 353.2/LACHAT
Run ID: GN92860 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN92860-ICV1	Nitrogen, Nitrate + Nitrite	1.74	0.10	0.090			
GN92860-ICV2	Nitrogen, Nitrate + Nitrite	1.99	0.10	0.090	2	99.5	90-110
GN92860-ICB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN92860-CCV1	Nitrogen, Nitrate + Nitrite	2.55	0.10	0.090	2.5	102.0	90-110
GN92860-CCB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN92860-CCV2	Nitrogen, Nitrate + Nitrite	2.64	0.10	0.090	2.5	105.6	90-110
GN92860-CCB2	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN92860-CCV3	Nitrogen, Nitrate + Nitrite	2.64	0.10	0.090	2.5	105.6	90-110
GN92860-CCB3	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN92860-CCV4	Nitrogen, Nitrate + Nitrite	2.62	0.10	0.090	2.5	104.8	90-110
GN92860-CCB4	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN92860-CCV5	Nitrogen, Nitrate + Nitrite	2.47	0.10	0.090	2.5	98.8	90-110
GN92860-CCB5	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN92860-CCV6	Nitrogen, Nitrate + Nitrite	2.71	0.10	0.090	2.5	108.4	90-110
GN92860-CCB6	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN92860-CCV7	Nitrogen, Nitrate + Nitrite	2.53	0.10	0.090	2.5	101.2	90-110
GN92860-CCB7	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN92860-CCV8	Nitrogen, Nitrate + Nitrite	2.59	0.10	0.090	2.5	103.6	90-110
GN92860-CCB8	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			

(!) Outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 319032601.TXT Date Analyzed: 03/26/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN93321
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:23	GN93321-STD1	1		Manually integrated chrom. peaks reviewed and verified to comply with criteria of Accutest SOP EQA044.
19:47	GN93321-STD2	1		RT: Chl=4.305 min So4=6.357 min
20:11	GN93321-STD3	1		STDC
20:35	GN93321-STD4	1		STDCD
20:58	GN93321-STD5	1		STDD
21:22	GN93321-STD6	1		STDDE
21:46	GN93321-STD7	1		STDE
22:10	GN93321-STD8	1		STDF
22:34	GN93321-STD9	1		STDG
10:08	GN93321-ICV1	1		
10:32	GN93321-CCV1	1		
10:56	GN93321-CCB1	1		
11:20	GP20128-MB2	1		
11:20	GP20130-MB2	1		
11:20	GP20052-MB3	1		
11:44	GP20128-B2	1		
11:44	GP20130-B2	1		
11:44	GP20052-B3	1		
12:08	ZZZZZZ	2		
12:31	ZZZZZZ	3		
12:55	ZZZZZZ	2		
13:19	ZZZZZZ	5		
13:43	GP20128-S1	1		
14:07	GP20128-D1	1		
14:36	JC84425-2	1		(sample used for QC only; not part of login JC84299)
14:59	ZZZZZZ	200		
15:26	GN93321-CCV2	1		
15:50	GN93321-CCB2	1		
16:14	ZZZZZZ	10		
16:38	ZZZZZZ	10		
17:01	ZZZZZZ	2		
17:23	ZZZZZZ	3		
17:47	GP20130-S1	10		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 319032601.TXT Date Analyzed: 03/26/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN93321
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:11	GP20130-D1	5		
18:35	JC84595-1	5		(sample used for QC only; not part of login JC84299)
18:59	ZZZZZZ	3		
19:23	ZZZZZZ	5		
19:47	ZZZZZZ	2		
20:11	GN93321-CCV3	1		
20:35	GN93321-CCB3	1		
20:58	ZZZZZZ	5		
21:22	ZZZZZZ	2		
21:46	GP20182-MB1	1		
22:10	GP20182-B1	1		
22:34	ZZZZZZ	1		
22:58	ZZZZZZ	1		
23:22	ZZZZZZ	1		
23:46	ZZZZZZ	1		
00:10	ZZZZZZ	1		
00:34	ZZZZZZ	1		
00:58	GN93321-CCV4	1		
01:22	GN93321-CCB4	1		
01:46	JC84299-1	1		
02:09	GP20182-S1	1		Over calibration curve. See rerun at dilution for chl. reporting for so4
02:33	GP20182-D1	1		Over calibration curve. See rerun at dilution for chl. reporting for so4
02:57	JC83928-1A	1		(sample used for QC only; not part of login JC84299)
03:21	GP20182-S2	1		Over calibration curve. See rerun at dilution for chl. reporting for so4
03:45	JC83928-2A	1		(sample used for QC only; not part of login JC84299)
04:09	ZZZZZZ	1		
04:33	ZZZZZZ	1		
04:57	ZZZZZZ	1		
05:21	ZZZZZZ	1		
05:45	GN93321-CCV5	1		
06:09	GN93321-CCB5	1		
06:33	ZZZZZZ	1		
06:57	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 319032601.TXT Date Analyzed: 03/26/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN93321
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
07:21	ZZZZZZ	1		
07:44	ZZZZZZ	1		
08:08	ZZZZZZ	1		
08:32	ZZZZZZ	1		
09:35	ZZZZZZ	1		
09:58	ZZZZZZ	10		
10:22	ZZZZZZ	500		
10:46	GN93321-CCV6	1		
11:10	GN93321-CCB6	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC84299
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 319032601.TXT Date Analyzed: 03/26/19 Methods: EPA 300/SW846 9056A
Run ID: GN93321 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN93321-ICV1	Chloride	97.4	2.0	0.16	100	97.4	90-110
GN93321-ICV1	Sulfate	99.1	2.0	0.38	100	99.1	90-110
GN93321-CCV1	Chloride	194	2.0	0.16	200	97.0	90-110
GN93321-CCV1	Sulfate	193	2.0	0.38	200	96.5	90-110
GN93321-CCB1	Chloride	1.12	2.0	0.16			
GN93321-CCB1	Sulfate	1.60	2.0	0.38			
GN93321-CCV2	Chloride	195	2.0	0.16	200	97.5	90-110
GN93321-CCV2	Sulfate	195	2.0	0.38	200	97.5	90-110
GN93321-CCB2	Chloride	1.14	2.0	0.16			
GN93321-CCB2	Sulfate	1.72	2.0	0.38			
GN93321-CCV3	Chloride	196	2.0	0.16	200	98.0	90-110
GN93321-CCV3	Sulfate	199	2.0	0.38	200	99.5	90-110
GN93321-CCB3	Chloride	1.13	2.0	0.16			
GN93321-CCB3	Sulfate	1.67	2.0	0.38			
GN93321-CCV4	Chloride	196	2.0	0.16	200	98.0	90-110
GN93321-CCV4	Sulfate	198	2.0	0.38	200	99.0	90-110
GN93321-CCB4	Chloride	1.13	2.0	0.16			
GN93321-CCB4	Sulfate	1.62	2.0	0.38			
GN93321-CCV5	Chloride	196	2.0	0.16	200	98.0	90-110
GN93321-CCV5	Sulfate	199	2.0	0.38	200	99.5	90-110
GN93321-CCB5	Chloride	1.14	2.0	0.16			
GN93321-CCB5	Sulfate	1.72	2.0	0.38			
GN93321-CCV6	Chloride	194	2.0	0.16	200	97.0	90-110
GN93321-CCV6	Sulfate	192	2.0	0.38	200	96.0	90-110
GN93321-CCB6	Chloride	1.13	2.0	0.16			
GN93321-CCB6	Sulfate	1.70	2.0	0.38			

(!) Outside of QC limits

General Chemistry

Raw Data

SGS

Test: Nitrogen, Nitrite
Product: NO2
Method: SM4500NO2 B-11 (Aqueous) ◉ Units: mg/l
SM4500NO2 B-11 M (Solids) ○ mg/kg

Analyst: MO
GN Batch ID: GN92829
GP Batch ID:
Date: 3/13/2019
Instrument ID: N

Original Calibration Information Calibration Date: 1/28/2019

	Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7
Known:	0.000	0.010	0.025	0.050	0.075	0.100	0.200	
Absorbance:	0.001	0.038	0.090	0.174	0.267	0.353	0.699	
Actual Value:	0.000	0.010	0.025	0.049	0.076	0.100	0.200	

Continuing Calibration Check Standards Data:

	Blank	Std 1	Std 6
Known:	0.000	0.010	0.200
Absorbance:	0.000	0.040	0.697
Recovery:	0.0%	107.7%	99.5%
Actual Value:		0.011	0.199

Correlation Coeff. = 0.99997
Slope = 0.28658
Intercept = -0.00069

Bottle #	Sample ID	Time Analyzed	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	DL	Units	Factor	pH between 5 and 9 (Y or N)
	ICV	21:57	50	50	1	0.332	NA	0.094	0.094	NA	mg/l	NA	Y
	CCV		50	50	1	0.337	NA	0.096	0.096	NA	mg/l	NA	Y
	GN92829-MB1		50	50	1	0.000	0.000	-0.001	-0.001	0.010	mg/l	1	Y
	GN92829-B1		50	50	1	0.139	0.000	0.039	0.039	0.010	mg/l	1	Y
8	GN92829-S1		50	50	1	0.151	0.002	0.042	0.042	0.010	mg/l	1	Y
8	GN92829-D1		50	50	1	0.006	0.002	0.000	0.000	0.010	mg/l	1	Y
8	JC84257-1		50	50	1	0.034	0.027	0.001	0.001	0.010	mg/l	1	Y
8	JC84257-2		50	50	1	0.004	0.002	0.000	0.000	0.010	mg/l	1	Y
8	JC84257-3		50	50	1	0.006	0.001	0.001	0.001	0.010	mg/l	1	Y
8	JC84257-4		50	50	1	0.020	0.017	0.000	0.000	0.010	mg/l	1	Y
8	JC84257-5		50	50	1	0.022	0.016	0.001	0.001	0.010	mg/l	1	Y
^3	JC84292-1		50	50	1	0.084	0.052	0.008	0.008	0.010	mg/l	1	Y
	CCVA		50	50	1	0.697	NA	0.199	0.199	NA	mg/l	NA	Y
^3	JC84292-2		50	50	1	0.052	0.011	0.011	0.011	0.010	mg/l	1	Y
^3	JC84292-3		50	50	1	0.131	0.011	0.034	0.034	0.010	mg/l	1	Y
^3	JC84292-4		50	50	1	0.058	0.040	0.004	0.004	0.010	mg/l	1	Y
^3	JC84292-5		50	50	1	0.029	0.012	0.004	0.004	0.010	mg/l	1	Y
6	JC84300-6		50	50	1	0.017	0.011	0.001	0.001	0.010	mg/l	1	Y
^9	JC84306-1		50	50	1	0.087	0.079	0.002	0.002	0.010	mg/l	1	Y
9	JC84306-2		50	50	1	0.019	0.002	0.004	0.004	0.010	mg/l	1	Y
^9	JC84306-3		50	50	1	0.046	0.041	0.001	0.001	0.010	mg/l	1	Y
^9	JC84306-4		50	50	1	0.018	0.005	0.003	0.003	0.010	mg/l	1	Y
^12	JC84306-1F		50	50	1	0.091	0.079	0.003	0.003	0.010	mg/l	1	Y
	CCV		50	50	1	0.341	NA	0.097	0.097	NA	mg/l	NA	Y
^12	JC84306-2F		50	50	1	0.021	0.000	0.005	0.005	0.010	mg/l	1	Y
^12	JC84306-3F		50	50	1	0.047	0.041	0.001	0.001	0.010	mg/l		Y
^12	JC84306-4F		50	50	1	0.020	0.005	0.004	0.004	0.010	mg/l		Y
5	JC84299-1		50	50	1	0.006	0.002	0.000	0.000	0.010	mg/l		Y
			50	50	1								Y
			50	50	1								Y
			50	50	1								Y
			50	50	1								Y
			50	50	1								Y
			50	50	1								Y
	CCVA	22:21	50	50	1	0.711		0.203	0.203	NA	mg/l	NA	Y

BS/MS: 2ml of 1ppm spike + 50ml w/ DI/sample

QC: JC84257-2

A = filtered

Analyst: MO Date: 3/13/19 QC Reviewer: [signature] Date: 3/13/19

SGS

Test: **Nitrogen, Nitrite**
Product: **NO2**
Method: **SM18 4500 NO2B (aqueous)**
SM18 4500 NO2B M (solids)

Units: mg/l
mg/kg

Analyst: MO
GNBatch ID: GN92824
GPBatch ID:
Date: 3/13/19

Preparation Batch QC Summary Units = mg/l

Method Blank ID: ~~SGS~~ GN92824-MB Date: 3/13/19 Result: LRL DL: 0.01 <DL: Y
Spike Blank ID: -B1 Date: Result: 0.039 Spike: 0.04 %Rec.: 92.5%
Duplicate ID: -D1 Samp. Result: 0.000 Dup. Result: 0.000 %RPD: 0
MS ID: -S1 Samp. Result: 0.000 MS Result: 0.042 Spike: 0.04 %Rec: 105%

Method Blank ID: Date: Result: DL: <DL:
Spike Blank ID: Date: Result: Spike: %Rec.:
Duplicate ID: Samp. Result: Dup. Result: %RPD:
MS ID: Samp. Result: MS Result: Spike: %Rec:

Analysis Batch QC Summary Units = mg/l

ICV (Ext): 3/13/19 Result: 0.094 TV: 0.1 %Rec: 94%

CCV : Result: 0.096 TV: 0.1 %Rec.: 96%
CCVA : Result: 0.199 TV: 0.2 %Rec.: 99.5%
CCV : Result: 0.097 TV: 0.1 %Rec.: 97%
CCVA : Result: 0.203 TV: 0.2 %Rec.: 101.5%
CCV : Result: TV: %Rec.:
CCVA : Result: TV: %Rec.:

CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:

Reagent Reference Numbers:

Analyst: MO Date: 3/13/19

Comments:

Form: GN032-01
Rev. Date:9/4/09]

SGS

Reagent Information Log - Nitrite as Nitrogen

GN92879

Reagent	Reagent # or Manufacturer/Lot
Calibration Source: 1000 mg/l nitrite stock	ERA LOT#190917 XP:9/30/2019
External Check	ERA LOT #020518 XP: 5/30/2020
Spiking Solution Source (1 PPM)	ERA LOT#190917 XP:9/30/2019
Color Reagent	GNE2-57313-NO2 XP:3/21/2019
NH4OH	FISHER 153331 XP:7/15/21

All standards and stocks were made as described in the SOP for this method (circle one): (Y) or N
If no (N), see attached page for standards prep.

Form: GN087A-42
Rev. Date:3/13/2019

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: NO2

GN or GP Number: GN92829

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume or weight used with units	Balance or Auto pipet ID (*)	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
NO2 10 mg/L	ERA Lot 190917 Exp: 9/30/2019	1000 mg/L	1.0 ml	A	DI water	100 ml	10 mg/L	3/12/2019	MO	3/12/2019
NO2 1 mg/L	NO2 10 mg/L (STD)	100 mg/L	10.0 ml	A	DI water	100 ml	1 mg/L	3/12/2019	MO	3/12/2019
NO2 10 mg/L	ERA Lot 020518 Exp: 5/30/2020	1000 mg/L	1.0 ml	A	DI water	100 ml	10 mg/L	3/12/2019	MO	3/12/2019
NO2 1 mg/L	NO2 10 mg/L (ICV)	100 mg/L	10.0 ml	A	DI water	100 ml	1 mg/L	3/12/2019	MO	3/12/2019

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Balance or Auto pipet ID (*)	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
0.2 mg/L	1.0 mg/L	1.0 mg/L	20.0 ml	A	DI water	100 ml	3/1/2019	3/13/2019	MO	3/13/2019
0.01 mg/L	1.0 mg/L	1.0 mg/L	1.0 ml	A	DI water	100 ml	3/1/2019	3/13/2019	MO	3/13/2019
0 mg/L	NA	NA	NA	NA	NA	100 ml	**NA**	3/13/2019	MO	3/13/2019
ICV	1.0 mg/L	1.0 mg/L	10.0 ml	A	DI water	100 ml	0.1 mg/L	3/13/2019	MO	3/13/2019
CCV	1.0 mg/L	1.0 mg/L	10.0 ml	A	DI water	100 ml	0.1 mg/L	3/13/2019	MO	3/13/2019
CCVA	1.0 mg/L	1.0 mg/L	20.0 ml	A	DI water	100 ml	0.2 mg/L	3/13/2019	MO	3/13/2019

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Form: GN121-01
Rev. Date: 1/13/09

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E031419W1.NO32 Date Analyzed: 03/14/19 Methods: EPA 353.2/LACHAT
Analyst: KI Run ID: GN92860

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: KI Date 3/14/19

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 3/15/19

GN92860

l031419w1.no32

Author: Chemistry

Date : 3/14/2019

Original Run Filename: OM_3-14-2019_02-11-56PM.OMN Created: 3/14/2019 2:11:56 PM
Original Run Author's Signature: [Chemistry]
Current Run Filename: OM_3-14-2019_02-11-56PM.OMN Last Modified: 3/14/2019 2:24:13 PM
Current Run Author's Signature: [Chemistry]
Description: Default New Run

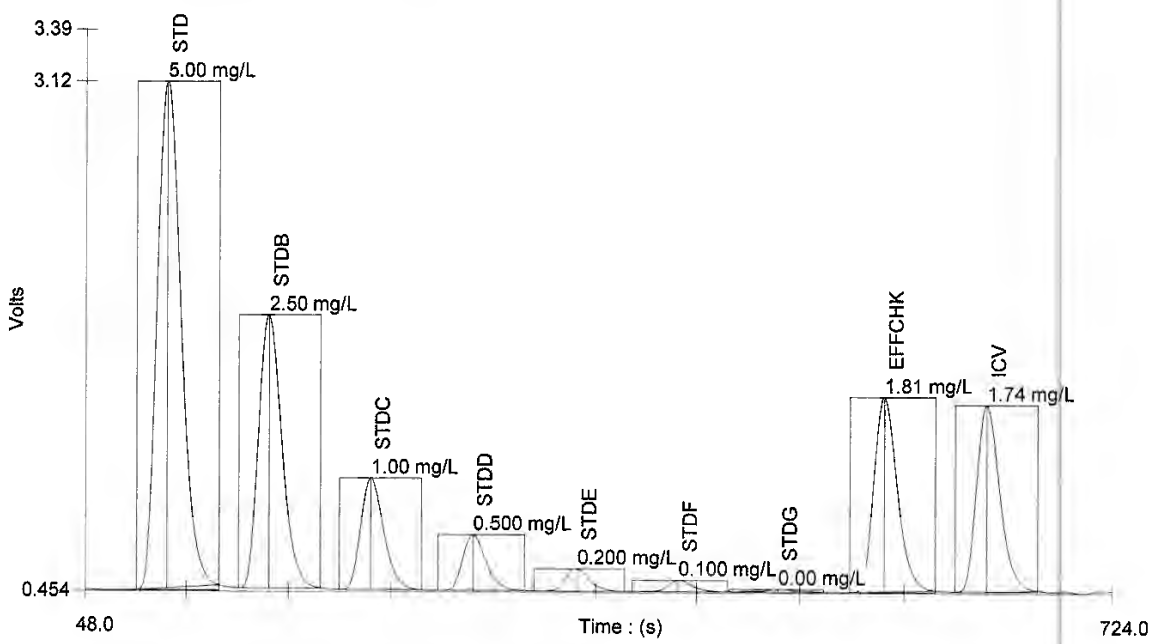
Sample	Rep.	Cup No.	Channel 1 NO32 (mg/L)	Detection Time	MDF
STDA	1	S1	5.00	3/14/2019@2:12:46 PM	
STDB	1	S2	2.50	3/14/2019@2:13:54 PM	
STDC	1	S3	1.00	3/14/2019@2:15:01 PM	
STDD	1	S4	0.500	3/14/2019@2:16:10 PM	
STDE	1	S5	0.200	3/14/2019@2:17:16 PM	
STDF	1	S6	0.100	3/14/2019@2:18:24 PM	
STDG	1	S7	0.00	3/14/2019@2:19:30 PM	
EFFCHK	1	1	1.81	3/14/2019@2:20:38 PM	
	Known Conc:		2.00		
	Calibration:		Table/Fig. : 1		
ICV	1	2	1.74	3/14/2019@2:21:46 PM	
	Known Conc:		2.00		

% LCL

90.5

87

Channel 1 - Set: 1 / 1



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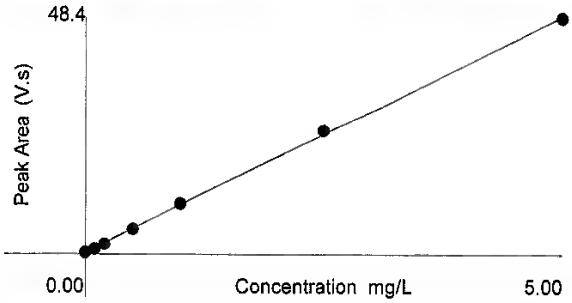
Author: Chemistry

Date : 3/14/2019

Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	48.4	2.65	0.0	0.8	4.96	3/14/2019	2:12:46 PM
2	2.50	1	25.4	1.43	0.0	-3.2	2.58	3/14/2019	2:13:54 PM
3	1.00	1	10.3	0.584	0.0	-2.1	1.02	3/14/2019	2:15:01 PM
4	0.500	1	5.13	0.291	0.0	1.6	0.492	3/14/2019	2:16:10 PM
5	0.200	1	2.08	0.117	0.0	9.7	0.177	3/14/2019	2:17:16 PM
6	0.100	1	1.07	0.0585	0.0	20.3	0.0726	3/14/2019	2:18:24 PM
7	0.00	1	0.369	0.0142			6.61e-4	3/14/2019	2:19:30 PM

Figure : 1 (NO32)



Area = 9.69 * Conc + 0.369
Conc = 0.103 * Area - 0.0373
Correlation Coefficient (r) = 0.99975

Weighting : None

(K) ~~90~~ e031419w2 NB

GN92860

Author: Chemistry

Date : 3/14/2019

Original Run Filename: OM_3-14-2019_02-24-54PM.OMN Created: 3/14/2019 2:24:54 PM
Original Run Author's Signature: [Chemistry]
Current Run Filename: OM_3-14-2019_02-24-54PM.OMN Last Modified: 3/14/2019 4:02:19 PM
Current Run Author's Signature: [Chemistry]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 NO32 (mg/L)	Detection Time	MDF	
ICV	1	2	1.99	3/14/2019@2:25:46 PM		06 rec
	Known Conc:		2.00			99.5
ICB	1	3	-0.0655	3/14/2019@2:26:54 PM		
	Known Conc:		0.00			
	Calibration:		Table/Fig. : 1			
CCV	1	S9	2.55	3/14/2019@2:28:02 PM		102
	Known Conc:		2.50			
CCB	1	S10	-0.0597	3/14/2019@2:29:09 PM		
	Known Conc:		0.00			
GP19895-MB1	1	4	-0.0570	3/14/2019@2:30:17 PM		
GP19895-B1 (2)	1	5	1.78	3/14/2019@2:31:25 PM		
GP19895-S1	1	6	0.978	3/14/2019@2:32:32 PM		see remn
GP19895-S2	1	7	1.09	3/14/2019@2:33:40 PM		
GP19895-D1	1	8	-5.85e-3	3/14/2019@2:34:47 PM		
GP19895-B1	1	5	2.14	3/14/2019@2:35:55 PM		107
GP19895-S1	1	6	0.985	3/14/2019@2:37:02 PM		
GP19895-S2	1	7	1.08	3/14/2019@2:38:10 PM		
GP19895-D1	1	8	-3.47e-3	3/14/2019@2:39:17 PM		
JC83733-3F	1	9	-0.0199	3/14/2019@2:40:24 PM		
CCV	1	S9	2.64	3/14/2019@2:41:32 PM		
	Known Conc:		2.50			105.6
CCB	1	S10	-0.0556	3/14/2019@2:42:39 PM		
	Known Conc:		0.00			
JC83790-2	1	10	3.44	3/14/2019@2:43:46 PM		
JC83793-1	1	11	-0.0968	3/14/2019@2:44:53 PM		
JC83793-2	1	12	-7.17e-3	3/14/2019@2:46:00 PM		
JC83793-3	1	13	0.0199	3/14/2019@2:47:07 PM		
JC83793-4	1	14	0.0117	3/14/2019@2:48:14 PM		
JC83793-5	1	15	0.0171	3/14/2019@2:49:21 PM		
JC83793-6	1	16	0.0314	3/14/2019@2:50:28 PM		
JC83793-7	1	17	0.0764	3/14/2019@2:51:36 PM		
JC83801-1	1	18	0.113	3/14/2019@2:52:44 PM		
JC83801-2	1	19	0.0902	3/14/2019@2:53:52 PM		
CCV	1	S9	2.64	3/14/2019@2:54:59 PM		
	Known Conc:		2.50			105.6
CCB	1	S10	-0.0546	3/14/2019@2:56:07 PM		
	Known Conc:		0.00			
JC83813-2	1	20	-8.48e-3	3/14/2019@2:57:15 PM		
JC84299-1	1	21	0.0976	3/14/2019@2:58:23 PM		
JC84300-1 (2)	1	22	7.27	3/14/2019@2:59:30 PM		overrange, see remn
JC84300-2	1	23	10.2	3/14/2019@3:00:37 PM		
JC84300-5	1	24	0.529	3/14/2019@3:01:44 PM		
JC84300-6	1	25	-0.0292	3/14/2019@3:02:51 PM		
JC83874-1	1	26	0.0346	3/14/2019@3:03:58 PM		
JC83874-2	1	27	0.0183	3/14/2019@3:05:05 PM		
JC83874-3	1	28	0.200	3/14/2019@3:06:12 PM		
GP19901-MB1	1	29	-0.0386	3/14/2019@3:07:20 PM		
CCV	1	S9	2.62	3/14/2019@3:08:26 PM		
	Known Conc:		2.50			104.8
CCB	1	S10	-0.0580	3/14/2019@3:09:34 PM		
	Known Conc:		0.00			90
GP19901-B1	1	30	1.80	3/14/2019@3:10:41 PM		
GP19901-S1	1	31	0.921	3/14/2019@3:11:48 PM		
GP19901-S2	1	32	0.990	3/14/2019@3:12:57 PM		
GP19901-D1	1	33	-0.0497	3/14/2019@3:14:04 PM		
JC83874-4	1	34	-0.0194	3/14/2019@3:15:12 PM		
JC83874-5	1	35	0.0279	3/14/2019@3:16:20 PM		
JC83884-8	1	36	0.124	3/14/2019@3:17:27 PM		
JC83884-10	1	37	0.840	3/14/2019@3:18:35 PM		
JC83884-11 (2)	1	38	6.95	3/14/2019@3:19:42 PM		overrange, see remn

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Author: Chemistry

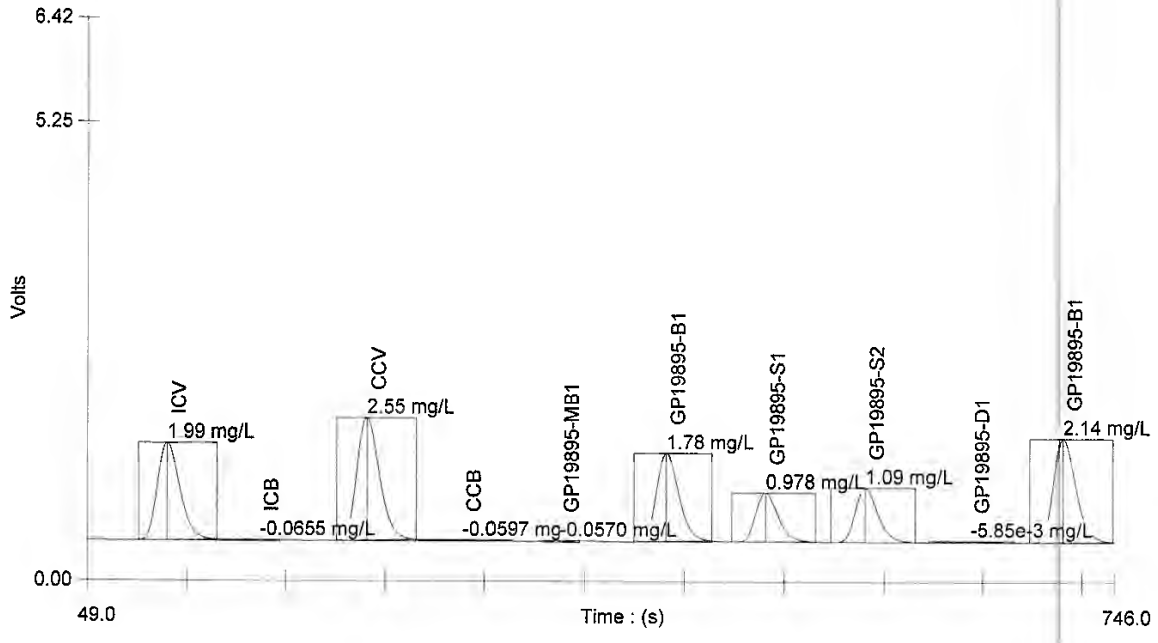
Date : 3/14/2019

JC83884-12 (2)	1	39	12.4	3/14/2019@3:20:49 PM		overrange see rerun
CCV	1	S9	2.47	3/14/2019@3:21:56 PM		
	Known Conc:		2.50			98.8
CCB	1	S10	-0.0518	3/14/2019@3:23:04 PM		
	Known Conc:		0.00			
JC83884-13	1	40	0.867	3/14/2019@3:24:11 PM		
JC83919-1	1	41	0.0227	3/14/2019@3:25:18 PM		
JC83919-2 (2)	1	42	7.20	3/14/2019@3:26:25 PM		overrange, see rerun
JC83919-3	1	43	0.456	3/14/2019@3:27:32 PM		
JC83919-4 (2)	1	44	8.16	3/14/2019@3:28:39 PM		overrange, see rerun
JC83953-1 ↓	1	45	-0.101	3/14/2019@3:29:46 PM		see rerun
JC83953-2	1	46	-0.0463	3/14/2019@3:30:53 PM		
JC83953-3	1	47	0.426	3/14/2019@3:32:01 PM		
JC83953-4	1	48	0.143	3/14/2019@3:33:09 PM		
JC83953-5	1	49	0.140	3/14/2019@3:34:17 PM		
CCV	1	S9	2.71	3/14/2019@3:35:24 PM		
	Known Conc:		2.50			108.4
CCB	1	S10	-0.0533	3/14/2019@3:36:32 PM		
	Known Conc:		0.00			
JC83953-6	1	50	0.0188	3/14/2019@3:37:40 PM		
JC83953-7	1	51	0.0175	3/14/2019@3:38:47 PM		
JC84300-1	1	52	4.03	3/14/2019@3:39:55 PM	2.00	
JC84300-1	1	53	2.09	3/14/2019@3:41:02 PM	4.00	
JC84300-2	1	54	2.59	3/14/2019@3:42:09 PM	5.00	
JC84300-2	1	55	1.31	3/14/2019@3:43:16 PM	10.00	
JC83884-11	1	56	3.80	3/14/2019@3:44:24 PM	2.00	
JC83884-11	1	57	1.95	3/14/2019@3:45:31 PM	4.00	
JC83884-12	1	58	4.37	3/14/2019@3:46:37 PM	5.00	
JC83884-12	1	59	2.29	3/14/2019@3:47:44 PM	10.00	
CCV	1	S9	2.53	3/14/2019@3:48:51 PM		
	Known Conc:		2.50			101.2
CCB	1	S10	-0.0565	3/14/2019@3:49:59 PM		
	Known Conc:		0.00			
JC83919-2	1	60	3.75	3/14/2019@3:51:06 PM	2.00	
JC83919-2	1	61	2.01	3/14/2019@3:52:14 PM	4.00	
JC83919-4	1	62	4.28	3/14/2019@3:53:22 PM	2.00	
JC83919-4	1	63	2.34	3/14/2019@3:54:30 PM	4.00	
JC83953-1	1	45	-0.0272	3/14/2019@3:55:37 PM		
CCV	1	S9	2.59	3/14/2019@3:58:48 PM		
	Known Conc:		2.50			103.6
CCB	1	S10	-0.0487	3/14/2019@3:59:56 PM		
	Known Conc:		0.00			

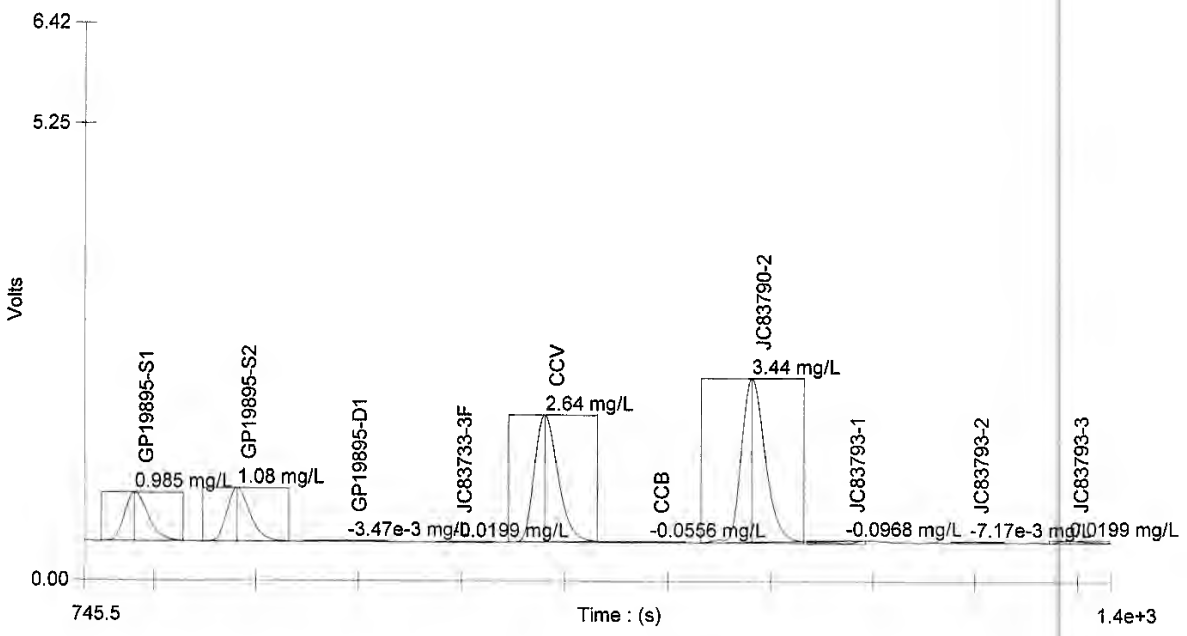
Author: Chemistry

Date : 3/14/2019

Channel 1 - Set: 1 / 9



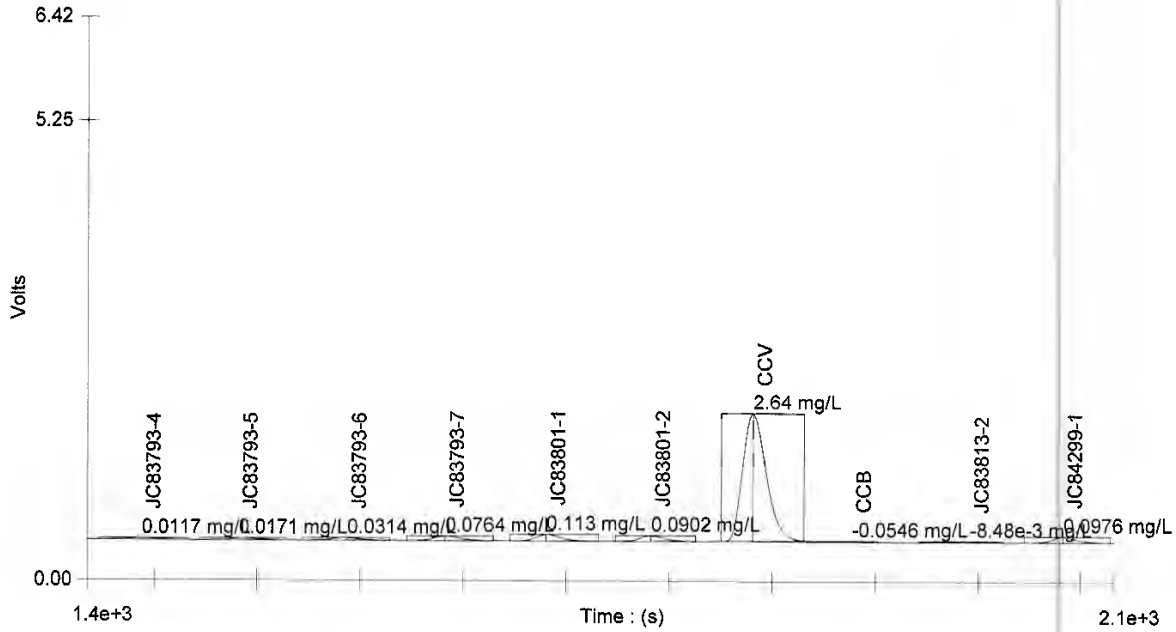
Channel 1 - Set: 2 / 9



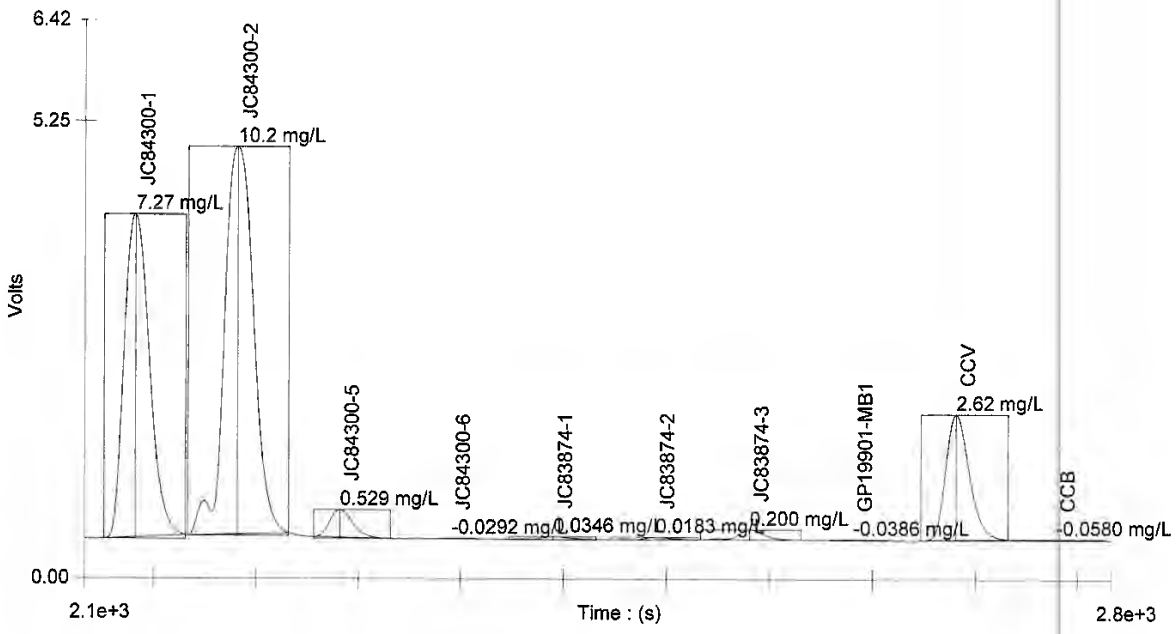
Author: Chemistry

Date : 3/14/2019

Channel 1 - Set: 3 / 9



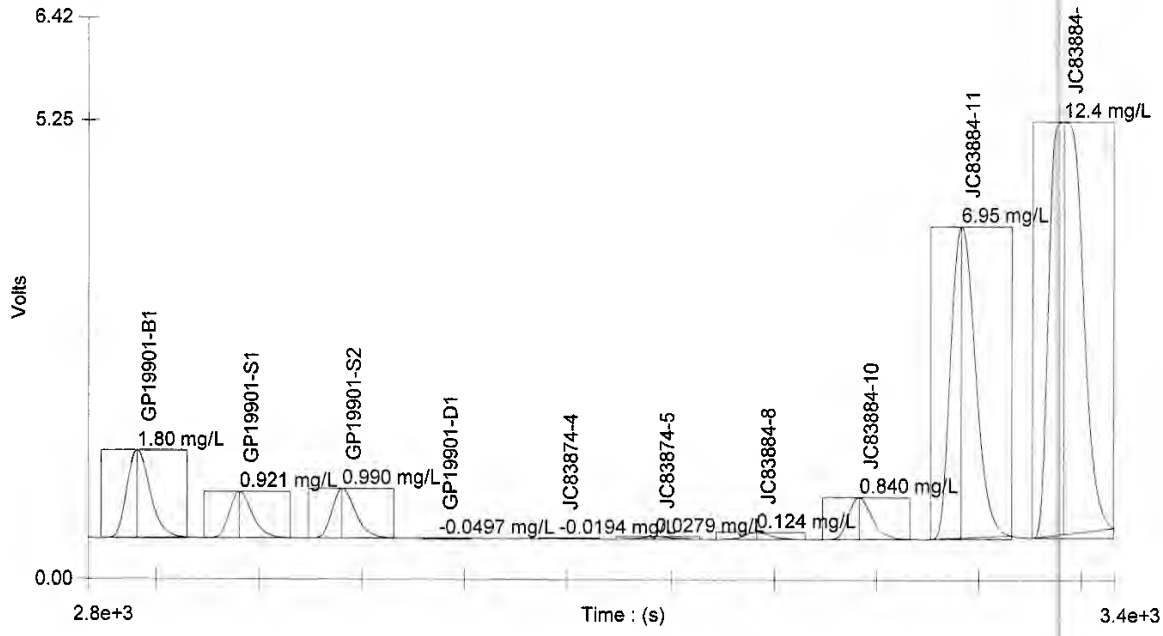
Channel 1 - Set: 4 / 9



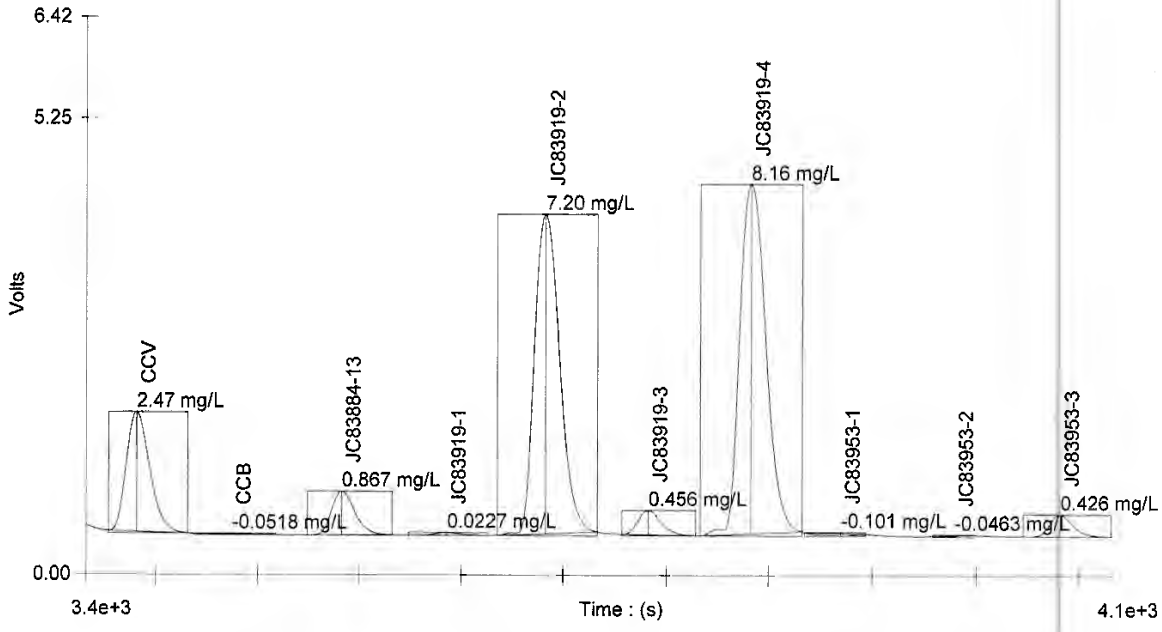
Author: Chemistry

Date : 3/14/2019

Channel 1 - Set: 5 / 9



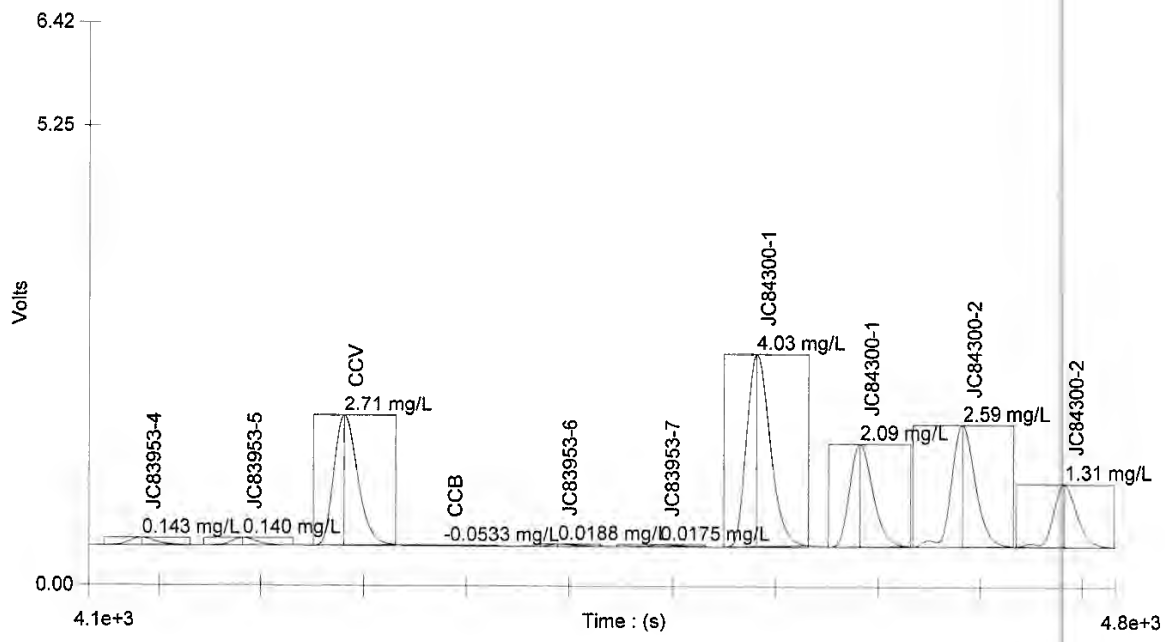
Channel 1 - Set: 6 / 9



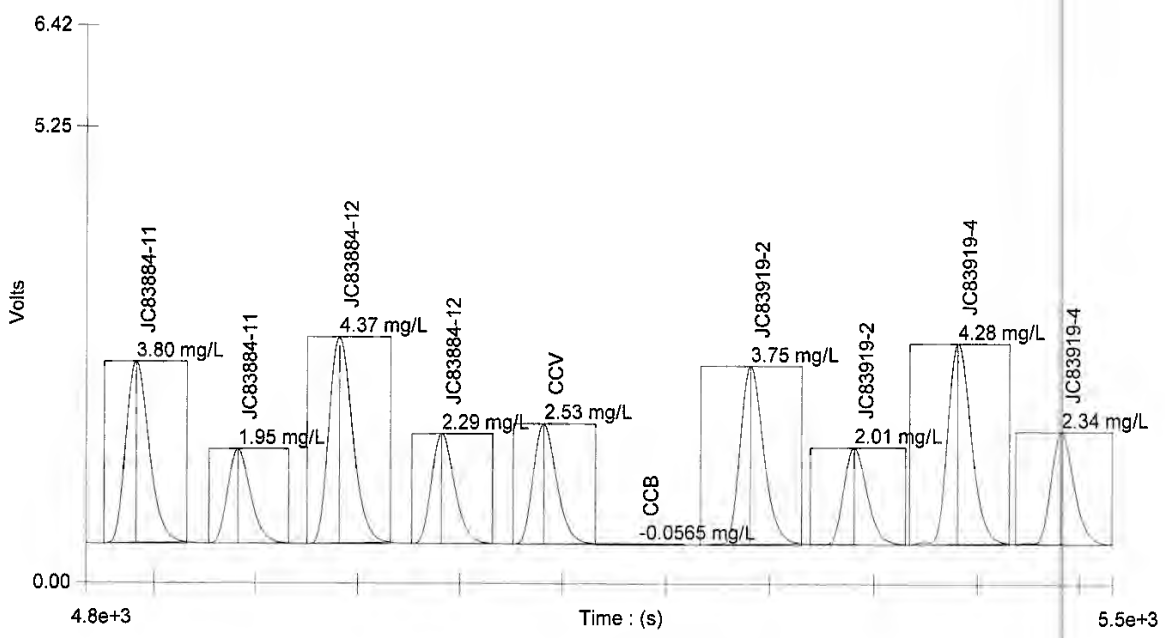
Author: Chemistry

Date . 3/14/2019

Channel 1 - Set: 7 / 9



Channel 1 - Set: 8 / 9



Author: Chemistry

Date : 3/14/2019

Channel 1 - Set: 9 / 9

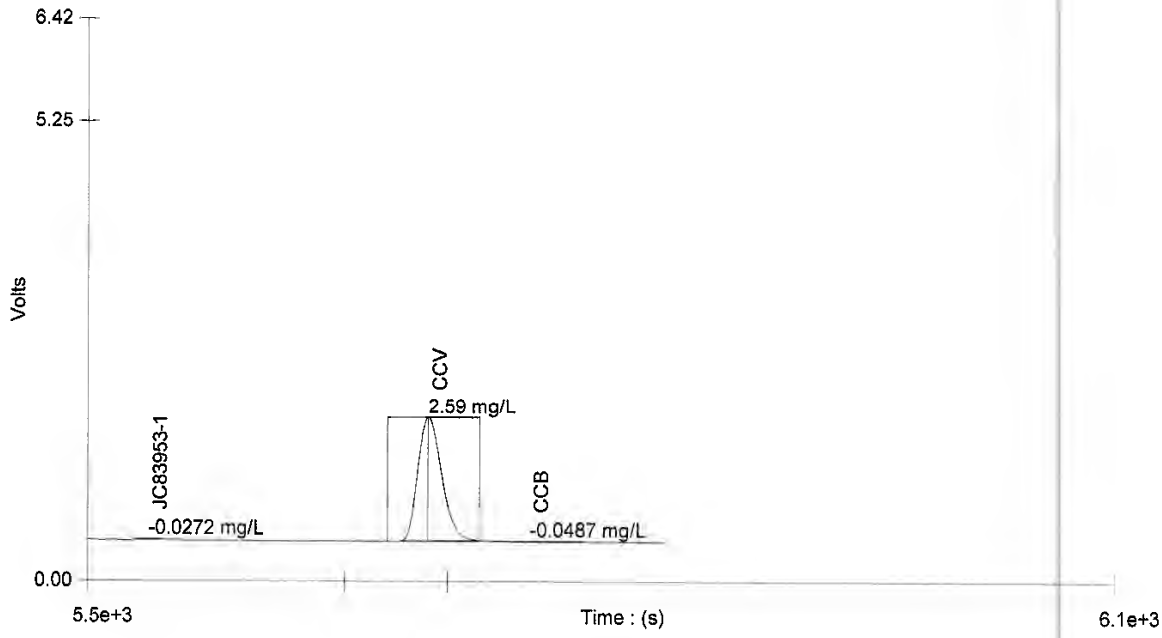
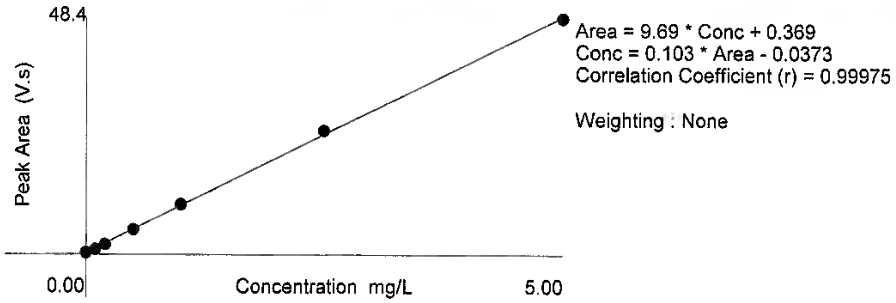


Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	48.4	2.65	0.0	0.8	4.96	3/14/2019	2:12:46 PM
2	2.50	1	25.4	1.43	0.0	-3.2	2.58	3/14/2019	2:13:54 PM
3	1.00	1	10.3	0.584	0.0	-2.1	1.02	3/14/2019	2:15:01 PM
4	0.500	1	5.13	0.291	0.0	1.6	0.492	3/14/2019	2:16:10 PM
5	0.200	1	2.08	0.117	0.0	9.7	0.177	3/14/2019	2:17:16 PM
6	0.100	1	1.07	0.0585	0.0	20.3	0.0726	3/14/2019	2:18:24 PM
7	0.00	1	0.369	0.0142			6.61e-4	3/14/2019	2:19:30 PM

Figure : 1 (NO32)



SGS

Analyst KI Product N032 Autopipette # 43

Date 3/14/19 Batch ID Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
JC84300-1	1:2	2	4	
-1	1:4	1	4	
-2	1:5	1	5	
-2	1:10	1	10	
JC83884-11	1:2	2	4	
-11	1:4	1	4	
-12	1:5	1	5	
-12	1:10	1	10	
JC83919-2	1:2	2	4	
-2	1:4	1	4	
-4	1:2	2	4	
-4	1:4	1	4	

QC Reviewer: [signature] Date: 3/15/19

Form: GN165-01
Rev. Date: 2/25/03

SGS

Analyst: KJ

Product: NO32

Pipette ID: 43

Prep Date: 3/14/19

Balance ID: _____

Batch ID: _____

Sample Prep Log

Sample ID	Initial Sample Amount	Final Volume
GP19895 - B1	2mL 100ppm NO32 std	100mL carrier
↓ -S1	.5mL 100ppm NO32 std	50mL JC83793-4 (clear)
-S2	↓	50mL JC83801-2 (clear)
GP19901 - B1	2mL 100ppm NO32 std	100mL carrier
↓ -S1	.5mL 100ppm NO32 std	50mL JC83874-4 (clear)
-S2	↓	50mL JC83919-1 (clear)

Reviewer: _____

Date: _____

Form: GN166-04
Revised: 10/27/16

9.2 9

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR NITRATE

GN or GP Number: GN92860

Intermediate Standard Description	Stock used to prepare standard	Stock concentration in mg/l	Stock volume used in ml	Diluent (a)	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
100 ppm NO3 intermediate	GNE2-57126-NO32	1000	10	Carrier	100 ml	100	8/4/2019	BM	2/4/2019
100 ppm NO2 Intermediate	GNE2-57128-NO32	1000	10	Carrier	100 ml	100	8/4/2019	BM	2/4/2019
100 ppm NO3 External	GNE2-57127-NO32	1000	10	Carrier	100 ml	100	8/4/2019	BM	2/4/2019

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
5.0 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	5.0	Carrier	100 ml	5.0	3/20/2019	KI	3/13/2019
2.5 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	2.5	Carrier	100 ml	2.5	3/20/2019	KI	3/13/2019
1.0 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	1.0	Carrier	100 ml	1.0	3/20/2019	KI	3/13/2019
0.5 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	5.0	Carrier	100 ml	0.5	3/20/2019	KI	3/13/2019
0.2 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	2.0	Carrier	100 ml	0.2	3/20/2019	KI	3/13/2019
0.1 mg/l NO3	100 ppm NO3 intermediate		1.0	Carrier	100 ml	0.1	3/20/2019	KI	3/13/2019
Effcheck 2.0	100 ppm NO2 Intermediate	100 mg/l	2.0	Carrier	100 ml	2.0	3/20/2019	KI	3/13/2019
ICV	100 ppm NO3 External	100 mg/l	2.0	Carrier	100 ml	2.0	3/20/2019	KI	3/13/2019

(a) Diluent reagent reference number_____Expiration Date_____

**Volume will change with standardization concentration.

Form: GN199-02
Rev. Date: 3/2/18

SGS GN92860

Reagent Information Log - Nitrate Lachat Autoanalyzer

Reagent	Reagent # or Manufacturer/Lot	Expiration Date
Nitrate Stock Solution	GNE2-57126-NO32	8/4/2019
Ammonium Chloride Buffer Solution	GNE3-57481-NO3	9/12/2019
Sulfanilamide Color Reagent	GNE2-57334-NO32	3/25/2019
1:1 NH4OH	GNE1-57007-NO32	7/21/2019
Carrier Solution	GNE11-56545-NO3	5/28/2019
1000 ppm Nitrite Solution	GNE2-57128-NO32	8/4/2019
Nitrate External Stock Solution	GNE2-57127-NO32	8/4/2019

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-43
Rev. Date: 7/19/06

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: 319032601.TXT
Analyst: NV

Date Analyzed: 03/26/19
Run ID: GN93321

Methods: EPA 300/SW846 9056A

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: NV Date 3/27/19

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 3/27/19

Sequence: 319032601
Operator: chemistry

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_3\sequencesanions\2019\MAR
Timebase: ACCUTEST_SYS#3
#Samples: 72

GN93321

Created: 3/26/2019 9:38:29 AM by chemistry
Last Update: 3/27/2019 3:31:59 PM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
1	BLANKCONF	1		Unknown	20.0	1.0000	Finished	3/26/2019 9:44:37 AM
2	STDA	24		Standard	20.0	1.0000	Finished	3/13/2019 7:23:14 PM
3	STDB	25		Standard	20.0	1.0000	Finished	3/13/2019 7:47:10 PM
4	STDC	26		Standard	20.0	1.0000	Finished	3/13/2019 8:11:06 PM
5	STDCD	27		Standard	20.0	1.0000	Finished	3/13/2019 8:35:01 PM
6	STDD	28		Standard	20.0	1.0000	Finished	3/13/2019 8:58:57 PM
7	STDDE	29		Standard	20.0	1.0000	Finished	3/13/2019 9:22:52 PM
8	STDE	30		Standard	20.0	1.0000	Finished	3/13/2019 9:46:47 PM
9	STDF	31		Standard	20.0	1.0000	Finished	3/13/2019 10:10:43 PM
10	STDG	32		Standard	20.0	1.0000	Finished	3/13/2019 10:34:38 PM
11	ICV	2		Unknown	20.0	1.0000	Finished	3/26/2019 10:08:21 AM
12	CCV	3		Unknown	20.0	1.0000	Finished	3/26/2019 10:32:16 AM
13	CCB	4		Unknown	20.0	1.0000	Finished	3/26/2019 10:56:11 AM
14	MB	5		Unknown	20.0	1.0000	Finished	3/26/2019 11:20:08 AM
15	BSP	6		Unknown	20.0	1.0000	Finished	3/26/2019 11:44:03 AM
16	JC84300-5	7		Unknown	20.0	2.0000	Finished	3/26/2019 12:08:00 PM
17	JC83906-1	8		Unknown	20.0	3.0000	Finished	3/26/2019 12:31:56 PM
18	JC83906-4	9		Unknown	20.0	2.0000	Finished	3/26/2019 12:55:52 PM
19	JC83733-3	10		Unknown	20.0	5.0000	Finished	3/26/2019 1:19:47 PM
20	GP20128-S1	11	JC84425-2	Unknown	20.0	1.0000	Finished	3/26/2019 1:43:42 PM
21	GP20128-D1	12	JC84425-2	Unknown	20.0	1.0000	Finished	3/26/2019 2:07:37 PM
22	JC84425-2	13	JC84425-2	Unknown	20.0	1.0000	Finished	3/26/2019 2:36:25 PM
23	JC84425-4	14		Unknown	20.0	200.0000	Finished	3/26/2019 2:59:59 PM
24	CCV	15		Unknown	20.0	1.0000	Finished	3/26/2019 3:26:32 PM
25	CCB	16		Unknown	20.0	1.0000	Finished	3/26/2019 3:50:07 PM
26	JC84026-1	17		Unknown	20.0	10.0000	Finished	3/26/2019 4:14:04 PM
27	JC84026-3	18		Unknown	20.0	10.0000	Finished	3/26/2019 4:38:00 PM
28	JC84149-1CONF	19		Unknown	20.0	2.0000	Finished	3/26/2019 5:01:55 PM
29	JC84546-5	20		Unknown	20.0	3.0000	Finished	3/26/2019 5:23:35 PM
30	GP20130-S1	21	JC84595-1	Unknown	20.0	10.0000	Finished	3/26/2019 5:47:31 PM
31	GP20130-D1	22	JC84595-1	Unknown	20.0	5.0000	Finished	3/26/2019 6:11:27 PM
32	JC84595-1	23		Unknown	20.0	5.0000	Finished	3/26/2019 6:35:23 PM
33	JC84595-4	24		Unknown	20.0	3.0000	Finished	3/26/2019 6:59:18 PM
34	JC84595-5	25		Unknown	20.0	5.0000	Finished	3/26/2019 7:23:14 PM
35	JC84595-6	26		Unknown	20.0	2.0000	Finished	3/26/2019 7:47:10 PM
36	CCV	27		Unknown	20.0	1.0000	Finished	3/26/2019 8:11:05 PM
37	CCB	28		Unknown	20.0	1.0000	Finished	3/26/2019 8:35:02 PM
38	JC84595-7	29		Unknown	20.0	5.0000	Finished	3/26/2019 8:58:58 PM
39	JC84677-1	30		Unknown	20.0	2.0000	Finished	3/26/2019 9:22:52 PM
40	MB	31		Unknown	20.0	1.0000	Finished	3/26/2019 9:46:48 PM
41	BSP	32		Unknown	20.0	1.0000	Finished	3/26/2019 10:10:43 PM
42	JC84281-1	33		Unknown	20.0	1.0000	Finished	3/26/2019 10:34:38 PM

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Sequence: 31903260 1
Operator: chemistry
Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_3\sequencesanions\2019\MAR
Timebase: ACCUTEST_SYS#3
#Samples: 72

Created: 3/26/2019 9:38:29 AM by chemistry
Last Update: 3/27/2019 3:31:59 PM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
43	JC842812	34		Unknown	20.0	1.0000	Finished	3/26/2019 10:58:33 PM
44	JC842813	35		Unknown	20.0	1.0000	Finished	3/26/2019 11:22:29 PM
45	JC842814	36		Unknown	20.0	1.0000	Finished	3/26/2019 11:46:25 PM
46	JC842815	37		Unknown	20.0	1.0000	Finished	3/27/2019 12:10:22 AM
47	JC842816	38		Unknown	20.0	1.0000	Finished	3/27/2019 12:34:17 AM
48	CCV	39		Unknown	20.0	1.0000	Finished	3/27/2019 12:58:12 AM
49	CCB	40		Unknown	20.0	1.0000	Finished	3/27/2019 1:22:07 AM
50	JC84299-1	41		Unknown	20.0	1.0000	Finished	3/27/2019 1:46:04 AM
51	GP20182-S1	42	JC83928-1A	Unknown	20.0	1.0000	Finished	3/27/2019 2:09:59 AM
52	GP20182-D1	43	JC83928-1A	Unknown	20.0	1.0000	Finished	3/27/2019 2:33:54 AM
53	JC83928-1A	44		Unknown	20.0	1.0000	Finished	3/27/2019 2:57:50 AM
54	GP20182-S2	45	JC83928-2A	Unknown	20.0	1.0000	Finished	3/27/2019 3:21:45 AM
55	JC83928-2A	46		Unknown	20.0	1.0000	Finished	3/27/2019 3:45:41 AM
56	JC83928-3A	47		Unknown	20.0	1.0000	Finished	3/27/2019 4:09:37 AM
57	JC83928-5A	48		Unknown	20.0	1.0000	Finished	3/27/2019 4:33:33 AM
58	JC84027-1A	49		Unknown	20.0	1.0000	Finished	3/27/2019 4:57:28 AM
59	JC84027-2A	50		Unknown	20.0	1.0000	Finished	3/27/2019 5:21:25 AM
60	CCV	1		Unknown	20.0	1.0000	Finished	3/27/2019 5:45:20 AM
61	CCB	2		Unknown	20.0	1.0000	Finished	3/27/2019 6:09:16 AM
62	JC84027-3A	3		Unknown	20.0	1.0000	Finished	3/27/2019 6:33:11 AM
63	JC84027-4A	4		Unknown	20.0	1.0000	Finished	3/27/2019 6:57:07 AM
64	JC83884-8A	5		Unknown	20.0	1.0000	Finished	3/27/2019 7:21:02 AM
65	JC83884-10A	6		Unknown	20.0	1.0000	Finished	3/27/2019 7:44:57 AM
66	JC83884-11A	7		Unknown	20.0	1.0000	Finished	3/27/2019 8:08:52 AM
67	JC83884-12A	8		Unknown	20.0	1.0000	Finished	3/27/2019 8:32:47 AM
68	JC83884-13A	9		Unknown	20.0	1.0000	Finished	3/27/2019 9:35:09 AM
69	JC84425-4	13		Unknown	20.0	10.0000	Finished	3/27/2019 9:58:35 AM
70	JC83463-3	14		Unknown	20.0	500.0000	Finished	3/27/2019 10:22:31 AM
71	CCV	10		Unknown	20.0	1.0000	Finished	3/27/2019 10:46:28 AM
72	CCB	11		Unknown	20.0	1.0000	Finished	3/27/2019 11:10:24 AM

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Sequence: 319032601
Operator: chemistry

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_3\sequencesanions\2019\MAR
Timebase: ACCUTEST_SYS#3
#Samples: 71

GN93321

Created: 3/26/2019 9:38:29 AM by chemistry
Last Update: 3/26/2019 1:11:49 PM by chemistry

No.	Name	Bot #	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
1	BLANKCONF		1		Unknown	20.0	1.0000	Finished	3/26/2019 9:44:37 AM
2	STDA		24		Standard	20.0	1.0000	Finished	3/13/2019 7:23:14 PM
3	STDB		25		Standard	20.0	1.0000	Finished	3/13/2019 7:47:10 PM
4	STDC		26		Standard	20.0	1.0000	Finished	3/13/2019 8:11:06 PM
5	STDCD		27		Standard	20.0	1.0000	Finished	3/13/2019 8:35:01 PM
6	STDD		28		Standard	20.0	1.0000	Finished	3/13/2019 8:58:57 PM
7	STDDE		29		Standard	20.0	1.0000	Finished	3/13/2019 9:22:52 PM
8	STDE		30		Standard	20.0	1.0000	Finished	3/13/2019 9:46:47 PM
9	STDF		31		Standard	20.0	1.0000	Finished	3/13/2019 10:10:43 PM
10	STDG		32		Standard	20.0	1.0000	Finished	3/13/2019 10:34:38 PM
11	ICV		2		Unknown	20.0	1.0000	Finished	3/26/2019 10:08:21 AM
12	CCV		3		Unknown	20.0	1.0000	Finished	3/26/2019 10:32:16 AM
13	CCB		4		Unknown	20.0	1.0000	Finished	3/26/2019 10:56:11 AM
14	MB		5		Unknown	20.0	1.0000	Finished	3/26/2019 11:20:08 AM
15	BSP		6		Unknown	20.0	1.0000	Finished	3/26/2019 11:44:03 AM
16	JC84300-5	5	7		Unknown	20.0	2.0000	Finished	3/26/2019 12:08:00 PM
17	JC83906-1	2	8		Unknown	20.0	3.0000	Finished	3/26/2019 12:31:56 PM
▶	JC83906-4	4	9		Unknown	20.0	2.0000	Running	3/26/2019 12:55:52 PM
19	JC83733-3	2	10		Unknown	20.0	5.0000	Single	
20	GP20128-S1	4	11	JC84425-2	Unknown	20.0	1.0000	Single	
21	GP20128-D1	4	12	JC84425-2	Unknown	20.0	1.0000	Single	
22	JC84425-2	4	13	JC84425-2	Unknown	20.0	1.0000	Single	
23	JC84425-4	4	14		Unknown	20.0	200.0000	Single	
24	CCV		15		Unknown	20.0	1.0000	Single	
25	CCB		16		Unknown	20.0	1.0000	Single	
26	JC84026-1	2	17		Unknown	20.0	10.0000	Single	
27	JC84026-3	2	18		Unknown	20.0	10.0000	Single	
28	JC84149-1	9	19		Unknown	20.0	2.0000	Single	
29	JC84546-5	7	20		Unknown	20.0	3.0000	Single	
30	GP20130-S1	6	21	JC84595-1	Unknown	20.0	10.0000	Single	
31	GP20130-D1	6	22	JC84595-1	Unknown	20.0	5.0000	Single	
32	JC84595-1	6	23		Unknown	20.0	5.0000	Single	
33	JC84595-4	6	24		Unknown	20.0	3.0000	Single	
34	JC84595-5	4	25		Unknown	20.0	5.0000	Single	
35	JC84595-6	4	26		Unknown	20.0	2.0000	Single	
36	CCV		27		Unknown	20.0	1.0000	Single	
37	CCB		28		Unknown	20.0	1.0000	Single	
38	JC84595-7	6	29		Unknown	20.0	5.0000	Single	
39	JC84677-1	9	30		Unknown	20.0	2.0000	Single	
40	MB		31		Unknown	20.0	1.0000	Single	
41	BSP		32		Unknown	20.0	1.0000	Single	
42	JC84281-1	4	33		Unknown	20.0	1.0000	Single	

GP20128 (2)

GP20130 (2)

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Sequence: 319032601
Operator: chemistry

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_3\sequencesanions\2019\MAR
Timebase: ACCUTEST_SYS#3
#Samples: 71

Created: 3/26/2019 9:38:29 AM by chemistry
Last Update: 3/26/2019 1:11:49 PM by chemistry

GP80182

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
43	JC84281-2	34		Unknown	20.0	1.0000	Single	
44	JC84281-3	35		Unknown	20.0	1.0000	Single	
45	JC84281-4	36		Unknown	20.0	1.0000	Single	
46	JC84281-5	37		Unknown	20.0	1.0000	Single	
47	JC84281-6	38		Unknown	20.0	1.0000	Single	
48	CCV	39		Unknown	20.0	1.0000	Single	
49	CCB	40		Unknown	20.0	1.0000	Single	
50	JC84299-1	41		Unknown	20.0	1.0000	Single	
51	S1	42	JC83928-1A	Unknown	20.0	1.0000	Single	
52	D1	43	JC83928-1A	Unknown	20.0	1.0000	Single	
53	JC83928-1A	44		Unknown	20.0	1.0000	Single	
54	S2	45	JC83928-2A	Unknown	20.0	1.0000	Single	
55	JC83928-2A	46		Unknown	20.0	1.0000	Single	
56	JC83928-3A	47		Unknown	20.0	1.0000	Single	
57	JC83928-5A	48		Unknown	20.0	1.0000	Single	
58	JC84027-1A	49		Unknown	20.0	1.0000	Single	
59	JC84027-2A	50		Unknown	20.0	1.0000	Single	
60	CCV	1		Unknown	20.0	1.0000	Single	
61	CCB	2		Unknown	20.0	1.0000	Single	
62	JC84027-3A	3		Unknown	20.0	1.0000	Single	
63	JC84027-4A	4		Unknown	20.0	1.0000	Single	
64	JC83884-8A	5		Unknown	20.0	1.0000	Single	
65	JC83884-10A	6		Unknown	20.0	1.0000	Single	
66	JC83884-11A	7		Unknown	20.0	1.0000	Single	
67	JC83884-12A	8		Unknown	20.0	1.0000	Single	
68	JC83884-13A	9		Unknown	20.0	1.0000	Single	
69	CCV	10		Unknown	20.0	1.0000	Single	
70	CCB	11		Unknown	20.0	1.0000	Single	
71	STANDBY	12		Unknown	20.0	1.0000	Single	

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SGS

Analyst NV/MD

Product CN1, Sy4

Pipette ID 42

Prep Date 3/26/19

Balance ID NA

Batch ID GN93321

Sample Prep Log

Sample ID	Initial Sample Amount	Final Volume (mL)
BSP	0.5mL spiking solution	50
GP20182-S1	0.5mL spiking solution	50 JC83928-1A
GP20182 S2	0.5mL spiking solution	50 JC83928-2A

3/27/19

Form: GN166-02
Rev. Date: 8/5/05

QC Review

Analyst NV/MD Product Cn1, Soy Autopipette # 42

Date 3/26/19 Batch ID GN93321 Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
JC84300-5	1:2	10	20	Cn1
JC83906-1	1:3	10	30	Cn1
JC83906-4	1:2	10	20	Cn1
JC83733-3	1:5	10	50	Cn1
JC84425-4	1:200	0.5	100	Cn1
JC84026-1	1:10	5	50	Cn1
JC84026-3	1:10	5	50	Cn1
JC84149-1	1:2	10	20	Soy
JC84546-5	1:3	10	30	Cn1, Soy
GP20130-S1	1:10	5	50	Cn1 JC84595-1 0.5mL spike
GP20130-D1	1:5	10	50	Cn1 JC84595-1
JC84595-1	1:5	10	50	Cn1
JC84595-4	1:3	10	30	Cn1
JC84595-5	1:5	10	50	Cn1
JC84595-6	1:2	10	20	Cn1
JC84595-7	1:5	10	50	Cn1
JC84677-1	1:2	10	20	Soy
JC84425-4	1:10	5	50	Soy
JC83463-3	1:500	→	→	1:100 0.5mL sample to 50mL 1:5 10mL 1:100 to 50mL Cn1

QC Reviewer: [signature] Date: 3/27/19

Form: GN165-01
Rev. Date: 2/25/03

SGS

Reagent Information Log - IONC IC3 - Water /Soil

GN Batch ID#: GN93321

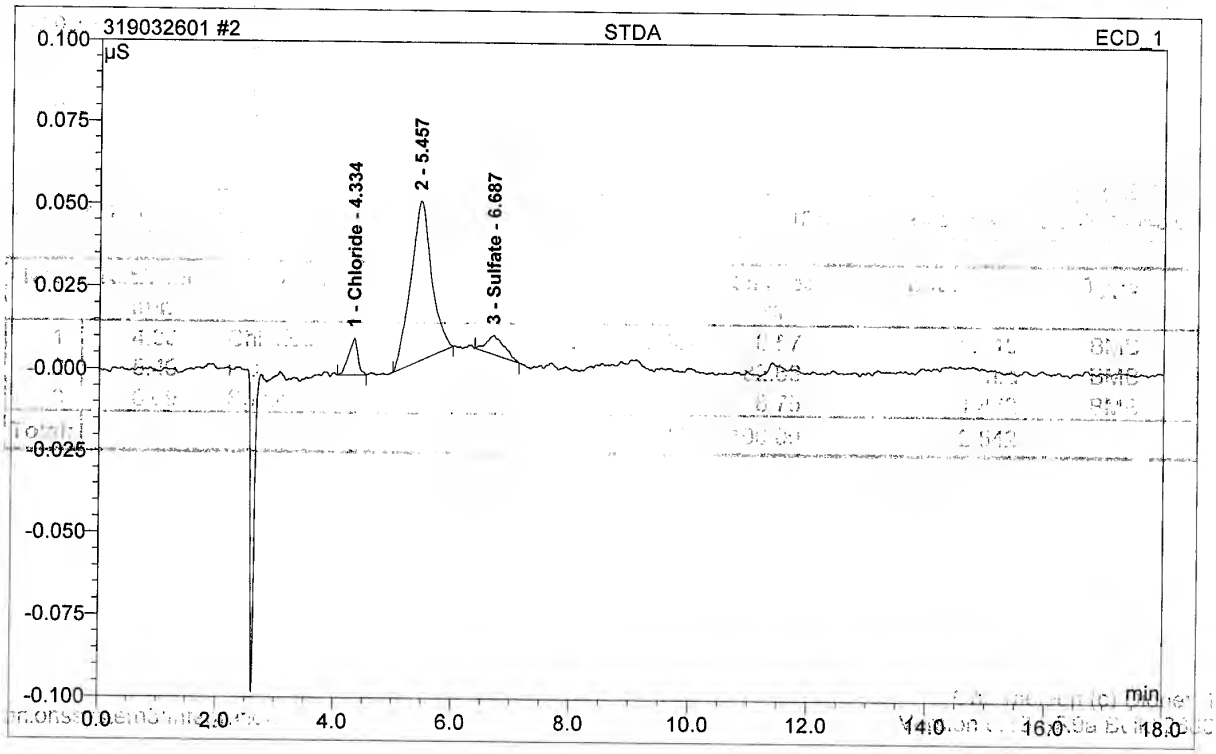
Reagent	Reagent # or Manufacturer/Lot	Exp. Date
Standard Intermediate (for Calibration Curve)	GN18-476-109	4/2/2019
Standard Intermediate (for Calibration Curve)	GN18-476-111	4/2/2019
ICV	GN18-479-32	4/2/2019
Eluent	180742445014	7/24/2020
Standard Intermediate (for Working std/Spikes)	GN18-476-109	4/2/2019
Standard Intermediate (for Working std/Spikes)	GN18-476-111	4/2/2019
CCV	GN19-493-8	4/2/2019
Spiking Solution Intermediate (CHL/SO4)	GN18-478-29	4/5/2019
Spiking Solution Intermediate (F/BRO)	GN18-478-30	4/5/2019
Spiking Solution (SOUP)	GN18-478-34	4/2/2019
Filter lot numbers	GREENWOOD #180111044	NA

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form : GN087A-76
Rev. Date: 4/7/09

2 STDA

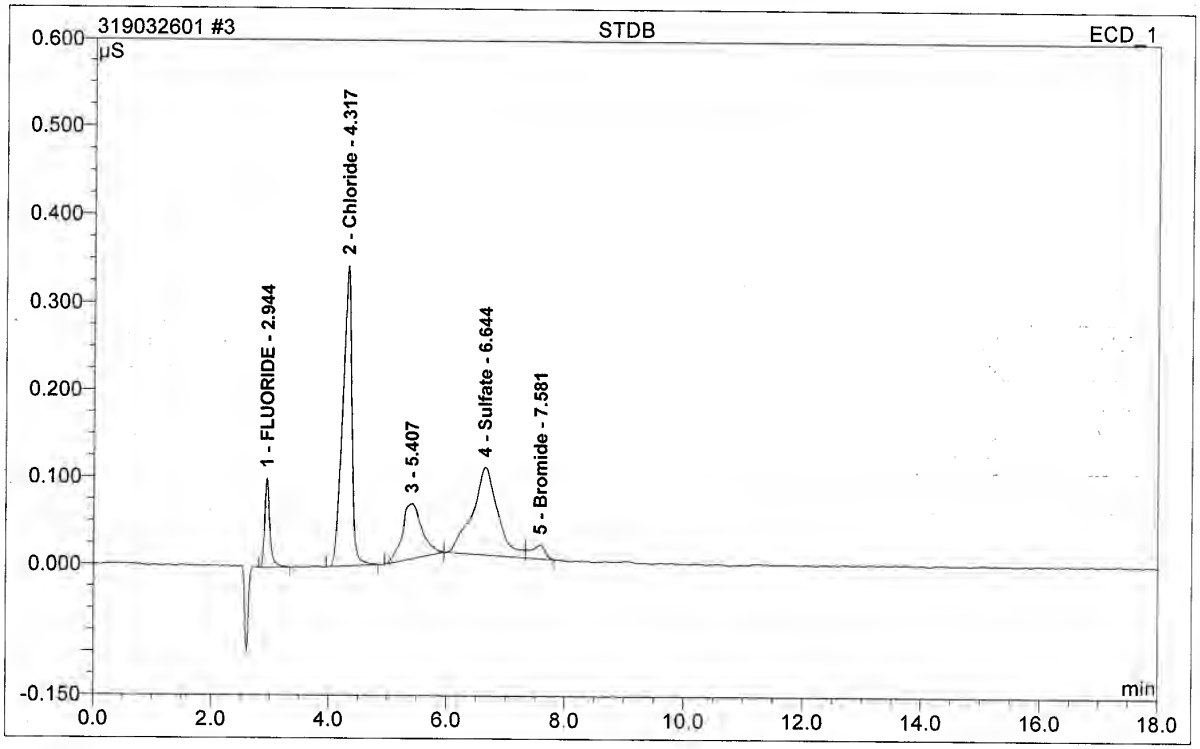
Sample Name:	**STDA**	*Injection Volume:*	**20.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/13/2019 19:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.33	Chloride	0.011	0.002	8.57	1.110	BMB
2	5.46	n.a.	0.048	0.019	82.68	n.a.	BMB
3	6.69	Sulfate	0.006	0.002	8.75	1.432	BMB
Total:			0.065	0.024	100.00	2.542	

3 STDB

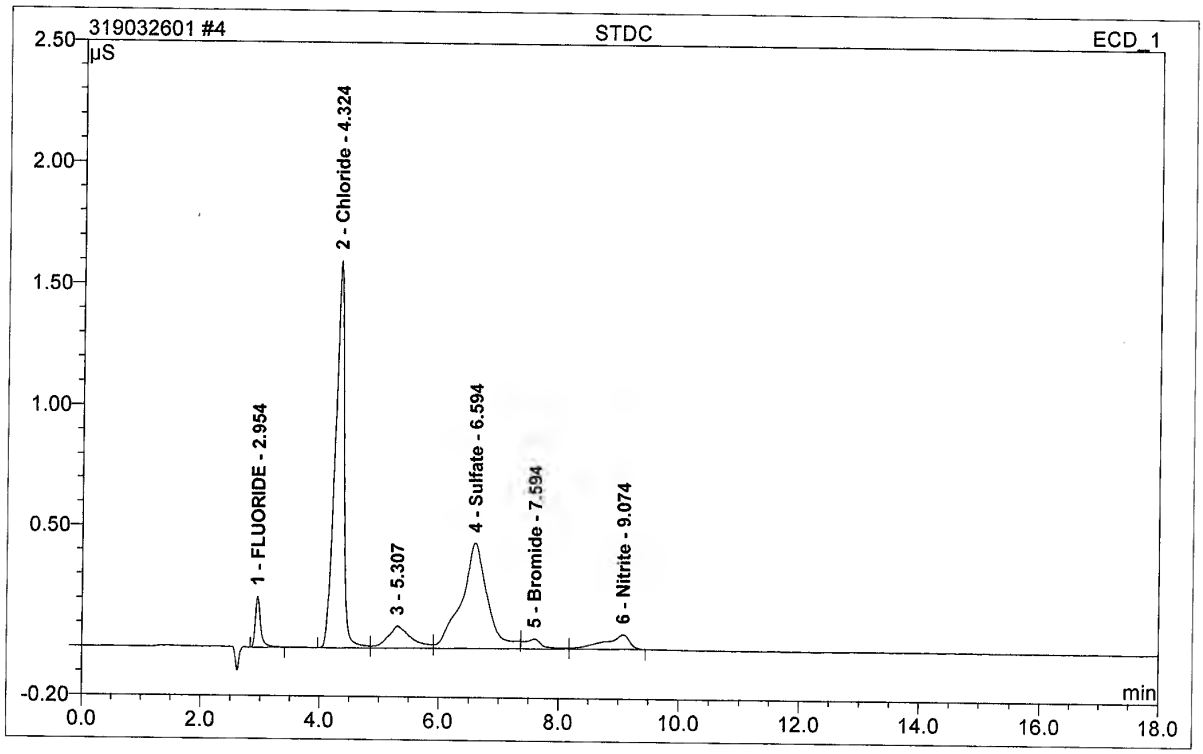
Sample Name:	**STDB**	*Injection Volume:*	**20.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/13/2019 19:47**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	0.102	0.011	6.98	0.087	BMB
2	4.32	Chloride	0.344	0.062	40.94	1.435	BMB
3	5.41	n.a.	0.063	0.024	16.08	n.a.	BMb
4	6.64	Sulfate	0.100	0.050	33.15	1.789	bM
5	7.58	Bromide	0.016	0.004	2.85	0.301	MB
Total:			0.625	0.152	100.00	3.612	

4 STDC

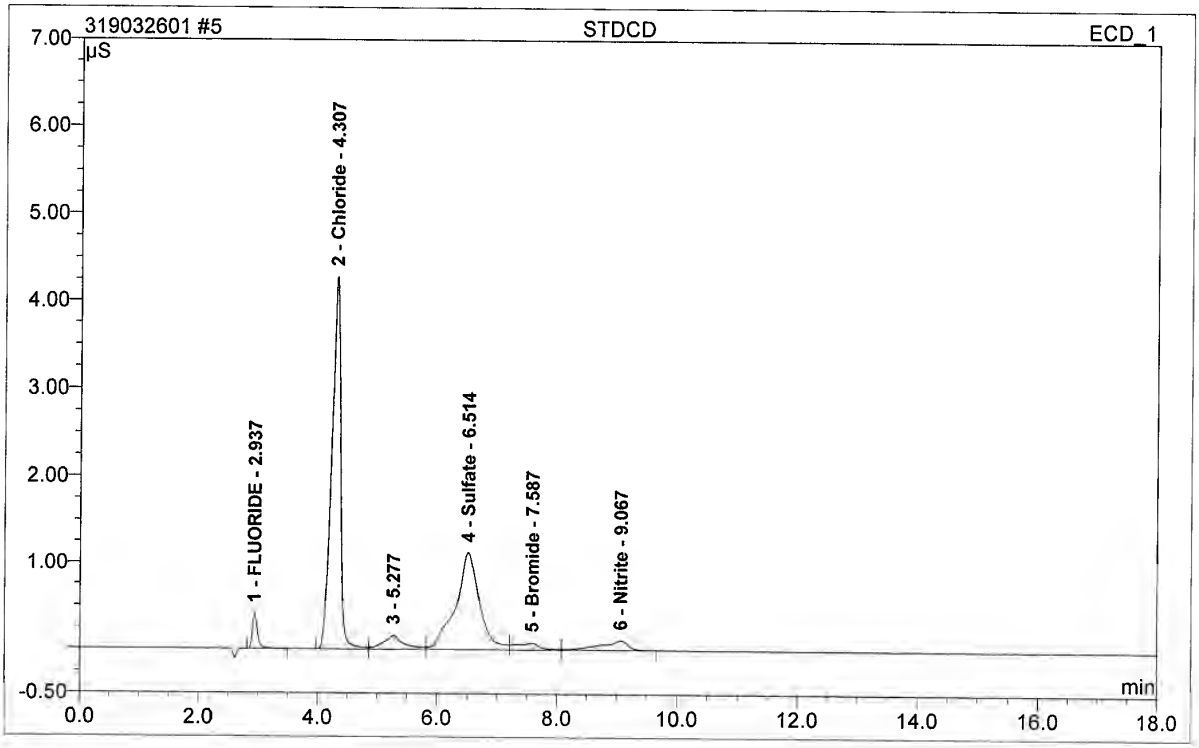
Sample Name:	**STDC**	*Injection Volume:*	**20.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/13/2019 20:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	0.210	0.022	3.61	0.128	BMB
2	4.32	Chloride	1.601	0.279	46.00	2.611	BM
3	5.31	n.a.	0.090	0.042	6.96	n.a.	M
4	6.59	Sulfate	0.435	0.219	36.07	3.038	M
5	7.59	Bromide	0.041	0.015	2.39	0.422	M
6	9.07	Nitrite	0.061	0.030	4.97	0.186	MB
Total:			2.438	0.607	100.00	6.386	

5 STDCD

Sample Name:	**STDCD**	*Injection Volume:*	**20.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/13/2019 20:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

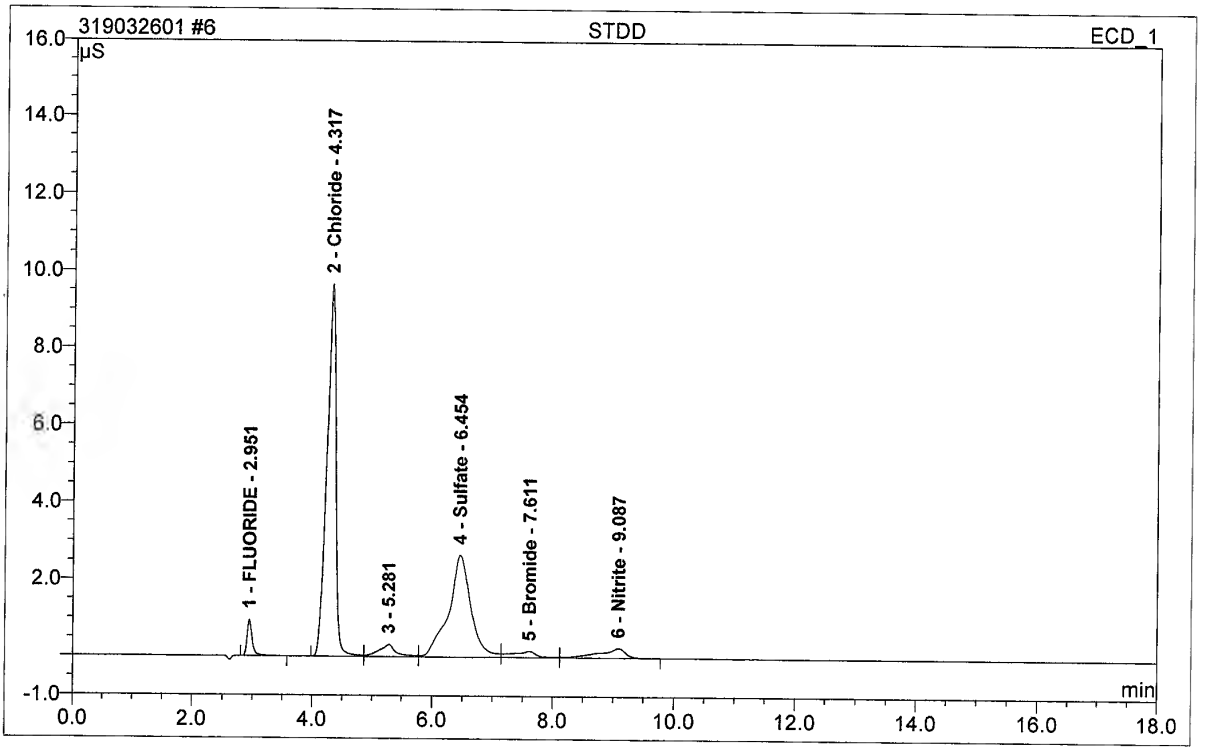


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	0.414	0.042	2.86	0.200	BMB
2	4.31	Chloride	4.281	0.741	50.68	5.111	BM
3	5.28	n.a.	0.162	0.063	4.33	n.a.	M
4	6.51	Sulfate	1.130	0.519	35.53	5.262	M
5	7.59	Bromide	0.080	0.037	2.53	0.689	M
6	9.07	Nitrite	0.112	0.060	4.08	0.260	MB
Total:			6.179	1.462	100.00	11.522	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

6 STDD

Sample Name:	**STDD**	*Injection Volume:*	**20.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/13/2019 20:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	0.950	0.094	2.90	0.389	BMB
2	4.32	Chloride	9.669	1.688	52.21	10.241	BM
3	5.28	n.a.	0.321	0.107	3.30	n.a.	M
4	6.45	Sulfate	2.661	1.139	35.21	9.846	M
5	7.61	Bromide	0.162	0.078	2.40	1.171	M
6	9.09	Nitrite	0.251	0.129	3.98	0.434	MB
Total:			14.014	3.234	100.00	22.080	

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anionssystem3/Integration

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Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:31903260 1

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3/27/2019 3:33 PM

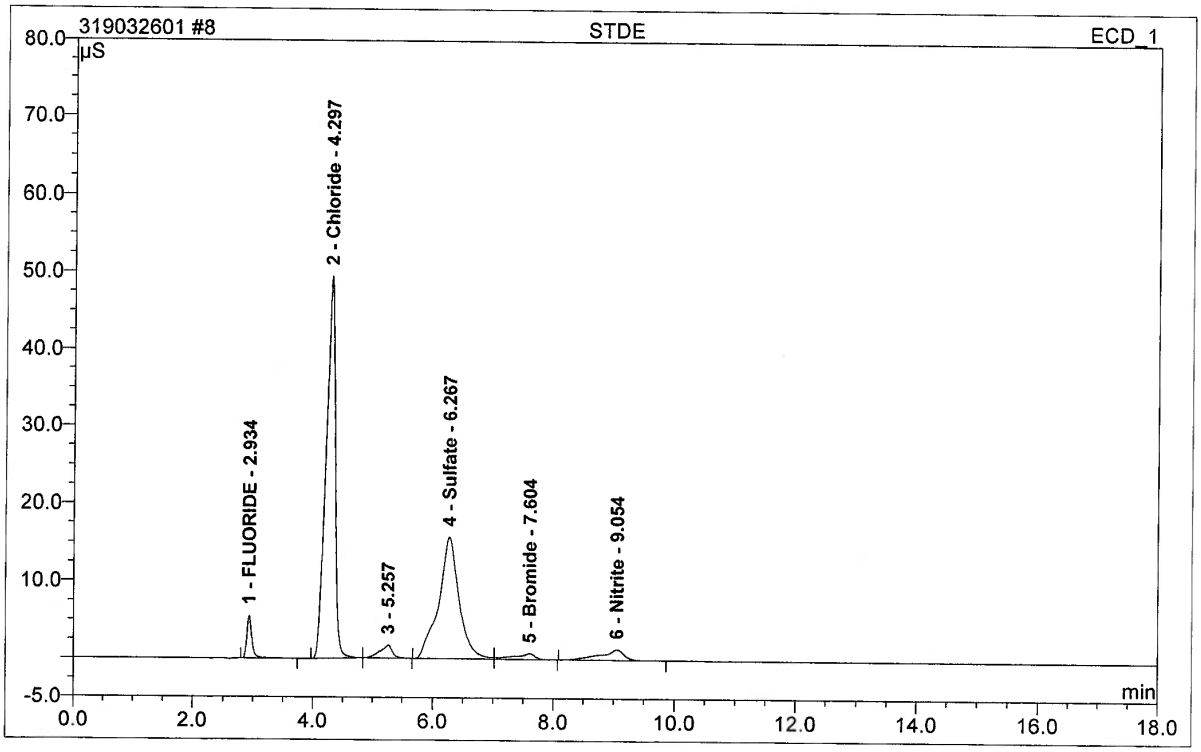
7 STDDE

Sample Name:	**STDDE**	*Injection Volume:*	**20.0**
Vial Number:	**29**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantit. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/13/2019 21:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	2.590	0.254	2.98	0.966	BM
2	4.31	Chloride	24.844	4.416	51.93	25.011	M
3	5.28	n.a.	0.876	0.257	3.03	n.a.	M
4	6.37	Sulfate	7.523	3.081	36.22	24.220	M
5	7.62	Bromide	0.396	0.189	2.22	2.497	M
6	9.08	Nitrite	0.612	0.308	3.62	0.885	MB
Total:			36.841	8.505	100.00	53.579	

8 STDE

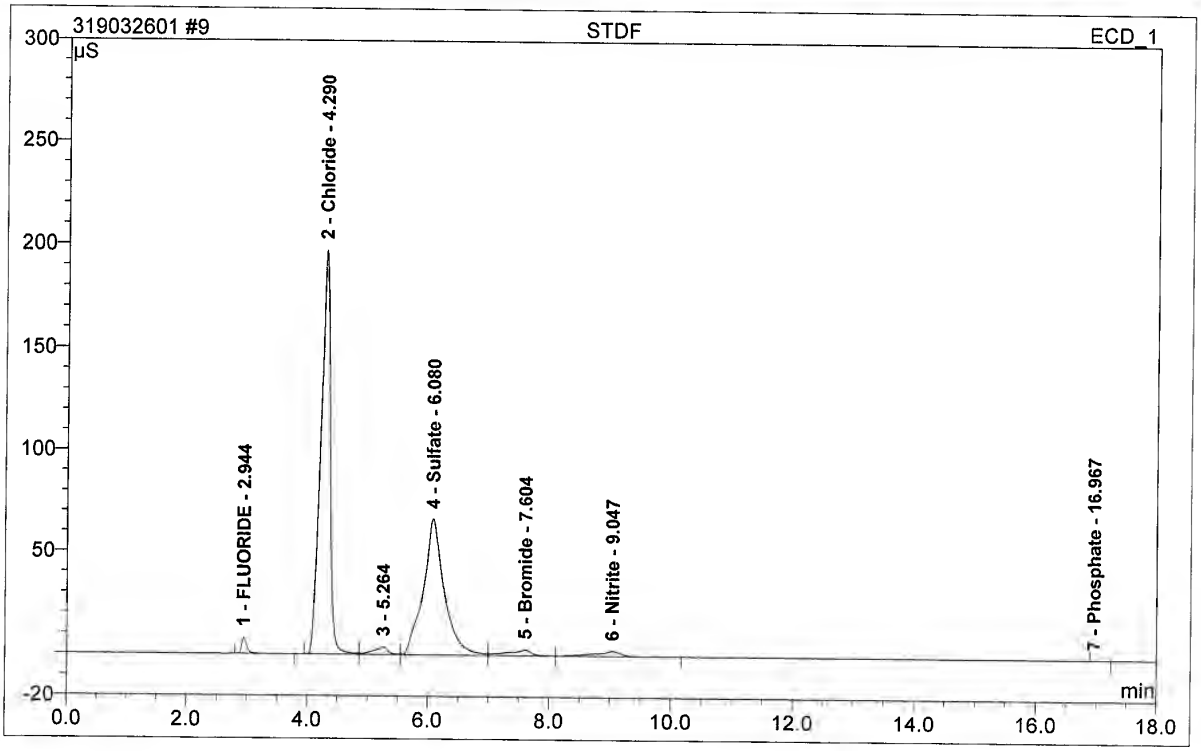
Sample Name:	**STDE**	*Injection Volume:*	**20.0**
Vial Number:	**30**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/13/2019 21:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.93	FLUORIDE	5.536	0.543	3.21	2.011	BMB
2	4.30	Chloride	49.456	8.800	52.05	48.748	BMB
3	5.26	n.a.	1.702	0.423	2.50	n.a.	bMB
4	6.27	Sulfate	15.761	6.187	36.59	47.213	BM
5	7.60	Bromide	0.769	0.313	1.85	3.975	MB
6	9.05	Nitrite	1.409	0.641	3.79	1.726	BMB
Total:			74.633	16.909	100.00	103.671	

9 STDF

Sample Name:	**STDF**	*Injection Volume:*	**20.0**
Vial Number:	**31**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/13/2019 22:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

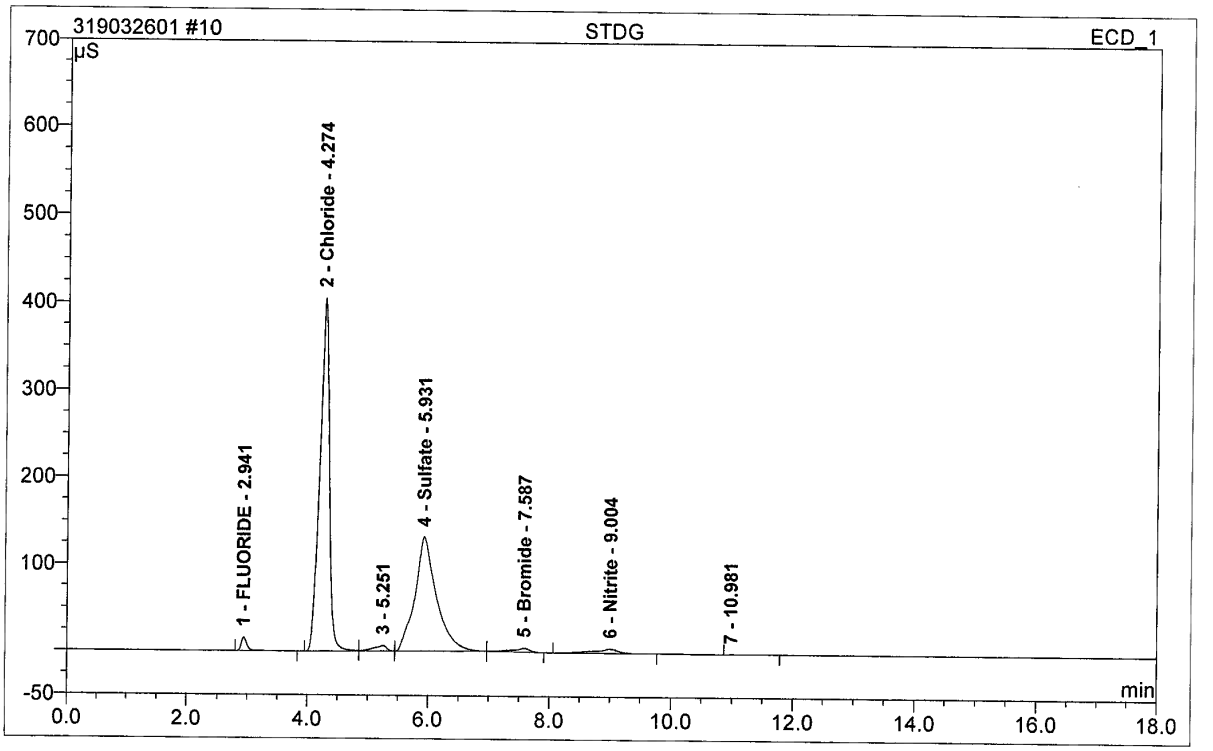


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	7.842	0.798	1.19	2.934	BMB
2	4.29	Chloride	197.129	36.030	53.74	196.179	BM
3	5.26	n.a.	3.764	1.070	1.60	n.a.	M
4	6.08	Sulfate	66 587	26.643	39.74	198.621	M
5	7.60	Bromide	2.813	1.268	1.89	15.320	M
6	9.05	Nitrite	2.455	1.230	1.83	3.209	MB
7	16.97	Phosphate	0.014	0.002	0.00	n.a.	BMB
Total:			280.604	67.042	100.00	416.262	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

10 STDG

Sample Name:	**STDG**	*Injection Volume:*	**20.0**
Vial Number:	**32**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/13/2019 22:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	15.337	1.657	1.23	6.035	BMB
2	4.27	Chloride	405.436	74.054	54.77	402.055	BM
3	5.25	n.a.	6.419	1.652	1.22	n.a.	Mb
4	5.93	Sulfate	131.843	53.996	39.94	401.081	bMb
5	7.59	Bromide	4.441	1.486	1.10	17.908	bMB
6	9.00	Nitrite	5.059	2.338	1.73	6.000	BMB
7	10.98	n.a.	0.057	0.016	0.01	n.a.	BMB
Total:			568.591	135.198	100.00	833.079	

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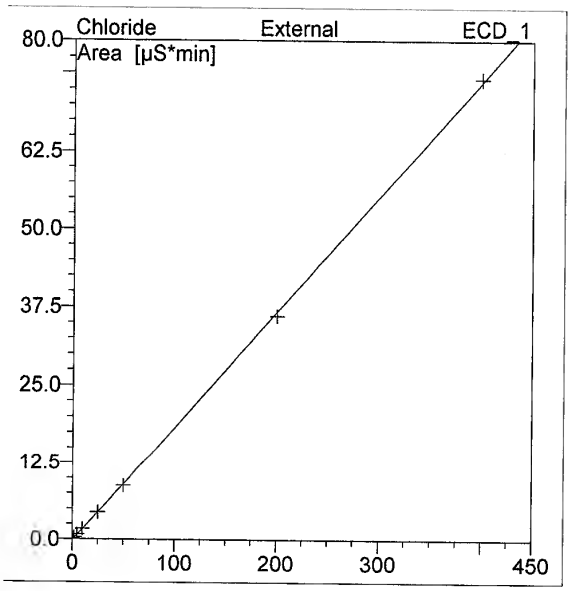
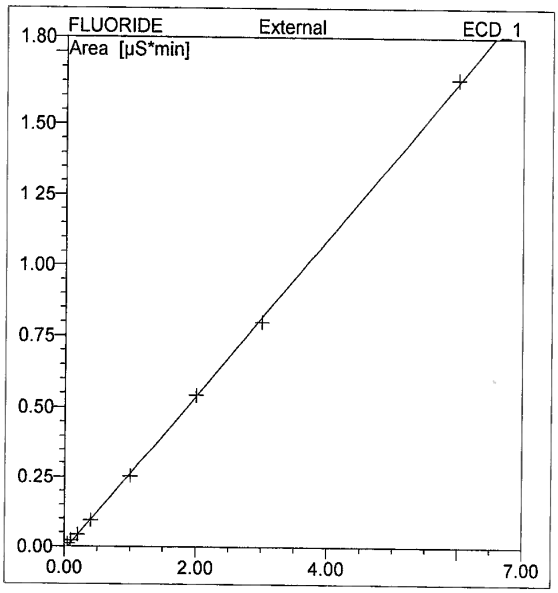
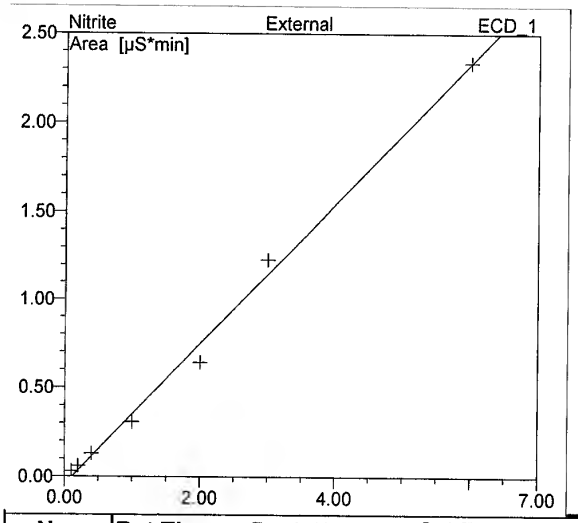
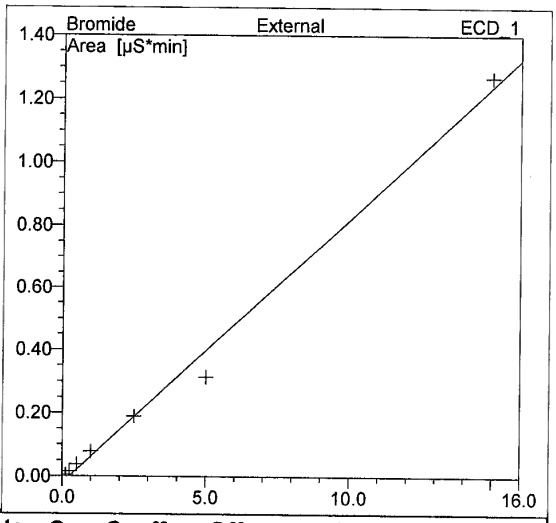
Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601









No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	2.94	FLUORIDE	LOff	8	99.9846	-0.0136	0.2768	0.0000
2	4.27	Chloride	LOff	9	99.9924	-0.2030	0.1847	0.0000
3	5.25	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	5.93	Sulfate	LOff	9	99.9946	-0.1914	0.1351	0.0000
5	7.59	Bromide	LOff	7	99.6316	-0.0210	0.0841	0.0000
6	9.00	Nitrite	LOff	7	99.7358	-0.0436	0.3969	0.0000
7	10.98	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Average:					99.8678	-0.0945	0.2155	0.0000

anionssystem3/Calibration(Curr.Peak)

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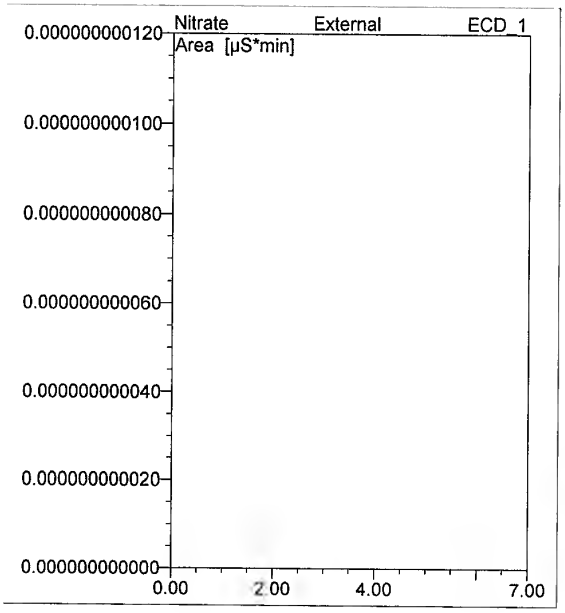
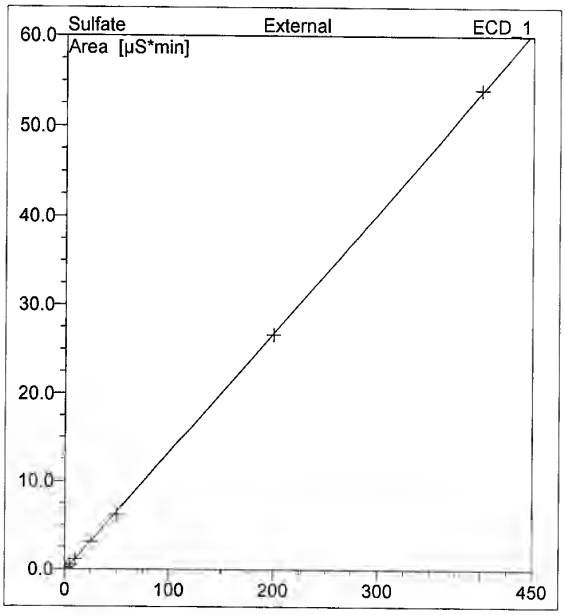
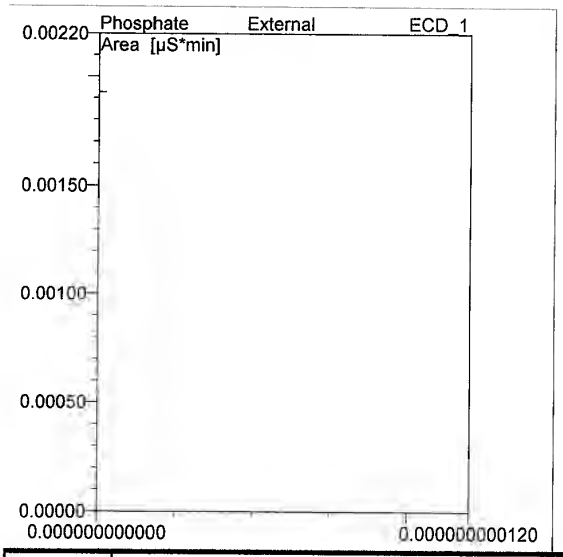
Version 6.80 SR9a Build 2680 (163077)







No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	2.94	FLUORIDE	LOff	8	99.9846	-0.0136	0.2768	0.0000
2	4.27	Chloride	LOff	9	99.9924	-0.2030	0.1847	0.0000
3	5.25	n.a.	n.a.	n.a	n.a.	n.a.	n.a.	n.a.
4	5.93	Sulfate	LOff	9	99.9946	-0.1914	0.1351	0.0000
5	7.59	Bromide	LOff	7	99.6316	-0.0210	0.0841	0.0000
6	9.00	Nitrite	LOff	7	99.7358	-0.0436	0.3969	0.0000
7	10.98	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Average:					99.8678	-0.0945	0.2155	0.0000

anionssystem3/Calibration(Curr.Peak)

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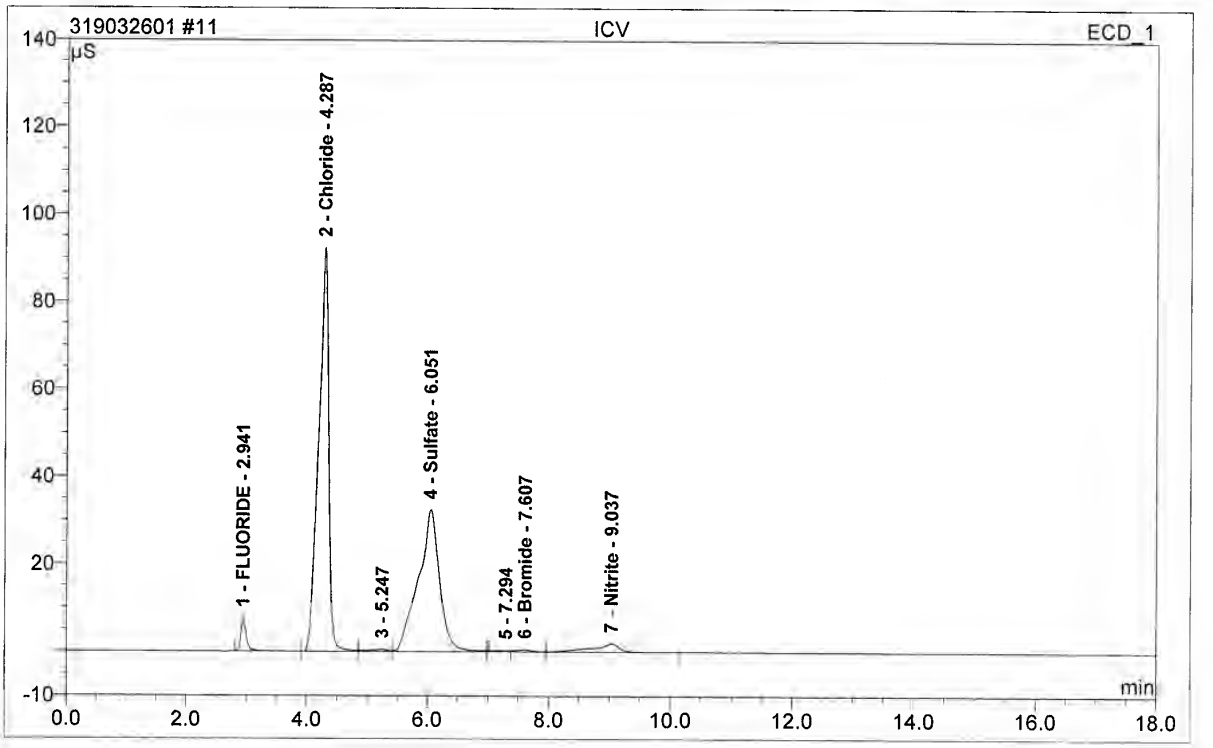
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

11 ICV

Sample Name:	**ICV**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 10:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	7.485	0.798	2.40	2.932	BM
2	4.29	Chloride	92.314	17.786	53.44	97.398	M
3	5.25	n.a.	0.478	0.187	0.56	n.a.	M
4	6.05	Sulfate	32.446	13.200	39.66	99.120	M
5	7.29	n.a.	0.012	0.002	0.01	n.a.	Ru
6	7.61	Bromide	0.488	0.274	0.82	3.500	M
7	9.04	Nitrite	2.014	1.033	3.10	2.713	MB
Total:			135.239	33.279	100.00	205.664	

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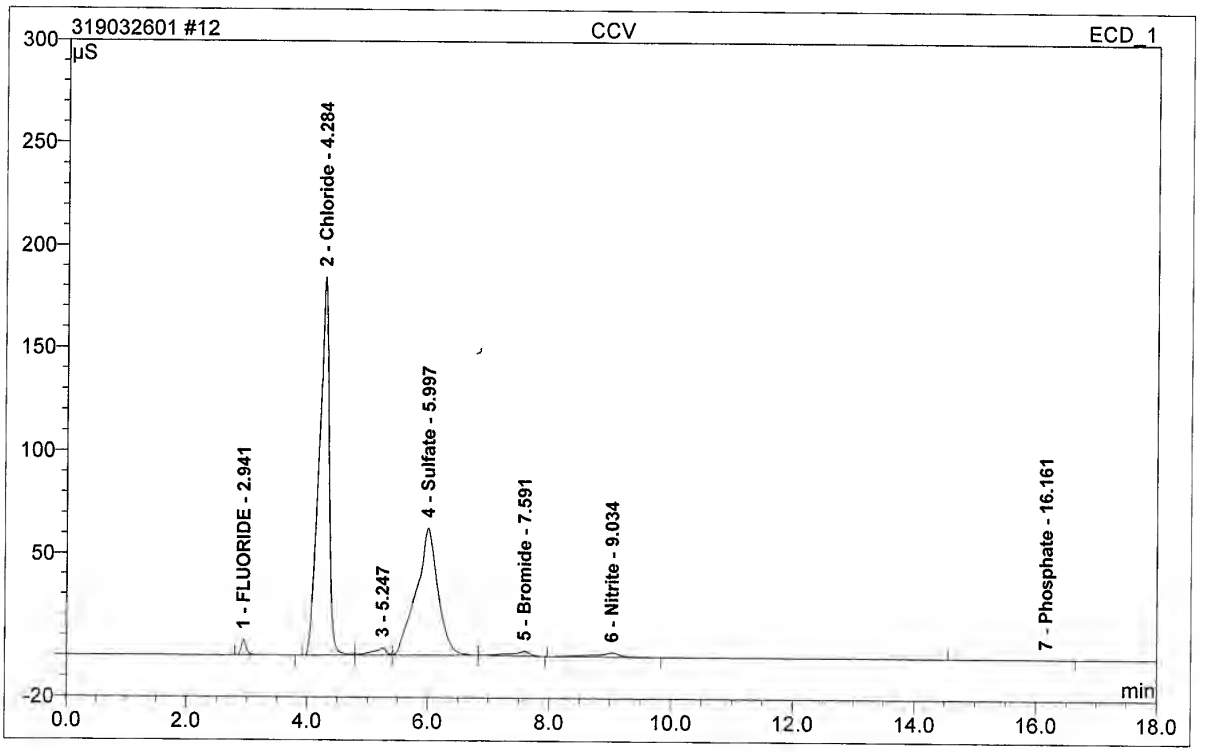
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

12 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 10:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	7.475	0.800	1.23	2.938	BMB
2	4.28	Chloride	184.469	35.686	54.75	194.317	BM
3	5.25	n.a.	3.623	0.963	1.48	n.a.	M
4	6.00	Sulfate	62.509	25.943	39.81	193.438	Mb
5	7.59	Bromide	2.293	0.815	1.25	9.941	bMB
6	9.03	Nitrite	2.006	0.953	1.46	2.511	BMB
7	16.16	Phosphate	0.009	0.014	0.02	n.a.	BMB
Total:			262.385	65.174	100.00	403.145	

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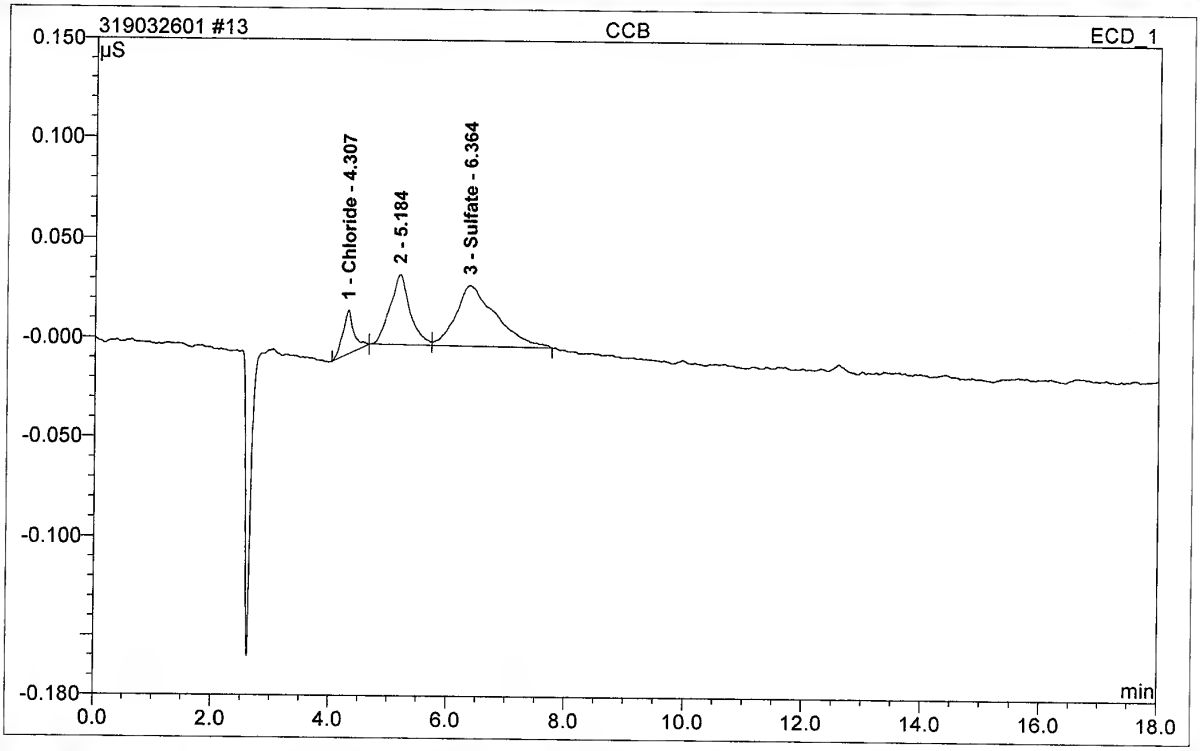
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

13 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 10:56**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.31	Chloride	0.022	0.005	11.05	1.125	BMB
2	5.18	n.a.	0.035	0.014	32.75	n.a.	bM
3	6.36	Sulfate	0.031	0.024	56.20	1.596	MB
Total:			0.088	0.043	100.00	2.720	

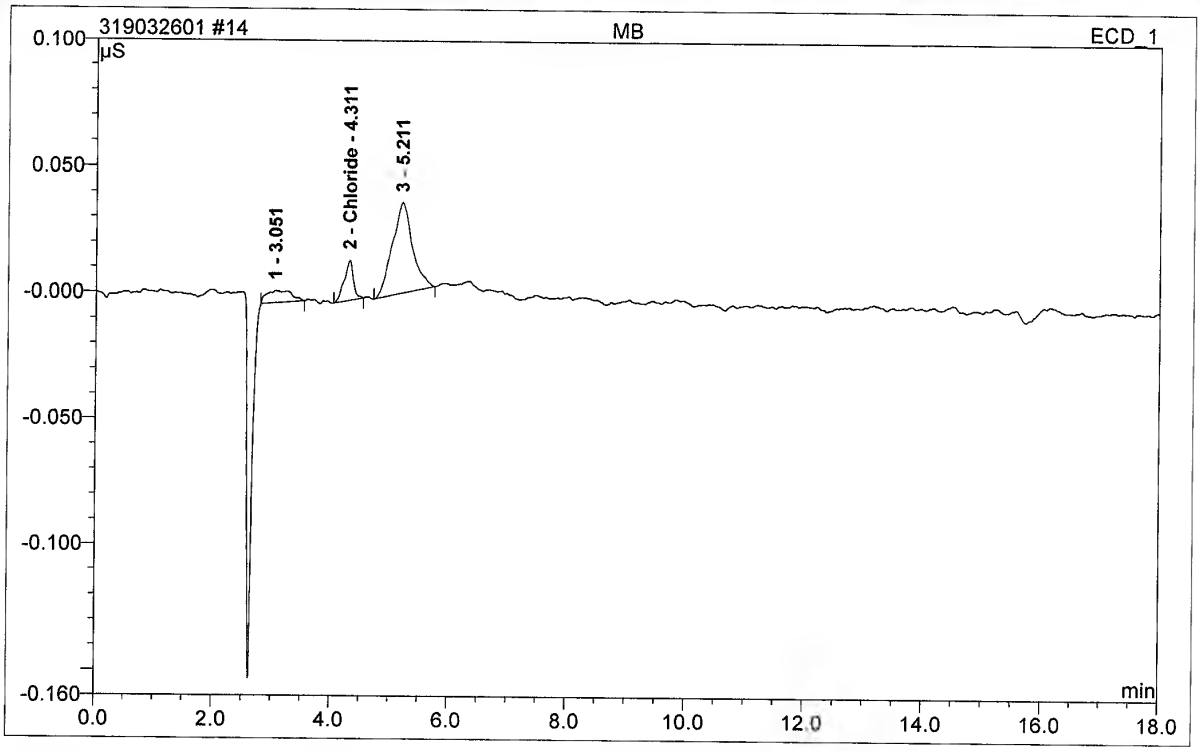
anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

14 MB

Sample Name:	**MB**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 11:20**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.005	0.002	11.59	n.a.	BMB
2	4.31	Chloride	0.016	0.003	14.59	1.114	BMB
3	5.21	n.a.	0.036	0.014	73.82	n.a.	BMB
Total:			0.056	0.019	100.00	1.114	

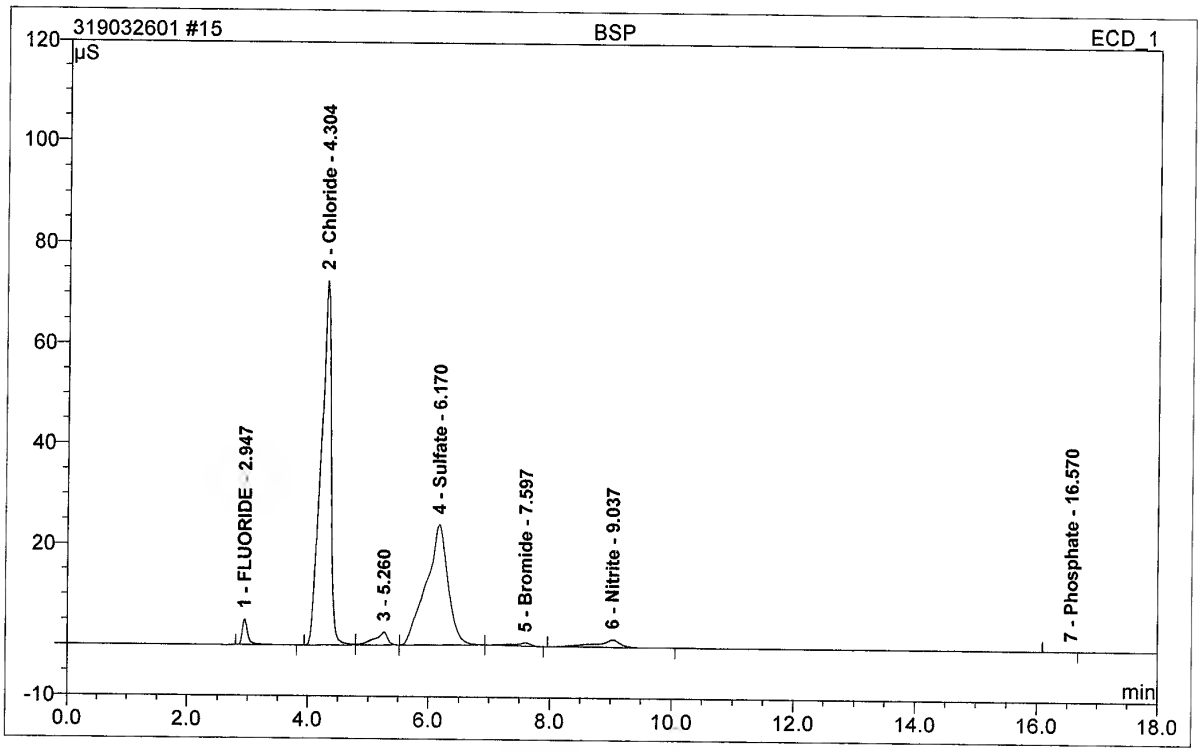
anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

15 BSP

Sample Name:	**BSP**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 11:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	5.013	0.545	2.09	2.019	BMB
2	4.30	Chloride	72.499	13.973	53.53	76.756	BM
3	5.26	n.a.	2.554	0.660	2.53	n.a.	MB
4	6.17	Sulfate	23.965	9.972	38.20	75.223	BMb
5	7.60	Bromide	0.668	0.220	0.84	2.862	bMB
6	9.04	Nitrite	1.530	0.731	2.80	1.952	BMB
7	16.57	Phosphate	0.003	0.001	0.00	n.a.	BMB
Total:			106.233	26.102	100.00	158.812	

anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:31903260 1

16 JC84300-5

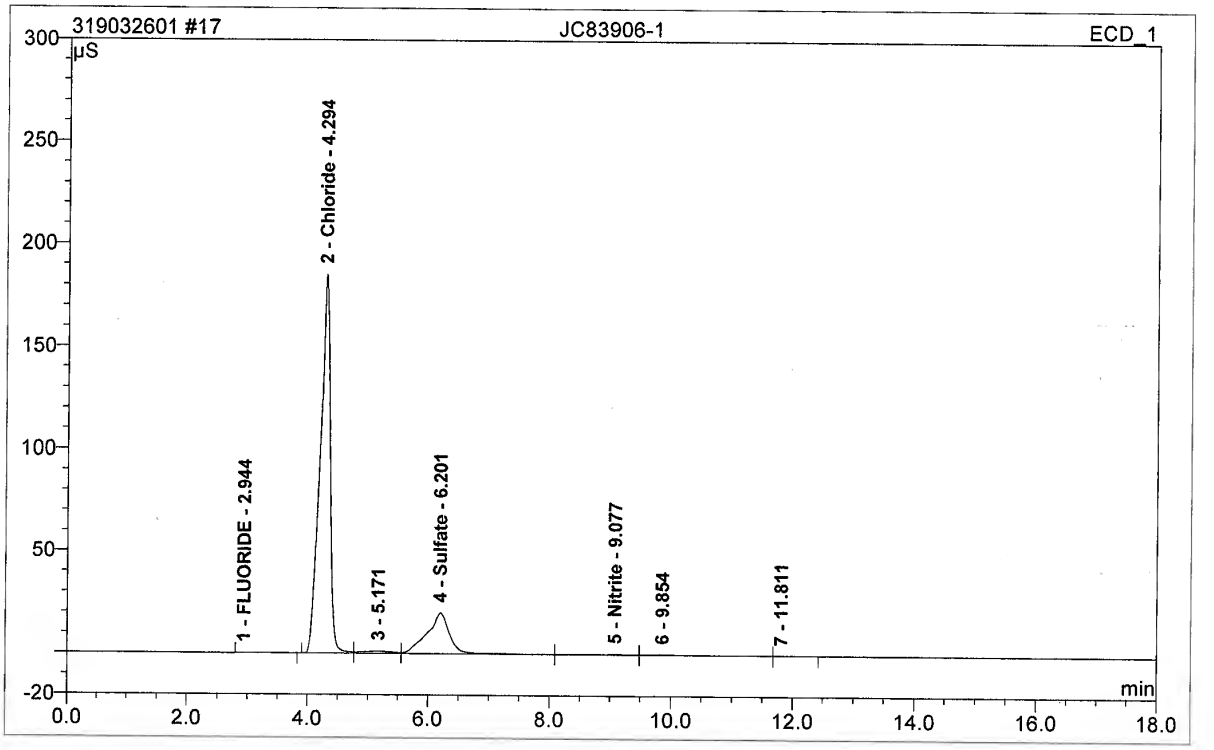
Sample Name:	**JC84300-5**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantit. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**3/26/2019 12:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.93	FLUORIDE	0.060	0.008	0.02	0.157	BMB
2	4.27	Chloride	248.053	48.974	92.68	532.524	BM
3	5.17	n.a.	0.997	0.562	1.06	n.a.	M
4	6.24	Sulfate	6.788	3.086	5.84	48.518	M
5	9.06	Nitrite	0.210	0.207	0.39	1.263	M
6	11.43	n.a.	0.010	0.004	0.01	n.a.	MB
Total:			256.118	52.841	100.00	582.463	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

17 JC83906-1

Sample Name:	**JC83906-1**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**3/26/2019 12:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	0.079	0.014	0.03	0.302	BMB
2	4.29	Chloride	185.071	36.107	78.23	589.792	BM
3	5.17	n.a.	1.247	0.686	1.49	n.a.	M
4	6.20	Sulfate	19.998	8.899	19.28	201.858	M
5	9.08	Nitrite	0.336	0.277	0.60	2.421	M
6	9.85	n.a.	0.277	0.164	0.36	n.a.	M
7	11.81	n.a.	0.015	0.005	0.01	n.a.	MB
Total:			207.021	46.153	100.00	794.373	

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No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	0.110	0.013	0.02	0.195	BMB
2	4.29	Chloride	218.872	43.174	77.17	469.716	BM
3	5.16	n.a.	1.561	0.868	1.55	n.a.	M
4	6.19	Sulfate	25.216	11.390	20.36	171.449	M
5	9.06	Nitrite	0.441	0.345	0.62	1.957	M
6	9.84	n.a.	0.330	0.157	0.28	n.a.	MB
Total:			246.529	55.947	100.00	643.317	

18 JC83906-4

Sample Name:	**JC83906-4**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantit. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**3/26/2019 12:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:31903260 1

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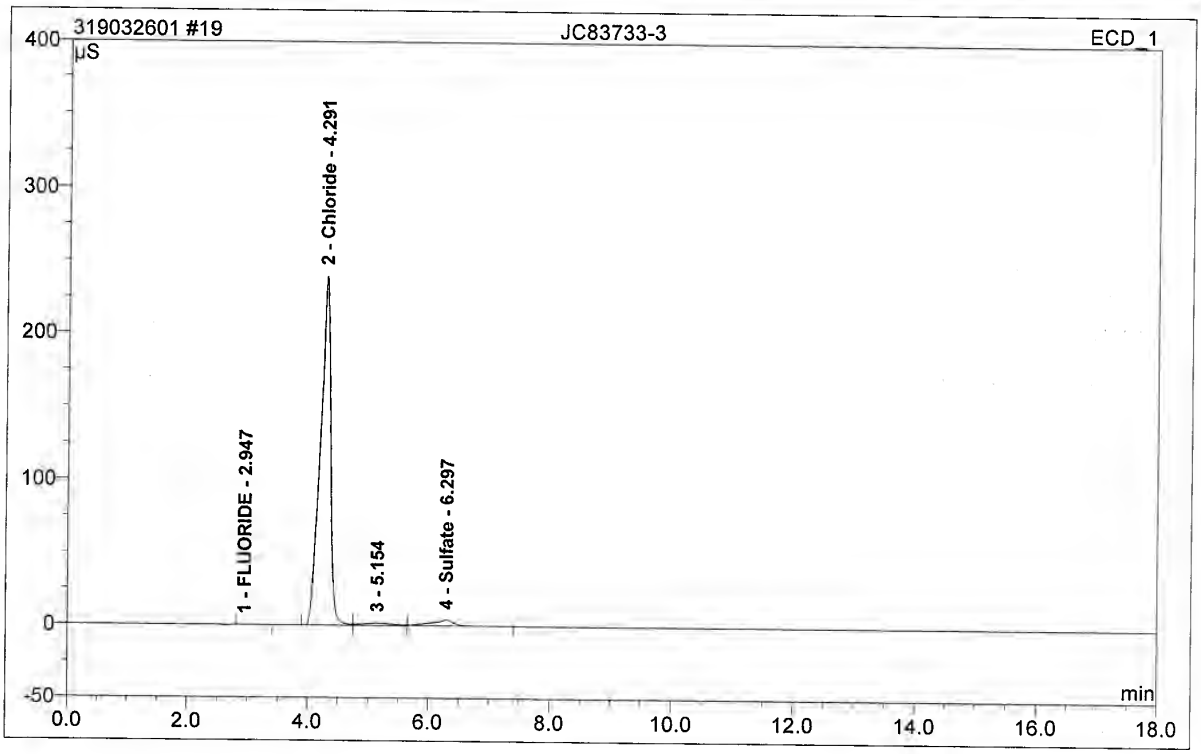
Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

19 JC83733-3

Sample Name:	**JC83733-3**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**5.0000**
Recording Time:	**3/26/2019 13:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	0.095	0.015	0.03	0.513	BMB
2	4.29	Chloride	239.478	47.244	94.06	1284.480	BM
3	5.15	n.a.	1.798	1.037	2.06	n.a.	M
4	6.30	Sulfate	4.305	1.933	3.85	78.629	MB
Total:			245.677	50.229	100.00	1363.622	

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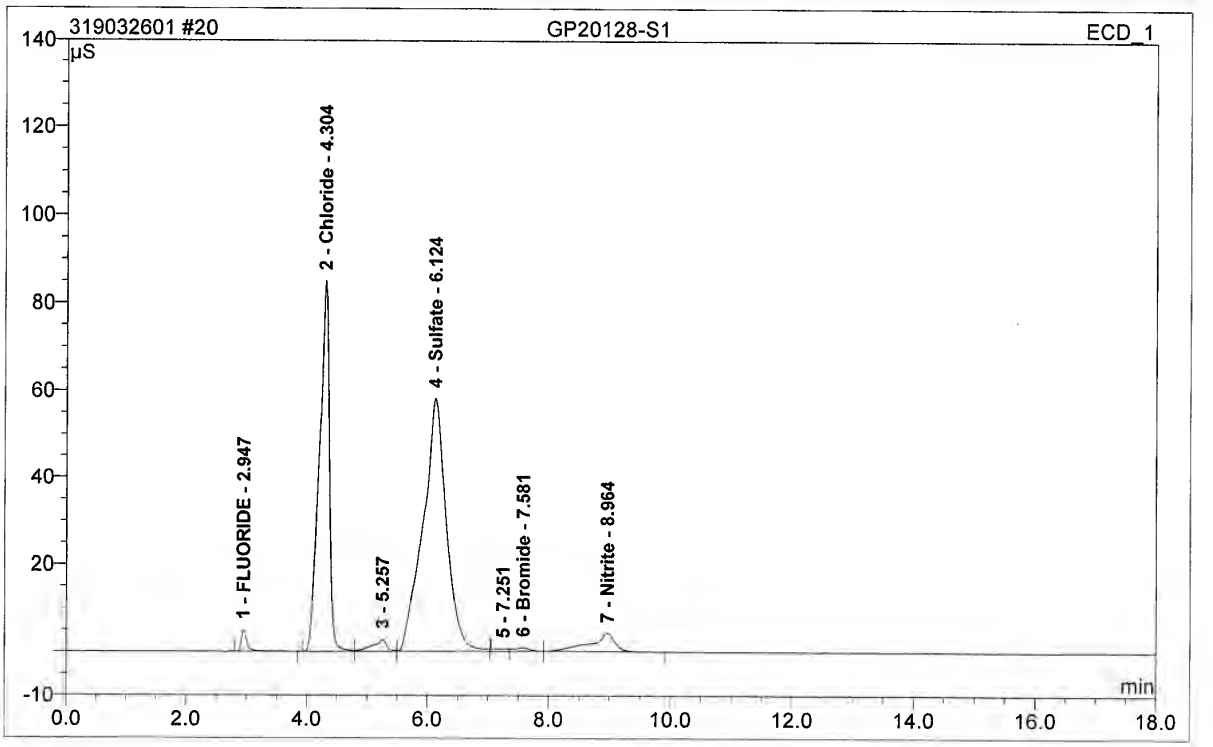
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

20 GP20128-S1

JC84425-2

Sample Name:	**GP20128-S1**	*Injection Volume:*	**20.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 13:43**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	4.863	0.550	1.19	2.036	BMB
2	4.30	Chloride	84.941	16.470	35.71	90.275	BM
3	5.26	n.a.	2.723	0.750	1.63	n.a.	M
4	6.12	Sulfate	58.214	25.944	56.26	193.445	M
5	7.25	n.a.	0.022	0.003	0.01	n.a.	Ru
6	7.58	Bromide	0.837	0.392	0.85	4.903	MB
7	8.96	Nitrite	4.217	2.008	4.35	5.169	bMB
Total:			155.816	46.117	100.00	295.828	

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Version 6.80 SR9a Build 2680 (163077)

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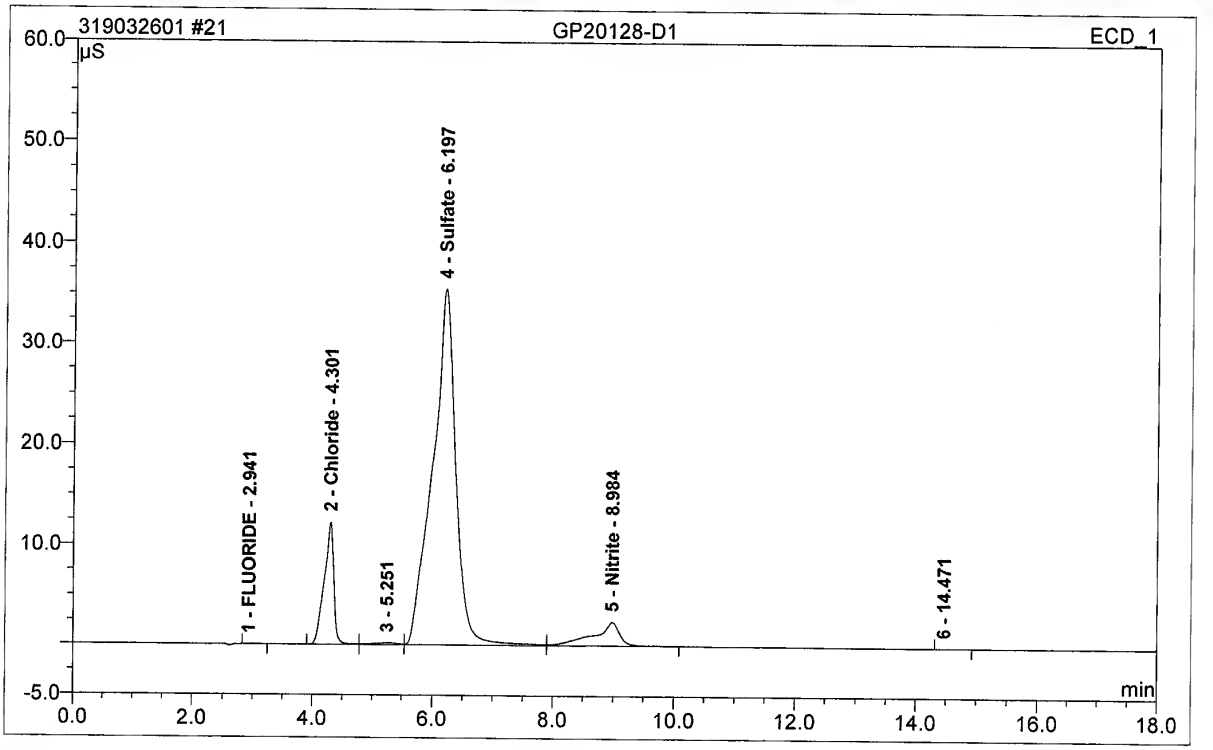
21 GP20128-D1

JC84425-2

Sample Name:	**GP20128-D1**	*Injection Volume:*	**20.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 14:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	0.033	0.006	0.03	0.070	BMB
2	4.30	Chloride	12.229	2.282	11 75	13.453	BM
3	5.25	n.a.	0.206	0.093	0.48	n.a.	M
4	6.20	Sulfate	35.514	15.817	81.42	118.489	M
5	8.98	Nitrite	2.417	1.228	6.32	3.204	MB
6	14.47	n.a.	0.003	0.001	0.01	n.a.	BMB
Total:			50.401	19.427	100.00	135.216	

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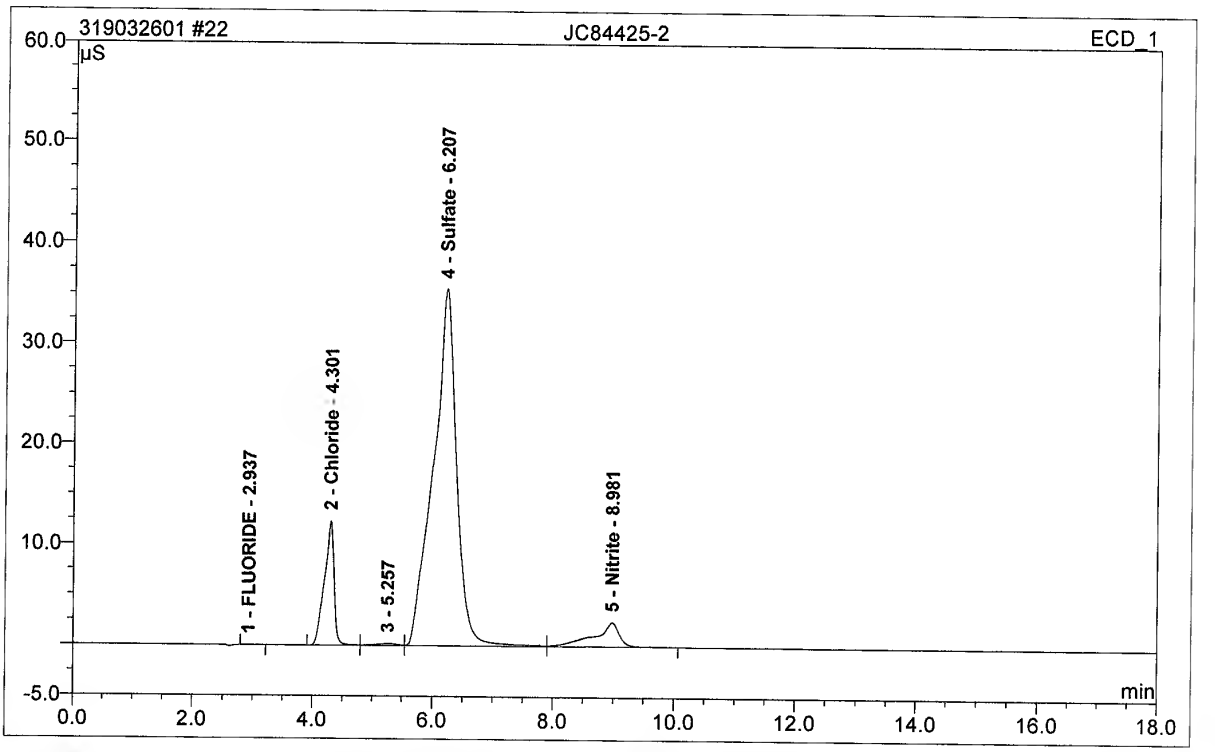
22 JC84425-2

JC84425-2

Sample Name:	**JC84425-2**	*Injection Volume:*	**20.0**
Vial Number:	**13**	*Channel.*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 14:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	0.033	0.005	0.03	0.068	BMB
2	4.30	Chloride	12.289	2.292	11.81	13.511	BM
3	5.26	n.a.	0.204	0.091	0.47	n.a.	M
4	6.21	Sulfate	35.519	15.809	81.45	118.431	M
5	8.98	Nitrite	2.412	1.212	6.24	3.162	MB
Total:			50.456	19.409	100.00	135.173	

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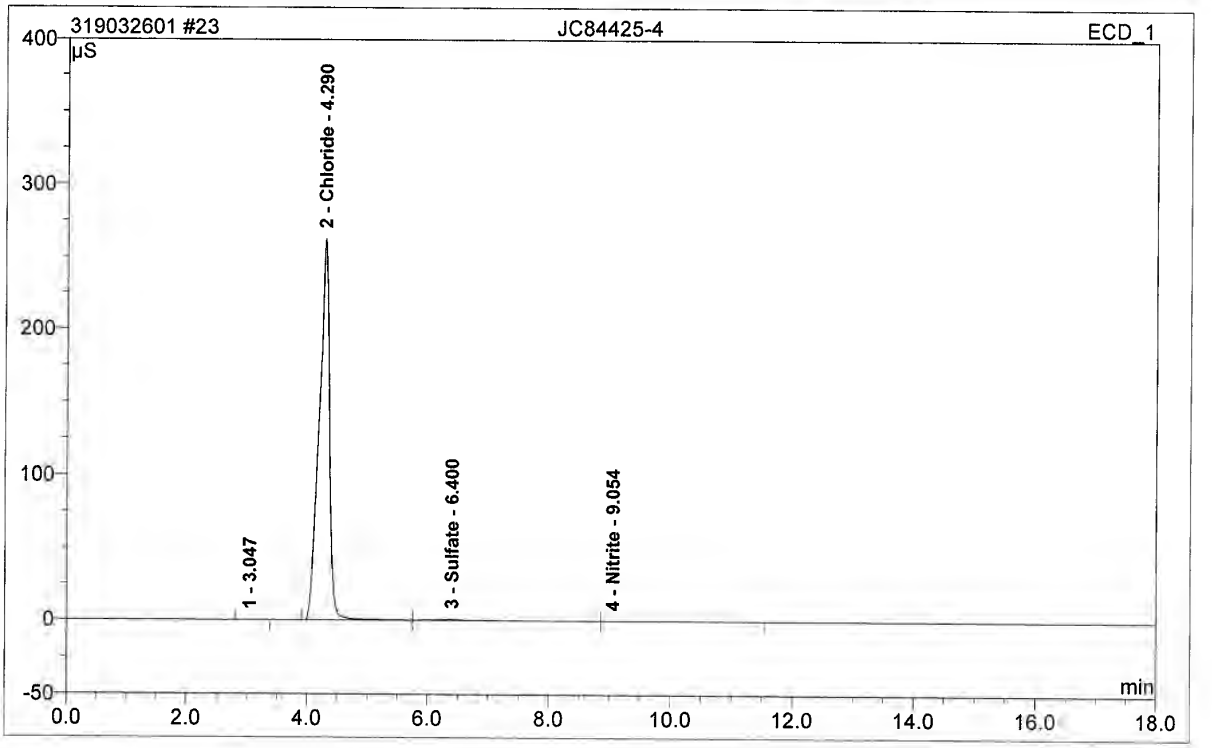
Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

23 JC84425-4

Sample Name:	**JC84425-4**	*Injection Volume:*	**20.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**3/26/2019 14:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.010	0.002	0.00	n.a.	BMB
2	4.29	Chloride	262.262	52.501	98.39	57072.313	BM
3	6.40	Sulfate	0.841	0.772	1.45	1425.453	M
4	9.05	Nitrite	0.086	0.085	0.16	64.681	MB
Total:			263.199	53.360	100.00	58562.447	

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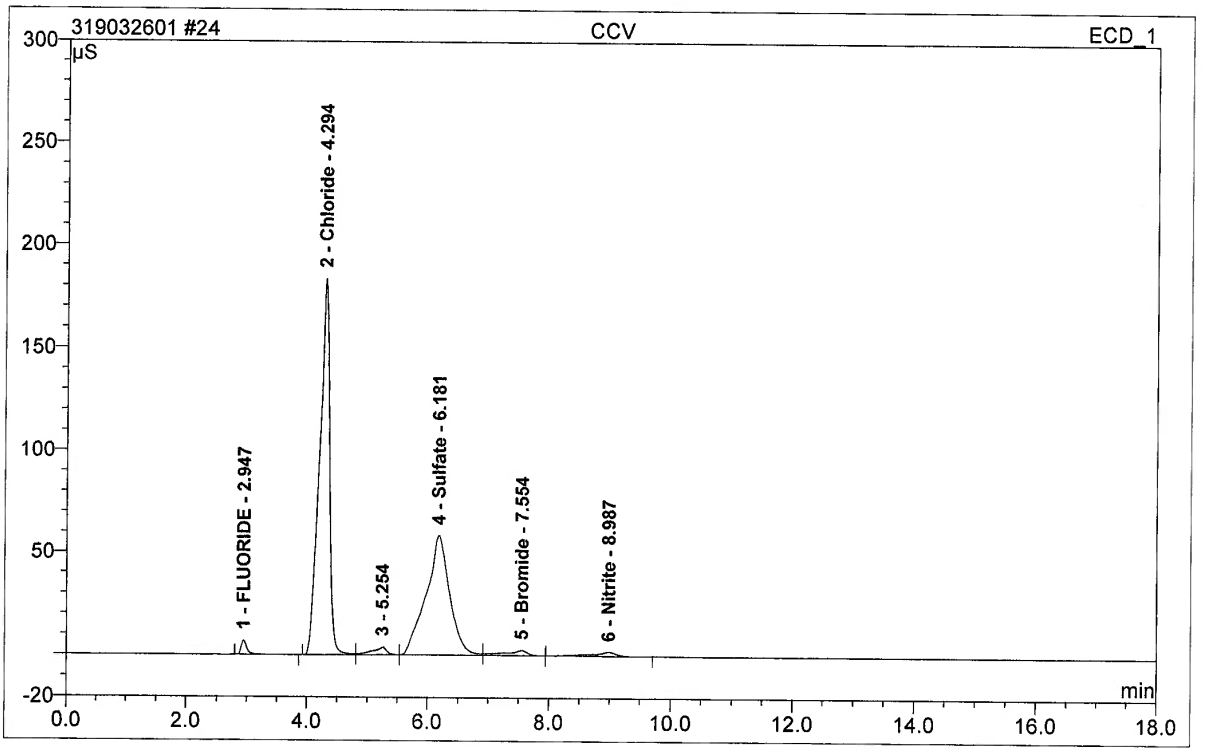
Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

24 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 15:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	6.829	0.790	1.20	2.905	BMB
2	4.29	Chloride	183.421	35.753	54.33	194.677	BM
3	5.25	n.a.	3.705	1.019	1.55	n.a.	MB
4	6.18	Sulfate	58.502	26.194	39.80	195.299	bM
5	7.55	Bromide	2.521	1.080	1.64	13.084	MB
6	8.99	Nitrite	2.063	0.971	1.48	2.557	BMB
Total:			257.040	65.807	100.00	408.521	

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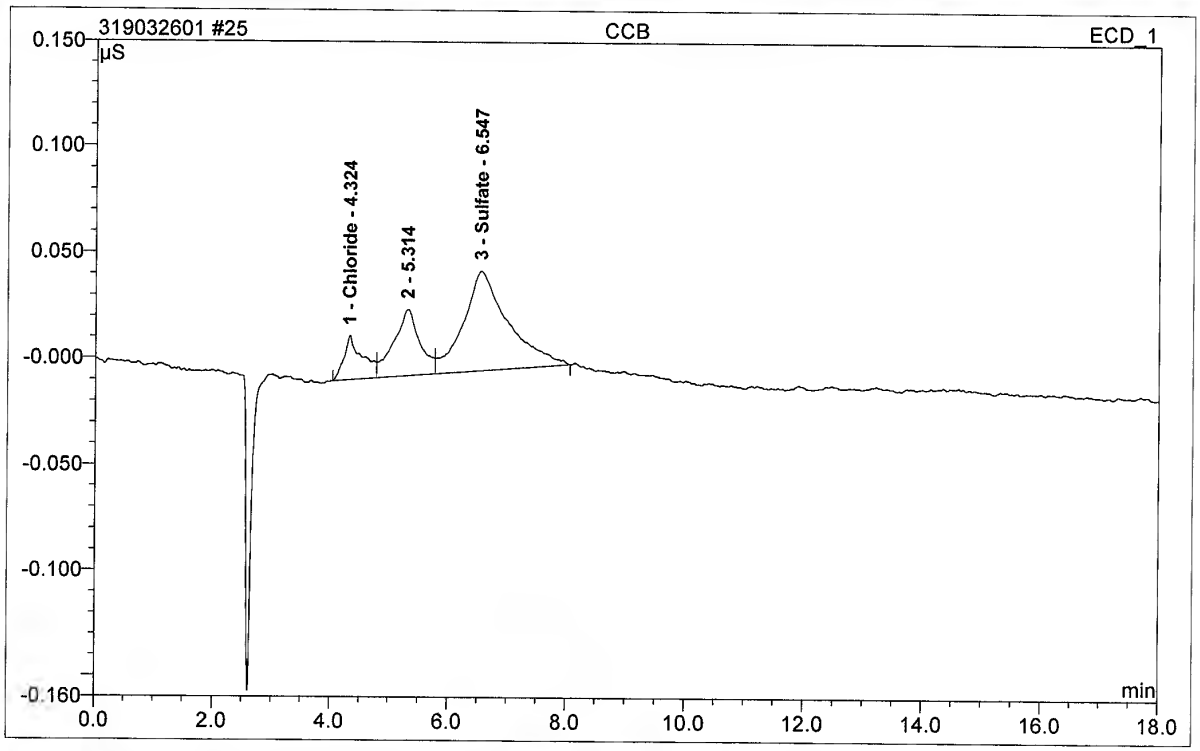
25 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 15:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

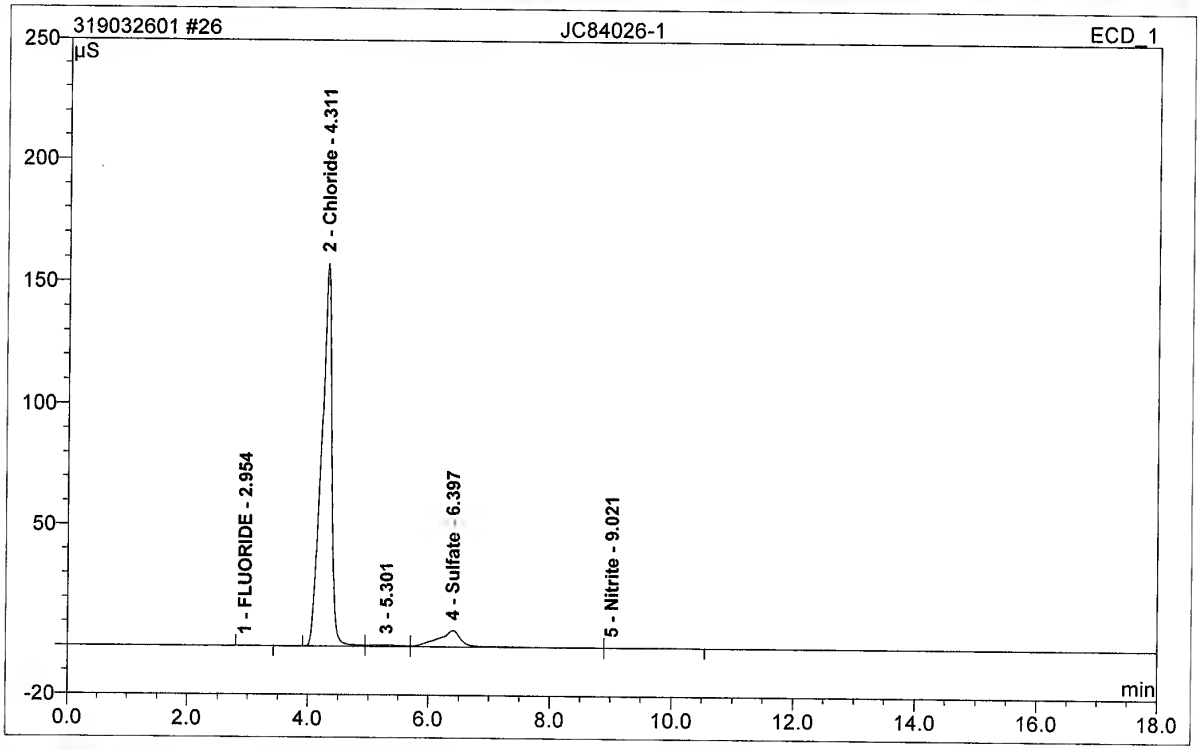


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.32	Chloride	0.021	0.007	11.47	1.139	BM
2	5.31	n.a.	0.031	0.016	24.84	n.a.	M
3	6.55	Sulfate	0.047	0.041	63.69	1.723	MB
Total:			0.099	0.065	100.00	2.862	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

26 JC84026-1

Sample Name:	**JC84026-1**	*Injection Volume:*	**20.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**3/26/2019 16:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	0.060	0.010	0.03	0.864	BMB
2	4.31	Chloride	157.694	30.961	89.82	1687.328	BM
3	5.30	n.a.	0.567	0.341	0.99	n.a.	M
4	6.40	Sulfate	6.703	3.126	9.07	245.530	M
5	9.02	Nitrite	0.051	0.033	0.10	1.925	MB
Total:			165.076	34.471	100.00	1935.647	

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Chromeleon (c) Dionex 1996-2001
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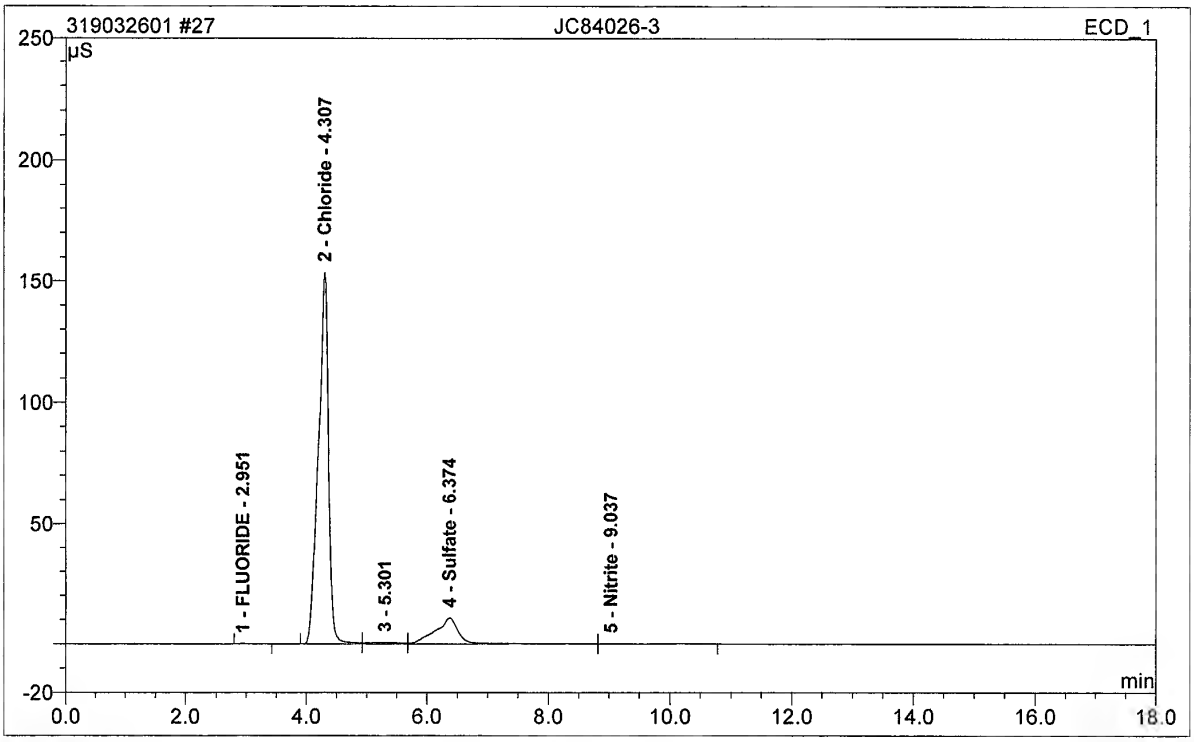
27 JC84026-3

Sample Name:	**JC84026-3**	*Injection Volume:*	**20.0**
Vial Number:	**18**	*Channel.*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method.	**System3Anions**	*Dilution Factor*	**10.0000**
Recording Time:	**3/26/2019 16:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

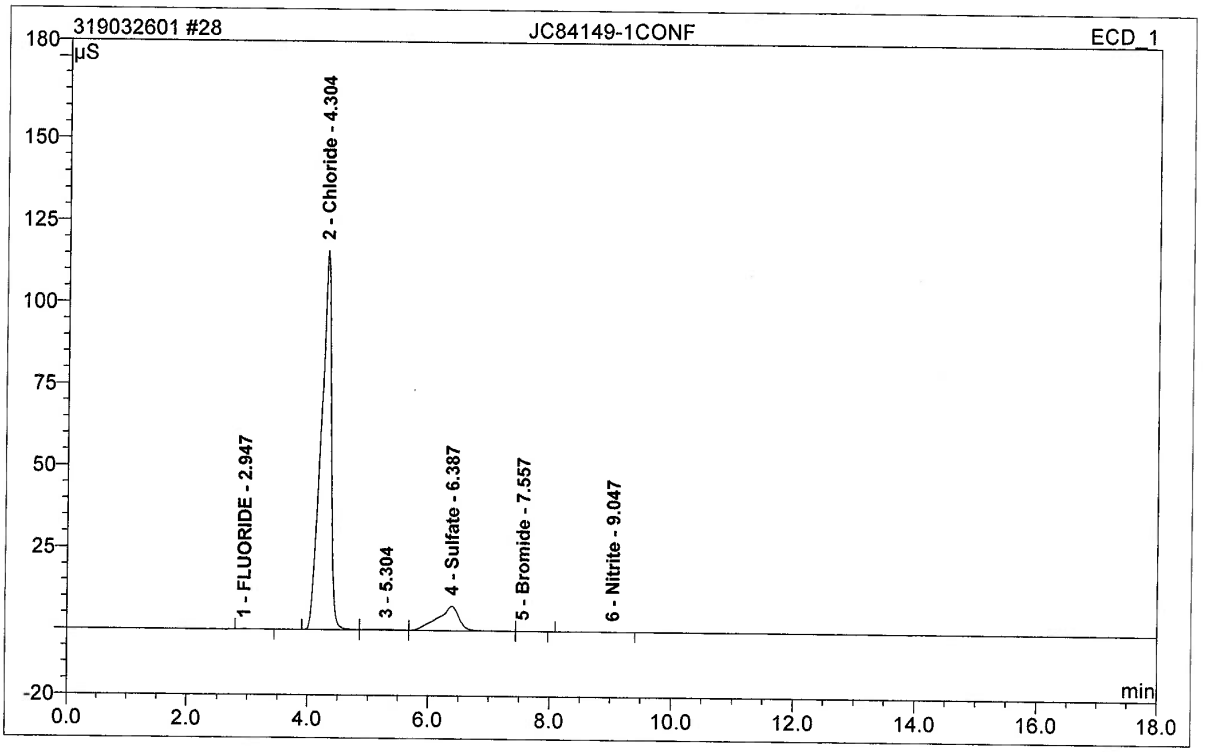


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	0.064	0.009	0.03	0.824	BMB
2	4.31	Chloride	153.599	29.893	84.93	1629.502	BM
3	5.30	n.a.	0.584	0.347	0.99	n.a.	M
4	6.37	Sulfate	10.788	4.896	13.91	376.568	M
5	9.04	Nitrite	0.082	0.053	0.15	2.441	MB
Total:			165.117	35.199	100.00	2009.335	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

28 JC84149-1CONF

Sample Name:	**JC84149-1CONF**	*Injection Volume:*	**20.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**3/26/2019 17:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	0.056	0.009	0.03	0.163	BMB
2	4.30	Chloride	115.930	22.510	87.39	245.949	BM
3	5.30	n.a.	0.276	0.137	0.53	n.a.	M
4	6.39	Sulfate	7.551	3.082	11.97	48.459	M
5	7.56	Bromide	0.024	0.006	0.02	0.646	MB
6	9.05	Nitrite	0.031	0.015	0.06	0.295	BMB
Total:			123.869	25.759	100.00	295.512	

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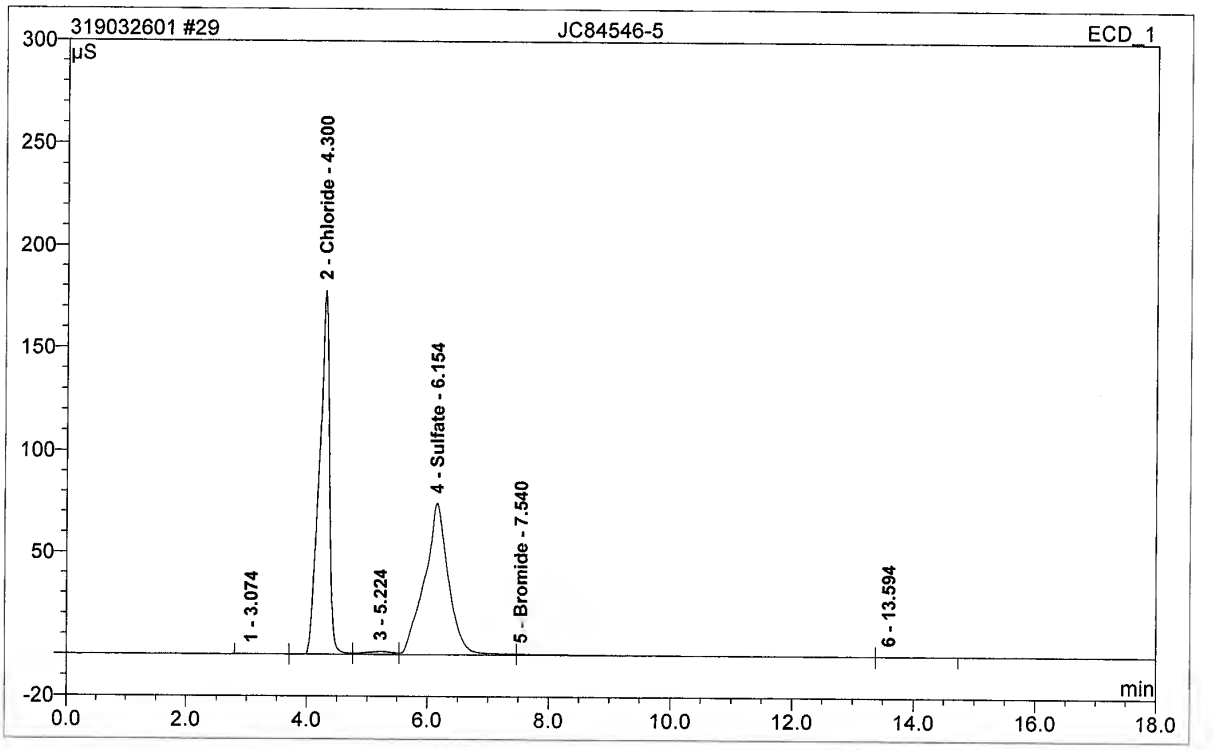
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

29 JC84546-5

Sample Name:	**JC84546-5**	*Injection Volume:*	**20.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**3/26/2019 17:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.07	n.a.	0.067	0.018	0.03	n.a.	BM
2	4.30	Chloride	177.864	34.504	49.07	563.747	M
3	5.22	n.a.	1.565	0.814	1.16	n.a.	M
4	6.15	Sulfate	74.305	34.161	48.59	762.798	M
5	7.54	Bromide	0.554	0.797	1.13	29.173	M
6	13.59	n.a.	0.021	0.014	0.02	n.a.	MB
Total:			254.376	70.308	100.00	1355.718	

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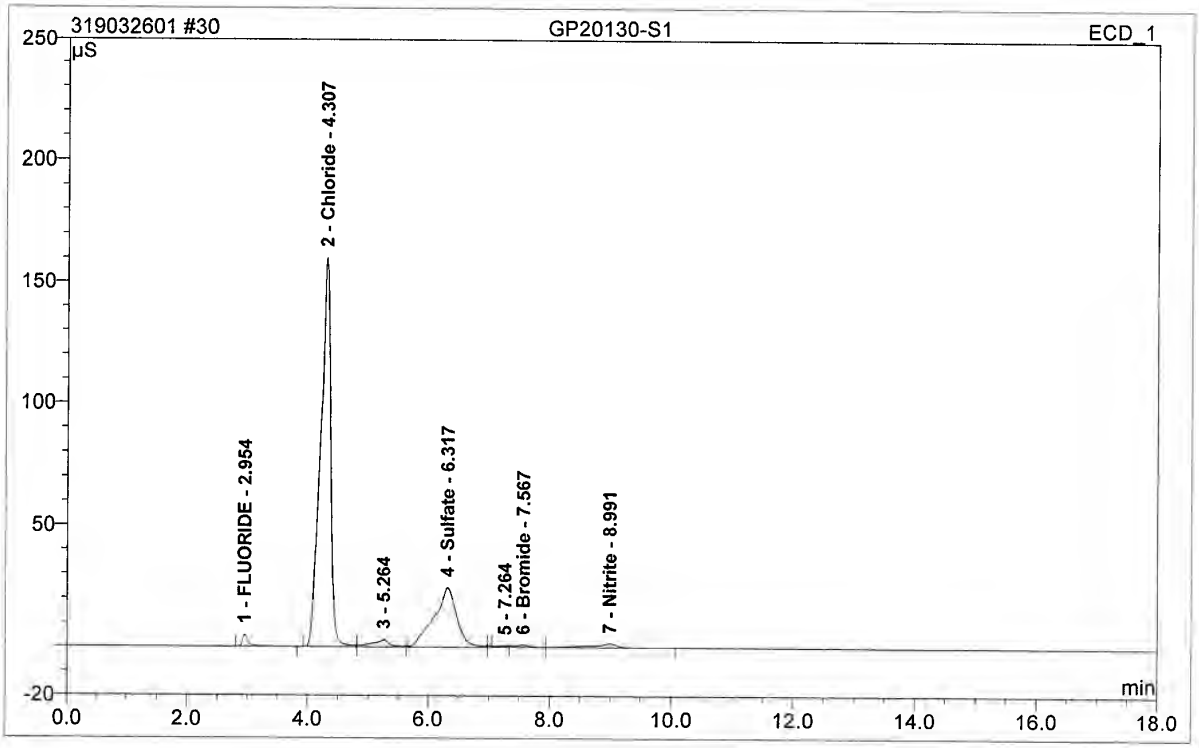
Version 6.80 SR9a Build 2680 (163077)

30 GP20130-S1

JC84595-1

Sample Name:	**GP20130-S1**	*Injection Volume:*	**20.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**3/26/2019 17:47**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

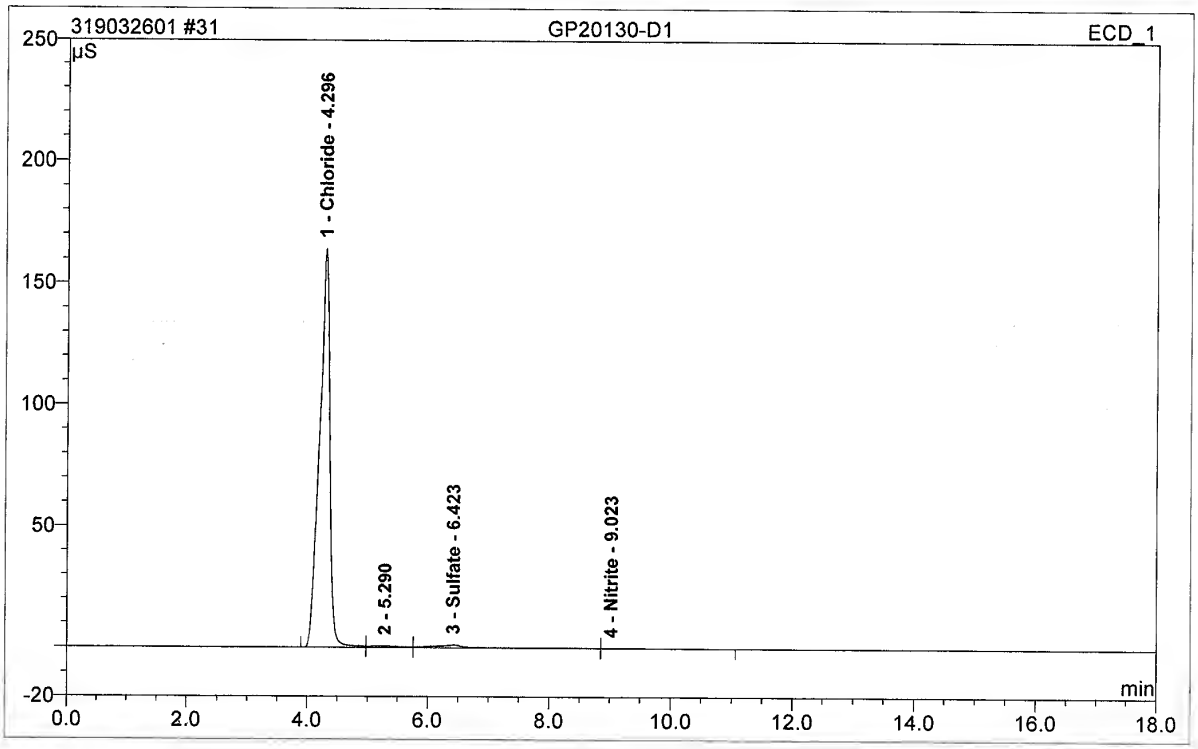


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	4.900	0.547	1.22	20.238	BMB
2	4.31	Chloride	160.050	31.317	69.74	1706.600	BM
3	5.26	n.a.	2.959	0.954	2.13	n.a.	M
4	6.32	Sulfate	24.431	10.704	23.84	806.477	M
5	7.26	n.a.	0.020	0.003	0.01	n.a.	Ru
6	7.57	Bromide	0.944	0.495	1.10	61.369	M
7	8.99	Nitrite	1.658	0.883	1.97	23.334	MB
Total:			194.964	44.903	100.00	2618.018	

31 GP20130-D1

JC84595-1

Sample Name:	**GP20130-D1**	*Injection Volume:*	**20.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**5.0000**
Recording Time:	**3/26/2019 18:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

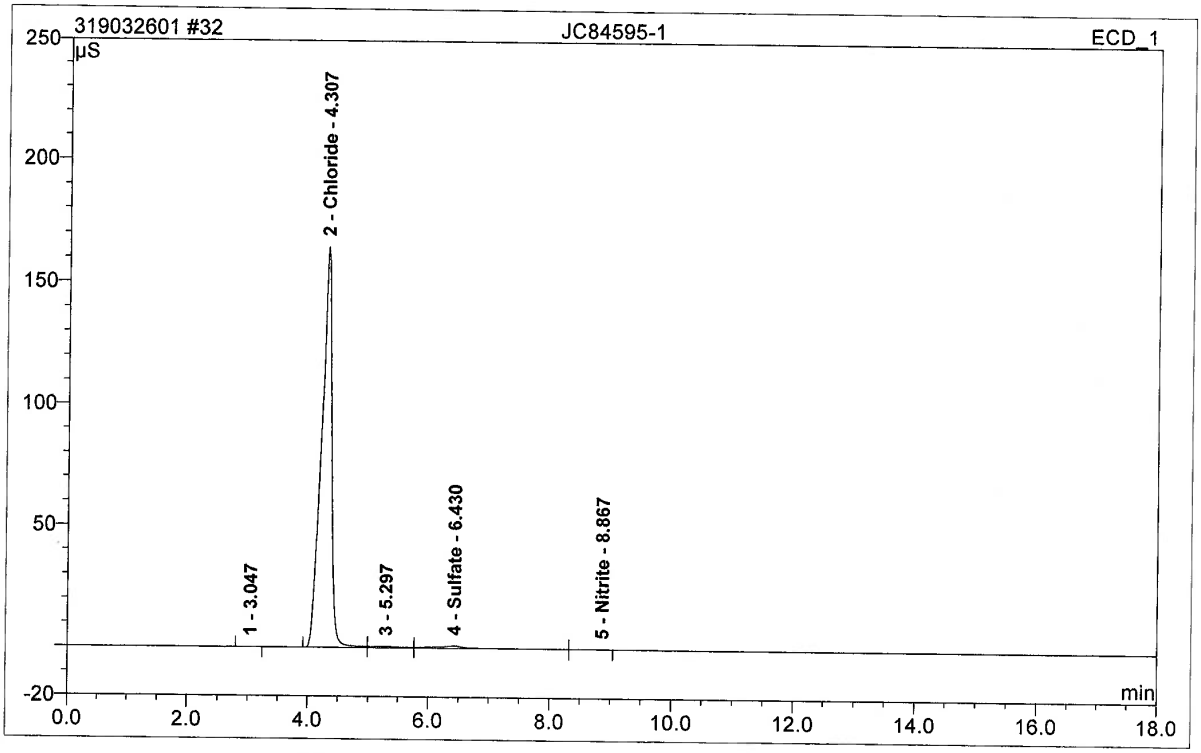


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.30	Chloride	164.157	32.231	96.62	878.051	BM
2	5.29	n.a.	0.558	0.342	1.03	n.a.	M
3	6.42	Sulfate	1.104	0.744	2.23	34.608	M
4	9.02	Nitrite	0.051	0.041	0.12	1.070	MB
Total:			165.870	33.358	100.00	913.729	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

32 JC84595-1

Sample Name:	**JC84595-1**	*Injection Volume:*	**20.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**5.0000**
Recording Time:	**3/26/2019 18:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.022	0.004	0.01	n.a.	BMB
2	4.31	Chloride	164.500	32.302	97.25	879.960	BM
3	5.30	n.a.	0.533	0.315	0.95	n.a.	M
4	6.43	Sulfate	1.051	0.593	1.79	29.041	M
5	8.87	Nitrite	0.002	0.002	0.01	0.576	MB
Total:			166.109	33.215	100.00	909.577	

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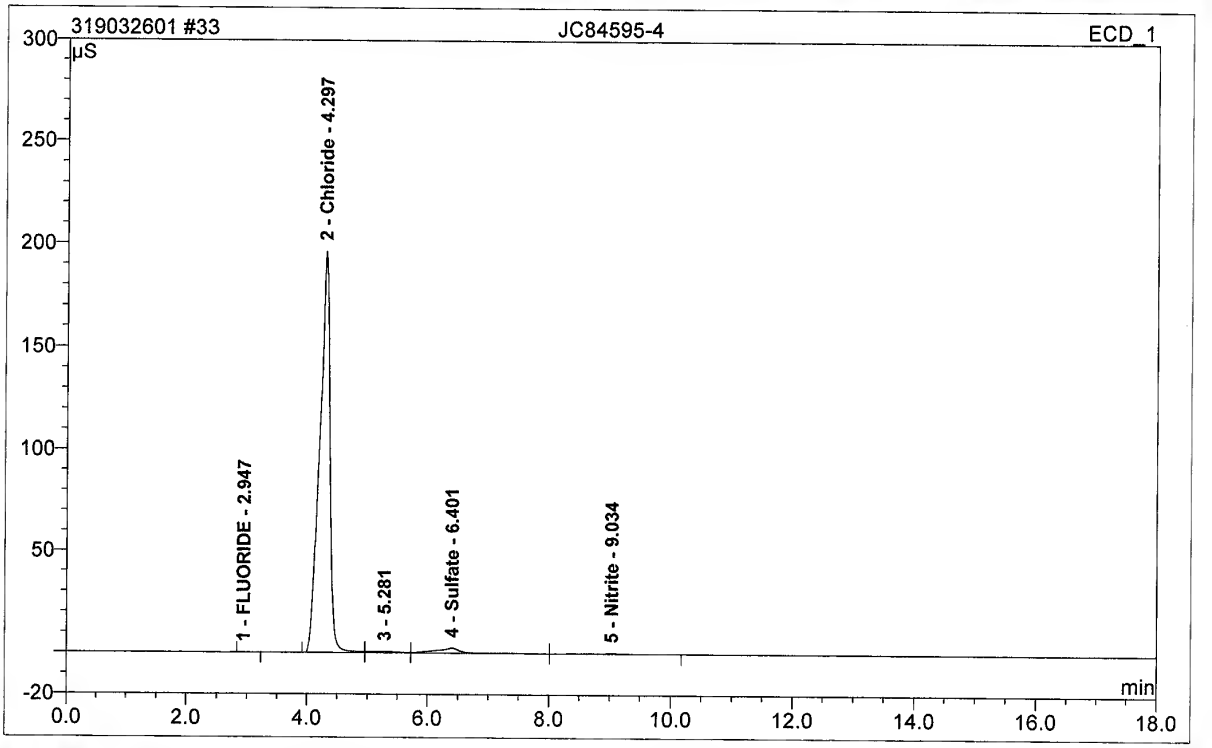
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

33 JC84595-4

Sample Name:	**JC84595-4**	*Injection Volume:*	**20.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**3/26/2019 18:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	0.022	0.004	0.01	0.189	BMB
2	4.30	Chloride	196.206	38.893	95.27	635.039	BM
3	5.28	n.a.	0.680	0.409	1.00	n.a.	M
4	6.40	Sulfate	2.548	1.314	3.22	33.432	M
5	9.03	Nitrite	0.308	0.203	0.50	1.867	MB
Total:			199.765	40.823	100.00	670.527	

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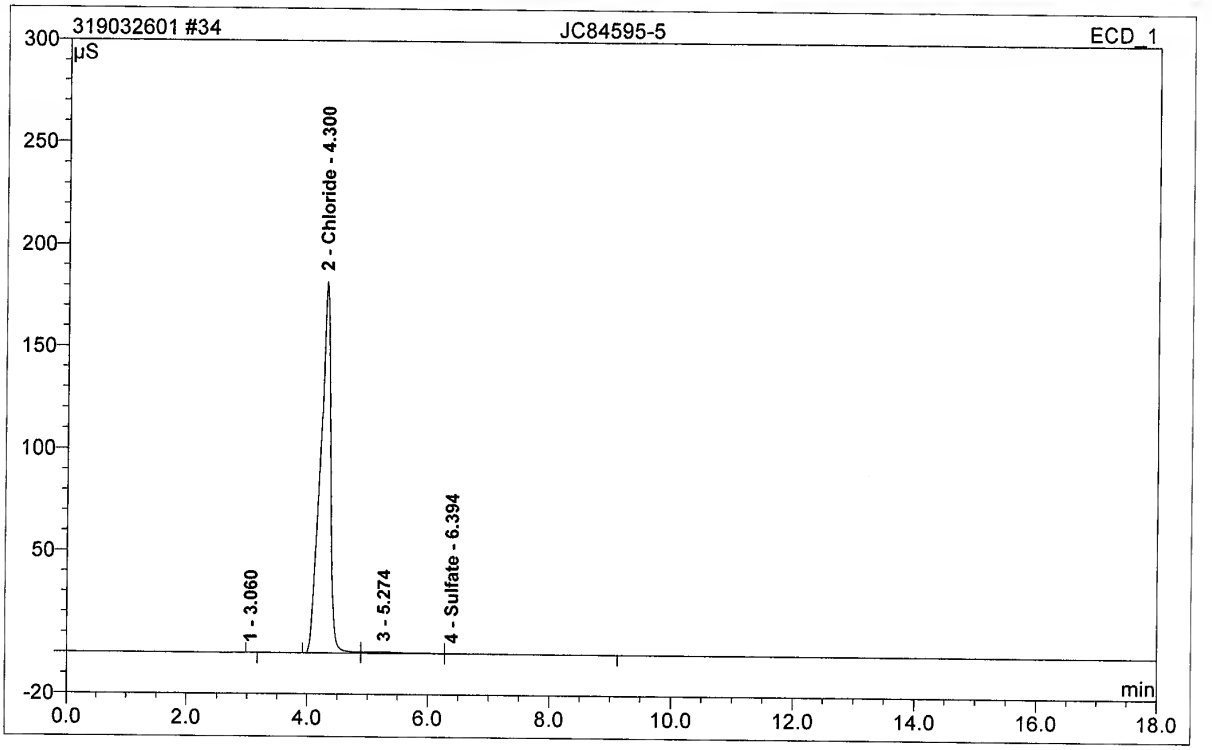
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

34 JC84595-5

Sample Name:	**JC84595-5**	*Injection Volume:*	**20.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**5.0000**
Recording Time:	**3/26/2019 19:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

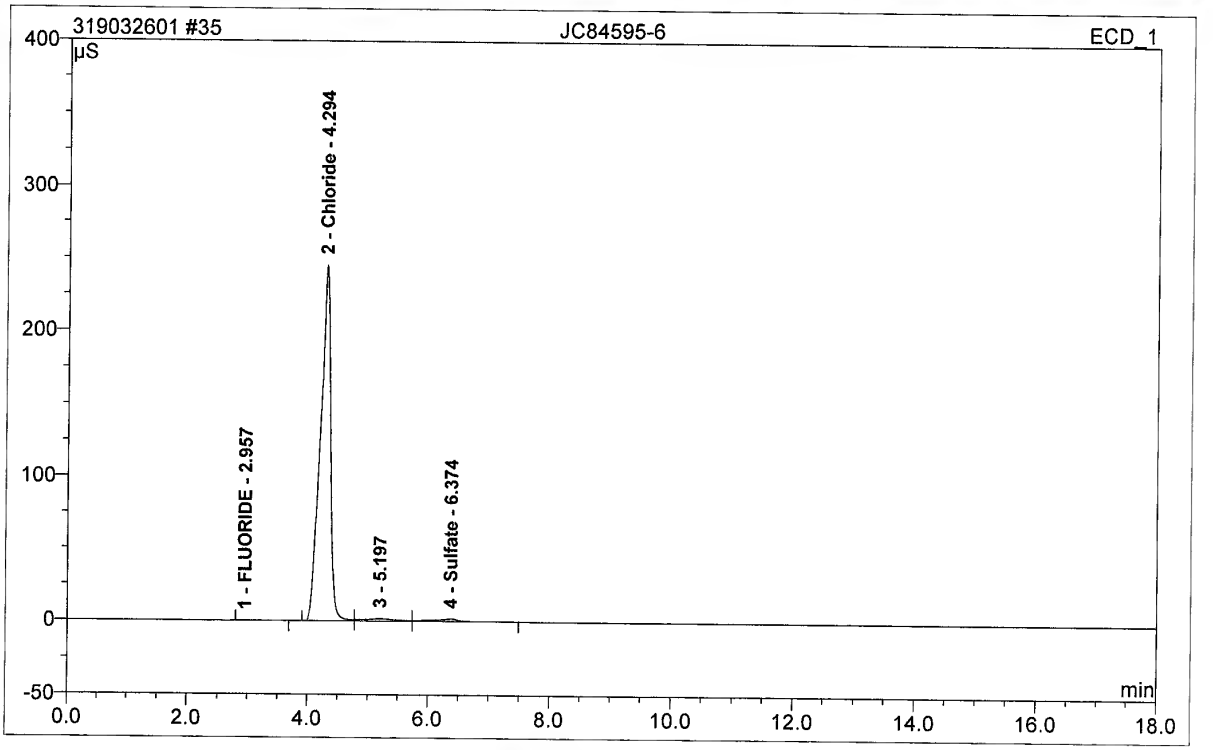


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	n.a.	0.013	0.001	0.00	n.a.	BMB
2	4.30	Chloride	182.212	35.766	97.75	973.737	BM
3	5.27	n.a.	0.760	0.611	1.67	n.a.	M
4	6.39	Sulfate	0.229	0.210	0.57	14.860	MB
Total:			183.214	36.588	100.00	988.597	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

35 JC84595-6

Sample Name:	**JC84595-6**	*Injection Volume:*	**20.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**3/26/2019 19:47**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.96	FLUORIDE	0.038	0.012	0.02	0.184	BMB
2	4.29	Chloride	245.217	48.352	95.98	525.787	BM
3	5.20	n.a.	1.740	1.055	2.09	n.a.	M
4	6.37	Sulfate	1.841	0.958	1.90	17.021	MB
Total:			248.837	50.377	100.00	542.992	

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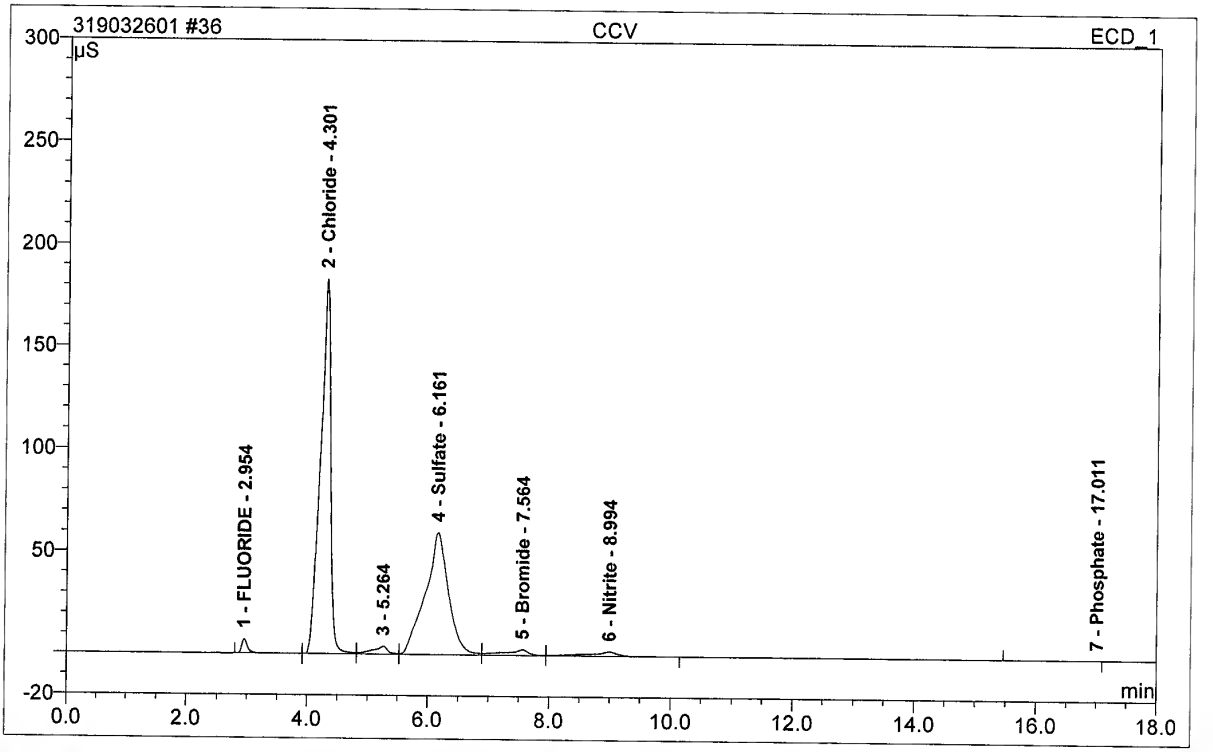
Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

36 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 20:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	7.036	0.802	1.20	2.946	BM
2	4.30	Chloride	183.285	35.917	53.55	195.566	M
3	5.26	n.a.	3.967	1.174	1.75	n.a.	M
4	6.16	Sulfate	60.181	26.668	39.76	198.805	M
5	7.56	Bromide	2.747	1.308	1.95	15.801	M
6	8.99	Nitrite	2.186	1.194	1.78	3.118	MB
7	17.01	Phosphate	0.002	0.006	0.01	n.a.	BMB
Total:			259.404	67.069	100.00	416.236	

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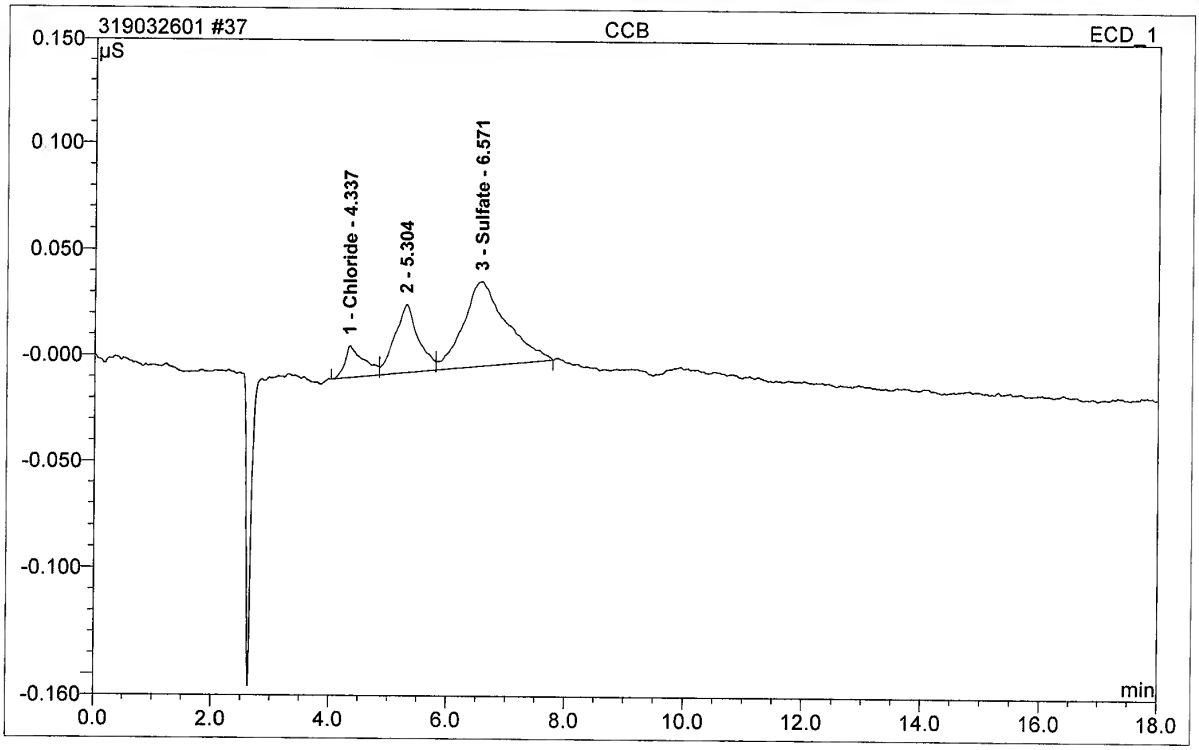
Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

37 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 20:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.34	Chloride	0.015	0.006	10.23	1.129	BM
2	5.30	n.a.	0.032	0.015	27 58	n.a.	M
3	6.57	Sulfate	0.040	0.034	62.19	1.667	MB
Total:			0.087	0.054	100.00	2.796	

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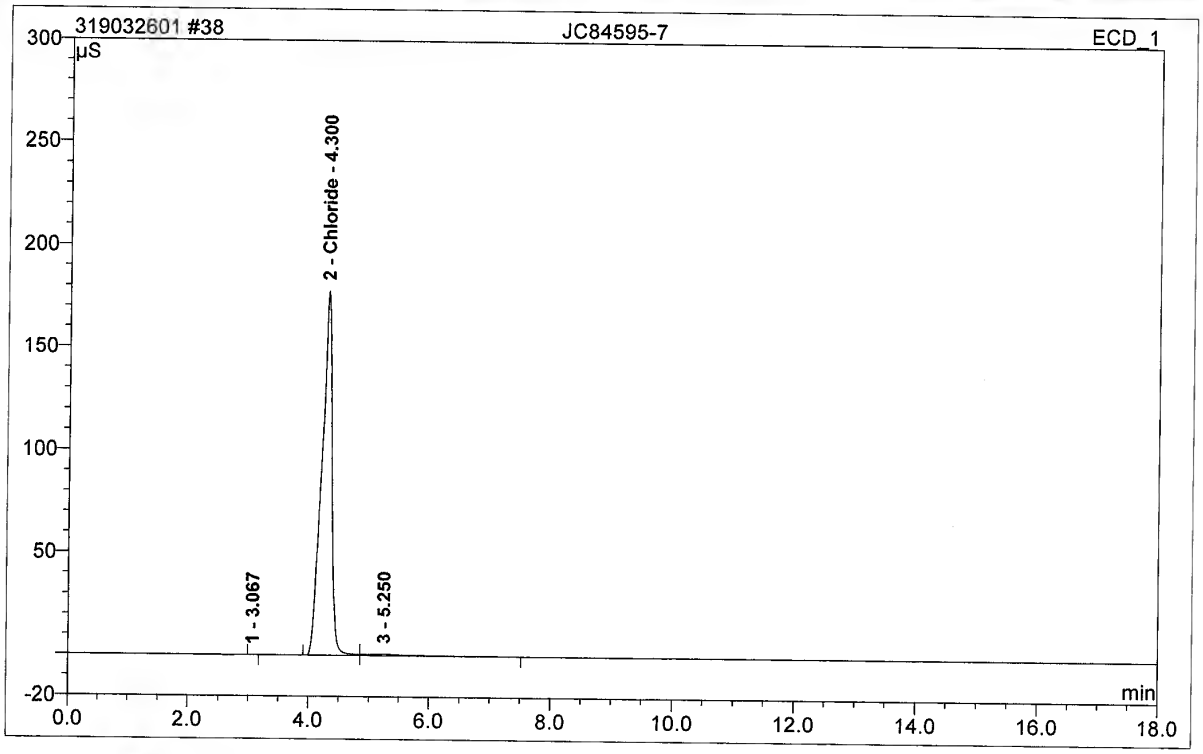
38 JC84595-7

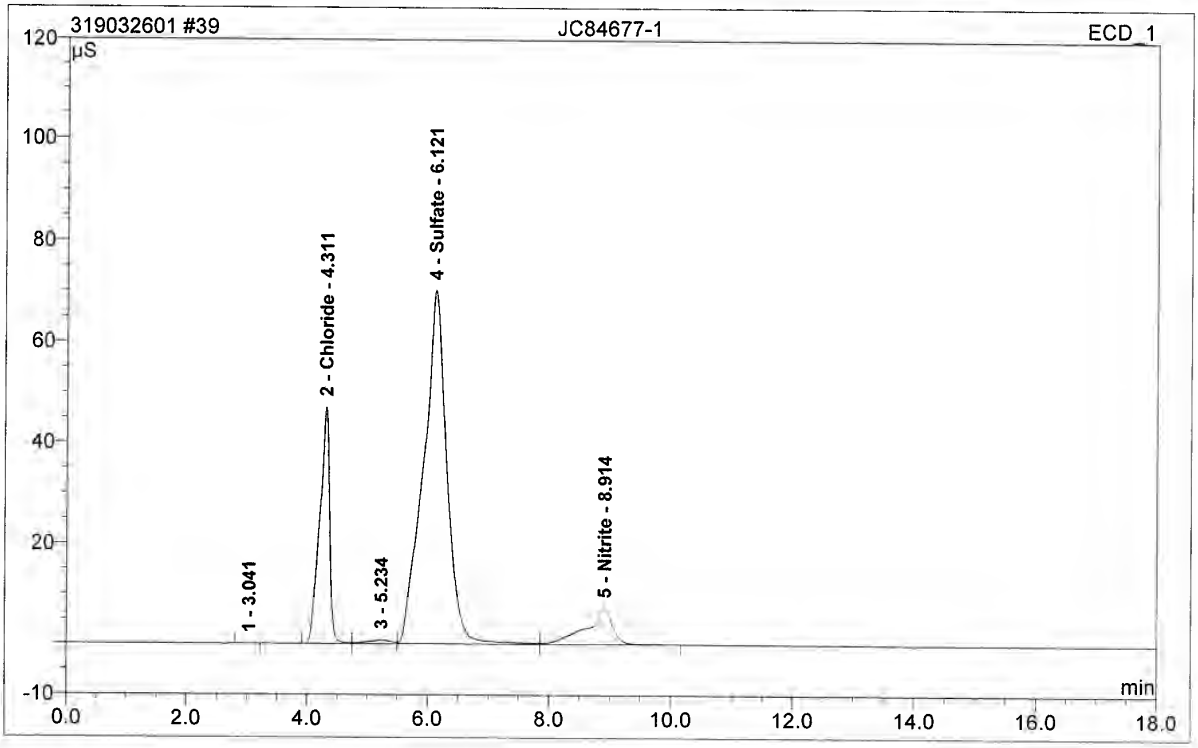
Sample Name:	**JC84595-7**	*Injection Volume:*	**20.0**
Vial Number:	**29**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**5.0000**
Recording Time:	**3/26/2019 20:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.07	n.a.	0.014	0.001	0.00	n.a.	BMB
2	4.30	Chloride	177.842	34.856	98.11	949.102	BM
3	5.25	n.a.	0.807	0.672	1.89	n.a.	MB
Total:			178.662	35.529	100.00	949.102	

39 JC84677-1

Sample Name:	**JC84677-1**	*Injection Volume.*	**20.0**
Vial Number:	**30**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth.*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**3/26/2019 21:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

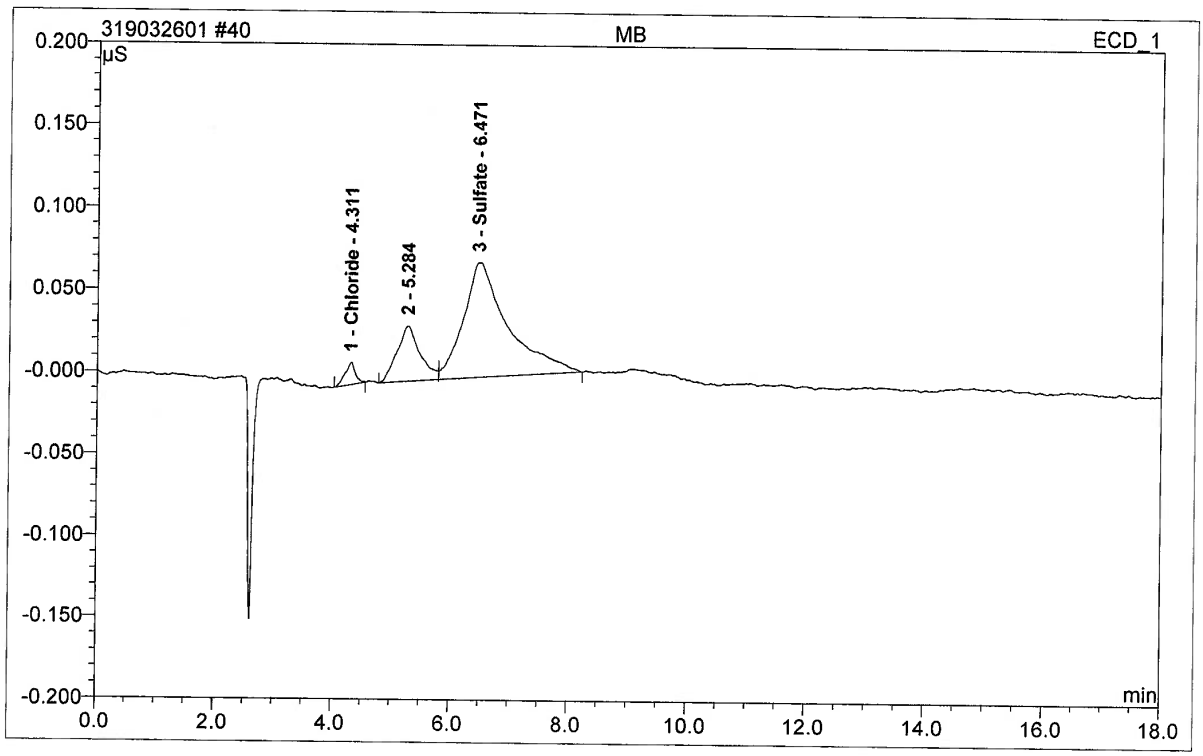


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.04	n.a.	0.025	0.004	0.01	n.a.	BMB
2	4.31	Chloride	47.095	9.023	20.19	99.903	BM
3	5.23	n.a.	0.779	0.356	0.80	n.a.	M
4	6.12	Sulfate	70.250	31.610	70.75	470.772	M
5	8.91	Nitrite	7.230	3.686	8.25	18.795	MB
Total:			125.378	44.679	100.00	589.470	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

40 MB

Sample Name:	**MB**	*Injection Volume:*	**20.0**
Vial Number:	**31**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 21:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.31	Chloride	0.013	0.003	3.42	1.114	BMB
2	5.28	n.a.	0.033	0.015	19.41	n.a.	BM
3	6.47	Sulfate	0.070	0.061	77.17	1.866	MB
Total:			0.117	0.079	100.00	2.980	

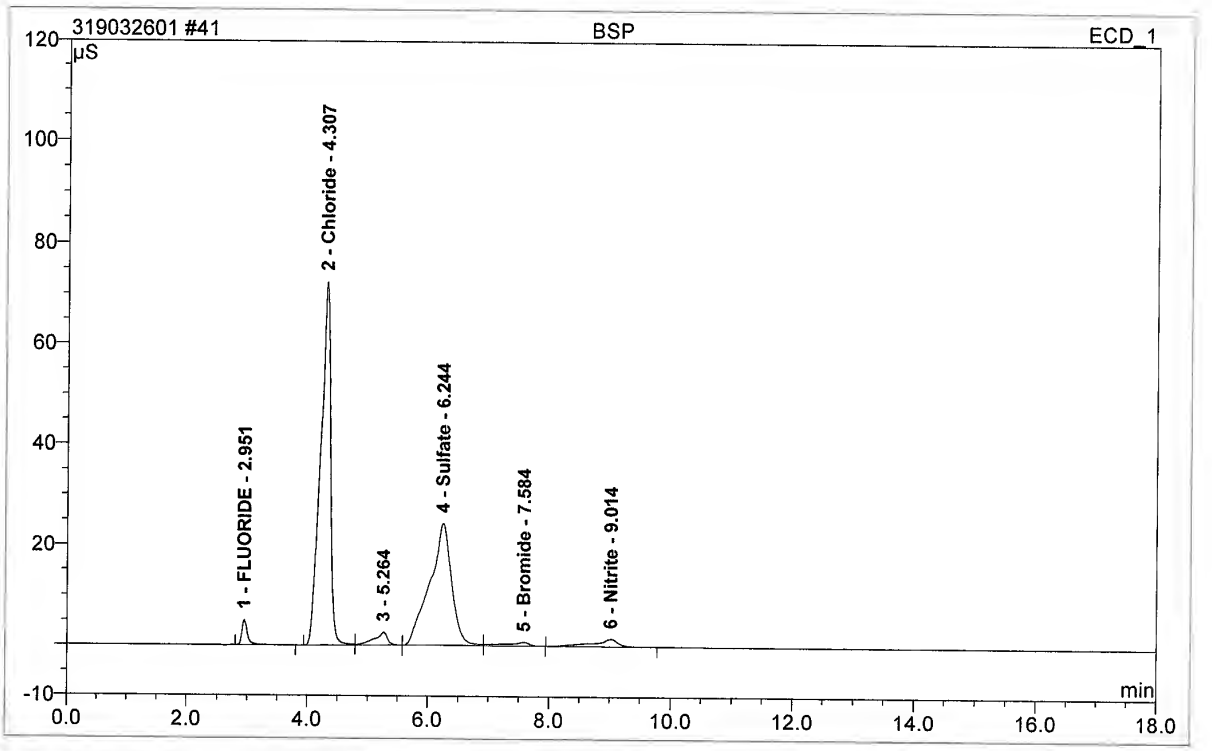
anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

41 BSP

Sample Name:	**BSP**	*Injection Volume:*	**20.0**
Vial Number:	**32**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 22:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	5.049	0.552	2.07	2.043	BMB
2	4.31	Chloride	72.456	14.028	52.67	77.053	BM
3	5.26	n.a.	2.633	0.695	2.61	n.a.	MB
4	6.24	Sulfate	24.381	10.258	38.52	77.343	bM
5	7.58	Bromide	0.777	0.351	1.32	4.421	MB
6	9.01	Nitrite	1.580	0.749	2.81	1.997	BMB
Total:			106.875	26.633	100.00	162.856	

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Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:31903260l

42 JC84281-1

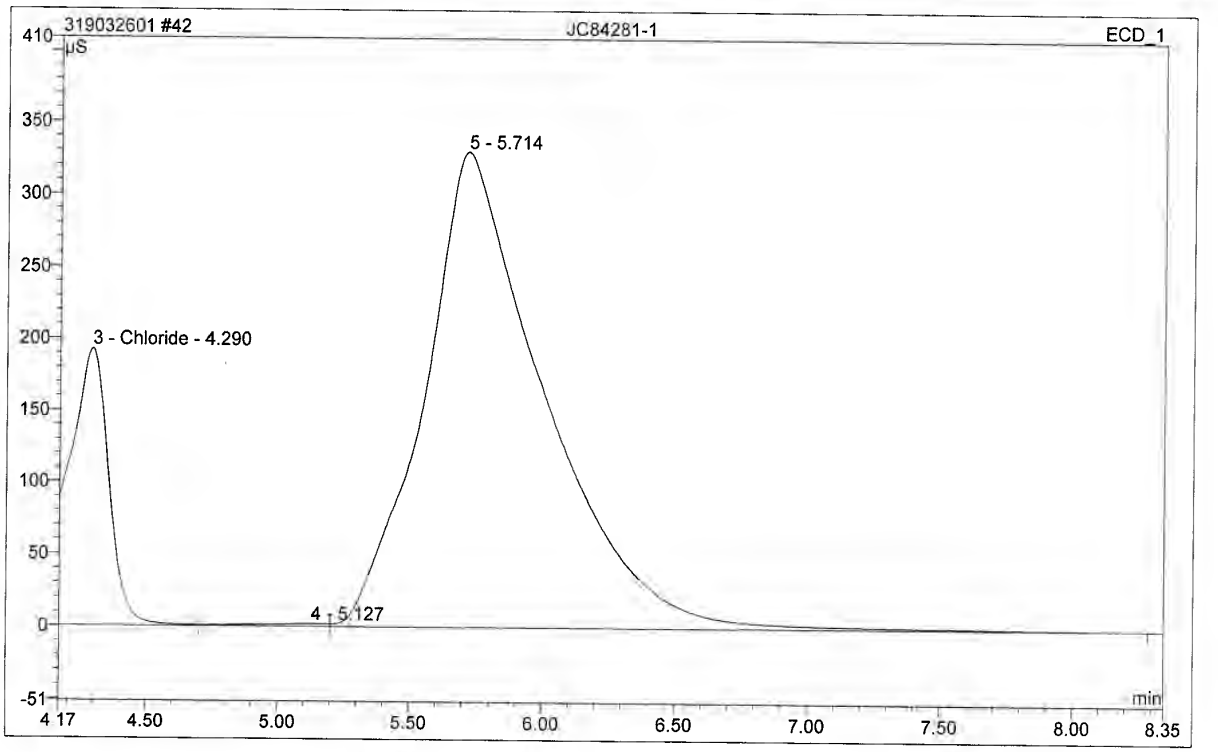
Sample Name:	**JC84281-1**	*Injection Volume:*	**20.0**
Vial Number:	**33**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantit. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 22:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	0.960	0.112	0.05	0.455	BM
2	3.46	n.a.	0.252	0.041	0.02	n.a.	MB
3	4.29	Chloride	192.900	37.961	17.92	206.636	BM
4	5.13	n.a.	1.867	0.640	0.30	n.a.	M
5	5.71	Sulfate	329.597	173.071	81.70	1282.443	MB^
Total:			525.576	211.825	100.00	1489.534	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

42 JC84281-1

Sample Name:	**JC84281-1**	*Injection Volume:*	**20.0**
Vial Number:	**33**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time.	**3/26/2019 22:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	0.960	0.112	0.05	0.455	BM
2	3.46	n.a.	0.252	0.041	0.02	n.a.	MB
3	4.29	Chloride	192.900	37.961	17.92	206.636	BM
4	5.13	n.a.	1.867	0.640	0.30	n.a.	M
5	5.71	n.a.	329.597	173.071	81.70	n.a.	MB
Total:			525.576	211.825	100.00	207.091	

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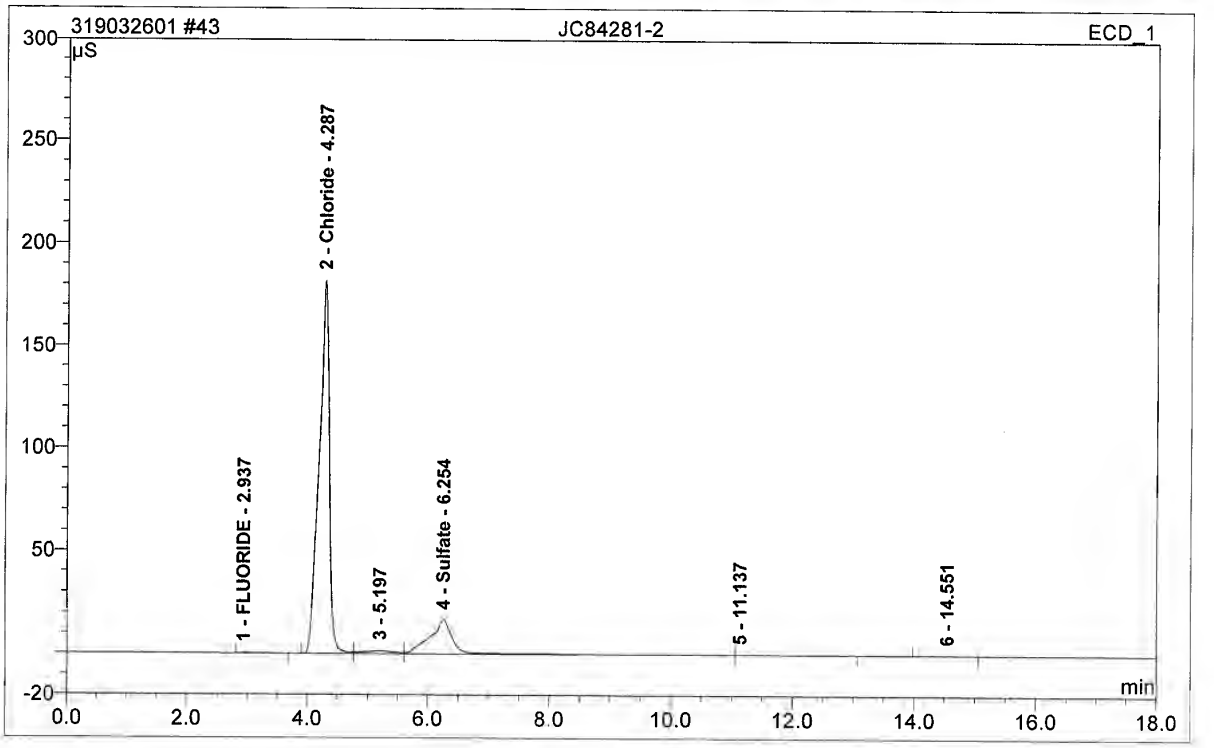
Version 6.80 SR9a Build 2680 (163077)

Operator.chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

43 JC84281-2

Sample Name:	**JC84281-2**	*Injection Volume:*	**20.0**
Vial Number:	**34**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 22:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	0.227	0.031	0.07	0.160	BMB
2	4.29	Chloride	181.870	35.497	81.11	193.295	BM
3	5.20	n.a.	1.326	0.755	1.72	n.a.	M
4	6.25	Sulfate	16.397	7.451	17.03	56.567	M
5	11.14	n.a.	0.027	0.027	0.06	n.a.	MB
6	14.55	n.a.	0.006	0.004	0.01	n.a.	BMB
Total:			199.854	43.765	100.00	250.023	

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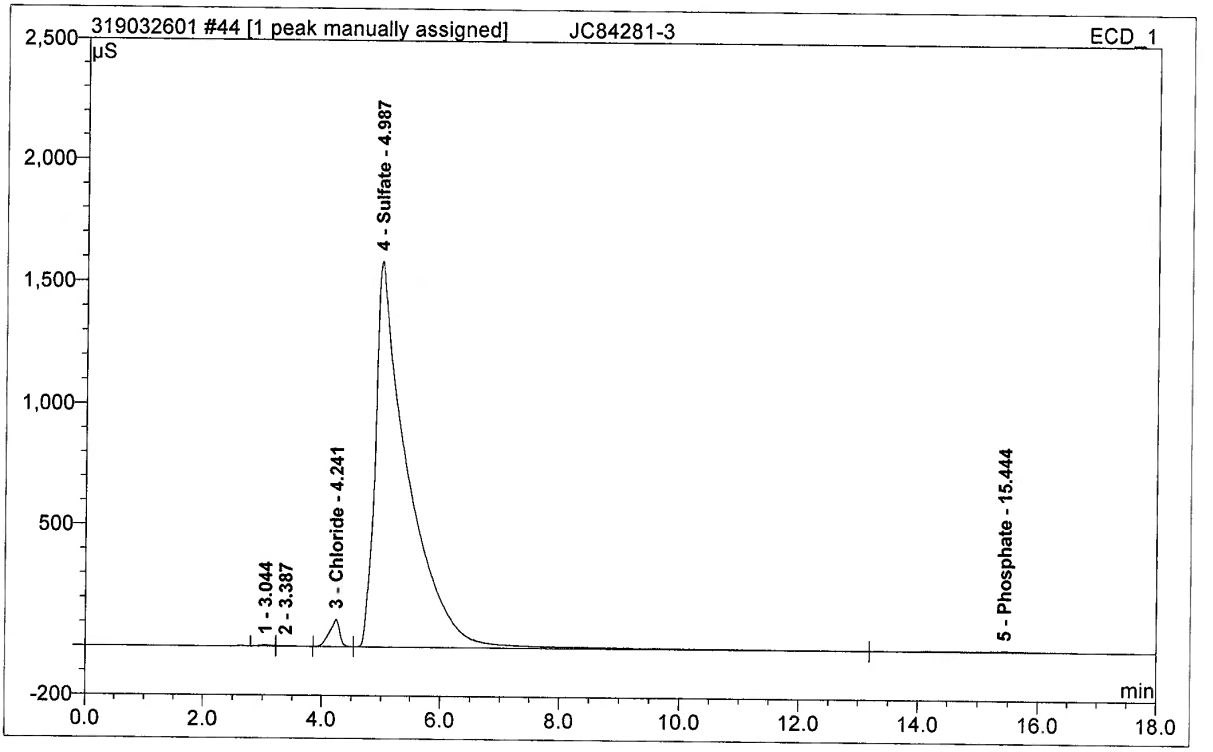
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

44 JC84281-3

Sample Name:	**JC84281-3**	*Injection Volume:*	**20.0**
Vial Number:	**35**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 23:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.04	n.a.	4.352	0.912	0.09	n.a.	BM
2	3.39	n.a.	1.718	0.441	0.04	n.a.	MB
3	4.24	Chloride	110.706	22.562	2.15	123.259	BM
4	4.99	Sulfate	1586.147	1018.519	97.24	7540.230	M ^
5	15.44	Phosphate	3.749	4.989	0.48	n.a.	MB
Total:			1706.672	1047.423	100.00	7663.488	

missed peak
NV 3/27/19

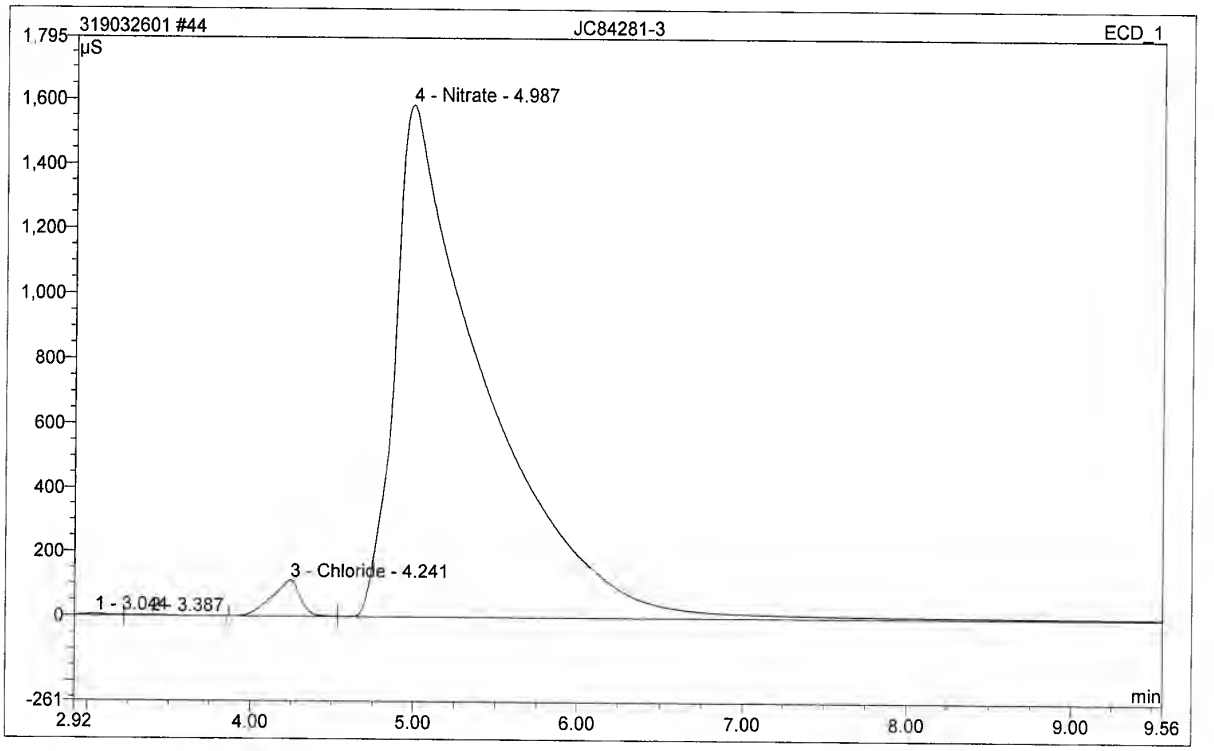
anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

44 JC84281-3

Sample Name:	**JC84281-3**	*Injection Volume:*	**20.0**
Vial Number:	**35**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 23:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



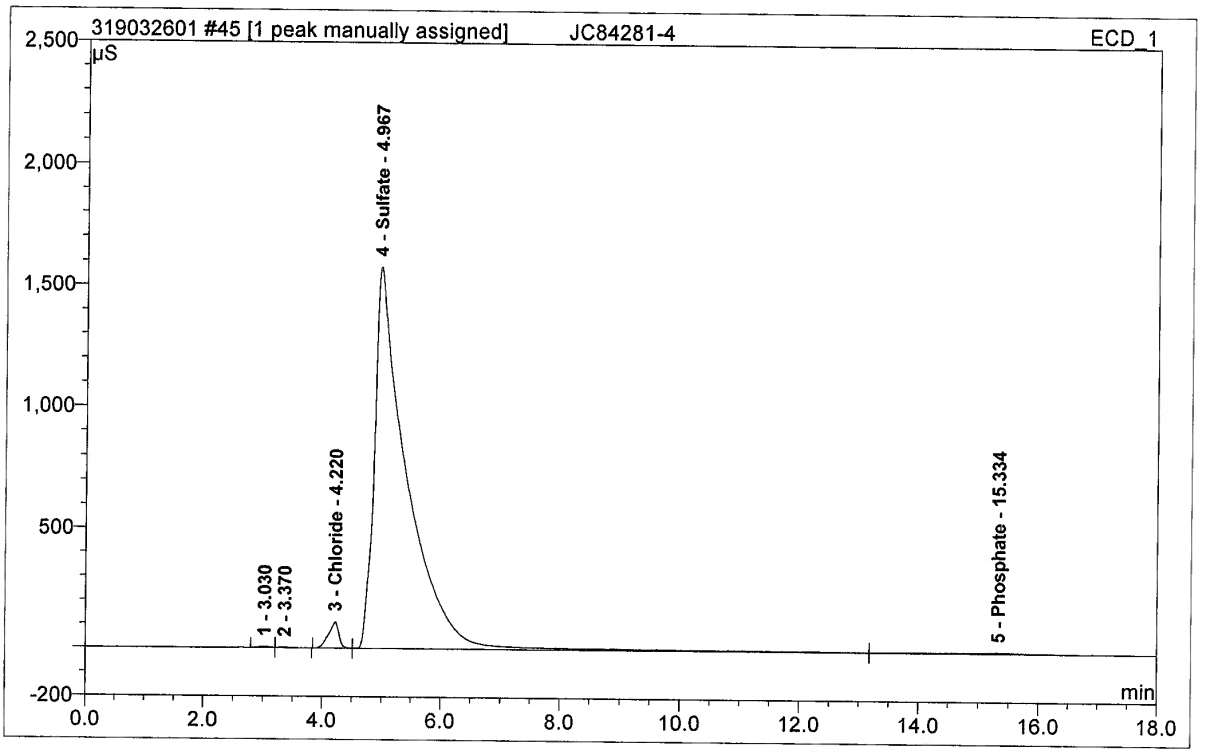
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.04	n.a.	4.352	0.912	0.09	n.a.	BM
2	3.39	n.a.	1.718	0.441	0.04	n.a.	MB
3	4.24	Chloride	110.706	22.562	2.15	123.259	BM
4	4.99	Nitrate	1586.147	1018.519	97.24	n.a.	M
5	15.44	Phosphate	3.749	4.989	0.48	n.a.	MB
Total:			1706.672	1047.423	100.00	123.259	

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

45 JC84281-4

Sample Name:	**JC84281-4**	*Injection Volume:*	**20.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 23:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.03	n.a.	4.309	0.903	0.09	n.a.	BM
2	3.37	n.a.	1.696	0.428	0.04	n.a.	MB
3	4.22	Chloride	109.879	22.367	2.13	122.201	BM
4	4.97	Sulfate	1579.818	1017.371	97.01	7531.726	M ^
5	15.33	Phosphate	5.164	7.643	0.73	n.a.	MB
Total:			1700.867	1048.712	100.00	7653.927	

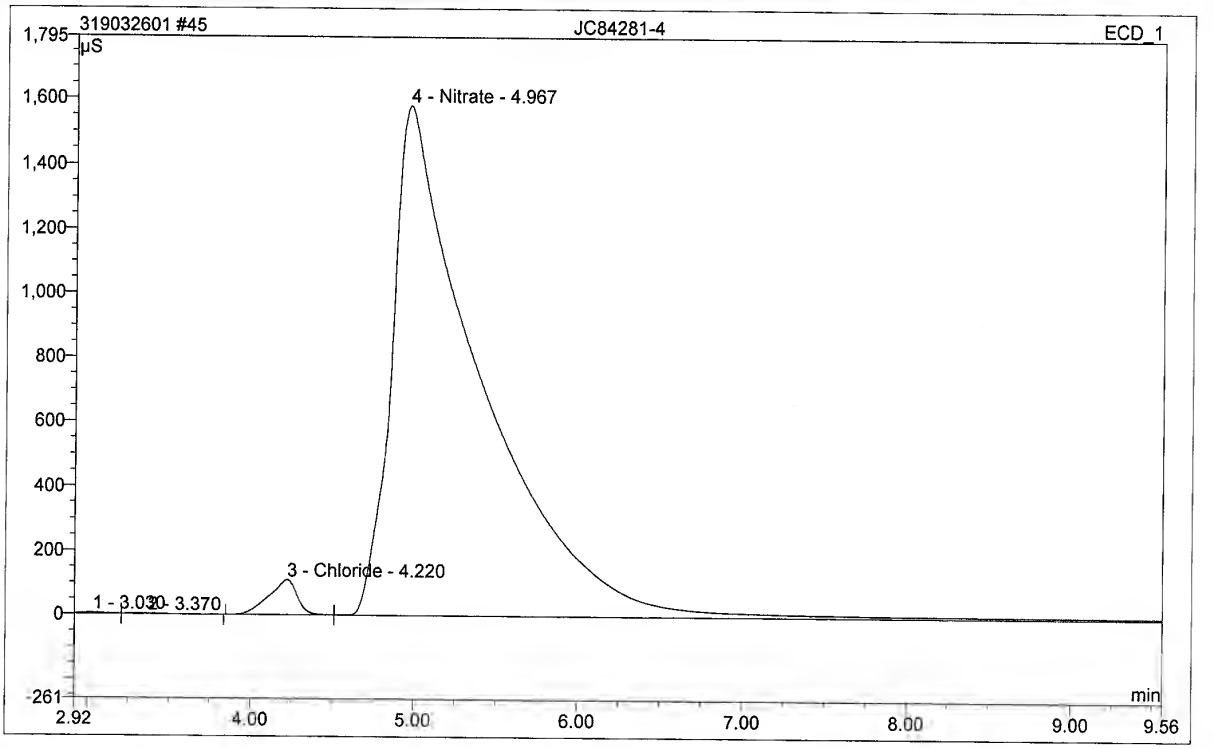
missed peak
NV 3/27/19

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

45 JC84281-4

Sample Name:	**JC84281-4**	*Injection Volume:*	**20.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/26/2019 23:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.03	n.a.	4.309	0.903	0.09	n.a.	BM
2	3.37	n.a.	1.696	0.428	0.04	n.a.	MB
3	4.22	Chloride	109.879	22.367	2.13	122.201	BM
4	4.97	Nitrate	1579.818	1017.371	97.01	n.a.	M
5	15.33	Phosphate	5.164	7.643	0.73	n.a.	MB
Total:			1700.867	1048.712	100.00	122.201	

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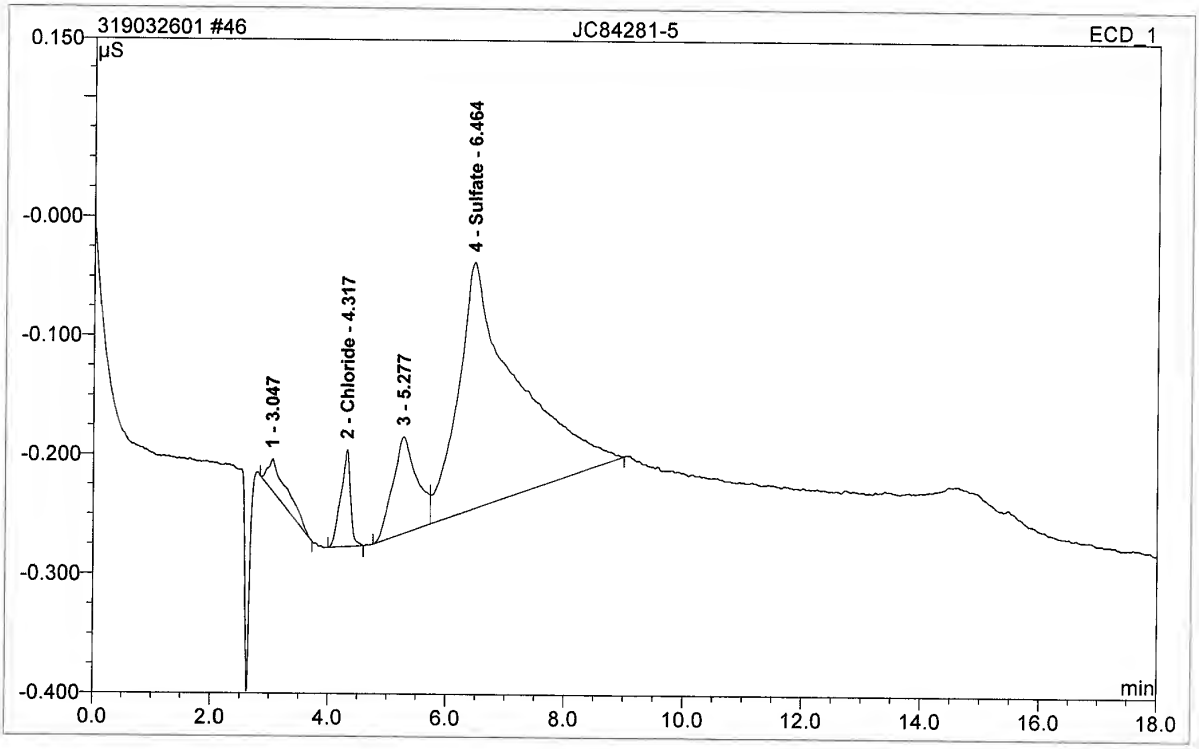
46 JC84281-5

Sample Name:	**JC84281-5**	*Injection Volume:*	**20.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 0:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.027	0.011	3.63	n.a.	BMB
2	4.32	Chloride	0.081	0.016	5.10	1.183	BMB
3	5.28	n.a.	0.082	0.039	12.77	n.a.	BM
4	6.46	Sulfate	0.208	0.239	78.50	3.188	MB
Total:			0.398	0.305	100.00	4.371	

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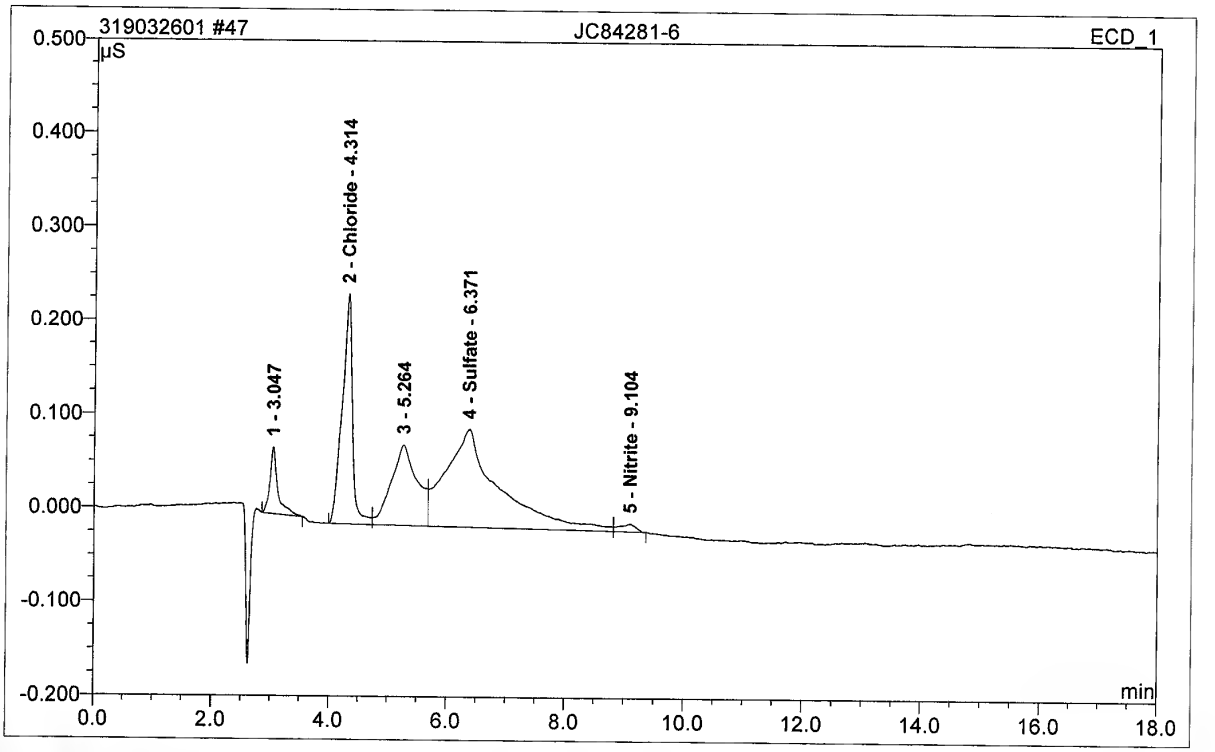
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

47 JC84281-6

Sample Name:	**JC84281-6**	*Injection Volume:*	**20.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 0:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

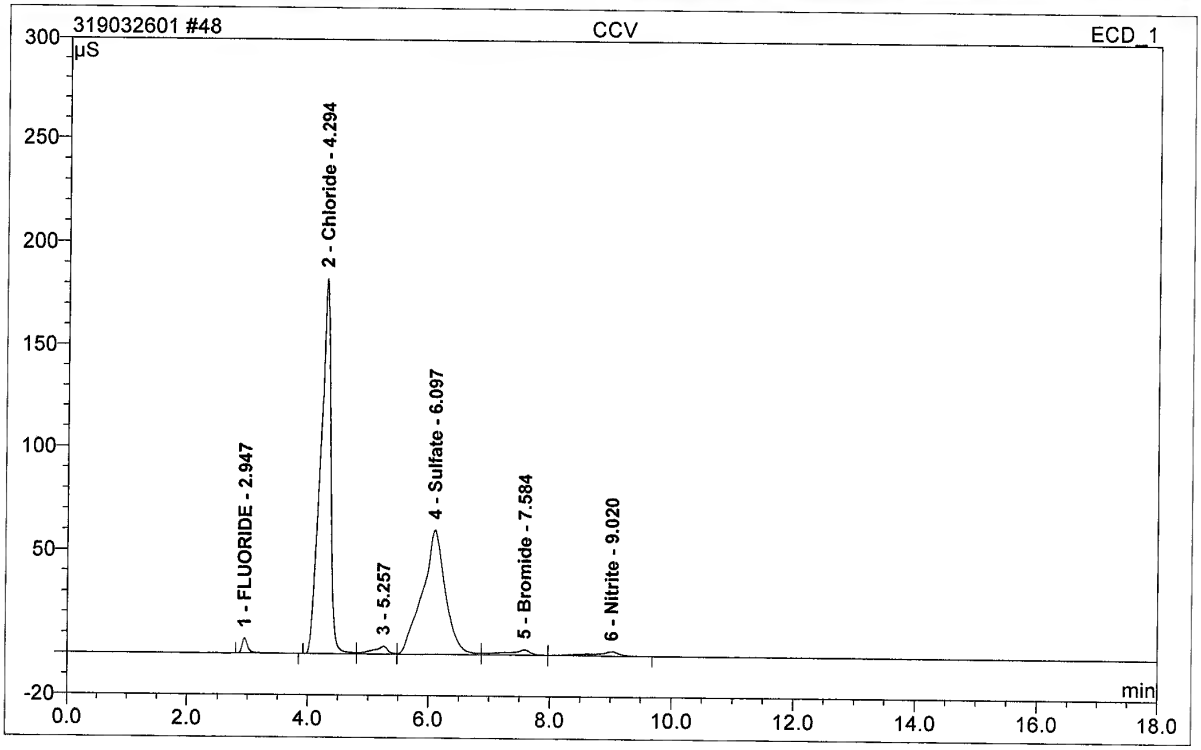


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.071	0.011	5.07	n.a.	BMB
2	4.31	Chloride	0.245	0.050	22.89	1.369	BM
3	5.26	n.a.	0.086	0.044	20.31	n.a.	M
4	6.37	Sulfate	0.104	0.110	50.47	2.230	M
5	9.10	Nitrite	0.009	0.003	1.26	0.117	MB
Total:			0.515	0.218	100.00	3.715	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

48 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**39**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 0:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	7.224	0.809	1.22	2.974	BMB
2	4.29	Chloride	182.734	35.923	53.95	195.599	BM
3	5.26	n.a.	3.910	1 137	1.71	n.a.	M
4	6.10	Sulfate	60.510	26.598	39.94	198.290	M
5	7.58	Bromide	2.558	1.138	1.71	13.773	Mb
6	9.02	Nitrite	2.087	0.986	1.48	2.595	bMB
Total:			259.023	66.591	100.00	413.230	

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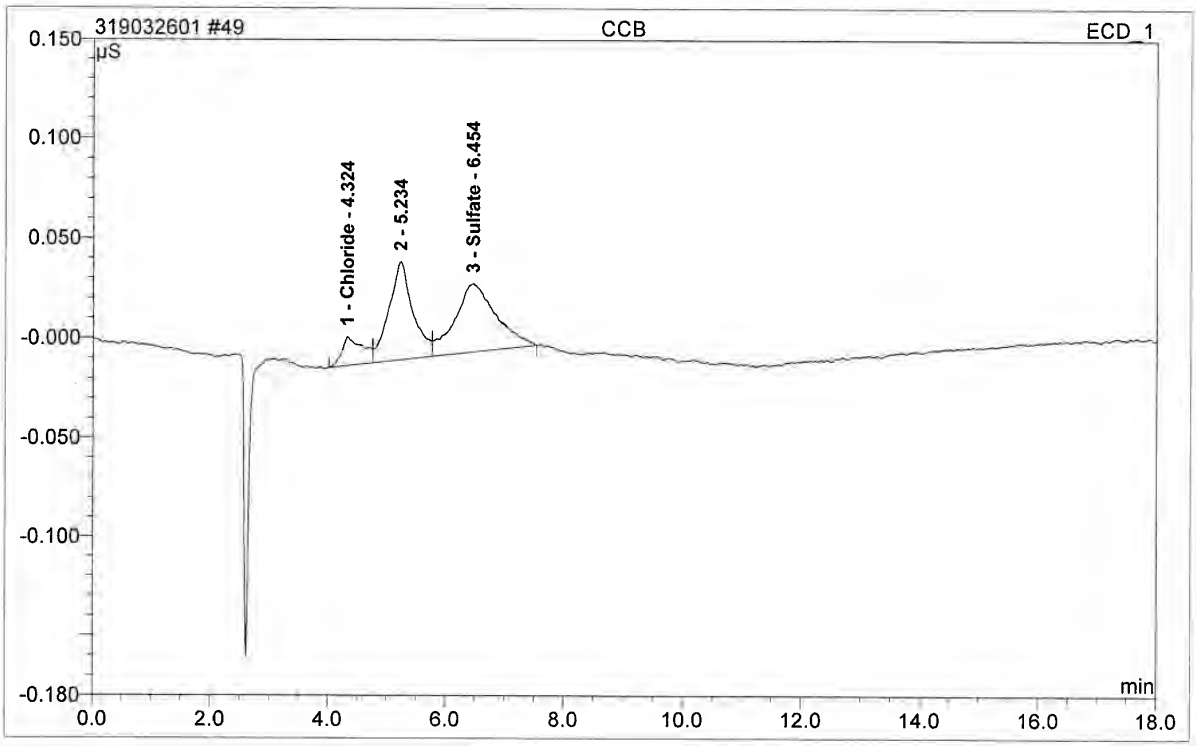
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

49 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**40**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 1:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

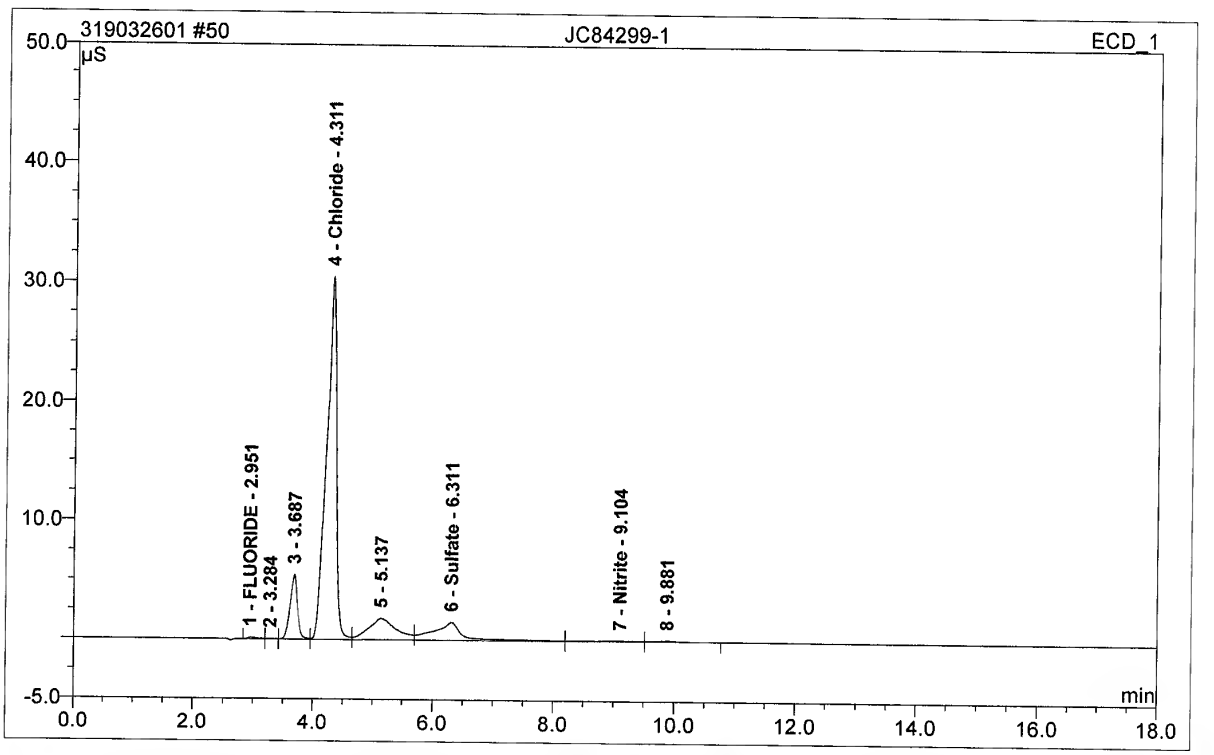


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.32	Chloride	0.014	0.006	10.20	1.130	BM
2	5.23	n.a.	0.049	0.023	41.17	n.a.	M
3	6.45	Sulfate	0.034	0.027	48.63	1.620	MB
Total:			0.097	0.056	100.00	2.750	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

50 JC84299-1

Sample Name:	**JC84299-1**	*Injection Volume:*	**20.0**
Vial Number:	**41**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method.	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 1:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	0.137	0.022	0.26	0.129	BM
2	3.28	n.a.	0.030	0.005	0.06	n.a.	M
3	3.69	n.a.	5.442	0.791	9.17	n.a.	M
4	4.31	Chloride	30.521	5.826	67.57	32.644	M
5	5.14	n.a.	1.792	0.983	11.40	n.a.	M
6	6.31	Sulfate	1.512	0.882	10.23	7.945	M
7	9.10	Nitrite	0.080	0.071	0.82	0.289	M
8	9.88	n.a.	0.096	0.042	0.49	n.a.	MB
Total:			39.611	8.622	100.00	41.006	

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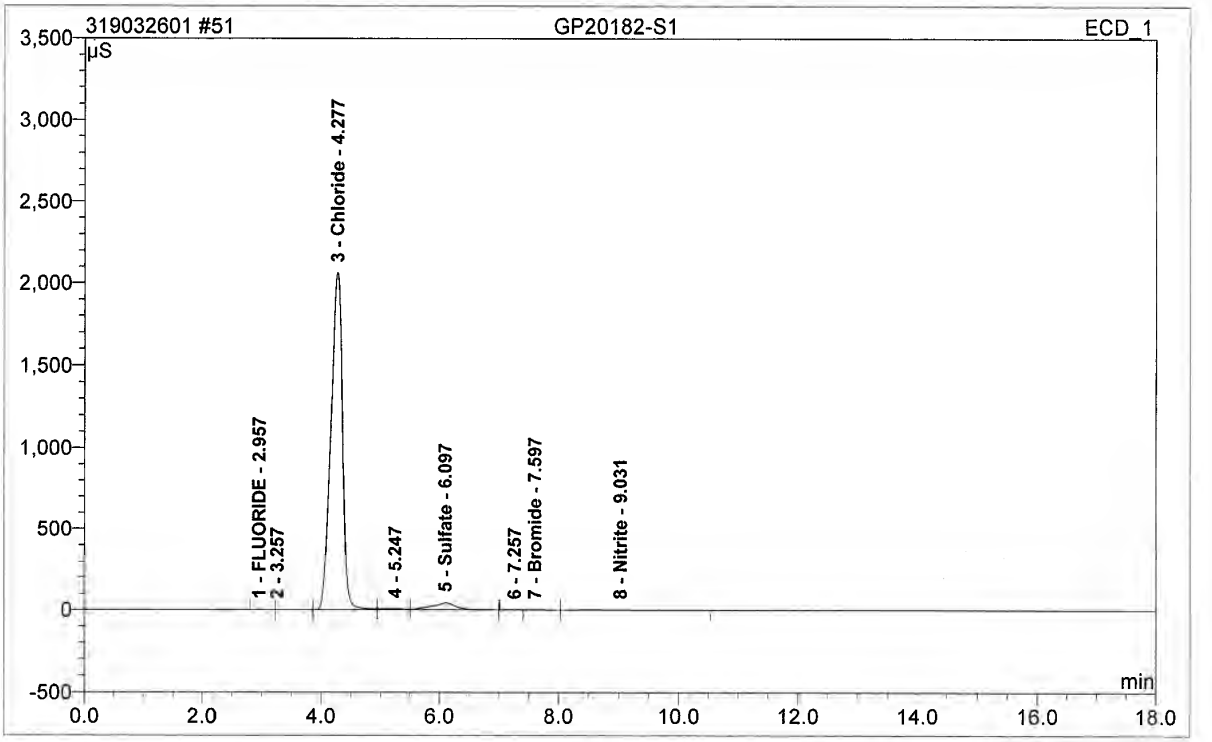
Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

51 GP20182-S1

JC83928-1A

Sample Name:	**GP20182-S1**	*Injection Volume:*	**20.0**
Vial Number:	**42**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 2:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



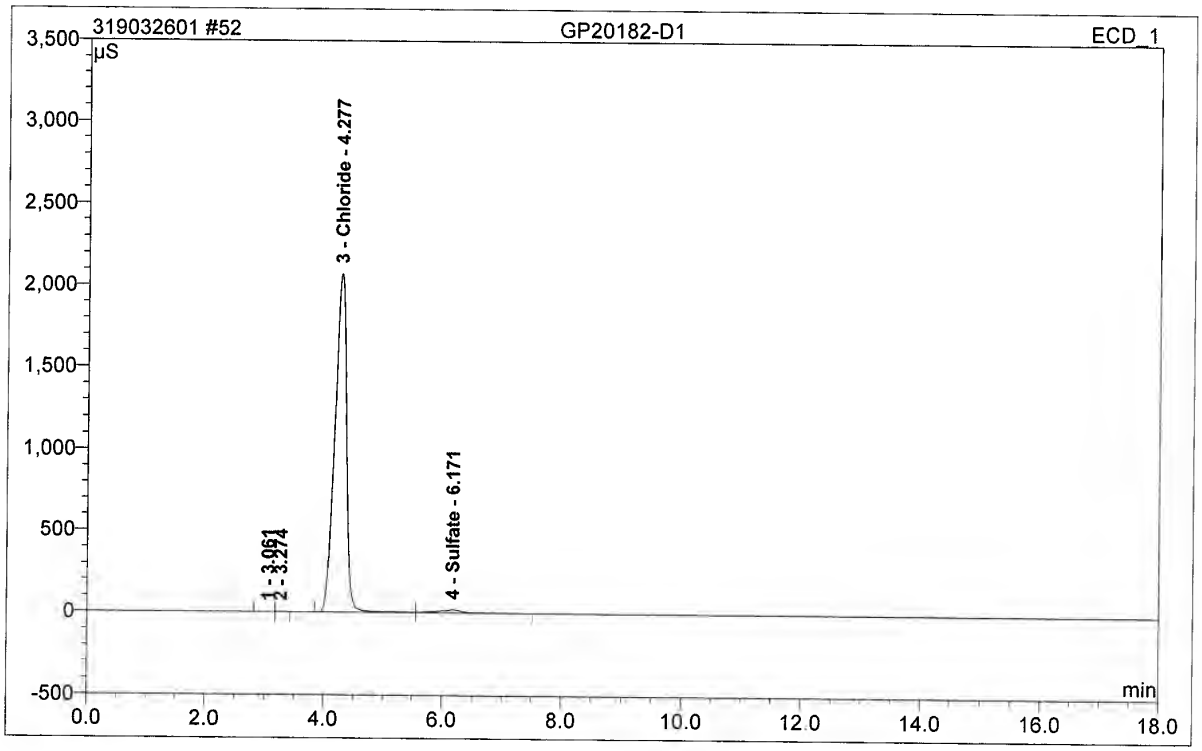
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.96	FLUORIDE	3.291	0.421	0.08	1.568	BM
2	3.26	n.a.	0.175	0.034	0.01	n.a.	MB
3	4.28	Chloride	2061.804	468.942	94.27	2540.133	BM
4	5.25	n.a.	7.754	3.558	0.72	n.a.	M
5	6.10	Sulfate	44.643	20.973	4.22	156.651	M
6	7.26	n.a.	0.044	0.010	0.00	n.a.	Ru
7	7.60	Bromide	2.072	1.585	0.32	19.090	M
8	9.03	Nitrite	2.313	1.908	0.38	4.917	MB
Total:			2122.097	497.431	100.00	2722.359	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

52 GP20182-D1

JC83928-1A

Sample Name:	**GP20182-D1**	*Injection Volume:*	**20.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 2:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	n.a.	0.117	0.021	0.00	n.a.	BM
2	3.27	n.a.	0.085	0.013	0.00	n.a.	MB
3	4.28	Chloride	2072.431	473.877	97.99	2566.853	BM
4	6.17	Sulfate	20.042	9.690	2.00	73.141	MB
Total:			2092.675	483.601	100.00	2639.993	

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Version 6.80 SR9a Build 2680 (163077)

9.3
9
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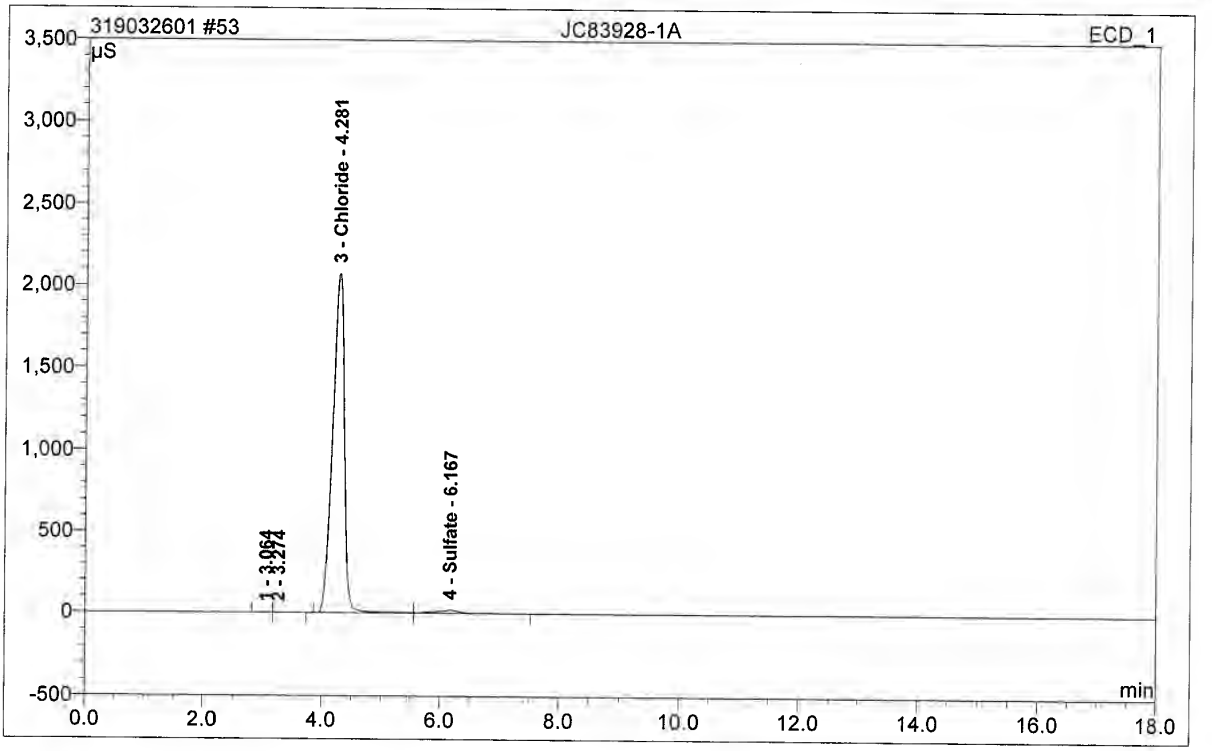
Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

53 JC83928-1A

Sample Name:	**JC83928-1A**	*Injection Volume:*	**20.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 2:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	n.a.	0.119	0.021	0.00	n.a.	BM
2	3.27	n.a.	0.087	0.014	0.00	n.a.	MB
3	4.28	Chloride	2074.235	474.718	98.00	2571.406	BM
4	6.17	Sulfate	19.980	9.660	1.99	72.918	MB
Total:			2094.420	484.413	100.00	2644.324	

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anionssystem3/Integration

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No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	4.238	0.634	0.18	2.339	BM
2	3.27	n.a.	0.376	0.063	0.02	n.a.	MB
3	4.27	Chloride	1550.207	324.611	89.93	1758.669	BM
4	5.25	n.a.	7.230	3.201	0.89	n.a.	M
5	6.04	Sulfate	61.380	27.224	7.54	202.918	M
6	7.28	n.a.	0.043	0.008	0.00	n.a.	Ru
7	7.60	Bromide	1.241	0.667	0.18	8.176	Mb
8	8.93	Nitrite	9.024	4.568	1.27	11.619	bMB
Total:			1633.738	360.976	100.00	1983.720	

54 GP20182-S2

JC83928-2A

Sample Name:	**GP20182-S2**	*Injection Volume:*	**20.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantit. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 3:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:31903260l

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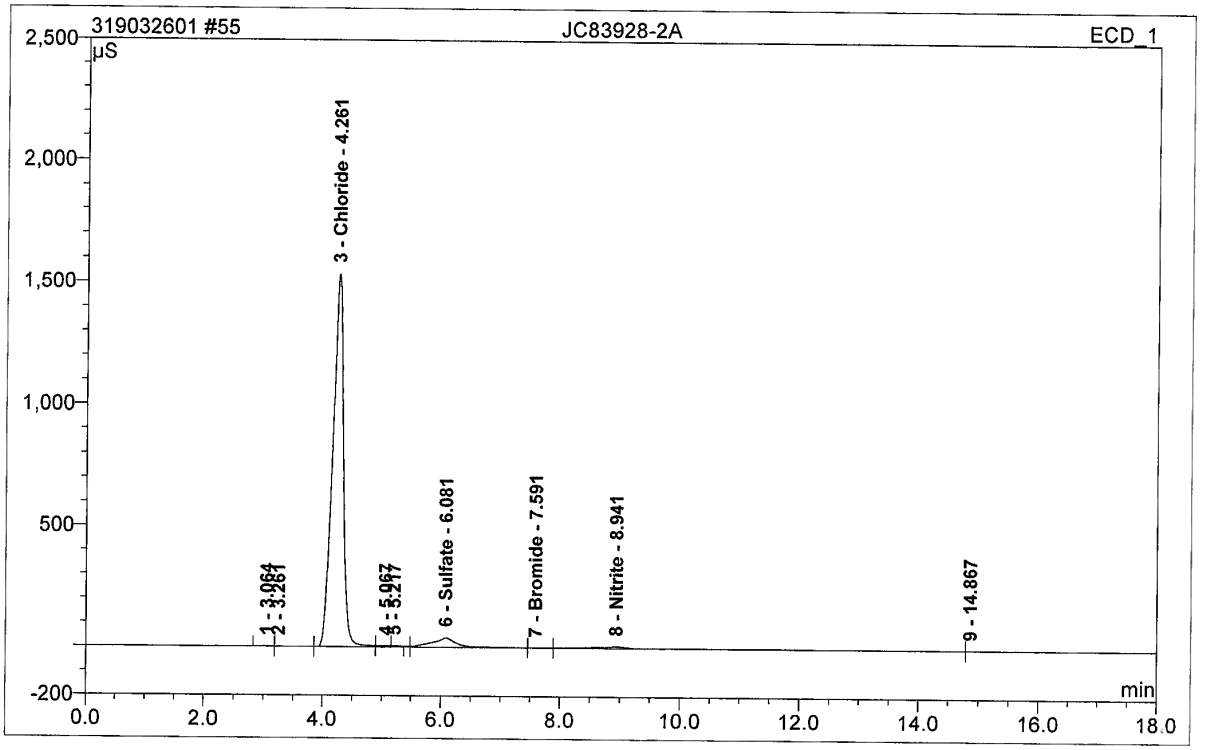
3/27/2019 3:34 PM

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

55 JC83928-2A

Sample Name:	**JC83928-2A**	*Injection Volume:*	**20.0**
Vial Number:	**46**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 3:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	n.a.	0.975	0.133	0.04	n.a.	BM
2	3.26	n.a.	0.326	0.054	0.02	n.a.	M
3	4.26	Chloride	1535.205	320.986	91.55	1739.041	M
4	5.07	n.a.	5.456	2.643	0.75	n.a.	M
5	5.22	n.a.	0.551	0.081	0.02	n.a.	Rd
6	6.08	Sulfate	39.612	18.996	5.42	142.018	M
7	7.59	Bromide	1.277	0.484	0.14	6.006	M
8	8.94	Nitrite	8.189	6.774	1.93	17.176	M
9	14.87	n.a.	0.166	0.447	0.13	n.a.	MB
Total:			1591.756	350.597	100.00	1904.241	

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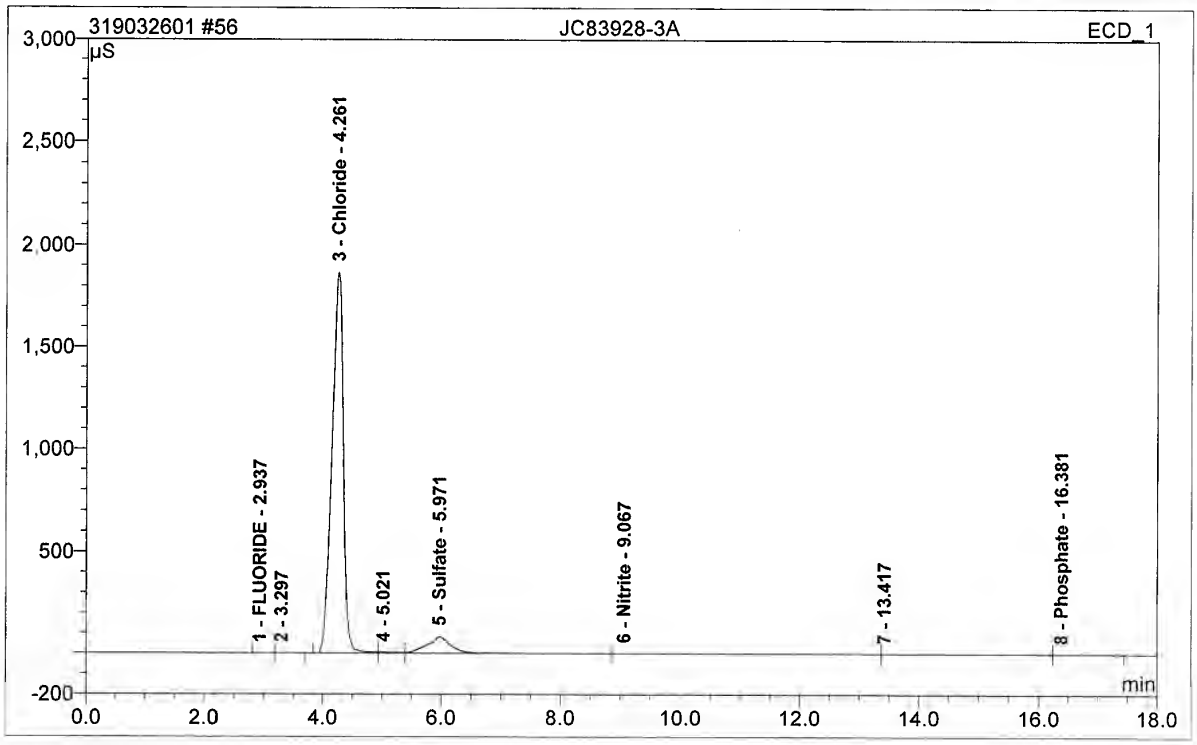
56 JC83928-3A

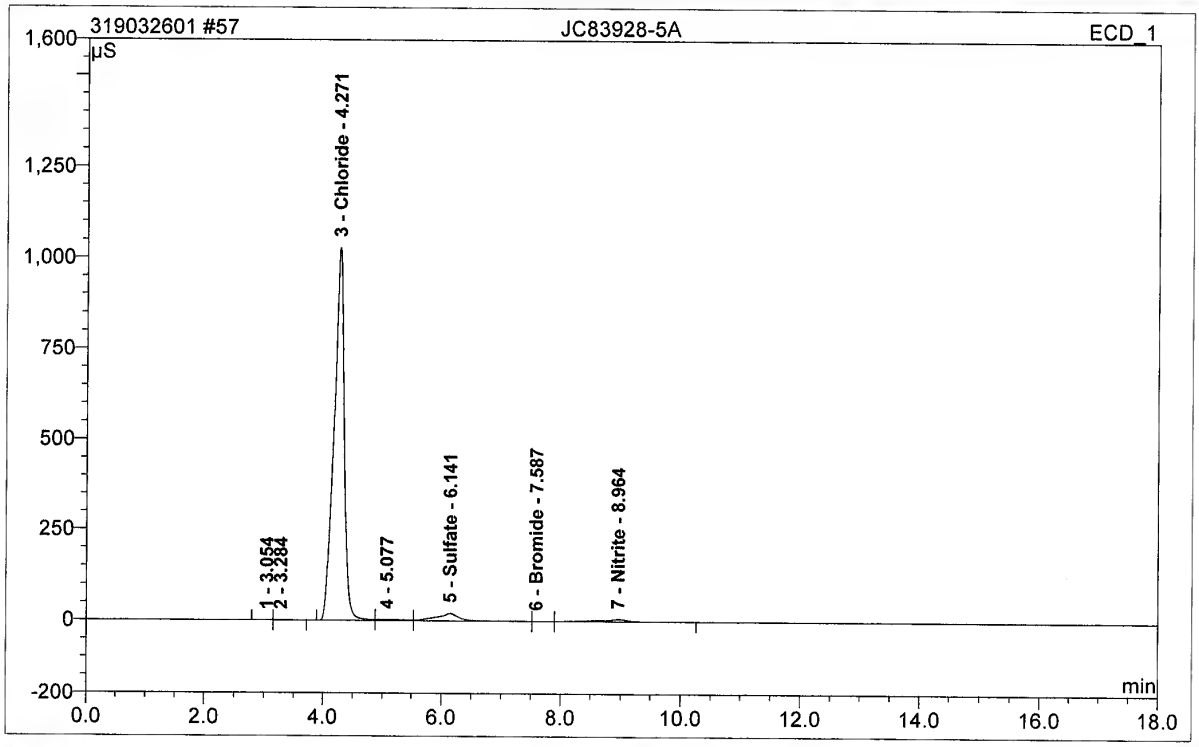
Sample Name:	**JC83928-3A**	*Injection Volume:*	**20.0**
Vial Number:	**47**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 4:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.94	FLUORIDE	0.070	0.013	0.00	0.097	BM
2	3.30	n.a.	0.030	0.006	0.00	n.a.	MB
3	4.26	Chloride	1866.561	411.932	90.52	2231.456	BM
4	5.02	n.a.	5.659	2.281	0.50	n.a.	M
5	5.97	Sulfate	82.702	39.334	8.64	292.559	M
6	9.07	Nitrite	0.783	1.286	0.28	3.349	M
7	13.42	n.a.	0.112	0.182	0.04	n.a.	M
8	16.38	Phosphate	0.026	0.017	0.00	n.a.	MB
Total:			1955.942	455.051	100.00	2527.462	

57 JC83928-5A

Sample Name:	**JC83928-5A**	*Injection Volume:*	**20.0**
Vial Number:	**48**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 4:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.066	0.013	0.01	n.a.	BM
2	3.28	n.a.	0.115	0.018	0.01	n.a.	MB
3	4.27	Chloride	1027.679	204.070	92.85	1106.012	BM
4	5.08	n.a.	3.621	1.889	0.86	n.a.	M
5	6.14	Sulfate	20.929	9.790	4.45	73.880	M
6	7.59	Bromide	0.508	0.165	0.08	2.213	M
7	8.96	Nitrite	7.075	3.839	1.75	9.782	MB
Total:			1059.993	219.784	100.00	1191.887	

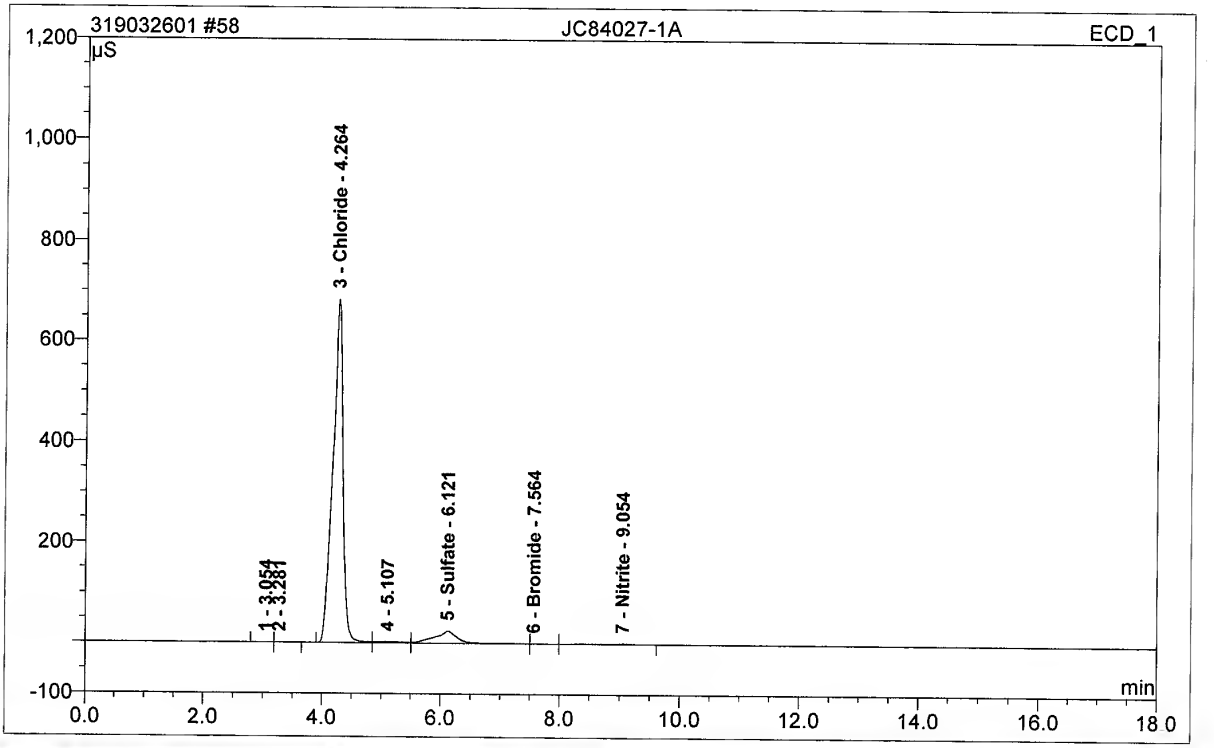
anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

58 JC84027-1A

Sample Name:	**JC84027-1A**	*Injection Volume:*	**20.0**
Vial Number:	**49**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 4:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.087	0.017	0.01	n.a.	BM
2	3.28	n.a.	0.032	0.006	0.00	n.a.	MB
3	4.26	Chloride	683.212	134.410	91.52	728.848	BM
4	5.11	n.a.	2.396	1.263	0.86	n.a.	M
5	6.12	Sulfate	24.180	10.623	7.23	80.043	M
6	7.56	Bromide	0.162	0.040	0.03	0.725	Mb
7	9.05	Nitrite	1.045	0.505	0.34	1.382	bMB
Total:			711.115	146.863	100.00	810.998	

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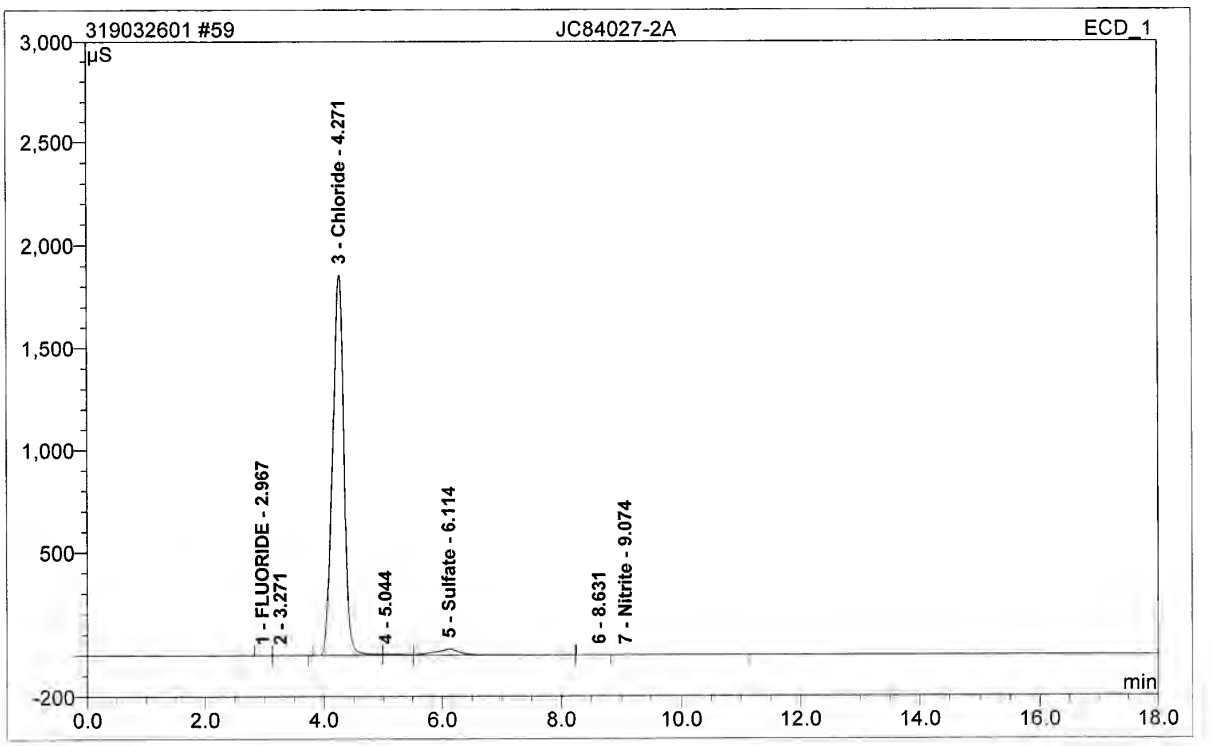
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

59 JC84027-2A

Sample Name:	**JC84027-2A**	*Injection Volume:*	**20.0**
Vial Number:	**50**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 5:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



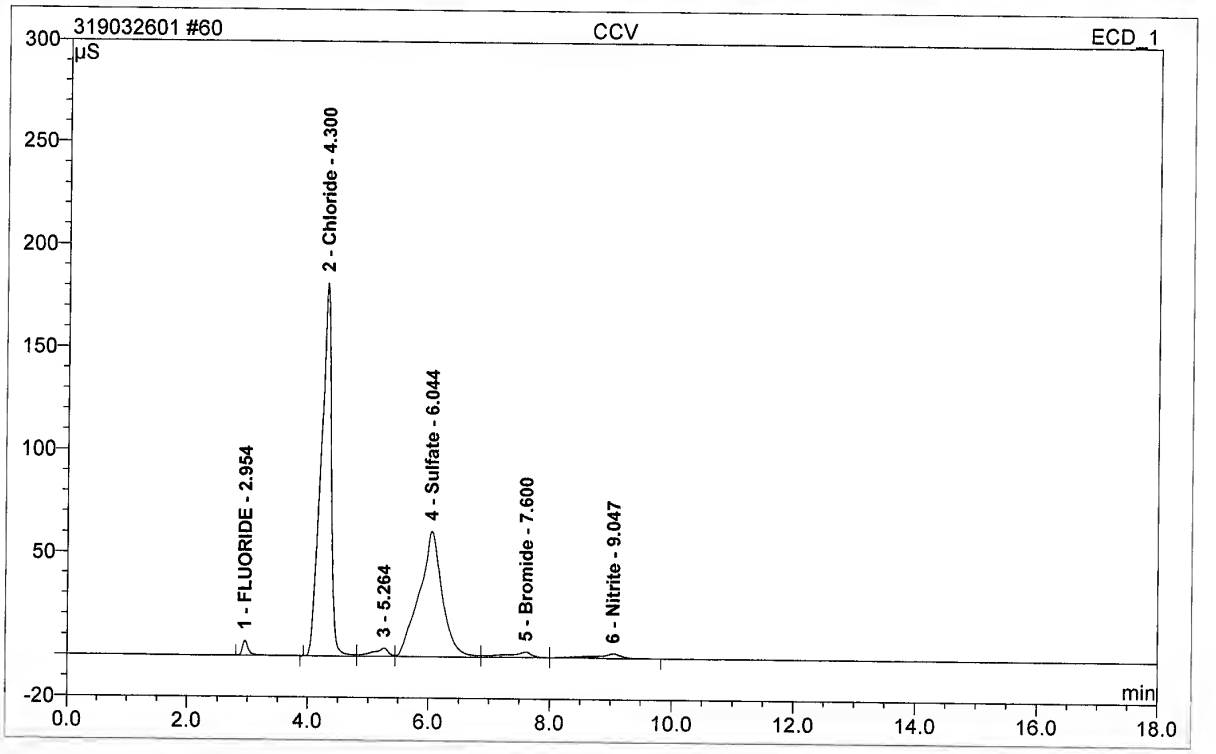
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.97	FLUORIDE	0.070	0.013	0.00	0.097	BM
2	3.27	n.a.	0.216	0.034	0.01	n.a.	MB
3	4.27	Chloride	1855.723	409.410	95.37	2217.802	BM
4	5.04	n.a.	5.920	2.551	0.59	n.a.	M
5	6.11	Sulfate	31.699	16.265	3.79	121.807	M
6	8.63	n.a.	0.025	0.007	0.00	n.a.	Ru
7	9.07	Nitrite	0.847	1.019	0.24	2.677	MB
Total:			1894.501	429.299	100.00	2342.383	

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

60 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength.*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 5:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



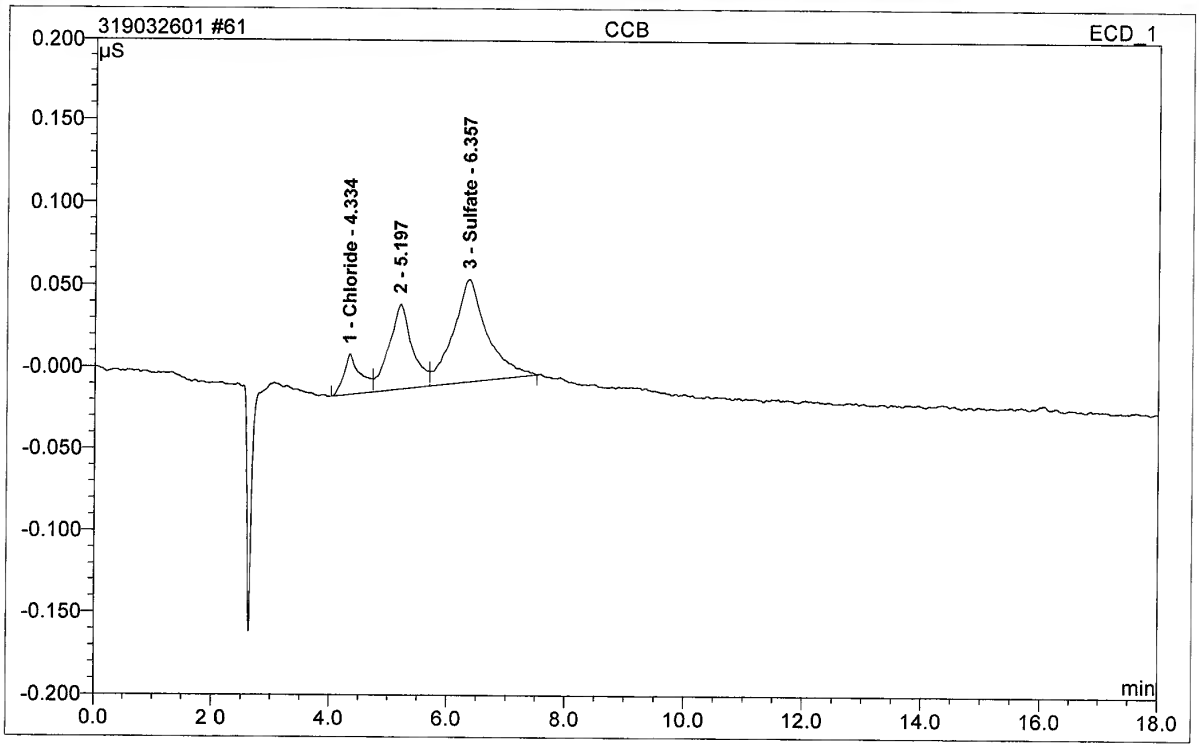
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	7.225	0.813	1.22	2.987	BMB
2	4.30	Chloride	181.638	35.981	53.92	195.914	BM
3	5.26	n.a.	3.928	1.149	1.72	n.a.	M
4	6.04	Sulfate	61.179	26.643	39.93	198.619	M
5	7.60	Bromide	2.548	1.146	1.72	13.869	Mb
6	9.05	Nitrite	2.068	0.999	1.50	2.628	bMB
Total:			258.587	66.731	100.00	414.017	

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

61 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 6:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.33	Chloride	0.024	0.008	10.93	1.143	BM
2	5.20	n.a.	0.052	0.024	32.61	n.a.	M
3	6.36	Sulfate	0.062	0.042	56.45	1.724	MB
Total:			0.138	0.074	100.00	2.867	

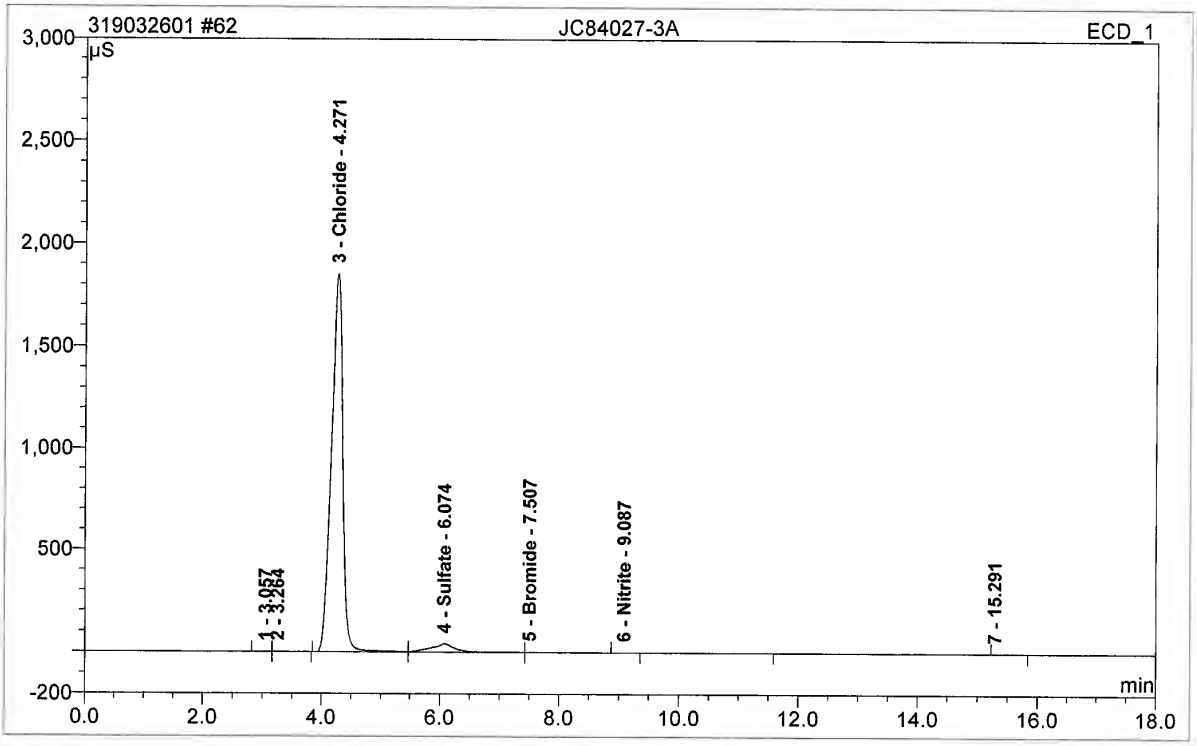
anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

62 JC84027-3A

Sample Name:	**JC84027-3A**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 6:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	n.a.	0.596	0.089	0.02	n.a.	BM
2	3.26	n.a.	0.392	0.061	0.01	n.a.	MB
3	4.27	Chloride	1851.099	409.884	94.85	2220.369	BM
4	6.07	Sulfate	40.396	19.953	4.62	149.103	M
5	7.51	Bromide	1.362	2.080	0.48	24.975	MB
6	9.09	Nitrite	0.238	0.054	0.01	0.247	Rd
7	15.29	n.a.	0.004	0.003	0.00	n.a.	BMB
Total:			1894.087	432.126	100.00	2394.694	

anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

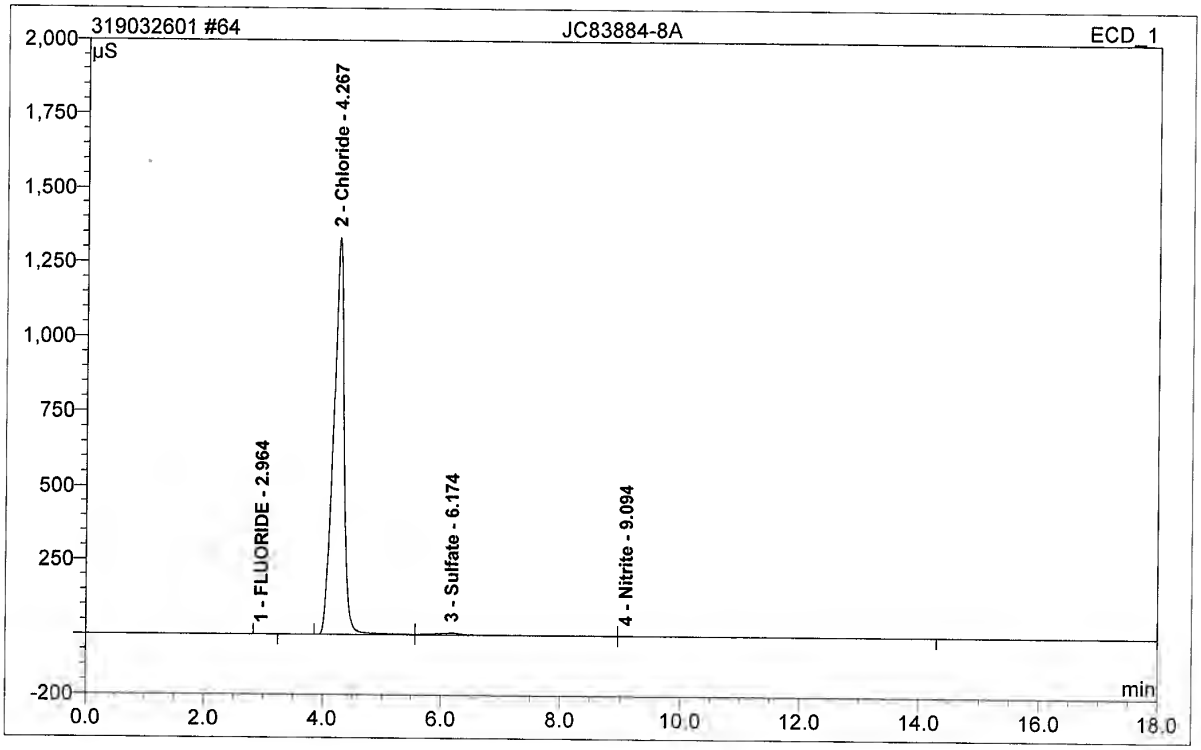
63 JC84027-4A

Sample Name:	**JC84027-4A**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantit. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 6:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.07	n.a.	2.075	0.283	0.08	n.a.	BM
2	3.27	n.a.	2.849	0.414	0.11	n.a.	MB
3	4.27	Chloride	1609.725	342.671	94.91	1856.454	BM
4	5.24	n.a.	4.362	1.101	0.30	n.a.	M
5	6.11	Sulfate	24.860	11.378	3.15	85.631	MB
6	7.59	Bromide	0.076	0.014	0 00	0.420	BMB
7	8.93	Nitrite	9.953	5.187	1.44	13.179	BMB
Total:			1653.900	361.049	100.00	1955.684	

64 JC83884-8A

Sample Name:	**JC83884-8A**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 7:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.96	FLUORIDE	0.048	0.009	0.00	0.083	BMB
2	4.27	Chloride	1331.919	274.927	97.71	1489.658	BM
3	6.17	Sulfate	7.590	5.592	1.99	42.804	M
4	9.09	Nitrite	0.439	0.841	0.30	2.228	MB
Total:			1339.996	281.369	100.00	1534.774	

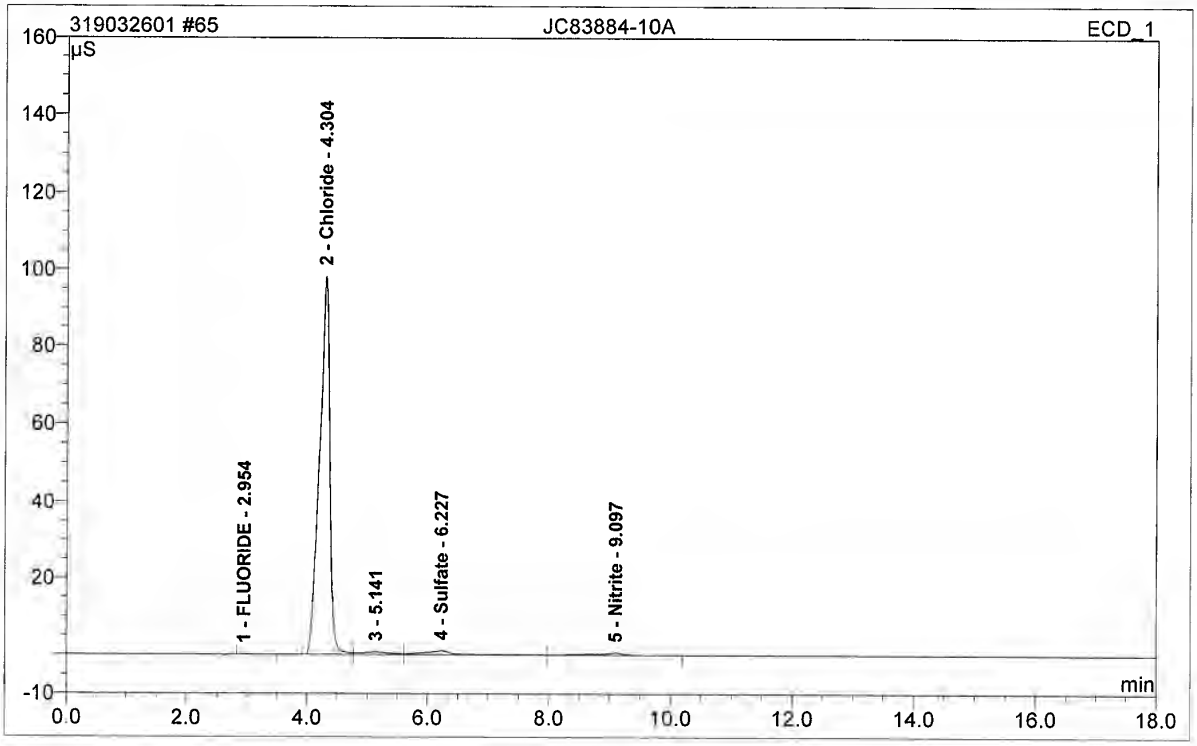
anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6 80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

65 JC83884-10A

Sample Name:	**JC83884-10A**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time.	**3/27/2019 7:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	0.118	0.017	0.08	0.112	BMB
2	4.30	Chloride	98.188	19.394	93.25	106.105	BM
3	5.14	n.a.	0.691	0.409	1.97	n.a.	M
4	6.23	Sulfate	1.069	0.628	3.02	6.063	M
5	9.10	Nitrite	0.627	0.350	1.68	0.993	MB
Total:			100.692	20.799	100.00	113.273	

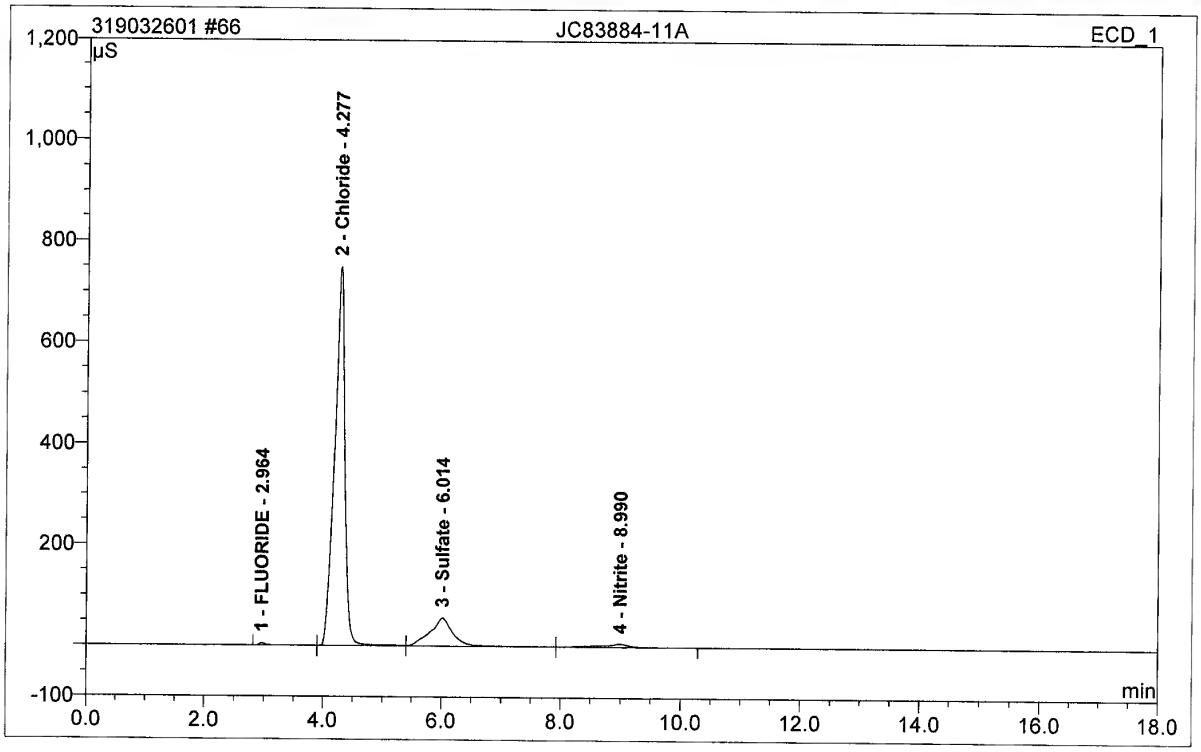
anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

66 JC83884-11A

Sample Name:	**JC83884-11A**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 8:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.96	FLUORIDE	4.687	0.558	0.31	2.065	BM
2	4.28	Chloride	749.363	148.836	83.47	806.953	M
3	6.01	Sulfate	55.796	25.275	14.17	188.497	M
4	8.99	Nitrite	6.690	3.642	2.04	9.286	MB
Total:			816.537	178.311	100.00	1006.800	

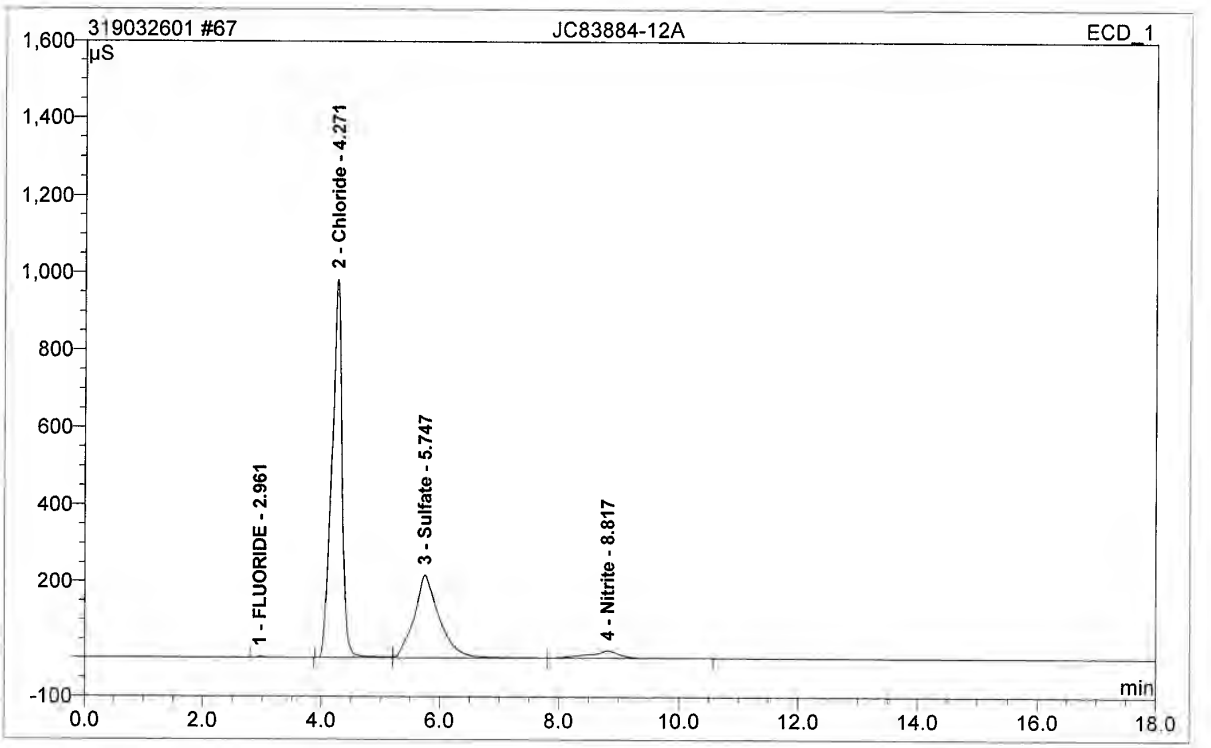
anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

67 JC83884-12A

Sample Name:	**JC83884-12A**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 8:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



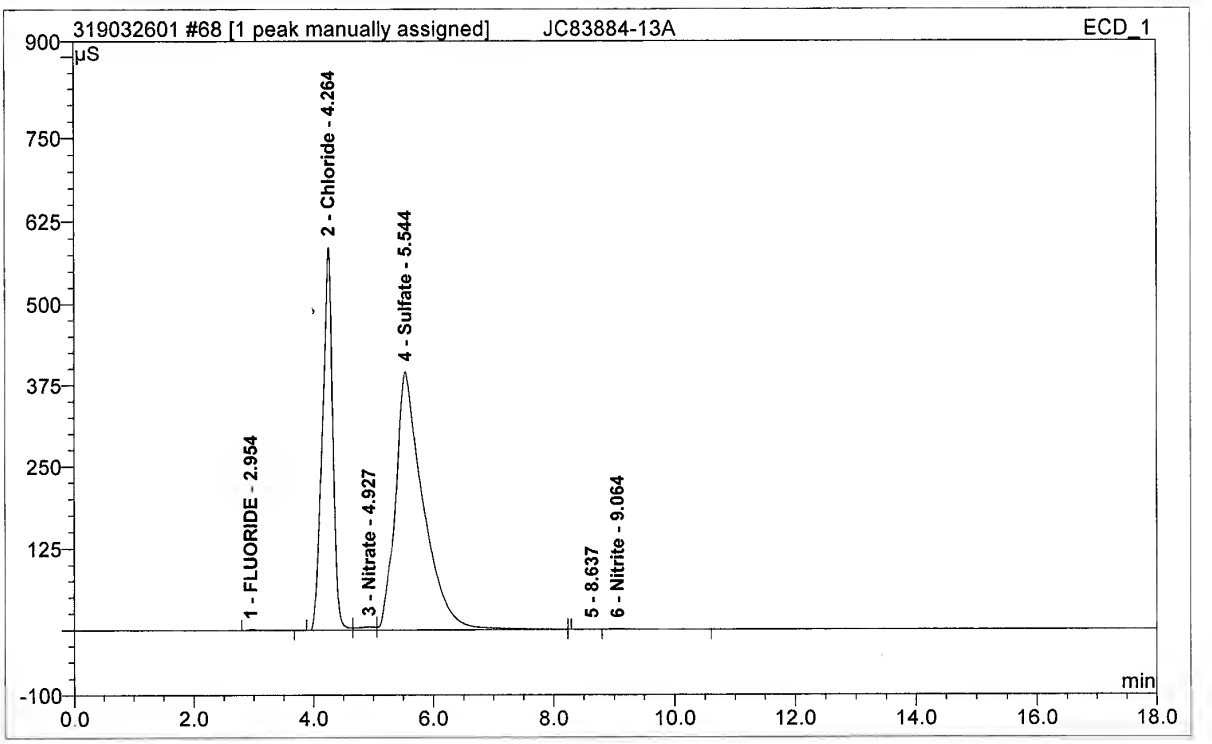
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.96	FLUORIDE	2.446	0.315	0.10	1.187	BMB
2	4.27	Chloride	982.063	196.171	62.38	1063.245	BM
3	5.75	Sulfate	216.965	106.236	33.78	787.749	M
4	8.82	Nitrite	20.053	11.772	3.74	29.769	MB
Total:			1221.527	314.494	100.00	1881.951	

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

68 JC83884-13A

Sample Name:	**JC83884-13A**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 9:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	1.175	0.158	0.05	0.619	BMB
2	4.26	Chloride	586.137	116.458	35.28	631.649	BM
3	4.93	Nitrate	4.804	1.654	0.50	n.a.	M
4	5.54	Sulfate	395.434	211.024	63.92	1563.361	M ^
5	8.64	n.a.	0.030	0.008	0.00	n.a.	Ru
6	9.06	Nitrite	0.933	0.842	0.25	2.231	MB
Total:			988.514	330.143	100.00	2197.860	

missed peak
3/27/19

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	1.175	0.158	0.05	0.619	BMB
2	4.26	Chloride	586.137	116.458	35.28	631.649	BM
3	4.93	Nitrate	4.804	1.654	0.50	n.a.	M
4	5.54	n.a.	395.434	211.024	63.92	n.a.	M
5	8.64	n.a.	0.030	0.008	0.00	n.a.	Ru
6	9.06	Nitrite	0.933	0.842	0.25	2.231	MB
Total:			988.514	330.143	100.00	634.499	

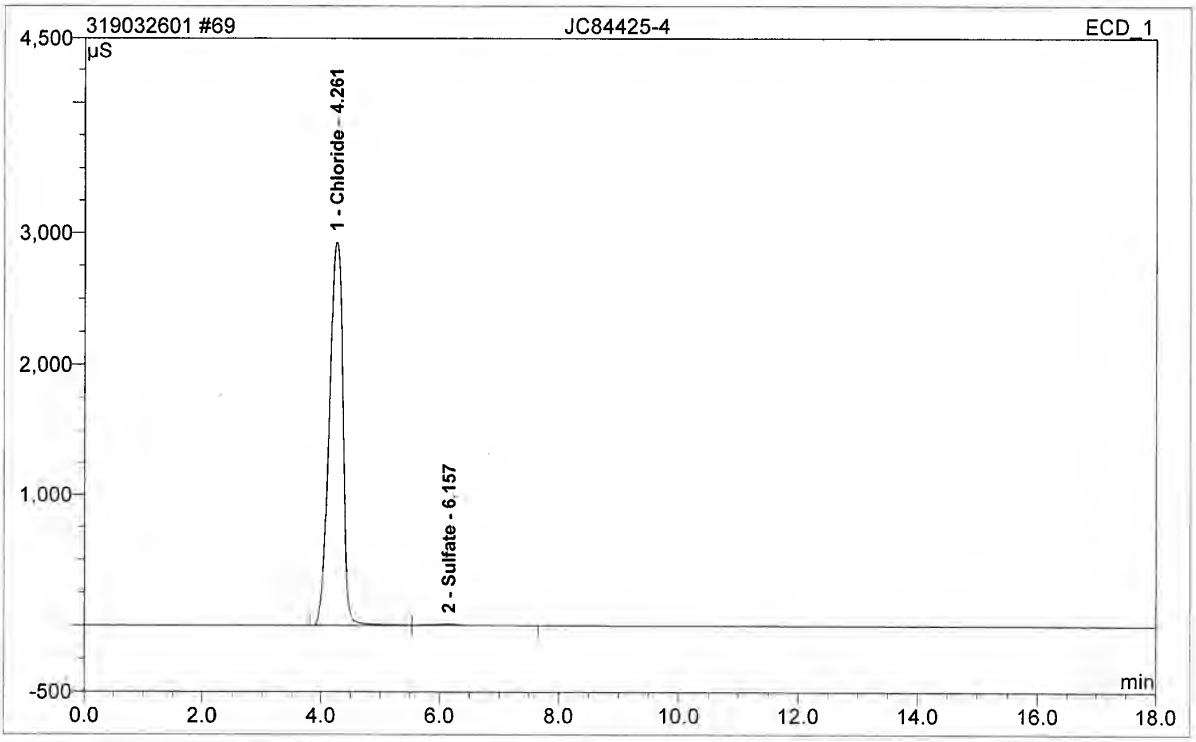
68 JC83884-13A			
Sample Name:	**JC83884-13A**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantit. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 9:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:31903260l

Page 1-1
3/27/2019 4:06 PM

69 JC84425-4

Sample Name:	**JC84425-4**	*Injection Volume:*	**20.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**3/27/2019 9:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.26	Chloride	2931.127	780.463	99.07	42268.252	BM
2	6.16	Sulfate	11.898	7.308	0.93	555.069	MB
Total:			2943.025	787.771	100.00	42823.321	

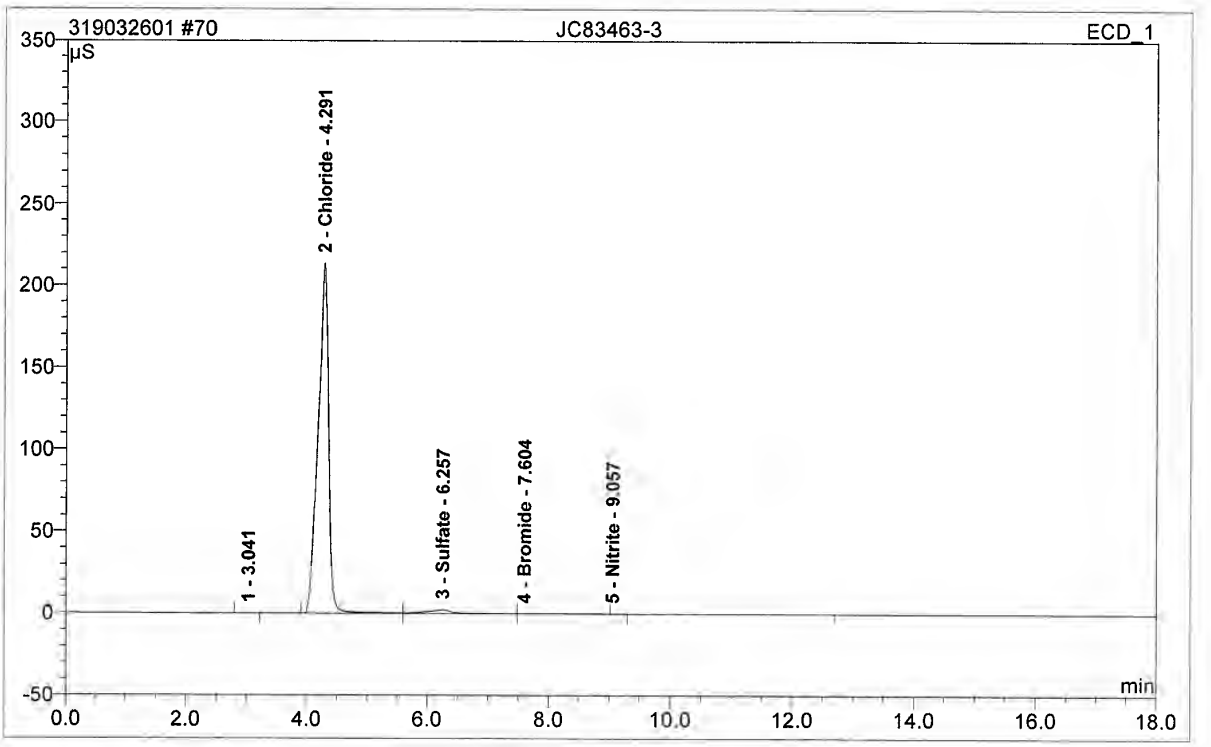
anionssystem3/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

70 JC83463-3

Sample Name:	**JC83463-3**	*Injection Volume:*	**20.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**500.0000**
Recording Time:	**3/27/2019 10:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

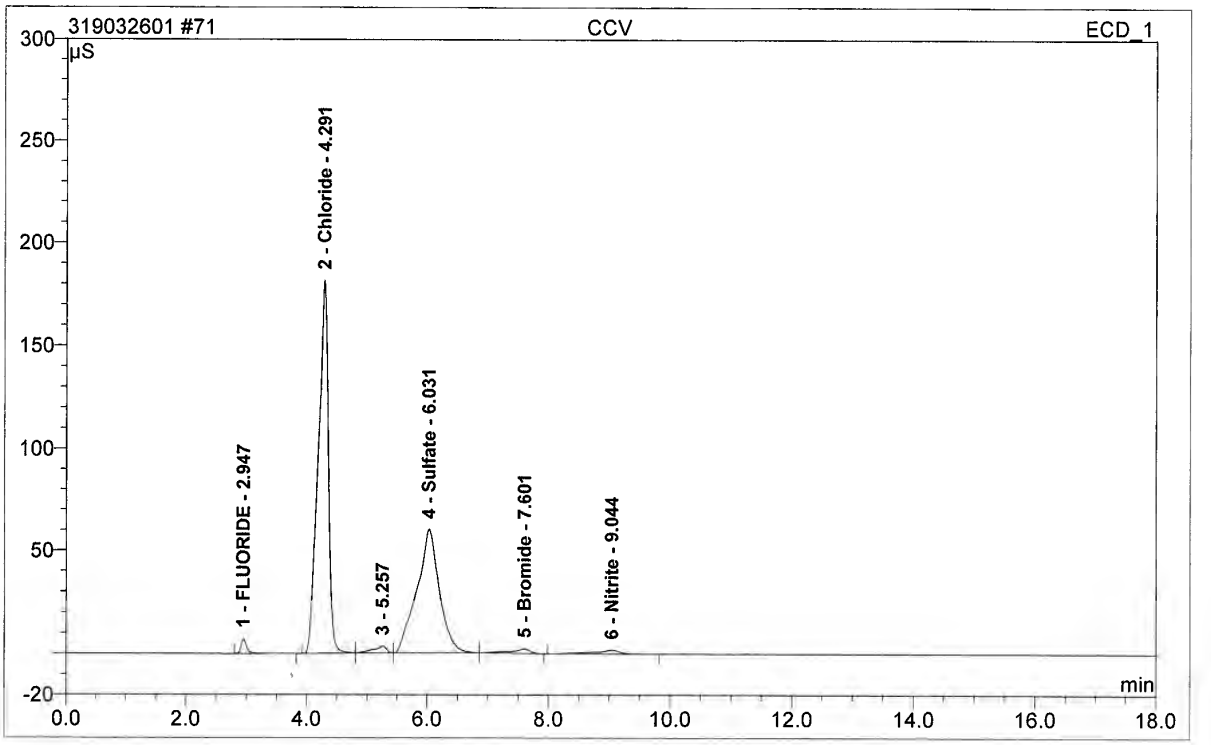


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.04	n.a.	0.020	0.003	0.01	n.a.	BMB
2	4.29	Chloride	213.463	43.225	96.39	117567.915	BM
3	6.26	Sulfate	2.377	1.305	2.91	5537.639	M
4	7.60	Bromide	0.168	0.311	0.69	1973.459	MB
5	9.06	Nitrite	0.002	0.001	0.00	55.579	Rd
Total:			216.030	44.845	100.00	125134.593	

Operator:chemistry Timebase:ACCUTEST_SYS#3 Sequence:319032601

71 CCV

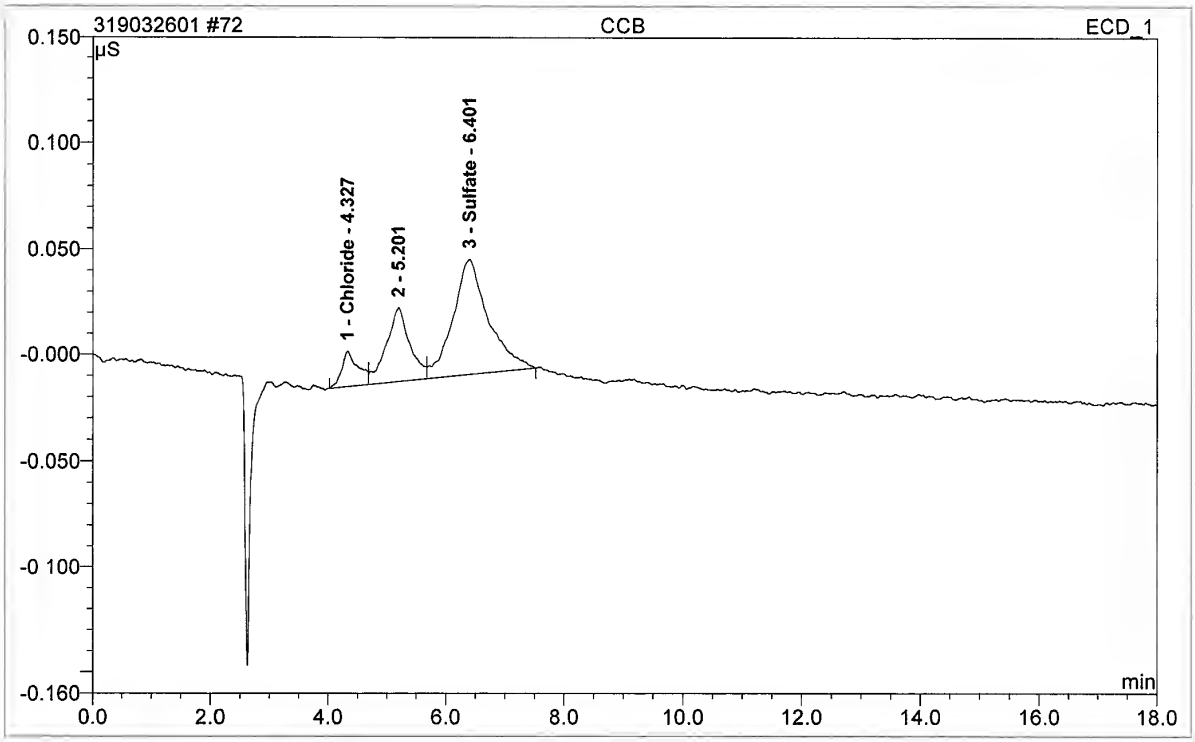
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 10:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.95	FLUORIDE	7.196	0.785	1.21	2.887	BMB
2	4.29	Chloride	181.531	35.705	55.06	194.418	BM
3	5.26	n.a.	3.403	0.888	1.37	n.a.	Mb
4	6.03	Sulfate	60.173	25.761	39.72	192.091	bMb
5	7.60	Bromide	2.229	0.776	1.20	9.475	bMB
6	9.04	Nitrite	1.943	0.935	1.44	2.466	BMB
Total:			256.474	64.850	100.00	401.336	

72 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**3/27/2019 11:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.33	Chloride	0.017	0.005	9.07	1.128	BM
2	5.20	n.a.	0.035	0.016	27.49	n.a.	M
3	6.40	Sulfate	0.055	0.038	63.44	1.697	MB
Total:			0.106	0.060	100.00	2.825	

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL), Devens, MA

AC001.M01.05

SGS Job Number: JC85918

Sampling Date: 04/05/19



Report to:

Sovereign Consulting
9 Payson Road Suite 150
Foxborough, MA 02035
SPassafaro@SovCon.com

ATTN: Steve Passafaro

Total number of pages in report: **210**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: JC85918

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01.05

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC85918-1	04/05/19	10:45	JWR	04/06/19	AQ	Effluent	EFFLUENT 4-5-19

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Sovereign Consulting	**Job No**	JC85918
Site:	Shepley's Hill (SHL), Devens, MA	**Report Date**	4/15/2019 5:06:36 PM

On 04/06/2019, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC85918 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP14084

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC85918-1MS, JC85918-1MSD, JC85918-1PS, JC85918-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic are outside control limits for sample MP14084-SD1. Serial dilution indicates possible matrix interference.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC85918
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 04/05/19

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC85918-1	**EFFLUENT 4-5-19**					
Arsenic		35.0	3.0	2.0	ug/l	SW846 6020B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: EFFLUENT 4-5-19
Lab Sample ID: JC85918-1
Matrix: AQ - Effluent
Project: Shepley's Hill (SHL), Devens, MA

Date Sampled: 04/05/19
Date Received: 04/06/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	35.0	3.0	2.0	0.94	ug/l	2	04/11/19	04/12/19	ZC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA46497
(2) Prep QC Batch: MP14084

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody
- QC Evaluation: DOD QSM5 Limits

SGS

GW

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

FED-EX Tracking # 4401 7491 6463 | Bottle Order Control # |
SGS Quote # | SGS Job # JC25918

Client / Reporting Information	Project Information	Billing Information (if different from Report to)
Company Name: Sovereign Consulting Inc.	Project Name: Shepley's Hill (SHL), Devens, MA	
Street Address: 9 Payson Road, Suite 150	Street:	Company Name:
City: Foxborough State: MA Zip: 02035	City: Devens State: MA	Street Address:
Project Contact: Steve Passafaro E-mail: (spassafaro@sovcon.com)	Project #: AC001.M01	City State Zip:
Phone #: (508) 339-3200 Fax #: (	Client Purchase Order #:	Attention:
Sampler(s) Name(s): Joseph Rogers Phone #: 8572083117	Project Manager: Steve Passafaro	

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Lab Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Total As - 6020A	LAB USE ONLY
1	Effluent 4-5-19		4/5/19	10:45	JWR	GW	1			1						X	
																	A36

Turnaround Time (Business days)

Approved by (SGS Project Manager)/Date:

- [ ] Std. 10 Business Days
- [X] 5 Day RUSH - Arsenic Only
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

INITIAL ASSESSMENT 2/5

LABEL VERIFICATION

Emergency & Rush T/A data available via LabLink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [X] Other See QAPP

Commercial "A" = Results Only; Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

See Project QAPP for all specfic project requirements
5 - Day rush on Arsenic

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		4/5/19 12:40	1	2	4/5/19 1630	2 FEDEX
3	Relinquished by Sampler: FEDEX	Date Time: 4	Received By: 3	Relinquished By: 4	Date Time: 4/6/19 6945	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal # 070767 ☐ Intact ☐ Not intact	Preserved where applicable	On Ice ☑ Cooler Temp. 2.8°C

Form:SM088-03C (revised 2/12/18)

http://www.sgs.com/en/terms-and-conditions.

5.1 5

JC85918: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC85918 **Client:** _____ **Project:** _____

Date / Time Received: 4/6/2019 9:45:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.8);

Cooler Temps (Corrected) °C: Cooler 1: (1.8);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

JC85918: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Sovereign Consulting

Job No: JC85918

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01.05

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC85918-1	Collected: 05-APR-19 10:45 By: JWR			Received: 06-APR-19 By: DG		
EFFLUENT 4-5-19						
JC85918-1	SW846 6020B	12-APR-19 15:54	ZC	11-APR-19	TG	ASMS

SGS Internal Chain of Custody

Job Number: JC85918
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Received: 04/06/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC85918-1.1	Secured Storage	Sahara Feliciano	04/10/19 18:30	Retrieve from Storage
JC85918-1.1	Sahara Feliciano	Secured Staging Area	04/10/19 18:30	Return to Storage
JC85918-1.1	Secured Staging Area	Colleen Hill	04/11/19 09:16	Retrieve from Storage
JC85918-1.1	Colleen Hill	Secured Storage	04/11/19 09:31	Return to Storage
JC85918-1.1.1	Colleen Hill	Metals Digestion	04/11/19 09:17	Digestate from JC85918-1.1
JC85918-1.1.1	Metals Digestion	Colleen Hill	04/11/19 09:17	Digestate from JC85918-1.1
JC85918-1.1.1	Colleen Hill	Metals Digestate Storage	04/11/19 09:17	Return to Storage

QC Evaluation: DOD QSM5 Limits

Job Number: JC85918
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 04/05/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP14084	SW846 6020B						
MP14084-B1	7440-38-2	Arsenic	BSP	REC	86.1	%	84-116
MP14084-S1	7440-38-2	Arsenic	MS	REC	87.5	%	84-116
MP14084-S2	7440-38-2	Arsenic	MSD	REC	87.5	%	84-116
MP14084-S2	7440-38-2	Arsenic	MSD	RPD	0	%	20

* Sample used for QC is not from job JC85918

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:54	MA46497-STD1	1		STDA
10:59	MA46497-STD2	1		STDA
11:04	MA46497-STD3	1		STDA
11:09	MA46497-STD4	1		STDB
11:14	MA46497-STD5	1		STDC
11:19	MA46497-STD6	1		STDD
11:24	MA46497-STD7	1		STDE
11:29	MA46497-STD8	1		STDF
11:34	MA46497-STD9	1		STDG
11:39	MA46497-STD10	1		STDH
11:44	MA46497-STD11	1		STDI
11:49	MA46497-STD12	1		STDJ
11:54	MA46497-STD13	1		STDA
12:02	MA46497-ICVA1	1		
12:07	MA46497-ICV1	1		
12:12	MA46497-ICB1	1		
12:18	MA46497-CCVA1	1		
12:22	MA46497-CCB1	1		
12:28	MA46497-CRI1	1		
12:33	MA46497-ICSA1	1		
12:37	MA46497-ICSAB1	1		
12:43	MA46497-CCVA2	1		
12:48	MA46497-CCB2	1		
12:54	ZZZZZZ	2		
12:59	MP14051-B2	2		
13:04	MP14051-S3	2		
13:08	MP14051-S4	2		
13:13	ZZZZZZ	2		
13:18	MP14051-SD1	10		
13:23	JC86039-2	2		(sample used for QC only; not part of login JC85918)
13:28	MP14084-SD1	10		
13:33	ZZZZZZ	2		
13:38	MA46497-CCVA3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:49	MA46497-CCB3	1		
13:54	MP14051-MB1	2		
13:59	ZZZZZZ	2		
14:04	ZZZZZZ	5		
14:09	ZZZZZZ	2		
14:14	JC85988-1	1		(sample used for QC only; not part of login JC85918)
14:19	MP14085-MB1	1		
14:24	MP14085-B1	1		
14:29	MP14085-B2	1		
14:34	MP14085-S1	1		
14:39	MP14085-S2	1		
14:44	MA46497-CCVA4	1		
14:49	MA46497-CCB4	1		
14:54	MP14059A-MB1	2		
14:59	MP14059A-B2	2		
15:04	MP14059A-S3	2		Na and Ca overrange
15:09	ZZZZZZ	2		
15:14	JC86095-4	2		(sample used for QC only; not part of login JC85918)
15:19	MP14059A-SD1	10		Na and Ca overrange
15:24	MP14059A-S4	2		Na and Ca overrange
15:29	MP14084-B1	2		
15:34	MP14084-S1	2		
15:39	MP14084-S2	2		
15:44	MA46497-CCVA5	1		
15:49	MA46497-CCB5	1		
15:54	JC85918-1	2		
15:59	MP14084-PS1	2		
16:04	MP14084-MB1	2		
---------->	Last reportable sample/prep for job JC85918			
16:09	ZZZZZZ	2		
16:14	ZZZZZZ	2		
16:19	ZZZZZZ	2		
16:24	ZZZZZZ	2		
16:29	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	16:34	ZZZZZZ	2		
	16:39	ZZZZZZ	2		
	16:44	MA46497-CCVA6	1		
	16:49	MA46497-CCB6	1		
---------->		Last reportable CCB for job JC85918			
	16:54	ZZZZZZ	2		
	17:03	ZZZZZZ	2		
	17:10	ZZZZZZ	2		
	17:15	ZZZZZZ	2		
	17:20	ZZZZZZ	2		
	17:25	MP14051-S3	5		Ni and ZN. To reanalysis for Mn with QC sample on dilution
	17:30	MP14051-S4	5		Ni and ZN. To reanalysis for Mn with QC sample on dilution
	17:35	ZZZZZZ	20		
	17:40	ZZZZZZ	5		
	17:45	MP14085-S1	4		
	17:50	MA46497-CCVA7	1		
	17:55	MA46497-CCB7	1		
	18:00	MP14085-S2	4		
	18:05	JC85988-1	4		(sample used for QC only; not part of login JC85918)
	18:10	ZZZZZZ	10		
	18:15	ZZZZZZ	20		
	18:20	ZZZZZZ	10		
	18:25	ZZZZZZ	20		
	18:30	ZZZZZZ	5		
	18:35	ZZZZZZ	5		
	18:40	ZZZZZZ	5		
	18:45	ZZZZZZ	5		
	18:50	MA46497-CCVA8	1		
	18:55	MA46497-CCB8	1		
	19:00	ZZZZZZ	1		
	19:05	ZZZZZZ	2		
	19:10	MP14115-B1	2		
	19:16	ZZZZZZ	2		
	19:21	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:26	ZZZZZZ	1		
19:31	ZZZZZZ	1		
19:36	ZZZZZZ	1		
19:41	ZZZZZZ	1		
19:46	MP14115-MB1	2		
19:52	MA46497-CCVA9	1		
19:56	MA46497-CCB9	1		
20:02	ZZZZZZ	2		
20:07	MP14115-S1	5		Ba overrange
20:12	MP14115-S2	5		Ba overrange
20:17	JC86081-4	5		(sample used for QC only; not part of login JC85918)
20:22	MP14115-SD1	25		
20:27	ZZZZZZ	5		
20:32	ZZZZZZ	2		
20:38	ZZZZZZ	2		
20:43	MP14114A-MB1	2		
20:48	MP14114A-B2	2		
20:53	MA46497-CCVA10	1		
20:58	MA46497-CCB10	1		
21:03	MP14114A-S3	2		
21:08	MP14114A-S4	2		
21:13	JC86125-1	2		(sample used for QC only; not part of login JC85918)
21:18	MP14114A-SD1	10		
21:23	ZZZZZZ	2		
21:28	ZZZZZZ	2		
21:33	ZZZZZZ	2		
21:38	ZZZZZZ	2		
21:43	ZZZZZZ	2		
21:50	ZZZZZZ	2		
21:56	MA46497-CCVA11	1		
22:02	MA46497-CCB11	1		
22:09	ZZZZZZ	2		
22:15	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:20	ZZZZZZ	2		
22:25	ZZZZZZ	2		
22:30	ZZZZZZ	2		
22:35	ZZZZZZ	2		
22:40	ZZZZZZ	2		
22:45	ZZZZZZ	2		
22:50	ZZZZZZ	2		
22:55	ZZZZZZ	2		
23:00	MA46497-CCVA12	1		
23:05	MA46497-CCB12	1		
23:10	ZZZZZZ	2		
23:15	ZZZZZZ	2		
23:20	ZZZZZZ	2		
23:25	ZZZZZZ	2		
23:30	ZZZZZZ	2		
23:35	ZZZZZZ	2		
23:40	ZZZZZZ	2		
23:45	ZZZZZZ	2		
23:50	ZZZZZZ	2		
23:55	ZZZZZZ	2		
00:00	MA46497-CCVA13	1		
00:05	MA46497-CCB13	1		
00:10	ZZZZZZ	2		
00:15	ZZZZZZ	2		
00:20	ZZZZZZ	2		
00:25	ZZZZZZ	2		
00:30	MA46497-CCVA14	1		CCB14 >12hrs after ICSA.
00:35	MA46497-CCB14	1		CCB14 >12hrs after ICSA.
00:40	ZZZZZZ	1		
00:45	ZZZZZZ	1		
00:50	ZZZZZZ	1		
00:55	ZZZZZZ	1		
01:00	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Element: Dilution	As	
12:02	MA46497-ICVA1	1	X	
12:07	MA46497-ICV1	1		
12:12	MA46497-ICB1	1	X	
12:18	MA46497-CCVA1	1	X	
12:22	MA46497-CCB1	1	X	
12:28	MA46497-CRI1	1	X	
12:33	MA46497-ICSA1	1	X	
12:37	MA46497-ICSAB1	1	X	
12:43	MA46497-CCVA2	1	X	
12:48	MA46497-CCB2	1	X	
12:54	ZZZZZZ	2		
12:59	MP14051-B2	2	X	
13:04	MP14051-S3	2	X	
13:08	MP14051-S4	2	X	
13:13	ZZZZZZ	2		
13:18	MP14051-SD1	10	X	
13:23	JC86039-2	2	X	(a)
13:28	MP14084-SD1	10	X	
13:33	ZZZZZZ	2		
13:38	MA46497-CCVA3	1	X	
13:49	MA46497-CCB3	1	X	
13:54	MP14051-MB1	2	X	
13:59	ZZZZZZ	2		
14:04	ZZZZZZ	5		
14:09	ZZZZZZ	2		
14:14	JC85988-1	1	X	(a)
14:19	MP14085-MB1	1	X	
14:24	MP14085-B1	1	X	
14:29	MP14085-B2	1	X	
14:34	MP14085-S1	1	X	
14:39	MP14085-S2	1	X	
14:44	MA46497-CCVA4	1	X	
14:49	MA46497-CCB4	1	X	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Element: Dilution	As	
14:54	MP14059A-MB1	2	X	
14:59	MP14059A-B2	2	X	
15:04	MP14059A-S3	2	X	
15:09	ZZZZZZ	2		
15:14	JC86095-4	2	X	(a)
15:19	MP14059A-SD1	10	X	
15:24	MP14059A-S4	2	X	
15:29	MP14084-B1	2	X	
15:34	MP14084-S1	2	X	
15:39	MP14084-S2	2	X	
15:44	MA46497-CCVA5	1	X	
15:49	MA46497-CCB5	1	X	
15:54	JC85918-1	2	X	
15:59	MP14084-PS1	2	X	
16:04	MP14084-MB1	2	X	
16:09	ZZZZZZ	2		
16:14	ZZZZZZ	2		
16:19	ZZZZZZ	2		
16:24	ZZZZZZ	2		
16:29	ZZZZZZ	2		
16:34	ZZZZZZ	2		
16:39	ZZZZZZ	2		
16:44	MA46497-CCVA6	1	X	
16:49	MA46497-CCB6	1	X	
16:54	ZZZZZZ	2		
17:03	ZZZZZZ	2		
17:10	ZZZZZZ	2		
17:15	ZZZZZZ	2		
17:20	ZZZZZZ	2		
17:25	MP14051-S3	5		
17:30	MP14051-S4	5		
17:35	ZZZZZZ	20		
17:40	ZZZZZZ	5		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Element: Dilution	As	
17:45	MP14085-S1	4		
17:50	MA46497-CCVA7	1	X	
17:55	MA46497-CCB7	1	X	
18:00	MP14085-S2	4		
18:05	JC85988-1	4		(a)
18:10	ZZZZZZ	10		
18:15	ZZZZZZ	20		
18:20	ZZZZZZ	10		
18:25	ZZZZZZ	20		
18:30	ZZZZZZ	5		
18:35	ZZZZZZ	5		
18:40	ZZZZZZ	5		
18:45	ZZZZZZ	5		
18:50	MA46497-CCVA8	1	X	
18:55	MA46497-CCB8	1	X	
19:00	ZZZZZZ	1		
19:05	ZZZZZZ	2		
19:10	MP14115-B1	2	X	
19:16	ZZZZZZ	2		
19:21	ZZZZZZ	2		
19:26	ZZZZZZ	1		
19:31	ZZZZZZ	1		
19:36	ZZZZZZ	1		
19:41	ZZZZZZ	1		
19:46	MP14115-MB1	2	X	
19:52	MA46497-CCVA9	1	X	
19:56	MA46497-CCB9	1	X	
20:02	ZZZZZZ	2		
20:07	MP14115-S1	5	X	
20:12	MP14115-S2	5	X	
20:17	JC86081-4	5	X	(a)
20:22	MP14115-SD1	25	X	
20:27	ZZZZZZ	5		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Element: Dilution	As	
20:32	ZZZZZZ	2		
20:38	ZZZZZZ	2		
20:43	MP14114A-MB1	2	X	
20:48	MP14114A-B2	2	X	
20:53	MA46497-CCVA10	1	X	
20:58	MA46497-CCB10	1	X	
21:03	MP14114A-S3	2	X	
21:08	MP14114A-S4	2	X	
21:13	JC86125-1	2	X	(a)
21:18	MP14114A-SD1	10	X	
21:23	ZZZZZZ	2		
21:28	ZZZZZZ	2		
21:33	ZZZZZZ	2		
21:38	ZZZZZZ	2		
21:43	ZZZZZZ	2		
21:50	ZZZZZZ	2		
21:56	MA46497-CCVA11	1	X	
22:02	MA46497-CCB11	1	X	
22:09	ZZZZZZ	2		
22:15	ZZZZZZ	2		
22:20	ZZZZZZ	2		
22:25	ZZZZZZ	2		
22:30	ZZZZZZ	2		
22:35	ZZZZZZ	2		
22:40	ZZZZZZ	2		
22:45	ZZZZZZ	2		
22:50	ZZZZZZ	2		
22:55	ZZZZZZ	2		
23:00	MA46497-CCVA12	1	X	
23:05	MA46497-CCB12	1	X	
23:10	ZZZZZZ	2		
23:15	ZZZZZZ	2		
23:20	ZZZZZZ	2		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Element: Dilution	As
23:25	ZZZZZZ	2	
23:30	ZZZZZZ	2	
23:35	ZZZZZZ	2	
23:40	ZZZZZZ	2	
23:45	ZZZZZZ	2	
23:50	ZZZZZZ	2	
23:55	ZZZZZZ	2	
00:00	MA46497-CCVA13	1	X
00:05	MA46497-CCB13	1	X
00:10	ZZZZZZ	2	
00:15	ZZZZZZ	2	
00:20	ZZZZZZ	2	
00:25	ZZZZZZ	2	
00:30	MA46497-CCVA14	1	CCB14 >12hrs after ICSA.
00:35	MA46497-CCB14	1	CCB14 >12hrs after ICSA.
00:40	ZZZZZZ	1	
00:45	ZZZZZZ	1	
00:50	ZZZZZZ	1	
00:55	ZZZZZZ	1	
01:00	ZZZZZZ	1	

(a) Sample used for QC only; not part of login JC85918.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
10:54	MA46497-STD1	100	100	100	100	100	100	100	100
10:59	MA46497-STD2	100	100	100	100	100	100	100	100
11:04	MA46497-STD3	100	100	100	100	100	100	100	100
11:09	MA46497-STD4	99.644	100.336	100.856	99.674	99.58	99.662	101.132	100.049
11:14	MA46497-STD5	100.398	100.684	100.788	100.985	100.129	100.839	101.719	99.897
11:19	MA46497-STD6	99.263	99.228	99.184	98.604	99.013	97.962	99.412	98.847
11:24	MA46497-STD7	97.356	97.363	96.057	98.528	97.875	96.284	98.83	98.414
11:29	MA46497-STD8	95.177	96.558	97.348	96.46	96.871	95.688	96.432	97.083
11:34	MA46497-STD9	95.03	96.147	97.787	97.628	96.925	96.455	97.906	97.424
11:39	MA46497-STD10	96.127	97.98	98.103	97.107	97.444	97.707	98.439	99.577
11:44	MA46497-STD11	96.839	98.128	99.709	98.435	98.244	98.137	98.165	97.523
11:49	MA46497-STD12	97.332	99.778	100.656	98.622	98.528	97.676	97.041	97.241
11:54	MA46497-STD13	100	100	100	100	100	100	100	100
12:02	MA46497-ICVA1	99.762	98.393	100.635	97.693	98.137	100.232	96.204	99.608
12:07	MA46497-ICV1	99.205	97.865	98.828	99.216	97.838	99.977	98.842	98.228
12:12	MA46497-ICB1	99.989	98.196	99.021	98.26	98.388	100.409	98.445	99.431
12:18	MA46497-CCVA1	99.662	97.568	98.654	97.438	97.737	98.413	95.01	98.747
12:22	MA46497-CCB1	99.286	97.547	97.42	98.066	97.684	99.393	97.858	97.813
12:28	MA46497-CRI1	100.294	98.933	98.49	98.94	98.401	99.155	98.762	99.157
12:33	MA46497-ICSA1	96.067	93.855	92.304	90.563	94.637	89.234	84.867	86.048
12:37	MA46497-ICSAB1	93.863	92.547	91.276	94.495	93.899	88.271	88.201	86.144
12:43	MA46497-CCVA2	90.448	92.981	88.998	97.895	94.924	91.985	97.864	96.304
12:48	MA46497-CCB2	92.03	92.961	90.874	99.422	95.954	94.861	100.893	96.329
12:54	ZZZZZZ	91.757	90.956	88.617	102.551	92.426	90.657	101.054	92.501
12:59	MP14051-B2	97.192	95.544	91.58	105.427	96.275	93.134	101.451	97.1
13:04	MP14051-S3	95.064	95.686	91.133	104.967	92.089	90.71	100.099	93.166
13:08	MP14051-S4	97.357	98.043	92.703	106.456	94.72	91.453	101.005	95.668
13:13	ZZZZZZ	98.504	98.5	91.397	105.568	95.031	91.363	101.697	94.694
13:18	MP14051-SD1	102.662	103.092	98.564	106.078	105.59	102.977	105.77	105.526
13:23	JC86039-2	97.052	97.141	89.598	104.187	93.369	89.35	99.677	93.63
13:28	MP14084-SD1	100.453	99.607	96.13	102.234	101.525	100.186	102.975	102.805
13:33	ZZZZZZ	98.381	96.133	93.099	107.422	95.442	93.866	103.832	95.582
13:38	MA46497-CCVA3	106.463	107.918	102.633	107.878	107.569	104.073	105.071	109.162

INTERNAL STANDARD SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
13:49	MA46497-CCB3	104.525	105.723	104.044	106.556	105.863	105.688	106.106	106.324
13:54	MP14051-MB1	104.126	102.256	100.744	110.936	101.512	100.796	107.968	102.172
13:59	ZZZZZZ	107.421	103.89	100.941	112.626	103.162	100.767	108.861	103.231
14:04	ZZZZZZ	113.009	111.978	107.716	111.066	102.334	101.569	101.222	103.413
14:09	ZZZZZZ	107.149	101.591	99.133	111.788	100.336	98.501	107.225	101.036
14:14	JC85988-1	108.019	117.845	113.068	112.209	107.712	109.187	105.179	106.663
14:19	MP14085-MB1	107.08	109.038	106.405	110.298	108.682	108.164	109.259	109.736
14:24	MP14085-B1	106.355	107.466	105.6	109.355	107.611	106.325	106.02	108.481
14:29	MP14085-B2	104.476	105.628	105.51	108.033	106.235	106.179	105.308	107.047
14:34	MP14085-S1	104.268	115.856	109.97	108.901	104.981	107.073	102.483	105.125
14:39	MP14085-S2	103.942	115.401	109.635	110.33	105.631	105.7	102.2	105.526
14:44	MA46497-CCVA4	104.18	105.978	104.966	108.707	106.473	105.17	104.842	107.349
14:49	MA46497-CCB4	105.752	106.246	103.79	108.749	106.344	105.215	107.553	107.093
14:54	MP14059A-MB1	103.352	100.375	98.776	111.217	100.132	98.07	107.377	100.409
14:59	MP14059A-B2	108.191	104.222	101.409	115.12	102.61	100.043	109.213	103.558
15:04	MP14059A-S3	108.736	113.203	105.137	117.352	104.234	101.379	109.648	104.378
15:09	ZZZZZZ	108.144	113.058	105.562	117.205	104.857	101.434	110.12	105.134
15:14	JC86095-4	106.503	112.397	104.444	115.959	104.829	102.028	109.456	104.987
15:19	MP14059A-SD1	108.728	115.122	111.695	111.869	112.516	112.613	111.449	113.35
15:24	MP14059A-S4	104.004	110.831	103.785	115.139	102.744	100.495	107.588	103.278
15:29	MP14084-B1	110.703	111.222	106.04	117.705	108.798	103.454	111.495	109.272
15:34	MP14084-S1	109.231	109.896	104.254	116.396	105.218	100.739	109.614	105.605
15:39	MP14084-S2	109.071	108.266	103.433	115.418	104.461	101.61	109.179	105.091
15:44	MA46497-CCVA5	109.806	113.481	110.342	110.493	111.099	110.552	107.452	112.806
15:49	MA46497-CCB5	107.619	110.145	108.485	109.79	108.864	109.054	109.021	109.524
15:54	JC85918-1	104.677	105.345	103.363	111.611	101.139	101.018	105.22	101.563
15:59	MP14084-PS1	106.35	107.016	102.817	112.975	102.561	99.876	106.333	103.626
16:04	MP14084-MB1	109.159	109.217	105.649	117.72	107.287	103.8	112.59	106.843
16:09	ZZZZZZ	109.984	109.259	105.168	116.61	106.828	103.519	111.959	106.62
16:14	ZZZZZZ	110.821	110.122	105.789	116.67	107.567	104.653	111.796	107.702
16:19	ZZZZZZ	109.878	108.603	104.464	115.031	106.025	102.709	110.725	105.982
16:24	ZZZZZZ	110.649	111.027	106.663	116.835	107.37	105.32	112.119	107.072
16:29	ZZZZZZ	110.227	112.048	106.028	114.033	103.971	100.844	106.184	104.764

INTERNAL STANDARD SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:34	ZZZZZZ	109.783	109.528	104.58	113.223	106.424	103.03	109.483	106.362
16:39	ZZZZZZ	105.555	106.806	102.381	110.606	100.181	96.625	101.896	100.247
16:44	MA46497-CCVA6	108.429	111.658	109.453	109.017	109.331	108.304	105.808	109.864
16:49	MA46497-CCB6	106.826	109.924	108.18	109.033	108.273	108.913	107.614	108.791
16:54	ZZZZZZ	105.19	104.509	101.408	111.289	103.002	100.397	107.019	103.223
17:03	ZZZZZZ	107.951	111.645	101.009	109.088	103.658	97.483	102.605	104.429
17:10	ZZZZZZ	104.698	102.864	100.992	109.784	100.889	99.014	106.798	101.195
17:15	ZZZZZZ	101.974	102.295	99.574	107.699	96.941	94.45	99.24	97.297
17:20	ZZZZZZ	104.608	103.668	101.251	110.589	101.669	99.418	106.043	102.043
17:25	MP14051-S3	100.261	101.734	99.015	105.996	99.678	98.341	102.109	100.67
17:30	MP14051-S4	99.361	101.198	98.408	104.191	99.723	97.302	101.26	100.474
17:35	ZZZZZZ	103.373	105.006	103.222	104.847	102.376	101.814	100.939	102.587
17:40	ZZZZZZ	100.076	100.484	98.934	105.881	100.161	98.977	104.09	100.38
17:45	MP14085-S1	102.64	107.235	103.781	104.507	104.098	103.643	101.565	104.373
17:50	MA46497-CCVA7	104.014	108.249	105.764	106.202	106.526	104.421	102.853	107.723
17:55	MA46497-CCB7	105.259	108.572	105.589	107.373	106.978	107.412	107.199	108.3
18:00	MP14085-S2	103.337	111.21	105.704	106.137	105.918	104.826	103.259	106.03
18:05	JC85988-1	103.112	110.196	105.598	107.175	105.264	104.9	104.062	105.809
18:10	ZZZZZZ	99.696	102.285	100.107	106.143	102.73	101.377	104.296	103.014
18:15	ZZZZZZ	102.467	104.998	102.519	106.088	104.845	103.954	105.261	105.103
18:20	ZZZZZZ	106.546	113.225	101.083	105.846	109.836	100.98	104.205	110.295
18:25	ZZZZZZ	103.084	104.148	102.371	105.785	104.193	103.344	104.138	105.276
18:30	ZZZZZZ	105.958	110.564	107.948	105.607	107.606	109.036	105.94	108.52
18:35	ZZZZZZ	103.79	105.595	98.802	104.544	105.03	100.188	102.536	106.137
18:40	ZZZZZZ	107.947	112.386	111.226	105.293	109.916	112.323	105.949	111.041
18:45	ZZZZZZ	105.268	108.726	103.871	105.95	105.909	104.285	104.72	106.508
18:50	MA46497-CCVA8	105.244	108.288	104.847	105.302	105.771	104.451	102.743	107.357
18:55	MA46497-CCB8	105.667	108.556	105.343	106.075	106.669	105.837	105.167	107.33
19:00	ZZZZZZ	101.331	101.16	97.78	107.561	100.316	97.422	103.986	100.523
19:05	ZZZZZZ	102.744	102.308	98.793	108.117	100.996	98.562	104.605	101.928
19:10	MP14115-B1	102.743	102.098	98.581	108.017	101.219	97.61	103.112	101.832
19:16	ZZZZZZ	101.849	100.874	97.59	107.943	100.616	97.309	105.231	100.628
19:21	ZZZZZZ	103.182	103.33	99.609	108.27	101.731	99.182	105.878	102.166

INTERNAL STANDARD SUMMARY

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File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
19:26	ZZZZZZ	108.748	112.147	109.366	107.358	108.953	109.304	105.545	109.676
19:31	ZZZZZZ	106.162	111.268	108.94	105.923	107.425	107.245	103.245	109.523
19:36	ZZZZZZ	106.022	110.478	108.299	110.011	106.992	107.602	107.64	108.183
19:41	ZZZZZZ	101.212	102.14	107.743	106.18	102.08	107.813	105.115	102.739
19:46	MP14115-MB1	101.271	101.481	98.86	107.279	100.158	97.246	103.147	100.345
19:52	MA46497-CCVA9	105.684	110.824	107.973	105.4	107.008	105.109	102.209	108.465
19:56	MA46497-CCB9	104.801	109.72	105.963	106.304	106.817	107.438	104.241	107.248
20:02	ZZZZZZ	98.857	95.863	94.743	108.54	97.129	94.075	107.037	98.501
20:07	MP14115-S1	100.212	102.879	99.775	104.718	100.146	97.554	101.098	101.802
20:12	MP14115-S2	99.299	101.776	98.385	102.943	98.993	96.686	99.027	99.788
20:17	JC86081-4	98.49	99.088	96.29	102.909	97.806	95.405	99.071	97.738
20:22	MP14115-SD1	100.194	101.336	100.012	101.849	101.391	99.699	100.26	101.233
20:27	ZZZZZZ	99.193	99.335	97.312	103.645	98.792	96.883	101.799	98.717
20:32	ZZZZZZ	96.864	96.587	94.05	104.596	95.39	92.753	100.55	95.381
20:38	ZZZZZZ	96.481	95.822	92.43	103.048	94.536	91.346	99.892	94.47
20:43	MP14114A-MB1	98.376	96.761	95.027	105.038	96.354	93.731	101.714	96.697
20:48	MP14114A-B2	98.223	97.847	94.671	105.004	97.105	93.504	100.775	97.897
20:53	MA46497-CCVA10	103.079	105.917	105.609	103.223	104.902	104.069	100.264	105.844
20:58	MA46497-CCB10	101.667	105.222	104.428	103.11	103.976	105.207	102.59	105.032
21:03	MP14114A-S3	92.585	98.05	93.83	101.182	90.146	91.318	94.855	90.642
21:08	MP14114A-S4	94.686	99.688	94.461	101.715	92.679	92.549	94.724	92.609
21:13	JC86125-1	92.205	97.199	91.633	99.479	90.938	89.715	94.644	90.222
21:18	MP14114A-SD1	96.72	101.358	100.228	100.14	100.481	101.783	98.85	101.257
21:23	ZZZZZZ	89.788	101.51	94.56	105.041	90.678	89.397	95.66	89.517
21:28	ZZZZZZ	98.321	114.689	102.045	112.071	100.62	98.749	103.772	99.337
21:33	ZZZZZZ	99.036	108.755	90.706	109.344	100.565	86.312	102.541	99.402
21:38	ZZZZZZ	93.165	101.288	93.938	101.116	93.959	93.844	96.556	93.163
21:43	ZZZZZZ	90.47	95.121	88.736	94.104	85.781	86.04	86.562	83.42
21:50	ZZZZZZ	88.418	95.261	90.318	97.894	90.695	105.475	104.587	87.778
21:56	MA46497-CCVA11	93.696	97.152	96.104	97.338	97.832	96.527	95.237	98.578
22:02	MA46497-CCB11	90.316	90.079	96.604	98.272	93.022	98.599	98.259	94.496
22:09	ZZZZZZ	92.543	92.866	90.777	100.81	93.116	90.432	98.214	92.758
22:15	ZZZZZZ	88.086	92.997	89.766	96.573	85.319	86.763	89.553	84.775

INTERNAL STANDARD SUMMARY

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Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
22:20	ZZZZZZ	87.617	91.693	87.135	96.224	86.666	87.667	93.083	86.283
22:25	ZZZZZZ	88.615	91.093	87.131	96.912	87.679	85.029	92.184	87.421
22:30	ZZZZZZ	85.066	87.428	83.735	95.932	85.473	83.323	92.576	86.046
22:35	ZZZZZZ	86.714	88.731	85.84	95.048	83.488	81.821	86.472	83.982
22:40	ZZZZZZ	86.247	100.52	94.95	104.599	84.142	94.178	96.18	81.923
22:45	ZZZZZZ	85.701	92.307	84.922	106.07	86.426	84.624	98.722	85.444
22:50	ZZZZZZ	87.211	89.297	85.432	98.887	88.46	84.407	94.703	87.907
22:55	ZZZZZZ	86.196	89.422	83.915	94.433	87.115	99.896	102.478	84.725
23:00	MA46497-CCVA12	90.071	92.637	91.491	93.559	93.394	92.161	91.325	94.546
23:05	MA46497-CCB12	90.206	91.813	90.776	92.281	92.408	93.122	92.643	93.223
23:10	ZZZZZZ	84.863	88.174	84.735	93.042	81.994	84.411	88.347	81.597
23:15	ZZZZZZ	87.565	88.376	86.249	95.033	83.54	82.676	87.101	83.82
23:20	ZZZZZZ	91.407	90.068	85.529	91.217	80.691	76.006	78.96	80.945
23:25	ZZZZZZ	87.45	88.146	84.016	95.334	86.173	83.552	91.672	86.087
23:30	ZZZZZZ	84.944	89.157	83.681	96.246	85.47	87.191	94.725	84.503
23:35	ZZZZZZ	84.609	87.116	82.878	94.145	83.574	83.212	90.778	83.56
23:40	ZZZZZZ	85.933	87.171	83.854	94.188	83.925	81.315	88.444	84.049
23:45	ZZZZZZ	84.637	87.924	84.553	96.057	84.765	86.315	94.025	84.193
23:50	ZZZZZZ	85.404	88.39	84.478	94.64	84.105	82.699	89.208	84.442
23:55	ZZZZZZ	86.559	90.455	86.013	99.253	87.308	84.3	93.899	86.379
00:00	MA46497-CCVA13	91.091	94.629	93.924	94.978	94.579	94.238	92.433	95.798
00:05	MA46497-CCB13	90.264	93.696	92.586	94.985	93.955	94.892	94.03	94.309
00:10	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:15	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:20	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:25	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:30	MA46497-CCVA14	No results reported for the elements associated with this internal standard.							
00:35	MA46497-CCB14	No results reported for the elements associated with this internal standard.							
00:40	ZZZZZZ	95.715	99.305	98.286	98.637	99.397	100.457	97.354	99.764
00:45	ZZZZZZ	95.412	99.058	98.445	98.615	99.038	98.753	96.886	99.969
00:50	ZZZZZZ	95.324	99.484	98.87	99.037	99.159	99.621	98.296	99.846
00:55	ZZZZZZ	96.78	99.962	98.615	99.333	99.853	99.724	97.568	100.234
01:00	ZZZZZZ	95.773	99.76	98.819	98.81	99.826	99.417	98.849	99.999

! = Outside limits.

INTERNAL STANDARD SUMMARY

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Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	60-125 %	60-125 %
Istd#2	Scandium (45-1)	60-125 %	60-125 %
Istd#3	Scandium (45-2)	60-125 %	60-125 %
Istd#4	Scandium (45-3)	60-125 %	60-125 %
Istd#5	Germanium (72-1)	60-125 %	60-125 %
Istd#6	Germanium (72-2)	60-125 %	60-125 %
Istd#7	Germanium (72-3)	60-125 %	60-125 %
Istd#8	Germanium (74-1)	60-125 %	60-125 %

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Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
10:54	MA46497-STD1	100	100	100	100	100	100	100	100
10:59	MA46497-STD2	100	100	100	100	100	100	100	100
11:04	MA46497-STD3	100	100	100	100	100	100	100	100
11:09	MA46497-STD4	100.944	100.517	100.221	99.391	99.482	101.127	100.738	100.494
11:14	MA46497-STD5	100.935	101.31	101.406	100.204	101.092	101.019	100.285	101.142
11:19	MA46497-STD6	99.28	98.714	100.653	98.64	98.748	100.39	98.82	100.203
11:24	MA46497-STD7	96.498	98.274	98.565	95.27	98.201	97.57	95.483	98.509
11:29	MA46497-STD8	96.152	96.503	98.062	95.954	95.686	96.958	96.008	99.411
11:34	MA46497-STD9	97.401	98.327	96.778	96.488	97.511	98.315	97.344	97.543
11:39	MA46497-STD10	98.641	99.447	97.54	96.877	97.206	98.189	97.575	99.226
11:44	MA46497-STD11	98.09	98.052	96.618	95.619	95.301	97.366	97.462	98.879
11:49	MA46497-STD12	98.511	96.842	94.401	94.103	92.938	95.638	97.191	98.587
11:54	MA46497-STD13	100	100	100	100	100	100	100	100
12:02	MA46497-ICVA1	99.014	96.936	92.513	95.902	93.795	95.666	98.105	97.849
12:07	MA46497-ICV1	99.038	99.367	96.886	98.792	99.436	98.544	98.953	98.311
12:12	MA46497-ICB1	98.918	98.798	98.488	99.09	99.78	99.328	99.213	99.113
12:18	MA46497-CCVA1	97.211	96.223	93.315	94.439	93.905	95.06	95.934	98.193
12:22	MA46497-CCB1	97.505	99.024	96.647	98.175	98.977	97.513	97.801	99.11
12:28	MA46497-CRI1	98.018	98.896	98.264	98.337	99.152	99.075	98.846	99.031
12:33	MA46497-ICSA1	84.54	81.277	80.628	77.849	74.431	85.986	84.356	91.538
12:37	MA46497-ICSAB1	83.609	85.752	79.22	78.143	77.396	86.527	82.687	93.819
12:43	MA46497-CCVA2	91.337	98.631	93.974	92.934	96.914	96.932	91.676	102.03
12:48	MA46497-CCB2	94.401	101.049	97.063	97.195	102.373	99.718	95.341	101.507
12:54	ZZZZZZ	89.696	101.598	93.077	94.676	103.071	96.28	91.263	100.463
12:59	MP14051-B2	92.602	102.837	94.431	94.251	101.522	98.875	92.319	102.288
13:04	MP14051-S3	88.996	100.546	89.021	88.613	94.974	93.936	88.645	100.314
13:08	MP14051-S4	90.536	102.09	90.325	89.897	96.395	95.919	89.676	103.764
13:13	ZZZZZZ	89.879	101.183	91.165	90.673	97.419	97.541	90.011	103.913
13:18	MP14051-SD1	102.155	106.62	101.373	100.31	103.876	104.264	100.015	106.363
13:23	JC86039-2	88.721	99.322	90.476	89.025	96.015	95.695	88.421	103.924
13:28	MP14084-SD1	99.062	103.571	98.93	98.871	102.159	104.79	98.537	105.44
13:33	ZZZZZZ	92.834	104.442	93.447	94.162	102.419	98.705	92.619	103.71
13:38	MA46497-CCVA3	103.613	105.611	102.773	100.887	101.578	105.612	101.335	108.15

INTERNAL STANDARD SUMMARY

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Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
13:49	MA46497-CCB3	105.147	106.438	104.718	104.371	105.179	105.817	104.486	105.062
13:54	MP14051-MB1	99.939	108.512	102.302	102.146	107.639	104.471	99.807	106.116
13:59	ZZZZZZ	100.244	110.062	102.434	101.883	108.074	104.648	99.148	107.553
14:04	ZZZZZZ	100.902	101.257	95.313	93.884	92.952	99.994	97.828	104.659
14:09	ZZZZZZ	97.267	107.849	96.76	96.731	103.99	103.868	96.431	105.633
14:14	JC85988-1	106.317	104.724	97.149	97.405	94.522	102.697	103.278	105.67
14:19	MP14085-MB1	107.179	110.259	106.72	106.049	107.948	109.72	106.508	108.977
14:24	MP14085-B1	105.626	107.271	103.241	102.772	102.902	107.112	103.497	106.963
14:29	MP14085-B2	104.915	106.495	102.048	101.94	102.35	103.555	102.535	105.568
14:34	MP14085-S1	103.779	101.283	96.021	94.732	91.088	100.687	100.612	103.8
14:39	MP14085-S2	103.416	102.113	96.035	94.64	92.412	101.059	100.133	105.234
14:44	MA46497-CCVA4	104.181	105.976	101.499	100.848	100.902	104.194	101.969	105.884
14:49	MA46497-CCB4	103.935	108.581	105.267	103.621	106.065	107.685	103.149	106.606
14:54	MP14059A-MB1	96.761	107.88	99.946	99.997	107.361	102.237	97.086	106.23
14:59	MP14059A-B2	98.625	110.885	100.311	99.8	107.023	104.175	97.57	107.578
15:04	MP14059A-S3	99.595	109.902	97.829	96.333	101.725	102.601	96.613	107.451
15:09	ZZZZZZ	99.891	109.668	99.237	96.768	102.328	103.356	96.824	107.403
15:14	JC86095-4	99.737	109.804	99.917	98.127	103.398	105.252	98.465	108.644
15:19	MP14059A-SD1	111.385	111.642	108.454	106.986	105.972	111.307	108.859	109.587
15:24	MP14059A-S4	98.57	107.519	97.182	95.84	100.71	102.53	96.528	106.23
15:29	MP14084-B1	103.483	112.31	105.4	103.551	108.91	109.628	100.996	112.271
15:34	MP14084-S1	100.092	110.377	99.869	97.92	103.27	104.443	97.679	107.949
15:39	MP14084-S2	99.908	110.181	99.767	97.863	103.145	104.381	97.442	107.942
15:44	MA46497-CCVA5	109.327	108.347	105.732	103.69	102.091	109.232	105.833	109.594
15:49	MA46497-CCB5	108.529	108.29	107.557	106.183	106.71	108.663	106.676	108.108
15:54	JC85918-1	99.548	106.565	98.964	98.381	101.399	103.2	99.713	106.31
15:59	MP14084-PS1	99.024	106.505	98.408	96.324	100.636	103.308	96.975	106.615
16:04	MP14084-MB1	102.801	112.988	106.006	104.228	110.559	107.639	101.698	108.881
16:09	ZZZZZZ	102.548	112.403	105.711	103.577	110.307	108.463	101.783	111.404
16:14	ZZZZZZ	103.313	112.739	106.225	104.315	109.445	108.178	101.777	109.384
16:19	ZZZZZZ	101.634	109.967	104.716	102.697	108.974	107.413	100.515	108.03
16:24	ZZZZZZ	104.192	113.179	106.282	104.129	109.779	108.551	101.929	109.818
16:29	ZZZZZZ	99.93	107.106	99.776	96.494	100.099	104.902	98.006	107.489

INTERNAL STANDARD SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:34	ZZZZZZ	102.146	110.047	105.989	102.523	108.144	107.307	100.475	109.698
16:39	ZZZZZZ	95.738	101.333	94.891	92.315	95.961	99.598	94.625	105.955
16:44	MA46497-CCVA6	107.617	107.228	104.057	101.888	100.466	106.539	104.516	107.132
16:49	MA46497-CCB6	106.86	107.65	106.45	104.533	105.188	108.958	105.884	107.19
16:54	ZZZZZZ	99.249	108.034	103.389	100.839	106.888	105.58	99.127	107.111
17:03	ZZZZZZ	95.603	102.816	101.616	93.102	97.287	107.17	95.221	111.187
17:10	ZZZZZZ	98.065	106.554	102.451	99.585	105.42	103.939	98.19	106.244
17:15	ZZZZZZ	92.942	100.042	93.114	90.016	94.222	98.942	93.237	104.551
17:20	ZZZZZZ	98.306	106.304	101.922	100.584	105.683	104.703	98.639	105.982
17:25	MP14051-S3	97.501	103.168	96.653	94.359	98.378	100.47	95.878	104.279
17:30	MP14051-S4	96.505	102.019	96.619	93.597	97.576	100.899	95.354	104.57
17:35	ZZZZZZ	100.453	101.468	98.959	95.631	96.508	102.659	98.421	104.417
17:40	ZZZZZZ	97.458	103.657	99.75	96.779	101.571	101.308	97.173	104.618
17:45	MP14085-S1	101.627	101.826	98.872	96.178	96.78	102.982	99.214	104.127
17:50	MA46497-CCVA7	103.809	104.558	102.52	99.446	98.989	104.498	101.99	105.361
17:55	MA46497-CCB7	105.611	107.764	105.66	103.472	105.04	108.574	104.405	108.243
18:00	MP14085-S2	103.838	103.431	99.757	97.396	97.898	104.386	100.92	106.297
18:05	JC85988-1	102.611	104.616	99.672	97.948	98.645	104.667	101.403	106.55
18:10	ZZZZZZ	100.249	105.289	99.511	97.287	101.881	103.745	98.906	105.567
18:15	ZZZZZZ	102.594	106.022	102.786	99.377	102.624	105.972	100.808	106.534
18:20	ZZZZZZ	99.651	104.211	110.057	96.828	101.082	113.351	98.37	114.554
18:25	ZZZZZZ	101.309	105.043	101.443	98.424	101.419	105.063	99.815	105.126
18:30	ZZZZZZ	107.277	105.541	105.371	104.465	103.48	107.991	105.991	105.696
18:35	ZZZZZZ	98.733	103.186	102.229	95.299	99.747	105.32	96.457	106.41
18:40	ZZZZZZ	111.102	106.313	107.176	104.931	102.647	108.687	108.212	105.739
18:45	ZZZZZZ	102.978	104.865	105.95	100.299	103.088	108.451	102.038	107.073
18:50	MA46497-CCVA8	103.905	103.47	102.122	98.323	98.777	104.611	101.078	104.756
18:55	MA46497-CCB8	104.655	105.746	106.267	102.601	104	108.321	103.5	107.247
19:00	ZZZZZZ	95.778	104.42	101.206	97.823	104.445	104.822	96.168	105.942
19:05	ZZZZZZ	97.414	105.694	102.815	98.875	105.762	104.017	97.095	106.058
19:10	MP14115-B1	94.915	103.7	98.272	95.635	101.657	103.285	94.312	106.044
19:16	ZZZZZZ	96.267	105.282	100.489	97.461	104.353	102.895	95.743	106.205
19:21	ZZZZZZ	97.91	105.679	101.88	98.272	104.332	105.24	97.223	105.977

INTERNAL STANDARD SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
19:26	ZZZZZZ	107.57	106.127	108.452	104.105	104.392	109.347	105.825	107.242
19:31	ZZZZZZ	105.853	103.908	104.687	100.766	99.584	107.13	103.583	106.426
19:36	ZZZZZZ	106.275	108.21	105.89	102.481	106.381	108.271	104.303	107.182
19:41	ZZZZZZ	106.044	105.724	99.05	102.729	102.545	103.04	104.653	98.95
19:46	MP14115-MB1	96.194	104.516	101.297	97.383	103.893	103.474	95.818	105.199
19:52	MA46497-CCVA9	104.769	102.98	103.078	98.743	97.748	106.197	101.923	105.274
19:56	MA46497-CCB9	104.919	105.103	106.488	102.128	103.068	107.555	103.625	107.02
20:02	ZZZZZZ	93.744	108.391	93.262	90.34	99.166	96.772	89.44	103.559
20:07	MP14115-S1	96.849	101.584	98.154	93.704	97.498	102.109	95.929	103.414
20:12	MP14115-S2	95.02	100.276	96.691	92.375	96.434	100.298	94.002	103.173
20:17	JC86081-4	93.949	98.921	95.788	91.862	96.233	98.73	93.461	102.22
20:22	MP14115-SD1	98.69	100.102	99.837	95.494	98.608	102.869	97.556	102.781
20:27	ZZZZZZ	95.884	101.595	98.921	95.991	101.165	102.031	95.956	102.617
20:32	ZZZZZZ	91.828	101.686	94.677	90.93	97.852	98.498	91.272	101.864
20:38	ZZZZZZ	90.155	100.087	93.309	89.7	97.753	98.436	90.039	102.785
20:43	MP14114A-MB1	92.236	102.25	96.818	93.729	101.972	99.577	92.43	103.78
20:48	MP14114A-B2	92.298	101.165	96.744	91.983	99.025	99.644	91.76	102.044
20:53	MA46497-CCVA10	102.317	101.645	100.663	96.453	96.144	103.066	99.667	104.175
20:58	MA46497-CCB10	103	102.966	103.781	99.704	100.665	104.99	101.699	104.745
21:03	MP14114A-S3	87.459	93.094	84.487	81.247	84.794	91.207	86.05	99.593
21:08	MP14114A-S4	87.934	93.535	87.001	81.907	84.771	92.957	86.195	102.263
21:13	JC86125-1	85.647	92.032	86.13	81.445	84.796	93.69	85.629	100.791
21:18	MP14114A-SD1	98.806	99.062	96.68	92.805	93.081	100.765	97.27	102.85
21:23	ZZZZZZ	86.127	94.771	86.743	83.591	88.669	93.42	86.218	99.474
21:28	ZZZZZZ	95.203	103.209	97.547	93.98	98.138	102.5	94.621	106.672
21:33	ZZZZZZ	84.266	101.33	97.439	84.327	98.422	102.194	84.532	105.939
21:38	ZZZZZZ	87.509	92.955	87.859	81.931	85.03	94.525	86.404	102.936
21:43	ZZZZZZ	79.518	83.134	76.144	72.445	73.343	85.816	79.406	94.851
21:50	ZZZZZZ	86.54	91.199	83.841	77.533	80.519	90.657	82.822	107.727
21:56	MA46497-CCVA11	95.855	95.818	95.372	91.898	92.196	99.398	95.491	100.911
22:02	MA46497-CCB11	97.239	98.203	92.467	95.365	97.15	94.365	98.012	95.473
22:09	ZZZZZZ	90.184	98.888	95.488	91.795	98.31	98.412	91.441	101.532
22:15	ZZZZZZ	82.761	87.66	81.773	77.483	79.989	88.973	82.569	96.373

INTERNAL STANDARD SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
22:20	ZZZZZZ	82.973	90.784	83.651	79.418	83.969	90.401	83.584	99.676
22:25	ZZZZZZ	83.65	92.108	87.065	82.52	87.611	93.324	85.636	98.582
22:30	ZZZZZZ	82.18	93.133	86.458	81.969	89.823	91.613	83.669	96.283
22:35	ZZZZZZ	80.162	86.631	80.488	77.106	80.865	89.013	81.9	94.835
22:40	ZZZZZZ	80.699	85.303	75.121	73.122	75.944	85.597	78.619	100.008
22:45	ZZZZZZ	81.469	98.286	83.903	80.016	94.03	90.726	82.81	97.642
22:50	ZZZZZZ	83.652	95.228	89.081	84.783	93.649	93.887	85.262	98.16
22:55	ZZZZZZ	83.57	89.89	79.817	76.507	80.611	88.471	80.763	107.944
23:00	MA46497-CCVA12	90.651	92.518	91.585	87.365	88.33	96.508	90.681	98.327
23:05	MA46497-CCB12	90.894	93.194	94.04	89.644	92.162	96.831	92.35	98.169
23:10	ZZZZZZ	78.764	84.747	75.859	74.185	77.35	85.835	79.473	95.805
23:15	ZZZZZZ	80.403	87.294	79.477	77.648	81.084	88.617	82.153	94.055
23:20	ZZZZZZ	76.124	79.229	74.537	69.69 !a	70.863	84.89	76.605	90.151
23:25	ZZZZZZ	82.281	92.13	86.786	82.136	89.665	92.793	84.536	97.417
23:30	ZZZZZZ	81.404	91.283	84.986	79.348	86.719	90.196	81.68	100.31
23:35	ZZZZZZ	79.854	89.235	82.811	78.105	84.037	89.343	81.451	95.903
23:40	ZZZZZZ	79.884	89.089	83.446	78.296	83.916	89.279	82.233	94.868
23:45	ZZZZZZ	81.511	90.751	83.284	79.542	85.645	90.091	81.709	98.378
23:50	ZZZZZZ	80.692	89.057	83.117	78.003	83.288	89.442	81.838	96.802
23:55	ZZZZZZ	82.789	92.823	85.714	81.472	88.497	90.917	83.249	97.145
00:00	MA46497-CCVA13	92.317	93.046	93.08	88.547	88.195	96.795	92.73	99.415
00:05	MA46497-CCB13	93.677	94.655	94.844	91.272	92.901	97.892	94.1	97.529
00:10	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:15	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:20	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:25	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:30	MA46497-CCVA14	No results reported for the elements associated with this internal standard.							
00:35	MA46497-CCB14	No results reported for the elements associated with this internal standard.							
00:40	ZZZZZZ	97.546	98.127	99.927	95.085	95.445	102.44	97.806	102.357
00:45	ZZZZZZ	97.66	97.578	99.506	94.712	95.591	101.947	97.462	100.809
00:50	ZZZZZZ	98.623	97.893	100.491	95.122	95.583	102.931	98.082	101.682
00:55	ZZZZZZ	97.964	98.108	100.555	95.347	95.637	103.372	97.834	101.694
01:00	ZZZZZZ	98.197	98.271	100.774	95.15	96.077	102.778	97.749	101.033

! = Outside limits.

INTERNAL STANDARD SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#9	Germanium (74-2)	60-125 %	60-125 %
Istd#10	Germanium (74-3)	60-125 %	60-125 %
Istd#11	Rhodium (103-1)	60-125 %	60-125 %
Istd#12	Rhodium (103-2)	60-125 %	60-125 %
Istd#13	Rhodium (103-3)	60-125 %	60-125 %
Istd#14	Indium (115-1)	60-125 %	60-125 %
Istd#15	Indium (115-2)	60-125 %	60-125 %
Istd#16	Terbium (159-1)	60-125 %	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
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File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
10:54	MA46497-STD1	100	100	100	100	100	100
10:59	MA46497-STD2	100	100	100	100	100	100
11:04	MA46497-STD3	100	100	100	100	100	100
11:09	MA46497-STD4	99.901	99.252	99.667	100.512	100.03	100.069
11:14	MA46497-STD5	100.898	101.343	100.444	100.81	101.757	100.575
11:19	MA46497-STD6	99.728	99.163	100.279	100.083	100.912	99.441
11:24	MA46497-STD7	96.491	98.406	100.538	96.976	100.321	97.435
11:29	MA46497-STD8	97.05	96.696	98.827	97.358	99.142	97.471
11:34	MA46497-STD9	98.013	98.122	98.403	97.725	99.118	97.533
11:39	MA46497-STD10	98.055	98.052	98.756	99.016	98.769	98.023
11:44	MA46497-STD11	98.778	97.338	98.616	98.898	95.518	94.809
11:49	MA46497-STD12	99.453	95.931	98.065	99.522	93.883	93.12
11:54	MA46497-STD13	100	100	100	100	100	100
12:02	MA46497-ICVA1	99.553	96.943	99.088	100.463	95.255	95.969
12:07	MA46497-ICV1	99.19	99.895	99.132	99.229	99.132	99.235
12:12	MA46497-ICB1	99.425	99.921	99.691	99.304	101	99.733
12:18	MA46497-CCVA1	97.832	96.854	98.66	98.219	95.234	94.803
12:22	MA46497-CCB1	98.304	100.06	99.518	98.444	100.02	98.814
12:28	MA46497-CRI1	98.739	99.797	100.429	98.994	100.964	99.149
12:33	MA46497-ICSA1	88.013	82.788	91.714	88.864	78.664	76.131
12:37	MA46497-ICSAB1	87.943	85.325	93.659	88.466	80.393	76.286
12:43	MA46497-CCVA2	97.397	100.221	102.908	97.671	99.352	95.519
12:48	MA46497-CCB2	98.184	102.821	101.329	98.65	104.038	99.881
12:54	ZZZZZZ	96.809	104.65	100.943	97.407	105.484	99.433
12:59	MP14051-B2	97.393	104.174	103.909	97.874	100.404	95.417
13:04	MP14051-S3	95.245	101.229	105.844	100.185	93.072	88.192
13:08	MP14051-S4	96.705	102.739	108.088	100.912	94.432	88.734
13:13	ZZZZZZ	96.65	103.978	109.446	100.683	96.802	89.852
13:18	MP14051-SD1	102.522	105.778	108.51	103.193	106.628	102.027
13:23	JC86039-2	95.384	103.39	108.087	100.609	96.08	88.889
13:28	MP14084-SD1	100.12	103.847	105.115	100.566	105.929	101.44
13:33	ZZZZZZ	97.881	105.685	104.712	98.497	100.686	94.55
13:38	MA46497-CCVA3	102.804	103.495	109.552	102.901	104.619	99.288

INTERNAL STANDARD SUMMARY

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File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
13:49	MA46497-CCB3	103.331	103.739	104.902	103.397	106.11	103.39
13:54	MP14051-MB1	101.864	107.215	105.418	102.206	106.294	101.238
13:59	ZZZZZZ	101.424	107.337	107.263	101.677	105.976	100.02
14:04	ZZZZZZ	99.571	98.279	104.332	100.652	90.224	86.897
14:09	ZZZZZZ	99.659	107.218	106.583	100.634	100.071	95.151
14:14	JC85988-1	103.457	99.937	107.928	105.75	93.356	91.963
14:19	MP14085-MB1	105.302	106.58	108.137	104.95	109.469	106.093
14:24	MP14085-B1	103.273	103.479	106.813	104.066	105.493	101.701
14:29	MP14085-B2	102.547	102.953	105.732	103.039	101.958	100.906
14:34	MP14085-S1	101.45	97.214	105.665	104.138	91.27	89.911
14:39	MP14085-S2	101.864	97.92	106.657	105.256	91.677	90.507
14:44	MA46497-CCVA4	102.736	102.184	106.163	103.2	101.917	99.692
14:49	MA46497-CCB4	102.768	105.584	106.243	102.968	106.259	103.092
14:54	MP14059A-MB1	99.237	107.248	105.99	99.994	105.008	99.499
14:59	MP14059A-B2	101.018	107.741	107.288	101.305	103.204	97.285
15:04	MP14059A-S3	100.19	105.452	110.119	103.778	97.686	92.17
15:09	ZZZZZZ	100.084	105.221	111.343	103.601	98.284	92.026
15:14	JC86095-4	101.721	106.534	111.755	104.601	100.599	94.119
15:19	MP14059A-SD1	106.445	105.827	109.508	106.662	107.558	104.687
15:24	MP14059A-S4	100.44	104.406	109.781	104.107	96.419	92.555
15:29	MP14084-B1	103.061	108.596	110.929	103.471	105.437	98.791
15:34	MP14084-S1	100.782	106.662	108.66	101.456	100.909	93.163
15:39	MP14084-S2	100.667	106.108	107.496	101.334	99.462	93.149
15:44	MA46497-CCVA5	104.794	102.892	108.579	105.331	103.451	100.363
15:49	MA46497-CCB5	104.307	104.749	106.168	104.844	106.616	103.92
15:54	JC85918-1	103.251	104.702	105.496	102.895	99.823	95.649
15:59	MP14084-PS1	99.542	103.172	106.597	99.693	97.936	92.747
16:04	MP14084-MB1	102.736	108.416	108.332	102.867	107.272	100.408
16:09	ZZZZZZ	102.872	109.492	108.738	102.527	107.324	100.7
16:14	ZZZZZZ	102.588	108.932	109.113	102.647	107.025	99.883
16:19	ZZZZZZ	101.544	107.968	107.389	101.536	106.823	99.496
16:24	ZZZZZZ	102.344	108.969	108.522	102.385	107.703	99.442
16:29	ZZZZZZ	100.957	103.96	107.397	101.841	96.579	91.948

INTERNAL STANDARD SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
16:34	ZZZZZZ	101.634	107.611	108.144	101.174	107.043	98.957
16:39	ZZZZZZ	98.198	101.444	104.386	98.557	92.818	87.97
16:44	MA46497-CCVA6	102.833	101.9	105.945	103.659	102.045	99.241
16:49	MA46497-CCB6	103.272	104.585	105.398	103.107	105.883	102.692
16:54	ZZZZZZ	100.792	106.967	106.125	101.01	106.395	98.994
17:03	ZZZZZZ	98.796	102.683	111.333	99.111	100.243	90.153
17:10	ZZZZZZ	99.797	106.746	104.966	100.222	104.02	98.247
17:15	ZZZZZZ	96.58	100.418	103.152	98.075	92.09	86.923
17:20	ZZZZZZ	101.983	106.765	105.922	100.773	105.432	98.537
17:25	MP14051-S3	98.235	102.634	105.213	100.051	98.152	93.652
17:30	MP14051-S4	97.854	102.334	105.2	99.406	98.026	93.21
17:35	ZZZZZZ	99.219	100.99	103.814	99.625	96.517	93.178
17:40	ZZZZZZ	98.049	103.873	103.662	98.944	102.509	96.892
17:45	MP14085-S1	99.419	100.318	104.737	100.126	97.973	94.36
17:50	MA46497-CCVA7	101.258	101.077	104.54	101.468	101.347	97.375
17:55	MA46497-CCB7	101.897	104.152	105.853	102.313	107.079	102.053
18:00	MP14085-S2	100.801	101.701	104.453	102.274	99.97	95.761
18:05	JC85988-1	101.069	102.142	104.945	101.825	100.684	96.385
18:10	ZZZZZZ	99.541	104.454	104.021	100.17	103.189	97.348
18:15	ZZZZZZ	100.03	104.463	104.475	100.956	105.206	98.787
18:20	ZZZZZZ	99.384	104.184	113.945	99.449	110.119	97.354
18:25	ZZZZZZ	99.71	103.348	104.98	99.397	103.904	98.639
18:30	ZZZZZZ	102.74	102.704	103.49	103.515	106.947	104.605
18:35	ZZZZZZ	97.785	101.382	104.781	96.687	103.896	95.485
18:40	ZZZZZZ	103.619	102.048	104.017	102.986	105.718	103.48
18:45	ZZZZZZ	101.075	103.988	105.003	100.358	106.297	99.962
18:50	MA46497-CCVA8	100.514	100.631	103.574	100.966	101.465	96.984
18:55	MA46497-CCB8	101.395	103.198	104.306	101.999	106.494	101.438
19:00	ZZZZZZ	98.193	105.826	104.018	98.843	105.623	98.127
19:05	ZZZZZZ	98.889	106.048	104.89	99.589	104.662	98.041
19:10	MP14115-B1	97.336	103.965	104.277	98.015	101.725	94.242
19:16	ZZZZZZ	97.782	105.235	103.538	98.106	103.924	96.333
19:21	ZZZZZZ	98.561	105.397	104.648	98.983	104.215	96.569

INTERNAL STANDARD SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
19:26	ZZZZZZ	102.391	103.253	104.832	102.543	107.88	102.569
19:31	ZZZZZZ	100.79	100.374	103.945	101.029	102.622	98.928
19:36	ZZZZZZ	101.73	105.72	103.985	102.111	106.786	101.378
19:41	ZZZZZZ	101.673	102.662	97.155	101.813	98.548	101.189
19:46	MP14115-MB1	97.679	104.662	102.898	98.47	103.031	96.456
19:52	MA46497-CCVA9	100.117	99.615	103.78	100.602	100.436	96.097
19:56	MA46497-CCB9	100.408	102.268	103.412	100.434	105.827	100.028
20:02	ZZZZZZ	94.072	103.44	101.647	94.757	94.406	87.887
20:07	MP14115-S1	97.072	101.444	102.447	97.845	97.161	92.624
20:12	MP14115-S2	95.92	100.576	101.051	96.162	96.893	91.7
20:17	JC86081-4	94.472	100.284	100.556	95.507	96.239	91.626
20:22	MP14115-SD1	96.499	100.056	100.876	96.881	102.302	95.527
20:27	ZZZZZZ	95.915	101.787	100.323	96.354	102.269	95.461
20:32	ZZZZZZ	93.634	102.06	100.414	94.361	98.129	90.73
20:38	ZZZZZZ	93.424	102.59	100.815	94.549	98.716	90.632
20:43	MP14114A-MB1	94.851	103.259	100.854	95.093	102.39	93.679
20:48	MP14114A-B2	94.707	102.331	101.869	94.704	96.649	90.877
20:53	MA46497-CCVA10	98.394	98.109	102.293	98.78	99.377	94.646
20:58	MA46497-CCB10	98.501	100.377	101.686	98.975	103.115	98.593
21:03	MP14114A-S3	92.169	94.903	117.242	111.063	82.581	78.237
21:08	MP14114A-S4	92.685	95.267	120.069	112.259	83.748	78.656
21:13	JC86125-1	92.233	95.315	117.735	110.36	83.621	79.025
21:18	MP14114A-SD1	97.037	97.592	104.242	101.721	95.099	93.234
21:23	ZZZZZZ	91.562	96.919	102.828	97.775	86.915	83.261
21:28	ZZZZZZ	96.952	100.711	107.001	100.827	100.807	92.95
21:33	ZZZZZZ	86.87	100.856	105.934	89.308	101.032	83.675
21:38	ZZZZZZ	93.004	95.581	123.84	115.152	83.61	78.882
21:43	ZZZZZZ	84.753	84.552	117.182	108.011	73.186	67.758 !a
21:50	ZZZZZZ	97.084	99.905	192.244 !a	179.772 !a	80.161	75.235
21:56	MA46497-CCVA11	95.888	95.167	99.389	96.337	95.192	93.448
22:02	MA46497-CCB11	96.154	97.148	92.103	96.299	94.99	97.247
22:09	ZZZZZZ	93.303	99.951	98.658	94.176	101.165	93.479
22:15	ZZZZZZ	88.207	90.549	112.401	105.94	78.799	75.205

INTERNAL STANDARD SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
22:20	ZZZZZZ	90.65	94.558	117.79	109.954	83.703	79.422
22:25	ZZZZZZ	89.771	94.207	96.541	90.668	87.663	83.483
22:30	ZZZZZZ	88.431	96.401	95.083	89.518	88.613	83.695
22:35	ZZZZZZ	86.532	89.829	94.598	88.55	79.858	75.756
22:40	ZZZZZZ	90.066	92.678	164.097	!a151.472	!a75.558	70.857
22:45	ZZZZZZ	88.467	104.392	102.116	95.331	86.16	81.225
22:50	ZZZZZZ	89.676	98.178	97.992	91.44	92.609	87.722
22:55	ZZZZZZ	97.025	101.175	210.848	!a195.149	!a80.549	75.861
23:00	MA46497-CCVA12	91.852	92.902	96.757	92.847	92.715	89.94
23:05	MA46497-CCB12	91.653	93.581	95.087	92.145	96.746	93.147
23:10	ZZZZZZ	86.737	89.463	123.161	115.693	77.109	72.834
23:15	ZZZZZZ	86.399	89.683	95.735	90.605	80.181	76.678
23:20	ZZZZZZ	79.171	79.022	87.989	80.229	71.39	65.049 !a
23:25	ZZZZZZ	88.86	96.233	95.988	89.799	89.888	85.073
23:30	ZZZZZZ	89.843	96.774	124.355	116.319	87.212	82.342
23:35	ZZZZZZ	87.365	93.18	108.223	100.9	84.447	79.85
23:40	ZZZZZZ	86.732	91.543	95.904	89.993	83.784	79.042
23:45	ZZZZZZ	88.36	94.437	114.196	106.823	84.663	80.899
23:50	ZZZZZZ	87.024	91.599	101.315	94.936	82.935	78.511
23:55	ZZZZZZ	87.85	94.125	97.805	92.581	87.513	83.138
00:00	MA46497-CCVA13	92.372	91.59	95.751	92.735	92.252	89.884
00:05	MA46497-CCB13	92.281	93.902	95.229	92.893	95.952	93.699
00:10	ZZZZZZ	No results reported for the elements associated with this internal standard.					
00:15	ZZZZZZ	No results reported for the elements associated with this internal standard.					
00:20	ZZZZZZ	No results reported for the elements associated with this internal standard.					
00:25	ZZZZZZ	No results reported for the elements associated with this internal standard.					
00:30	MA46497-CCVA14	No results reported for the elements associated with this internal standard.					
00:35	MA46497-CCB14	No results reported for the elements associated with this internal standard.					
00:40	ZZZZZZ	95.05	95.424	97.646	95.308	101.277	95.579
00:45	ZZZZZZ	94.717	95.682	97.233	95.048	99.613	94.932
00:50	ZZZZZZ	95.349	95.735	97.425	95.962	101.772	95.829
00:55	ZZZZZZ	94.696	95.949	97.8	95.856	101.408	95.487
01:00	ZZZZZZ	95.112	96.186	98.096	95.565	102.315	95.297

! = Outside limits.

INTERNAL STANDARD SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA46497
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Terbium (159-2)	60-125 %	60-125 %
Istd#18	Terbium (159-3)	60-125 %	60-125 %
Istd#19	Holmium (165-1)	60-125 %	60-125 %
Istd#20	Holmium (165-2)	60-125 %	60-125 %
Istd#21	Bismuth (209-1)	60-125 %	60-125 %
Istd#22	Bismuth (209-2)	60-125 %	60-125 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46497 Units: ug/l

Time: / Sample ID:				12:12 ICB1		12:22 CCB1		12:48 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	-0.00388	<1.5	0.0125	<1.5	0.0164	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46497 Units: ug/l

Time: / Sample ID:				13:49 CCB3		14:49 CCB4		15:49 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.00461	<0.50	0.0158	<1.0	0.0167	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46497 Units: ug/l

Time:				16:49	
Sample ID:				CCB6	
Metal	RL	IDL	LOD	raw	final
Aluminum	25	.28	20		
Antimony	2.0	.094	1.5		
Arsenic	0.50	.013	1.0	0.0217	<0.50
Barium	1.0	.008	0.50		
Beryllium	0.50	.004	0.25		
Boron	25	.65	20		
Cadmium	0.50	.004	2.0		
Calcium	250	6.1	50		
Chromium	1.0	.014	3.0		
Cobalt	0.50	.002	0.25		
Copper	2.0	.021	4.0		
Iron	25	.43	13		
Lead	0.50	.009	1.0		
Magnesium	250	.15	130		
Manganese	1.0	.007	1.0		
Molybdenum	1.0	.015	0.50		
Nickel	1.0	.017	3.0		
Potassium	250	.71	50		
Selenium	0.50	.072	0.50		
Silver	0.50	.004	0.50		
Sodium	250	1	100		
Strontium	5.0	.003	5.0		
Thallium	0.50	.004	0.50		
Tin	5.0	.071	2.5		
Titanium	1.0	.035	1.0		
Vanadium	1.0	.009	1.0		
Zinc	5.0	.029	7.5		

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46497 Units: ug/l

Time:		12:02			12:07			12:18	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	60	58.5	97.5				50	48.5	97.0
Barium	anr								
Beryllium	anr								
Boron	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46497 Units: ug/l

Time:		12:43			13:38			14:44	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	50	50.9	101.8	50	50.0	100.0	50	49.4	98.8
Barium	anr								
Beryllium	anr								
Boron	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46497 Units: ug/l

Time:		15:44			16:44	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	50	49.6	99.2	50	48.9	97.8
Barium	anr					
Beryllium	anr					
Boron	anr					
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Magnesium	anr					
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46497 Units: ug/l

Time:			12:28	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25	anr	
Antimony	2.0	0.25	anr	
Arsenic	0.50	0.50	0.530	106.0
Barium	1.0	0.50	anr	
Beryllium	0.50	0.25	anr	
Boron	25	2.5	anr	
Cadmium	0.50	0.25	anr	
Calcium	250	125	anr	
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25	anr	
Copper	2.0	2.0	anr	
Iron	25	25	anr	
Lead	0.50	0.25	anr	
Magnesium	250	125	anr	
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50	anr	
Nickel	1.0	2.0	anr	
Potassium	250	125	anr	
Selenium	0.50	0.50	anr	
Silver	0.50	1.0	anr	
Sodium	250	125	anr	
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0	anr	
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA041219M1L.CSV Date Analyzed: 04/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46497 Units: ug/l

Time:			12:33		12:37	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	94800	94.8	91200	91.2
Antimony			0.115		0.180	
Arsenic		20	0.0843		18.4	92.0
Barium			0.144		0.229	
Beryllium			0.000612		0.000401	
Boron		50	0.781		46.1	92.2
Cadmium		20	-0.135		17.9	89.5
Calcium	100000	100000	97100	97.1	96700	96.7
Chromium		20	0.215		19.6	98.0
Cobalt		20	0.0611		18.7	93.5
Copper		20	0.288		17.6	88.0
Iron	100000	100000	90400	90.4	90100	90.1
Lead			0.103		0.0875	
Magnesium	100000	100000	91400	91.4	88100	88.1
Manganese		20	0.429		19.4	97.0
Molybdenum	2000	2000	2130	106.5	2170	108.5
Nickel		20	0.452		18.0	90.0
Potassium	100000	100000	98200	98.2	96700	96.7
Selenium		20	0.0492		18.9	94.5
Silver		20	0.0279		19.1	95.5
Sodium	100000	100000	92300	92.3	90500	90.5
Strontium	2000	2000	2070	103.5	2120	106.0
Thallium			0.00209		0.00168	
Tin	2000	2000	1880	94.0	1890	94.5
Titanium	2000	2000	1810	90.5	1780	89.0
Vanadium		20	0.00406		19.9	99.5
Zinc		20	0.559		16.7	83.5

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP14084
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/11/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.55	32		
Antimony	4.0	.19	1.7		
Arsenic	3.0	.026	.94	0.080	<3.0
Barium	2.0	.016	.73		
Beryllium	1.0	.008	.15		
Boron	50	1.3	14		
Cadmium	6.0	.008	.17		
Calcium	500	12	64		
Chromium	8.0	.028	.62		
Cobalt	1.0	.004	.17		
Copper	10	.042	1.9		
Iron	50	.86	19		
Lead	3.0	.018	.52		
Magnesium	500	.3	46		
Manganese	4.0	.014	.63		
Molybdenum	2.0	.03	.45		
Nickel	8.0	.034	.95		
Potassium	500	1.4	68		
Selenium	2.0	.14	.55		
Silver	2.0	.008	.16		
Sodium	500	2.1	140		
Strontium	20	.006	2.4		
Thallium	2.0	.008	.17		
Tin	10	.14	2.6		
Titanium	4.0	.07	1.6		
Vanadium	3.0	.018	1.8		
Zinc	20	.058	5.4		

Associated samples MP14084: JC85918-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP14084 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/11/19

Metal	JC85918-1 Original	MS	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum					
Antimony					
Arsenic	35.0	105	80	87.5	75-125
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP14084: JC85918-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP14084 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/11/19

Metal	JC85918-1 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	35.0	105	80	87.5	0.0	20
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP14084: JC85918-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP14084
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/11/19

Metal	BSP Result	Spikelot MP6020AQ3% Rec	QC Limits
Aluminum			
Antimony			
Arsenic	68.9	80 86.1	80-120
Barium			
Beryllium			
Boron			
Cadmium			
Calcium			
Chromium			
Cobalt			
Copper			
Iron			
Lead			
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium			
Silver			
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

Associated samples MP14084: JC85918-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP14084
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/11/19

Metal	JC85918-1 Original	SDL 2:10	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	35.0	42.2	20.6*(a)	0-10
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP14084: JC85918-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: JC85918
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP14084 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/11/19

Metal	Sample ml	Final ml	JC85918-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.14	10	34.98238	31.9739	102.3584	0.2	4	80	88.0	75-125
Barium										
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP14084: JC85918-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Instrument Detection Limits

Job Number: JC85918
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Aluminum	.045
Aluminum	.276
Antimony	.094
Arsenic	.12
Arsenic	.013
Barium	.008
Beryllium	.004
Boron	.648
Cadmium	.007
Cadmium	.004
Calcium	6.11
Chromium	.036
Chromium	.014
Cobalt	.0041
Cobalt	.002
Copper	.1044
Copper	.021
Iron	1.21
Iron	.432
Lead	.009
Magnesium	.033
Magnesium	.152
Manganese	.006
Manganese	.007
Molybdenum	.015
Nickel	.046
Nickel	.017
Potassium	.506
Potassium	.707
Selenium	.503
Selenium	.072
Silver	.004
Sodium	.357
Sodium	1.037
Strontium	.003
Thallium	.004
Tin	.025
Tin	.071
Titanium	.035
Titanium	.035
Vanadium	.112
Vanadium	.009
Zinc	.041
Zinc	.029

Instrument Detection Limits

Job Number: JC85918
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l

The above applies to the following instrument runs:
MA46497

Instrument Linear Ranges

Job Number: JC85918
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC85918
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA46497

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 10:54
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-307.38	56.00	2.023E-05	Pulse	0.25	3
B			1	-1.097	ug/l	-2.73	4,949.74	1.788E-03	Pulse	0.15	3
Ca			1	-0.489	ug/l	-50.17	20,526.66	4.153E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	9582.32	906.73	1.329E-04	Pulse	0.10	3
Mo			1	-0.006	ug/l	-17.49	80.00	1.172E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-87.46	36.67	5.074E-06	Pulse	0.10	3
Sn			1	0.347	ug/l	2.27	2,426.97	3.353E-04	Pulse	0.10	3
Sb			1	-0.046	ug/l	-2.64	136.68	1.428E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	1263.18	106.67	1.115E-05	Pulse	0.10	3
Tl			1	-0.005	ug/l	-21.14	326.68	5.763E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	1099.83	316.68	5.590E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-405.46	243.35	4.298E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-773.89	1,223.41	2.160E-04	Pulse	0.10	3
Na			2	-1.033	ug/l	-28.22	8,644.51	5.430E-02	Pulse	0.30	3
Mg			2	-0.601	ug/l	-6.81	316.67	1.986E-03	Pulse	0.30	3
Al			2	-0.377	ug/l	-29.90	182.23	1.142E-03	Pulse	0.30	3
K			2	-0.682	ug/l	-48.30	6,999.32	4.394E-02	Pulse	0.30	3
Ca			2	-5.169	ug/l	-3.59	116.67	7.325E-04	Pulse	0.30	3
Ti			2	0.057	ug/l	52.82	13.33	8.303E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-172.41	395.57	2.481E-03	Pulse	0.30	3
Cr			2	0.011	ug/l	61.19	622.24	3.903E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	2220.08	101.11	6.316E-04	Pulse	0.30	3
Fe			2	-1.106	ug/l	-3.81	5,318.88	3.341E-02	Pulse	0.30	3
Co			2	0.001	ug/l	42.08	111.11	6.979E-04	Pulse	0.30	3
Ni			2	0.004	ug/l	133.78	85.55	5.371E-04	Pulse	0.30	3
Cu			2	0.013	ug/l	51.67	835.59	5.253E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.141	ug/l	14.62	418.90	2.627E-03	Pulse	0.30	3
As			2	0.016	ug/l	132.00	27.00	1.678E-04	Pulse	1.00	3
Cd			2	0.008	ug/l	101.25	35.54	4.160E-05	Pulse	0.30	3
Sn			2	0.008	ug/l	127.06	414.46	4.829E-04	Pulse	0.30	3
Se			3	-0.023	ug/l	-11.10	8.20	3.978E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,770,000.86	0.94	100.0	Pulse	0.10	3
1	Sc		4,942,313.78	0.89	100.0	Pulse	0.10	3
1	Ge		924,574.02	0.78	100.0	Pulse	0.10	3
1	Ge		1,298,974.70	0.30	100.0	Pulse	0.10	3
1	Rh		6,828,907.40	1.28	100.0	Analog	0.10	3
1	In		7,241,121.86	0.59	100.0	Analog	0.10	3
1	Tb		9,561,773.61	0.58	100.0	Analog	0.10	3
1	Ho		904,334.49	0.49	100.0	Pulse	0.10	3
1	Bi		5,665,022.42	0.41	100.0	Analog	0.10	3
2	Sc		159,364.10	2.92	100.0	Pulse	0.30	3
2	Ge		88,965.04	1.81	100.0	Pulse	0.30	3
2	Ge		135,601.52	2.61	100.0	Pulse	0.30	3
2	Rh		2,816,332.67	3.01	100.0	Pulse	0.30	3
2	In		857,551.19	2.83	100.0	Pulse	0.30	3
2	Tb		3,403,219.45	0.91	100.0	Mix	0.30	3
2	Ho		325,132.09	3.06	100.0	Pulse	0.30	3
2	Bi		2,243,844.63	2.86	100.0	Pulse	0.30	3
3	Sc		220,626.12	1.10	100.0	Pulse	0.30	3
3	Ge		132,121.44	1.01	100.0	Pulse	0.30	3
3	Ge		206,087.96	0.52	100.0	Pulse	0.30	3
3	Rh		2,507,220.67	0.53	100.0	Pulse	0.30	3
3	Tb		3,770,749.71	0.70	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 10:59
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	312.31	64.00	2.327E-05	Pulse	0.25	3
B			1	-1.100	ug/l	-0.54	4,880.82	1.775E-03	Pulse	0.15	3
Ca			1	-0.148	ug/l	-73.42	20,803.59	4.269E-03	Pulse	0.10	3
Sr			1	0.001	ug/l	230.54	946.73	1.407E-04	Pulse	0.10	3
Mo			1	-0.008	ug/l	-15.71	43.33	6.447E-06	Pulse	0.10	3
Ag			1	-0.001	ug/l	-16.34	46.67	6.469E-06	Pulse	0.10	3
Sn			1	0.340	ug/l	3.01	2,246.91	3.115E-04	Pulse	0.10	3
Sb			1	-0.047	ug/l	-1.88	126.68	1.336E-05	Pulse	0.10	3
Ba			1	0.001	ug/l	1170.10	110.00	1.161E-05	Pulse	0.10	3
Tl			1	-0.005	ug/l	-7.79	286.68	5.087E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	174.21	343.36	6.095E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	372.30	273.35	4.848E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	49.08	1,353.42	2.402E-04	Pulse	0.10	3
Na			2	-0.321	ug/l	-324.73	9,833.91	6.166E-02	Pulse	0.30	3
Mg			2	-0.591	ug/l	-1.62	324.45	2.035E-03	Pulse	0.30	3
Al			2	-0.499	ug/l	-10.62	152.23	9.550E-04	Pulse	0.30	3
K			2	0.091	ug/l	208.30	7,360.62	4.617E-02	Pulse	0.30	3
Ca			2	-6.470	ug/l	-2.83	82.23	5.157E-04	Pulse	0.30	3
Ti			2	0.037	ug/l	130.62	8.89	5.562E-05	Pulse	0.30	3
V			2	0.003	ug/l	201.98	431.12	2.704E-03	Pulse	0.30	3
Cr			2	0.010	ug/l	45.46	615.58	3.861E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-96.68	92.22	5.785E-04	Pulse	0.30	3
Fe			2	-1.103	ug/l	-0.64	5,348.70	3.355E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-7004.73	95.56	5.998E-04	Pulse	0.30	3
Ni			2	0.004	ug/l	67.21	84.44	5.296E-04	Pulse	0.30	3
Cu			2	0.018	ug/l	12.26	902.26	5.659E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.150	ug/l	17.56	432.23	2.711E-03	Pulse	0.30	3
As			2	0.001	ug/l	504.40	14.33	8.987E-05	Pulse	1.00	3
Cd			2	-0.003	ug/l	-107.94	7.78	9.075E-06	Pulse	0.30	3
Sn			2	-0.009	ug/l	-55.01	338.90	3.966E-04	Pulse	0.30	3
Se			3	-0.008	ug/l	-38.64	11.87	5.859E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,749,648.81	0.58	100.0	Pulse	0.10	3
1	Sc		4,873,548.57	0.73	100.0	Pulse	0.10	3
1	Ge		917,556.81	1.08	100.0	Pulse	0.10	3
1	Ge		1,284,209.41	0.71	100.0	Pulse	0.10	3
1	Rh		6,723,712.61	0.77	100.0	Analog	0.10	3
1	In		7,215,409.54	1.42	100.0	Analog	0.10	3
1	Tb		9,472,991.94	0.47	100.0	Analog	0.10	3
1	Ho		897,045.95	0.82	100.0	Pulse	0.10	3
1	Bi		5,635,127.42	0.36	100.0	Analog	0.10	3
2	Sc		159,421.09	0.35	100.0	Pulse	0.30	3
2	Ge		89,075.03	0.62	100.0	Pulse	0.30	3
2	Ge		136,085.97	0.52	100.0	Pulse	0.30	3
2	Rh		2,824,630.38	0.72	100.0	Pulse	0.30	3
2	In		854,278.37	0.53	100.0	Pulse	0.30	3
2	Tb		3,349,734.80	0.28	100.0	Pulse	0.30	3
2	Ho		325,124.49	0.55	100.0	Pulse	0.30	3
2	Bi		2,239,448.80	0.45	100.0	Pulse	0.30	3
3	Sc		219,132.70	0.28	100.0	Pulse	0.30	3
3	Ge		131,593.73	0.18	100.0	Pulse	0.30	3
3	Ge		202,560.04	0.44	100.0	Pulse	0.30	3
3	Rh		2,483,345.25	0.64	100.0	Pulse	0.30	3
3	Tb		3,727,881.10	0.46	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 11:04
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	976.43	61.33	2.242E-05	Pulse	0.25	3
B			1	-1.117	ug/l	-1.47	4,647.43	1.701E-03	Pulse	0.15	3
Ca			1	-0.446	ug/l	-47.25	20,263.07	4.167E-03	Pulse	0.10	3
Sr			1	0.001	ug/l	174.98	930.06	1.403E-04	Pulse	0.10	3
Mo			1	-0.009	ug/l	-20.66	33.33	5.054E-06	Pulse	0.10	3
Ag			1	-0.001	ug/l	-106.84	46.67	6.535E-06	Pulse	0.10	3
Sn			1	0.337	ug/l	1.47	2,136.89	3.001E-04	Pulse	0.10	3
Sb			1	-0.047	ug/l	-0.89	113.34	1.212E-05	Pulse	0.10	3
Ba			1	-0.002	ug/l	-106.10	83.33	8.906E-06	Pulse	0.10	3
Tl			1	-0.005	ug/l	-14.74	300.02	5.443E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-368.71	280.02	5.083E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-135.35	230.01	4.174E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-168.70	1,113.40	2.021E-04	Pulse	0.10	3
Na			2	-0.747	ug/l	-67.38	9,080.24	5.727E-02	Pulse	0.30	3
Mg			2	-0.646	ug/l	-1.05	281.12	1.772E-03	Pulse	0.30	3
Al			2	-0.614	ug/l	-12.30	123.34	7.775E-04	Pulse	0.30	3
K			2	0.142	ug/l	63.03	7,347.25	4.632E-02	Pulse	0.30	3
Ca			2	-6.708	ug/l	-7.39	75.55	4.760E-04	Pulse	0.30	3
Ti			2	0.016	ug/l	115.22	4.45	2.793E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-304.49	387.79	2.446E-03	Pulse	0.30	3
Cr			2	0.009	ug/l	65.94	603.35	3.803E-03	Pulse	0.30	3
Mn			2	0.001	ug/l	507.04	102.22	6.449E-04	Pulse	0.30	3
Fe			2	-1.143	ug/l	-1.51	5,024.17	3.168E-02	Pulse	0.30	3
Co			2	0.000	ug/l	128.87	100.00	6.304E-04	Pulse	0.30	3
Ni			2	0.004	ug/l	21.77	82.22	5.183E-04	Pulse	0.30	3
Cu			2	0.009	ug/l	35.00	790.03	4.979E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.102	ug/l	6.05	353.34	2.227E-03	Pulse	0.30	3
As			2	0.009	ug/l	37.22	21.00	1.324E-04	Pulse	1.00	3
Cd			2	-0.002	ug/l	-0.80	10.00	1.172E-05	Pulse	0.30	3
Sn			2	0.004	ug/l	239.76	394.45	4.622E-04	Pulse	0.30	3
Se			3	-0.019	ug/l	-53.08	9.13	4.508E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,731,973.08	0.58	100.0	Pulse	0.10	3
1	Sc		4,861,959.72	0.77	100.0	Pulse	0.10	3
1	Ge		913,916.58	0.71	100.0	Pulse	0.10	3
1	Ge		1,281,974.77	0.19	100.0	Pulse	0.10	3
1	Rh		6,628,419.70	1.04	100.0	Analog	0.10	3
1	In		7,122,813.67	0.82	100.0	Analog	0.10	3
1	Tb		9,352,266.11	0.30	100.0	Analog	0.10	3
1	Ho		890,324.13	1.19	100.0	Pulse	0.10	3
1	Bi		5,511,592.84	0.25	100.0	Analog	0.10	3
2	Sc		158,626.73	0.66	100.0	Pulse	0.30	3
2	Ge		89,114.12	0.98	100.0	Pulse	0.30	3
2	Ge		135,464.37	0.38	100.0	Pulse	0.30	3
2	Rh		2,818,402.60	0.06	100.0	Pulse	0.30	3
2	In		853,218.83	0.44	100.0	Pulse	0.30	3
2	Tb		3,335,624.52	0.37	100.0	Pulse	0.30	3
2	Ho		322,303.76	0.43	100.0	Pulse	0.30	3
2	Bi		2,218,451.58	0.21	100.0	Pulse	0.30	3
3	Sc		219,301.68	0.82	100.0	Pulse	0.30	3
3	Ge		130,463.85	0.63	100.0	Pulse	0.30	3
3	Ge		202,488.95	0.34	100.0	Pulse	0.30	3
3	Rh		2,468,272.96	0.59	100.0	Pulse	0.30	3
3	Tb		3,720,656.10	0.12	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 11:09
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.508	ug/l	4.05	6,545.34	2.404E-03	Pulse	0.25	3
B			1	23.931	ug/l	1.09	299,592.49	1.100E-01	Pulse	0.15	3
Ca			1	258.318	ug/l	0.67	449,251.88	9.209E-02	Pulse	0.10	3
Sr			1	4.987	ug/l	0.84	426,257.29	6.416E-02	Pulse	0.10	3
Mo			1	0.966	ug/l	3.27	15,918.43	2.396E-03	Pulse	0.10	3
Ag			1	0.476	ug/l	4.17	20,664.13	2.869E-03	Pulse	0.10	3
Sn			1	5.148	ug/l	2.35	132,772.57	1.843E-02	Pulse	0.10	3
Sb			1	1.852	ug/l	2.36	53,150.98	5.656E-03	Pulse	0.10	3
Ba			1	0.994	ug/l	3.36	11,768.23	1.252E-03	Pulse	0.10	3
Tl			1	0.493	ug/l	0.36	36,752.93	6.666E-03	Pulse	0.10	3
Pb			1	0.509	ug/l	3.43	12,856.06	2.332E-03	Pulse	0.10	3
Pb			1	0.516	ug/l	2.97	11,648.45	2.113E-03	Pulse	0.10	3
Pb			1	0.500	ug/l	0.91	51,356.49	9.315E-03	Pulse	0.10	3
Na			2	251.719	ug/l	0.65	426,687.42	2.667E+00	Pulse	0.30	3
Mg			2	255.728	ug/l	0.21	196,802.45	1.230E+00	Pulse	0.30	3
Al			2	25.115	ug/l	4.76	6,454.63	4.035E-02	Pulse	0.30	3
K			2	254.671	ug/l	0.79	124,889.15	7.807E-01	Pulse	0.30	3
Ca			2	270.860	ug/l	0.69	7,477.30	4.674E-02	Pulse	0.30	3
Ti			2	1.017	ug/l	18.88	216.67	1.353E-03	Pulse	0.30	3
V			2	1.005	ug/l	1.52	7,485.12	4.679E-02	Pulse	0.30	3
Cr			2	1.004	ug/l	1.22	9,760.76	6.101E-02	Pulse	0.30	3
Mn			2	1.002	ug/l	2.88	4,702.95	2.940E-02	Pulse	0.30	3
Fe			2	25.142	ug/l	0.75	200,269.10	1.252E+00	Pulse	0.30	3
Co			2	0.499	ug/l	3.11	8,319.94	5.201E-02	Pulse	0.30	3
Ni			2	0.973	ug/l	1.96	4,525.11	2.828E-02	Pulse	0.30	3
Cu			2	1.996	ug/l	2.48	24,676.40	1.543E-01	Pulse	0.30	3
Zn			2	5.183	ug/l	1.06	8,518.97	5.325E-02	Pulse	0.30	3
As			2	0.485	ug/l	6.41	404.68	2.530E-03	Pulse	1.00	3
Cd			2	0.506	ug/l	5.91	1,235.97	1.438E-03	Pulse	0.30	3
Sn			2	4.814	ug/l	1.18	21,808.54	2.537E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.471	ug/l	8.41	132.07	6.490E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,722,249.33	0.96	99.6	Pulse	0.10	3
1	Sc		4,878,300.97	0.95	100.3	Pulse	0.10	3
1	Ge		910,074.52	0.89	99.6	Pulse	0.10	3
1	Ge		1,282,603.03	0.33	100.0	Pulse	0.10	3
1	Rh		6,643,089.90	0.44	100.2	Analog	0.10	3
1	In		7,203,098.04	0.48	101.1	Analog	0.10	3
1	Tb		9,398,461.53	1.46	100.5	Analog	0.10	3
1	Ho		887,358.87	1.47	99.7	Pulse	0.10	3
1	Bi		5,513,258.25	1.18	100.0	Mix	0.10	3
2	Sc		159,983.87	0.52	100.9	Pulse	0.30	3
2	Ge		88,812.65	0.55	99.7	Pulse	0.30	3
2	Ge		136,742.89	0.30	100.9	Pulse	0.30	3
2	Rh		2,801,239.06	0.50	99.4	Pulse	0.30	3
2	In		859,514.67	0.30	100.7	Pulse	0.30	3
2	Tb		3,332,322.65	0.26	99.9	Pulse	0.30	3
2	Ho		323,954.81	0.56	100.5	Pulse	0.30	3
2	Bi		2,219,972.27	0.38	100.1	Pulse	0.30	3
3	Sc		218,587.60	0.80	99.7	Pulse	0.30	3
3	Ge		131,940.05	0.44	101.1	Pulse	0.30	3
3	Ge		203,534.84	0.33	100.5	Pulse	0.30	3
3	Rh		2,455,492.82	0.60	99.5	Pulse	0.30	3
3	Tb		3,692,811.24	1.07	99.3	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 11:14
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.080	ug/l	2.26	65,420.20	2.386E-02	Pulse	0.25	3
B			1	4.129	ug/l	1.32	66,911.15	2.439E-02	Pulse	0.15	3
Ca			1	15.815	ug/l	0.32	47,448.34	9.693E-03	Pulse	0.10	3
Sr			1	5.020	ug/l	0.91	434,092.56	6.458E-02	Pulse	0.10	3
Mo			1	5.001	ug/l	0.28	82,672.98	1.230E-02	Pulse	0.10	3
Ag			1	5.004	ug/l	1.23	216,179.55	3.005E-02	Pulse	0.10	3
Sn			1	5.432	ug/l	2.18	140,316.09	1.950E-02	Pulse	0.10	3
Sb			1	4.928	ug/l	1.44	139,974.23	1.480E-02	Pulse	0.10	3
Ba			1	5.049	ug/l	1.92	59,709.01	6.313E-03	Pulse	0.10	3
Tl			1	5.010	ug/l	0.77	374,212.33	6.672E-02	Pulse	0.10	3
Pb			1	5.101	ug/l	1.27	128,138.11	2.285E-02	Pulse	0.10	3
Pb			1	5.012	ug/l	1.81	112,835.16	2.012E-02	Pulse	0.10	3
Pb			1	5.028	ug/l	1.64	514,517.49	9.174E-02	Pulse	0.10	3
Na			2	6.458	ug/l	5.40	21,062.14	1.317E-01	Pulse	0.30	3
Mg			2	4.906	ug/l	4.29	4,536.22	2.837E-02	Pulse	0.30	3
Al			2	5.626	ug/l	3.87	1,658.99	1.038E-02	Pulse	0.30	3
K			2	5.608	ug/l	10.85	9,925.28	6.209E-02	Pulse	0.30	3
Ca			2	36.894	ug/l	11.41	1,237.84	7.743E-03	Pulse	0.30	3
Ti			2	4.941	ug/l	8.44	1,046.71	6.549E-03	Pulse	0.30	3
V			2	5.136	ug/l	1.70	36,529.09	2.285E-01	Pulse	0.30	3
Cr			2	5.144	ug/l	0.42	47,815.34	2.991E-01	Pulse	0.30	3
Mn			2	5.128	ug/l	1.66	23,648.14	1.479E-01	Pulse	0.30	3
Fe			2	5.275	ug/l	1.67	52,694.59	3.296E-01	Pulse	0.30	3
Co			2	5.116	ug/l	1.54	84,369.54	5.277E-01	Pulse	0.30	3
Ni			2	5.069	ug/l	0.29	23,280.92	1.456E-01	Pulse	0.30	3
Cu			2	5.177	ug/l	0.90	62,858.13	3.932E-01	Pulse	0.30	3
Zn			2	5.430	ug/l	3.25	8,909.17	5.573E-02	Pulse	0.30	3
As			2	5.078	ug/l	1.90	4,105.86	2.568E-02	Pulse	1.00	3
Cd			2	5.007	ug/l	3.24	12,042.75	1.407E-02	Pulse	0.30	3
Sn			2	5.127	ug/l	0.71	23,098.15	2.699E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	5.048	ug/l	0.84	1,291.05	6.293E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,742,858.05	1.25	100.4	Pulse	0.10	3
1	Sc		4,895,207.84	0.91	100.7	Pulse	0.10	3
1	Ge		915,097.85	0.38	100.1	Pulse	0.10	3
1	Ge		1,280,657.35	0.64	99.9	Pulse	0.10	3
1	Rh		6,721,615.73	0.51	101.4	Analog	0.10	3
1	In		7,195,380.64	0.94	101.0	Analog	0.10	3
1	Tb		9,459,031.32	0.35	101.1	Analog	0.10	3
1	Ho		894,274.44	1.16	100.4	Pulse	0.10	3
1	Bi		5,608,413.67	0.29	101.8	Analog	0.10	3
2	Sc		159,877.47	0.56	100.8	Pulse	0.30	3
2	Ge		89,861.62	0.36	100.8	Pulse	0.30	3
2	Ge		136,730.39	0.85	100.9	Pulse	0.30	3
2	Rh		2,824,142.53	0.25	100.2	Pulse	0.30	3
2	In		855,649.88	0.43	100.3	Pulse	0.30	3
2	Tb		3,365,579.59	0.70	100.9	Pulse	0.30	3
2	Ho		324,912.94	0.61	100.8	Pulse	0.30	3
2	Bi		2,231,215.96	0.68	100.6	Pulse	0.30	3
3	Sc		221,460.83	1.00	101.0	Pulse	0.30	3
3	Ge		132,706.44	0.95	101.7	Pulse	0.30	3
3	Ge		205,141.36	0.95	101.3	Pulse	0.30	3
3	Rh		2,495,234.07	0.97	101.1	Pulse	0.30	3
3	Tb		3,770,634.02	0.67	101.3	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 11:19
Sample Name	STDD
Sample Type	CalStd
Comment	25
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	24.523	ug/l	0.55	312,090.32	1.151E-01	Pulse	0.25	3
B			1	23.653	ug/l	1.39	295,168.10	1.088E-01	Pulse	0.15	3
Ca			1	39.836	ug/l	2.52	86,133.53	1.786E-02	Pulse	0.10	3
Sr			1	24.368	ug/l	0.23	2,088,163.15	3.130E-01	Pulse	0.10	3
Mo			1	24.759	ug/l	0.78	405,569.07	6.079E-02	Pulse	0.10	3
Ag			1	24.377	ug/l	1.26	1,046,188.94	1.463E-01	Pulse	0.10	3
Sn			1	24.710	ug/l	1.40	659,009.71	9.217E-02	Pulse	0.10	3
Sb			1	24.630	ug/l	0.23	687,336.03	7.334E-02	Pulse	0.10	3
Ba			1	24.461	ug/l	0.42	286,229.54	3.054E-02	Pulse	0.10	3
Tl			1	24.332	ug/l	1.03	1,799,689.56	3.236E-01	Pulse	0.10	3
Pb			1	24.637	ug/l	1.73	612,596.80	1.101E-01	Pulse	0.10	3
Pb			1	24.392	ug/l	1.18	543,648.88	9.775E-02	Pulse	0.10	3
Pb			1	24.471	ug/l	1.41	2,478,774.31	4.457E-01	Pulse	0.10	3
Na			2	25.259	ug/l	0.97	51,305.12	3.261E-01	Pulse	0.30	3
Mg			2	24.700	ug/l	1.50	19,385.63	1.232E-01	Pulse	0.30	3
Al			2	25.964	ug/l	1.04	6,553.56	4.165E-02	Pulse	0.30	3
K			2	25.679	ug/l	2.23	18,878.57	1.200E-01	Pulse	0.30	3
Ca			2	174.457	ug/l	4.07	4,825.21	3.067E-02	Pulse	0.30	3
Ti			2	24.617	ug/l	3.27	5,129.74	3.260E-02	Pulse	0.30	3
V			2	24.665	ug/l	0.42	171,101.63	1.088E+00	Pulse	0.30	3
Cr			2	24.644	ug/l	0.58	223,472.50	1.420E+00	Pulse	0.30	3
Mn			2	24.671	ug/l	0.55	111,576.61	7.092E-01	Pulse	0.30	3
Fe			2	25.673	ug/l	0.69	200,827.58	1.276E+00	Pulse	0.30	3
Co			2	24.835	ug/l	0.36	402,671.51	2.559E+00	Pulse	0.30	3
Ni			2	24.617	ug/l	1.06	111,006.49	7.056E-01	Pulse	0.30	3
Cu			2	24.853	ug/l	0.29	294,405.82	1.871E+00	Pulse	0.30	3
Zn			2	24.520	ug/l	0.60	38,922.80	2.474E-01	Pulse	0.30	3
As			2	24.953	ug/l	0.79	19,801.64	1.259E-01	Pulse	1.00	3
Cd			2	24.531	ug/l	0.41	58,076.44	6.888E-02	Pulse	0.30	3
Sn			2	24.674	ug/l	0.46	108,111.86	1.282E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	24.749	ug/l	0.66	6,113.41	3.058E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,711,845.99	0.72	99.3	Pulse	0.10	3
1	Sc		4,824,402.01	0.69	99.2	Pulse	0.10	3
1	Ge		904,899.18	0.17	99.0	Pulse	0.10	3
1	Ge		1,267,196.86	1.29	98.8	Pulse	0.10	3
1	Rh		6,671,689.90	0.71	100.7	Analog	0.10	3
1	In		7,150,622.31	0.85	100.4	Analog	0.10	3
1	Tb		9,371,211.53	0.76	100.2	Analog	0.10	3
1	Ho		892,812.07	1.23	100.3	Pulse	0.10	3
1	Bi		5,561,866.79	0.66	100.9	Analog	0.10	3
2	Sc		157,332.78	0.27	99.2	Pulse	0.30	3
2	Ge		87,297.72	0.26	98.0	Pulse	0.30	3
2	Ge		134,488.86	0.16	99.3	Pulse	0.30	3
2	Rh		2,780,063.78	0.12	98.6	Pulse	0.30	3
2	In		843,149.32	0.37	98.8	Pulse	0.30	3
2	Tb		3,326,556.88	0.25	99.7	Pulse	0.30	3
2	Ho		322,572.82	0.66	100.1	Pulse	0.30	3
2	Bi		2,206,042.14	0.27	99.4	Pulse	0.30	3
3	Sc		216,240.52	0.71	98.6	Pulse	0.30	3
3	Ge		129,696.63	0.22	99.4	Pulse	0.30	3
3	Ge		199,885.66	0.31	98.7	Pulse	0.30	3
3	Rh		2,437,370.53	0.17	98.7	Pulse	0.30	3
3	Tb		3,689,531.10	0.45	99.2	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 11:24
Sample Name STDE
Sample Type CalStd
Comment 50
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.891	ug/l	0.59	610,211.25	2.294E-01	Pulse	0.25	3
B			1	47.552	ug/l	1.09	564,472.10	2.122E-01	Pulse	0.15	3
Ca			1	78.506	ug/l	0.60	146,717.91	3.100E-02	Pulse	0.10	3
Sr			1	49.003	ug/l	1.51	4,110,908.06	6.293E-01	Pulse	0.10	3
Mo			1	50.290	ug/l	1.13	806,493.43	1.234E-01	Pulse	0.10	3
Ag			1	48.788	ug/l	1.12	2,035,009.81	2.928E-01	Pulse	0.10	3
Sn			1	49.461	ug/l	1.32	1,288,791.36	1.855E-01	Pulse	0.10	3
Sb			1	49.819	ug/l	0.25	1,365,356.13	1.482E-01	Pulse	0.10	3
Ba			1	49.532	ug/l	1.28	569,682.39	6.184E-02	Pulse	0.10	3
Tl			1	48.952	ug/l	0.27	3,598,857.55	6.509E-01	Pulse	0.10	3
Pb			1	49.508	ug/l	0.38	1,223,515.79	2.213E-01	Pulse	0.10	3
Pb			1	48.667	ug/l	0.48	1,078,098.37	1.950E-01	Pulse	0.10	3
Pb			1	49.057	ug/l	0.29	4,939,034.63	8.933E-01	Pulse	0.10	3
Na			2	53.189	ug/l	4.92	93,575.94	6.148E-01	Pulse	0.30	3
Mg			2	52.954	ug/l	4.37	39,357.88	2.586E-01	Pulse	0.30	3
Al			2	52.818	ug/l	4.62	12,628.17	8.296E-02	Pulse	0.30	3
K			2	53.416	ug/l	4.76	30,449.96	2.000E-01	Pulse	0.30	3
Ca			2	354.757	ug/l	3.18	9,244.88	6.072E-02	Pulse	0.30	3
Ti			2	50.409	ug/l	6.15	10,157.65	6.675E-02	Pulse	0.30	3
V			2	50.042	ug/l	4.21	335,436.18	2.204E+00	Pulse	0.30	3
Cr			2	50.165	ug/l	4.71	439,507.39	2.888E+00	Pulse	0.30	3
Mn			2	50.342	ug/l	4.30	220,160.97	1.446E+00	Pulse	0.30	3
Fe			2	54.004	ug/l	4.06	394,485.30	2.592E+00	Pulse	0.30	3
Co			2	50.492	ug/l	4.07	791,918.20	5.203E+00	Pulse	0.30	3
Ni			2	50.211	ug/l	4.58	218,956.60	1.439E+00	Pulse	0.30	3
Cu			2	50.623	ug/l	4.04	579,488.93	3.807E+00	Pulse	0.30	3
Zn			2	50.445	ug/l	5.27	77,252.47	5.077E-01	Pulse	0.30	3
As			2	51.024	ug/l	3.05	39,169.63	2.573E-01	Pulse	1.00	3
Cd			2	49.860	ug/l	4.14	113,926.05	1.400E-01	Pulse	0.30	3
Sn			2	50.284	ug/l	4.12	212,299.06	2.609E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	49.065	ug/l	0.83	12,052.56	6.057E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,659,736.30	0.42	97.4	Pulse	0.10	3
1	Sc		4,733,730.87	1.22	97.4	Pulse	0.10	3
1	Ge		894,492.56	0.54	97.9	Pulse	0.10	3
1	Ge		1,261,644.35	1.18	98.4	Pulse	0.10	3
1	Rh		6,533,319.28	0.71	98.6	Analog	0.10	3
1	In		6,949,751.07	1.05	97.6	Analog	0.10	3
1	Tb		9,212,836.95	0.21	98.5	Analog	0.10	3
1	Ho		895,116.47	1.62	100.5	Pulse	0.10	3
1	Bi		5,529,272.83	0.75	100.3	Mix	0.10	3
2	Sc		152,371.82	3.87	96.1	Pulse	0.30	3
2	Ge		85,802.54	2.21	96.3	Pulse	0.30	3
2	Ge		130,720.13	2.20	96.5	Pulse	0.30	3
2	Rh		2,685,079.27	3.76	95.3	Pulse	0.30	3
2	In		814,677.89	3.76	95.5	Pulse	0.30	3
2	Tb		3,218,578.00	3.44	96.5	Pulse	0.30	3
2	Ho		312,555.71	4.64	97.0	Pulse	0.30	3
2	Bi		2,161,543.32	3.24	97.4	Pulse	0.30	3
3	Sc		216,073.47	0.68	98.5	Pulse	0.30	3
3	Ge		128,937.64	1.07	98.8	Pulse	0.30	3
3	Ge		198,993.76	0.56	98.3	Pulse	0.30	3
3	Rh		2,423,874.14	0.97	98.2	Pulse	0.30	3
3	Tb		3,661,356.66	0.57	98.4	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 11:29
Sample Name STDF
Sample Type CalStd
Comment 100
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	101.559	ug/l	0.68	1,239,089.46	4.765E-01	Pulse	0.25	3
B			1	100.088	ug/l	0.62	1,142,676.86	4.395E-01	Pulse	0.15	3
Ca			1	148.055	ug/l	1.43	256,450.97	5.463E-02	Pulse	0.10	3
Sr			1	100.657	ug/l	0.65	8,401,114.88	1.292E+00	Analog	0.10	3
Mo			1	101.339	ug/l	1.01	1,616,757.64	2.487E-01	Pulse	0.10	3
Ag			1	101.938	ug/l	1.74	4,224,987.44	6.118E-01	Pulse	0.10	3
Sn			1	100.334	ug/l	1.88	2,604,784.49	3.772E-01	Pulse	0.10	3
Sb			1	100.790	ug/l	1.34	2,785,969.65	2.997E-01	Pulse	0.10	3
Ba			1	100.366	ug/l	0.89	1,164,829.20	1.253E-01	Pulse	0.10	3
Tl			1	100.690	ug/l	1.24	7,314,589.06	1.339E+00	Analog	0.10	3
Pb			1	101.836	ug/l	0.54	2,486,801.37	4.551E-01	Pulse	0.10	3
Pb			1	100.615	ug/l	0.21	2,202,447.15	4.031E-01	Pulse	0.10	3
Pb			1	101.497	ug/l	0.25	10,097,349.90	1.848E+00	Mix	0.10	3
Na			2	100.245	ug/l	0.76	170,052.02	1.101E+00	Pulse	0.30	3
Mg			2	101.110	ug/l	0.53	75,558.31	4.893E-01	Pulse	0.30	3
Al			2	102.183	ug/l	2.44	24,531.27	1.589E-01	Pulse	0.30	3
K			2	100.423	ug/l	1.20	51,826.48	3.356E-01	Pulse	0.30	3
Ca			2	701.700	ug/l	1.32	18,305.78	1.185E-01	Pulse	0.30	3
Ti			2	99.894	ug/l	1.68	20,424.89	1.323E-01	Pulse	0.30	3
V			2	100.160	ug/l	0.74	680,703.86	4.408E+00	Pulse	0.30	3
Cr			2	100.053	ug/l	0.94	888,893.37	5.757E+00	Pulse	0.30	3
Mn			2	99.905	ug/l	0.58	443,169.72	2.870E+00	Pulse	0.30	3
Fe			2	104.312	ug/l	0.24	760,791.64	4.927E+00	Pulse	0.30	3
Co			2	100.792	ug/l	0.43	1,603,633.48	1.039E+01	Pulse	0.30	3
Ni			2	100.138	ug/l	0.59	442,990.59	2.869E+00	Pulse	0.30	3
Cu			2	101.049	ug/l	0.58	1,172,809.36	7.595E+00	Pulse	0.30	3
Zn			2	100.256	ug/l	0.32	155,621.44	1.008E+00	Pulse	0.30	3
As			2	99.971	ug/l	0.34	77,824.57	5.040E-01	Pulse	1.00	3
Cd			2	100.609	ug/l	0.16	231,368.98	2.824E-01	Pulse	0.30	3
Sn			2	100.238	ug/l	0.13	425,603.96	5.196E-01	Pulse	0.30	3
Se			3	101.822	ug/l	0.36	24,546.45	1.256E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,600,220.85	1.18	95.2	Pulse	0.10	3
1	Sc		4,694,618.58	0.70	96.6	Pulse	0.10	3
1	Ge		885,322.20	1.09	96.9	Pulse	0.10	3

Quantitation Report

1	Ge		1,244,575.87	1.02	97.1	Pulse	0.10	3
1	Rh		6,499,990.32	0.85	98.1	Analog	0.10	3
1	In		6,906,134.23	0.91	97.0	Analog	0.10	3
1	Tb		9,297,147.57	0.87	99.4	Analog	0.10	3
1	Ho		879,883.58	1.56	98.8	Pulse	0.10	3
1	Bi		5,464,294.92	1.08	99.1	Mix	0.10	3
2	Sc		154,419.99	0.68	97.3	Pulse	0.30	3
2	Ge		85,271.77	0.51	95.7	Pulse	0.30	3
2	Ge		130,251.83	1.02	96.2	Pulse	0.30	3
2	Rh		2,704,359.54	0.08	96.0	Pulse	0.30	3
2	In		819,159.51	0.23	96.0	Pulse	0.30	3
2	Tb		3,237,207.37	0.28	97.0	Pulse	0.30	3
2	Ho		313,788.10	0.21	97.4	Pulse	0.30	3
2	Bi		2,162,340.54	0.29	97.5	Pulse	0.30	3
3	Sc		211,538.85	0.25	96.5	Pulse	0.30	3
3	Ge		125,808.62	0.18	96.4	Pulse	0.30	3
3	Ge		195,407.60	0.59	96.5	Pulse	0.30	3
3	Rh		2,361,785.74	0.50	95.7	Pulse	0.30	3
3	Tb		3,597,737.91	0.53	96.7	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 11:34
Sample Name	STDG
Sample Type	CalStd
Comment	500MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	34.99	245.34	9.459E-05	Pulse	0.25	3
B			1	200.892	ug/l	0.75	2,272,941.30	8.755E-01	Pulse	0.15	3
Ca			1	500.422	ug/l	0.32	815,055.54	1.744E-01	Pulse	0.10	3
Sr			1	0.018	ug/l	10.57	2,360.26	3.681E-04	Pulse	0.10	3
Mo			1	0.135	ug/l	13.72	2,300.25	3.586E-04	Pulse	0.10	3
Ag			1	0.016	ug/l	20.98	743.38	1.063E-04	Pulse	0.10	3
Sn			1	0.520	ug/l	5.33	6,921.80	9.883E-04	Pulse	0.10	3
Sb			1	0.683	ug/l	7.49	19,890.03	2.180E-03	Pulse	0.10	3
Ba			1	0.013	ug/l	9.73	246.68	2.704E-05	Pulse	0.10	3
Tl			1	0.035	ug/l	6.04	3,213.85	5.882E-04	Pulse	0.10	3
Pb			1	0.023	ug/l	3.30	873.38	1.599E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	8.05	883.39	1.618E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	9.79	3,733.67	6.838E-04	Pulse	0.10	3
Na			2	485.975	ug/l	0.68	789,322.82	5.089E+00	Pulse	0.30	3
Mg			2	493.007	ug/l	0.60	367,158.33	2.367E+00	Pulse	0.30	3
Al			2	499.138	ug/l	0.48	119,344.39	7.694E-01	Pulse	0.30	3
K			2	490.926	ug/l	1.12	226,813.17	1.462E+00	Pulse	0.30	3
Ca			2	492.074	ug/l	1.70	12,968.49	8.361E-02	Pulse	0.30	3
Ti			2	0.092	ug/l	91.83	20.00	1.292E-04	Pulse	0.30	3
V			2	-0.008	ug/l	-56.94	344.45	2.220E-03	Pulse	0.30	3
Cr			2	0.025	ug/l	12.45	728.92	4.700E-03	Pulse	0.30	3
Mn			2	0.025	ug/l	35.30	210.00	1.353E-03	Pulse	0.30	3
Fe			2	501.054	ug/l	0.49	3,620,856.24	2.334E+01	Pulse	0.30	3
Co			2	0.031	ug/l	5.01	595.58	3.839E-03	Pulse	0.30	3
Ni			2	0.035	ug/l	18.25	218.89	1.411E-03	Pulse	0.30	3
Cu			2	0.009	ug/l	64.09	773.36	4.986E-03	Pulse	0.30	3
Zn			2	0.085	ug/l	15.39	320.01	2.063E-03	Pulse	0.30	3
As			2	0.028	ug/l	33.51	35.67	2.300E-04	Pulse	1.00	3
Cd			2	0.009	ug/l	85.51	36.51	4.389E-05	Pulse	0.30	3
Sn			2	0.237	ug/l	11.44	1,387.86	1.671E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	199.550	ug/l	0.42	49,002.58	2.461E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,596,181.38	1.05	95.0	Pulse	0.10	3
1	Sc		4,674,635.55	1.15	96.1	Pulse	0.10	3
1	Ge		885,815.58	1.30	96.9	Pulse	0.10	3
1	Ge		1,248,946.21	1.31	97.4	Pulse	0.10	3
1	Rh		6,414,856.36	1.39	96.8	Analog	0.10	3
1	In		7,002,769.05	1.03	98.3	Analog	0.10	3
1	Tb		9,122,436.53	0.58	97.5	Analog	0.10	3
1	Ho		876,105.58	0.98	98.4	Pulse	0.10	3
1	Bi		5,462,979.92	1.19	99.1	Pulse	0.10	3
2	Sc		155,116.83	0.55	97.8	Pulse	0.30	3
2	Ge		85,955.41	0.74	96.5	Pulse	0.30	3
2	Ge		131,943.71	0.68	97.4	Pulse	0.30	3
2	Rh		2,719,422.32	0.30	96.5	Pulse	0.30	3
2	In		830,557.82	0.79	97.3	Pulse	0.30	3
2	Tb		3,269,334.73	0.47	98.0	Pulse	0.30	3
2	Ho		314,971.13	0.48	97.7	Pulse	0.30	3
2	Bi		2,163,722.14	0.39	97.5	Pulse	0.30	3
3	Sc		214,100.60	0.15	97.6	Pulse	0.30	3
3	Ge		127,731.48	0.70	97.9	Pulse	0.30	3
3	Ge		199,102.12	0.21	98.3	Pulse	0.30	3
3	Rh		2,406,837.13	0.10	97.5	Pulse	0.30	3
3	Tb		3,650,775.41	0.43	98.1	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 11:39
Sample Name	STDH
Sample Type	CalStd
Comment	1000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	59.18	94.67	3.603E-05	Pulse	0.25	3
B			1	2.088	ug/l	2.62	40,878.27	1.557E-02	Pulse	0.15	3
Ca			1	972.201	ug/l	0.72	1,594,199.82	3.347E-01	Pulse	0.10	3
Sr			1	0.011	ug/l	10.27	1,760.18	2.723E-04	Pulse	0.10	3
Mo			1	0.032	ug/l	13.28	673.38	1.042E-04	Pulse	0.10	3
Ag			1	0.003	ug/l	49.10	203.35	2.912E-05	Pulse	0.10	3
Sn			1	0.465	ug/l	1.12	5,471.16	7.822E-04	Pulse	0.10	3
Sb			1	0.186	ug/l	7.09	6,538.26	7.047E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	82.54	116.67	1.258E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	28.57	1,006.74	1.848E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	38.01	503.36	9.260E-05	Pulse	0.10	3
Pb			1	0.007	ug/l	33.90	403.36	7.412E-05	Pulse	0.10	3
Pb			1	0.007	ug/l	8.72	1,906.78	3.504E-04	Pulse	0.10	3
Na			2	953.528	ug/l	0.92	1,543,942.93	9.922E+00	Pulse	0.30	3
Mg			2	970.493	ug/l	1.11	724,322.25	4.655E+00	Pulse	0.30	3
Al			2	981.502	ug/l	0.93	235,167.09	1.511E+00	Pulse	0.30	3
K			2	978.059	ug/l	1.30	446,229.20	2.868E+00	Pulse	0.30	3
Ca			2	957.233	ug/l	0.89	25,074.50	1.611E-01	Pulse	0.30	3
Ti			2	0.038	ug/l	88.42	8.89	5.694E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-324.09	384.45	2.472E-03	Pulse	0.30	3
Cr			2	0.020	ug/l	31.80	685.58	4.406E-03	Pulse	0.30	3
Mn			2	0.010	ug/l	5.88	142.23	9.140E-04	Pulse	0.30	3
Fe			2	990.392	ug/l	0.85	7,167,029.16	4.606E+01	Analog	0.30	3
Co			2	0.047	ug/l	6.10	851.14	5.468E-03	Pulse	0.30	3
Ni			2	0.039	ug/l	13.71	237.78	1.527E-03	Pulse	0.30	3
Cu			2	-0.005	ug/l	-121.73	615.58	3.958E-03	Pulse	0.30	3
Zn			2	0.077	ug/l	23.01	307.79	1.979E-03	Pulse	0.30	3
As			2	0.021	ug/l	23.63	29.67	1.905E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	285.04	18.85	2.265E-05	Pulse	0.30	3
Sn			2	0.158	ug/l	10.48	1,047.83	1.259E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	393.820	ug/l	0.43	97,795.65	4.857E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,626,171.94	0.65	96.1	Pulse	0.10	3
1	Sc		4,763,733.05	1.01	98.0	Pulse	0.10	3
1	Ge		890,559.28	0.88	97.4	Pulse	0.10	3
1	Ge		1,276,556.15	1.17	99.6	Pulse	0.10	3
1	Rh		6,465,349.07	0.36	97.5	Analog	0.10	3
1	In		6,993,787.75	0.99	98.2	Analog	0.10	3
1	Tb		9,279,920.91	0.96	99.2	Analog	0.10	3
1	Ho		879,250.85	1.40	98.8	Pulse	0.10	3
1	Bi		5,443,751.17	1.43	98.8	Mix	0.10	3
2	Sc		155,616.92	0.84	98.1	Pulse	0.30	3
2	Ge		87,071.17	0.77	97.7	Pulse	0.30	3
2	Ge		133,622.91	0.45	98.6	Pulse	0.30	3
2	Rh		2,730,387.60	0.32	96.9	Pulse	0.30	3
2	In		832,526.75	0.11	97.6	Pulse	0.30	3
2	Tb		3,270,743.69	0.32	98.1	Pulse	0.30	3
2	Ho		319,131.00	0.22	99.0	Pulse	0.30	3
2	Bi		2,174,600.33	0.54	98.0	Pulse	0.30	3
3	Sc		212,957.83	0.15	97.1	Pulse	0.30	3
3	Ge		128,427.56	1.15	98.4	Pulse	0.30	3
3	Ge		201,369.83	0.56	99.4	Pulse	0.30	3
3	Rh		2,399,306.78	0.79	97.2	Pulse	0.30	3
3	Tb		3,648,183.88	0.46	98.1	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 11:44
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	60.90	78.67	2.974E-05	Pulse	0.25	3
B			1	0.792	ug/l	4.89	26,354.11	9.962E-03	Pulse	0.15	3
Ca			1	4860.570	ug/l	1.02	7,899,741.13	1.656E+00	Analog	0.10	3
Sr			1	0.046	ug/l	4.11	4,594.15	7.173E-04	Pulse	0.10	3
Mo			1	0.019	ug/l	7.40	463.36	7.238E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	66.20	126.67	1.824E-05	Pulse	0.10	3
Sn			1	0.378	ug/l	0.30	3,157.12	4.552E-04	Pulse	0.10	3
Sb			1	0.098	ug/l	11.10	4,100.69	4.433E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	209.99	106.67	1.153E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	48.25	886.73	1.682E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	58.48	433.36	8.223E-05	Pulse	0.10	3
Pb			1	0.007	ug/l	78.36	396.69	7.515E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	22.12	1,726.77	3.278E-04	Pulse	0.10	3
Na			2	4894.675	ug/l	1.36	8,012,464.96	5.066E+01	Analog	0.30	3
Mg			2	4854.260	ug/l	1.07	3,679,144.99	2.326E+01	Pulse	0.30	3
Al			2	4972.593	ug/l	1.20	1,209,784.15	7.649E+00	Pulse	0.30	3
K			2	4919.987	ug/l	1.07	2,252,170.88	1.424E+01	Pulse	0.30	3
Ca			2	4809.945	ug/l	0.70	127,042.62	8.033E-01	Pulse	0.30	3
Ti			2	0.037	ug/l	123.83	8.89	5.633E-05	Pulse	0.30	3
V			2	-0.004	ug/l	-58.76	376.68	2.382E-03	Pulse	0.30	3
Cr			2	0.027	ug/l	37.31	765.58	4.839E-03	Pulse	0.30	3
Mn			2	0.068	ug/l	35.05	408.90	2.581E-03	Pulse	0.30	3
Fe			2	4960.275	ug/l	0.45	36,429,786.33	2.303E+02	Analog	0.30	3
Co			2	0.226	ug/l	3.75	3,770.48	2.384E-02	Pulse	0.30	3
Ni			2	0.173	ug/l	6.07	848.92	5.368E-03	Pulse	0.30	3
Cu			2	0.006	ug/l	52.56	748.91	4.737E-03	Pulse	0.30	3
Zn			2	0.097	ug/l	6.99	345.56	2.185E-03	Pulse	0.30	3
As			2	0.035	ug/l	29.28	41.67	2.635E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	99.81	27.75	3.341E-05	Pulse	0.30	3
Sn			2	0.047	ug/l	7.84	571.13	6.869E-04	Pulse	0.30	3
Se			3	0.125	ug/l	8.79	44.27	2.230E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,645,609.51	0.21	96.8	Pulse	0.10	3
1	Sc		4,770,920.76	1.15	98.1	Pulse	0.10	3
1	Ge		897,869.34	0.70	98.2	Pulse	0.10	3

Quantitation Report

1	Ge		1,250,217.59	0.77	97.5	Pulse	0.10	3
1	Rh		6,404,250.53	1.40	96.6	Analog	0.10	3
1	In		6,935,163.27	0.95	97.4	Analog	0.10	3
1	Tb		9,247,429.03	0.85	98.9	Analog	0.10	3
1	Ho		878,003.58	0.58	98.6	Pulse	0.10	3
1	Bi		5,264,581.28	1.41	95.5	Pulse	0.10	3
2	Sc		158,164.57	1.01	99.7	Pulse	0.30	3
2	Ge		87,454.23	0.99	98.1	Pulse	0.30	3
2	Ge		132,877.15	0.21	98.1	Pulse	0.30	3
2	Rh		2,694,927.12	0.29	95.6	Pulse	0.30	3
2	In		831,560.62	0.44	97.5	Pulse	0.30	3
2	Tb		3,294,875.56	0.60	98.8	Pulse	0.30	3
2	Ho		318,752.64	0.52	98.9	Pulse	0.30	3
2	Bi		2,103,299.91	0.42	94.8	Pulse	0.30	3
3	Sc		215,869.09	0.55	98.4	Pulse	0.30	3
3	Ge		128,069.38	0.50	98.2	Pulse	0.30	3
3	Ge		198,543.77	0.49	98.1	Pulse	0.30	3
3	Rh		2,352,292.82	0.10	95.3	Pulse	0.30	3
3	Tb		3,621,599.86	0.24	97.3	Pulse	0.30	3

Quantitation Report

File Name 012CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 11:49
Sample Name STDJ
Sample Type CalStd
Comment 10000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	86.15	85.33	3.206E-05	Pulse	0.25	3
B			1	0.322	ug/l	11.90	21,077.86	7.926E-03	Pulse	0.15	3
Ca			1	10072.266	ug/l	1.24	16,622,901.42	3.427E+00	Analog	0.10	3
Sr			1	0.089	ug/l	4.82	7,988.96	1.277E-03	Pulse	0.10	3
Mo			1	0.015	ug/l	24.13	390.02	6.236E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	26.20	160.01	2.351E-05	Pulse	0.10	3
Sn			1	1.247	ug/l	2.03	25,387.96	3.728E-03	Pulse	0.10	3
Sb			1	0.087	ug/l	9.52	3,787.28	4.108E-04	Pulse	0.10	3
Ba			1	0.018	ug/l	22.64	310.01	3.359E-05	Pulse	0.10	3
Tl			1	0.003	ug/l	60.21	796.72	1.540E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	2.25	636.71	1.231E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	26.08	490.03	9.464E-05	Pulse	0.10	3
Pb			1	0.012	ug/l	10.92	2,223.49	4.299E-04	Pulse	0.10	3
Na			2	10057.968	ug/l	1.93	16,609,398.78	1.040E+02	Analog	0.30	3
Mg			2	10185.348	ug/l	0.51	7,792,513.58	4.881E+01	Analog	0.30	3
Al			2	10161.425	ug/l	0.76	2,495,476.85	1.563E+01	Pulse	0.30	3
K			2	10108.737	ug/l	1.12	4,663,636.62	2.921E+01	Pulse	0.30	3
Ca			2	9978.197	ug/l	0.78	265,777.85	1.665E+00	Pulse	0.30	3
Ti			2	0.042	ug/l	65.46	10.00	6.277E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-194.21	390.01	2.444E-03	Pulse	0.30	3
Cr			2	0.099	ug/l	7.64	1,431.19	8.962E-03	Pulse	0.30	3
Mn			2	0.170	ug/l	6.49	880.04	5.512E-03	Pulse	0.30	3
Fe			2	10020.707	ug/l	2.39	74,271,612.60	4.652E+02	Analog	0.30	3
Co			2	0.471	ug/l	0.58	7,851.96	4.918E-02	Pulse	0.30	3
Ni			2	0.388	ug/l	0.51	1,840.13	1.152E-02	Pulse	0.30	3
Cu			2	0.059	ug/l	13.20	1,398.97	8.758E-03	Pulse	0.30	3
Zn			2	1.071	ug/l	4.05	1,910.14	1.196E-02	Pulse	0.30	3
As			2	0.051	ug/l	11.72	54.67	3.423E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	65.37	21.08	2.544E-05	Pulse	0.30	3
Sn			2	0.888	ug/l	5.86	4,180.60	5.043E-03	Pulse	0.30	3
Se			3	0.034	ug/l	23.34	21.60	1.102E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,659,089.70	0.98	97.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		4,851,177.11	0.99	99.8	Pulse	0.10	3
1	Ge		900,467.49	1.10	98.5	Pulse	0.10	3
1	Ge		1,246,605.55	0.92	97.2	Pulse	0.10	3
1	Rh		6,257,308.45	0.92	94.4	Analog	0.10	3
1	In		6,812,086.82	1.15	95.6	Analog	0.10	3
1	Tb		9,220,083.82	1.03	98.6	Analog	0.10	3
1	Ho		873,096.94	1.48	98.1	Pulse	0.10	3
1	Bi		5,174,461.59	1.01	93.9	Pulse	0.10	3
2	Sc		159,667.99	1.01	100.7	Pulse	0.30	3
2	Ge		87,043.16	0.84	97.7	Pulse	0.30	3
2	Ge		133,447.05	0.65	98.5	Pulse	0.30	3
2	Rh		2,652,197.39	0.68	94.1	Pulse	0.30	3
2	In		829,252.85	0.70	97.2	Pulse	0.30	3
2	Tb		3,317,372.92	0.45	99.5	Pulse	0.30	3
2	Ho		320,763.93	0.49	99.5	Pulse	0.30	3
2	Bi		2,065,828.25	0.58	93.1	Pulse	0.30	3
3	Sc		216,279.02	0.50	98.6	Pulse	0.30	3
3	Ge		126,602.90	0.54	97.0	Pulse	0.30	3
3	Ge		196,093.51	0.45	96.8	Pulse	0.30	3
3	Rh		2,293,951.65	0.27	92.9	Pulse	0.30	3
3	Tb		3,569,265.69	0.36	95.9	Pulse	0.30	3

Quantitation Report

File Name	013CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 11:54
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-7735.23	57.33	2.158E-05	Pulse	0.25	3
B			1	0.000	ug/l	---	17,358.08	6.535E-03	Pulse	0.15	3
Ca			1	0.000	ug/l	---	21,080.84	4.319E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	---	903.39	1.327E-04	Pulse	0.10	3
Mo			1	0.000	ug/l	1860.42	180.01	2.645E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	244.07	90.00	1.246E-05	Pulse	0.10	3
Sn			1	0.346	ug/l	1.67	2,400.28	3.321E-04	Pulse	0.10	3
Sb			1	0.006	ug/l	58.37	1,590.13	1.690E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	---	103.34	1.098E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	---	656.71	1.192E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	-1156.39	300.01	5.449E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-891.21	246.68	4.485E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	560.98	1,240.06	2.252E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	10,404.51	6.498E-02	Pulse	0.30	3
Mg			2	0.036	ug/l	356.87	806.70	5.039E-03	Pulse	0.30	3
Al			2	-0.027	ug/l	-810.40	268.89	1.680E-03	Pulse	0.30	3
K			2	0.400	ug/l	39.41	7,536.22	4.706E-02	Pulse	0.30	3
Ca			2	-6.649	ug/l	-17.06	77.78	4.860E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	1.11	6.935E-06	Pulse	0.30	3
V			2	-0.001	ug/l	-1340.50	401.12	2.507E-03	Pulse	0.30	3
Cr			2	-0.001	ug/l	-532.44	514.46	3.212E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	100.00	6.244E-04	Pulse	0.30	3
Fe			2	0.000	ug/l	---	13,569.16	8.475E-02	Pulse	0.30	3
Co			2	0.000	ug/l	85177.40	96.67	6.039E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	122.94	67.78	4.233E-04	Pulse	0.30	3
Cu			2	-0.001	ug/l	-352.45	670.02	4.185E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.013	ug/l	-135.70	172.23	1.075E-03	Pulse	0.30	3
As			2	0.000	ug/l	3229.92	14.00	8.738E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	17746.44	15.55	1.819E-05	Pulse	0.30	3
Sn			2	0.004	ug/l	42.97	394.46	4.618E-04	Pulse	0.30	3
Se			3	-0.001	ug/l	-2105.21	13.87	6.808E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,656,194.46	0.08	100.0	Pulse	0.10	3
1	Sc		4,881,801.49	0.65	100.0	Pulse	0.10	3
1	Ge		917,134.65	0.51	100.0	Pulse	0.10	3
1	Ge		1,280,012.61	0.97	100.0	Pulse	0.10	3
1	Rh		6,805,369.90	0.04	100.0	Analog	0.10	3
1	In		7,225,860.59	0.95	100.0	Analog	0.10	3
1	Tb		9,408,850.69	0.70	100.0	Analog	0.10	3
1	Ho		888,285.77	0.26	100.0	Pulse	0.10	3
1	Bi		5,507,767.21	1.03	100.0	Analog	0.10	3
2	Sc		160,125.05	0.46	100.0	Pulse	0.30	3
2	Ge		87,964.90	1.06	100.0	Pulse	0.30	3
2	Ge		136,023.78	1.26	100.0	Pulse	0.30	3
2	Rh		2,808,055.31	0.53	100.0	Pulse	0.30	3
2	In		854,239.72	0.50	100.0	Pulse	0.30	3
2	Tb		3,320,895.91	0.22	100.0	Pulse	0.30	3
2	Ho		321,488.65	0.11	100.0	Pulse	0.30	3
2	Bi		2,203,927.55	0.10	100.0	Pulse	0.30	3
3	Sc		220,407.92	0.64	100.0	Pulse	0.30	3
3	Ge		132,418.39	1.01	100.0	Pulse	0.30	3
3	Ge		203,528.55	0.56	100.0	Pulse	0.30	3
3	Rh		2,474,976.36	0.41	100.0	Pulse	0.30	3
3	Tb		3,690,513.46	0.23	100.0	Pulse	0.30	3

Quantitation Report

File Name 014_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 12:02
Sample Name ICVA
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	59.808	ug/l	0.65	743,689.46	2.806E-01	Pulse	0.25	3
B			1	122.571	ug/l	1.09	1,422,277.72	5.367E-01	Pulse	0.15	3
Ca			1	5538.025	ug/l	0.79	9,059,661.95	1.886E+00	Analog	0.10	3
Sr			1	62.263	ug/l	0.59	5,033,696.38	7.995E-01	Pulse	0.10	3
Mo			1	59.498	ug/l	0.31	919,483.06	1.460E-01	Pulse	0.10	3
Ag			1	59.359	ug/l	0.99	2,462,724.81	3.563E-01	Pulse	0.10	3
Sn			1	56.817	ug/l	0.43	1,473,606.28	2.132E-01	Pulse	0.10	3
Sb			1	61.271	ug/l	1.75	1,677,545.18	1.822E-01	Pulse	0.10	3
Ba			1	61.057	ug/l	1.89	701,666.26	7.622E-02	Pulse	0.10	3
Tl			1	63.692	ug/l	0.44	4,442,880.56	8.468E-01	Pulse	0.10	3
Pb			1	63.685	ug/l	0.93	1,493,258.83	2.846E-01	Pulse	0.10	3
Pb			1	59.478	ug/l	0.41	1,250,111.15	2.383E-01	Pulse	0.10	3
Pb			1	61.354	ug/l	0.16	5,860,848.90	1.117E+00	Pulse	0.10	3
Na			2	5453.872	ug/l	3.68	9,090,281.31	5.644E+01	Analog	0.30	3
Mg			2	5394.031	ug/l	2.46	4,163,797.47	2.585E+01	Pulse	0.30	3
Al			2	5577.507	ug/l	2.67	1,381,987.17	8.580E+00	Pulse	0.30	3
K			2	5486.851	ug/l	2.82	2,557,139.48	1.588E+01	Pulse	0.30	3
Ca			2	5714.311	ug/l	2.64	153,663.32	9.540E-01	Pulse	0.30	3
Ti			2	56.182	ug/l	2.90	11,983.31	7.440E-02	Pulse	0.30	3
V			2	58.958	ug/l	2.72	418,131.30	2.596E+00	Pulse	0.30	3
Cr			2	57.809	ug/l	3.43	535,893.43	3.327E+00	Pulse	0.30	3
Mn			2	58.532	ug/l	2.55	270,884.52	1.682E+00	Pulse	0.30	3
Fe			2	5470.674	ug/l	3.03	40,914,961.71	2.540E+02	Analog	0.30	3
Co			2	57.787	ug/l	3.10	959,024.33	5.954E+00	Pulse	0.30	3
Ni			2	56.888	ug/l	3.27	262,513.78	1.630E+00	Pulse	0.30	3
Cu			2	56.304	ug/l	2.69	681,965.93	4.234E+00	Pulse	0.30	3
Zn			2	56.034	ug/l	2.29	90,817.91	5.638E-01	Pulse	0.30	3
As			2	58.508	ug/l	2.25	47,518.23	2.950E-01	Pulse	1.00	3
Cd			2	57.659	ug/l	2.63	135,608.46	1.619E-01	Pulse	0.30	3
Sn			2	56.257	ug/l	2.62	244,444.06	2.918E-01	Pulse	0.30	3
Se			3	260.397	ug/l	1.12	63,355.50	3.211E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,649,884.17	0.51	99.8	Pulse	0.10	3
1	Sc		4,803,350.66	0.34	98.4	Pulse	0.10	3
1	Ge		900,052.15	0.36	98.1	Pulse	0.10	3

Quantitation Report

1	Ge		1,274,995.55	0.99	99.6	Pulse	0.10	3
1	Rh		6,295,876.78	0.83	92.5	Analog	0.10	3
1	In		6,912,690.04	0.81	95.7	Analog	0.10	3
1	Tb		9,206,509.03	1.03	97.8	Analog	0.10	3
1	Ho		880,182.36	1.26	99.1	Pulse	0.10	3
1	Bi		5,246,420.34	0.70	95.3	Pulse	0.10	3
2	Sc		161,142.57	2.41	100.6	Pulse	0.30	3
2	Ge		88,169.25	2.08	100.2	Pulse	0.30	3
2	Ge		134,682.96	1.99	99.0	Pulse	0.30	3
2	Rh		2,692,967.67	2.10	95.9	Pulse	0.30	3
2	In		838,052.77	2.27	98.1	Pulse	0.30	3
2	Tb		3,306,044.52	2.03	99.6	Pulse	0.30	3
2	Ho		322,975.74	1.75	100.5	Pulse	0.30	3
2	Bi		2,115,096.24	2.26	96.0	Pulse	0.30	3
3	Sc		215,322.20	0.90	97.7	Pulse	0.30	3
3	Ge		127,391.84	0.67	96.2	Pulse	0.30	3
3	Ge		197,291.78	0.85	96.9	Pulse	0.30	3
3	Rh		2,321,411.16	0.48	93.8	Pulse	0.30	3
3	Tb		3,577,709.44	0.44	96.9	Pulse	0.30	3

Quantitation Report

File Name 015_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 12:07
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	131.81	101.33	3.853E-05	Pulse	0.25	3
B			1	0.897	ug/l	2.11	27,444.86	1.042E-02	Pulse	0.15	3
Ca			1	5.133	ug/l	8.53	28,966.05	6.063E-03	Pulse	0.10	3
Sr			1	0.008	ug/l	31.80	1,516.80	2.302E-04	Pulse	0.10	3
Mo			1	0.046	ug/l	13.64	916.73	1.391E-04	Pulse	0.10	3
Ag			1	0.008	ug/l	29.73	433.36	6.083E-05	Pulse	0.10	3
Sn			1	0.459	ug/l	1.10	5,417.80	7.609E-04	Pulse	0.10	3
Sb			1	0.016	ug/l	12.62	1,830.17	1.979E-04	Pulse	0.10	3
Ba			1	0.011	ug/l	32.67	223.34	2.414E-05	Pulse	0.10	3
Tl			1	0.015	ug/l	4.35	1,763.51	3.230E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	37.87	583.37	1.069E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	13.44	506.70	9.280E-05	Pulse	0.10	3
Pb			1	0.012	ug/l	15.23	2,443.53	4.475E-04	Pulse	0.10	3
Na			2	0.170	ug/l	132.59	10,561.16	6.674E-02	Pulse	0.30	3
Mg			2	-0.267	ug/l	-28.80	567.79	3.587E-03	Pulse	0.30	3
Al			2	64.042	ug/l	1.27	15,858.66	1.002E-01	Pulse	0.30	3
K			2	-0.060	ug/l	-644.07	7,237.19	4.574E-02	Pulse	0.30	3
Ca			2	-0.845	ug/l	-140.99	230.00	1.453E-03	Pulse	0.30	3
Ti			2	0.027	ug/l	104.15	6.66	4.220E-05	Pulse	0.30	3
V			2	0.000	ug/l	727.00	407.79	2.577E-03	Pulse	0.30	3
Cr			2	0.066	ug/l	15.45	1,117.83	7.065E-03	Pulse	0.30	3
Mn			2	0.001	ug/l	417.78	104.45	6.603E-04	Pulse	0.30	3
Fe			2	-0.171	ug/l	-22.01	12,153.47	7.680E-02	Pulse	0.30	3
Co			2	0.003	ug/l	45.18	150.00	9.483E-04	Pulse	0.30	3
Ni			2	0.007	ug/l	91.08	97.78	6.184E-04	Pulse	0.30	3
Cu			2	-0.001	ug/l	-504.18	667.80	4.221E-03	Pulse	0.30	3
Zn			2	0.170	ug/l	11.85	461.12	2.914E-03	Pulse	0.30	3
As			2	0.010	ug/l	34.11	21.33	1.348E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.003	ug/l	42.00	23.26	2.752E-05	Pulse	0.30	3
Sn			2	0.161	ug/l	6.34	1,078.94	1.276E-03	Pulse	0.30	3
Se			3	0.053	ug/l	53.97	27.07	1.339E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,635,073.88	0.53	99.2	Pulse	0.10	3
1	Sc		4,777,560.66	0.88	97.9	Pulse	0.10	3
1	Ge		897,305.85	0.78	97.8	Pulse	0.10	3
1	Ge		1,257,327.77	0.31	98.2	Pulse	0.10	3
1	Rh		6,593,466.36	0.83	96.9	Analog	0.10	3
1	In		7,120,642.92	0.74	98.5	Analog	0.10	3
1	Tb		9,249,932.99	0.37	98.3	Analog	0.10	3
1	Ho		880,576.94	0.95	99.1	Pulse	0.10	3
1	Bi		5,459,938.88	0.54	99.1	Mix	0.10	3
2	Sc		158,247.75	0.40	98.8	Pulse	0.30	3
2	Ge		87,944.45	0.75	100.0	Pulse	0.30	3
2	Ge		134,715.76	0.35	99.0	Pulse	0.30	3
2	Rh		2,774,130.93	0.09	98.8	Pulse	0.30	3
2	In		845,295.50	0.12	99.0	Pulse	0.30	3
2	Tb		3,293,991.33	0.16	99.2	Pulse	0.30	3
2	Ho		319,009.95	0.11	99.2	Pulse	0.30	3
2	Bi		2,187,069.91	0.50	99.2	Pulse	0.30	3
3	Sc		218,680.06	0.30	99.2	Pulse	0.30	3
3	Ge		130,884.89	0.91	98.8	Pulse	0.30	3
3	Ge		202,240.76	0.30	99.4	Pulse	0.30	3
3	Rh		2,461,029.35	0.50	99.4	Pulse	0.30	3
3	Tb		3,686,627.08	0.63	99.9	Pulse	0.30	3

Quantitation Report

File Name	016_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 12:12
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	8.94	82.67	3.113E-05	Pulse	0.25	3
B			1	0.264	ug/l	13.26	20,392.66	7.678E-03	Pulse	0.15	3
Ca			1	-1.311	ug/l	-49.99	18,567.69	3.873E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	4058.73	893.40	1.332E-04	Pulse	0.10	3
Mo			1	0.008	ug/l	12.01	306.68	4.576E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	55.29	166.68	2.321E-05	Pulse	0.10	3
Sn			1	0.351	ug/l	1.54	2,530.30	3.524E-04	Pulse	0.10	3
Sb			1	-0.017	ug/l	-8.72	933.40	1.001E-04	Pulse	0.10	3
Ba			1	-0.001	ug/l	-79.82	93.34	1.002E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	277.64	686.71	1.235E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	65.60	406.69	7.321E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	63.50	340.02	6.121E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	30.87	1,590.10	2.860E-04	Pulse	0.10	3
Na			2	-0.869	ug/l	-14.31	8,879.09	5.600E-02	Pulse	0.30	3
Mg			2	-0.659	ug/l	-11.65	271.12	1.711E-03	Pulse	0.30	3
Al			2	-0.500	ug/l	-11.02	151.11	9.529E-04	Pulse	0.30	3
K			2	-0.217	ug/l	-194.13	7,179.40	4.528E-02	Pulse	0.30	3
Ca			2	-7.043	ug/l	-9.85	66.67	4.202E-04	Pulse	0.30	3
Ti			2	0.021	ug/l	155.48	5.55	3.498E-05	Pulse	0.30	3
V			2	-0.012	ug/l	-49.44	323.34	2.039E-03	Pulse	0.30	3
Cr			2	0.002	ug/l	237.04	537.79	3.392E-03	Pulse	0.30	3
Mn			2	-0.004	ug/l	-98.31	78.89	4.972E-04	Pulse	0.30	3
Fe			2	-1.084	ug/l	-0.88	5,455.43	3.441E-02	Pulse	0.30	3
Co			2	0.000	ug/l	732.10	97.78	6.165E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	27578.54	65.55	4.135E-04	Pulse	0.30	3
Cu			2	-0.001	ug/l	-246.26	673.36	4.247E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.011	ug/l	-145.28	174.45	1.100E-03	Pulse	0.30	3
As			2	-0.004	ug/l	-92.16	10.67	6.725E-05	Pulse	1.00	3
Cd			2	-0.002	ug/l	-106.52	9.97	1.176E-05	Pulse	0.30	3
Sn			2	0.029	ug/l	46.42	501.12	5.914E-04	Pulse	0.30	3
Se			3	0.003	ug/l	128.63	14.47	7.195E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,655,905.21	0.24	100.0	Pulse	0.10	3
1	Sc		4,793,721.28	0.85	98.2	Pulse	0.10	3
1	Ge		902,351.18	0.78	98.4	Pulse	0.10	3
1	Ge		1,272,725.92	0.63	99.4	Pulse	0.10	3
1	Rh		6,702,472.40	1.12	98.5	Analog	0.10	3
1	In		7,177,307.40	0.88	99.3	Analog	0.10	3
1	Tb		9,325,411.11	1.47	99.1	Analog	0.10	3
1	Ho		885,537.49	2.10	99.7	Pulse	0.10	3
1	Bi		5,562,827.63	1.27	101.0	Analog	0.10	3
2	Sc		158,557.11	0.44	99.0	Pulse	0.30	3
2	Ge		88,324.40	0.55	100.4	Pulse	0.30	3
2	Ge		134,552.60	0.43	98.9	Pulse	0.30	3
2	Rh		2,782,507.74	0.35	99.1	Pulse	0.30	3
2	In		847,520.39	0.48	99.2	Pulse	0.30	3
2	Tb		3,301,802.85	0.45	99.4	Pulse	0.30	3
2	Ho		319,251.21	0.49	99.3	Pulse	0.30	3
2	Bi		2,198,033.73	0.50	99.7	Pulse	0.30	3
3	Sc		216,573.08	0.30	98.3	Pulse	0.30	3
3	Ge		130,359.56	1.03	98.4	Pulse	0.30	3
3	Ge		201,082.68	0.87	98.8	Pulse	0.30	3
3	Rh		2,469,519.69	0.71	99.8	Pulse	0.30	3
3	Tb		3,687,609.44	0.71	99.9	Pulse	0.30	3

Quantitation Report

File Name 017_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 12:18
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.628	ug/l	0.82	628,917.60	2.376E-01	Pulse	0.25	3
B			1	99.702	ug/l	0.68	1,158,961.93	4.378E-01	Pulse	0.15	3
Ca			1	5119.900	ug/l	0.91	8,306,773.21	1.744E+00	Analog	0.10	3
Sr			1	51.670	ug/l	1.24	4,213,672.96	6.635E-01	Pulse	0.10	3
Mo			1	51.602	ug/l	0.86	804,408.79	1.267E-01	Pulse	0.10	3
Ag			1	50.055	ug/l	0.64	2,063,525.18	3.004E-01	Pulse	0.10	3
Sn			1	48.745	ug/l	1.56	1,255,074.83	1.828E-01	Pulse	0.10	3
Sb			1	49.110	ug/l	1.29	1,349,695.81	1.461E-01	Pulse	0.10	3
Ba			1	50.185	ug/l	1.32	578,811.45	6.265E-02	Pulse	0.10	3
Tl			1	51.132	ug/l	0.68	3,565,893.38	6.799E-01	Pulse	0.10	3
Pb			1	51.477	ug/l	0.62	1,206,770.09	2.301E-01	Pulse	0.10	3
Pb			1	50.715	ug/l	0.47	1,065,757.61	2.032E-01	Pulse	0.10	3
Pb			1	50.902	ug/l	0.74	4,861,342.61	9.268E-01	Pulse	0.10	3
Na			2	5022.345	ug/l	1.39	8,211,546.62	5.198E+01	Analog	0.30	3
Mg			2	4931.260	ug/l	0.52	3,733,139.16	2.363E+01	Pulse	0.30	3
Al			2	5041.026	ug/l	0.15	1,225,013.91	7.755E+00	Pulse	0.30	3
K			2	4983.919	ug/l	0.20	2,278,699.21	1.442E+01	Pulse	0.30	3
Ca			2	5177.708	ug/l	0.74	136,572.11	8.646E-01	Pulse	0.30	3
Ti			2	50.064	ug/l	2.15	10,473.40	6.630E-02	Pulse	0.30	3
V			2	50.105	ug/l	0.22	348,564.76	2.207E+00	Pulse	0.30	3
Cr			2	49.470	ug/l	0.41	449,880.30	2.848E+00	Pulse	0.30	3
Mn			2	49.360	ug/l	0.62	224,045.19	1.418E+00	Pulse	0.30	3
Fe			2	5053.646	ug/l	0.64	37,070,396.31	2.347E+02	Analog	0.30	3
Co			2	49.187	ug/l	0.81	800,636.60	5.068E+00	Pulse	0.30	3
Ni			2	48.772	ug/l	0.67	220,754.71	1.397E+00	Pulse	0.30	3
Cu			2	48.295	ug/l	0.38	573,779.07	3.632E+00	Pulse	0.30	3
Zn			2	48.140	ug/l	1.08	76,541.40	4.845E-01	Pulse	0.30	3
As			2	48.524	ug/l	0.49	38,650.07	2.447E-01	Pulse	1.00	3
Cd			2	48.845	ug/l	0.62	112,385.60	1.371E-01	Pulse	0.30	3
Sn			2	49.080	ug/l	0.23	208,663.27	2.546E-01	Pulse	0.30	3
Se			3	199.108	ug/l	0.40	48,093.37	2.456E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,647,228.96	0.14	99.7	Pulse	0.10	3
1	Sc		4,763,089.51	0.53	97.6	Pulse	0.10	3
1	Ge		896,377.54	1.18	97.7	Pulse	0.10	3

Quantitation Report

1	Ge		1,263,968.76	0.98	98.7	Pulse	0.10	3
1	Rh		6,350,463.66	0.34	93.3	Analog	0.10	3
1	In		6,868,872.83	1.87	95.1	Analog	0.10	3
1	Tb		9,238,796.11	0.35	98.2	Analog	0.10	3
1	Ho		876,383.69	1.42	98.7	Pulse	0.10	3
1	Bi		5,245,280.96	1.39	95.2	Pulse	0.10	3
2	Sc		157,970.48	0.29	98.7	Pulse	0.30	3
2	Ge		86,568.57	1.21	98.4	Pulse	0.30	3
2	Ge		132,229.57	1.23	97.2	Pulse	0.30	3
2	Rh		2,651,885.73	0.63	94.4	Pulse	0.30	3
2	In		819,506.46	0.40	95.9	Pulse	0.30	3
2	Tb		3,248,895.50	0.42	97.8	Pulse	0.30	3
2	Ho		315,761.40	0.22	98.2	Pulse	0.30	3
2	Bi		2,089,379.50	0.36	94.8	Pulse	0.30	3
3	Sc		214,760.71	0.69	97.4	Pulse	0.30	3
3	Ge		125,810.90	0.77	95.0	Pulse	0.30	3
3	Ge		195,841.87	0.36	96.2	Pulse	0.30	3
3	Rh		2,324,124.70	0.18	93.9	Pulse	0.30	3
3	Tb		3,574,405.69	0.36	96.9	Pulse	0.30	3

Quantitation Report

File Name	018_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 12:22
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	77.61	120.00	4.553E-05	Pulse	0.25	3
B			1	1.066	ug/l	1.72	29,392.42	1.115E-02	Pulse	0.15	3
Ca			1	-0.726	ug/l	-47.46	19,391.91	4.072E-03	Pulse	0.10	3
Sr			1	0.005	ug/l	30.21	1,326.78	2.018E-04	Pulse	0.10	3
Mo			1	0.086	ug/l	5.62	1,566.81	2.383E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	6.28	540.03	7.664E-05	Pulse	0.10	3
Sn			1	0.433	ug/l	2.79	4,650.87	6.599E-04	Pulse	0.10	3
Sb			1	0.329	ug/l	9.05	10,540.56	1.130E-03	Pulse	0.10	3
Ba			1	0.010	ug/l	61.26	220.01	2.364E-05	Pulse	0.10	3
Tl			1	0.010	ug/l	22.37	1,406.79	2.554E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	16.72	676.71	1.228E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	5.96	473.36	8.593E-05	Pulse	0.10	3
Pb			1	0.013	ug/l	4.58	2,546.86	4.623E-04	Pulse	0.10	3
Na			2	-0.439	ug/l	-38.14	9,428.28	6.045E-02	Pulse	0.30	3
Mg			2	-0.236	ug/l	-7.10	583.35	3.739E-03	Pulse	0.30	3
Al			2	-0.291	ug/l	-46.65	198.89	1.274E-03	Pulse	0.30	3
K			2	-0.251	ug/l	-170.87	7,048.23	4.518E-02	Pulse	0.30	3
Ca			2	-7.129	ug/l	-1.63	63.33	4.059E-04	Pulse	0.30	3
Ti			2	0.016	ug/l	114.35	4.45	2.858E-05	Pulse	0.30	3
V			2	-0.006	ug/l	-74.31	358.90	2.301E-03	Pulse	0.30	3
Cr			2	0.011	ug/l	34.85	611.13	3.918E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	99.77	105.56	6.768E-04	Pulse	0.30	3
Fe			2	-0.457	ug/l	-6.49	9,911.97	6.354E-02	Pulse	0.30	3
Co			2	0.003	ug/l	54.81	146.67	9.405E-04	Pulse	0.30	3
Ni			2	0.004	ug/l	166.25	81.11	5.196E-04	Pulse	0.30	3
Cu			2	0.009	ug/l	44.89	776.70	4.978E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.024	ug/l	19.79	225.56	1.446E-03	Pulse	0.30	3
As			2	0.012	ug/l	83.32	23.33	1.497E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	175.53	26.57	3.176E-05	Pulse	0.30	3
Sn			2	0.110	ug/l	6.54	843.37	1.009E-03	Pulse	0.30	3
Se			3	0.049	ug/l	27.63	26.13	1.297E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,637,229.17	1.27	99.3	Pulse	0.10	3
1	Sc		4,762,037.01	0.74	97.5	Pulse	0.10	3
1	Ge		895,891.32	1.00	97.7	Pulse	0.10	3
1	Ge		1,252,013.21	1.31	97.8	Pulse	0.10	3
1	Rh		6,577,163.03	0.67	96.6	Analog	0.10	3
1	In		7,046,118.72	0.69	97.5	Analog	0.10	3
1	Tb		9,325,145.07	0.89	99.1	Analog	0.10	3
1	Ho		884,005.69	0.39	99.5	Pulse	0.10	3
1	Bi		5,508,843.46	0.43	100.0	Analog	0.10	3
2	Sc		155,994.56	0.50	97.4	Pulse	0.30	3
2	Ge		87,430.88	0.42	99.4	Pulse	0.30	3
2	Ge		132,630.36	1.13	97.5	Pulse	0.30	3
2	Rh		2,756,810.03	0.16	98.2	Pulse	0.30	3
2	In		835,451.67	0.29	97.8	Pulse	0.30	3
2	Tb		3,264,570.84	0.18	98.3	Pulse	0.30	3
2	Ho		316,487.07	0.48	98.4	Pulse	0.30	3
2	Bi		2,177,791.03	0.21	98.8	Pulse	0.30	3
3	Sc		216,144.95	0.30	98.1	Pulse	0.30	3
3	Ge		129,582.12	0.23	97.9	Pulse	0.30	3
3	Ge		201,541.19	0.34	99.0	Pulse	0.30	3
3	Rh		2,449,648.10	0.39	99.0	Pulse	0.30	3
3	Tb		3,692,712.35	0.38	100.1	Pulse	0.30	3

Quantitation Report

File Name	019LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 12:28
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.506	ug/l	4.12	6,378.62	2.395E-03	Pulse	0.25	3
B			1	25.355	ug/l	2.23	309,557.18	1.162E-01	Pulse	0.15	3
Ca			1	257.267	ug/l	1.56	443,016.09	9.174E-02	Pulse	0.10	3
Sr			1	4.935	ug/l	1.76	424,477.26	6.349E-02	Pulse	0.10	3
Mo			1	0.985	ug/l	2.32	16,328.89	2.442E-03	Pulse	0.10	3
Ag			1	0.485	ug/l	1.76	20,917.69	2.922E-03	Pulse	0.10	3
Sn			1	5.163	ug/l	1.33	132,371.89	1.849E-02	Pulse	0.10	3
Sb			1	2.004	ug/l	2.47	56,900.17	6.106E-03	Pulse	0.10	3
Ba			1	1.031	ug/l	0.91	12,098.51	1.298E-03	Pulse	0.10	3
Tl			1	0.493	ug/l	1.94	37,120.52	6.676E-03	Pulse	0.10	3
Pb			1	0.517	ug/l	1.83	13,149.62	2.365E-03	Pulse	0.10	3
Pb			1	0.502	ug/l	1.34	11,428.15	2.055E-03	Pulse	0.10	3
Pb			1	0.505	ug/l	2.25	52,301.37	9.407E-03	Pulse	0.10	3
Na			2	251.401	ug/l	1.04	420,075.70	2.664E+00	Pulse	0.30	3
Mg			2	255.881	ug/l	0.85	194,108.52	1.231E+00	Pulse	0.30	3
Al			2	25.704	ug/l	1.01	6,505.77	4.125E-02	Pulse	0.30	3
K			2	257.089	ug/l	0.72	124,209.81	7.876E-01	Pulse	0.30	3
Ca			2	278.726	ug/l	0.90	7,577.36	4.805E-02	Pulse	0.30	3
Ti			2	0.921	ug/l	22.10	193.34	1.227E-03	Pulse	0.30	3
V			2	0.996	ug/l	0.95	7,310.58	4.635E-02	Pulse	0.30	3
Cr			2	1.014	ug/l	2.48	9,714.05	6.160E-02	Pulse	0.30	3
Mn			2	1.013	ug/l	1.54	4,686.27	2.972E-02	Pulse	0.30	3
Fe			2	25.786	ug/l	0.68	202,128.32	1.282E+00	Pulse	0.30	3
Co			2	0.510	ug/l	1.51	8,385.57	5.317E-02	Pulse	0.30	3
Ni			2	1.001	ug/l	4.07	4,586.24	2.907E-02	Pulse	0.30	3
Cu			2	2.069	ug/l	0.79	25,182.68	1.597E-01	Pulse	0.30	3
Zn			2	5.236	ug/l	2.79	8,482.27	5.378E-02	Pulse	0.30	3
As			2	0.530	ug/l	3.34	434.68	2.756E-03	Pulse	1.00	3
Cd			2	0.490	ug/l	7.05	1,177.07	1.394E-03	Pulse	0.30	3
Sn			2	4.917	ug/l	0.77	21,876.42	2.591E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.501	ug/l	4.45	138.20	6.867E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,664,003.92	0.53	100.3	Pulse	0.10	3
1	Sc		4,829,700.97	1.13	98.9	Pulse	0.10	3
1	Ge		902,468.97	0.99	98.4	Pulse	0.10	3
1	Ge		1,269,228.16	0.71	99.2	Pulse	0.10	3
1	Rh		6,687,237.19	2.59	98.3	Analog	0.10	3
1	In		7,159,003.60	1.65	99.1	Analog	0.10	3
1	Tb		9,317,712.15	0.45	99.0	Analog	0.10	3
1	Ho		892,100.48	1.01	100.4	Pulse	0.10	3
1	Bi		5,560,864.09	1.59	101.0	Mix	0.10	3
2	Sc		157,707.32	1.00	98.5	Pulse	0.30	3
2	Ge		87,221.84	1.01	99.2	Pulse	0.30	3
2	Ge		133,327.36	1.18	98.0	Pulse	0.30	3
2	Rh		2,761,364.89	0.42	98.3	Pulse	0.30	3
2	In		844,382.15	0.18	98.8	Pulse	0.30	3
2	Tb		3,279,022.79	0.24	98.7	Pulse	0.30	3
2	Ho		318,254.84	0.27	99.0	Pulse	0.30	3
2	Bi		2,185,177.34	0.21	99.1	Pulse	0.30	3
3	Sc		218,072.42	0.78	98.9	Pulse	0.30	3
3	Ge		130,778.42	0.58	98.8	Pulse	0.30	3
3	Ge		201,280.81	0.47	98.9	Pulse	0.30	3
3	Rh		2,453,988.51	0.72	99.2	Pulse	0.30	3
3	Tb		3,683,029.44	0.57	99.8	Pulse	0.30	3

Quantitation Report

File Name 020ICSA.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 12:33
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	105.95	62.67	2.454E-05	Pulse	0.25	3
B			1	0.781	ug/l	7.70	25,299.09	9.915E-03	Pulse	0.15	3
Ca			1	97098.330	ug/l	1.42	151,178,921.08	3.300E+01	Analog	0.10	3
Sr			1	2066.586	ug/l	1.73	145,552,254.50	2.653E+01	Analog	0.10	3
Mo			1	2125.170	ug/l	1.83	28,611,758.74	5.216E+00	Analog	0.10	3
Ag			1	0.028	ug/l	19.41	1,110.08	1.789E-04	Pulse	0.10	3
Sn			1	1815.427	ug/l	0.81	42,509,834.36	6.842E+00	Analog	0.10	3
Sb			1	0.115	ug/l	5.06	4,257.39	4.942E-04	Pulse	0.10	3
Ba			1	0.144	ug/l	4.68	1,643.48	1.908E-04	Pulse	0.10	3
Tl			1	0.002	ug/l	77.57	636.70	1.470E-04	Pulse	0.10	3
Pb			1	0.104	ug/l	5.75	2,260.26	5.215E-04	Pulse	0.10	3
Pb			1	0.104	ug/l	9.20	2,006.88	4.634E-04	Pulse	0.10	3
Pb			1	0.103	ug/l	6.11	9,078.10	2.095E-03	Pulse	0.10	3
Na			2	92305.711	ug/l	0.57	141,044,238.84	9.543E+02	Analog	0.30	3
Mg			2	91398.727	ug/l	0.53	64,724,875.21	4.379E+02	Analog	0.30	3
Al			2	94822.182	ug/l	0.27	21,554,645.81	1.458E+02	Analog	0.30	3
K			2	98170.369	ug/l	1.10	41,867,092.78	2.833E+02	Analog	0.30	3
Ca			2	102800.454	ug/l	0.08	2,532,610.53	1.714E+01	Pulse	0.30	3
Ti			2	1807.141	ug/l	0.22	353,669.70	2.393E+00	Pulse	0.30	3
V			2	0.004	ug/l	177.64	404.46	2.737E-03	Pulse	0.30	3
Cr			2	0.215	ug/l	2.24	2,311.30	1.564E-02	Pulse	0.30	3
Mn			2	0.429	ug/l	3.86	1,914.58	1.295E-02	Pulse	0.30	3
Fe			2	90386.948	ug/l	0.38	620,138,784.25	4.196E+03	Analog	0.30	3
Co			2	0.061	ug/l	4.79	1,018.94	6.895E-03	Pulse	0.30	3
Ni			2	0.452	ug/l	0.70	1,975.70	1.337E-02	Pulse	0.30	3
Cu			2	0.288	ug/l	7.53	3,829.38	2.592E-02	Pulse	0.30	3
Zn			2	0.559	ug/l	5.57	1,007.82	6.819E-03	Pulse	0.30	3
As			2	0.084	ug/l	12.53	75.67	5.118E-04	Pulse	1.00	3
Cd			2	-0.135	ug/l	-8.81	-260.66	-3.616E-04	Pulse	0.30	3
Sn			2	1876.089	ug/l	0.38	7,001,682.92	9.717E+00	Analog	0.30	3
Se			3	0.049	ug/l	6.33	21.40	1.294E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,551,713.22	1.03	96.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		4,581,805.35	0.91	93.9	Pulse	0.10	3
1	Ge		867,952.80	1.06	94.6	Pulse	0.10	3
1	Ge		1,101,427.09	0.54	86.0	Pulse	0.10	3
1	Rh		5,487,059.92	1.97	80.6	Mix	0.10	3
1	In		6,213,206.49	1.50	86.0	Analog	0.10	3
1	Tb		8,612,719.04	1.45	91.5	Analog	0.10	3
1	Ho		814,685.40	1.71	91.7	Pulse	0.10	3
1	Bi		4,332,632.85	1.62	78.7	Pulse	0.10	3
2	Sc		147,801.42	0.77	92.3	Pulse	0.30	3
2	Ge		78,494.93	1.21	89.2	Pulse	0.30	3
2	Ge		114,995.14	0.36	84.5	Pulse	0.30	3
2	Rh		2,186,031.44	0.54	77.8	Pulse	0.30	3
2	In		720,604.91	0.52	84.4	Pulse	0.30	3
2	Tb		2,922,834.26	0.13	88.0	Pulse	0.30	3
2	Ho		285,688.72	0.13	88.9	Pulse	0.30	3
2	Bi		1,677,863.86	0.27	76.1	Pulse	0.30	3
3	Sc		199,607.98	0.44	90.6	Pulse	0.30	3
3	Ge		112,378.89	0.58	84.9	Pulse	0.30	3
3	Ge		165,420.93	0.57	81.3	Pulse	0.30	3
3	Rh		1,842,161.66	0.48	74.4	Pulse	0.30	3
3	Tb		3,055,303.56	0.57	82.8	Pulse	0.30	3

Quantitation Report

File Name	021ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 12:37
Sample Name	ICSAB
Sample Type	ICSB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	188.31	58.67	2.355E-05	Pulse	0.25	3
B			1	46.063	ug/l	0.44	513,054.37	2.058E-01	Pulse	0.15	3
Ca			1	96675.999	ug/l	0.93	148,432,297.79	3.285E+01	Analog	0.10	3
Sr			1	2119.701	ug/l	0.52	146,721,754.48	2.721E+01	Analog	0.10	3
Mo			1	2174.471	ug/l	0.49	28,769,634.57	5.337E+00	Analog	0.10	3
Ag			1	19.052	ug/l	0.85	714,903.14	1.144E-01	Pulse	0.10	3
Sn			1	1808.706	ug/l	1.70	42,609,872.70	6.816E+00	Analog	0.10	3
Sb			1	0.180	ug/l	4.87	6,058.08	6.861E-04	Pulse	0.10	3
Ba			1	0.229	ug/l	9.45	2,616.99	2.963E-04	Pulse	0.10	3
Tl			1	0.002	ug/l	36.52	626.71	1.416E-04	Pulse	0.10	3
Pb			1	0.087	ug/l	10.66	1,973.55	4.455E-04	Pulse	0.10	3
Pb			1	0.087	ug/l	15.30	1,736.83	3.923E-04	Pulse	0.10	3
Pb			1	0.087	ug/l	8.64	8,027.86	1.813E-03	Pulse	0.10	3
Na			2	90518.414	ug/l	1.56	136,760,692.34	9.358E+02	Analog	0.30	3
Mg			2	88100.349	ug/l	0.58	61,694,230.88	4.221E+02	Analog	0.30	3
Al			2	91156.862	ug/l	0.73	20,490,149.19	1.402E+02	Analog	0.30	3
K			2	96694.710	ug/l	1.67	40,777,647.27	2.790E+02	Analog	0.30	3
Ca			2	101591.786	ug/l	0.93	2,474,859.21	1.693E+01	Pulse	0.30	3
Ti			2	1778.683	ug/l	1.04	344,206.15	2.355E+00	Pulse	0.30	3
V			2	19.949	ug/l	0.70	128,619.22	8.800E-01	Pulse	0.30	3
Cr			2	19.584	ug/l	1.19	165,055.69	1.129E+00	Pulse	0.30	3
Mn			2	19.445	ug/l	1.50	81,714.49	5.591E-01	Pulse	0.30	3
Fe			2	90054.706	ug/l	1.58	610,929,984.61	4.180E+03	Analog	0.30	3
Co			2	18.665	ug/l	1.19	281,136.44	1.924E+00	Pulse	0.30	3
Ni			2	17.954	ug/l	0.97	75,220.18	5.147E-01	Pulse	0.30	3
Cu			2	17.585	ug/l	0.23	193,691.48	1.325E+00	Pulse	0.30	3
Zn			2	16.723	ug/l	1.86	24,714.22	1.691E-01	Pulse	0.30	3
As			2	18.429	ug/l	0.39	13,589.32	9.298E-02	Pulse	1.00	3
Cd			2	17.924	ug/l	1.04	35,552.67	5.033E-02	Pulse	0.30	3
Sn			2	1887.823	ug/l	0.23	6,906,133.48	9.777E+00	Analog	0.30	3
Se			3	18.880	ug/l	0.26	4,074.91	2.335E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,493,190.37	0.84	93.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		4,517,972.12	1.07	92.5	Pulse	0.10	3
1	Ge		861,176.50	0.96	93.9	Pulse	0.10	3
1	Ge		1,102,653.97	1.26	86.1	Pulse	0.10	3
1	Rh		5,391,188.04	1.02	79.2	Pulse	0.10	3
1	In		6,252,299.67	1.88	86.5	Analog	0.10	3
1	Tb		8,827,336.33	1.15	93.8	Analog	0.10	3
1	Ho		831,956.45	1.02	93.7	Pulse	0.10	3
1	Bi		4,427,832.85	0.88	80.4	Pulse	0.10	3
2	Sc		146,155.78	0.81	91.3	Pulse	0.30	3
2	Ge		77,647.47	0.38	88.3	Pulse	0.30	3
2	Ge		113,727.83	0.38	83.6	Pulse	0.30	3
2	Rh		2,194,311.72	0.13	78.1	Pulse	0.30	3
2	In		706,342.66	0.28	82.7	Pulse	0.30	3
2	Tb		2,920,501.97	0.20	87.9	Pulse	0.30	3
2	Ho		284,407.00	0.25	88.5	Pulse	0.30	3
2	Bi		1,681,282.78	0.26	76.3	Pulse	0.30	3
3	Sc		208,275.20	0.17	94.5	Pulse	0.30	3
3	Ge		116,794.99	0.89	88.2	Pulse	0.30	3
3	Ge		174,530.36	0.74	85.8	Pulse	0.30	3
3	Rh		1,915,528.39	0.21	77.4	Pulse	0.30	3
3	Tb		3,148,928.90	0.58	85.3	Pulse	0.30	3

Quantitation Report

File Name 022_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 12:43
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.969	ug/l	0.43	552,060.05	2.298E-01	Pulse	0.25	3
B			1	99.790	ug/l	0.29	1,052,720.68	4.382E-01	Pulse	0.15	3
Ca			1	5079.827	ug/l	0.84	7,854,296.97	1.730E+00	Analog	0.10	3
Sr			1	51.305	ug/l	0.75	4,213,322.65	6.588E-01	Pulse	0.10	3
Mo			1	51.458	ug/l	0.77	807,833.45	1.263E-01	Pulse	0.10	3
Ag			1	49.351	ug/l	0.77	2,074,693.35	2.962E-01	Pulse	0.10	3
Sn			1	49.176	ug/l	0.93	1,291,451.73	1.844E-01	Pulse	0.10	3
Sb			1	48.133	ug/l	1.56	1,374,503.16	1.432E-01	Pulse	0.10	3
Ba			1	49.090	ug/l	1.69	588,271.79	6.128E-02	Pulse	0.10	3
Tl			1	50.940	ug/l	0.43	3,706,141.82	6.773E-01	Pulse	0.10	3
Pb			1	51.250	ug/l	0.08	1,253,446.21	2.291E-01	Pulse	0.10	3
Pb			1	50.489	ug/l	0.42	1,106,888.19	2.023E-01	Pulse	0.10	3
Pb			1	50.788	ug/l	0.53	5,060,316.96	9.248E-01	Pulse	0.10	3
Na			2	4967.816	ug/l	0.22	7,327,648.60	5.142E+01	Analog	0.30	3
Mg			2	4824.642	ug/l	0.40	3,294,976.26	2.312E+01	Pulse	0.30	3
Al			2	4802.720	ug/l	0.65	1,052,879.78	7.388E+00	Pulse	0.30	3
K			2	4925.049	ug/l	0.35	2,031,461.94	1.426E+01	Pulse	0.30	3
Ca			2	5144.106	ug/l	0.24	122,408.40	8.590E-01	Pulse	0.30	3
Ti			2	49.765	ug/l	1.43	9,391.63	6.590E-02	Pulse	0.30	3
V			2	51.486	ug/l	0.83	323,103.58	2.267E+00	Pulse	0.30	3
Cr			2	50.950	ug/l	0.68	417,980.10	2.933E+00	Pulse	0.30	3
Mn			2	50.098	ug/l	0.17	205,139.09	1.439E+00	Pulse	0.30	3
Fe			2	5226.912	ug/l	0.66	34,588,586.40	2.427E+02	Analog	0.30	3
Co			2	51.460	ug/l	0.34	755,643.02	5.302E+00	Pulse	0.30	3
Ni			2	50.978	ug/l	0.42	208,153.76	1.461E+00	Pulse	0.30	3
Cu			2	51.046	ug/l	0.57	547,067.61	3.839E+00	Pulse	0.30	3
Zn			2	49.505	ug/l	0.87	71,004.71	4.982E-01	Pulse	0.30	3
As			2	50.917	ug/l	0.40	36,585.70	2.567E-01	Pulse	1.00	3
Cd			2	49.647	ug/l	1.00	109,152.67	1.394E-01	Pulse	0.30	3
Sn			2	49.161	ug/l	0.56	199,726.52	2.550E-01	Pulse	0.30	3
Se			3	196.772	ug/l	0.71	48,717.68	2.427E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,402,463.93	0.16	90.4	Pulse	0.10	3
1	Sc		4,539,139.83	1.02	93.0	Pulse	0.10	3
1	Ge		870,583.19	0.70	94.9	Pulse	0.10	3

Quantitation Report

1	Ge		1,232,708.19	1.11	96.3	Pulse	0.10	3
1	Rh		6,395,306.99	0.34	94.0	Analog	0.10	3
1	In		7,004,199.55	0.13	96.9	Analog	0.10	3
1	Tb		9,599,846.52	0.79	102.0	Analog	0.10	3
1	Ho		914,113.79	1.75	102.9	Pulse	0.10	3
1	Bi		5,472,062.62	1.10	99.4	Mix	0.10	3
2	Sc		142,508.51	0.07	89.0	Pulse	0.30	3
2	Ge		80,914.15	0.53	92.0	Pulse	0.30	3
2	Ge		124,239.46	0.54	91.3	Pulse	0.30	3
2	Rh		2,609,633.85	0.91	92.9	Pulse	0.30	3
2	In		783,129.98	0.68	91.7	Pulse	0.30	3
2	Tb		3,234,440.77	0.40	97.4	Mix	0.30	3
2	Ho		314,002.16	1.18	97.7	Pulse	0.30	3
2	Bi		2,105,176.79	0.97	95.5	Pulse	0.30	3
3	Sc		215,768.70	0.22	97.9	Pulse	0.30	3
3	Ge		129,590.28	0.47	97.9	Pulse	0.30	3
3	Ge		200,741.58	0.68	98.6	Pulse	0.30	3
3	Rh		2,398,594.28	0.06	96.9	Pulse	0.30	3
3	Tb		3,698,678.33	0.48	100.2	Pulse	0.30	3

Quantitation Report

File Name	023_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 12:48
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	2.90	129.33	5.291E-05	Pulse	0.25	3
B			1	0.930	ug/l	6.67	25,808.91	1.056E-02	Pulse	0.15	3
Ca			1	0.151	ug/l	109.06	19,832.46	4.370E-03	Pulse	0.10	3
Sr			1	0.041	ug/l	8.77	4,370.75	6.616E-04	Pulse	0.10	3
Mo			1	0.205	ug/l	2.08	3,490.52	5.284E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	35.59	613.38	8.495E-05	Pulse	0.10	3
Sn			1	0.502	ug/l	2.18	6,634.96	9.207E-04	Pulse	0.10	3
Sb			1	0.318	ug/l	5.25	10,457.16	1.095E-03	Pulse	0.10	3
Ba			1	0.006	ug/l	9.81	173.34	1.815E-05	Pulse	0.10	3
Tl			1	0.008	ug/l	5.53	1,326.78	2.315E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	35.62	736.71	1.286E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	16.54	563.37	9.830E-05	Pulse	0.10	3
Pb			1	0.014	ug/l	2.51	2,706.86	4.724E-04	Pulse	0.10	3
Na			2	4.486	ug/l	0.57	16,204.52	1.114E-01	Pulse	0.30	3
Mg			2	1.417	ug/l	18.83	1,695.66	1.166E-02	Pulse	0.30	3
Al			2	1.263	ug/l	10.45	533.35	3.665E-03	Pulse	0.30	3
K			2	3.907	ug/l	10.35	8,319.95	5.718E-02	Pulse	0.30	3
Ca			2	-5.716	ug/l	-16.82	93.33	6.415E-04	Pulse	0.30	3
Ti			2	0.104	ug/l	19.41	21.11	1.451E-04	Pulse	0.30	3
V			2	-0.006	ug/l	-111.90	335.56	2.307E-03	Pulse	0.30	3
Cr			2	0.017	ug/l	70.66	621.13	4.268E-03	Pulse	0.30	3
Mn			2	0.005	ug/l	74.12	111.11	7.636E-04	Pulse	0.30	3
Fe			2	1.631	ug/l	3.03	23,350.88	1.605E-01	Pulse	0.30	3
Co			2	0.005	ug/l	18.66	168.89	1.160E-03	Pulse	0.30	3
Ni			2	0.003	ug/l	108.00	73.33	5.036E-04	Pulse	0.30	3
Cu			2	0.055	ug/l	6.17	1,225.62	8.423E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.022	ug/l	71.44	207.78	1.428E-03	Pulse	0.30	3
As			2	0.016	ug/l	38.67	24.67	1.695E-04	Pulse	1.00	3
Cd			2	0.013	ug/l	23.26	44.24	5.431E-05	Pulse	0.30	3
Sn			2	0.193	ug/l	8.99	1,175.62	1.443E-03	Pulse	0.30	3
Se			3	0.035	ug/l	27.97	23.07	1.121E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,444,508.56	0.17	92.0	Pulse	0.10	3
1	Sc		4,538,172.22	0.31	93.0	Pulse	0.10	3
1	Ge		880,028.76	0.74	96.0	Pulse	0.10	3
1	Ge		1,233,020.86	1.04	96.3	Pulse	0.10	3
1	Rh		6,605,477.40	0.36	97.1	Analog	0.10	3
1	In		7,205,461.87	1.04	99.7	Analog	0.10	3
1	Tb		9,550,614.23	1.22	101.5	Analog	0.10	3
1	Ho		900,090.79	0.82	101.3	Pulse	0.10	3
1	Bi		5,730,184.71	0.44	104.0	Analog	0.10	3
2	Sc		145,512.69	0.51	90.9	Pulse	0.30	3
2	Ge		83,444.52	0.38	94.9	Pulse	0.30	3
2	Ge		128,408.41	0.11	94.4	Pulse	0.30	3
2	Rh		2,729,291.63	0.54	97.2	Pulse	0.30	3
2	In		814,443.48	0.38	95.3	Pulse	0.30	3
2	Tb		3,260,604.80	0.36	98.2	Pulse	0.30	3
2	Ho		317,147.16	0.24	98.6	Pulse	0.30	3
2	Bi		2,201,303.39	0.09	99.9	Pulse	0.30	3
3	Sc		219,133.06	0.58	99.4	Pulse	0.30	3
3	Ge		133,600.98	0.27	100.9	Pulse	0.30	3
3	Ge		205,663.76	0.19	101.0	Pulse	0.30	3
3	Rh		2,533,719.62	0.54	102.4	Pulse	0.30	3
3	Tb		3,794,620.41	0.48	102.8	Pulse	0.30	3

Quantitation Report

File Name	024SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 12:54
Sample Name	mp14051-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	40.35	88.00	3.610E-05	Pulse	0.25	3
B			1	1.557	ug/l	4.45	24,135.48	9.902E-03	Pulse	0.15	3
Ca			1	18.634	ug/l	2.91	33,237.18	7.485E-03	Pulse	0.10	3
Sr			1	0.178	ug/l	2.34	8,092.31	1.278E-03	Pulse	0.10	3
Mo			1	0.377	ug/l	5.80	3,097.09	4.893E-04	Pulse	0.10	3
Ag			1	0.027	ug/l	6.50	633.37	9.110E-05	Pulse	0.10	3
Sn			1	1.585	ug/l	3.18	14,023.37	2.016E-03	Pulse	0.10	3
Sb			1	0.630	ug/l	3.71	10,280.37	1.087E-03	Pulse	0.10	3
Ba			1	0.097	ug/l	5.70	673.38	7.122E-05	Pulse	0.10	3
Tl			1	0.031	ug/l	2.06	1,890.19	3.254E-04	Pulse	0.10	3
Pb			1	0.065	ug/l	9.24	1,163.43	2.003E-04	Pulse	0.10	3
Pb			1	0.062	ug/l	6.93	983.40	1.693E-04	Pulse	0.10	3
Pb			1	0.062	ug/l	3.83	4,533.78	7.803E-04	Pulse	0.10	3
Na			2	21.164	ug/l	6.59	24,732.62	1.744E-01	Pulse	0.30	3
Mg			2	7.814	ug/l	8.29	3,344.82	2.359E-02	Pulse	0.30	3
Al			2	6.587	ug/l	6.56	963.37	6.788E-03	Pulse	0.30	3
K			2	8.990	ug/l	9.39	8,353.29	5.888E-02	Pulse	0.30	3
Ca			2	9.843	ug/l	41.94	342.23	2.414E-03	Pulse	0.30	3
Ti			2	0.558	ug/l	23.58	53.33	3.764E-04	Pulse	0.30	3
V			2	0.275	ug/l	6.63	1,221.17	8.607E-03	Pulse	0.30	3
Cr			2	0.408	ug/l	6.56	2,131.27	1.501E-02	Pulse	0.30	3
Mn			2	0.686	ug/l	3.22	1,486.75	1.048E-02	Pulse	0.30	3
Fe			2	10.570	ug/l	1.73	46,831.61	3.301E-01	Pulse	0.30	3
Co			2	0.028	ug/l	23.39	287.78	2.030E-03	Pulse	0.30	3
Ni			2	0.652	ug/l	6.47	1,383.41	9.751E-03	Pulse	0.30	3
Cu			2	2.427	ug/l	3.80	13,539.03	9.545E-02	Pulse	0.30	3
Zn			2	0.755	ug/l	2.80	708.91	4.995E-03	Pulse	0.30	3
As			2	0.070	ug/l	32.48	37.33	2.632E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.011	ug/l	122.90	26.47	3.389E-05	Pulse	0.30	3
Sn			2	0.954	ug/l	1.33	2,271.30	2.913E-03	Pulse	0.30	3
Se			3	0.062	ug/l	49.32	22.13	1.070E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,437,243.94	1.00	91.8	Pulse	0.10	3
1	Sc		4,440,303.16	0.75	91.0	Pulse	0.10	3
1	Ge		847,669.88	0.99	92.4	Pulse	0.10	3
1	Ge		1,184,026.36	0.70	92.5	Pulse	0.10	3
1	Rh		6,334,258.86	1.75	93.1	Analog	0.10	3
1	In		6,957,030.95	1.89	96.3	Analog	0.10	3
1	Tb		9,452,446.32	0.95	100.5	Analog	0.10	3
1	Ho		896,663.63	1.08	100.9	Pulse	0.10	3
1	Bi		5,809,823.45	0.25	105.5	Analog	0.10	3
2	Sc		141,898.54	1.55	88.6	Pulse	0.30	3
2	Ge		79,746.44	0.73	90.7	Pulse	0.30	3
2	Ge		122,007.69	0.56	89.7	Pulse	0.30	3
2	Rh		2,658,549.89	0.36	94.7	Pulse	0.30	3
2	In		779,601.11	0.55	91.3	Pulse	0.30	3
2	Tb		3,214,941.19	0.27	96.8	Pulse	0.30	3
2	Ho		313,152.68	0.42	97.4	Pulse	0.30	3
2	Bi		2,191,429.36	0.37	99.4	Pulse	0.30	3
3	Sc		226,029.88	0.21	102.6	Pulse	0.30	3
3	Ge		133,813.61	0.79	101.1	Pulse	0.30	3
3	Ge		206,780.45	0.91	101.6	Pulse	0.30	3
3	Rh		2,550,975.45	0.47	103.1	Pulse	0.30	3
3	Tb		3,862,136.10	0.79	104.7	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 12:59
Sample Name mp14051-b2 4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.105	ug/l	0.47	448,882.32	1.739E-01	Pulse	0.25	3
B			1	82.718	ug/l	0.50	478,721.91	1.854E-01	Pulse	0.15	3
Ca			1	4171.660	ug/l	0.58	3,325,853.39	7.131E-01	Pulse	0.10	3
Sr			1	82.963	ug/l	0.16	3,423,365.26	5.327E-01	Pulse	0.10	3
Mo			1	83.548	ug/l	0.30	659,009.14	1.025E-01	Pulse	0.10	3
Ag			1	79.503	ug/l	0.43	1,704,627.68	2.386E-01	Pulse	0.10	3
Sn			1	79.153	ug/l	0.76	1,058,814.33	1.482E-01	Pulse	0.10	3
Sb			1	78.139	ug/l	0.69	1,118,882.79	1.163E-01	Pulse	0.10	3
Ba			1	79.890	ug/l	0.61	479,950.51	4.987E-02	Pulse	0.10	3
Tl			1	81.763	ug/l	1.31	3,005,873.39	5.436E-01	Pulse	0.10	3
Pb			1	82.372	ug/l	0.95	1,018,024.75	1.841E-01	Pulse	0.10	3
Pb			1	81.175	ug/l	1.59	899,206.32	1.626E-01	Pulse	0.10	3
Pb			1	81.797	ug/l	1.39	4,118,191.35	7.447E-01	Pulse	0.10	3
Na			2	4012.420	ug/l	1.04	3,050,565.64	2.080E+01	Pulse	0.30	3
Mg			2	3963.648	ug/l	1.04	1,393,094.08	9.500E+00	Pulse	0.30	3
Al			2	3894.310	ug/l	0.89	439,379.64	2.996E+00	Pulse	0.30	3
K			2	4014.732	ug/l	0.86	855,958.26	5.837E+00	Pulse	0.30	3
Ca			2	4342.745	ug/l	0.93	53,302.62	3.635E-01	Pulse	0.30	3
Ti			2	80.371	ug/l	0.52	7,804.13	5.322E-02	Pulse	0.30	3
V			2	82.392	ug/l	0.87	266,089.90	1.815E+00	Pulse	0.30	3
Cr			2	82.493	ug/l	0.91	348,265.36	2.375E+00	Pulse	0.30	3
Mn			2	80.955	ug/l	1.15	170,561.31	1.163E+00	Pulse	0.30	3
Fe			2	4251.780	ug/l	1.58	14,483,201.64	9.877E+01	Analog	0.30	3
Co			2	83.248	ug/l	0.61	628,945.91	4.289E+00	Pulse	0.30	3
Ni			2	82.743	ug/l	0.60	173,835.00	1.185E+00	Pulse	0.30	3
Cu			2	84.120	ug/l	0.53	463,938.85	3.164E+00	Pulse	0.30	3
Zn			2	81.945	ug/l	0.96	60,500.83	4.126E-01	Pulse	0.30	3
As			2	73.199	ug/l	1.73	27,062.29	1.846E-01	Pulse	1.00	3
Cd			2	75.024	ug/l	0.64	83,058.30	1.053E-01	Pulse	0.30	3
Sn			2	80.234	ug/l	0.53	164,193.57	2.082E-01	Pulse	0.30	3
Se			3	346.752	ug/l	0.38	44,757.76	2.138E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,581,611.10	0.62	97.2	Pulse	0.10	3
1	Sc		4,664,255.87	0.94	95.5	Pulse	0.10	3
1	Ge		882,971.68	0.89	96.3	Pulse	0.10	3

Quantitation Report

1	Ge		1,242,888.89	0.57	97.1	Pulse	0.10	3
1	Rh		6,426,349.07	1.18	94.4	Analog	0.10	3
1	In		7,144,596.27	0.59	98.9	Analog	0.10	3
1	Tb		9,624,134.44	0.38	102.3	Analog	0.10	3
1	Ho		923,012.25	1.15	103.9	Pulse	0.10	3
1	Bi		5,530,009.92	0.88	100.4	Analog	0.10	3
2	Sc		146,642.06	0.76	91.6	Pulse	0.30	3
2	Ge		81,924.81	0.43	93.1	Pulse	0.30	3
2	Ge		125,960.68	1.00	92.6	Pulse	0.30	3
2	Rh		2,646,607.32	0.54	94.3	Pulse	0.30	3
2	In		788,626.77	0.26	92.3	Pulse	0.30	3
2	Tb		3,234,328.34	0.05	97.4	Pulse	0.30	3
2	Ho		314,654.60	0.24	97.9	Pulse	0.30	3
2	Bi		2,102,915.68	1.07	95.4	Pulse	0.30	3
3	Sc		232,369.37	0.40	105.4	Pulse	0.30	3
3	Ge		134,340.21	1.41	101.5	Pulse	0.30	3
3	Ge		209,302.36	0.75	102.8	Pulse	0.30	3
3	Rh		2,512,652.26	0.40	101.5	Pulse	0.30	3
3	Tb		3,844,552.62	0.38	104.2	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 13:04
Sample Name	mp14051-s3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.607	ug/l	0.06	436,102.23	1.727E-01	Pulse	0.25	3
B			1	105.735	ug/l	0.27	593,941.66	2.352E-01	Pulse	0.15	3
Ca			1	107987.775	ug/l	0.21	85,722,475.39	1.835E+01	Analog	0.10	3
Sr			1	603.223	ug/l	1.51	23,456,241.32	3.872E+00	Analog	0.10	3
Mo			1	85.991	ug/l	0.59	639,373.55	1.055E-01	Pulse	0.10	3
Ag			1	76.168	ug/l	0.17	1,551,561.70	2.286E-01	Pulse	0.10	3
Sn			1	80.041	ug/l	1.10	1,017,312.82	1.499E-01	Pulse	0.10	3
Sb			1	76.905	ug/l	0.67	1,079,977.33	1.144E-01	Pulse	0.10	3
Ba			1	123.789	ug/l	0.41	729,264.39	7.727E-02	Pulse	0.10	3
Tl			1	83.904	ug/l	0.45	2,859,368.71	5.578E-01	Pulse	0.10	3
Pb			1	83.944	ug/l	0.84	961,632.80	1.876E-01	Pulse	0.10	3
Pb			1	82.069	ug/l	0.42	842,754.80	1.644E-01	Pulse	0.10	3
Pb			1	82.935	ug/l	0.43	3,870,633.98	7.551E-01	Pulse	0.10	3
Na			2	35590.679	ug/l	1.58	26,853,230.04	1.840E+02	Analog	0.30	3
Mg			2	27870.379	ug/l	0.25	9,743,836.00	6.677E+01	Analog	0.30	3
Al			2	4267.482	ug/l	0.64	479,121.51	3.283E+00	Pulse	0.30	3
K			2	6932.551	ug/l	0.68	1,465,999.11	1.005E+01	Pulse	0.30	3
Ca			2	108372.596	ug/l	0.23	1,318,102.27	9.033E+00	Pulse	0.30	3
Ti			2	88.094	ug/l	2.23	8,512.34	5.833E-02	Pulse	0.30	3
V			2	83.677	ug/l	0.42	268,925.08	1.843E+00	Pulse	0.30	3
Cr			2	82.479	ug/l	0.78	346,512.36	2.375E+00	Pulse	0.30	3
Mn			2	7256.324	ug/l	1.12	15,205,777.73	1.042E+02	Analog	0.30	3
Fe			2	5874.010	ug/l	0.66	19,906,471.43	1.364E+02	Analog	0.30	3
Co			2	344.775	ug/l	0.24	2,591,846.70	1.776E+01	Pulse	0.30	3
Ni			2	208.948	ug/l	0.67	436,746.76	2.993E+00	Pulse	0.30	3
Cu			2	76.602	ug/l	0.34	420,475.72	2.881E+00	Pulse	0.30	3
Zn			2	264.483	ug/l	0.51	193,925.07	1.329E+00	Pulse	0.30	3
As			2	73.845	ug/l	0.30	27,170.13	1.862E-01	Pulse	1.00	3
Cd			2	72.933	ug/l	0.71	77,532.13	1.024E-01	Pulse	0.30	3
Sn			2	80.234	ug/l	0.09	157,659.34	2.082E-01	Pulse	0.30	3
Se			3	352.639	ug/l	0.27	44,503.55	2.175E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,525,076.30	1.13	95.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		4,671,201.50	0.79	95.7	Pulse	0.10	3
1	Ge		844,580.38	1.39	92.1	Pulse	0.10	3
1	Ge		1,192,537.59	0.87	93.2	Pulse	0.10	3
1	Rh		6,058,217.83	1.72	89.0	Analog	0.10	3
1	In		6,787,717.56	0.81	93.9	Analog	0.10	3
1	Tb		9,438,362.15	1.30	100.3	Analog	0.10	3
1	Ho		940,193.84	1.05	105.8	Pulse	0.10	3
1	Bi		5,126,187.11	1.42	93.1	Pulse	0.10	3
2	Sc		145,925.98	0.45	91.1	Pulse	0.30	3
2	Ge		79,793.33	0.30	90.7	Pulse	0.30	3
2	Ge		121,055.31	0.64	89.0	Pulse	0.30	3
2	Rh		2,488,313.72	0.52	88.6	Pulse	0.30	3
2	In		757,238.10	0.30	88.6	Pulse	0.30	3
2	Tb		3,162,998.97	0.21	95.2	Pulse	0.30	3
2	Ho		322,082.79	0.48	100.2	Pulse	0.30	3
2	Bi		1,943,695.20	0.35	88.2	Pulse	0.30	3
3	Sc		231,354.81	0.17	105.0	Pulse	0.30	3
3	Ge		132,549.95	0.34	100.1	Pulse	0.30	3
3	Ge		204,638.87	0.57	100.5	Pulse	0.30	3
3	Rh		2,350,591.30	0.55	95.0	Pulse	0.30	3
3	Tb		3,735,853.32	0.40	101.2	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 13:08
Sample Name	mp14051-s4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	72.887	ug/l	0.94	442,263.96	1.710E-01	Pulse	0.25	3
B			1	106.194	ug/l	0.59	610,828.88	2.362E-01	Pulse	0.15	3
Ca			1	107881.952	ug/l	0.84	87,742,552.03	1.833E+01	Analog	0.10	3
Sr			1	606.895	ug/l	0.46	23,948,878.81	3.896E+00	Analog	0.10	3
Mo			1	85.683	ug/l	1.82	646,485.80	1.052E-01	Pulse	0.10	3
Ag			1	75.796	ug/l	1.33	1,576,443.47	2.275E-01	Pulse	0.10	3
Sn			1	79.130	ug/l	1.45	1,026,766.96	1.482E-01	Pulse	0.10	3
Sb			1	75.156	ug/l	0.97	1,091,588.73	1.118E-01	Pulse	0.10	3
Ba			1	121.762	ug/l	0.55	741,952.77	7.600E-02	Pulse	0.10	3
Tl			1	83.391	ug/l	0.91	2,883,605.38	5.544E-01	Pulse	0.10	3
Pb			1	83.698	ug/l	0.49	972,898.21	1.871E-01	Pulse	0.10	3
Pb			1	82.728	ug/l	1.25	861,991.65	1.657E-01	Pulse	0.10	3
Pb			1	83.121	ug/l	0.39	3,936,201.40	7.568E-01	Pulse	0.10	3
Na			2	35519.169	ug/l	0.19	27,261,243.92	1.837E+02	Analog	0.30	3
Mg			2	27750.019	ug/l	0.98	9,868,551.27	6.648E+01	Analog	0.30	3
Al			2	4171.497	ug/l	1.90	476,375.20	3.210E+00	Pulse	0.30	3
K			2	6838.851	ug/l	0.99	1,471,134.70	9.911E+00	Pulse	0.30	3
Ca			2	107521.485	ug/l	0.62	1,330,244.39	8.962E+00	Pulse	0.30	3
Ti			2	88.241	ug/l	0.87	8,672.56	5.843E-02	Pulse	0.30	3
V			2	82.619	ug/l	0.80	270,094.32	1.820E+00	Pulse	0.30	3
Cr			2	81.723	ug/l	0.35	349,258.87	2.353E+00	Pulse	0.30	3
Mn			2	7263.419	ug/l	2.06	15,481,438.83	1.043E+02	Analog	0.30	3
Fe			2	5791.452	ug/l	0.17	19,965,172.54	1.345E+02	Analog	0.30	3
Co			2	344.330	ug/l	0.93	2,632,974.55	1.774E+01	Pulse	0.30	3
Ni			2	208.438	ug/l	1.07	443,166.11	2.986E+00	Pulse	0.30	3
Cu			2	75.625	ug/l	0.82	422,257.01	2.845E+00	Pulse	0.30	3
Zn			2	264.404	ug/l	0.52	197,201.96	1.329E+00	Pulse	0.30	3
As			2	72.618	ug/l	0.38	27,178.81	1.831E-01	Pulse	1.00	3
Cd			2	73.765	ug/l	1.26	79,327.38	1.036E-01	Pulse	0.30	3
Sn			2	79.065	ug/l	0.18	157,174.58	2.052E-01	Pulse	0.30	3
Se			3	349.048	ug/l	0.60	44,727.76	2.153E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,585,988.89	0.98	97.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		4,786,270.45	1.40	98.0	Pulse	0.10	3
1	Ge		868,714.02	1.16	94.7	Pulse	0.10	3
1	Ge		1,224,557.85	1.28	95.7	Pulse	0.10	3
1	Rh		6,146,938.03	0.77	90.3	Analog	0.10	3
1	In		6,930,987.11	1.64	95.9	Analog	0.10	3
1	Tb		9,762,996.94	2.04	103.8	Analog	0.10	3
1	Ho		960,131.39	1.65	108.1	Pulse	0.10	3
1	Bi		5,201,113.46	0.42	94.4	Pulse	0.10	3
2	Sc		148,440.07	0.89	92.7	Pulse	0.30	3
2	Ge		80,446.31	1.58	91.5	Pulse	0.30	3
2	Ge		123,150.60	1.26	90.5	Pulse	0.30	3
2	Rh		2,524,356.50	0.10	89.9	Pulse	0.30	3
2	In		766,045.31	0.36	89.7	Pulse	0.30	3
2	Tb		3,211,464.52	0.15	96.7	Pulse	0.30	3
2	Ho		324,419.50	0.28	100.9	Pulse	0.30	3
2	Bi		1,955,640.48	0.04	88.7	Pulse	0.30	3
3	Sc		234,638.48	0.28	106.5	Pulse	0.30	3
3	Ge		133,749.62	0.20	101.0	Pulse	0.30	3
3	Ge		207,782.10	0.58	102.1	Pulse	0.30	3
3	Rh		2,385,759.28	0.75	96.4	Pulse	0.30	3
3	Tb		3,791,610.54	0.64	102.7	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 13:13
Sample Name	jc86039-2conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.473	ug/l	6.00	2,957.62	1.130E-03	Pulse	0.25	3
B			1	22.658	ug/l	1.12	145,316.79	5.554E-02	Pulse	0.15	3
Ca			1	102381.101	ug/l	0.76	83,658,260.42	1.740E+01	Analog	0.10	3
Sr			1	510.904	ug/l	1.16	20,349,015.11	3.280E+00	Analog	0.10	3
Mo			1	0.291	ug/l	13.94	2,380.28	3.833E-04	Pulse	0.10	3
Ag			1	0.024	ug/l	5.87	596.70	8.466E-05	Pulse	0.10	3
Sn			1	1.245	ug/l	1.57	9,693.33	1.375E-03	Pulse	0.10	3
Sb			1	0.099	ug/l	19.26	2,923.72	2.990E-04	Pulse	0.10	3
Ba			1	44.445	ug/l	1.38	271,292.60	2.775E-02	Pulse	0.10	3
Tl			1	0.119	ug/l	6.31	4,867.67	9.128E-04	Pulse	0.10	3
Pb			1	0.546	ug/l	5.11	6,791.81	1.274E-03	Pulse	0.10	3
Pb			1	0.504	ug/l	2.29	5,624.66	1.055E-03	Pulse	0.10	3
Pb			1	0.536	ug/l	2.58	27,201.00	5.102E-03	Pulse	0.10	3
Na			2	31639.823	ug/l	2.33	23,941,642.38	1.636E+02	Analog	0.30	3
Mg			2	23917.448	ug/l	0.91	8,386,260.78	5.730E+01	Analog	0.30	3
Al			2	508.852	ug/l	15.17	57,478.59	3.930E-01	Pulse	0.30	3
K			2	2927.789	ug/l	0.19	624,816.57	4.269E+00	Pulse	0.30	3
Ca			2	102648.116	ug/l	0.99	1,252,045.54	8.556E+00	Pulse	0.30	3
Ti			2	13.389	ug/l	19.62	1,298.22	8.871E-03	Pulse	0.30	3
V			2	1.129	ug/l	13.88	4,010.93	2.739E-02	Pulse	0.30	3
Cr			2	1.643	ug/l	8.67	7,392.05	5.052E-02	Pulse	0.30	3
Mn			2	7112.560	ug/l	1.33	14,946,847.74	1.021E+02	Analog	0.30	3
Fe			2	1728.249	ug/l	1.96	5,883,312.40	4.020E+01	Analog	0.30	3
Co			2	266.897	ug/l	0.64	2,012,170.20	1.375E+01	Pulse	0.30	3
Ni			2	132.394	ug/l	0.80	277,548.17	1.897E+00	Pulse	0.30	3
Cu			2	2.103	ug/l	1.98	12,187.95	8.328E-02	Pulse	0.30	3
Zn			2	190.589	ug/l	0.60	140,194.52	9.580E-01	Pulse	0.30	3
As			2	1.693	ug/l	1.82	637.01	4.353E-03	Pulse	1.00	3
Cd			2	0.220	ug/l	12.01	251.01	3.265E-04	Pulse	0.30	3
Sn			2	0.592	ug/l	4.42	1,518.98	1.976E-03	Pulse	0.30	3
Se			3	0.833	ug/l	7.05	119.87	5.822E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,616,468.49	0.35	98.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		4,808,589.09	1.17	98.5	Pulse	0.10	3
1	Ge		871,558.74	1.10	95.0	Pulse	0.10	3
1	Ge		1,212,098.29	0.74	94.7	Pulse	0.10	3
1	Rh		6,204,081.57	1.16	91.2	Analog	0.10	3
1	In		7,048,145.67	1.54	97.5	Analog	0.10	3
1	Tb		9,776,981.31	0.65	103.9	Analog	0.10	3
1	Ho		972,193.66	1.81	109.4	Pulse	0.10	3
1	Bi		5,331,644.92	1.04	96.8	Pulse	0.10	3
2	Sc		146,348.75	0.89	91.4	Pulse	0.30	3
2	Ge		80,367.20	0.64	91.4	Pulse	0.30	3
2	Ge		122,257.23	0.49	89.9	Pulse	0.30	3
2	Rh		2,546,150.73	0.43	90.7	Pulse	0.30	3
2	In		768,907.80	0.30	90.0	Pulse	0.30	3
2	Tb		3,209,634.11	0.69	96.6	Pulse	0.30	3
2	Ho		323,684.83	0.29	100.7	Pulse	0.30	3
2	Bi		1,980,262.28	0.02	89.9	Pulse	0.30	3
3	Sc		232,679.45	0.71	105.6	Pulse	0.30	3
3	Ge		134,664.88	0.87	101.7	Pulse	0.30	3
3	Ge		205,935.70	0.65	101.2	Pulse	0.30	3
3	Rh		2,411,105.39	0.64	97.4	Pulse	0.30	3
3	Tb		3,837,329.57	0.82	104.0	Pulse	0.30	3

Quantitation Report

File Name 029SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 13:18
Sample Name mp14051-sd1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.574	ug/l	18.68	793.36	2.908E-04	Pulse	0.25	3
B			1	21.120	ug/l	4.18	42,727.39	1.567E-02	Pulse	0.15	3
Ca			1	103298.601	ug/l	0.68	17,686,940.57	3.514E+00	Analog	0.10	3
Sr			1	479.847	ug/l	1.38	4,250,942.75	6.162E-01	Pulse	0.10	3
Mo			1	0.521	ug/l	4.45	1,063.41	1.541E-04	Pulse	0.10	3
Ag			1	0.061	ug/l	9.38	360.02	4.778E-05	Pulse	0.10	3
Sn			1	3.674	ug/l	1.08	3,117.11	4.137E-04	Pulse	0.10	3
Sb			1	-0.199	ug/l	-15.67	926.73	9.256E-05	Pulse	0.10	3
Ba			1	46.433	ug/l	3.50	58,106.03	5.807E-03	Pulse	0.10	3
Tl			1	0.110	ug/l	14.32	1,560.15	2.656E-04	Pulse	0.10	3
Pb			1	0.569	ug/l	15.26	1,816.84	3.094E-04	Pulse	0.10	3
Pb			1	0.513	ug/l	6.17	1,476.80	2.515E-04	Pulse	0.10	3
Pb			1	0.521	ug/l	6.28	6,864.21	1.169E-03	Pulse	0.10	3
Na			2	30203.987	ug/l	1.11	4,937,787.72	3.129E+01	Pulse	0.30	3
Mg			2	23133.760	ug/l	1.31	1,750,019.10	1.109E+01	Pulse	0.30	3
Al			2	450.704	ug/l	7.06	11,214.52	7.104E-02	Pulse	0.30	3
K			2	2947.780	ug/l	1.38	141,461.08	8.964E-01	Pulse	0.30	3
Ca			2	102762.292	ug/l	1.09	270,549.74	1.714E+00	Pulse	0.30	3
Ti			2	7.087	ug/l	42.55	148.90	9.453E-04	Pulse	0.30	3
V			2	0.576	ug/l	24.85	803.36	5.092E-03	Pulse	0.30	3
Cr			2	1.516	ug/l	18.57	1,892.62	1.200E-02	Pulse	0.30	3
Mn			2	7025.959	ug/l	0.79	3,184,768.35	2.018E+01	Pulse	0.30	3
Fe			2	1686.393	ug/l	1.29	1,248,776.69	7.913E+00	Pulse	0.30	3
Co			2	267.010	ug/l	0.86	434,252.29	2.752E+00	Pulse	0.30	3
Ni			2	135.875	ug/l	0.77	61,489.64	3.896E-01	Pulse	0.30	3
Cu			2	2.421	ug/l	2.57	3,548.20	2.248E-02	Pulse	0.30	3
Zn			2	248.871	ug/l	1.61	39,623.30	2.511E-01	Pulse	0.30	3
As			2	1.906	ug/l	4.36	165.33	1.047E-03	Pulse	1.00	3
Cd			2	0.301	ug/l	20.80	87.72	1.027E-04	Pulse	0.30	3
Sn			2	0.345	ug/l	28.44	530.02	6.203E-04	Pulse	0.30	3
Se			3	0.829	ug/l	26.56	37.07	1.710E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,726,908.65	0.71	102.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,032,740.76	0.36	103.1	Pulse	0.10	3
1	Ge		968,403.58	0.96	105.6	Pulse	0.10	3
1	Ge		1,350,739.82	1.62	105.5	Pulse	0.10	3
1	Rh		6,898,831.56	0.28	101.4	Analog	0.10	3
1	In		7,533,949.27	0.36	104.3	Analog	0.10	3
1	Tb		10,007,577.56	0.63	106.4	Analog	0.10	3
1	Ho		963,882.33	0.81	108.5	Pulse	0.10	3
1	Bi		5,872,796.37	0.26	106.6	Analog	0.10	3
2	Sc		157,826.13	0.74	98.6	Pulse	0.30	3
2	Ge		90,583.20	0.61	103.0	Pulse	0.30	3
2	Ge		138,954.54	0.49	102.2	Pulse	0.30	3
2	Rh		2,816,746.97	0.33	100.3	Pulse	0.30	3
2	In		854,364.93	0.24	100.0	Pulse	0.30	3
2	Tb		3,404,658.82	0.31	102.5	Pulse	0.30	3
2	Ho		331,754.06	0.41	103.2	Pulse	0.30	3
2	Bi		2,248,611.09	0.30	102.0	Pulse	0.30	3
3	Sc		233,803.68	0.24	106.1	Pulse	0.30	3
3	Ge		140,058.59	0.51	105.8	Pulse	0.30	3
3	Ge		217,002.63	1.00	106.6	Pulse	0.30	3
3	Rh		2,570,915.24	0.56	103.9	Pulse	0.30	3
3	Tb		3,903,768.04	0.45	105.8	Pulse	0.30	3

Quantitation Report

File Name 030SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 13:23
Sample Name jc86039-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.476	ug/l	5.02	2,929.64	1.138E-03	Pulse	0.25	3
B			1	21.250	ug/l	5.39	135,149.34	5.249E-02	Pulse	0.15	3
Ca			1	99422.150	ug/l	7.73	79,821,642.14	1.690E+01	Analog	0.10	3
Sr			1	497.391	ug/l	7.64	19,591,058.87	3.193E+00	Analog	0.10	3
Mo			1	0.203	ug/l	13.34	1,683.48	2.749E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	15.97	363.35	5.236E-05	Pulse	0.10	3
Sn			1	1.191	ug/l	0.63	8,806.06	1.274E-03	Pulse	0.10	3
Sb			1	0.032	ug/l	54.01	1,930.19	1.987E-04	Pulse	0.10	3
Ba			1	43.357	ug/l	7.82	263,609.38	2.707E-02	Pulse	0.10	3
Tl			1	0.093	ug/l	7.85	3,894.00	7.373E-04	Pulse	0.10	3
Pb			1	0.536	ug/l	6.20	6,621.77	1.254E-03	Pulse	0.10	3
Pb			1	0.508	ug/l	13.07	5,601.29	1.063E-03	Pulse	0.10	3
Pb			1	0.507	ug/l	10.93	25,506.28	4.838E-03	Pulse	0.10	3
Na			2	31444.494	ug/l	0.97	23,326,406.85	1.626E+02	Analog	0.30	3
Mg			2	23601.146	ug/l	0.32	8,112,469.40	5.655E+01	Analog	0.30	3
Al			2	466.515	ug/l	4.19	51,712.36	3.605E-01	Pulse	0.30	3
K			2	2923.925	ug/l	1.35	611,682.87	4.264E+00	Pulse	0.30	3
Ca			2	102401.516	ug/l	0.86	1,224,476.86	8.535E+00	Pulse	0.30	3
Ti			2	9.805	ug/l	24.37	931.30	6.498E-03	Pulse	0.30	3
V			2	1.043	ug/l	6.91	3,658.36	2.551E-02	Pulse	0.30	3
Cr			2	1.671	ug/l	8.19	7,365.74	5.133E-02	Pulse	0.30	3
Mn			2	7102.127	ug/l	0.79	14,631,824.42	1.020E+02	Analog	0.30	3
Fe			2	1708.500	ug/l	0.30	5,701,092.83	3.974E+01	Analog	0.30	3
Co			2	265.441	ug/l	0.40	1,961,856.52	1.367E+01	Pulse	0.30	3
Ni			2	131.715	ug/l	0.69	270,699.04	1.887E+00	Pulse	0.30	3
Cu			2	2.068	ug/l	2.62	11,759.86	8.196E-02	Pulse	0.30	3
Zn			2	189.592	ug/l	0.57	136,721.34	9.530E-01	Pulse	0.30	3
As			2	1.571	ug/l	5.10	580.68	4.047E-03	Pulse	1.00	3
Cd			2	0.239	ug/l	5.94	266.60	3.530E-04	Pulse	0.30	3
Sn			2	0.554	ug/l	10.91	1,416.75	1.875E-03	Pulse	0.30	3
Se			3	0.772	ug/l	8.76	110.07	5.445E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,577,883.12	4.12	97.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		4,742,221.39	7.36	97.1	Mix	0.10	3
1	Ge		856,321.18	4.15	93.4	Pulse	0.10	3
1	Ge		1,198,479.98	4.49	93.6	Pulse	0.10	3
1	Rh		6,157,220.32	6.97	90.5	Analog	0.10	3
1	In		6,914,800.56	4.38	95.7	Analog	0.10	3
1	Tb		9,778,085.89	7.86	103.9	Analog	0.10	3
1	Ho		960,120.87	6.44	108.1	Pulse	0.10	3
1	Bi		5,291,836.28	6.09	96.1	Mix	0.10	3
2	Sc		143,468.67	0.70	89.6	Pulse	0.30	3
2	Ge		78,596.38	0.62	89.3	Pulse	0.30	3
2	Ge		120,681.23	0.57	88.7	Pulse	0.30	3
2	Rh		2,499,881.84	0.48	89.0	Pulse	0.30	3
2	In		755,330.39	0.64	88.4	Pulse	0.30	3
2	Tb		3,167,613.07	0.41	95.4	Pulse	0.30	3
2	Ho		323,445.38	0.60	100.6	Pulse	0.30	3
2	Bi		1,959,050.55	0.27	88.9	Pulse	0.30	3
3	Sc		229,635.40	0.16	104.2	Pulse	0.30	3
3	Ge		131,990.12	0.53	99.7	Pulse	0.30	3
3	Ge		202,148.19	0.39	99.3	Pulse	0.30	3
3	Rh		2,376,347.75	0.08	96.0	Pulse	0.30	3
3	Tb		3,815,626.79	0.22	103.4	Pulse	0.30	3

Quantitation Report

File Name 031SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 13:28
Sample Name mp14084-sd1 5
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	179.58	70.67	2.648E-05	Pulse	0.25	3
B			1	102.187	ug/l	0.72	135,378.63	5.074E-02	Pulse	0.15	3
Ca			1	39733.587	ug/l	0.16	6,586,142.40	1.354E+00	Analog	0.10	3
Sr			1	288.773	ug/l	1.28	2,496,700.33	3.709E-01	Pulse	0.10	3
Mo			1	0.375	ug/l	17.06	796.72	1.183E-04	Pulse	0.10	3
Ag			1	0.030	ug/l	4.56	223.34	2.950E-05	Pulse	0.10	3
Sn			1	3.506	ug/l	2.19	2,653.64	3.505E-04	Pulse	0.10	3
Sb			1	-0.249	ug/l	-10.57	770.10	7.755E-05	Pulse	0.10	3
Ba			1	15.017	ug/l	3.49	18,701.77	1.885E-03	Pulse	0.10	3
Tl			1	-0.030	ug/l	-28.50	463.36	7.945E-05	Pulse	0.10	3
Pb			1	10.976	ug/l	1.87	28,935.69	4.960E-03	Pulse	0.10	3
Pb			1	10.365	ug/l	1.79	24,491.01	4.197E-03	Pulse	0.10	3
Pb			1	10.569	ug/l	0.54	113,536.24	1.946E-02	Pulse	0.10	3
Na			2	21870.360	ug/l	0.22	3,490,006.73	2.267E+01	Pulse	0.30	3
Mg			2	5317.036	ug/l	0.62	392,882.28	2.552E+00	Pulse	0.30	3
Al			2	1.289	ug/l	118.96	295.56	1.920E-03	Pulse	0.30	3
K			2	7428.344	ug/l	0.21	336,952.83	2.189E+00	Pulse	0.30	3
Ca			2	39283.645	ug/l	0.61	101,027.28	6.563E-01	Pulse	0.30	3
Ti			2	0.818	ug/l	60.61	17.78	1.153E-04	Pulse	0.30	3
V			2	-0.014	ug/l	-539.77	384.45	2.497E-03	Pulse	0.30	3
Cr			2	0.441	ug/l	22.87	895.59	5.817E-03	Pulse	0.30	3
Mn			2	46.990	ug/l	0.74	20,869.95	1.356E-01	Pulse	0.30	3
Fe			2	1022.157	ug/l	0.46	743,382.19	4.829E+00	Pulse	0.30	3
Co			2	0.821	ug/l	5.99	1,395.63	9.066E-03	Pulse	0.30	3
Ni			2	6.126	ug/l	2.26	2,764.71	1.796E-02	Pulse	0.30	3
Cu			2	65.404	ug/l	0.65	76,287.86	4.956E-01	Pulse	0.30	3
Zn			2	98.457	ug/l	1.65	15,401.75	1.001E-01	Pulse	0.30	3
As			2	42.185	ug/l	1.54	3,286.34	2.135E-02	Pulse	1.00	3
Cd			2	0.015	ug/l	325.55	18.84	2.241E-05	Pulse	0.30	3
Sn			2	0.107	ug/l	125.51	418.90	4.975E-04	Pulse	0.30	3
Se			3	-0.101	ug/l	-56.29	11.87	5.629E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,668,239.17	0.45	100.5	Pulse	0.10	3
1	Sc		4,862,618.99	0.73	99.6	Pulse	0.10	3
1	Ge		931,117.90	0.87	101.5	Pulse	0.10	3

Quantitation Report

1	Ge		1,315,911.59	0.67	102.8	Pulse	0.10	3
1	Rh		6,732,562.61	1.44	98.9	Analog	0.10	3
1	In		7,571,960.55	0.51	104.8	Analog	0.10	3
1	Tb		9,920,733.60	1.57	105.4	Analog	0.10	3
1	Ho		933,721.97	1.31	105.1	Pulse	0.10	3
1	Bi		5,834,328.46	0.67	105.9	Analog	0.10	3
2	Sc		153,927.85	0.47	96.1	Pulse	0.30	3
2	Ge		88,128.93	0.49	100.2	Pulse	0.30	3
2	Ge		134,747.56	0.75	99.1	Pulse	0.30	3
2	Rh		2,776,340.17	0.40	98.9	Pulse	0.30	3
2	In		841,743.15	0.41	98.5	Pulse	0.30	3
2	Tb		3,324,886.60	0.59	100.1	Pulse	0.30	3
2	Ho		323,308.04	0.41	100.6	Pulse	0.30	3
2	Bi		2,235,656.71	0.67	101.4	Pulse	0.30	3
3	Sc		225,332.23	0.47	102.2	Pulse	0.30	3
3	Ge		136,357.56	0.43	103.0	Pulse	0.30	3
3	Ge		210,797.23	0.24	103.6	Pulse	0.30	3
3	Rh		2,528,423.02	0.52	102.2	Pulse	0.30	3
3	Tb		3,832,494.15	0.31	103.8	Pulse	0.30	3

Quantitation Report

File Name 032SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 13:33
Sample Name jc85970-1 4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.129	ug/l	7.46	850.70	3.254E-04	Pulse	0.25	3
B			1	30.491	ug/l	0.36	189,406.07	7.248E-02	Pulse	0.15	3
Ca			1	35333.353	ug/l	1.08	28,193,897.91	6.007E+00	Analog	0.10	3
Sr			1	120.333	ug/l	0.58	4,913,080.03	7.726E-01	Pulse	0.10	3
Mo			1	0.998	ug/l	1.00	7,958.84	1.251E-03	Pulse	0.10	3
Ag			1	0.181	ug/l	2.88	3,947.31	5.535E-04	Pulse	0.10	3
Sn			1	2.140	ug/l	2.86	21,829.04	3.062E-03	Pulse	0.10	3
Sb			1	1.203	ug/l	1.25	18,921.97	1.939E-03	Pulse	0.10	3
Ba			1	38.752	ug/l	1.72	236,093.22	2.420E-02	Pulse	0.10	3
Tl			1	0.036	ug/l	12.51	1,993.55	3.597E-04	Pulse	0.10	3
Pb			1	22.453	ug/l	1.43	278,471.44	5.022E-02	Pulse	0.10	3
Pb			1	21.197	ug/l	0.63	235,659.67	4.250E-02	Pulse	0.10	3
Pb			1	21.605	ug/l	1.37	1,091,645.93	1.969E-01	Pulse	0.10	3
Na			2	3922.503	ug/l	1.06	3,031,927.45	2.034E+01	Pulse	0.30	3
Mg			2	7196.567	ug/l	1.27	2,570,709.69	1.725E+01	Pulse	0.30	3
Al			2	2175.921	ug/l	1.32	249,685.64	1.675E+00	Pulse	0.30	3
K			2	7745.580	ug/l	0.84	1,672,429.34	1.122E+01	Pulse	0.30	3
Ca			2	34774.311	ug/l	0.55	432,233.08	2.899E+00	Pulse	0.30	3
Ti			2	45.053	ug/l	18.21	4,444.03	2.983E-02	Pulse	0.30	3
V			2	7.600	ug/l	0.70	25,298.31	1.697E-01	Pulse	0.30	3
Cr			2	16.567	ug/l	1.64	71,493.03	4.796E-01	Pulse	0.30	3
Mn			2	243.179	ug/l	0.95	520,659.84	3.493E+00	Pulse	0.30	3
Fe			2	5976.983	ug/l	2.22	20,690,275.29	1.388E+02	Analog	0.30	3
Co			2	1.768	ug/l	2.35	13,664.67	9.167E-02	Pulse	0.30	3
Ni			2	5.164	ug/l	1.06	11,086.05	7.437E-02	Pulse	0.30	3
Cu			2	68.769	ug/l	0.78	385,683.05	2.587E+00	Pulse	0.30	3
Zn			2	113.360	ug/l	1.23	85,011.56	5.703E-01	Pulse	0.30	3
As			2	3.613	ug/l	1.06	1,370.39	9.192E-03	Pulse	1.00	3
Cd			2	0.190	ug/l	1.37	225.17	2.846E-04	Pulse	0.30	3
Sn			2	1.523	ug/l	2.37	3,469.32	4.385E-03	Pulse	0.30	3
Se			3	0.273	ug/l	4.15	50.40	2.371E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,613,184.58	1.05	98.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		4,693,023.37	0.61	96.1	Pulse	0.10	3
1	Ge		875,333.69	0.76	95.4	Pulse	0.10	3
1	Ge		1,223,457.98	0.79	95.6	Pulse	0.10	3
1	Rh		6,359,446.57	1.28	93.4	Analog	0.10	3
1	In		7,132,278.60	1.53	98.7	Analog	0.10	3
1	Tb		9,757,901.94	0.26	103.7	Analog	0.10	3
1	Ho		930,142.48	0.86	104.7	Pulse	0.10	3
1	Bi		5,545,551.37	1.05	100.7	Analog	0.10	3
2	Sc		149,075.04	0.80	93.1	Pulse	0.30	3
2	Ge		82,569.05	0.76	93.9	Pulse	0.30	3
2	Ge		126,276.39	0.84	92.8	Pulse	0.30	3
2	Rh		2,644,134.90	0.38	94.2	Pulse	0.30	3
2	In		791,188.50	0.46	92.6	Pulse	0.30	3
2	Tb		3,250,516.88	0.46	97.9	Pulse	0.30	3
2	Ho		316,657.49	0.35	98.5	Pulse	0.30	3
2	Bi		2,083,823.39	0.23	94.6	Pulse	0.30	3
3	Sc		236,766.64	1.05	107.4	Pulse	0.30	3
3	Ge		137,492.62	0.42	103.8	Pulse	0.30	3
3	Ge		212,569.69	0.57	104.4	Pulse	0.30	3
3	Rh		2,534,846.08	0.40	102.4	Pulse	0.30	3
3	Tb		3,900,321.37	0.48	105.7	Pulse	0.30	3

Quantitation Report

File Name 033_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 13:38
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.350	ug/l	0.92	654,851.31	2.316E-01	Pulse	0.25	3
B			1	100.053	ug/l	1.47	1,242,295.44	4.393E-01	Pulse	0.15	3
Ca			1	5104.765	ug/l	0.53	9,161,255.28	1.739E+00	Analog	0.10	3
Sr			1	52.009	ug/l	1.74	4,670,579.83	6.679E-01	Pulse	0.10	3
Mo			1	51.383	ug/l	1.92	882,075.43	1.261E-01	Pulse	0.10	3
Ag			1	49.746	ug/l	0.63	2,278,510.69	2.986E-01	Pulse	0.10	3
Sn			1	48.694	ug/l	1.40	1,393,149.56	1.826E-01	Pulse	0.10	3
Sb			1	49.422	ug/l	1.40	1,495,974.82	1.470E-01	Pulse	0.10	3
Ba			1	50.275	ug/l	1.34	638,635.79	6.276E-02	Pulse	0.10	3
Tl			1	50.847	ug/l	1.54	3,895,364.32	6.761E-01	Pulse	0.10	3
Pb			1	50.990	ug/l	1.92	1,313,105.60	2.279E-01	Pulse	0.10	3
Pb			1	50.141	ug/l	1.36	1,157,459.41	2.009E-01	Pulse	0.10	3
Pb			1	50.418	ug/l	1.40	5,289,528.83	9.180E-01	Pulse	0.10	3
Na			2	4984.564	ug/l	0.80	8,478,730.22	5.159E+01	Analog	0.30	3
Mg			2	4844.715	ug/l	0.30	3,815,536.80	2.322E+01	Pulse	0.30	3
Al			2	4862.844	ug/l	0.07	1,229,384.74	7.481E+00	Pulse	0.30	3
K			2	5031.037	ug/l	0.26	2,392,921.30	1.456E+01	Pulse	0.30	3
Ca			2	5186.124	ug/l	0.31	142,312.09	8.660E-01	Pulse	0.30	3
Ti			2	48.730	ug/l	3.11	10,605.69	6.453E-02	Pulse	0.30	3
V			2	51.226	ug/l	0.16	370,725.70	2.256E+00	Pulse	0.30	3
Cr			2	50.515	ug/l	0.89	477,911.61	2.908E+00	Pulse	0.30	3
Mn			2	50.022	ug/l	0.78	236,199.99	1.437E+00	Pulse	0.30	3
Fe			2	5122.167	ug/l	0.42	39,089,244.00	2.379E+02	Analog	0.30	3
Co			2	50.383	ug/l	0.39	853,169.01	5.192E+00	Pulse	0.30	3
Ni			2	49.428	ug/l	0.10	232,743.04	1.416E+00	Pulse	0.30	3
Cu			2	49.683	ug/l	0.21	614,048.45	3.736E+00	Pulse	0.30	3
Zn			2	48.610	ug/l	0.14	80,405.18	4.893E-01	Pulse	0.30	3
As			2	50.039	ug/l	0.49	41,463.26	2.523E-01	Pulse	1.00	3
Cd			2	49.383	ug/l	0.83	120,015.40	1.386E-01	Pulse	0.30	3
Sn			2	48.906	ug/l	0.75	219,629.74	2.537E-01	Pulse	0.30	3
Se			3	196.958	ug/l	0.90	52,213.99	2.429E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,827,873.43	0.41	106.5	Pulse	0.10	3
1	Sc		5,268,350.86	0.54	107.9	Mix	0.10	3
1	Ge		986,551.91	0.36	107.6	Pulse	0.10	3

Quantitation Report

1	Ge		1,397,282.27	0.45	109.2	Pulse	0.10	3
1	Rh		6,994,104.90	1.11	102.8	Analog	0.10	3
1	In		7,631,366.96	0.45	105.6	Analog	0.10	3
1	Tb		10,175,684.64	0.41	108.2	Analog	0.10	3
1	Ho		973,132.17	0.27	109.6	Pulse	0.10	3
1	Bi		5,762,148.04	0.61	104.6	Analog	0.10	3
2	Sc		164,341.30	0.61	102.6	Pulse	0.30	3
2	Ge		91,547.51	0.23	104.1	Pulse	0.30	3
2	Ge		140,937.91	0.35	103.6	Pulse	0.30	3
2	Rh		2,832,971.28	0.54	100.9	Pulse	0.30	3
2	In		865,642.48	0.71	101.3	Pulse	0.30	3
2	Tb		3,414,030.42	0.73	102.8	Pulse	0.30	3
2	Ho		330,815.98	0.28	102.9	Pulse	0.30	3
2	Bi		2,188,236.09	0.52	99.3	Pulse	0.30	3
3	Sc		237,772.24	0.26	107.9	Pulse	0.30	3
3	Ge		139,133.24	1.30	105.1	Pulse	0.30	3
3	Ge		214,949.02	0.73	105.6	Pulse	0.30	3
3	Rh		2,514,043.16	0.31	101.6	Pulse	0.30	3
3	Tb		3,819,508.88	0.13	103.5	Pulse	0.30	3

Quantitation Report

File Name	034_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 13:49
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	112.98	82.67	2.971E-05	Pulse	0.25	3
B			1	0.053	ug/l	53.94	18,777.39	6.764E-03	Pulse	0.15	3
Ca			1	-0.023	ug/l	-2658.53	22,245.61	4.311E-03	Pulse	0.10	3
Sr			1	0.010	ug/l	23.33	1,846.84	2.593E-04	Pulse	0.10	3
Mo			1	0.016	ug/l	11.43	470.02	6.593E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	38.36	230.01	3.006E-05	Pulse	0.10	3
Sn			1	0.362	ug/l	0.88	3,002.05	3.926E-04	Pulse	0.10	3
Sb			1	0.054	ug/l	14.49	3,073.74	3.111E-04	Pulse	0.10	3
Ba			1	0.011	ug/l	27.02	246.68	2.495E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	-621.90	690.04	1.181E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	37.98	416.69	7.128E-05	Pulse	0.10	3
Pb			1	0.008	ug/l	39.43	460.02	7.867E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	6.86	1,836.78	3.142E-04	Pulse	0.10	3
Na			2	0.903	ug/l	8.47	12,381.27	7.432E-02	Pulse	0.30	3
Mg			2	-0.182	ug/l	-37.97	665.58	3.996E-03	Pulse	0.30	3
Al			2	-0.136	ug/l	-139.20	252.23	1.513E-03	Pulse	0.30	3
K			2	1.958	ug/l	14.23	8,588.96	5.156E-02	Pulse	0.30	3
Ca			2	-5.960	ug/l	-17.74	100.00	6.006E-04	Pulse	0.30	3
Ti			2	0.035	ug/l	66.25	8.89	5.343E-05	Pulse	0.30	3
V			2	0.000	ug/l	1536.34	430.01	2.580E-03	Pulse	0.30	3
Cr			2	0.008	ug/l	100.65	621.13	3.729E-03	Pulse	0.30	3
Mn			2	0.044	ug/l	11.12	313.34	1.881E-03	Pulse	0.30	3
Fe			2	-0.725	ug/l	-2.99	8,508.95	5.108E-02	Pulse	0.30	3
Co			2	0.005	ug/l	29.42	185.56	1.113E-03	Pulse	0.30	3
Ni			2	0.001	ug/l	387.86	73.33	4.404E-04	Pulse	0.30	3
Cu			2	0.027	ug/l	15.99	1,055.60	6.337E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.003	ug/l	820.86	205.56	1.235E-03	Pulse	0.30	3
As			2	0.005	ug/l	104.38	18.33	1.101E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	245.28	17.76	1.990E-05	Pulse	0.30	3
Sn			2	0.032	ug/l	21.11	542.24	6.075E-04	Pulse	0.30	3
Se			3	0.000	ug/l	-6330.94	14.87	6.862E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,776,395.13	1.01	104.5	Pulse	0.10	3
1	Sc		5,161,190.55	0.78	105.7	Pulse	0.10	3
1	Ge		970,904.65	0.51	105.9	Pulse	0.10	3
1	Ge		1,360,964.88	1.30	106.3	Pulse	0.10	3
1	Rh		7,126,452.40	1.24	104.7	Analog	0.10	3
1	In		7,646,218.49	0.52	105.8	Analog	0.10	3
1	Tb		9,885,132.15	1.24	105.1	Analog	0.10	3
1	Ho		931,833.66	0.48	104.9	Pulse	0.10	3
1	Bi		5,844,273.66	1.12	106.1	Analog	0.10	3
2	Sc		166,599.83	0.55	104.0	Pulse	0.30	3
2	Ge		92,968.69	0.64	105.7	Pulse	0.30	3
2	Ge		143,025.59	0.88	105.1	Pulse	0.30	3
2	Rh		2,930,799.81	0.35	104.4	Pulse	0.30	3
2	In		892,559.07	0.50	104.5	Pulse	0.30	3
2	Tb		3,431,500.97	0.59	103.3	Pulse	0.30	3
2	Ho		332,410.17	0.56	103.4	Pulse	0.30	3
2	Bi		2,278,636.44	0.30	103.4	Pulse	0.30	3
3	Sc		234,857.90	0.40	106.6	Pulse	0.30	3
3	Ge		140,503.76	0.65	106.1	Pulse	0.30	3
3	Ge		216,631.23	0.10	106.4	Pulse	0.30	3
3	Rh		2,603,154.96	0.68	105.2	Pulse	0.30	3
3	Tb		3,828,502.77	0.71	103.7	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 13:54
Sample Name	mp14051-mb1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	42.43	98.67	3.572E-05	Pulse	0.25	3
B			1	0.345	ug/l	16.85	20,136.85	7.281E-03	Pulse	0.15	3
Ca			1	5.792	ug/l	2.85	26,471.93	5.303E-03	Pulse	0.10	3
Sr			1	0.028	ug/l	2.61	2,166.90	3.112E-04	Pulse	0.10	3
Mo			1	0.043	ug/l	29.04	546.70	7.843E-05	Pulse	0.10	3
Ag			1	0.014	ug/l	17.12	400.02	5.300E-05	Pulse	0.10	3
Sn			1	1.019	ug/l	1.69	7,161.84	9.488E-04	Pulse	0.10	3
Sb			1	0.192	ug/l	10.45	4,370.78	4.376E-04	Pulse	0.10	3
Ba			1	0.025	ug/l	14.53	266.68	2.670E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	62.73	893.40	1.527E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	17.66	636.71	1.088E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	18.23	630.04	1.077E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	19.98	2,590.20	4.426E-04	Pulse	0.10	3
Na			2	5.144	ug/l	2.34	14,772.09	9.157E-02	Pulse	0.30	3
Mg			2	0.081	ug/l	29.76	816.70	5.062E-03	Pulse	0.30	3
Al			2	0.860	ug/l	32.14	384.45	2.384E-03	Pulse	0.30	3
K			2	3.547	ug/l	4.97	8,230.99	5.102E-02	Pulse	0.30	3
Ca			2	-4.230	ug/l	-91.51	200.01	1.242E-03	Pulse	0.30	3
Ti			2	0.488	ug/l	44.26	53.34	3.300E-04	Pulse	0.30	3
V			2	0.229	ug/l	5.07	1,224.50	7.591E-03	Pulse	0.30	3
Cr			2	0.275	ug/l	7.67	1,805.67	1.119E-02	Pulse	0.30	3
Mn			2	0.194	ug/l	1.64	551.13	3.416E-03	Pulse	0.30	3
Fe			2	-0.307	ug/l	-2.08	12,520.44	7.761E-02	Pulse	0.30	3
Co			2	0.017	ug/l	43.00	242.23	1.502E-03	Pulse	0.30	3
Ni			2	0.023	ug/l	51.29	120.00	7.447E-04	Pulse	0.30	3
Cu			2	0.213	ug/l	3.02	1,983.48	1.230E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.941	ug/l	7.05	956.71	5.929E-03	Pulse	0.30	3
As			2	0.039	ug/l	29.45	30.00	1.861E-04	Pulse	1.00	3
Cd			2	0.004	ug/l	337.48	19.97	2.346E-05	Pulse	0.30	3
Sn			2	0.377	ug/l	8.57	1,208.39	1.417E-03	Pulse	0.30	3
Se			3	-0.011	ug/l	-92.69	13.67	6.190E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,765,795.15	1.26	104.1	Pulse	0.10	3
1	Sc		4,991,957.53	0.90	102.3	Pulse	0.10	3
1	Ge		931,003.19	0.86	101.5	Pulse	0.10	3
1	Ge		1,307,812.25	0.66	102.2	Pulse	0.10	3
1	Rh		6,962,024.27	1.03	102.3	Analog	0.10	3
1	In		7,548,944.43	0.27	104.5	Analog	0.10	3
1	Tb		9,984,270.27	1.15	106.1	Analog	0.10	3
1	Ho		936,409.67	1.27	105.4	Pulse	0.10	3
1	Bi		5,854,445.33	0.82	106.3	Analog	0.10	3
2	Sc		161,317.06	0.81	100.7	Pulse	0.30	3
2	Ge		88,665.09	1.07	100.8	Pulse	0.30	3
2	Ge		135,940.54	0.85	99.9	Pulse	0.30	3
2	Rh		2,868,327.94	0.57	102.1	Pulse	0.30	3
2	In		852,593.59	0.38	99.8	Pulse	0.30	3
2	Tb		3,382,781.39	0.60	101.9	Pulse	0.30	3
2	Ho		328,581.99	0.62	102.2	Pulse	0.30	3
2	Bi		2,231,219.22	0.66	101.2	Pulse	0.30	3
3	Sc		244,510.82	0.92	110.9	Pulse	0.30	3
3	Ge		142,969.07	0.40	108.0	Pulse	0.30	3
3	Ge		220,852.19	0.77	108.5	Pulse	0.30	3
3	Rh		2,664,043.64	0.40	107.6	Pulse	0.30	3
3	Tb		3,956,767.06	0.76	107.2	Pulse	0.30	3

Quantitation Report

File Name	036SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 13:59
Sample Name	jc86039-9
Sample Type	Sample
Comment	wfb
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	44.34	172.00	6.026E-05	Pulse	0.25	3
B			1	0.543	ug/l	2.74	21,999.04	7.710E-03	Pulse	0.15	3
Ca			1	240.784	ug/l	0.35	229,374.71	4.523E-02	Pulse	0.10	3
Sr			1	5.553	ug/l	0.50	249,414.72	3.578E-02	Pulse	0.10	3
Mo			1	0.038	ug/l	49.71	506.69	7.263E-05	Pulse	0.10	3
Ag			1	0.012	ug/l	18.30	350.02	4.626E-05	Pulse	0.10	3
Sn			1	1.102	ug/l	1.17	8,355.81	1.105E-03	Pulse	0.10	3
Sb			1	0.046	ug/l	32.72	2,230.26	2.205E-04	Pulse	0.10	3
Ba			1	0.925	ug/l	5.41	5,954.71	5.882E-04	Pulse	0.10	3
Tl			1	0.006	ug/l	61.71	930.06	1.593E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	26.71	673.38	1.154E-04	Pulse	0.10	3
Pb			1	0.042	ug/l	31.70	753.38	1.290E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	16.42	2,830.21	4.849E-04	Pulse	0.10	3
Na			2	105.703	ug/l	0.44	98,810.66	6.113E-01	Pulse	0.30	3
Mg			2	17.594	ug/l	0.93	7,599.57	4.702E-02	Pulse	0.30	3
Al			2	2.035	ug/l	25.10	531.13	3.287E-03	Pulse	0.30	3
K			2	25.885	ug/l	3.02	13,455.55	8.325E-02	Pulse	0.30	3
Ca			2	249.172	ug/l	2.59	3,613.77	2.236E-02	Pulse	0.30	3
Ti			2	1.388	ug/l	145.35	150.12	9.260E-04	Pulse	0.30	3
V			2	0.304	ug/l	9.33	1,494.53	9.246E-03	Pulse	0.30	3
Cr			2	0.447	ug/l	7.51	2,606.90	1.613E-02	Pulse	0.30	3
Mn			2	0.974	ug/l	5.21	2,361.31	1.461E-02	Pulse	0.30	3
Fe			2	0.593	ug/l	20.26	15,921.35	9.850E-02	Pulse	0.30	3
Co			2	0.272	ug/l	3.93	2,364.64	1.463E-02	Pulse	0.30	3
Ni			2	2.140	ug/l	1.59	5,020.82	3.106E-02	Pulse	0.30	3
Cu			2	0.300	ug/l	3.91	2,516.89	1.557E-02	Pulse	0.30	3
Zn			2	16.771	ug/l	3.10	13,802.62	8.540E-02	Pulse	0.30	3
As			2	0.044	ug/l	9.06	32.00	1.980E-04	Pulse	1.00	3
Cd			2	-0.004	ug/l	-119.14	11.09	1.309E-05	Pulse	0.30	3
Sn			2	0.461	ug/l	6.02	1,384.52	1.635E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.016	ug/l	130.66	17.60	7.852E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,853,306.72	0.75	107.4	Pulse	0.10	3
1	Sc		5,071,688.36	1.62	103.9	Pulse	0.10	3
1	Ge		946,132.77	1.45	103.2	Pulse	0.10	3
1	Ge		1,321,370.29	0.97	103.2	Pulse	0.10	3
1	Rh		6,971,038.44	0.74	102.4	Analog	0.10	3
1	In		7,561,724.34	0.74	104.6	Analog	0.10	3
1	Tb		10,119,546.93	0.99	107.6	Analog	0.10	3
1	Ho		952,803.34	1.43	107.3	Pulse	0.10	3
1	Bi		5,836,892.62	0.18	106.0	Analog	0.10	3
2	Sc		161,632.22	0.32	100.9	Pulse	0.30	3
2	Ge		88,639.51	1.76	100.8	Pulse	0.30	3
2	Ge		136,355.52	0.78	100.2	Pulse	0.30	3
2	Rh		2,860,929.40	0.45	101.9	Pulse	0.30	3
2	In		846,959.56	0.40	99.1	Pulse	0.30	3
2	Tb		3,368,187.16	0.63	101.4	Pulse	0.30	3
2	Ho		326,881.51	0.69	101.7	Pulse	0.30	3
2	Bi		2,204,373.52	0.18	100.0	Pulse	0.30	3
3	Sc		248,237.64	0.63	112.6	Pulse	0.30	3
3	Ge		144,151.58	0.92	108.9	Pulse	0.30	3
3	Ge		224,007.60	0.80	110.1	Pulse	0.30	3
3	Rh		2,674,795.73	0.28	108.1	Pulse	0.30	3
3	Tb		3,961,268.04	0.46	107.3	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 14:04
Sample Name	jc85043-2f
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.038	ug/l	45.06	173.33	5.767E-05	Pulse	0.25	3
B			1	49.129	ug/l	1.28	147,186.29	4.904E-02	Pulse	0.15	3
Ca			1	208366.554	ug/l	1.62	77,419,052.18	1.416E+01	Analog	0.10	3
Sr			1	778.636	ug/l	1.11	12,969,341.47	1.999E+00	Analog	0.10	3
Mo			1	5.399	ug/l	1.43	17,356.60	2.676E-03	Pulse	0.10	3
Ag			1	0.025	ug/l	25.02	296.68	4.101E-05	Pulse	0.10	3
Sn			1	2.657	ug/l	2.12	7,458.69	1.032E-03	Pulse	0.10	3
Sb			1	0.194	ug/l	27.21	2,623.66	2.667E-04	Pulse	0.10	3
Ba			1	948.756	ug/l	1.11	2,332,390.33	2.369E-01	Pulse	0.10	3
Tl			1	0.023	ug/l	17.97	893.39	1.798E-04	Pulse	0.10	3
Pb			1	1.198	ug/l	7.70	5,591.26	1.126E-03	Pulse	0.10	3
Pb			1	1.096	ug/l	5.36	4,590.89	9.241E-04	Pulse	0.10	3
Pb			1	1.137	ug/l	3.81	21,656.94	4.359E-03	Pulse	0.10	3
Na			2	725726.602	ug/l	0.96	258,788,016.38	1.500E+03	Analog	0.30	3
Mg			2	30111.385	ug/l	0.59	4,977,531.19	2.886E+01	Pulse	0.30	3
Al			2	760.904	ug/l	2.00	40,661.18	2.358E-01	Pulse	0.30	3
K			2	2769.612	ug/l	1.31	283,537.51	1.644E+00	Pulse	0.30	3
Ca			2	208670.605	ug/l	1.07	1,199,927.03	6.957E+00	Pulse	0.30	3
Ti			2	34.882	ug/l	1.32	1,594.54	9.244E-03	Pulse	0.30	3
V			2	3.557	ug/l	0.90	5,838.87	3.385E-02	Pulse	0.30	3
Cr			2	3.150	ug/l	1.67	6,813.73	3.950E-02	Pulse	0.30	3
Mn			2	4740.398	ug/l	1.17	4,696,330.09	2.723E+01	Pulse	0.30	3
Fe			2	1069.197	ug/l	1.09	1,726,569.34	1.001E+01	Pulse	0.30	3
Co			2	2.017	ug/l	0.75	7,271.68	4.216E-02	Pulse	0.30	3
Ni			2	3.128	ug/l	3.44	3,162.56	1.833E-02	Pulse	0.30	3
Cu			2	23.742	ug/l	0.69	62,262.62	3.610E-01	Pulse	0.30	3
Zn			2	20.395	ug/l	2.02	7,271.68	4.216E-02	Pulse	0.30	3
As			2	0.540	ug/l	27.16	108.67	6.307E-04	Pulse	1.00	3
Cd			2	0.241	ug/l	12.39	128.08	1.533E-04	Pulse	0.30	3
Sn			2	0.937	ug/l	7.60	1,180.06	1.412E-03	Pulse	0.30	3
Se			3	0.223	ug/l	76.30	25.53	1.238E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		3,001,731.04	0.81	113.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,466,559.50	1.68	112.0	Analog	0.10	3
1	Ge		938,537.36	1.28	102.3	Pulse	0.10	3
1	Ge		1,323,697.48	0.53	103.4	Pulse	0.10	3
1	Rh		6,486,414.90	0.98	95.3	Analog	0.10	3
1	In		7,225,396.67	1.09	100.0	Analog	0.10	3
1	Tb		9,847,250.48	1.50	104.7	Analog	0.10	3
1	Ho		926,764.18	1.20	104.3	Pulse	0.10	3
1	Bi		4,969,305.45	0.97	90.2	Pulse	0.10	3
2	Sc		172,479.84	0.92	107.7	Pulse	0.30	3
2	Ge		89,345.28	0.88	101.6	Pulse	0.30	3
2	Ge		137,251.33	0.07	100.9	Pulse	0.30	3
2	Rh		2,636,320.59	0.58	93.9	Pulse	0.30	3
2	In		835,686.84	0.45	97.8	Pulse	0.30	3
2	Tb		3,306,661.67	0.63	99.6	Pulse	0.30	3
2	Ho		323,585.09	0.88	100.7	Pulse	0.30	3
2	Bi		1,915,155.48	0.58	86.9	Pulse	0.30	3
3	Sc		244,797.89	0.51	111.1	Pulse	0.30	3
3	Ge		134,036.50	0.74	101.2	Pulse	0.30	3
3	Ge		206,086.35	0.25	101.3	Pulse	0.30	3
3	Rh		2,300,536.99	0.26	93.0	Pulse	0.30	3
3	Tb		3,626,982.50	0.29	98.3	Pulse	0.30	3

Quantitation Report

File Name 038SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 14:09
Sample Name jc85970-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	28.82	97.33	3.420E-05	Pulse	0.25	3
B			1	34.098	ug/l	0.93	228,469.07	8.028E-02	Pulse	0.15	3
Ca			1	21619.572	ug/l	0.61	18,238,520.56	3.677E+00	Analog	0.10	3
Sr			1	861.556	ug/l	0.87	36,419,743.62	5.531E+00	Analog	0.10	3
Mo			1	23.274	ug/l	1.16	188,236.45	2.859E-02	Pulse	0.10	3
Ag			1	0.013	ug/l	14.61	383.35	5.105E-05	Pulse	0.10	3
Sn			1	1.500	ug/l	5.10	13,919.93	1.856E-03	Pulse	0.10	3
Sb			1	2.568	ug/l	1.85	39,430.26	3.967E-03	Pulse	0.10	3
Ba			1	28.218	ug/l	0.94	175,130.13	1.762E-02	Pulse	0.10	3
Tl			1	0.000	ug/l	-232.58	640.04	1.161E-04	Pulse	0.10	3
Pb			1	0.172	ug/l	8.94	2,416.95	4.389E-04	Pulse	0.10	3
Pb			1	0.159	ug/l	0.96	2,010.21	3.647E-04	Pulse	0.10	3
Pb			1	0.157	ug/l	3.85	9,098.05	1.651E-03	Pulse	0.10	3
Na			2	14636.809	ug/l	1.76	12,019,567.58	7.572E+01	Analog	0.30	3
Mg			2	4374.986	ug/l	0.16	1,664,488.03	1.049E+01	Pulse	0.30	3
Al			2	39.417	ug/l	3.79	5,084.24	3.203E-02	Pulse	0.30	3
K			2	4875.184	ug/l	0.48	1,123,627.94	7.079E+00	Pulse	0.30	3
Ca			2	25339.874	ug/l	0.24	335,456.95	2.113E+00	Pulse	0.30	3
Ti			2	0.455	ug/l	11.01	48.89	3.080E-04	Pulse	0.30	3
V			2	1.306	ug/l	6.17	4,965.26	3.128E-02	Pulse	0.30	3
Cr			2	0.552	ug/l	2.87	3,040.32	1.915E-02	Pulse	0.30	3
Mn			2	3.377	ug/l	2.89	7,796.37	4.912E-02	Pulse	0.30	3
Fe			2	22.676	ug/l	1.00	96,994.63	6.111E-01	Pulse	0.30	3
Co			2	0.049	ug/l	4.87	498.90	3.143E-03	Pulse	0.30	3
Ni			2	0.404	ug/l	7.21	983.38	6.196E-03	Pulse	0.30	3
Cu			2	3.033	ug/l	3.22	18,764.22	1.182E-01	Pulse	0.30	3
Zn			2	1.540	ug/l	5.50	1,418.97	8.940E-03	Pulse	0.30	3
As			2	1.464	ug/l	3.97	599.34	3.776E-03	Pulse	1.00	3
Cd			2	0.009	ug/l	18.97	25.59	3.106E-05	Pulse	0.30	3
Sn			2	0.825	ug/l	1.60	2,124.62	2.579E-03	Pulse	0.30	3
Se			3	0.020	ug/l	63.67	17.80	8.113E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,846,079.60	1.24	107.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		4,959,483.68	1.05	101.6	Pulse	0.10	3
1	Ge		920,217.57	1.45	100.3	Pulse	0.10	3
1	Ge		1,293,275.58	0.85	101.0	Pulse	0.10	3
1	Rh		6,584,856.15	0.41	96.8	Analog	0.10	3
1	In		7,505,352.06	1.37	103.9	Analog	0.10	3
1	Tb		9,938,807.77	1.06	105.6	Analog	0.10	3
1	Ho		946,763.82	0.95	106.6	Pulse	0.10	3
1	Bi		5,511,650.96	1.73	100.1	Mix	0.10	3
2	Sc		158,736.94	0.54	99.1	Pulse	0.30	3
2	Ge		86,646.46	0.04	98.5	Pulse	0.30	3
2	Ge		132,305.64	0.84	97.3	Pulse	0.30	3
2	Rh		2,716,272.11	0.24	96.7	Pulse	0.30	3
2	In		823,753.97	0.10	96.4	Pulse	0.30	3
2	Tb		3,309,576.95	0.42	99.7	Pulse	0.30	3
2	Ho		323,526.46	0.16	100.6	Pulse	0.30	3
2	Bi		2,097,048.18	0.13	95.2	Pulse	0.30	3
3	Sc		246,389.29	0.80	111.8	Pulse	0.30	3
3	Ge		141,985.09	0.34	107.2	Pulse	0.30	3
3	Ge		219,503.41	0.84	107.8	Pulse	0.30	3
3	Rh		2,573,725.94	0.23	104.0	Pulse	0.30	3
3	Tb		3,956,896.09	0.07	107.2	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 14:14
Sample Name	jc85988-1 1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.283	ug/l	2.57	3,873.83	1.350E-03	Pulse	0.25	3
B			1	23.460	ug/l	0.72	309,898.18	1.080E-01	Pulse	0.15	3
Ca			1	14733.185	ug/l	1.20	28,828,360.40	5.011E+00	Analog	0.10	3
Sr			1	110.878	ug/l	1.22	9,411,012.57	1.424E+00	Analog	0.10	3
Mo			1	1.337	ug/l	2.04	21,868.97	3.309E-03	Pulse	0.10	3
Ag			1	0.059	ug/l	10.51	2,720.34	3.664E-04	Pulse	0.10	3
Sn			1	2.681	ug/l	2.75	67,796.79	9.135E-03	Pulse	0.10	3
Sb			1	1.025	ug/l	0.61	31,783.17	3.197E-03	Pulse	0.10	3
Ba			1	85.147	ug/l	0.45	1,056,771.99	1.063E-01	Pulse	0.10	3
Tl			1	0.099	ug/l	3.37	7,385.44	1.436E-03	Pulse	0.10	3
Pb			1	42.792	ug/l	0.43	983,481.91	1.913E-01	Pulse	0.10	3
Pb			1	40.067	ug/l	0.11	825,434.21	1.605E-01	Pulse	0.10	3
Pb			1	41.118	ug/l	0.17	3,849,934.27	7.487E-01	Pulse	0.10	3
Na			2	94553.702	ug/l	0.88	176,969,975.19	9.775E+02	Analog	0.30	3
Mg			2	4390.351	ug/l	0.71	3,809,262.21	2.104E+01	Pulse	0.30	3
Al			2	5768.003	ug/l	0.77	1,606,378.55	8.873E+00	Pulse	0.30	3
K			2	5541.717	ug/l	1.02	2,902,866.62	1.603E+01	Pulse	0.30	3
Ca			2	15343.199	ug/l	1.17	463,252.79	2.559E+00	Pulse	0.30	3
Ti			2	244.954	ug/l	1.07	58,723.68	3.244E-01	Pulse	0.30	3
V			2	14.816	ug/l	0.64	118,453.59	6.543E-01	Pulse	0.30	3
Cr			2	19.464	ug/l	0.27	203,221.52	1.122E+00	Pulse	0.30	3
Mn			2	414.372	ug/l	0.39	2,154,774.64	1.190E+01	Pulse	0.30	3
Fe			2	18373.090	ug/l	0.70	154,420,953.86	8.529E+02	Analog	0.30	3
Co			2	2.674	ug/l	0.88	49,979.90	2.761E-01	Pulse	0.30	3
Ni			2	9.236	ug/l	2.98	47,966.26	2.650E-01	Pulse	0.30	3
Cu			2	40.583	ug/l	1.06	552,709.86	3.053E+00	Pulse	0.30	3
Zn			2	194.016	ug/l	0.77	352,883.55	1.949E+00	Pulse	0.30	3
As			2	6.324	ug/l	1.53	5,786.70	3.196E-02	Pulse	1.00	3
Cd			2	0.175	ug/l	8.03	450.03	5.101E-04	Pulse	0.30	3
Sn			2	2.383	ug/l	2.61	11,276.36	1.278E-02	Pulse	0.30	3
Se			3	0.386	ug/l	5.30	116.13	5.448E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,869,185.20	0.69	108.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,752,936.79	1.47	117.8	Analog	0.10	3
1	Ge		987,861.21	1.92	107.7	Pulse	0.10	3
1	Ge		1,365,304.25	1.80	106.7	Pulse	0.10	3
1	Rh		6,611,337.61	1.71	97.1	Analog	0.10	3
1	In		7,420,717.42	0.86	102.7	Analog	0.10	3
1	Tb		9,942,297.77	0.71	105.7	Analog	0.10	3
1	Ho		958,709.44	1.38	107.9	Pulse	0.10	3
1	Bi		5,141,819.92	1.07	93.4	Pulse	0.10	3
2	Sc		181,050.38	0.66	113.1	Pulse	0.30	3
2	Ge		96,046.30	1.21	109.2	Pulse	0.30	3
2	Ge		144,616.44	0.40	106.3	Pulse	0.30	3
2	Rh		2,735,177.81	0.27	97.4	Pulse	0.30	3
2	In		882,240.63	0.44	103.3	Pulse	0.30	3
2	Tb		3,435,696.12	0.41	103.5	Pulse	0.30	3
2	Ho		339,975.32	0.87	105.8	Pulse	0.30	3
2	Bi		2,026,789.36	0.25	92.0	Pulse	0.30	3
3	Sc		247,316.89	0.80	112.2	Pulse	0.30	3
3	Ge		139,276.35	0.09	105.2	Pulse	0.30	3
3	Ge		213,143.22	0.87	104.7	Pulse	0.30	3
3	Rh		2,339,395.67	0.19	94.5	Pulse	0.30	3
3	Tb		3,688,176.94	0.85	99.9	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 14:19
Sample Name	mp14085-mb1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-1739.91	60.00	2.109E-05	Pulse	0.25	3
B			1	-0.416	ug/l	-2.59	13,472.33	4.737E-03	Pulse	0.15	3
Ca			1	5.511	ug/l	8.07	32,960.23	6.192E-03	Pulse	0.10	3
Sr			1	0.032	ug/l	9.03	3,973.99	5.470E-04	Pulse	0.10	3
Mo			1	0.012	ug/l	10.19	406.69	5.598E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	59.73	160.01	2.021E-05	Pulse	0.10	3
Sn			1	0.380	ug/l	2.85	3,647.23	4.598E-04	Pulse	0.10	3
Sb			1	-0.023	ug/l	-19.81	856.73	8.347E-05	Pulse	0.10	3
Ba			1	0.037	ug/l	39.83	583.37	5.695E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-101.03	666.71	1.106E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	5.60	863.39	1.432E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	17.27	716.72	1.189E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	10.47	3,343.61	5.545E-04	Pulse	0.10	3
Na			2	14.253	ug/l	7.72	36,175.79	2.123E-01	Pulse	0.30	3
Mg			2	0.401	ug/l	44.03	1,156.72	6.789E-03	Pulse	0.30	3
Al			2	1.055	ug/l	20.24	570.03	3.345E-03	Pulse	0.30	3
K			2	2.741	ug/l	12.49	9,169.29	5.382E-02	Pulse	0.30	3
Ca			2	-0.799	ug/l	-125.64	248.89	1.461E-03	Pulse	0.30	3
Ti			2	0.118	ug/l	44.00	27.78	1.630E-04	Pulse	0.30	3
V			2	-0.011	ug/l	-70.95	351.12	2.061E-03	Pulse	0.30	3
Cr			2	0.038	ug/l	29.35	934.48	5.485E-03	Pulse	0.30	3
Mn			2	0.117	ug/l	4.89	676.69	3.971E-03	Pulse	0.30	3
Fe			2	2.391	ug/l	7.17	33,345.96	1.957E-01	Pulse	0.30	3
Co			2	0.004	ug/l	29.49	164.45	9.651E-04	Pulse	0.30	3
Ni			2	0.048	ug/l	17.38	304.45	1.787E-03	Pulse	0.30	3
Cu			2	0.077	ug/l	8.82	1,720.11	1.010E-02	Pulse	0.30	3
Zn			2	1.792	ug/l	0.64	3,270.36	1.919E-02	Pulse	0.30	3
As			2	0.010	ug/l	43.70	23.00	1.350E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.003	ug/l	-103.08	9.98	1.099E-05	Pulse	0.30	3
Sn			2	0.041	ug/l	15.46	596.69	6.558E-04	Pulse	0.30	3
Se			3	-0.013	ug/l	-66.20	11.87	5.287E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,844,259.96	0.17	107.1	Pulse	0.10	3
1	Sc		5,323,042.42	0.38	109.0	Mix	0.10	3
1	Ge		996,758.81	0.90	108.7	Pulse	0.10	3
1	Ge		1,404,631.18	0.95	109.7	Pulse	0.10	3
1	Rh		7,262,680.10	0.79	106.7	Analog	0.10	3
1	In		7,928,228.04	1.21	109.7	Analog	0.10	3
1	Tb		10,253,457.76	1.01	109.0	Analog	0.10	3
1	Ho		960,569.07	0.41	108.1	Pulse	0.10	3
1	Bi		6,029,291.16	0.35	109.5	Analog	0.10	3
2	Sc		170,380.85	0.17	106.4	Pulse	0.30	3
2	Ge		95,146.76	0.68	108.2	Pulse	0.30	3
2	Ge		145,789.06	0.26	107.2	Pulse	0.30	3
2	Rh		2,977,926.06	0.58	106.0	Pulse	0.30	3
2	In		909,831.28	0.35	106.5	Pulse	0.30	3
2	Tb		3,496,977.08	0.87	105.3	Pulse	0.30	3
2	Ho		337,402.44	0.32	105.0	Pulse	0.30	3
2	Bi		2,338,202.34	0.32	106.1	Pulse	0.30	3
3	Sc		243,104.53	0.88	110.3	Pulse	0.30	3
3	Ge		144,679.17	0.09	109.3	Pulse	0.30	3
3	Ge		224,407.90	0.36	110.3	Pulse	0.30	3
3	Rh		2,671,683.37	0.38	107.9	Pulse	0.30	3
3	Tb		3,933,360.26	0.48	106.6	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 14:24
Sample Name mp14085-b1
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	77.673	ug/l	1.13	1,029,631.29	3.645E-01	Pulse	0.25	3
B			1	78.383	ug/l	1.65	976,265.52	3.456E-01	Pulse	0.15	3
Ca			1	2038.415	ug/l	0.71	3,656,553.80	6.970E-01	Pulse	0.10	3
Sr			1	81.599	ug/l	0.98	7,361,598.64	1.048E+00	Analog	0.10	3
Mo			1	77.070	ug/l	1.22	1,329,025.87	1.892E-01	Pulse	0.10	3
Ag			1	77.425	ug/l	1.82	3,596,143.90	4.647E-01	Pulse	0.10	3
Sn			1	72.995	ug/l	1.02	2,121,825.02	2.742E-01	Pulse	0.10	3
Sb			1	79.546	ug/l	1.33	2,380,245.75	2.365E-01	Pulse	0.10	3
Ba			1	79.621	ug/l	0.92	1,000,198.14	9.939E-02	Pulse	0.10	3
Tl			1	79.075	ug/l	2.09	6,107,976.57	1.051E+00	Analog	0.10	3
Pb			1	78.581	ug/l	1.37	2,040,439.45	3.512E-01	Pulse	0.10	3
Pb			1	77.588	ug/l	1.49	1,805,856.28	3.108E-01	Pulse	0.10	3
Pb			1	78.422	ug/l	1.06	8,295,807.01	1.428E+00	Pulse	0.10	3
Na			2	1910.911	ug/l	1.27	3,350,932.71	1.982E+01	Pulse	0.30	3
Mg			2	1909.943	ug/l	0.99	1,548,111.43	9.156E+00	Pulse	0.30	3
Al			2	1929.739	ug/l	1.22	502,100.04	2.970E+00	Pulse	0.30	3
K			2	1975.443	ug/l	0.97	971,411.94	5.745E+00	Pulse	0.30	3
Ca			2	2410.421	ug/l	0.68	68,198.57	4.033E-01	Pulse	0.30	3
Ti			2	73.238	ug/l	0.80	16,398.21	9.698E-02	Pulse	0.30	3
V			2	79.228	ug/l	0.66	589,691.82	3.488E+00	Pulse	0.30	3
Cr			2	78.868	ug/l	0.34	767,382.30	4.538E+00	Pulse	0.30	3
Mn			2	78.292	ug/l	0.97	380,305.94	2.249E+00	Pulse	0.30	3
Fe			2	2010.092	ug/l	1.35	15,790,761.60	9.339E+01	Analog	0.30	3
Co			2	78.054	ug/l	0.97	1,359,822.48	8.042E+00	Pulse	0.30	3
Ni			2	77.238	ug/l	0.99	374,148.32	2.213E+00	Pulse	0.30	3
Cu			2	77.361	ug/l	0.55	983,351.80	5.816E+00	Pulse	0.30	3
Zn			2	76.305	ug/l	0.76	129,748.12	7.673E-01	Pulse	0.30	3
As			2	74.891	ug/l	0.65	63,840.95	3.776E-01	Pulse	1.00	3
Cd			2	77.240	ug/l	0.43	191,715.77	2.168E-01	Pulse	0.30	3
Sn			2	74.221	ug/l	0.59	340,229.29	3.848E-01	Pulse	0.30	3
Se			3	197.262	ug/l	0.54	53,117.47	2.433E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,824,999.96	0.15	106.4	Pulse	0.10	3
1	Sc		5,246,266.38	0.55	107.5	Pulse	0.10	3
1	Ge		986,936.24	1.16	107.6	Pulse	0.10	3

Quantitation Report

1	Ge		1,388,576.23	0.85	108.5	Pulse	0.10	3
1	Rh		7,025,959.90	1.01	103.2	Analog	0.10	3
1	In		7,739,798.86	1.41	107.1	Analog	0.10	3
1	Tb		10,063,971.94	1.65	107.0	Analog	0.10	3
1	Ho		948,806.55	0.62	106.8	Pulse	0.10	3
1	Bi		5,810,307.20	0.63	105.5	Analog	0.10	3
2	Sc		169,092.76	1.02	105.6	Pulse	0.30	3
2	Ge		93,528.64	1.11	106.3	Pulse	0.30	3
2	Ge		143,675.84	1.00	105.6	Pulse	0.30	3
2	Rh		2,885,902.31	0.59	102.8	Pulse	0.30	3
2	In		884,112.42	0.30	103.5	Pulse	0.30	3
2	Tb		3,429,585.00	0.69	103.3	Pulse	0.30	3
2	Ho		334,561.15	0.26	104.1	Pulse	0.30	3
2	Bi		2,241,410.75	0.43	101.7	Pulse	0.30	3
3	Sc		241,027.72	0.58	109.4	Pulse	0.30	3
3	Ge		140,390.58	0.49	106.0	Pulse	0.30	3
3	Ge		218,327.68	1.00	107.3	Pulse	0.30	3
3	Rh		2,546,808.30	0.61	102.9	Pulse	0.30	3
3	Tb		3,818,896.93	0.77	103.5	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 14:29
Sample Name mp14085-b2
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	76.841	ug/l	0.53	1,000,600.89	3.606E-01	Pulse	0.25	3
B			1	77.603	ug/l	0.39	949,651.56	3.422E-01	Pulse	0.15	3
Ca			1	2040.847	ug/l	0.34	3,598,242.13	6.978E-01	Pulse	0.10	3
Sr			1	80.415	ug/l	0.98	7,170,794.27	1.033E+00	Analog	0.10	3
Mo			1	76.370	ug/l	0.59	1,301,830.55	1.875E-01	Pulse	0.10	3
Ag			1	78.291	ug/l	1.09	3,515,757.45	4.699E-01	Pulse	0.10	3
Sn			1	72.960	ug/l	1.17	2,050,288.56	2.740E-01	Pulse	0.10	3
Sb			1	78.209	ug/l	1.32	2,309,930.38	2.326E-01	Pulse	0.10	3
Ba			1	77.841	ug/l	1.65	965,115.90	9.717E-02	Pulse	0.10	3
Tl			1	79.843	ug/l	1.27	5,960,983.46	1.062E+00	Analog	0.10	3
Pb			1	78.501	ug/l	1.13	1,970,084.60	3.508E-01	Pulse	0.10	3
Pb			1	77.957	ug/l	0.94	1,753,699.04	3.123E-01	Pulse	0.10	3
Pb			1	78.285	ug/l	0.79	8,003,922.74	1.425E+00	Pulse	0.10	3
Na			2	1889.145	ug/l	0.83	3,310,292.92	1.959E+01	Pulse	0.30	3
Mg			2	1894.545	ug/l	0.54	1,534,413.83	9.082E+00	Pulse	0.30	3
Al			2	1919.477	ug/l	0.65	499,041.07	2.954E+00	Pulse	0.30	3
K			2	1955.709	ug/l	0.59	961,015.10	5.688E+00	Pulse	0.30	3
Ca			2	2385.698	ug/l	1.64	67,445.51	3.992E-01	Pulse	0.30	3
Ti			2	75.014	ug/l	2.33	16,782.52	9.933E-02	Pulse	0.30	3
V			2	77.228	ug/l	0.62	574,348.62	3.400E+00	Pulse	0.30	3
Cr			2	76.659	ug/l	0.31	745,285.72	4.411E+00	Pulse	0.30	3
Mn			2	76.491	ug/l	0.29	371,263.54	2.198E+00	Pulse	0.30	3
Fe			2	1973.028	ug/l	0.89	15,487,590.50	9.167E+01	Analog	0.30	3
Co			2	76.396	ug/l	0.45	1,329,881.48	7.872E+00	Pulse	0.30	3
Ni			2	75.841	ug/l	0.93	367,090.35	2.173E+00	Pulse	0.30	3
Cu			2	75.788	ug/l	0.38	962,577.25	5.698E+00	Pulse	0.30	3
Zn			2	74.664	ug/l	0.98	126,853.41	7.508E-01	Pulse	0.30	3
As			2	73.888	ug/l	0.85	62,934.84	3.725E-01	Pulse	1.00	3
Cd			2	76.494	ug/l	0.67	188,100.88	2.148E-01	Pulse	0.30	3
Sn			2	73.729	ug/l	0.76	334,831.75	3.823E-01	Pulse	0.30	3
Se			3	195.278	ug/l	0.32	52,204.15	2.409E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,775,078.15	0.48	104.5	Pulse	0.10	3
1	Sc		5,156,536.49	0.76	105.6	Pulse	0.10	3
1	Ge		974,320.32	1.04	106.2	Pulse	0.10	3

Quantitation Report

1	Ge		1,370,216.75	0.76	107.0	Pulse	0.10	3
1	Rh		6,944,719.90	0.58	102.0	Analog	0.10	3
1	In		7,482,754.76	1.30	103.6	Analog	0.10	3
1	Tb		9,932,737.14	0.60	105.6	Analog	0.10	3
1	Ho		939,204.98	1.13	105.7	Pulse	0.10	3
1	Bi		5,615,625.96	0.42	102.0	Analog	0.10	3
2	Sc		168,947.52	0.13	105.5	Pulse	0.30	3
2	Ge		93,400.09	0.53	106.2	Pulse	0.30	3
2	Ge		142,709.74	0.57	104.9	Pulse	0.30	3
2	Rh		2,862,525.51	0.27	101.9	Pulse	0.30	3
2	In		875,893.02	0.22	102.5	Pulse	0.30	3
2	Tb		3,405,493.55	0.65	102.5	Pulse	0.30	3
2	Ho		331,258.32	0.62	103.0	Pulse	0.30	3
2	Bi		2,223,886.93	0.44	100.9	Pulse	0.30	3
3	Sc		238,113.31	0.25	108.0	Pulse	0.30	3
3	Ge		139,447.01	0.29	105.3	Pulse	0.30	3
3	Ge		216,748.74	0.23	106.5	Pulse	0.30	3
3	Rh		2,533,126.77	0.97	102.3	Pulse	0.30	3
3	Tb		3,799,511.24	0.38	103.0	Pulse	0.30	3

Quantitation Report

File Name	043SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 14:34
Sample Name	mp14085-s1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.838	ug/l	0.97	959,626.64	3.465E-01	Pulse	0.25	3
B			1	100.481	ug/l	0.13	1,221,846.41	4.412E-01	Pulse	0.15	3
Ca			1	16536.546	ug/l	1.47	31,798,713.69	5.623E+00	Analog	0.10	3
Sr			1	194.161	ug/l	0.42	16,290,340.18	2.493E+00	Analog	0.10	3
Mo			1	77.010	ug/l	1.39	1,235,168.55	1.890E-01	Pulse	0.10	3
Ag			1	70.631	ug/l	0.23	3,084,201.41	4.239E-01	Pulse	0.10	3
Sn			1	71.005	ug/l	1.23	1,940,187.11	2.667E-01	Pulse	0.10	3
Sb			1	65.256	ug/l	1.38	1,895,348.62	1.941E-01	Pulse	0.10	3
Ba			1	163.078	ug/l	0.82	1,988,044.50	2.036E-01	Pulse	0.10	3
Tl			1	79.232	ug/l	0.41	5,295,426.38	1.053E+00	Pulse	0.10	3
Pb			1	124.026	ug/l	0.28	2,786,215.27	5.543E-01	Pulse	0.10	3
Pb			1	120.145	ug/l	0.04	2,419,362.20	4.813E-01	Pulse	0.10	3
Pb			1	121.526	ug/l	0.58	11,122,132.59	2.212E+00	Analog	0.10	3
Na			2	96485.431	ug/l	1.42	175,640,975.24	9.975E+02	Analog	0.30	3
Mg			2	6329.597	ug/l	1.38	5,341,011.60	3.033E+01	Analog	0.30	3
Al			2	7901.492	ug/l	0.77	2,140,162.55	1.215E+01	Pulse	0.30	3
K			2	7400.453	ug/l	0.49	3,767,701.10	2.140E+01	Pulse	0.30	3
Ca			2	17685.076	ug/l	1.20	519,296.87	2.949E+00	Pulse	0.30	3
Ti			2	324.615	ug/l	1.10	75,687.38	4.298E-01	Pulse	0.30	3
V			2	89.946	ug/l	0.52	697,138.37	3.959E+00	Pulse	0.30	3
Cr			2	91.501	ug/l	0.82	927,058.75	5.265E+00	Pulse	0.30	3
Mn			2	486.834	ug/l	0.58	2,462,206.85	1.398E+01	Pulse	0.30	3
Fe			2	20268.129	ug/l	0.38	165,682,820.08	9.409E+02	Analog	0.30	3
Co			2	72.867	ug/l	0.44	1,322,077.79	7.508E+00	Pulse	0.30	3
Ni			2	75.804	ug/l	0.81	382,414.36	2.172E+00	Pulse	0.30	3
Cu			2	109.672	ug/l	0.67	1,451,453.41	8.243E+00	Pulse	0.30	3
Zn			2	251.142	ug/l	0.70	444,215.75	2.523E+00	Pulse	0.30	3
As			2	72.726	ug/l	0.75	64,562.78	3.667E-01	Pulse	1.00	3
Cd			2	70.152	ug/l	0.37	169,272.03	1.970E-01	Pulse	0.30	3
Sn			2	70.835	ug/l	0.41	315,672.68	3.673E-01	Pulse	0.30	3
Se			3	171.649	ug/l	0.75	43,642.86	2.117E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,769,566.79	0.59	104.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,655,848.46	2.01	115.9	Analog	0.10	3
1	Ge		962,815.69	0.85	105.0	Pulse	0.10	3
1	Ge		1,345,618.94	0.80	105.1	Pulse	0.10	3
1	Rh		6,534,611.15	0.55	96.0	Analog	0.10	3
1	In		7,275,476.94	1.40	100.7	Analog	0.10	3
1	Tb		9,766,396.52	0.40	103.8	Analog	0.10	3
1	Ho		938,605.95	0.87	105.7	Pulse	0.10	3
1	Bi		5,026,924.51	0.50	91.3	Pulse	0.10	3
2	Sc		176,089.88	0.43	110.0	Pulse	0.30	3
2	Ge		94,186.84	0.45	107.1	Pulse	0.30	3
2	Ge		141,164.28	0.46	103.8	Pulse	0.30	3
2	Rh		2,660,126.01	0.37	94.7	Pulse	0.30	3
2	In		859,464.57	0.11	100.6	Pulse	0.30	3
2	Tb		3,369,049.59	0.81	101.5	Pulse	0.30	3
2	Ho		334,793.20	0.54	104.1	Pulse	0.30	3
2	Bi		1,981,570.83	0.26	89.9	Pulse	0.30	3
3	Sc		240,027.30	0.14	108.9	Pulse	0.30	3
3	Ge		135,705.87	0.86	102.5	Pulse	0.30	3
3	Ge		206,139.31	0.31	101.3	Pulse	0.30	3
3	Rh		2,254,406.92	0.42	91.1	Pulse	0.30	3
3	Tb		3,587,682.22	0.45	97.2	Pulse	0.30	3

Quantitation Report

File Name	044SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 14:39
Sample Name	mp14085-s2
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.404	ug/l	1.28	963,914.86	3.491E-01	Pulse	0.25	3
B			1	101.075	ug/l	1.17	1,225,137.17	4.437E-01	Pulse	0.15	3
Ca			1	16855.226	ug/l	0.67	32,289,870.35	5.732E+00	Analog	0.10	3
Sr			1	197.457	ug/l	0.35	16,568,879.75	2.535E+00	Analog	0.10	3
Mo			1	77.555	ug/l	1.09	1,244,086.23	1.904E-01	Pulse	0.10	3
Ag			1	72.070	ug/l	1.30	3,158,572.35	4.326E-01	Pulse	0.10	3
Sn			1	71.169	ug/l	0.87	1,951,725.65	2.673E-01	Pulse	0.10	3
Sb			1	65.106	ug/l	1.25	1,917,153.57	1.936E-01	Pulse	0.10	3
Ba			1	164.038	ug/l	1.08	2,027,453.93	2.048E-01	Pulse	0.10	3
Tl			1	81.637	ug/l	0.54	5,480,476.17	1.085E+00	Analog	0.10	3
Pb			1	124.687	ug/l	0.30	2,813,581.94	5.572E-01	Pulse	0.10	3
Pb			1	121.734	ug/l	0.34	2,462,301.06	4.876E-01	Pulse	0.10	3
Pb			1	122.934	ug/l	0.19	11,301,227.70	2.238E+00	Analog	0.10	3
Na			2	98611.953	ug/l	0.75	178,961,250.67	1.019E+03	Analog	0.30	3
Mg			2	6471.675	ug/l	0.70	5,444,421.31	3.101E+01	Analog	0.30	3
Al			2	8002.116	ug/l	0.74	2,160,770.88	1.231E+01	Pulse	0.30	3
K			2	7500.404	ug/l	0.55	3,806,778.88	2.169E+01	Pulse	0.30	3
Ca			2	17968.107	ug/l	1.04	525,983.62	2.996E+00	Pulse	0.30	3
Ti			2	328.645	ug/l	0.86	76,393.00	4.352E-01	Pulse	0.30	3
V			2	90.742	ug/l	0.95	701,125.47	3.994E+00	Pulse	0.30	3
Cr			2	92.301	ug/l	1.08	932,267.15	5.311E+00	Pulse	0.30	3
Mn			2	493.740	ug/l	0.97	2,489,434.90	1.418E+01	Pulse	0.30	3
Fe			2	20427.958	ug/l	1.34	166,472,228.94	9.483E+02	Analog	0.30	3
Co			2	73.483	ug/l	0.61	1,329,152.83	7.571E+00	Pulse	0.30	3
Ni			2	76.755	ug/l	0.24	386,042.03	2.199E+00	Pulse	0.30	3
Cu			2	108.280	ug/l	0.73	1,428,642.69	8.138E+00	Pulse	0.30	3
Zn			2	255.851	ug/l	0.97	451,146.35	2.570E+00	Pulse	0.30	3
As			2	72.992	ug/l	0.78	64,600.25	3.680E-01	Pulse	1.00	3
Cd			2	70.883	ug/l	0.65	170,218.66	1.990E-01	Pulse	0.30	3
Sn			2	71.602	ug/l	0.65	317,565.27	3.713E-01	Pulse	0.30	3
Se			3	173.273	ug/l	1.12	44,414.18	2.137E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,760,914.22	0.66	103.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,633,649.50	0.30	115.4	Analog	0.10	3
1	Ge		968,774.08	0.64	105.6	Pulse	0.10	3
1	Ge		1,350,742.37	0.72	105.5	Pulse	0.10	3
1	Rh		6,535,545.94	1.08	96.0	Analog	0.10	3
1	In		7,302,358.14	1.14	101.1	Analog	0.10	3
1	Tb		9,901,311.31	1.11	105.2	Analog	0.10	3
1	Ho		947,418.14	0.78	106.7	Pulse	0.10	3
1	Bi		5,049,379.19	0.80	91.7	Pulse	0.10	3
2	Sc		175,552.52	0.72	109.6	Pulse	0.30	3
2	Ge		92,978.81	0.69	105.7	Pulse	0.30	3
2	Ge		140,670.18	0.57	103.4	Pulse	0.30	3
2	Rh		2,657,543.30	0.51	94.6	Pulse	0.30	3
2	In		855,378.05	0.30	100.1	Pulse	0.30	3
2	Tb		3,382,804.80	0.42	101.9	Pulse	0.30	3
2	Ho		338,386.24	0.58	105.3	Pulse	0.30	3
2	Bi		1,994,718.32	0.07	90.5	Pulse	0.30	3
3	Sc		243,174.97	0.54	110.3	Pulse	0.30	3
3	Ge		135,331.55	0.17	102.2	Pulse	0.30	3
3	Ge		207,830.08	0.92	102.1	Pulse	0.30	3
3	Rh		2,287,178.03	0.51	92.4	Pulse	0.30	3
3	Tb		3,613,744.86	0.40	97.9	Pulse	0.30	3

Quantitation Report

File Name 045_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 14:44
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.787	ug/l	1.05	646,482.40	2.336E-01	Pulse	0.25	3
B			1	103.000	ug/l	1.13	1,250,940.12	4.521E-01	Pulse	0.15	3
Ca			1	5135.777	ug/l	0.45	9,050,917.36	1.749E+00	Analog	0.10	3
Sr			1	52.087	ug/l	1.37	4,619,811.60	6.689E-01	Pulse	0.10	3
Mo			1	52.131	ug/l	1.42	883,851.47	1.280E-01	Pulse	0.10	3
Ag			1	49.782	ug/l	1.48	2,249,603.51	2.988E-01	Pulse	0.10	3
Sn			1	49.022	ug/l	0.99	1,383,831.07	1.838E-01	Pulse	0.10	3
Sb			1	49.832	ug/l	0.71	1,476,826.28	1.482E-01	Pulse	0.10	3
Ba			1	50.458	ug/l	1.48	627,544.43	6.299E-02	Pulse	0.10	3
Tl			1	51.101	ug/l	1.12	3,813,944.11	6.794E-01	Pulse	0.10	3
Pb			1	50.974	ug/l	1.11	1,278,865.35	2.278E-01	Pulse	0.10	3
Pb			1	50.323	ug/l	1.22	1,131,719.64	2.016E-01	Pulse	0.10	3
Pb			1	50.618	ug/l	1.50	5,173,699.53	9.217E-01	Pulse	0.10	3
Na			2	4926.402	ug/l	1.45	8,570,101.33	5.099E+01	Analog	0.30	3
Mg			2	4798.740	ug/l	0.80	3,865,181.10	2.300E+01	Pulse	0.30	3
Al			2	4845.649	ug/l	0.96	1,252,841.93	7.454E+00	Pulse	0.30	3
K			2	5008.468	ug/l	0.70	2,436,336.36	1.450E+01	Pulse	0.30	3
Ca			2	5171.047	ug/l	1.02	145,120.31	8.634E-01	Pulse	0.30	3
Ti			2	49.956	ug/l	2.44	11,118.26	6.616E-02	Pulse	0.30	3
V			2	50.234	ug/l	0.07	371,817.13	2.212E+00	Pulse	0.30	3
Cr			2	49.686	ug/l	0.73	480,749.11	2.860E+00	Pulse	0.30	3
Mn			2	49.138	ug/l	0.56	237,307.11	1.412E+00	Pulse	0.30	3
Fe			2	5032.103	ug/l	1.05	39,273,140.66	2.337E+02	Analog	0.30	3
Co			2	49.359	ug/l	0.68	854,831.07	5.086E+00	Pulse	0.30	3
Ni			2	48.572	ug/l	0.95	233,911.52	1.392E+00	Pulse	0.30	3
Cu			2	48.426	ug/l	1.13	612,119.59	3.642E+00	Pulse	0.30	3
Zn			2	47.870	ug/l	0.76	80,984.83	4.818E-01	Pulse	0.30	3
As			2	49.415	ug/l	0.43	41,876.96	2.492E-01	Pulse	1.00	3
Cd			2	49.192	ug/l	0.68	120,297.85	1.381E-01	Pulse	0.30	3
Sn			2	48.868	ug/l	0.79	220,829.13	2.535E-01	Pulse	0.30	3
Se			3	198.726	ug/l	0.83	52,864.46	2.451E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,767,222.64	0.55	104.2	Pulse	0.10	3
1	Sc		5,173,652.42	0.83	106.0	Pulse	0.10	3
1	Ge		976,499.23	1.16	106.5	Pulse	0.10	3

Quantitation Report

1	Ge		1,374,077.07	1.01	107.3	Pulse	0.10	3
1	Rh		6,907,382.60	1.13	101.5	Analog	0.10	3
1	In		7,528,911.64	0.13	104.2	Analog	0.10	3
1	Tb		9,962,467.77	0.70	105.9	Analog	0.10	3
1	Ho		943,031.08	1.21	106.2	Pulse	0.10	3
1	Bi		5,613,367.42	0.42	101.9	Analog	0.10	3
2	Sc		168,076.99	0.55	105.0	Pulse	0.30	3
2	Ge		92,512.93	0.90	105.2	Pulse	0.30	3
2	Ge		141,710.31	2.05	104.2	Pulse	0.30	3
2	Rh		2,831,875.24	0.47	100.8	Pulse	0.30	3
2	In		871,055.76	0.47	102.0	Pulse	0.30	3
2	Tb		3,411,744.24	0.35	102.7	Pulse	0.30	3
2	Ho		331,777.78	0.96	103.2	Pulse	0.30	3
2	Bi		2,197,140.12	0.94	99.7	Pulse	0.30	3
3	Sc		239,597.95	0.91	108.7	Pulse	0.30	3
3	Ge		138,830.39	0.61	104.8	Pulse	0.30	3
3	Ge		215,692.41	0.89	106.0	Pulse	0.30	3
3	Rh		2,497,311.78	0.43	100.9	Pulse	0.30	3
3	Tb		3,771,121.93	0.77	102.2	Pulse	0.30	3

Quantitation Report

File Name	046_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 14:49
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	14.05	240.01	8.542E-05	Pulse	0.25	3
B			1	1.521	ug/l	1.46	36,838.05	1.311E-02	Pulse	0.15	3
Ca			1	0.182	ug/l	104.42	22,719.58	4.381E-03	Pulse	0.10	3
Sr			1	0.018	ug/l	5.09	2,603.64	3.635E-04	Pulse	0.10	3
Mo			1	0.090	ug/l	16.25	1,763.51	2.461E-04	Pulse	0.10	3
Ag			1	0.019	ug/l	8.98	990.07	1.273E-04	Pulse	0.10	3
Sn			1	0.475	ug/l	1.68	6,388.18	8.209E-04	Pulse	0.10	3
Sb			1	0.327	ug/l	7.55	11,257.80	1.122E-03	Pulse	0.10	3
Ba			1	0.016	ug/l	18.84	310.01	3.094E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	9.04	2,163.58	3.697E-04	Pulse	0.10	3
Pb			1	0.033	ug/l	19.00	1,186.77	2.029E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	8.75	880.06	1.503E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	7.16	4,413.78	7.543E-04	Pulse	0.10	3
Na			2	6.043	ug/l	2.29	21,181.15	1.275E-01	Pulse	0.30	3
Mg			2	0.002	ug/l	3973.21	811.14	4.878E-03	Pulse	0.30	3
Al			2	0.007	ug/l	2454.28	287.79	1.732E-03	Pulse	0.30	3
K			2	1.643	ug/l	9.51	8,417.75	5.065E-02	Pulse	0.30	3
Ca			2	-6.639	ug/l	-7.74	81.11	4.875E-04	Pulse	0.30	3
Ti			2	0.030	ug/l	29.90	7.78	4.687E-05	Pulse	0.30	3
V			2	0.000	ug/l	-1289.16	422.23	2.539E-03	Pulse	0.30	3
Cr			2	0.016	ug/l	34.92	700.02	4.211E-03	Pulse	0.30	3
Mn			2	0.039	ug/l	7.36	290.01	1.745E-03	Pulse	0.30	3
Fe			2	0.207	ug/l	19.38	15,682.02	9.436E-02	Pulse	0.30	3
Co			2	0.007	ug/l	25.79	225.56	1.356E-03	Pulse	0.30	3
Ni			2	0.005	ug/l	114.89	90.00	5.424E-04	Pulse	0.30	3
Cu			2	0.037	ug/l	7.86	1,175.61	7.075E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.014	ug/l	142.66	224.45	1.351E-03	Pulse	0.30	3
As			2	0.016	ug/l	40.16	27.67	1.666E-04	Pulse	1.00	3
Cd			2	0.009	ug/l	72.09	38.78	4.402E-05	Pulse	0.30	3
Sn			2	0.185	ug/l	4.90	1,235.62	1.402E-03	Pulse	0.30	3
Se			3	0.045	ug/l	20.00	27.60	1.249E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,808,972.42	0.66	105.8	Pulse	0.10	3
1	Sc		5,186,742.94	1.54	106.2	Mix	0.10	3
1	Ge		975,317.38	1.07	106.3	Pulse	0.10	3
1	Ge		1,370,805.76	1.25	107.1	Pulse	0.10	3
1	Rh		7,163,795.31	0.53	105.3	Analog	0.10	3
1	In		7,781,133.66	0.54	107.7	Analog	0.10	3
1	Tb		10,030,427.56	2.50	106.6	Analog	0.10	3
1	Ho		943,740.27	1.06	106.2	Pulse	0.10	3
1	Bi		5,852,477.41	0.90	106.3	Analog	0.10	3
2	Sc		166,193.84	0.96	103.8	Pulse	0.30	3
2	Ge		92,551.92	1.06	105.2	Pulse	0.30	3
2	Ge		141,376.25	1.10	103.9	Pulse	0.30	3
2	Rh		2,909,728.43	0.85	103.6	Pulse	0.30	3
2	In		881,135.55	0.48	103.1	Pulse	0.30	3
2	Tb		3,412,815.21	0.62	102.8	Pulse	0.30	3
2	Ho		331,030.06	0.77	103.0	Pulse	0.30	3
2	Bi		2,272,081.09	0.75	103.1	Pulse	0.30	3
3	Sc		239,691.85	1.24	108.7	Pulse	0.30	3
3	Ge		142,419.82	0.96	107.6	Pulse	0.30	3
3	Ge		220,992.68	0.47	108.6	Pulse	0.30	3
3	Rh		2,625,092.39	0.66	106.1	Pulse	0.30	3
3	Tb		3,896,608.32	0.98	105.6	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 14:54
Sample Name mp14059a-mb1 4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.023	ug/l	26.22	208.00	7.579E-05	Pulse	0.25	3
B			1	2.431	ug/l	4.79	32,373.27	1.179E-02	Pulse	0.15	3
Ca			1	19.759	ug/l	4.04	37,616.76	7.676E-03	Pulse	0.10	3
Sr			1	0.062	ug/l	6.84	3,590.53	5.280E-04	Pulse	0.10	3
Mo			1	0.117	ug/l	21.25	1,153.41	1.694E-04	Pulse	0.10	3
Ag			1	0.036	ug/l	16.69	886.73	1.200E-04	Pulse	0.10	3
Sn			1	1.450	ug/l	3.62	13,012.48	1.761E-03	Pulse	0.10	3
Sb			1	0.454	ug/l	9.69	8,259.17	8.261E-04	Pulse	0.10	3
Ba			1	0.066	ug/l	18.35	520.02	5.202E-05	Pulse	0.10	3
Tl			1	0.040	ug/l	8.12	2,220.25	3.840E-04	Pulse	0.10	3
Pb			1	0.078	ug/l	9.01	1,333.44	2.305E-04	Pulse	0.10	3
Pb			1	0.081	ug/l	12.97	1,200.10	2.074E-04	Pulse	0.10	3
Pb			1	0.081	ug/l	5.94	5,513.95	9.531E-04	Pulse	0.10	3
Na			2	21.241	ug/l	2.31	27,642.66	1.748E-01	Pulse	0.30	3
Mg			2	1.308	ug/l	4.25	1,265.62	8.002E-03	Pulse	0.30	3
Al			2	3.716	ug/l	8.06	724.47	4.580E-03	Pulse	0.30	3
K			2	3.747	ug/l	27.32	8,115.38	5.131E-02	Pulse	0.30	3
Ca			2	6.665	ug/l	11.50	340.01	2.150E-03	Pulse	0.30	3
Ti			2	0.414	ug/l	11.88	44.44	2.810E-04	Pulse	0.30	3
V			2	0.254	ug/l	12.78	1,286.74	8.138E-03	Pulse	0.30	3
Cr			2	0.374	ug/l	3.03	2,220.18	1.404E-02	Pulse	0.30	3
Mn			2	0.256	ug/l	3.99	680.02	4.299E-03	Pulse	0.30	3
Fe			2	4.908	ug/l	2.17	31,421.12	1.987E-01	Pulse	0.30	3
Co			2	0.022	ug/l	28.10	277.78	1.756E-03	Pulse	0.30	3
Ni			2	0.056	ug/l	15.18	193.34	1.222E-03	Pulse	0.30	3
Cu			2	0.232	ug/l	5.57	2,055.71	1.300E-02	Pulse	0.30	3
Zn			2	0.575	ug/l	7.75	647.80	4.095E-03	Pulse	0.30	3
As			2	0.069	ug/l	27.24	41.33	2.612E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.014	ug/l	59.76	31.04	3.741E-05	Pulse	0.30	3
Sn			2	0.897	ug/l	4.59	2,293.52	2.766E-03	Pulse	0.30	3
Se			3	0.044	ug/l	83.54	21.07	9.591E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,745,225.86	0.45	103.4	Pulse	0.10	3
1	Sc		4,900,112.22	1.72	100.4	Pulse	0.10	3
1	Ge		918,342.64	1.94	100.1	Pulse	0.10	3
1	Ge		1,285,252.54	1.54	100.4	Pulse	0.10	3
1	Rh		6,801,682.81	0.84	99.9	Analog	0.10	3
1	In		7,387,471.42	0.37	102.2	Analog	0.10	3
1	Tb		9,995,035.68	1.12	106.2	Analog	0.10	3
1	Ho		941,489.83	0.90	106.0	Pulse	0.10	3
1	Bi		5,783,575.33	0.88	105.0	Analog	0.10	3
2	Sc		158,164.93	0.51	98.8	Pulse	0.30	3
2	Ge		86,266.91	1.29	98.1	Pulse	0.30	3
2	Ge		131,618.24	0.31	96.8	Pulse	0.30	3
2	Rh		2,807,969.75	0.17	100.0	Pulse	0.30	3
2	In		829,351.26	0.44	97.1	Pulse	0.30	3
2	Tb		3,295,567.79	0.31	99.2	Pulse	0.30	3
2	Ho		321,470.94	0.51	100.0	Pulse	0.30	3
2	Bi		2,192,892.20	0.04	99.5	Pulse	0.30	3
3	Sc		245,131.71	0.33	111.2	Pulse	0.30	3
3	Ge		142,186.52	0.71	107.4	Pulse	0.30	3
3	Ge		219,565.82	0.53	107.9	Pulse	0.30	3
3	Rh		2,657,152.46	0.22	107.4	Pulse	0.30	3
3	Tb		3,958,005.82	0.13	107.2	Pulse	0.30	3

Quantitation Report

File Name 048SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 14:59
Sample Name mp14059a-b2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.870	ug/l	1.42	504,832.15	1.757E-01	Pulse	0.25	3
B			1	86.250	ug/l	1.70	554,852.16	1.931E-01	Pulse	0.15	3
Ca			1	4296.373	ug/l	0.37	3,735,772.13	7.343E-01	Pulse	0.10	3
Sr			1	85.220	ug/l	1.47	3,735,516.40	5.472E-01	Pulse	0.10	3
Mo			1	82.360	ug/l	0.79	690,105.46	1.011E-01	Pulse	0.10	3
Ag			1	81.717	ug/l	2.17	1,845,802.42	2.452E-01	Pulse	0.10	3
Sn			1	78.408	ug/l	2.33	1,104,874.90	1.468E-01	Pulse	0.10	3
Sb			1	77.518	ug/l	2.46	1,167,216.73	1.153E-01	Pulse	0.10	3
Ba			1	80.945	ug/l	2.11	511,371.32	5.053E-02	Pulse	0.10	3
Tl			1	83.495	ug/l	1.12	3,155,277.66	5.551E-01	Pulse	0.10	3
Pb			1	84.484	ug/l	0.98	1,073,266.16	1.888E-01	Pulse	0.10	3
Pb			1	83.183	ug/l	1.05	947,188.63	1.666E-01	Pulse	0.10	3
Pb			1	83.450	ug/l	0.95	4,318,668.56	7.598E-01	Pulse	0.10	3
Na			2	4147.610	ug/l	0.86	3,491,498.47	2.150E+01	Pulse	0.30	3
Mg			2	4058.259	ug/l	0.76	1,579,448.23	9.727E+00	Pulse	0.30	3
Al			2	4003.016	ug/l	1.28	500,107.38	3.080E+00	Pulse	0.30	3
K			2	4160.374	ug/l	0.61	981,961.39	6.047E+00	Pulse	0.30	3
Ca			2	4601.826	ug/l	1.54	62,526.43	3.851E-01	Pulse	0.30	3
Ti			2	79.731	ug/l	0.99	8,572.31	5.279E-02	Pulse	0.30	3
V			2	82.983	ug/l	1.08	296,763.89	1.828E+00	Pulse	0.30	3
Cr			2	83.848	ug/l	1.33	391,971.79	2.414E+00	Pulse	0.30	3
Mn			2	81.953	ug/l	0.44	191,203.93	1.178E+00	Pulse	0.30	3
Fe			2	4318.928	ug/l	1.09	16,290,167.13	1.003E+02	Analog	0.30	3
Co			2	82.926	ug/l	0.61	693,758.25	4.273E+00	Pulse	0.30	3
Ni			2	81.718	ug/l	0.61	190,109.28	1.171E+00	Pulse	0.30	3
Cu			2	81.110	ug/l	1.15	495,364.82	3.051E+00	Pulse	0.30	3
Zn			2	78.157	ug/l	0.47	63,905.91	3.936E-01	Pulse	0.30	3
As			2	70.498	ug/l	0.58	28,863.36	1.778E-01	Pulse	1.00	3
Cd			2	76.306	ug/l	0.19	89,284.37	1.071E-01	Pulse	0.30	3
Sn			2	79.678	ug/l	0.44	172,336.12	2.068E-01	Pulse	0.30	3
Se			3	347.022	ug/l	0.78	48,297.36	2.140E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,873,750.14	0.59	108.2	Pulse	0.10	3
1	Sc		5,087,909.93	1.59	104.2	Pulse	0.10	3
1	Ge		941,071.24	1.40	102.6	Pulse	0.10	3

Quantitation Report

1	Ge		1,325,550.87	1.04	103.6	Pulse	0.10	3
1	Rh		6,826,564.07	0.41	100.3	Analog	0.10	3
1	In		7,527,532.46	0.78	104.2	Analog	0.10	3
1	Tb		10,121,837.35	0.99	107.6	Analog	0.10	3
1	Ho		953,021.47	1.19	107.3	Pulse	0.10	3
1	Bi		5,684,211.17	1.25	103.2	Analog	0.10	3
2	Sc		162,381.32	0.65	101.4	Pulse	0.30	3
2	Ge		88,002.74	0.54	100.0	Pulse	0.30	3
2	Ge		134,153.94	0.97	98.6	Pulse	0.30	3
2	Rh		2,802,449.06	0.25	99.8	Pulse	0.30	3
2	In		833,485.33	0.19	97.6	Pulse	0.30	3
2	Tb		3,354,698.76	0.35	101.0	Pulse	0.30	3
2	Ho		325,683.27	0.86	101.3	Pulse	0.30	3
2	Bi		2,144,080.75	0.52	97.3	Pulse	0.30	3
3	Sc		253,734.40	0.61	115.1	Pulse	0.30	3
3	Ge		144,617.90	0.53	109.2	Pulse	0.30	3
3	Ge		225,682.72	0.63	110.9	Pulse	0.30	3
3	Rh		2,648,782.53	0.34	107.0	Pulse	0.30	3
3	Tb		3,976,212.20	0.34	107.7	Pulse	0.30	3

Quantitation Report

File Name	049SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 15:04
Sample Name	mp14059a-s3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.077	ug/l	0.18	502,009.30	1.738E-01	Pulse	0.25	3
B			1	154.376	ug/l	0.93	983,228.71	3.404E-01	Pulse	0.15	3
Ca			1	33754.585	ug/l	0.41	31,716,104.53	5.739E+00	Analog	0.10	3
Sr			1	335.977	ug/l	0.45	14,359,184.79	2.157E+00	Analog	0.10	3
Mo			1	90.863	ug/l	0.96	742,435.62	1.115E-01	Pulse	0.10	3
Ag			1	78.446	ug/l	0.89	1,745,432.84	2.354E-01	Pulse	0.10	3
Sn			1	77.675	ug/l	0.93	1,078,025.40	1.454E-01	Pulse	0.10	3
Sb			1	73.703	ug/l	1.20	1,108,700.97	1.097E-01	Pulse	0.10	3
Ba			1	172.628	ug/l	1.39	1,089,317.20	1.077E-01	Pulse	0.10	3
Tl			1	83.977	ug/l	0.39	3,003,840.16	5.583E-01	Pulse	0.10	3
Pb			1	105.425	ug/l	0.59	1,267,649.90	2.356E-01	Pulse	0.10	3
Pb			1	102.884	ug/l	0.06	1,108,850.92	2.061E-01	Pulse	0.10	3
Pb			1	103.908	ug/l	0.19	5,089,804.74	9.460E-01	Pulse	0.10	3
Na			2	40790.290	ug/l	0.78	35,505,361.92	2.109E+02	Analog	0.30	3
Mg			2	8053.029	ug/l	0.36	3,248,672.86	1.930E+01	Pulse	0.30	3
Al			2	13586.506	ug/l	0.63	1,759,177.15	1.045E+01	Pulse	0.30	3
K			2	9267.029	ug/l	0.32	2,258,238.52	1.341E+01	Pulse	0.30	3
Ca			2	35127.551	ug/l	0.66	493,080.12	2.929E+00	Pulse	0.30	3
Ti			2	511.862	ug/l	1.54	57,054.04	3.389E-01	Pulse	0.30	3
V			2	101.022	ug/l	0.66	374,470.08	2.224E+00	Pulse	0.30	3
Cr			2	97.942	ug/l	0.41	474,614.86	2.819E+00	Pulse	0.30	3
Mn			2	453.919	ug/l	0.49	1,097,480.69	6.519E+00	Pulse	0.30	3
Fe			2	14857.800	ug/l	1.09	58,067,162.14	3.449E+02	Analog	0.30	3
Co			2	82.455	ug/l	0.57	715,184.19	4.248E+00	Pulse	0.30	3
Ni			2	86.478	ug/l	1.03	208,575.60	1.239E+00	Pulse	0.30	3
Cu			2	91.093	ug/l	0.74	576,717.86	3.426E+00	Pulse	0.30	3
Zn			2	120.718	ug/l	1.18	102,226.26	6.072E-01	Pulse	0.30	3
As			2	73.348	ug/l	0.53	31,134.15	1.849E-01	Pulse	1.00	3
Cd			2	74.459	ug/l	0.20	86,267.57	1.045E-01	Pulse	0.30	3
Sn			2	78.519	ug/l	1.05	168,168.01	2.038E-01	Pulse	0.30	3
Se			3	341.579	ug/l	0.44	47,120.30	2.107E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,888,233.35	1.14	108.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,526,353.46	0.66	113.2	Analog	0.10	3
1	Ge		955,968.03	1.30	104.2	Pulse	0.10	3
1	Ge		1,336,050.09	1.12	104.4	Pulse	0.10	3
1	Rh		6,657,621.57	1.44	97.8	Analog	0.10	3
1	In		7,413,779.60	1.26	102.6	Analog	0.10	3
1	Tb		10,109,862.56	0.12	107.5	Analog	0.10	3
1	Ho		978,171.18	1.54	110.1	Pulse	0.10	3
1	Bi		5,380,298.67	1.27	97.7	Pulse	0.10	3
2	Sc		168,351.03	0.36	105.1	Pulse	0.30	3
2	Ge		89,177.96	1.19	101.4	Pulse	0.30	3
2	Ge		135,472.35	0.86	99.6	Pulse	0.30	3
2	Rh		2,705,078.43	0.27	96.3	Pulse	0.30	3
2	In		825,303.00	0.17	96.6	Pulse	0.30	3
2	Tb		3,327,193.20	0.14	100.2	Pulse	0.30	3
2	Ho		333,633.49	0.19	103.8	Pulse	0.30	3
2	Bi		2,031,366.73	0.49	92.2	Pulse	0.30	3
3	Sc		258,653.98	0.35	117.4	Pulse	0.30	3
3	Ge		145,193.75	0.10	109.6	Pulse	0.30	3
3	Ge		223,682.42	0.29	109.9	Pulse	0.30	3
3	Rh		2,517,670.66	0.39	101.7	Pulse	0.30	3
3	Tb		3,891,724.15	0.76	105.5	Pulse	0.30	3

Quantitation Report

File Name 050SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 15:09
Sample Name mp14059a-s4conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.585	ug/l	0.42	495,965.52	1.727E-01	Pulse	0.25	3
B			1	155.240	ug/l	0.61	983,220.10	3.423E-01	Pulse	0.15	3
Ca			1	33164.875	ug/l	0.60	31,122,244.54	5.639E+00	Analog	0.10	3
Sr			1	333.279	ug/l	1.40	14,450,131.03	2.140E+00	Analog	0.10	3
Mo			1	88.245	ug/l	0.70	731,500.49	1.083E-01	Pulse	0.10	3
Ag			1	77.910	ug/l	1.77	1,746,097.37	2.338E-01	Pulse	0.10	3
Sn			1	77.023	ug/l	1.58	1,076,779.02	1.442E-01	Pulse	0.10	3
Sb			1	73.594	ug/l	1.05	1,106,584.30	1.095E-01	Pulse	0.10	3
Ba			1	172.407	ug/l	0.74	1,087,441.94	1.076E-01	Pulse	0.10	3
Tl			1	83.237	ug/l	1.21	2,995,593.81	5.534E-01	Pulse	0.10	3
Pb			1	103.758	ug/l	1.52	1,255,188.16	2.319E-01	Pulse	0.10	3
Pb			1	101.612	ug/l	0.87	1,101,847.35	2.035E-01	Pulse	0.10	3
Pb			1	102.658	ug/l	0.94	5,059,306.61	9.346E-01	Pulse	0.10	3
Na			2	40285.564	ug/l	2.28	35,201,465.27	2.083E+02	Analog	0.30	3
Mg			2	7904.594	ug/l	1.58	3,201,238.76	1.894E+01	Pulse	0.30	3
Al			2	13487.206	ug/l	1.31	1,753,184.72	1.037E+01	Pulse	0.30	3
K			2	9144.445	ug/l	1.92	2,237,084.01	1.324E+01	Pulse	0.30	3
Ca			2	34473.485	ug/l	0.83	485,836.14	2.874E+00	Pulse	0.30	3
Ti			2	525.401	ug/l	5.64	58,772.63	3.479E-01	Pulse	0.30	3
V			2	99.986	ug/l	1.40	372,088.37	2.202E+00	Pulse	0.30	3
Cr			2	96.650	ug/l	0.92	470,215.76	2.782E+00	Pulse	0.30	3
Mn			2	448.459	ug/l	1.35	1,088,540.10	6.441E+00	Pulse	0.30	3
Fe			2	14639.498	ug/l	1.07	57,441,102.16	3.399E+02	Analog	0.30	3
Co			2	81.126	ug/l	1.73	706,399.59	4.180E+00	Pulse	0.30	3
Ni			2	85.615	ug/l	1.79	207,298.05	1.227E+00	Pulse	0.30	3
Cu			2	90.509	ug/l	1.46	575,268.02	3.404E+00	Pulse	0.30	3
Zn			2	104.310	ug/l	0.09	88,716.41	5.249E-01	Pulse	0.30	3
As			2	72.404	ug/l	0.41	30,856.97	1.826E-01	Pulse	1.00	3
Cd			2	73.124	ug/l	1.32	84,906.26	1.027E-01	Pulse	0.30	3
Sn			2	77.620	ug/l	0.75	166,606.03	2.014E-01	Pulse	0.30	3
Se			3	340.209	ug/l	0.36	46,831.41	2.098E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,872,515.60	0.47	108.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,519,283.88	0.84	113.1	Analog	0.10	3
1	Ge		961,680.45	1.35	104.9	Pulse	0.10	3
1	Ge		1,345,726.65	1.03	105.1	Pulse	0.10	3
1	Rh		6,753,433.44	0.98	99.2	Analog	0.10	3
1	In		7,468,344.00	0.45	103.4	Analog	0.10	3
1	Tb		10,105,362.97	0.44	107.4	Analog	0.10	3
1	Ho		989,047.33	1.25	111.3	Pulse	0.10	3
1	Bi		5,413,241.59	0.03	98.3	Mix	0.10	3
2	Sc		169,030.98	1.41	105.6	Pulse	0.30	3
2	Ge		89,225.94	0.57	101.4	Pulse	0.30	3
2	Ge		135,875.48	0.88	99.9	Pulse	0.30	3
2	Rh		2,717,288.29	0.10	96.8	Pulse	0.30	3
2	In		827,106.96	0.22	96.8	Pulse	0.30	3
2	Tb		3,323,671.39	0.36	100.1	Pulse	0.30	3
2	Ho		333,065.46	0.41	103.6	Pulse	0.30	3
2	Bi		2,028,180.06	0.35	92.0	Pulse	0.30	3
3	Sc		258,329.16	0.44	117.2	Pulse	0.30	3
3	Ge		145,819.20	0.67	110.1	Pulse	0.30	3
3	Ge		223,206.32	0.16	109.7	Pulse	0.30	3
3	Rh		2,532,595.52	0.21	102.3	Pulse	0.30	3
3	Tb		3,883,179.43	0.26	105.2	Pulse	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 15:14
Sample Name	jc86095-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.632	ug/l	1.71	4,253.92	1.504E-03	Pulse	0.25	3
B			1	68.982	ug/l	0.19	440,542.18	1.557E-01	Pulse	0.15	3
Ca			1	29340.414	ug/l	0.75	27,375,259.59	4.989E+00	Analog	0.10	3
Sr			1	238.348	ug/l	0.58	10,404,445.05	1.530E+00	Analog	0.10	3
Mo			1	6.791	ug/l	0.80	56,848.45	8.360E-03	Pulse	0.10	3
Ag			1	0.070	ug/l	16.16	1,676.82	2.204E-04	Pulse	0.10	3
Sn			1	2.435	ug/l	0.92	27,521.56	3.619E-03	Pulse	0.10	3
Sb			1	0.462	ug/l	3.90	8,562.69	8.377E-04	Pulse	0.10	3
Ba			1	83.011	ug/l	1.43	529,611.10	5.182E-02	Pulse	0.10	3
Tl			1	0.136	ug/l	7.58	5,664.62	1.022E-03	Pulse	0.10	3
Pb			1	18.582	ug/l	0.90	230,337.21	4.157E-02	Pulse	0.10	3
Pb			1	17.316	ug/l	0.73	192,407.18	3.473E-02	Pulse	0.10	3
Pb			1	17.877	ug/l	0.23	902,789.36	1.629E-01	Pulse	0.10	3
Na			2	36238.543	ug/l	0.29	31,335,976.53	1.874E+02	Analog	0.30	3
Mg			2	3799.455	ug/l	0.58	1,523,052.34	9.107E+00	Pulse	0.30	3
Al			2	7721.233	ug/l	0.76	993,270.55	5.939E+00	Pulse	0.30	3
K			2	4835.104	ug/l	0.42	1,174,142.59	7.021E+00	Pulse	0.30	3
Ca			2	30214.941	ug/l	1.03	421,359.14	2.520E+00	Pulse	0.30	3
Ti			2	356.131	ug/l	2.01	39,434.83	2.358E-01	Pulse	0.30	3
V			2	18.539	ug/l	0.79	68,616.47	4.103E-01	Pulse	0.30	3
Cr			2	16.914	ug/l	1.37	81,872.67	4.896E-01	Pulse	0.30	3
Mn			2	357.725	ug/l	0.88	859,215.14	5.138E+00	Pulse	0.30	3
Fe			2	9464.572	ug/l	0.89	36,751,399.65	2.198E+02	Analog	0.30	3
Co			2	3.877	ug/l	0.87	33,498.51	2.003E-01	Pulse	0.30	3
Ni			2	8.885	ug/l	2.32	21,352.83	1.277E-01	Pulse	0.30	3
Cu			2	13.770	ug/l	0.19	87,212.57	5.215E-01	Pulse	0.30	3
Zn			2	42.982	ug/l	1.83	36,286.85	2.170E-01	Pulse	0.30	3
As			2	4.838	ug/l	1.91	2,053.80	1.228E-02	Pulse	1.00	3
Cd			2	0.102	ug/l	14.89	136.19	1.619E-04	Pulse	0.30	3
Sn			2	1.854	ug/l	7.56	4,409.56	5.242E-03	Pulse	0.30	3
Se			3	2.287	ug/l	3.22	330.47	1.479E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,828,937.36	0.25	106.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,486,980.54	0.33	112.4	Analog	0.10	3
1	Ge		961,424.46	0.79	104.8	Pulse	0.10	3
1	Ge		1,343,848.16	0.99	105.0	Pulse	0.10	3
1	Rh		6,799,745.73	1.00	99.9	Analog	0.10	3
1	In		7,605,395.02	0.39	105.3	Analog	0.10	3
1	Tb		10,222,141.93	1.45	108.6	Analog	0.10	3
1	Ho		992,704.44	1.21	111.8	Pulse	0.10	3
1	Bi		5,540,780.96	0.41	100.6	Analog	0.10	3
2	Sc		167,240.85	0.37	104.4	Pulse	0.30	3
2	Ge		89,748.63	0.50	102.0	Pulse	0.30	3
2	Ge		135,665.91	0.29	99.7	Pulse	0.30	3
2	Rh		2,755,448.57	0.37	98.1	Pulse	0.30	3
2	In		841,125.79	0.22	98.5	Pulse	0.30	3
2	Tb		3,378,043.76	0.43	101.7	Pulse	0.30	3
2	Ho		336,281.70	0.62	104.6	Pulse	0.30	3
2	Bi		2,074,309.43	0.24	94.1	Pulse	0.30	3
3	Sc		255,583.07	0.53	116.0	Pulse	0.30	3
3	Ge		144,939.29	0.62	109.5	Pulse	0.30	3
3	Ge		223,482.93	0.05	109.8	Pulse	0.30	3
3	Rh		2,559,071.57	0.81	103.4	Pulse	0.30	3
3	Tb		3,931,665.40	0.69	106.5	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 15:19
Sample Name	mp14059a-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.696	ug/l	13.64	1,005.38	3.482E-04	Pulse	0.25	3
B			1	68.251	ug/l	1.79	104,134.34	3.606E-02	Pulse	0.15	3
Ca			1	29898.636	ug/l	1.46	5,733,139.71	1.020E+00	Analog	0.10	3
Sr			1	223.240	ug/l	0.99	2,116,285.13	2.867E-01	Pulse	0.10	3
Mo			1	6.414	ug/l	2.31	11,811.45	1.600E-03	Pulse	0.10	3
Ag			1	0.111	ug/l	8.58	626.70	7.793E-05	Pulse	0.10	3
Sn			1	4.447	ug/l	2.41	5,671.26	7.053E-04	Pulse	0.10	3
Sb			1	0.253	ug/l	2.89	2,336.93	2.266E-04	Pulse	0.10	3
Ba			1	85.225	ug/l	2.47	109,796.91	1.065E-02	Pulse	0.10	3
Tl			1	0.123	ug/l	14.97	1,676.82	2.833E-04	Pulse	0.10	3
Pb			1	18.030	ug/l	3.56	48,038.61	8.112E-03	Pulse	0.10	3
Pb			1	16.614	ug/l	0.30	39,694.25	6.700E-03	Pulse	0.10	3
Pb			1	17.159	ug/l	2.17	186,311.05	3.146E-02	Pulse	0.10	3
Na			2	35194.785	ug/l	0.80	6,518,436.55	3.645E+01	Analog	0.30	3
Mg			2	3819.607	ug/l	1.30	328,171.57	1.835E+00	Pulse	0.30	3
Al			2	7963.150	ug/l	1.09	219,345.63	1.226E+00	Pulse	0.30	3
K			2	4853.014	ug/l	0.09	258,625.53	1.446E+00	Pulse	0.30	3
Ca			2	30564.317	ug/l	0.43	91,392.46	5.110E-01	Pulse	0.30	3
Ti			2	362.700	ug/l	7.07	8,590.27	4.803E-02	Pulse	0.30	3
V			2	17.478	ug/l	2.33	14,208.45	7.944E-02	Pulse	0.30	3
Cr			2	16.197	ug/l	1.67	17,243.52	9.642E-02	Pulse	0.30	3
Mn			2	362.032	ug/l	0.57	186,075.92	1.040E+00	Pulse	0.30	3
Fe			2	9512.152	ug/l	1.36	7,912,356.63	4.424E+01	Analog	0.30	3
Co			2	3.815	ug/l	5.19	7,136.06	3.991E-02	Pulse	0.30	3
Ni			2	8.927	ug/l	3.53	4,647.37	2.598E-02	Pulse	0.30	3
Cu			2	14.129	ug/l	0.57	19,750.85	1.104E-01	Pulse	0.30	3
Zn			2	55.767	ug/l	3.96	10,228.84	5.720E-02	Pulse	0.30	3
As			2	5.470	ug/l	3.65	508.68	2.844E-03	Pulse	1.00	3
Cd			2	0.154	ug/l	25.01	57.18	6.148E-05	Pulse	0.30	3
Sn			2	1.041	ug/l	2.28	912.26	9.810E-04	Pulse	0.30	3
Se			3	2.473	ug/l	5.15	84.93	3.737E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,888,031.18	0.20	108.7	Pulse	0.10	3
1	Sc		5,620,027.21	1.41	115.1	Analog	0.10	3
1	Ge		1,031,926.52	1.45	112.5	Pulse	0.10	3

Quantitation Report

1	Ge		1,450,899.35	0.91	113.4	Pulse	0.10	3
1	Rh		7,380,726.14	0.74	108.5	Analog	0.10	3
1	In		8,042,863.30	0.99	111.3	Analog	0.10	3
1	Tb		10,310,856.72	0.94	109.6	Analog	0.10	3
1	Ho		972,744.57	1.29	109.5	Pulse	0.10	3
1	Bi		5,924,049.91	1.58	107.6	Analog	0.10	3
2	Sc		178,850.99	0.48	111.7	Pulse	0.30	3
2	Ge		99,060.34	0.31	112.6	Pulse	0.30	3
2	Ge		151,509.90	0.85	111.4	Pulse	0.30	3
2	Rh		3,004,213.35	0.42	107.0	Pulse	0.30	3
2	In		929,917.90	0.26	108.9	Pulse	0.30	3
2	Tb		3,534,913.61	0.55	106.4	Pulse	0.30	3
2	Ho		342,906.34	0.74	106.7	Pulse	0.30	3
2	Bi		2,307,218.17	0.29	104.7	Pulse	0.30	3
3	Sc		246,568.20	0.07	111.9	Pulse	0.30	3
3	Ge		147,579.52	0.76	111.4	Pulse	0.30	3
3	Ge		227,224.11	0.55	111.6	Pulse	0.30	3
3	Rh		2,622,793.78	0.29	106.0	Pulse	0.30	3
3	Tb		3,905,572.48	0.38	105.8	Pulse	0.30	3

Quantitation Report

File Name	053SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 15:24
Sample Name	mp14059a-s4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.124	ug/l	0.86	486,953.57	1.763E-01	Pulse	0.25	3
B			1	154.351	ug/l	0.43	940,255.10	3.404E-01	Pulse	0.15	3
Ca			1	33764.557	ug/l	0.67	31,061,622.04	5.741E+00	Analog	0.10	3
Sr			1	335.109	ug/l	0.86	14,227,665.21	2.151E+00	Analog	0.10	3
Mo			1	89.996	ug/l	1.04	730,522.33	1.105E-01	Pulse	0.10	3
Ag			1	78.037	ug/l	1.38	1,734,952.58	2.342E-01	Pulse	0.10	3
Sn			1	77.680	ug/l	1.58	1,077,310.77	1.454E-01	Pulse	0.10	3
Sb			1	73.849	ug/l	1.16	1,098,263.87	1.099E-01	Pulse	0.10	3
Ba			1	172.866	ug/l	0.83	1,078,411.91	1.079E-01	Pulse	0.10	3
Tl			1	84.412	ug/l	0.29	2,980,199.75	5.612E-01	Pulse	0.10	3
Pb			1	106.177	ug/l	0.40	1,260,027.46	2.373E-01	Pulse	0.10	3
Pb			1	102.701	ug/l	0.44	1,092,482.79	2.057E-01	Pulse	0.10	3
Pb			1	104.202	ug/l	0.57	5,037,702.92	9.487E-01	Pulse	0.10	3
Na			2	41264.089	ug/l	1.78	35,453,761.92	2.133E+02	Analog	0.30	3
Mg			2	7984.582	ug/l	0.80	3,179,624.18	1.913E+01	Pulse	0.30	3
Al			2	13564.902	ug/l	0.99	1,733,774.72	1.043E+01	Pulse	0.30	3
K			2	9236.639	ug/l	0.94	2,221,873.87	1.337E+01	Pulse	0.30	3
Ca			2	35266.404	ug/l	0.29	488,666.61	2.940E+00	Pulse	0.30	3
Ti			2	512.803	ug/l	1.04	56,423.63	3.395E-01	Pulse	0.30	3
V			2	101.772	ug/l	0.60	372,398.28	2.241E+00	Pulse	0.30	3
Cr			2	98.051	ug/l	0.94	469,023.17	2.822E+00	Pulse	0.30	3
Mn			2	456.309	ug/l	0.11	1,089,079.99	6.553E+00	Pulse	0.30	3
Fe			2	14840.855	ug/l	1.38	57,254,462.17	3.445E+02	Analog	0.30	3
Co			2	82.688	ug/l	0.32	707,988.46	4.260E+00	Pulse	0.30	3
Ni			2	86.248	ug/l	0.64	205,347.54	1.236E+00	Pulse	0.30	3
Cu			2	91.421	ug/l	0.54	571,351.02	3.438E+00	Pulse	0.30	3
Zn			2	120.475	ug/l	0.85	100,708.04	6.060E-01	Pulse	0.30	3
As			2	73.512	ug/l	0.81	30,802.18	1.854E-01	Pulse	1.00	3
Cd			2	73.987	ug/l	0.41	85,646.82	1.039E-01	Pulse	0.30	3
Sn			2	78.133	ug/l	0.33	167,195.07	2.028E-01	Pulse	0.30	3
Se			3	343.606	ug/l	0.31	46,371.24	2.119E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,762,550.73	0.68	104.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,410,560.13	0.30	110.8	Analog	0.10	3
1	Ge		942,301.73	1.51	102.7	Pulse	0.10	3
1	Ge		1,321,972.22	0.92	103.3	Pulse	0.10	3
1	Rh		6,613,628.44	0.38	97.2	Analog	0.10	3
1	In		7,408,689.63	0.71	102.5	Analog	0.10	3
1	Tb		9,995,059.43	0.71	106.2	Analog	0.10	3
1	Ho		975,166.73	1.68	109.8	Pulse	0.10	3
1	Bi		5,310,557.52	1.42	96.4	Pulse	0.10	3
2	Sc		166,186.06	0.40	103.8	Pulse	0.30	3
2	Ge		88,400.23	0.98	100.5	Pulse	0.30	3
2	Ge		134,078.54	0.19	98.6	Pulse	0.30	3
2	Rh		2,691,235.03	0.49	95.8	Pulse	0.30	3
2	In		824,583.07	0.31	96.5	Pulse	0.30	3
2	Tb		3,335,523.83	0.19	100.4	Pulse	0.30	3
2	Ho		334,692.82	0.80	104.1	Pulse	0.30	3
2	Bi		2,039,845.68	0.38	92.6	Pulse	0.30	3
3	Sc		253,776.31	1.13	115.1	Pulse	0.30	3
3	Ge		142,465.67	0.22	107.6	Pulse	0.30	3
3	Ge		218,831.01	0.55	107.5	Pulse	0.30	3
3	Rh		2,492,540.60	0.35	100.7	Pulse	0.30	3
3	Tb		3,853,120.68	0.54	104.4	Pulse	0.30	3

Quantitation Report

File Name 054SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 15:29
Sample Name mp14084-b1 5
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.136	ug/l	0.91	504,623.75	1.716E-01	Pulse	0.25	3
B			1	84.469	ug/l	0.43	556,411.21	1.892E-01	Pulse	0.15	3
Ca			1	4159.286	ug/l	1.01	3,860,205.67	7.110E-01	Pulse	0.10	3
Sr			1	81.475	ug/l	1.13	3,752,448.69	5.231E-01	Pulse	0.10	3
Mo			1	80.367	ug/l	0.84	707,554.99	9.864E-02	Pulse	0.10	3
Ag			1	78.033	ug/l	0.33	1,855,021.12	2.342E-01	Pulse	0.10	3
Sn			1	75.600	ug/l	0.84	1,120,819.46	1.415E-01	Pulse	0.10	3
Sb			1	75.372	ug/l	0.90	1,184,546.05	1.121E-01	Pulse	0.10	3
Ba			1	77.363	ug/l	1.37	510,104.83	4.829E-02	Pulse	0.10	3
Tl			1	80.433	ug/l	1.16	3,105,215.68	5.347E-01	Pulse	0.10	3
Pb			1	80.877	ug/l	0.28	1,049,662.22	1.808E-01	Pulse	0.10	3
Pb			1	79.521	ug/l	0.39	925,109.96	1.593E-01	Pulse	0.10	3
Pb			1	80.174	ug/l	0.28	4,239,057.41	7.300E-01	Pulse	0.10	3
Na			2	4014.723	ug/l	0.33	3,534,418.33	2.082E+01	Pulse	0.30	3
Mg			2	3950.860	ug/l	0.63	1,607,913.68	9.470E+00	Pulse	0.30	3
Al			2	3887.474	ug/l	0.13	507,885.66	2.991E+00	Pulse	0.30	3
K			2	4072.507	ug/l	0.13	1,005,301.42	5.921E+00	Pulse	0.30	3
Ca			2	4423.295	ug/l	1.82	62,857.62	3.702E-01	Pulse	0.30	3
Ti			2	77.256	ug/l	3.80	8,685.69	5.115E-02	Pulse	0.30	3
V			2	79.847	ug/l	0.16	298,613.04	1.759E+00	Pulse	0.30	3
Cr			2	79.601	ug/l	0.15	389,152.34	2.292E+00	Pulse	0.30	3
Mn			2	78.180	ug/l	0.56	190,735.60	1.123E+00	Pulse	0.30	3
Fe			2	4187.044	ug/l	0.67	16,514,816.57	9.726E+01	Analog	0.30	3
Co			2	79.177	ug/l	0.54	692,651.67	4.079E+00	Pulse	0.30	3
Ni			2	78.080	ug/l	0.19	189,948.48	1.119E+00	Pulse	0.30	3
Cu			2	77.469	ug/l	0.26	494,788.40	2.914E+00	Pulse	0.30	3
Zn			2	64.398	ug/l	0.61	55,097.48	3.245E-01	Pulse	0.30	3
As			2	68.899	ug/l	0.52	29,498.15	1.737E-01	Pulse	1.00	3
Cd			2	74.090	ug/l	0.45	89,734.42	1.040E-01	Pulse	0.30	3
Sn			2	76.744	ug/l	0.86	171,835.56	1.992E-01	Pulse	0.30	3
Se			3	335.543	ug/l	0.45	47,301.81	2.069E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,940,481.70	0.91	110.7	Pulse	0.10	3
1	Sc		5,429,660.75	1.11	111.2	Analog	0.10	3
1	Ge		997,820.58	1.11	108.8	Pulse	0.10	3

Quantitation Report

1	Ge		1,398,694.04	1.16	109.3	Pulse	0.10	3
1	Rh		7,172,859.48	0.66	105.4	Analog	0.10	3
1	In		7,921,552.80	1.52	109.6	Analog	0.10	3
1	Tb		10,563,432.13	1.30	112.3	Analog	0.10	3
1	Ho		985,368.47	1.13	110.9	Pulse	0.10	3
1	Bi		5,807,235.12	0.97	105.4	Analog	0.10	3
2	Sc		169,795.93	0.24	106.0	Pulse	0.30	3
2	Ge		91,003.37	0.94	103.5	Pulse	0.30	3
2	Ge		140,760.83	0.42	103.5	Pulse	0.30	3
2	Rh		2,907,782.52	0.39	103.6	Pulse	0.30	3
2	In		862,748.80	0.44	101.0	Pulse	0.30	3
2	Tb		3,422,534.52	0.33	103.1	Pulse	0.30	3
2	Ho		332,647.44	0.49	103.5	Pulse	0.30	3
2	Bi		2,177,282.90	0.28	98.8	Pulse	0.30	3
3	Sc		259,431.03	0.92	117.7	Pulse	0.30	3
3	Ge		147,639.95	1.26	111.5	Pulse	0.30	3
3	Ge		228,583.45	0.21	112.3	Pulse	0.30	3
3	Rh		2,695,498.09	0.19	108.9	Pulse	0.30	3
3	Tb		4,007,766.93	0.20	108.6	Pulse	0.30	3

Quantitation Report

File Name 055SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 15:34
Sample Name mp14084-s1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.116	ug/l	0.68	504,556.61	1.739E-01	Pulse	0.25	3
B			1	197.830	ug/l	1.47	1,260,365.58	4.344E-01	Pulse	0.15	3
Ca			1	43836.499	ug/l	0.39	39,978,314.40	7.452E+00	Analog	0.10	3
Sr			1	398.859	ug/l	1.96	17,399,841.41	2.561E+00	Analog	0.10	3
Mo			1	83.892	ug/l	1.68	699,763.87	1.030E-01	Pulse	0.10	3
Ag			1	78.136	ug/l	1.29	1,769,619.71	2.345E-01	Pulse	0.10	3
Sn			1	78.452	ug/l	1.15	1,108,432.46	1.469E-01	Pulse	0.10	3
Sb			1	77.696	ug/l	0.14	1,174,102.04	1.156E-01	Pulse	0.10	3
Ba			1	94.546	ug/l	0.78	599,424.65	5.902E-02	Pulse	0.10	3
Tl			1	81.936	ug/l	0.61	3,027,574.75	5.447E-01	Pulse	0.10	3
Pb			1	94.156	ug/l	1.28	1,169,436.78	2.104E-01	Pulse	0.10	3
Pb			1	92.323	ug/l	1.18	1,027,834.72	1.849E-01	Pulse	0.10	3
Pb			1	93.084	ug/l	1.25	4,709,903.03	8.475E-01	Pulse	0.10	3
Na			2	26900.501	ug/l	1.89	23,220,105.74	1.391E+02	Analog	0.30	3
Mg			2	9254.744	ug/l	0.74	3,701,903.32	2.218E+01	Pulse	0.30	3
Al			2	3853.430	ug/l	0.72	494,950.15	2.965E+00	Pulse	0.30	3
K			2	11700.321	ug/l	0.68	2,825,168.85	1.692E+01	Pulse	0.30	3
Ca			2	44769.103	ug/l	0.73	623,055.13	3.732E+00	Pulse	0.30	3
Ti			2	78.532	ug/l	2.38	8,681.23	5.200E-02	Pulse	0.30	3
V			2	81.026	ug/l	0.73	297,905.76	1.785E+00	Pulse	0.30	3
Cr			2	80.447	ug/l	0.56	386,651.61	2.316E+00	Pulse	0.30	3
Mn			2	119.706	ug/l	0.77	287,063.21	1.720E+00	Pulse	0.30	3
Fe			2	5171.664	ug/l	0.45	20,051,422.53	1.201E+02	Analog	0.30	3
Co			2	79.066	ug/l	0.84	680,018.29	4.074E+00	Pulse	0.30	3
Ni			2	82.125	ug/l	1.60	196,408.99	1.177E+00	Pulse	0.30	3
Cu			2	136.432	ug/l	0.47	856,147.55	5.129E+00	Pulse	0.30	3
Zn			2	135.174	ug/l	0.94	113,477.96	6.798E-01	Pulse	0.30	3
As			2	105.117	ug/l	0.64	44,238.10	2.650E-01	Pulse	1.00	3
Cd			2	74.361	ug/l	1.73	87,100.89	1.044E-01	Pulse	0.30	3
Sn			2	79.471	ug/l	0.35	172,077.71	2.062E-01	Pulse	0.30	3
Se			3	333.907	ug/l	0.15	46,261.19	2.059E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,901,382.54	0.16	109.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,364,918.04	1.41	109.9	Mix	0.10	3
1	Ge		964,987.90	1.02	105.2	Pulse	0.10	3
1	Ge		1,351,763.05	1.08	105.6	Pulse	0.10	3
1	Rh		6,796,446.78	1.21	99.9	Analog	0.10	3
1	In		7,546,903.62	0.75	104.4	Analog	0.10	3
1	Tb		10,156,777.14	0.58	107.9	Analog	0.10	3
1	Ho		965,208.40	0.88	108.7	Pulse	0.10	3
1	Bi		5,557,855.54	0.62	100.9	Analog	0.10	3
2	Sc		166,936.21	0.54	104.3	Pulse	0.30	3
2	Ge		88,614.68	0.87	100.7	Pulse	0.30	3
2	Ge		136,148.90	0.85	100.1	Pulse	0.30	3
2	Rh		2,749,656.35	0.15	97.9	Pulse	0.30	3
2	In		834,414.27	0.57	97.7	Pulse	0.30	3
2	Tb		3,346,874.38	0.08	100.8	Pulse	0.30	3
2	Ho		326,168.10	0.07	101.5	Pulse	0.30	3
2	Bi		2,053,240.47	0.39	93.2	Pulse	0.30	3
3	Sc		256,545.79	0.71	116.4	Pulse	0.30	3
3	Ge		145,148.89	0.12	109.6	Pulse	0.30	3
3	Ge		224,648.97	0.59	110.4	Pulse	0.30	3
3	Rh		2,555,902.67	0.32	103.3	Pulse	0.30	3
3	Tb		3,936,372.48	0.25	106.7	Pulse	0.30	3

Quantitation Report

File Name 056SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 15:39
Sample Name mp14084-s2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.024	ug/l	0.82	496,408.69	1.713E-01	Pulse	0.25	3
B			1	195.183	ug/l	0.48	1,241,937.76	4.287E-01	Pulse	0.15	3
Ca			1	43614.434	ug/l	0.43	39,186,217.75	7.414E+00	Analog	0.10	3
Sr			1	386.642	ug/l	0.41	16,851,944.33	2.482E+00	Analog	0.10	3
Mo			1	82.246	ug/l	1.56	685,394.26	1.009E-01	Pulse	0.10	3
Ag			1	76.621	ug/l	0.36	1,734,310.34	2.299E-01	Pulse	0.10	3
Sn			1	77.184	ug/l	0.37	1,089,756.80	1.445E-01	Pulse	0.10	3
Sb			1	75.658	ug/l	1.52	1,143,239.23	1.126E-01	Pulse	0.10	3
Ba			1	92.611	ug/l	0.88	587,123.59	5.781E-02	Pulse	0.10	3
Tl			1	81.894	ug/l	1.18	2,982,255.27	5.445E-01	Pulse	0.10	3
Pb			1	93.724	ug/l	1.16	1,147,305.53	2.095E-01	Pulse	0.10	3
Pb			1	92.049	ug/l	1.34	1,009,992.22	1.844E-01	Pulse	0.10	3
Pb			1	92.981	ug/l	1.30	4,636,783.71	8.465E-01	Pulse	0.10	3
Na			2	26873.558	ug/l	1.12	23,015,494.08	1.390E+02	Analog	0.30	3
Mg			2	9175.459	ug/l	0.90	3,641,261.25	2.199E+01	Pulse	0.30	3
Al			2	3822.847	ug/l	0.88	487,153.52	2.941E+00	Pulse	0.30	3
K			2	11584.146	ug/l	0.98	2,775,134.54	1.676E+01	Pulse	0.30	3
Ca			2	44519.964	ug/l	0.70	614,715.13	3.712E+00	Pulse	0.30	3
Ti			2	76.261	ug/l	0.19	8,363.31	5.050E-02	Pulse	0.30	3
V			2	80.336	ug/l	0.54	293,048.14	1.769E+00	Pulse	0.30	3
Cr			2	80.481	ug/l	0.45	383,774.37	2.317E+00	Pulse	0.30	3
Mn			2	118.590	ug/l	0.45	282,154.39	1.704E+00	Pulse	0.30	3
Fe			2	5142.580	ug/l	1.10	19,781,290.88	1.194E+02	Analog	0.30	3
Co			2	78.885	ug/l	0.43	673,133.11	4.064E+00	Pulse	0.30	3
Ni			2	82.332	ug/l	0.79	195,360.66	1.180E+00	Pulse	0.30	3
Cu			2	135.879	ug/l	0.33	845,985.09	5.108E+00	Pulse	0.30	3
Zn			2	135.469	ug/l	0.69	112,832.57	6.813E-01	Pulse	0.30	3
As			2	104.504	ug/l	1.21	43,632.18	2.635E-01	Pulse	1.00	3
Cd			2	73.641	ug/l	0.32	86,053.69	1.034E-01	Pulse	0.30	3
Sn			2	79.357	ug/l	2.00	171,419.45	2.059E-01	Pulse	0.30	3
Se			3	329.012	ug/l	0.29	45,502.21	2.029E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,897,150.41	0.45	109.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,285,322.21	1.48	108.3	Mix	0.10	3
1	Ge		958,050.12	0.84	104.5	Pulse	0.10	3
1	Ge		1,345,176.18	1.42	105.1	Pulse	0.10	3
1	Rh		6,789,490.73	1.18	99.8	Analog	0.10	3
1	In		7,542,402.51	1.32	104.4	Analog	0.10	3
1	Tb		10,156,139.01	0.74	107.9	Analog	0.10	3
1	Ho		954,872.75	0.79	107.5	Pulse	0.10	3
1	Bi		5,478,119.50	1.57	99.5	Mix	0.10	3
2	Sc		165,622.84	0.67	103.4	Pulse	0.30	3
2	Ge		89,381.21	1.25	101.6	Pulse	0.30	3
2	Ge		135,898.98	0.54	99.9	Pulse	0.30	3
2	Rh		2,748,037.88	0.19	97.9	Pulse	0.30	3
2	In		832,390.49	0.17	97.4	Pulse	0.30	3
2	Tb		3,343,054.52	0.38	100.7	Pulse	0.30	3
2	Ho		325,776.70	0.46	101.3	Pulse	0.30	3
2	Bi		2,052,947.00	0.34	93.1	Pulse	0.30	3
3	Sc		254,389.40	0.68	115.4	Pulse	0.30	3
3	Ge		144,572.74	0.31	109.2	Pulse	0.30	3
3	Ge		224,250.41	0.40	110.2	Pulse	0.30	3
3	Rh		2,552,807.19	0.24	103.1	Pulse	0.30	3
3	Tb		3,915,926.37	0.35	106.1	Pulse	0.30	3

Quantitation Report

File Name	057_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 15:44
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.347	ug/l	1.15	689,094.67	2.363E-01	Pulse	0.25	3
B			1	103.196	ug/l	1.27	1,321,047.59	4.529E-01	Pulse	0.15	3
Ca			1	5189.857	ug/l	1.35	9,791,890.27	1.768E+00	Analog	0.10	3
Sr			1	52.435	ug/l	1.28	4,843,772.74	6.733E-01	Pulse	0.10	3
Mo			1	51.630	ug/l	1.31	911,722.72	1.267E-01	Pulse	0.10	3
Ag			1	49.330	ug/l	1.10	2,336,498.82	2.961E-01	Pulse	0.10	3
Sn			1	48.239	ug/l	1.15	1,427,172.89	1.808E-01	Pulse	0.10	3
Sb			1	49.659	ug/l	1.71	1,523,221.64	1.477E-01	Pulse	0.10	3
Ba			1	50.299	ug/l	1.70	647,477.76	6.279E-02	Pulse	0.10	3
Tl			1	51.007	ug/l	0.78	3,864,337.75	6.782E-01	Pulse	0.10	3
Pb			1	50.980	ug/l	1.16	1,298,324.48	2.279E-01	Pulse	0.10	3
Pb			1	50.412	ug/l	0.73	1,150,827.04	2.020E-01	Pulse	0.10	3
Pb			1	50.563	ug/l	0.83	5,246,000.65	9.207E-01	Pulse	0.10	3
Na			2	4998.648	ug/l	1.03	9,141,263.80	5.174E+01	Analog	0.30	3
Mg			2	4849.893	ug/l	0.78	4,106,460.39	2.324E+01	Pulse	0.30	3
Al			2	4929.098	ug/l	0.39	1,339,719.39	7.583E+00	Pulse	0.30	3
K			2	5082.484	ug/l	0.50	2,598,877.26	1.471E+01	Pulse	0.30	3
Ca			2	5250.145	ug/l	1.05	154,881.85	8.766E-01	Pulse	0.30	3
Ti			2	51.184	ug/l	2.90	11,975.52	6.778E-02	Pulse	0.30	3
V			2	50.642	ug/l	0.45	394,030.03	2.230E+00	Pulse	0.30	3
Cr			2	49.851	ug/l	0.53	507,043.19	2.870E+00	Pulse	0.30	3
Mn			2	49.522	ug/l	0.21	251,409.63	1.423E+00	Pulse	0.30	3
Fe			2	5105.313	ug/l	1.01	41,885,455.00	2.371E+02	Analog	0.30	3
Co			2	49.408	ug/l	0.63	899,500.90	5.091E+00	Pulse	0.30	3
Ni			2	48.511	ug/l	0.82	245,582.21	1.390E+00	Pulse	0.30	3
Cu			2	48.301	ug/l	0.93	641,832.11	3.633E+00	Pulse	0.30	3
Zn			2	47.319	ug/l	1.40	84,152.76	4.763E-01	Pulse	0.30	3
As			2	49.581	ug/l	0.63	44,169.23	2.500E-01	Pulse	1.00	3
Cd			2	49.299	ug/l	0.23	125,131.53	1.384E-01	Pulse	0.30	3
Sn			2	48.839	ug/l	0.26	229,065.68	2.534E-01	Pulse	0.30	3
Se			3	198.319	ug/l	0.27	53,939.00	2.446E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,916,660.30	0.67	109.8	Pulse	0.10	3
1	Sc		5,539,901.17	2.23	113.5	Analog	0.10	3
1	Ge		1,018,924.99	1.33	111.1	Pulse	0.10	3

Quantitation Report

1	Ge		1,443,936.33	1.11	112.8	Pulse	0.10	3
1	Rh		7,195,472.81	2.74	105.7	Analog	0.10	3
1	In		7,892,935.42	2.56	109.2	Analog	0.10	3
1	Tb		10,311,504.02	0.33	109.6	Analog	0.10	3
1	Ho		964,492.38	1.28	108.6	Pulse	0.10	3
1	Bi		5,697,861.17	0.93	103.5	Analog	0.10	3
2	Sc		176,684.96	0.51	110.3	Pulse	0.30	3
2	Ge		97,246.69	0.62	110.6	Pulse	0.30	3
2	Ge		148,710.13	0.29	109.3	Pulse	0.30	3
2	Rh		2,911,659.89	0.47	103.7	Pulse	0.30	3
2	In		904,064.73	0.23	105.8	Pulse	0.30	3
2	Tb		3,480,101.60	0.21	104.8	Pulse	0.30	3
2	Ho		338,627.10	0.63	105.3	Pulse	0.30	3
2	Bi		2,211,926.37	0.43	100.4	Pulse	0.30	3
3	Sc		243,535.99	0.37	110.5	Pulse	0.30	3
3	Ge		142,286.71	0.65	107.5	Pulse	0.30	3
3	Ge		220,517.14	0.36	108.3	Pulse	0.30	3
3	Rh		2,526,716.29	0.42	102.1	Pulse	0.30	3
3	Tb		3,797,233.18	0.60	102.9	Pulse	0.30	3

Quantitation Report

File Name	058_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 15:49
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	14.49	240.01	8.398E-05	Pulse	0.25	3
B			1	1.764	ug/l	3.43	40,488.46	1.416E-02	Pulse	0.15	3
Ca			1	0.758	ug/l	57.16	24,608.80	4.576E-03	Pulse	0.10	3
Sr			1	0.024	ug/l	8.64	3,197.15	4.368E-04	Pulse	0.10	3
Mo			1	0.081	ug/l	26.09	1,643.48	2.242E-04	Pulse	0.10	3
Ag			1	0.018	ug/l	9.20	926.73	1.180E-04	Pulse	0.10	3
Sn			1	0.430	ug/l	2.72	5,104.37	6.497E-04	Pulse	0.10	3
Sb			1	0.317	ug/l	5.74	11,117.62	1.093E-03	Pulse	0.10	3
Ba			1	0.008	ug/l	17.91	210.01	2.065E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	22.67	2,010.22	3.424E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	12.58	1,030.07	1.754E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	15.94	880.06	1.499E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	9.19	4,120.38	7.018E-04	Pulse	0.10	3
Na			2	2.806	ug/l	8.11	16,328.02	9.399E-02	Pulse	0.30	3
Mg			2	0.155	ug/l	39.93	974.49	5.610E-03	Pulse	0.30	3
Al			2	0.369	ug/l	47.66	397.79	2.289E-03	Pulse	0.30	3
K			2	2.379	ug/l	13.12	9,167.06	5.277E-02	Pulse	0.30	3
Ca			2	-5.346	ug/l	-28.99	122.22	7.031E-04	Pulse	0.30	3
Ti			2	0.033	ug/l	24.90	8.89	5.117E-05	Pulse	0.30	3
V			2	0.000	ug/l	16756.28	444.46	2.559E-03	Pulse	0.30	3
Cr			2	0.010	ug/l	11.37	674.47	3.883E-03	Pulse	0.30	3
Mn			2	0.045	ug/l	13.24	331.12	1.906E-03	Pulse	0.30	3
Fe			2	0.060	ug/l	40.68	15,206.02	8.753E-02	Pulse	0.30	3
Co			2	0.007	ug/l	35.20	234.45	1.350E-03	Pulse	0.30	3
Ni			2	0.003	ug/l	41.52	88.89	5.118E-04	Pulse	0.30	3
Cu			2	0.037	ug/l	6.47	1,232.28	7.094E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.001	ug/l	2916.89	211.11	1.215E-03	Pulse	0.30	3
As			2	0.017	ug/l	31.37	29.67	1.708E-04	Pulse	1.00	3
Cd			2	0.007	ug/l	28.01	35.45	3.892E-05	Pulse	0.30	3
Sn			2	0.115	ug/l	1.78	944.48	1.036E-03	Pulse	0.30	3
Se			3	0.096	ug/l	6.04	41.13	1.866E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,858,577.36	0.36	107.6	Pulse	0.10	3
1	Sc		5,377,080.96	0.37	110.1	Analog	0.10	3
1	Ge		998,429.49	0.68	108.9	Pulse	0.10	3
1	Ge		1,401,914.72	0.88	109.5	Pulse	0.10	3
1	Rh		7,319,656.97	1.11	107.6	Analog	0.10	3
1	In		7,851,817.79	1.67	108.7	Analog	0.10	3
1	Tb		10,171,680.06	0.77	108.1	Analog	0.10	3
1	Ho		943,078.22	0.98	106.2	Pulse	0.10	3
1	Bi		5,872,161.58	0.64	106.6	Analog	0.10	3
2	Sc		173,711.73	0.30	108.5	Pulse	0.30	3
2	Ge		95,928.90	0.87	109.1	Pulse	0.30	3
2	Ge		147,625.91	0.19	108.5	Pulse	0.30	3
2	Rh		2,981,675.44	0.35	106.2	Pulse	0.30	3
2	In		911,271.69	0.63	106.7	Pulse	0.30	3
2	Tb		3,463,911.67	0.45	104.3	Pulse	0.30	3
2	Ho		337,062.57	0.60	104.8	Pulse	0.30	3
2	Bi		2,290,322.13	0.50	103.9	Pulse	0.30	3
3	Sc		241,986.27	0.87	109.8	Pulse	0.30	3
3	Ge		144,363.51	1.05	109.0	Pulse	0.30	3
3	Ge		220,401.79	0.27	108.3	Pulse	0.30	3
3	Rh		2,641,052.53	0.28	106.7	Pulse	0.30	3
3	Tb		3,865,766.65	0.15	104.7	Pulse	0.30	3

Quantitation Report

File Name 059SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 15:54
Sample Name jc85918-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	55.88	165.34	5.954E-05	Pulse	0.25	3
B			1	110.255	ug/l	0.20	681,184.28	2.450E-01	Pulse	0.15	3
Ca			1	39021.135	ug/l	0.80	34,115,424.49	6.634E+00	Analog	0.10	3
Sr			1	298.392	ug/l	1.29	12,901,176.06	1.916E+00	Analog	0.10	3
Mo			1	0.336	ug/l	9.50	2,953.72	4.386E-04	Pulse	0.10	3
Ag			1	0.041	ug/l	13.27	1,003.40	1.345E-04	Pulse	0.10	3
Sn			1	1.499	ug/l	0.81	13,819.84	1.853E-03	Pulse	0.10	3
Sb			1	0.521	ug/l	8.88	9,273.12	9.263E-04	Pulse	0.10	3
Ba			1	14.995	ug/l	0.13	93,719.21	9.369E-03	Pulse	0.10	3
Tl			1	0.019	ug/l	13.43	1,346.77	2.449E-04	Pulse	0.10	3
Pb			1	11.273	ug/l	0.78	138,786.14	2.524E-02	Pulse	0.10	3
Pb			1	10.740	ug/l	1.11	118,509.24	2.156E-02	Pulse	0.10	3
Pb			1	10.882	ug/l	0.64	545,797.49	9.927E-02	Pulse	0.10	3
Na			2	22042.579	ug/l	7.87	18,791,482.59	1.140E+02	Analog	0.30	3
Mg			2	5118.901	ug/l	7.78	2,022,403.60	1.227E+01	Pulse	0.30	3
Al			2	7.112	ug/l	79.53	1,225.81	7.191E-03	Pulse	0.30	3
K			2	7307.474	ug/l	7.67	1,745,445.28	1.059E+01	Pulse	0.30	3
Ca			2	38992.983	ug/l	7.63	535,978.76	3.251E+00	Pulse	0.30	3
Ti			2	0.535	ug/l	84.01	62.22	3.613E-04	Pulse	0.30	3
V			2	0.293	ug/l	9.33	1,485.64	9.007E-03	Pulse	0.30	3
Cr			2	0.668	ug/l	14.84	3,698.24	2.249E-02	Pulse	0.30	3
Mn			2	39.970	ug/l	8.10	94,709.73	5.746E-01	Pulse	0.30	3
Fe			2	989.570	ug/l	7.40	3,800,952.90	2.305E+01	Pulse	0.30	3
Co			2	0.610	ug/l	5.31	5,286.47	3.202E-02	Pulse	0.30	3
Ni			2	5.492	ug/l	9.69	13,025.26	7.907E-02	Pulse	0.30	3
Cu			2	59.000	ug/l	7.51	366,076.83	2.220E+00	Pulse	0.30	3
Zn			2	71.321	ug/l	8.09	59,212.91	3.592E-01	Pulse	0.30	3
As			2	34.982	ug/l	8.38	14,543.48	8.825E-02	Pulse	1.00	3
Cd			2	0.023	ug/l	29.08	43.17	5.064E-05	Pulse	0.30	3
Sn			2	0.821	ug/l	5.63	2,181.28	2.567E-03	Pulse	0.30	3
Se			3	0.090	ug/l	3.76	26.93	1.242E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,780,418.89	0.56	104.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,142,755.13	0.70	105.3	Pulse	0.10	3
1	Ge		927,580.40	0.61	101.1	Pulse	0.10	3
1	Ge		1,300,015.89	1.04	101.6	Pulse	0.10	3
1	Rh		6,734,838.65	0.63	99.0	Analog	0.10	3
1	In		7,457,106.26	0.97	103.2	Analog	0.10	3
1	Tb		10,002,568.39	1.79	106.3	Analog	0.10	3
1	Ho		937,106.71	0.96	105.5	Pulse	0.10	3
1	Bi		5,498,000.33	0.69	99.8	Analog	0.10	3
2	Sc		165,510.06	7.69	103.4	Pulse	0.30	3
2	Ge		88,860.17	6.48	101.0	Pulse	0.30	3
2	Ge		135,408.81	6.31	99.5	Pulse	0.30	3
2	Rh		2,762,581.00	8.21	98.4	Pulse	0.30	3
2	In		851,785.26	7.51	99.7	Pulse	0.30	3
2	Tb		3,428,862.71	8.55	103.3	Mix	0.30	3
2	Ho		330,794.51	7.30	102.9	Pulse	0.30	3
2	Bi		2,108,036.51	7.17	95.6	Pulse	0.30	3
3	Sc		246,000.12	0.91	111.6	Pulse	0.30	3
3	Ge		139,330.23	0.72	105.2	Pulse	0.30	3
3	Ge		216,891.10	0.26	106.6	Pulse	0.30	3
3	Rh		2,509,605.04	0.28	101.4	Pulse	0.30	3
3	Tb		3,864,058.87	0.14	104.7	Pulse	0.30	3

Quantitation Report

File Name	060SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 15:59
Sample Name	mp14084-ps1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.318	ug/l	0.94	519,112.97	1.838E-01	Pulse	0.25	3
B			1	189.885	ug/l	0.69	1,178,566.55	4.172E-01	Pulse	0.15	3
Ca			1	40480.590	ug/l	1.93	35,949,678.63	6.882E+00	Analog	0.10	3
Sr			1	368.076	ug/l	1.45	15,823,493.10	2.363E+00	Analog	0.10	3
Mo			1	83.265	ug/l	1.54	684,395.12	1.022E-01	Pulse	0.10	3
Ag			1	77.193	ug/l	0.79	1,729,291.33	2.317E-01	Pulse	0.10	3
Sn			1	76.484	ug/l	0.64	1,068,716.31	1.432E-01	Pulse	0.10	3
Sb			1	75.183	ug/l	1.08	1,122,063.84	1.119E-01	Pulse	0.10	3
Ba			1	96.233	ug/l	1.24	602,521.06	6.007E-02	Pulse	0.10	3
Tl			1	87.183	ug/l	1.25	3,126,449.23	5.796E-01	Pulse	0.10	3
Pb			1	97.718	ug/l	1.48	1,177,878.58	2.184E-01	Pulse	0.10	3
Pb			1	96.006	ug/l	0.83	1,037,371.81	1.923E-01	Pulse	0.10	3
Pb			1	96.674	ug/l	0.74	4,747,485.19	8.802E-01	Pulse	0.10	3
Na			2	24939.066	ug/l	0.46	21,232,701.93	1.290E+02	Analog	0.30	3
Mg			2	8749.507	ug/l	0.27	3,451,717.09	2.097E+01	Pulse	0.30	3
Al			2	3935.544	ug/l	0.16	498,538.85	3.028E+00	Pulse	0.30	3
K			2	10964.430	ug/l	0.20	2,611,548.30	1.586E+01	Pulse	0.30	3
Ca			2	40890.698	ug/l	0.15	561,276.12	3.409E+00	Pulse	0.30	3
Ti			2	78.217	ug/l	1.11	8,526.72	5.179E-02	Pulse	0.30	3
V			2	85.046	ug/l	0.75	308,363.76	1.873E+00	Pulse	0.30	3
Cr			2	84.482	ug/l	0.49	400,435.31	2.432E+00	Pulse	0.30	3
Mn			2	119.595	ug/l	0.42	282,854.52	1.718E+00	Pulse	0.30	3
Fe			2	5167.991	ug/l	0.12	19,761,469.77	1.200E+02	Analog	0.30	3
Co			2	83.328	ug/l	0.32	706,818.76	4.293E+00	Pulse	0.30	3
Ni			2	86.081	ug/l	0.73	203,043.47	1.233E+00	Pulse	0.30	3
Cu			2	134.016	ug/l	0.14	829,424.36	5.038E+00	Pulse	0.30	3
Zn			2	133.359	ug/l	0.44	110,418.61	6.707E-01	Pulse	0.30	3
As			2	102.358	ug/l	0.91	42,484.83	2.581E-01	Pulse	1.00	3
Cd			2	78.058	ug/l	0.77	90,774.53	1.096E-01	Pulse	0.30	3
Sn			2	78.092	ug/l	0.80	167,878.70	2.027E-01	Pulse	0.30	3
Se			3	344.166	ug/l	0.25	46,009.35	2.123E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,824,872.04	0.49	106.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,224,306.69	0.96	107.0	Mix	0.10	3
1	Ge		940,626.26	1.39	102.6	Pulse	0.10	3
1	Ge		1,326,428.21	0.82	103.6	Pulse	0.10	3
1	Rh		6,697,005.32	1.27	98.4	Analog	0.10	3
1	In		7,464,892.47	0.57	103.3	Analog	0.10	3
1	Tb		10,031,208.39	1.35	106.6	Analog	0.10	3
1	Ho		946,883.24	0.85	106.6	Pulse	0.10	3
1	Bi		5,394,067.84	0.63	97.9	Mix	0.10	3
2	Sc		164,636.41	0.14	102.8	Pulse	0.30	3
2	Ge		87,855.54	0.75	99.9	Pulse	0.30	3
2	Ge		134,696.31	0.09	99.0	Pulse	0.30	3
2	Rh		2,704,819.62	0.52	96.3	Pulse	0.30	3
2	In		828,396.58	0.28	97.0	Pulse	0.30	3
2	Tb		3,305,694.66	0.29	99.5	Pulse	0.30	3
2	Ho		320,500.14	0.60	99.7	Pulse	0.30	3
2	Bi		2,044,072.49	0.07	92.7	Pulse	0.30	3
3	Sc		249,006.00	0.88	113.0	Pulse	0.30	3
3	Ge		140,804.89	0.83	106.3	Pulse	0.30	3
3	Ge		216,767.93	0.39	106.5	Pulse	0.30	3
3	Rh		2,490,724.42	0.75	100.6	Pulse	0.30	3
3	Tb		3,807,588.32	0.75	103.2	Pulse	0.30	3

Quantitation Report

File Name	061SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 16:04
Sample Name	mp14084-mb1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.019	ug/l	42.54	194.67	6.727E-05	Pulse	0.25	3
B			1	2.708	ug/l	1.14	35,929.35	1.239E-02	Pulse	0.15	3
Ca			1	15.532	ug/l	2.78	37,095.59	6.958E-03	Pulse	0.10	3
Sr			1	0.068	ug/l	13.92	4,080.68	5.663E-04	Pulse	0.10	3
Mo			1	0.078	ug/l	14.98	880.06	1.221E-04	Pulse	0.10	3
Ag			1	0.030	ug/l	1.71	780.04	1.003E-04	Pulse	0.10	3
Sn			1	1.113	ug/l	0.29	8,759.49	1.126E-03	Pulse	0.10	3
Sb			1	0.330	ug/l	6.23	6,574.95	6.422E-04	Pulse	0.10	3
Ba			1	0.052	ug/l	12.27	443.35	4.329E-05	Pulse	0.10	3
Tl			1	0.024	ug/l	16.54	1,650.16	2.793E-04	Pulse	0.10	3
Pb			1	0.072	ug/l	11.07	1,280.10	2.167E-04	Pulse	0.10	3
Pb			1	0.063	ug/l	22.25	1,010.07	1.710E-04	Pulse	0.10	3
Pb			1	0.064	ug/l	10.08	4,767.14	8.070E-04	Pulse	0.10	3
Na			2	17.515	ug/l	1.70	26,309.45	1.555E-01	Pulse	0.30	3
Mg			2	1.225	ug/l	13.75	1,320.07	7.803E-03	Pulse	0.30	3
Al			2	2.750	ug/l	12.15	648.91	3.837E-03	Pulse	0.30	3
K			2	5.271	ug/l	23.57	9,051.43	5.351E-02	Pulse	0.30	3
Ca			2	1.204	ug/l	99.00	286.67	1.694E-03	Pulse	0.30	3
Ti			2	0.217	ug/l	55.06	25.55	1.509E-04	Pulse	0.30	3
V			2	0.288	ug/l	3.53	1,505.64	8.900E-03	Pulse	0.30	3
Cr			2	0.270	ug/l	9.30	1,866.80	1.104E-02	Pulse	0.30	3
Mn			2	0.212	ug/l	5.57	620.02	3.664E-03	Pulse	0.30	3
Fe			2	3.193	ug/l	1.21	26,873.07	1.589E-01	Pulse	0.30	3
Co			2	0.024	ug/l	10.20	313.34	1.852E-03	Pulse	0.30	3
Ni			2	0.053	ug/l	17.29	197.78	1.169E-03	Pulse	0.30	3
Cu			2	0.213	ug/l	4.01	2,082.38	1.231E-02	Pulse	0.30	3
Zn			2	0.601	ug/l	15.62	714.47	4.223E-03	Pulse	0.30	3
As			2	0.080	ug/l	11.96	48.67	2.877E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.006	ug/l	159.53	23.28	2.682E-05	Pulse	0.30	3
Sn			2	0.478	ug/l	20.51	1,460.19	1.680E-03	Pulse	0.30	3
Se			3	0.114	ug/l	6.28	32.00	1.392E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,899,475.13	1.01	109.2	Pulse	0.10	3
1	Sc		5,331,759.92	0.87	109.2	Mix	0.10	3
1	Ge		983,963.40	1.84	107.3	Pulse	0.10	3
1	Ge		1,367,600.29	1.05	106.8	Pulse	0.10	3
1	Rh		7,214,107.39	1.76	106.0	Analog	0.10	3
1	In		7,777,863.95	2.06	107.6	Analog	0.10	3
1	Tb		10,244,449.22	2.64	108.9	Analog	0.10	3
1	Ho		962,298.37	1.25	108.3	Pulse	0.10	3
1	Bi		5,908,288.04	0.35	107.3	Analog	0.10	3
2	Sc		169,171.31	0.54	105.6	Pulse	0.30	3
2	Ge		91,307.25	1.02	103.8	Pulse	0.30	3
2	Ge		139,833.31	0.26	102.8	Pulse	0.30	3
2	Rh		2,926,766.21	0.43	104.2	Pulse	0.30	3
2	In		868,743.03	0.35	101.7	Pulse	0.30	3
2	Tb		3,411,741.39	0.30	102.7	Pulse	0.30	3
2	Ho		330,706.89	0.27	102.9	Pulse	0.30	3
2	Bi		2,212,927.83	0.25	100.4	Pulse	0.30	3
3	Sc		259,463.38	0.14	117.7	Pulse	0.30	3
3	Ge		149,089.42	0.34	112.6	Pulse	0.30	3
3	Ge		229,963.41	0.54	113.0	Pulse	0.30	3
3	Rh		2,736,312.74	0.43	110.6	Pulse	0.30	3
3	Tb		4,001,114.29	1.04	108.4	Pulse	0.30	3

Quantitation Report

File Name 062SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 16:09
Sample Name jc85846-2 4
Sample Type Sample
Comment wfb
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.150	ug/l	5.19	1,094.72	3.747E-04	Pulse	0.25	3
B			1	3.112	ug/l	1.19	38,755.56	1.327E-02	Pulse	0.15	3
Ca			1	146.124	ug/l	0.94	155,449.74	2.915E-02	Pulse	0.10	3
Sr			1	11.140	ug/l	2.74	515,247.86	7.164E-02	Pulse	0.10	3
Mo			1	0.032	ug/l	17.66	473.36	6.575E-05	Pulse	0.10	3
Ag			1	0.017	ug/l	14.10	496.69	6.341E-05	Pulse	0.10	3
Sn			1	1.499	ug/l	2.05	14,533.85	1.855E-03	Pulse	0.10	3
Sb			1	0.043	ug/l	49.72	2,263.58	2.159E-04	Pulse	0.10	3
Ba			1	7.839	ug/l	1.39	51,392.77	4.903E-03	Pulse	0.10	3
Tl			1	0.009	ug/l	44.92	1,060.08	1.793E-04	Pulse	0.10	3
Pb			1	0.071	ug/l	12.87	1,260.10	2.131E-04	Pulse	0.10	3
Pb			1	0.067	ug/l	10.71	1,060.08	1.794E-04	Pulse	0.10	3
Pb			1	0.064	ug/l	5.08	4,743.78	8.025E-04	Pulse	0.10	3
Na			2	184.548	ug/l	1.14	171,570.29	1.019E+00	Pulse	0.30	3
Mg			2	20.013	ug/l	1.61	8,893.53	5.281E-02	Pulse	0.30	3
Al			2	29.194	ug/l	2.45	4,070.53	2.417E-02	Pulse	0.30	3
K			2	16.879	ug/l	7.21	11,830.96	7.026E-02	Pulse	0.30	3
Ca			2	195.075	ug/l	2.29	3,005.86	1.785E-02	Pulse	0.30	3
Ti			2	0.249	ug/l	77.77	28.89	1.719E-04	Pulse	0.30	3
V			2	0.275	ug/l	0.42	1,447.86	8.598E-03	Pulse	0.30	3
Cr			2	0.307	ug/l	5.83	2,039.04	1.211E-02	Pulse	0.30	3
Mn			2	1.660	ug/l	0.95	4,119.45	2.446E-02	Pulse	0.30	3
Fe			2	2.382	ug/l	0.60	23,581.47	1.400E-01	Pulse	0.30	3
Co			2	0.407	ug/l	0.60	3,636.00	2.159E-02	Pulse	0.30	3
Ni			2	5.238	ug/l	3.34	12,701.65	7.543E-02	Pulse	0.30	3
Cu			2	0.696	ug/l	1.80	5,128.63	3.046E-02	Pulse	0.30	3
Zn			2	2.823	ug/l	4.36	2,590.24	1.538E-02	Pulse	0.30	3
As			2	0.087	ug/l	14.62	51.67	3.067E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	-804.24	15.53	1.786E-05	Pulse	0.30	3
Sn			2	0.807	ug/l	1.18	2,201.29	2.532E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.032	ug/l	84.86	20.20	8.829E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,921,383.95	0.42	110.0	Pulse	0.10	3
1	Sc		5,333,821.59	1.05	109.3	Analog	0.10	3
1	Ge		979,755.25	1.38	106.8	Pulse	0.10	3
1	Ge		1,364,744.20	0.97	106.6	Pulse	0.10	3
1	Rh		7,194,003.43	1.63	105.7	Analog	0.10	3
1	In		7,837,358.12	2.05	108.5	Analog	0.10	3
1	Tb		10,481,869.01	0.46	111.4	Analog	0.10	3
1	Ho		965,902.88	0.79	108.7	Pulse	0.10	3
1	Bi		5,911,153.87	0.72	107.3	Analog	0.10	3
2	Sc		168,401.03	0.51	105.2	Pulse	0.30	3
2	Ge		91,060.39	0.93	103.5	Pulse	0.30	3
2	Ge		139,489.86	0.26	102.5	Pulse	0.30	3
2	Rh		2,908,504.05	0.50	103.6	Pulse	0.30	3
2	In		869,469.37	0.35	101.8	Pulse	0.30	3
2	Tb		3,416,268.96	0.07	102.9	Pulse	0.30	3
2	Ho		329,611.23	0.99	102.5	Pulse	0.30	3
2	Bi		2,219,360.67	0.92	100.7	Pulse	0.30	3
3	Sc		257,017.20	0.68	116.6	Pulse	0.30	3
3	Ge		148,254.41	0.26	112.0	Pulse	0.30	3
3	Ge		228,772.79	0.33	112.4	Pulse	0.30	3
3	Rh		2,730,084.13	0.38	110.3	Pulse	0.30	3
3	Tb		4,040,799.42	0.74	109.5	Pulse	0.30	3

Quantitation Report

File Name	063SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 16:14
Sample Name	jc85846-2f
Sample Type	Sample
Comment	wfbf
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	85.34	102.67	3.484E-05	Pulse	0.25	3
B			1	2.368	ug/l	6.46	34,305.93	1.166E-02	Pulse	0.15	3
Ca			1	176.301	ug/l	1.28	184,239.85	3.427E-02	Pulse	0.10	3
Sr			1	0.576	ug/l	3.71	27,687.82	3.831E-03	Pulse	0.10	3
Mo			1	0.049	ug/l	9.90	620.04	8.582E-05	Pulse	0.10	3
Ag			1	0.017	ug/l	19.66	490.03	6.268E-05	Pulse	0.10	3
Sn			1	1.127	ug/l	2.31	9,012.91	1.153E-03	Pulse	0.10	3
Sb			1	0.028	ug/l	36.92	1,996.88	1.939E-04	Pulse	0.10	3
Ba			1	0.886	ug/l	1.64	5,804.60	5.640E-04	Pulse	0.10	3
Tl			1	0.003	ug/l	52.06	836.72	1.419E-04	Pulse	0.10	3
Pb			1	0.041	ug/l	26.21	863.39	1.464E-04	Pulse	0.10	3
Pb			1	0.050	ug/l	9.30	856.72	1.453E-04	Pulse	0.10	3
Pb			1	0.047	ug/l	15.20	3,833.69	6.508E-04	Pulse	0.10	3
Na			2	18.588	ug/l	0.33	27,282.07	1.611E-01	Pulse	0.30	3
Mg			2	16.777	ug/l	0.83	7,632.92	4.506E-02	Pulse	0.30	3
Al			2	2.520	ug/l	13.44	620.02	3.660E-03	Pulse	0.30	3
K			2	8.646	ug/l	15.88	9,888.59	5.838E-02	Pulse	0.30	3
Ca			2	163.806	ug/l	4.96	2,582.45	1.524E-02	Pulse	0.30	3
Ti			2	0.465	ug/l	45.97	53.33	3.147E-04	Pulse	0.30	3
V			2	0.287	ug/l	6.12	1,503.42	8.876E-03	Pulse	0.30	3
Cr			2	0.297	ug/l	7.26	2,003.48	1.183E-02	Pulse	0.30	3
Mn			2	1.013	ug/l	6.38	2,570.23	1.517E-02	Pulse	0.30	3
Fe			2	10.660	ug/l	0.59	56,266.38	3.322E-01	Pulse	0.30	3
Co			2	0.027	ug/l	24.80	341.12	2.014E-03	Pulse	0.30	3
Ni			2	0.220	ug/l	2.01	603.35	3.562E-03	Pulse	0.30	3
Cu			2	0.339	ug/l	0.91	2,884.73	1.703E-02	Pulse	0.30	3
Zn			2	14.396	ug/l	2.11	12,445.91	7.347E-02	Pulse	0.30	3
As			2	0.149	ug/l	14.47	78.33	4.624E-04	Pulse	1.00	3
Cd			2	0.032	ug/l	34.85	54.41	6.259E-05	Pulse	0.30	3
Sn			2	0.454	ug/l	13.34	1,405.63	1.617E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.008	ug/l	296.36	16.93	7.372E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,943,617.50	0.59	110.8	Pulse	0.10	3
1	Sc		5,375,943.88	0.56	110.1	Analog	0.10	3
1	Ge		986,535.17	1.10	107.6	Pulse	0.10	3
1	Ge		1,378,603.15	0.82	107.7	Pulse	0.10	3
1	Rh		7,228,990.52	1.24	106.2	Analog	0.10	3
1	In		7,816,806.63	0.75	108.2	Analog	0.10	3
1	Tb		10,291,730.26	1.02	109.4	Analog	0.10	3
1	Ho		969,239.26	1.68	109.1	Pulse	0.10	3
1	Bi		5,894,661.58	1.26	107.0	Analog	0.10	3
2	Sc		169,394.06	0.25	105.8	Pulse	0.30	3
2	Ge		92,058.29	0.78	104.7	Pulse	0.30	3
2	Ge		140,530.06	0.51	103.3	Pulse	0.30	3
2	Rh		2,929,222.45	0.11	104.3	Pulse	0.30	3
2	In		869,420.15	0.35	101.8	Pulse	0.30	3
2	Tb		3,406,845.35	0.39	102.6	Pulse	0.30	3
2	Ho		329,999.66	0.32	102.6	Pulse	0.30	3
2	Bi		2,201,350.26	0.60	99.9	Pulse	0.30	3
3	Sc		257,150.08	0.40	116.7	Pulse	0.30	3
3	Ge		148,038.28	1.01	111.8	Pulse	0.30	3
3	Ge		229,456.18	0.84	112.7	Pulse	0.30	3
3	Rh		2,708,744.61	0.52	109.4	Pulse	0.30	3
3	Tb		4,020,133.45	0.70	108.9	Pulse	0.30	3

Quantitation Report

File Name 064SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 16:19
Sample Name jc85846-2a
Sample Type Sample
Comment wfb
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.156	ug/l	9.72	1,130.72	3.875E-04	Pulse	0.25	3
B			1	1.790	ug/l	9.02	30,371.96	1.041E-02	Pulse	0.15	3
Ca			1	147.638	ug/l	2.23	155,846.58	2.940E-02	Pulse	0.10	3
Sr			1	11.095	ug/l	1.17	508,424.21	7.135E-02	Pulse	0.10	3
Mo			1	0.025	ug/l	20.84	406.69	5.713E-05	Pulse	0.10	3
Ag			1	0.020	ug/l	15.01	560.03	7.214E-05	Pulse	0.10	3
Sn			1	1.239	ug/l	0.48	10,590.64	1.364E-03	Pulse	0.10	3
Sb			1	-0.029	ug/l	-10.68	1,106.76	1.089E-04	Pulse	0.10	3
Ba			1	7.949	ug/l	1.85	50,536.23	4.972E-03	Pulse	0.10	3
Tl			1	0.008	ug/l	17.96	1,023.41	1.740E-04	Pulse	0.10	3
Pb			1	0.072	ug/l	7.38	1,266.77	2.153E-04	Pulse	0.10	3
Pb			1	0.065	ug/l	13.96	1,033.41	1.756E-04	Pulse	0.10	3
Pb			1	0.063	ug/l	7.95	4,657.13	7.915E-04	Pulse	0.10	3
Na			2	184.894	ug/l	1.48	170,713.26	1.021E+00	Pulse	0.30	3
Mg			2	20.394	ug/l	1.76	8,985.82	5.372E-02	Pulse	0.30	3
Al			2	30.277	ug/l	2.59	4,182.82	2.501E-02	Pulse	0.30	3
K			2	16.955	ug/l	4.48	11,770.93	7.037E-02	Pulse	0.30	3
Ca			2	194.855	ug/l	7.31	2,982.53	1.783E-02	Pulse	0.30	3
Ti			2	0.270	ug/l	25.18	31.11	1.859E-04	Pulse	0.30	3
V			2	0.274	ug/l	4.51	1,434.52	8.575E-03	Pulse	0.30	3
Cr			2	0.372	ug/l	9.44	2,339.09	1.399E-02	Pulse	0.30	3
Mn			2	1.605	ug/l	1.73	3,959.41	2.367E-02	Pulse	0.30	3
Fe			2	5.380	ug/l	6.72	35,055.16	2.096E-01	Pulse	0.30	3
Co			2	0.400	ug/l	1.40	3,549.32	2.122E-02	Pulse	0.30	3
Ni			2	5.249	ug/l	1.55	12,646.09	7.560E-02	Pulse	0.30	3
Cu			2	0.680	ug/l	4.12	4,988.60	2.983E-02	Pulse	0.30	3
Zn			2	2.717	ug/l	3.93	2,483.55	1.485E-02	Pulse	0.30	3
As			2	0.091	ug/l	19.60	53.00	3.167E-04	Pulse	1.00	3
Cd			2	0.006	ug/l	197.49	23.31	2.712E-05	Pulse	0.30	3
Sn			2	0.589	ug/l	13.10	1,690.11	1.968E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	-0.003	ug/l	-346.40	14.93	6.673E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,918,565.51	0.41	109.9	Pulse	0.10	3
1	Sc		5,301,781.07	2.07	108.6	Analog	0.10	3
1	Ge		972,393.29	0.36	106.0	Pulse	0.10	3
1	Ge		1,356,577.07	0.68	106.0	Pulse	0.10	3
1	Rh		7,126,293.22	1.63	104.7	Analog	0.10	3
1	In		7,761,549.17	0.65	107.4	Analog	0.10	3
1	Tb		10,164,390.26	0.93	108.0	Analog	0.10	3
1	Ho		953,920.17	1.42	107.4	Pulse	0.10	3
1	Bi		5,883,545.12	0.91	106.8	Analog	0.10	3
2	Sc		167,272.65	0.78	104.5	Pulse	0.30	3
2	Ge		90,347.50	0.27	102.7	Pulse	0.30	3
2	Ge		138,246.69	0.72	101.6	Pulse	0.30	3
2	Rh		2,883,798.43	0.35	102.7	Pulse	0.30	3
2	In		858,636.96	0.43	100.5	Pulse	0.30	3
2	Tb		3,372,160.84	0.67	101.5	Pulse	0.30	3
2	Ho		326,427.29	0.16	101.5	Pulse	0.30	3
2	Bi		2,192,817.20	0.37	99.5	Pulse	0.30	3
3	Sc		253,537.79	0.40	115.0	Pulse	0.30	3
3	Ge		146,619.86	0.36	110.7	Pulse	0.30	3
3	Ge		223,815.00	0.39	110.0	Pulse	0.30	3
3	Rh		2,697,082.33	0.18	109.0	Pulse	0.30	3
3	Tb		3,984,569.42	0.34	108.0	Pulse	0.30	3

Quantitation Report

File Name	065SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 16:24
Sample Name	jc85846-2fa
Sample Type	Sample
Comment	wfbf
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	36.66	94.67	3.219E-05	Pulse	0.25	3
B			1	1.430	ug/l	6.60	28,292.94	9.628E-03	Pulse	0.15	3
Ca			1	177.229	ug/l	1.45	186,626.82	3.443E-02	Pulse	0.10	3
Sr			1	0.572	ug/l	2.13	27,527.69	3.805E-03	Pulse	0.10	3
Mo			1	0.209	ug/l	10.44	2,043.55	2.824E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	15.87	430.02	5.487E-05	Pulse	0.10	3
Sn			1	1.045	ug/l	2.76	7,825.53	9.980E-04	Pulse	0.10	3
Sb			1	0.019	ug/l	20.62	1,860.18	1.800E-04	Pulse	0.10	3
Ba			1	0.850	ug/l	2.65	5,597.93	5.417E-04	Pulse	0.10	3
Tl			1	-0.001	ug/l	-132.21	656.71	1.107E-04	Pulse	0.10	3
Pb			1	0.052	ug/l	14.98	1,020.08	1.720E-04	Pulse	0.10	3
Pb			1	0.049	ug/l	32.92	850.06	1.433E-04	Pulse	0.10	3
Pb			1	0.044	ug/l	18.53	3,683.65	6.210E-04	Pulse	0.10	3
Na			2	24.499	ug/l	1.71	32,724.90	1.916E-01	Pulse	0.30	3
Mg			2	16.740	ug/l	3.31	7,680.73	4.497E-02	Pulse	0.30	3
Al			2	2.582	ug/l	7.72	633.36	3.708E-03	Pulse	0.30	3
K			2	9.002	ug/l	4.17	10,058.70	5.889E-02	Pulse	0.30	3
Ca			2	169.831	ug/l	3.26	2,689.14	1.575E-02	Pulse	0.30	3
Ti			2	0.983	ug/l	48.78	112.22	6.580E-04	Pulse	0.30	3
V			2	0.331	ug/l	7.19	1,682.33	9.848E-03	Pulse	0.30	3
Cr			2	0.339	ug/l	7.02	2,225.74	1.303E-02	Pulse	0.30	3
Mn			2	1.179	ug/l	2.95	2,998.09	1.755E-02	Pulse	0.30	3
Fe			2	38.388	ug/l	0.31	166,648.13	9.757E-01	Pulse	0.30	3
Co			2	0.028	ug/l	18.04	345.56	2.024E-03	Pulse	0.30	3
Ni			2	0.231	ug/l	12.23	635.58	3.720E-03	Pulse	0.30	3
Cu			2	0.337	ug/l	5.68	2,892.51	1.694E-02	Pulse	0.30	3
Zn			2	14.878	ug/l	1.44	12,961.89	7.590E-02	Pulse	0.30	3
As			2	0.685	ug/l	24.34	309.67	1.814E-03	Pulse	1.00	3
Cd			2	0.021	ug/l	122.58	41.01	4.709E-05	Pulse	0.30	3
Sn			2	0.404	ug/l	3.98	1,296.74	1.489E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	1.067	ug/l	3.57	167.40	7.267E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,939,057.70	1.01	110.6	Pulse	0.10	3
1	Sc		5,420,107.62	0.86	111.0	Analog	0.10	3
1	Ge		984,723.87	0.83	107.4	Pulse	0.10	3
1	Ge		1,370,539.51	1.00	107.1	Pulse	0.10	3
1	Rh		7,232,885.31	1.18	106.3	Analog	0.10	3
1	In		7,843,736.41	1.14	108.6	Analog	0.10	3
1	Tb		10,332,569.01	0.95	109.8	Analog	0.10	3
1	Ho		963,987.83	0.64	108.5	Pulse	0.10	3
1	Bi		5,932,055.12	0.07	107.7	Analog	0.10	3
2	Sc		170,794.27	0.65	106.7	Pulse	0.30	3
2	Ge		92,644.63	0.48	105.3	Pulse	0.30	3
2	Ge		141,725.68	0.76	104.2	Pulse	0.30	3
2	Rh		2,924,006.07	0.24	104.1	Pulse	0.30	3
2	In		870,714.92	0.36	101.9	Pulse	0.30	3
2	Tb		3,398,721.74	0.22	102.3	Pulse	0.30	3
2	Ho		329,154.77	0.60	102.4	Pulse	0.30	3
2	Bi		2,191,619.57	0.31	99.4	Pulse	0.30	3
3	Sc		257,513.73	0.38	116.8	Pulse	0.30	3
3	Ge		148,466.04	0.24	112.1	Pulse	0.30	3
3	Ge		230,351.40	0.36	113.2	Pulse	0.30	3
3	Rh		2,716,992.39	0.37	109.8	Pulse	0.30	3
3	Tb		4,021,532.20	0.58	109.0	Pulse	0.30	3

Quantitation Report

File Name 066SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 16:29
Sample Name jc85846-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.886	ug/l	0.78	33,622.44	1.148E-02	Pulse	0.25	3
B			1	605.718	ug/l	0.99	3,854,265.82	1.317E+00	Pulse	0.15	3
Ca			1	88665.000	ug/l	0.23	82,425,283.77	1.507E+01	Analog	0.10	3
Sr			1	575.402	ug/l	1.45	25,080,978.79	3.694E+00	Analog	0.10	3
Mo			1	30.328	ug/l	1.75	252,889.11	3.724E-02	Pulse	0.10	3
Ag			1	1.131	ug/l	1.81	25,814.93	3.406E-03	Pulse	0.10	3
Sn			1	1.422	ug/l	1.47	12,955.76	1.709E-03	Pulse	0.10	3
Sb			1	9.206	ug/l	1.42	139,857.67	1.383E-02	Pulse	0.10	3
Ba			1	116.653	ug/l	0.88	736,309.57	7.281E-02	Pulse	0.10	3
Tl			1	5.473	ug/l	1.82	194,086.35	3.650E-02	Pulse	0.10	3
Pb			1	5.582	ug/l	2.37	66,609.94	1.253E-02	Pulse	0.10	3
Pb			1	5.640	ug/l	2.64	60,306.99	1.134E-02	Pulse	0.10	3
Pb			1	5.566	ug/l	1.93	270,559.02	5.088E-02	Pulse	0.10	3
Na			2	18112.478	ug/l	0.41	15,905,533.26	9.368E+01	Analog	0.30	3
Mg			2	34149.449	ug/l	1.03	13,889,391.67	8.182E+01	Analog	0.30	3
Al			2	45.067	ug/l	7.88	6,178.25	3.638E-02	Pulse	0.30	3
K			2	4703.481	ug/l	0.94	1,159,647.94	6.831E+00	Pulse	0.30	3
Ca			2	89417.542	ug/l	0.39	1,265,353.07	7.453E+00	Pulse	0.30	3
Ti			2	1.331	ug/l	30.93	151.12	8.881E-04	Pulse	0.30	3
V			2	5.915	ug/l	0.94	22,520.92	1.327E-01	Pulse	0.30	3
Cr			2	10.982	ug/l	0.96	54,162.43	3.190E-01	Pulse	0.30	3
Mn			2	424.924	ug/l	0.67	1,036,051.90	6.103E+00	Pulse	0.30	3
Fe			2	2364.540	ug/l	1.53	9,330,778.80	5.496E+01	Analog	0.30	3
Co			2	3.178	ug/l	0.79	27,897.00	1.643E-01	Pulse	0.30	3
Ni			2	5.806	ug/l	1.72	14,186.19	8.357E-02	Pulse	0.30	3
Cu			2	10.421	ug/l	0.19	67,186.21	3.957E-01	Pulse	0.30	3
Zn			2	24.739	ug/l	1.69	21,287.22	1.254E-01	Pulse	0.30	3
As			2	8.236	ug/l	1.20	3,538.73	2.084E-02	Pulse	1.00	3
Cd			2	4.712	ug/l	3.84	5,551.26	6.632E-03	Pulse	0.30	3
Sn			2	0.836	ug/l	6.99	2,182.40	2.607E-03	Pulse	0.30	3
Se			3	21.304	ug/l	1.11	2,878.19	1.320E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,927,836.35	1.65	110.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,469,982.83	1.50	112.0	Analog	0.10	3
1	Ge		953,558.27	1.80	104.0	Pulse	0.10	3
1	Ge		1,340,992.01	1.33	104.8	Pulse	0.10	3
1	Rh		6,790,111.98	0.54	99.8	Analog	0.10	3
1	In		7,580,063.10	1.11	104.9	Analog	0.10	3
1	Tb		10,113,495.47	2.28	107.5	Analog	0.10	3
1	Ho		953,995.74	1.57	107.4	Pulse	0.10	3
1	Bi		5,319,361.38	2.58	96.6	Mix	0.10	3
2	Sc		169,777.48	1.12	106.0	Pulse	0.30	3
2	Ge		88,707.49	1.43	100.8	Pulse	0.30	3
2	Ge		135,928.52	0.61	99.9	Pulse	0.30	3
2	Rh		2,709,607.53	0.39	96.5	Pulse	0.30	3
2	In		837,204.38	0.86	98.0	Pulse	0.30	3
2	Tb		3,352,676.95	0.29	101.0	Pulse	0.30	3
2	Ho		327,406.77	0.54	101.8	Pulse	0.30	3
2	Bi		2,026,474.85	0.44	91.9	Pulse	0.30	3
3	Sc		251,338.38	1.08	114.0	Pulse	0.30	3
3	Ge		140,606.60	0.97	106.2	Pulse	0.30	3
3	Ge		217,991.88	0.30	107.1	Pulse	0.30	3
3	Rh		2,477,420.32	0.43	100.1	Pulse	0.30	3
3	Tb		3,836,659.71	1.02	104.0	Pulse	0.30	3

Quantitation Report

File Name 067SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File
Method Path
Acq Time 4/12/2019 16:34
Sample Name jc85846-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/12/2019 17:58
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	96.13	121.33	4.157E-05	Pulse	0.25	3
B			1	20.912	ug/l	1.11	150,944.53	5.176E-02	Pulse	0.15	3
Ca			1	28.567	ug/l	2.76	49,041.44	9.172E-03	Pulse	0.10	3
Sr			1	0.096	ug/l	11.47	5,417.88	7.510E-04	Pulse	0.10	3
Mo			1	0.027	ug/l	67.71	426.69	5.917E-05	Pulse	0.10	3
Ag			1	0.013	ug/l	21.33	396.68	5.115E-05	Pulse	0.10	3
Sn			1	1.224	ug/l	3.15	10,357.11	1.336E-03	Pulse	0.10	3
Sb			1	-0.047	ug/l	-5.45	840.06	8.137E-05	Pulse	0.10	3
Ba			1	0.086	ug/l	11.80	666.71	6.459E-05	Pulse	0.10	3
Tl			1	0.003	ug/l	28.15	836.72	1.419E-04	Pulse	0.10	3
Pb			1	0.042	ug/l	24.35	873.39	1.482E-04	Pulse	0.10	3
Pb			1	0.050	ug/l	19.01	860.06	1.459E-04	Pulse	0.10	3
Pb			1	0.045	ug/l	12.59	3,726.99	6.321E-04	Pulse	0.10	3
Na			2	18.988	ug/l	1.12	27,315.46	1.631E-01	Pulse	0.30	3
Mg			2	2.827	ug/l	4.40	1,949.02	1.164E-02	Pulse	0.30	3
Al			2	2.582	ug/l	27.80	621.13	3.708E-03	Pulse	0.30	3
K			2	6.690	ug/l	17.50	9,301.54	5.556E-02	Pulse	0.30	3
Ca			2	15.040	ug/l	55.81	476.68	2.847E-03	Pulse	0.30	3
Ti			2	0.582	ug/l	101.54	65.56	3.919E-04	Pulse	0.30	3
V			2	0.347	ug/l	6.68	1,707.89	1.020E-02	Pulse	0.30	3
Cr			2	0.342	ug/l	1.95	2,196.84	1.312E-02	Pulse	0.30	3
Mn			2	0.343	ug/l	14.05	928.93	5.546E-03	Pulse	0.30	3
Fe			2	3.242	ug/l	4.37	26,790.70	1.600E-01	Pulse	0.30	3
Co			2	0.015	ug/l	54.11	233.34	1.394E-03	Pulse	0.30	3
Ni			2	0.090	ug/l	24.44	285.56	1.705E-03	Pulse	0.30	3
Cu			2	0.441	ug/l	1.17	3,494.86	2.087E-02	Pulse	0.30	3
Zn			2	1.117	ug/l	5.41	1,141.16	6.815E-03	Pulse	0.30	3
As			2	0.190	ug/l	75.98	94.67	5.659E-04	Pulse	1.00	3
Cd			2	0.031	ug/l	168.57	53.30	6.221E-05	Pulse	0.30	3
Sn			2	0.560	ug/l	14.86	1,624.55	1.893E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.159	ug/l	24.16	37.33	1.666E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,916,043.41	0.31	109.8	Pulse	0.10	3
1	Sc		5,346,938.05	0.99	109.5	Mix	0.10	3
1	Ge		976,055.17	0.75	106.4	Pulse	0.10	3
1	Ge		1,361,446.59	1.44	106.4	Pulse	0.10	3
1	Rh		7,212,930.73	0.89	106.0	Analog	0.10	3
1	In		7,753,865.98	0.79	107.3	Analog	0.10	3
1	Tb		10,321,289.22	1.16	109.7	Analog	0.10	3
1	Ho		960,631.91	2.02	108.1	Pulse	0.10	3
1	Bi		5,895,705.54	0.38	107.0	Analog	0.10	3
2	Sc		167,459.17	1.16	104.6	Pulse	0.30	3
2	Ge		90,630.17	0.43	103.0	Pulse	0.30	3
2	Ge		138,943.26	0.21	102.1	Pulse	0.30	3
2	Rh		2,878,889.89	0.65	102.5	Pulse	0.30	3
2	In		858,294.84	0.29	100.5	Pulse	0.30	3
2	Tb		3,375,155.63	0.44	101.6	Pulse	0.30	3
2	Ho		325,263.03	0.22	101.2	Pulse	0.30	3
2	Bi		2,180,939.98	0.77	99.0	Pulse	0.30	3
3	Sc		249,553.10	0.21	113.2	Pulse	0.30	3
3	Ge		144,975.15	0.23	109.5	Pulse	0.30	3
3	Ge		223,978.04	0.38	110.0	Pulse	0.30	3
3	Rh		2,676,526.35	0.42	108.1	Pulse	0.30	3
3	Tb		3,971,391.92	0.23	107.6	Pulse	0.30	3

Quantitation Report

File Name	068SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 16:39
Sample Name	jc85846-1f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.782	ug/l	2.41	31,511.77	1.124E-02	Pulse	0.25	3
B			1	542.559	ug/l	0.82	3,308,420.28	1.180E+00	Pulse	0.15	3
Ca			1	137955.216	ug/l	1.97	122,191,951.51	2.344E+01	Analog	0.10	3
Sr			1	605.964	ug/l	0.88	25,118,106.29	3.890E+00	Analog	0.10	3
Mo			1	30.315	ug/l	1.80	240,351.42	3.723E-02	Pulse	0.10	3
Ag			1	1.347	ug/l	1.38	29,177.53	4.054E-03	Pulse	0.10	3
Sn			1	1.121	ug/l	0.89	8,219.08	1.142E-03	Pulse	0.10	3
Sb			1	9.560	ug/l	2.46	143,122.61	1.436E-02	Pulse	0.10	3
Ba			1	131.306	ug/l	2.22	817,021.55	8.196E-02	Pulse	0.10	3
Tl			1	5.503	ug/l	0.51	187,598.60	3.670E-02	Pulse	0.10	3
Pb			1	5.379	ug/l	2.61	61,719.48	1.207E-02	Pulse	0.10	3
Pb			1	5.328	ug/l	2.47	54,789.28	1.072E-02	Pulse	0.10	3
Pb			1	5.320	ug/l	0.51	248,668.91	4.864E-02	Pulse	0.10	3
Na			2	25398.105	ug/l	1.44	21,531,859.70	1.313E+02	Analog	0.30	3
Mg			2	47647.112	ug/l	0.53	18,713,616.48	1.142E+02	Analog	0.30	3
Al			2	8.815	ug/l	7.17	1,393.41	8.501E-03	Pulse	0.30	3
K			2	5124.988	ug/l	0.51	1,219,520.51	7.439E+00	Pulse	0.30	3
Ca			2	136543.195	ug/l	0.36	1,865,673.89	1.138E+01	Pulse	0.30	3
Ti			2	0.327	ug/l	9.08	36.67	2.236E-04	Pulse	0.30	3
V			2	5.908	ug/l	1.36	21,719.88	1.325E-01	Pulse	0.30	3
Cr			2	10.695	ug/l	0.39	50,947.91	3.108E-01	Pulse	0.30	3
Mn			2	1605.750	ug/l	0.20	3,780,360.68	2.306E+01	Pulse	0.30	3
Fe			2	3027.362	ug/l	0.78	11,532,867.60	7.035E+01	Analog	0.30	3
Co			2	7.525	ug/l	0.45	63,651.86	3.883E-01	Pulse	0.30	3
Ni			2	10.045	ug/l	0.74	23,652.63	1.443E-01	Pulse	0.30	3
Cu			2	9.592	ug/l	0.01	59,765.64	3.646E-01	Pulse	0.30	3
Zn			2	33.598	ug/l	1.68	27,849.32	1.699E-01	Pulse	0.30	3
As			2	8.103	ug/l	1.82	3,362.36	2.051E-02	Pulse	1.00	3
Cd			2	4.757	ug/l	2.73	5,411.81	6.695E-03	Pulse	0.30	3
Sn			2	0.438	ug/l	9.20	1,274.51	1.577E-03	Pulse	0.30	3
Se			3	21.660	ug/l	0.13	2,768.30	1.342E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,803,748.50	0.84	105.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		5,214,042.42	2.44	106.8	Mix	0.10	3
1	Ge		918,797.95	1.34	100.2	Pulse	0.10	3
1	Ge		1,283,180.16	0.60	100.2	Pulse	0.10	3
1	Rh		6,457,668.86	1.57	94.9	Analog	0.10	3
1	In		7,196,814.72	1.00	99.6	Analog	0.10	3
1	Tb		9,969,176.31	0.91	106.0	Analog	0.10	3
1	Ho		927,247.72	1.49	104.4	Pulse	0.10	3
1	Bi		5,112,219.30	1.10	92.8	Pulse	0.10	3
2	Sc		163,937.83	0.34	102.4	Pulse	0.30	3
2	Ge		84,995.85	0.76	96.6	Pulse	0.30	3
2	Ge		130,226.97	0.36	95.7	Pulse	0.30	3
2	Rh		2,592,269.20	0.91	92.3	Pulse	0.30	3
2	In		808,326.57	0.52	94.6	Pulse	0.30	3
2	Tb		3,261,066.40	0.81	98.2	Pulse	0.30	3
2	Ho		316,850.25	0.31	98.6	Pulse	0.30	3
2	Bi		1,938,785.90	0.39	88.0	Pulse	0.30	3
3	Sc		243,784.29	0.44	110.6	Pulse	0.30	3
3	Ge		134,928.59	0.51	101.9	Pulse	0.30	3
3	Ge		206,241.73	0.11	101.3	Pulse	0.30	3
3	Rh		2,375,012.48	0.20	96.0	Pulse	0.30	3
3	Tb		3,743,799.85	0.41	101.4	Pulse	0.30	3

Quantitation Report

File Name	069_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 16:44
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.195	ug/l	0.87	678,395.08	2.355E-01	Pulse	0.25	3
B			1	104.623	ug/l	0.75	1,322,196.72	4.591E-01	Pulse	0.15	3
Ca			1	5126.922	ug/l	0.74	9,519,559.86	1.746E+00	Analog	0.10	3
Sr			1	52.377	ug/l	1.75	4,762,289.83	6.726E-01	Pulse	0.10	3
Mo			1	51.474	ug/l	1.16	894,670.98	1.264E-01	Pulse	0.10	3
Ag			1	49.321	ug/l	1.46	2,278,597.36	2.960E-01	Pulse	0.10	3
Sn			1	48.174	ug/l	0.92	1,390,248.37	1.806E-01	Pulse	0.10	3
Sb			1	50.051	ug/l	1.85	1,500,661.17	1.489E-01	Pulse	0.10	3
Ba			1	50.493	ug/l	1.31	635,343.95	6.304E-02	Pulse	0.10	3
Tl			1	50.503	ug/l	0.91	3,774,126.09	6.715E-01	Pulse	0.10	3
Pb			1	50.801	ug/l	0.77	1,276,160.50	2.271E-01	Pulse	0.10	3
Pb			1	50.425	ug/l	0.41	1,135,447.54	2.020E-01	Pulse	0.10	3
Pb			1	50.315	ug/l	0.55	5,149,207.79	9.162E-01	Pulse	0.10	3
Na			2	4983.737	ug/l	1.72	9,040,581.31	5.158E+01	Analog	0.30	3
Mg			2	4831.125	ug/l	0.42	4,057,651.51	2.315E+01	Pulse	0.30	3
Al			2	4919.703	ug/l	0.40	1,326,382.62	7.568E+00	Pulse	0.30	3
K			2	5063.899	ug/l	0.48	2,568,531.98	1.466E+01	Pulse	0.30	3
Ca			2	5240.465	ug/l	0.31	153,354.52	8.750E-01	Pulse	0.30	3
Ti			2	49.602	ug/l	1.21	11,511.86	6.569E-02	Pulse	0.30	3
V			2	50.330	ug/l	1.07	388,437.99	2.216E+00	Pulse	0.30	3
Cr			2	49.373	ug/l	0.61	498,154.11	2.842E+00	Pulse	0.30	3
Mn			2	49.577	ug/l	0.04	249,660.52	1.425E+00	Pulse	0.30	3
Fe			2	5033.245	ug/l	0.62	40,961,813.93	2.337E+02	Analog	0.30	3
Co			2	48.964	ug/l	0.46	884,234.65	5.045E+00	Pulse	0.30	3
Ni			2	47.999	ug/l	0.77	241,031.78	1.375E+00	Pulse	0.30	3
Cu			2	47.699	ug/l	0.73	628,736.92	3.587E+00	Pulse	0.30	3
Zn			2	47.087	ug/l	0.97	83,068.52	4.740E-01	Pulse	0.30	3
As			2	48.892	ug/l	0.80	43,205.04	2.465E-01	Pulse	1.00	3
Cd			2	49.013	ug/l	1.67	122,855.34	1.376E-01	Pulse	0.30	3
Sn			2	48.703	ug/l	0.24	225,588.59	2.527E-01	Pulse	0.30	3
Se			3	197.585	ug/l	0.91	53,181.41	2.437E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,880,080.96	0.50	108.4	Pulse	0.10	3
1	Sc		5,450,925.96	0.20	111.7	Analog	0.10	3
1	Ge		1,002,713.99	1.01	109.3	Pulse	0.10	3

Quantitation Report

1	Ge		1,406,274.09	1.27	109.9	Pulse	0.10	3
1	Rh		7,081,451.98	1.54	104.1	Analog	0.10	3
1	In		7,698,357.68	1.40	106.5	Analog	0.10	3
1	Tb		10,079,855.68	0.98	107.1	Analog	0.10	3
1	Ho		941,096.08	1.27	105.9	Pulse	0.10	3
1	Bi		5,620,410.54	0.17	102.0	Analog	0.10	3
2	Sc		175,261.27	0.53	109.5	Pulse	0.30	3
2	Ge		95,269.48	0.67	108.3	Pulse	0.30	3
2	Ge		146,384.84	0.89	107.6	Pulse	0.30	3
2	Rh		2,861,084.95	0.36	101.9	Pulse	0.30	3
2	In		892,818.38	0.35	104.5	Pulse	0.30	3
2	Tb		3,414,993.13	0.32	102.8	Pulse	0.30	3
2	Ho		333,251.34	0.25	103.7	Pulse	0.30	3
2	Bi		2,187,206.92	0.42	99.2	Pulse	0.30	3
3	Sc		240,281.19	0.35	109.0	Pulse	0.30	3
3	Ge		140,109.32	0.94	105.8	Pulse	0.30	3
3	Ge		218,239.56	0.93	107.2	Pulse	0.30	3
3	Rh		2,486,520.87	0.21	100.5	Pulse	0.30	3
3	Tb		3,760,644.71	0.15	101.9	Pulse	0.30	3

Quantitation Report

File Name	070_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 16:49
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	50.51	241.34	8.520E-05	Pulse	0.25	3
B			1	2.685	ug/l	4.21	51,498.11	1.815E-02	Pulse	0.15	3
Ca			1	1.060	ug/l	39.82	25,109.78	4.679E-03	Pulse	0.10	3
Sr			1	0.022	ug/l	14.67	3,017.08	4.164E-04	Pulse	0.10	3
Mo			1	0.082	ug/l	3.52	1,646.82	2.273E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	24.57	813.38	1.033E-04	Pulse	0.10	3
Sn			1	0.408	ug/l	5.04	4,469.14	5.677E-04	Pulse	0.10	3
Sb			1	0.283	ug/l	6.26	10,020.21	9.934E-04	Pulse	0.10	3
Ba			1	0.020	ug/l	20.34	363.35	3.605E-05	Pulse	0.10	3
Tl			1	0.011	ug/l	6.09	1,583.48	2.715E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	23.87	826.72	1.418E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	3.75	683.38	1.172E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	18.02	3,166.92	5.432E-04	Pulse	0.10	3
Na			2	3.004	ug/l	6.47	16,636.06	9.604E-02	Pulse	0.30	3
Mg			2	0.386	ug/l	29.64	1,163.39	6.716E-03	Pulse	0.30	3
Al			2	-0.027	ug/l	-703.67	291.12	1.681E-03	Pulse	0.30	3
K			2	1.837	ug/l	20.43	8,870.22	5.121E-02	Pulse	0.30	3
Ca			2	-4.022	ug/l	-12.59	160.00	9.237E-04	Pulse	0.30	3
Ti			2	0.077	ug/l	71.39	18.89	1.090E-04	Pulse	0.30	3
V			2	0.000	ug/l	1136.88	446.68	2.579E-03	Pulse	0.30	3
Cr			2	0.009	ug/l	4.07	657.80	3.797E-03	Pulse	0.30	3
Mn			2	0.044	ug/l	3.67	327.79	1.892E-03	Pulse	0.30	3
Fe			2	-0.121	ug/l	-23.90	13,705.88	7.912E-02	Pulse	0.30	3
Co			2	0.007	ug/l	15.75	225.56	1.302E-03	Pulse	0.30	3
Ni			2	0.006	ug/l	20.69	103.33	5.965E-04	Pulse	0.30	3
Cu			2	0.053	ug/l	11.47	1,427.86	8.243E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.001	ug/l	-611.80	206.67	1.193E-03	Pulse	0.30	3
As			2	0.022	ug/l	47.00	34.00	1.963E-04	Pulse	1.00	3
Cd			2	0.010	ug/l	14.89	42.14	4.658E-05	Pulse	0.30	3
Sn			2	0.106	ug/l	14.84	894.48	9.890E-04	Pulse	0.30	3
Se			3	0.146	ug/l	23.41	54.47	2.485E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,837,511.68	0.73	106.8	Pulse	0.10	3
1	Sc		5,366,287.63	0.65	109.9	Analog	0.10	3
1	Ge		993,012.04	0.14	108.3	Pulse	0.10	3
1	Ge		1,392,539.35	0.52	108.8	Pulse	0.10	3
1	Rh		7,244,284.89	0.34	106.4	Analog	0.10	3
1	In		7,873,128.29	0.51	109.0	Analog	0.10	3
1	Tb		10,085,383.60	0.75	107.2	Analog	0.10	3
1	Ho		936,232.12	0.46	105.4	Pulse	0.10	3
1	Bi		5,831,791.58	1.11	105.9	Analog	0.10	3
2	Sc		173,223.37	0.10	108.2	Pulse	0.30	3
2	Ge		95,805.02	0.85	108.9	Pulse	0.30	3
2	Ge		145,355.23	0.47	106.9	Pulse	0.30	3
2	Rh		2,935,353.36	0.34	104.5	Pulse	0.30	3
2	In		904,498.96	0.19	105.9	Pulse	0.30	3
2	Tb		3,429,568.19	0.29	103.3	Pulse	0.30	3
2	Ho		331,477.43	0.28	103.1	Pulse	0.30	3
2	Bi		2,263,256.78	0.41	102.7	Pulse	0.30	3
3	Sc		240,316.89	0.13	109.0	Pulse	0.30	3
3	Ge		142,500.50	0.62	107.6	Pulse	0.30	3
3	Ge		219,097.97	0.65	107.6	Pulse	0.30	3
3	Rh		2,603,371.08	0.34	105.2	Pulse	0.30	3
3	Tb		3,859,740.12	0.58	104.6	Pulse	0.30	3

Quantitation Report

File Name	071SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Method File	
Method Path	
Acq Time	4/12/2019 16:54
Sample Name	jc85846-3f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/12/2019 17:58
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	146.55	81.33	2.918E-05	Pulse	0.25	3
B			1	20.450	ug/l	1.69	141,820.81	5.076E-02	Pulse	0.15	3
Ca			1	18.269	ug/l	1.06	37,870.81	7.423E-03	Pulse	0.10	3
Sr			1	0.061	ug/l	11.04	3,694.03	5.250E-04	Pulse	0.10	3
Mo			1	0.109	ug/l	35.34	1,130.09	1.606E-04	Pulse	0.10	3
Ag			1	0.036	ug/l	9.21	906.73	1.189E-04	Pulse	0.10	3
Sn			1	1.251	ug/l	0.90	10,573.92	1.386E-03	Pulse	0.10	3
Sb			1	0.472	ug/l	2.25	8,599.30	8.532E-04	Pulse	0.10	3
Ba			1	0.135	ug/l	10.31	956.73	9.501E-05	Pulse	0.10	3
Tl			1	0.013	ug/l	7.21	1,206.77	2.060E-04	Pulse	0.10	3
Pb			1	0.073	ug/l	7.77	1,280.10	2.185E-04	Pulse	0.10	3
Pb			1	0.075	ug/l	13.64	1,143.43	1.951E-04	Pulse	0.10	3
Pb			1	0.072	ug/l	6.46	5,140.56	8.773E-04	Pulse	0.10	3
Na			2	15.088	ug/l	3.94	23,212.65	1.430E-01	Pulse	0.30	3
Mg			2	1.725	ug/l	15.32	1,461.20	9.000E-03	Pulse	0.30	3
Al			2	2.610	ug/l	29.62	605.58	3.730E-03	Pulse	0.30	3
K			2	6.347	ug/l	12.19	8,940.26	5.506E-02	Pulse	0.30	3
Ca			2	7.402	ug/l	32.49	358.90	2.211E-03	Pulse	0.30	3
Ti			2	0.300	ug/l	18.18	33.34	2.054E-04	Pulse	0.30	3
V			2	0.289	ug/l	0.90	1,445.64	8.903E-03	Pulse	0.30	3
Cr			2	0.347	ug/l	5.67	2,152.39	1.325E-02	Pulse	0.30	3
Mn			2	0.362	ug/l	13.71	946.76	5.829E-03	Pulse	0.30	3
Fe			2	7.186	ug/l	1.80	40,839.31	2.515E-01	Pulse	0.30	3
Co			2	0.020	ug/l	5.48	265.56	1.636E-03	Pulse	0.30	3
Ni			2	0.074	ug/l	18.54	238.90	1.472E-03	Pulse	0.30	3
Cu			2	0.281	ug/l	10.68	2,413.54	1.487E-02	Pulse	0.30	3
Zn			2	0.876	ug/l	12.71	910.04	5.603E-03	Pulse	0.30	3
As			2	0.123	ug/l	9.56	64.33	3.962E-04	Pulse	1.00	3
Cd			2	0.011	ug/l	37.69	28.81	3.403E-05	Pulse	0.30	3
Sn			2	0.601	ug/l	14.07	1,691.22	1.997E-03	Pulse	0.30	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	10000	4997	5081.4	2.34
59	10000	7132	7298.9	3.23
89	20000	12008	11924.4	0.99
140	20000	11796	11709.0	1.05
205	10000	7730	7899.2	3.03
156/140	2	1.306 %	1.380 %	7.62
70/140	10	5.622 %	5.918 %	7.08
9	20	0	0.5	141.42
11	1000	598	583.6	3.51
88	200	124	124.0	0.00
95	20	10	9.0	15.71
107	20	4	4.0	0.00
121	50	22	21.0	6.73
137	100	98	88.0	16.07
208	100	63	64.0	2.21
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-40	V
Extract 2	-200.0	V	Cell Exit	-60	V
Omega Bias	-100	V	Deflect	15.2	V
Omega Lens	5.2	V	Plate Bias	-45	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.53E+2	Pa	S/C Temp (L)	2.0	℃
Water RF/WC/IF	1.40	L/min	Carrier Gas(BP)	1.47E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

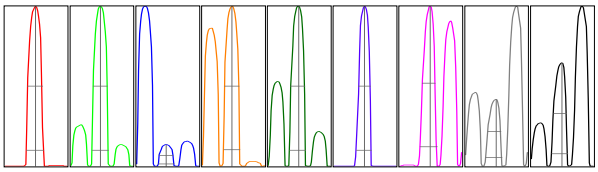
Batch Folder C:\Agilent\ICPMH\1\DATA\xa041219m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	165735	1.85	5.00	
24	570564	1.66	5.00	
25	75647	1.64	5.00	
26	89451	1.53	5.00	
59	861421	1.48	5.00	
115	1178297	1.15	5.00	
206	295906	0.95	5.00	
207	270716	1.13	5.00	
208	649641	1.13	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	161018	164370	167182	167545	168559
24	554788	568893	576195	575041	577901
25	73729	75205	76288	76074	76939
26	87360	88976	89778	90168	90972
59	839329	861314	869209	868604	868648
115	1154619	1180366	1183797	1184726	1187975
206	290903	297057	296924	297322	297326
207	265901	269429	272856	272501	272891
208	637634	647682	655874	653914	653098

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	25915	9.00	8.9 - 9.1		0.808	0.900	
24	89925	23.95	23.9 - 24.1		0.774	0.900	
25	12065	24.95	24.9 - 25.1		0.748	0.900	
26	13985	25.95	25.9 - 26.1		0.777	0.900	
59	139759	59.00	58.9 - 59.1		0.766	0.900	
115	209783	115.00	114.9 - 115.1		0.723	0.900	
206	50299	206.00	205.9 - 206.1		0.784	0.900	
207	45612	207.00	206.9 - 207.1		0.761	0.900	
208	109169	208.00	207.9 - 208.1		0.764	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

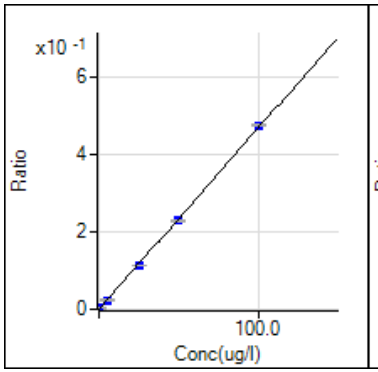
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	5.2	V			
Extract 2	-200.0	V	Cell Entrance	-40	V			
Omega Bias	-100	V	Cell Exit	-60	V			
Deflect	15.2	V						

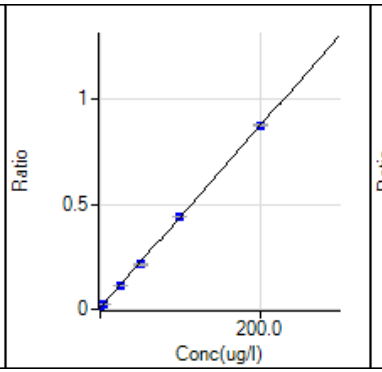
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

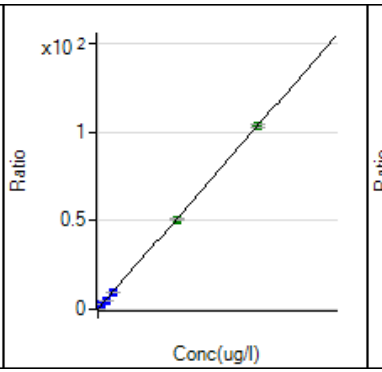
Calibration for C:\Agilent\ICPMH\1\DATA\xa041219m1.b\082_CCB.d



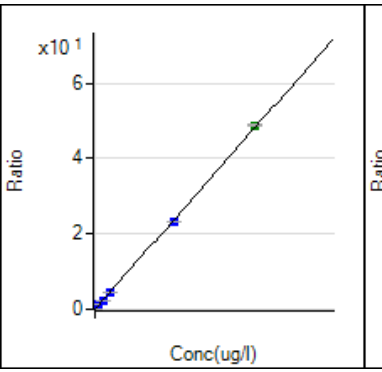
9 Be [1] / ISTD: 6 Li
y = 4.692E-3 x + 2.167E-5
R 0.9998
DL 0.004331
BEC 0.004618



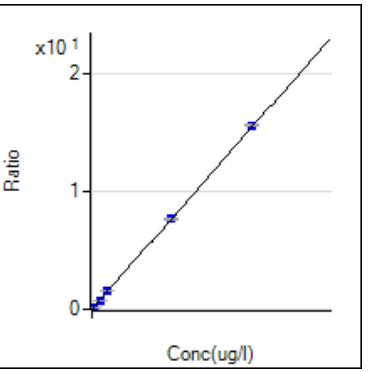
11 B [1] / ISTD: 6 Li
y = 4.326E-3 x + 6.535E-3
R 0.9999
DL 0.05617
BEC 1.511



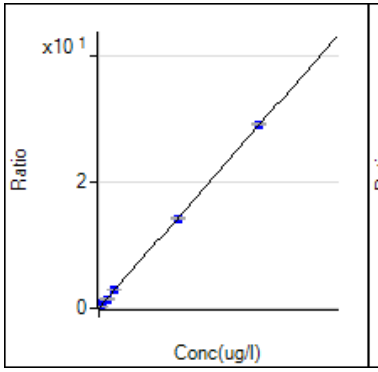
23 Na [2] / ISTD: 45 Sc
y = 1.034E-2 x + 6.498E-2
R 0.9999
DL 0.6523
BEC 6.286



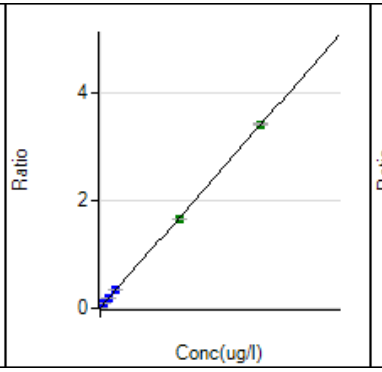
24 Mg [2] / ISTD: 45 Sc
y = 4.791E-3 x + 4.868E-3
R 0.9997
DL 0.3833
BEC 1.016



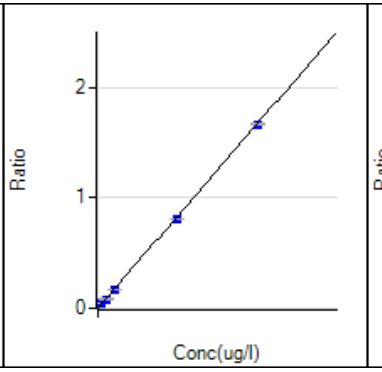
27 Al [2] / ISTD: 45 Sc
y = 1.538E-3 x + 1.722E-3
R 0.9999
DL 0.6654
BEC 1.12



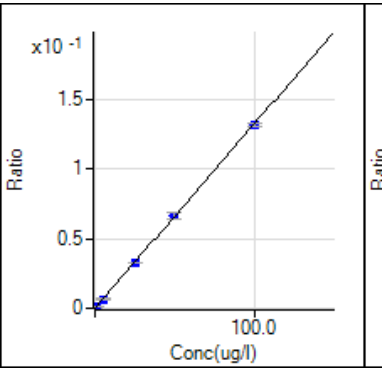
39 K [2] / ISTD: 45 Sc
y = 2.885E-3 x + 4.591E-2
R 0.9999
DL 0.4735
BEC 15.91



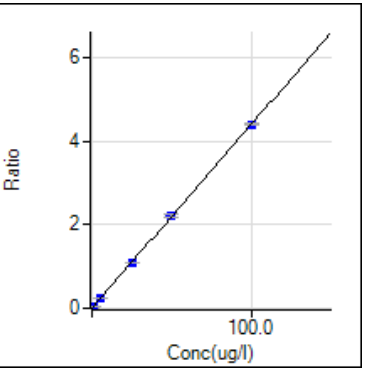
44 Ca [1] / ISTD: 45 Sc
y = 3.398E-4 x + 4.319E-3
R 0.9999
DL 2.003
BEC 12.71



44 Ca [2] / ISTD: 45 Sc
y = 1.667E-4 x + 1.594E-3
R 0.9998
DL 3.402
BEC 9.564

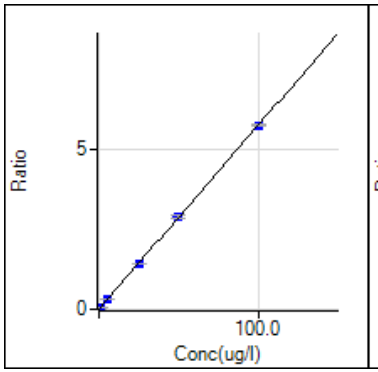


47 Ti [2] / ISTD: 45 Sc
y = 1.324E-3 x + 6.935E-6
R 1.0000
DL 0.02722
BEC 0.005238

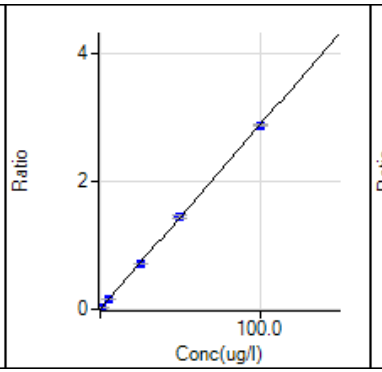


51 V [2] / ISTD: 45 Sc
y = 4.399E-2 x + 2.558E-3
R 1.0000
DL 0.04663
BEC 0.05815

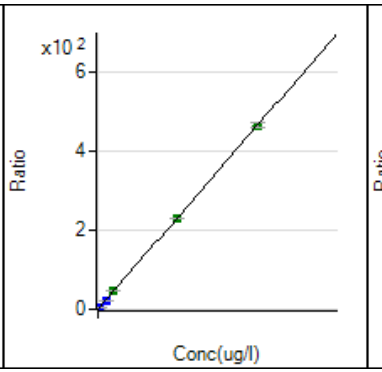
Calibration for C:\Agilent\ICPMH\1\DATA\xa041219m1.b\082_CCB.d



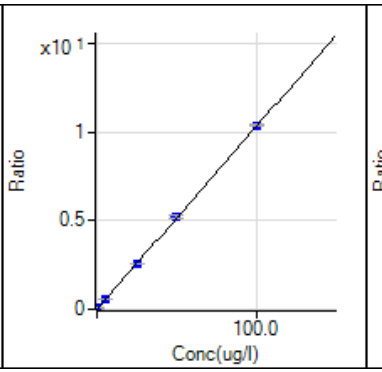
52 Cr [2] / ISTD: 45 Sc
y = 5.750E-2 x + 3.280E-3
R 1.0000
DL 0.01866
BEC 0.05703



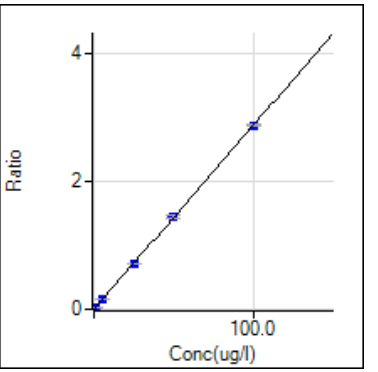
55 Mn [2] / ISTD: 45 Sc
y = 2.872E-2 x + 6.244E-4
R 1.0000
DL 0.007675
BEC 0.02174



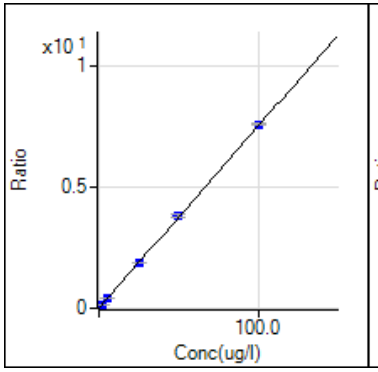
56 Fe [2] / ISTD: 45 Sc
y = 4.642E-2 x + 8.475E-2
R 1.0000
DL 0.3861
BEC 1.826



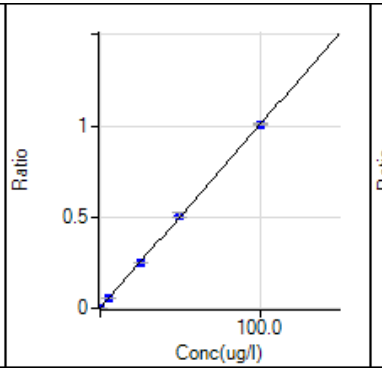
59 Co [2] / ISTD: 45 Sc
y = 1.030E-1 x + 6.038E-4
R 1.0000
DL 0.001679
BEC 0.00586



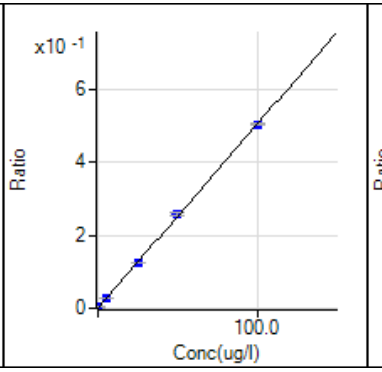
60 Ni [2] / ISTD: 45 Sc
y = 2.864E-2 x + 4.133E-4
R 1.0000
DL 0.001292
BEC 0.01443



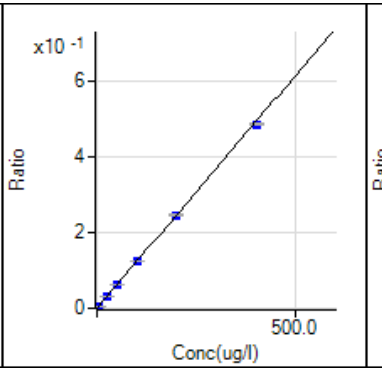
63 Cu [2] / ISTD: 45 Sc
y = 7.512E-2 x + 4.297E-3
R 1.0000
DL 0.01583
BEC 0.05721



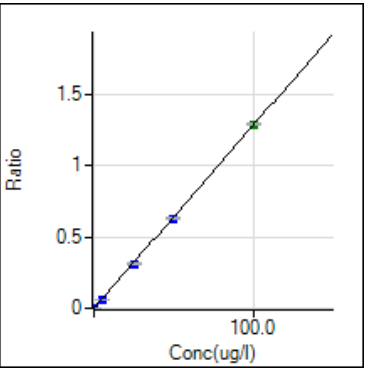
66 Zn [2] / ISTD: 45 Sc
y = 1.004E-2 x + 1.207E-3
R 1.0000
DL 0.05336
BEC 0.1202



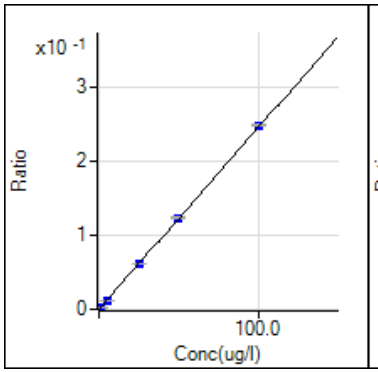
75 As [2] / ISTD: 45 Sc
y = 5.040E-3 x + 8.681E-5
R 0.9999
DL 0.01091
BEC 0.01722



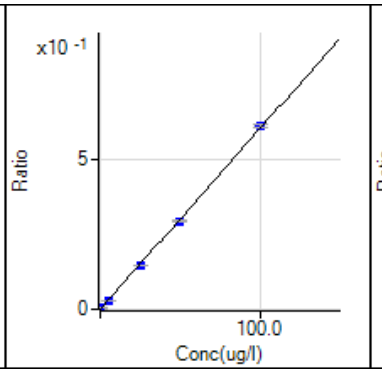
78 Se [3] / ISTD: 74 Ge
y = 1.233E-3 x + 6.875E-5
R 1.0000
DL 0.03464
BEC 0.05576



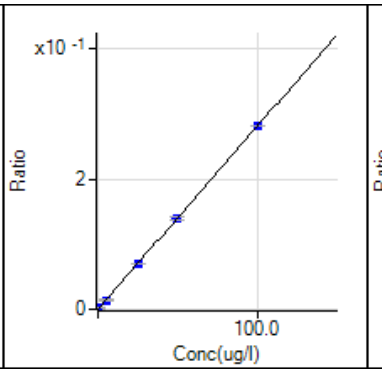
88 Sr [1] / ISTD: 103 Rh
y = 1.284E-2 x + 1.327E-4
R 0.9999
DL 0.002108
BEC 0.01034



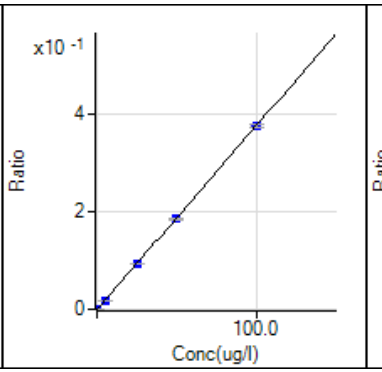
95 Mo [1] / ISTD: 103 Rh
y = 2.454E-3 x + 2.624E-5
R 1.0000
DL 0.004754
BEC 0.01069



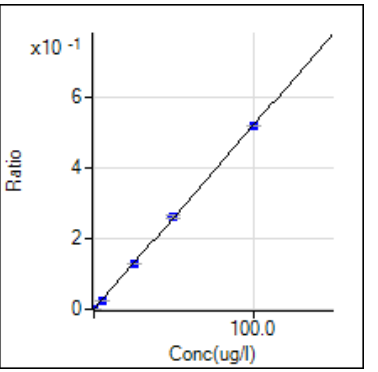
107 Ag [1] / ISTD: 115 In
y = 6.002E-3 x + 1.146E-5
R 0.9998
DL 0.001223
BEC 0.001909



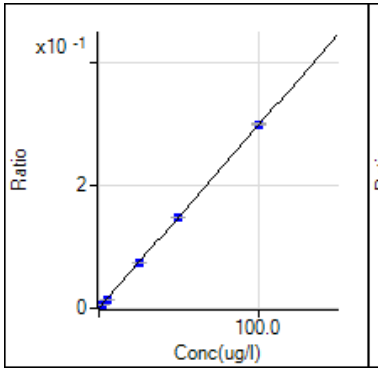
111 Cd [2] / ISTD: 115 In
y = 2.807E-3 x + 1.813E-5
R 1.0000
DL 0.01048
BEC 0.006459



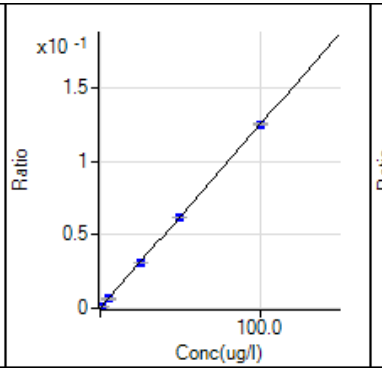
118 Sn [1] / ISTD: 115 In
y = 3.769E-3 x - 9.709E-4
R 1.0000
DL 0.01731
BEC -0.2576



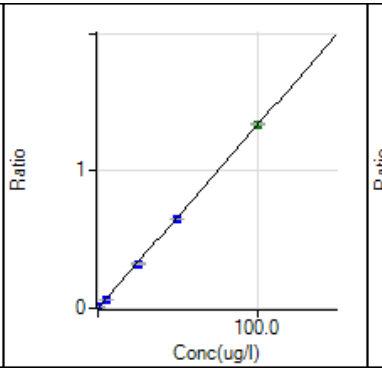
118 Sn [2] / ISTD: 115 In
y = 5.179E-3 x + 4.419E-4
R 1.0000
DL 0.004956
BEC 0.08532



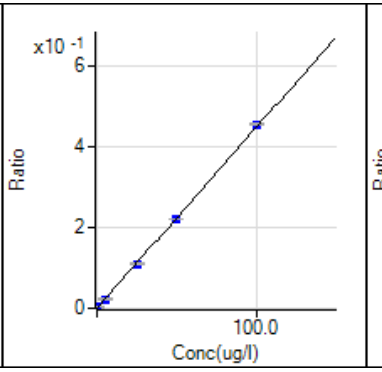
121 Sb [1] / ISTD: 159 Tb
y = 2.972E-3 x + 1.516E-4
R 1.0000
DL 0.01023
BEC 0.05101



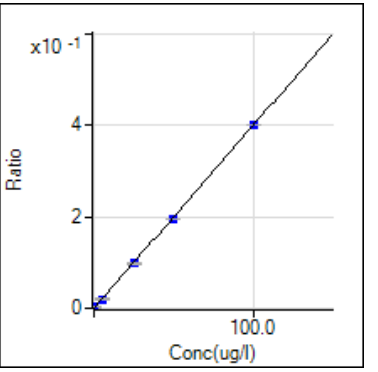
137 Ba [1] / ISTD: 159 Tb
y = 1.248E-3 x + 1.098E-5
R 1.0000
DL 0.00639
BEC 0.008798



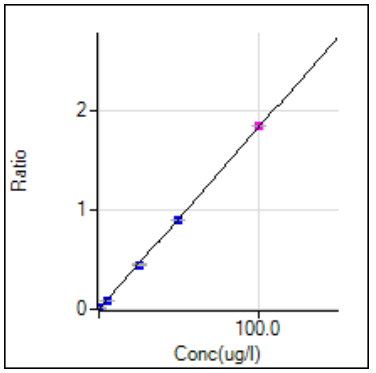
205 Tl [1] / ISTD: 209 Bi
y = 1.329E-2 x + 1.192E-4
R 0.9999
DL 0.00615
BEC 0.008969



206 Pb [1] / ISTD: 209 Bi
y = 4.468E-3 x + 5.523E-5
R 0.9999
DL 0.005749
BEC 0.01236



207 Pb [1] / ISTD: 209 Bi
y = 4.005E-3 x + 4.582E-5
R 0.9999
DL 0.006473
BEC 0.01144



208 Pb [1] / ISTD: 209 Bi

y = 1.820E-2 x + 2.204E-4

R	0.9998
DL	0.004449
BEC	0.01211

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP14084	4/11/2019	7:50	4/11/2019	13:10	JC85918-1	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	5	158274	93	0	93
1	End	5	158274	94	0	94
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812117	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP14084-MB1	N/A	N	50	50	AB		
MP14084-B1	N/A	N	50	50	AB	ABCDE	
MP14084-S1	1	Y	50	50	AB	ABCDE	
MP14084-S2	1	Y	50	50	AB	ABCDE	
MP14084-SD1	1	Y	50	50	AB		
JC85918-1	1	Y	50	50	AB		

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13B REV-1	0.2
B	ACCUTEST 14B REV-1	0.2
C	MINERALS 1000PPM	0.2
D	AG 20PPM	0.2
E	Se 20ppm	0.8
F	AG 20PPM	0.2
G		
H		

Comments:

Analyst COLLEENH **Approved by** Wendyz **Approved on** 4/11/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 14084 **Date:** 4/11/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	9/27/2019	MP-015-1150
Spiking Solution - (ACCUTEST-14A REV1)	9/27/2019	MP-015-1151
Spiking Solution - 5000 mg/l Minerals	2/15/2020	N2-MEB674932 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	1/16/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	9/27/2019	MP-015-1149
Spiking Solution - Li 1000ppm	1/24/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	10/9/2019	MP-015-1155
Spiking Solution - (ACCUTEST-13B REV1)	9/27/2019	MP-015-1147
Spiking Solution - (ACCUTEST-14B REV1)	7/3/2019	MP-015-1126
Spiking Solution - 1000ppm Minerals	6/4/2019	MP-015-1117
Spiking Solution- P		
Nitric Acid	4/10/2021	LOT: 213500 MFG: J.T. BAKER
Nitric Acid (1:1)	10/9/2019	MP-018-42-174 1:1 HNO3
Hydrochloric Acid	4/8/2021	LOT: 217157 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	10/8/2019	MP-018-42-173 1:1 HCL
Hydrogen Peroxide	4/4/2021	LOT: 188006 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812114 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: TG

Validated By: _____

Validated On: _____

Metals Prep Reagent
1/17/18

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL), Devens, MA

AC001.M01.05

SGS Job Number: JC87982

Sampling Date: 05/10/19

Report to:

Sovereign Consulting
9 Payson Road Suite 150
Foxborough, MA 02035
SPassafaro@SovCon.com

ATTN: Steve Passafaro

Total number of pages in report: **159**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: JC87982

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01.05

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC87982-1	05/10/19	11:20	LP	05/10/19	AQ	Effluent	EFFLUENT

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Sovereign Consulting	**Job No**	JC87982
Site:	Shepley's Hill (SHL), Devens, MA	**Report Date**	5/17/2019 3:21:01 PM

On 05/10/2019, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.7 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC87982 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP15011

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87015-12MS, JC87015-12MSD, JC87015-12PS, JC87015-12SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic are outside control limits for sample MP15011-SD1. Serial dilution indicates possible matrix interference.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC87982
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 05/10/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC87982-1	**EFFLUENT**					
Arsenic		19.6	3.0	2.0	ug/l	SW846 6020B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: EFFLUENT
Lab Sample ID: JC87982-1
Matrix: AQ - Effluent
Project: Shepley's Hill (SHL), Devens, MA

Date Sampled: 05/10/19
Date Received: 05/10/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	19.6	3.0	2.0	0.94	ug/l	2	05/14/19	05/16/19	GT	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA46738
(2) Prep QC Batch: MP15011

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody
- QC Evaluation: DOD QSM5 Limits

SGS ACCUTEST GW

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

PAGE 1 OF 1

FED-EX Tracking # 440174917801
Bottle Order Control #
SGS Accutest Quote #
SGS Accutest Job # JC87982

Client / Reporting Information

Company Name: SOVEREIGN CONSULTING INC
Street Address: 9 PAYSON RD, SUITE 150
City: FOXBOROUGH State: MA Zip: 02035
Project Contact: S.PASSAFARO @ SOVCON.COM E-mail:
Phone #: 508.339.3200 Fax #:
Sampler(s) Name(s): LOUIS A. PUSCETTI Phone #:

Project Information

Project Name: SHEPLY'S HILL (SHL) DEVENS, MA.
Street:
City: DEVENS State: MA
Project #: AC001, M01
Client Purchase Order #:
Project Manager: STEVE PASSAFARO

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

TOTAL AS 6020A

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	TOTAL AS 6020A	LAB USE ONLY
1	EFFLUENT		5/10/19	LAP 11:20*	LAP	GW	1			X						X	

INITIAL ASESSMENT 2BJ
LABEL VERIFICATION

SGS-ACCUTEST MARLBOR 5/10

A23

Turnaround Time (Business days)

Approved By (SGS Accutest PM): / Date:

- [ ] Std. 10 Business Days
- [x] 5 Day RUSH Arsenic only
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [x] Other SEE QAPP

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

SEE PROJECT QAPP FOR ALL SPECIAL PROJECT REQUIREMENTS
5 DAY RUSH ON ARSENIC.
* Added to COC in SM
Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	5/10/19 1410	1 [signature]	2 Thelma Foley	5/10/19 1830	2 Fed Ex
3 Fed Ex	5/11/19 1040	3 [signature]	4		4
5		5	Custody Seal # 30192	☐ Intact ☐ Not intact	Preserved where applicable ☑ JK On Ice ☑ Cooler Temp. 2.7°C IF

Form:SM088-01CRev.Date:9/13/16

JC87982: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC87982 **Client:** _____ **Project:** _____

Date / Time Received: 5/10/2019 6:00:00 PM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.7);

Cooler Temps (Corrected) °C: Cooler 1: (1.7);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

Sovereign Consulting

Job No: JC87982

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01.05

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC87982-1 EFFLUENT	Collected: 10-MAY-19 11:20	By: LP	Received: 10-MAY-19	By: DG		
JC87982-1	SW846 6020B	16-MAY-19 16:46	GT	14-MAY-19	TG	ASMS

SGS Internal Chain of Custody

Job Number: JC87982
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Received: 05/10/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC87982-1.1	Secured Storage	Todd Shoemaker	05/14/19 15:56	Retrieve from Storage
JC87982-1.1	Todd Shoemaker	Secured Staging Area	05/14/19 15:56	Return to Storage
JC87982-1.1	Secured Staging Area	Moustafa Ramadan	05/14/19 18:06	Retrieve from Storage
JC87982-1.1	Moustafa Ramadan	Secured Storage	05/14/19 18:19	Return to Storage
JC87982-1.1	Secured Storage	Sahara Feliciano	05/15/19 18:19	Retrieve from Storage
JC87982-1.1	Sahara Feliciano	Secured Staging Area	05/15/19 18:19	Return to Storage
JC87982-1.1	Secured Staging Area	Taylor Gorman	05/16/19 04:41	Retrieve from Storage
JC87982-1.1	Taylor Gorman	Secured Storage	05/16/19 07:52	Return to Storage
JC87982-1.1.1	Taylor Gorman	Metals Digestion	05/16/19 07:45	Digestate from JC87982-1.1
JC87982-1.1.1	Metals Digestion	Taylor Gorman	05/16/19 07:46	Digestate from JC87982-1.1
JC87982-1.1.1	Taylor Gorman	Metals Digestate Storage	05/16/19 07:46	Return to Storage
JC87982-1.1.1	Metals Digestate Storage	Nancy Duan	05/17/19 11:48	Retrieve from Storage
JC87982-1.1.1	Nancy Duan	Metals Digestate Storage	05/17/19 11:48	Return to Storage

QC Evaluation: DOD QSM5 Limits

Job Number: JC87982
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 05/10/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP15011	SW846 6020B						
MP15011-B2	7440-38-2	Arsenic	BSP	REC	94.5	%	84-116
MP15011-S3*	7440-38-2	Arsenic	MS	REC	88.9	%	84-116
MP15011-S4*	7440-38-2	Arsenic	MSD	REC	89.3	%	84-116
MP15011-S4*	7440-38-2	Arsenic	MSD	RPD	.4	%	20

* Sample used for QC is not from job JC87982

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:53	MA46738-STD1	1		STDA
12:58	MA46738-STD2	1		STDA
13:03	MA46738-STD3	1		STDA
13:08	MA46738-STD4	1		STDB
13:13	MA46738-STD5	1		STDC
13:18	MA46738-STD6	1		STDD
13:23	MA46738-STD7	1		STDE
13:28	MA46738-STD8	1		STDF
13:33	MA46738-STD9	1		STDG
13:38	MA46738-STD10	1		STDH
13:43	MA46738-STD11	1		STDI
13:48	MA46738-STD12	1		STDJ
14:04	MA46738-ICVA1	1		
14:09	MA46738-ICV1	1		
14:23	MA46738-ICVA2	1		
14:32	MA46738-ICB1	1		
14:37	MA46738-CCVA1	1		
14:42	MA46738-CCB1	1		
14:47	MA46738-CRI1	1		Se out
15:01	MA46738-ICSA1	1		
15:06	MA46738-ICSAB1	1		
15:11	ZZZZZZ	1		
15:29	MA46738-CCVA2	1		
15:34	MA46738-CCB2	1		
15:40	ZZZZZZ	2		
15:45	ZZZZZZ	2		
15:50	ZZZZZZ	2		
15:59	MA46738-CCVA3	1		
16:04	MA46738-CCB3	1		
16:09	MP15011-MB1	2		
16:14	MP15011-B2	2		
16:21	MP15011-S3	2		
16:26	MP15011-S4	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:31	JC87015-12	2		(sample used for QC only; not part of login JC87982)
16:36	MP15011-SD1	10		
16:41	MP15011-PS1	2		
16:46	JC87982-1	2		
---------->	Last reportable sample/prep for job JC87982			
16:51	MA46738-CCVA4	1		
16:56	MA46738-CCB4	1		
17:02	MA46738-CRI2	1		
17:07	MP15041-MB1	2		Batch to be reanalyzd for Se, Blank Spike out
17:12	MP15041-MB2	2		Batch to be reanalyzd for Se, Blank Spike out
17:17	MP15041-B1	2		Batch to be reanalyzd for Se, Blank Spike out
17:22	MP15041-B2	2		Batch to be reanalyzd for Se, Blank Spike out
17:27	MP15041-B3	2		To be reran on dilution. ICP spike for FILTERMET
17:32	MP15041-S1	2		To be reran for As,Se
17:37	MP15041-S2	2		To be reran for As,Se
17:42	ZZZZZZ	1		
17:47	MA46738-CCVA5	1		
17:52	MA46738-CCB5	1		
---------->	Last reportable CCB for job JC87982			
17:57	JC88061-1	2		(sample used for QC only; not part of login JC87982)
18:02	MP15041-SD1	10		As,Se needed
18:07	ZZZZZZ	2		
18:12	ZZZZZZ	2		
18:17	ZZZZZZ	2		
18:22	ZZZZZZ	2		
18:27	ZZZZZZ	2		
18:32	ZZZZZZ	1		
18:37	MA46738-CCVA6	1		
18:42	MA46738-CCB6	1		
18:47	ZZZZZZ	2		
18:52	ZZZZZZ	2		
18:57	ZZZZZZ	2		
19:02	ZZZZZZ	1		
19:07	MA46738-CCVA7	1		
19:12	MA46738-CCB7	1		CHeck Se

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:17	MP15102-MB1	1		
19:22	MP15102-B1	1		
19:27	MP15102-S1	1		
19:32	MP15102-S2	1		
19:37	JC88002-99	1		(sample used for QC only; not part of login JC87982)
19:42	MP15102-S3	1		
19:47	JC88002-100	1		(sample used for QC only; not part of login JC87982)
19:52	ZZZZZZ	1		
19:58	ZZZZZZ	1		
20:02	ZZZZZZ	1		
20:08	MA46738-CCVA8	1		
20:13	MA46738-CCB8	1		
20:18	ZZZZZZ	1		
20:23	ZZZZZZ	1		
20:28	ZZZZZZ	1		
20:33	ZZZZZZ	1		
20:38	ZZZZZZ	1		
20:43	ZZZZZZ	1		
20:48	ZZZZZZ	1		
20:53	ZZZZZZ	1		
20:58	ZZZZZZ	1		
21:03	ZZZZZZ	1		
21:08	MA46738-CCVA9	1		
21:13	MA46738-CCB9	1		
21:18	ZZZZZZ	1		
21:23	ZZZZZZ	1		
21:28	ZZZZZZ	1		
21:33	ZZZZZZ	1		
21:38	ZZZZZZ	1		
21:43	ZZZZZZ	1		
21:48	ZZZZZZ	1		
21:53	ZZZZZZ	1		
21:58	MA46738-CCVA10	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:03	MA46738-CCB10	1		
22:08	ZZZZZZ	1		
22:13	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Element: Dilution	As	
14:04	MA46738-ICVA1	1		
14:09	MA46738-ICV1	1		
14:23	MA46738-ICVA2	1	X	
14:32	MA46738-ICB1	1	X	
14:37	MA46738-CCVA1	1	X	
14:42	MA46738-CCB1	1	X	
14:47	MA46738-CRI1	1	X	
15:01	MA46738-ICSA1	1	X	
15:06	MA46738-ICSAB1	1	X	
15:11	ZZZZZZ	1		
15:29	MA46738-CCVA2	1	X	
15:34	MA46738-CCB2	1	X	
15:40	ZZZZZZ	2		
15:45	ZZZZZZ	2		
15:50	ZZZZZZ	2		
15:59	MA46738-CCVA3	1	X	
16:04	MA46738-CCB3	1	X	
16:09	MP15011-MB1	2	X	
16:14	MP15011-B2	2	X	
16:21	MP15011-S3	2	X	
16:26	MP15011-S4	2	X	
16:31	JC87015-12	2	X	(a)
16:36	MP15011-SD1	10	X	
16:41	MP15011-PS1	2	X	
16:46	JC87982-1	2	X	
16:51	MA46738-CCVA4	1	X	
16:56	MA46738-CCB4	1	X	
17:02	MA46738-CRI2	1	X	
17:07	MP15041-MB1	2	X	
17:12	MP15041-MB2	2	X	
17:17	MP15041-B1	2	X	
17:22	MP15041-B2	2	X	
17:27	MP15041-B3	2		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Element: Dilution	As	
17:32	MP15041-S1	2		
17:37	MP15041-S2	2		
17:42	ZZZZZZ	1		
17:47	MA46738-CCVA5	1	X	
17:52	MA46738-CCB5	1	X	
17:57	JC88061-1	2		(a)
18:02	MP15041-SD1	10		
18:07	ZZZZZZ	2		
18:12	ZZZZZZ	2		
18:17	ZZZZZZ	2		
18:22	ZZZZZZ	2		
18:27	ZZZZZZ	2		
18:32	ZZZZZZ	1		
18:37	MA46738-CCVA6	1	X	
18:42	MA46738-CCB6	1	X	
18:47	ZZZZZZ	2		
18:52	ZZZZZZ	2		
18:57	ZZZZZZ	2		
19:02	ZZZZZZ	1		
19:07	MA46738-CCVA7	1	X	
19:12	MA46738-CCB7	1	X	
19:17	MP15102-MB1	1		
19:22	MP15102-B1	1		
19:27	MP15102-S1	1		
19:32	MP15102-S2	1		
19:37	JC88002-99	1		(a)
19:42	MP15102-S3	1		
19:47	JC88002-100	1		(a)
19:52	ZZZZZZ	1		
19:58	ZZZZZZ	1		
20:02	ZZZZZZ	1		
20:08	MA46738-CCVA8	1		
20:13	MA46738-CCB8	1		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Element: As Dilution
20:18	ZZZZZZ	1
20:23	ZZZZZZ	1
20:28	ZZZZZZ	1
20:33	ZZZZZZ	1
20:38	ZZZZZZ	1
20:43	ZZZZZZ	1
20:48	ZZZZZZ	1
20:53	ZZZZZZ	1
20:58	ZZZZZZ	1
21:03	ZZZZZZ	1
21:08	MA46738-CCVA9	1
21:13	MA46738-CCB9	1
21:18	ZZZZZZ	1
21:23	ZZZZZZ	1
21:28	ZZZZZZ	1
21:33	ZZZZZZ	1
21:38	ZZZZZZ	1
21:43	ZZZZZZ	1
21:48	ZZZZZZ	1
21:53	ZZZZZZ	1
21:58	MA46738-CCVA10	1
22:03	MA46738-CCB10	1
22:08	ZZZZZZ	1
22:13	ZZZZZZ	1

(a) Sample used for QC only; not part of login JC87982.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
12:53	MA46738-STD1	100	100	100	100	100	100	100	100
12:58	MA46738-STD2	100	100	100	100	100	100	100	100
13:03	MA46738-STD3	100	100	100	100	100	100	100	100
13:08	MA46738-STD4	99.603	100.119	100.418	100.181	100.468	100.768	100.243	100.477
13:13	MA46738-STD5	99.08	98.508	100.81	99.961	99.175	101.23	98.99	99.855
13:18	MA46738-STD6	98.648	99.595	100.676	99.646	99.374	101.094	100.113	99.197
13:23	MA46738-STD7	99.137	99.593	100.895	99.614	98.686	101.255	99.787	100.14
13:28	MA46738-STD8	98.21	97.67	100.089	99.775	98.151	100.163	99.466	99.248
13:33	MA46738-STD9	97.517	98.293	98.725	100.113	98.097	99.648	100.169	98.797
13:38	MA46738-STD10	97.331	97.615	99.861	98.783	97.896	99.106	98.307	98.739
13:43	MA46738-STD11	95.199	96.816	98.511	97.077	95.802	97.975	97.666	96.982
13:48	MA46738-STD12	93.573	94.781	97.538	96.681	95.645	97.066	95.795	95.696
14:04	MA46738-ICVA1	95.633	97.23	100.913	98.211	97.759	100.921	97.975	99.307
14:09	MA46738-ICV1	96.223	96.405	101.318	100.054	98.027	102.738	100.881	98.006
14:23	MA46738-ICVA2	95.659	97.243	102.04	98.568	98.22	102.872	98.704	99.561
14:32	MA46738-ICB1	97.75	99.217	103.248	100.998	99.872	103.828	101.567	99.537
14:37	MA46738-CCVA1	96.173	98.043	101.864	99.517	98.542	102.639	100.801	99.246
14:42	MA46738-CCB1	96.981	97.223	101.99	100.925	98.11	103.731	100.881	98.952
14:47	MA46738-CRI1	98.26	99.129	102.948	101.475	99.178	104.058	102.104	99.938
15:01	MA46738-ICSA1	84.055	88.053	96.255	90.795	89.488	96.688	91.395	86.31
15:06	MA46738-ICSAB1	83.38	90.696	96.188	93.471	91.413	95.22	92.719	89.688
15:11	ZZZZZZ	No results reported for the elements associated with this internal standard.							
15:29	MA46738-CCVA2	85.097	91.063	95.182	97.473	94.189	99.47	97.467	94.979
15:34	MA46738-CCB2	86.625	91.515	95.793	98.628	94.772	100.582	99.961	96.01
15:40	ZZZZZZ	85.701	92.056	96.648	95.142	97.023	102.986	98.018	97.133
15:45	ZZZZZZ	86.356	92.551	97.302	96.418	97.115	104.488	98.741	98.582
15:50	ZZZZZZ	87.163	93.836	98	97.711	98.416	104.432	99.631	98.55
15:59	MA46738-CCVA3	92.143	95.985	101.265	102.121	98.091	102.914	101.416	99.696
16:04	MA46738-CCB3	92.178	95.284	99.439	102.817	98.932	103.857	103.971	98.652
16:09	MP15011-MB1	94.007	96.197	97.349	104.685	100.467	104.476	106.961	100.818
16:14	MP15011-B2	91.955	94.938	97.987	105.142	98.642	100.453	106.021	99.691
16:21	MP15011-S3	64.318 !a	95.576	95.291	89.65	93.496	95.416	88.693	91.681
16:26	MP15011-S4	60.033 !a	91.209	91.981	86.689	89.31	94.222	88.173	88.386

INTERNAL STANDARD SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:31	JC87015-12	60.841 !a	90.704	91.522	89.588	89.417	94.039	88.958	87.795
16:36	MP15011-SD1	82.327	93.245	99.373	98.687	94.759	102.953	98.324	94.79
16:41	MP15011-PS1	66.027 !a	94.506	94.751	92.45	91.777	95.393	90.922	91.289
16:46	JC87982-1	88.176	91.197	93.528	98.717	99.353	99.832	102.178	96.679
16:51	MA46738-CCVA4	89.637	94.356	96.807	99.926	97.504	100.782	101.615	98.006
16:56	MA46738-CCB4	91.78	95.311	97.938	102.333	98.972	103.55	103.446	98.851
17:02	MA46738-CRI2	93.114	96.578	99.969	103.445	99.298	105.251	103.86	99.674
17:07	MP15041-MB1	96.992	97.754	100.037	105.29	102.634	104.887	106.92	101.413
17:12	MP15041-MB2	96.65	97.665	99.266	106.787	104.937	106.296	110.42	102.633
17:17	MP15041-B1	95.068	96.653	97.825	107.8	101.902	103.459	108.351	101.538
17:22	MP15041-B2	94.663	98.406	100.55	109.336	104.071	104.39	110.485	102.651
17:27	MP15041-B3	92.268	95.68	105.579	116.907	98.949	102.827	107.33	101.574
17:32	MP15041-S1	87.667	94.605	96.667	105.81	97.569	102.129	106.529	97.99
17:37	MP15041-S2	90.549	96.358	97.855	108.199	99.334	103.117	108.35	100.185
17:42	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:47	MA46738-CCVA5	92.641	99.345	103.303	106.396	101.89	107.829	105.706	103.727
17:52	MA46738-CCB5	93.127	98.431	101.847	106.473	101.175	108.01	106.568	102.026
17:57	JC88061-1	91.629	98.212	98.747	106.822	99.987	103.795	105.625	101.168
18:02	MP15041-SD1	92.542	99.927	102.485	104.191	102.46	107.762	106.346	102.737
18:07	ZZZZZZ	94.995	99.296	102.994	110.074	103.768	108.071	111.825	103.981
18:12	ZZZZZZ	93.075	99.165	101.576	107.224	102.972	106.053	109.217	102.304
18:17	ZZZZZZ	93.386	98.363	98.724	108.075	103.542	105.739	108.817	103.103
18:22	ZZZZZZ	91.921	96.685	98.451	106.94	100.906	105.576	109.035	101.199
18:27	ZZZZZZ	91.339	95.61	97.778	105.967	101.631	105.303	107.432	101.53
18:32	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:37	MA46738-CCVA6	84.047	90.553	94.587	97.938	92.753	98.661	98.856	93.926
18:42	MA46738-CCB6	85.266	90.863	95.093	97.141	93.441	100.431	98.921	94.506
18:47	ZZZZZZ	87.097	91.053	94.938	101.953	95.818	100.23	104.442	95.597
18:52	ZZZZZZ	88.137	92.75	95.607	102.629	98.167	101.533	103.854	97.793
18:57	ZZZZZZ	86.634	95.603	99.759	102.335	97.683	101.614	99.828	96.481
19:02	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:07	MA46738-CCVA7	85.044	92.23	96.788	97.422	95.023	100.787	96.998	95.556
19:12	MA46738-CCB7	85.061	92.45	97.902	96.468	94.883	101.881	98.09	95.115

INTERNAL STANDARD SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
19:17	MP15102-MB1	86.106	93.087	99.242	96.277	96.284	102.956	97.999	95.724
19:22	MP15102-B1	86.219	92.91	96.947	96.173	94.958	101.587	98.207	96.134
19:27	MP15102-S1	85.621	93.441	98.34	93.111	95.73	103.897	95.598	96.396
19:32	MP15102-S2	85.108	92.725	98.237	92.362	95.256	103.297	94.723	95.877
19:37	JC88002-99	85.424	93.326	99.945	93.662	95.347	104.419	95.257	95.701
19:42	MP15102-S3	85.656	92.384	98.918	93.331	94.563	103.785	95.617	95.13
19:47	JC88002-100	84.835	91.338	99.006	92.107	93.613	103.243	95.274	93.779
19:52	ZZZZZZ	84.949	92.037	98.216	92.222	94.68	101.782	94.178	94.929
19:58	ZZZZZZ	85.107	92.188	97.977	92.68	93.918	104.365	94.877	94.455
20:02	ZZZZZZ	85.69	91.571	98.104	92.064	94.418	102.255	94.441	94.934
20:08	MA46738-CCVA8	82.799	88.532	94.443	91.486	90.678	96.009	91.302	91.144
20:13	MA46738-CCB8	81.642	87.918	92.28	91.91	90.074	95.836	92.911	90.397
20:18	ZZZZZZ	81.139	88.404	95.397	89.753	91.127	100.926	91.736	91.041
20:23	ZZZZZZ	82.042	89.178	96.72	90.457	92.168	101.589	91.667	92.228
20:28	ZZZZZZ	83.44	91.191	98.406	90.656	93.1	101.619	93.559	93.832
20:33	ZZZZZZ	83.444	90.459	97.77	90.793	93.016	102.018	93.047	93.138
20:38	ZZZZZZ	82.981	90.083	97.023	91.36	92.957	102.619	94.223	93.174
20:43	ZZZZZZ	82.829	89.832	97.083	90.7	91.793	101.844	92.548	92.876
20:48	ZZZZZZ	82.875	89.811	98.055	90.826	92.783	101.929	93.933	92.939
20:53	ZZZZZZ	83.235	90.432	96.39	90.967	92.616	101.089	93.54	93.148
20:58	ZZZZZZ	83.341	90.086	97.613	91.356	91.934	100.376	93.781	92.208
21:03	ZZZZZZ	83.614	90.624	98.489	91.949	92.517	102.146	93.679	92.743
21:08	MA46738-CCVA9	81.786	87.229	92.858	89.986	89.123	95.579	90.703	90.274
21:13	MA46738-CCB9	80.221	85.797	91.196	90.083	88.989	94.968	90.352	89.019
21:18	ZZZZZZ	80.729	87.85	95.43	89.35	90.483	100.223	91.736	90.529
21:23	ZZZZZZ	81.696	88.783	95.131	89.989	91.063	99.794	92.648	91.477
21:28	ZZZZZZ	82.04	89.263	95.184	90.143	92.202	99.812	92.353	92.634
21:33	ZZZZZZ	83.231	90.516	97.426	90.775	92.635	101.302	93.431	93.199
21:38	ZZZZZZ	83.452	90.299	97.3	90.856	91.99	101.52	92.583	92.076
21:43	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:48	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:53	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:58	MA46738-CCVA10	79.682	85.521	91.376	89.764	87.704	93.113	90.725	88.977

INTERNAL STANDARD SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
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File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
22:03	MA46738-CCB10	80.681	85.541	91.28	90.098	87.969	94.524	91.309	88.394
22:08	ZZZZZZ	No results reported for the elements associated with this internal standard.							
22:13	ZZZZZZ	No results reported for the elements associated with this internal standard.							

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Lithium	60-125 %
Istd#2	Scandium (45-1)	60-125 %
Istd#3	Scandium (45-2)	60-125 %
Istd#4	Scandium (45-3)	60-125 %
Istd#5	Germanium (72-1)	60-125 %
Istd#6	Germanium (72-2)	60-125 %
Istd#7	Germanium (72-3)	60-125 %
Istd#8	Germanium (74-1)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
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File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
12:53	MA46738-STD1	100	100	100	100	100	100	100	100
12:58	MA46738-STD2	100	100	100	100	100	100	100	100
13:03	MA46738-STD3	100	100	100	100	100	100	100	100
13:08	MA46738-STD4	100.245	100.577	100.665	99.659	99.427	100.657	100.114	100.359
13:13	MA46738-STD5	100.629	99.664	100.201	99.514	100.024	99.945	99.262	99.486
13:18	MA46738-STD6	100.322	99.414	99.496	99.532	99.732	99.789	99.359	99.617
13:23	MA46738-STD7	100.361	100.197	99.154	99.703	99.766	99.057	99.578	99.545
13:28	MA46738-STD8	98.781	98.788	98.928	98.135	98.812	98.159	99.05	99.217
13:33	MA46738-STD9	100.714	100.361	98.736	98.66	98.696	98.33	100.255	98.847
13:38	MA46738-STD10	100.74	100.215	97.466	98.482	98.43	98.407	99.541	99.386
13:43	MA46738-STD11	97.357	96.784	95.916	96.209	96.321	96.544	98.267	98.983
13:48	MA46738-STD12	97.528	95.654	94.3	94.562	94.142	95.088	97.616	97.802
14:04	MA46738-ICVA1	101.412	99.172	96.645	97.703	96.28	97.291	100.791	99.498
14:09	MA46738-ICV1	102.101	100.281	98.862	100.857	99.804	98.68	102.302	99.087
14:23	MA46738-ICVA2	102.189	98.648	97.254	97.73	95.733	98.154	101.779	100.113
14:32	MA46738-ICB1	103.612	100.577	100.824	101.946	100.162	100.453	104.505	100.695
14:37	MA46738-CCVA1	102.659	99.099	96.8	97.952	97.077	98.639	101.43	99.234
14:42	MA46738-CCB1	103.49	101.537	99.766	100.876	100.328	99.75	103.26	100.202
14:47	MA46738-CRI1	103.829	101.9	100.041	101.525	100.165	100.238	103.703	100.417
15:01	MA46738-ICSA1	93.939	88.496	81.845	84.238	82.315	86.122	90.859	89.671
15:06	MA46738-ICSAB1	95.128	89.81	84.524	85.311	83.347	88.959	91.106	92.576
15:11	ZZZZZZ	No results reported for the elements associated with this internal standard.							
15:29	MA46738-CCVA2	99.717	98.484	94.718	95.45	96.043	97.339	99.068	99.877
15:34	MA46738-CCB2	100.887	100.028	97.754	98.82	99.535	99.087	100.283	100.785
15:40	ZZZZZZ	102.95	99.099	98.32	99.614	98.532	99.907	102.749	100.561
15:45	ZZZZZZ	103.476	99.661	99.296	100.109	98.649	100.498	102.635	100.317
15:50	ZZZZZZ	104.553	101.017	99.184	100.781	99.244	99.819	102.871	100.465
15:59	MA46738-CCVA3	103.177	102.07	98.095	97.618	98.521	100.175	100.958	102.77
16:04	MA46738-CCB3	103.207	103.757	99.893	100.661	102.074	101.331	101.778	101.36
16:09	MP15011-MB1	103.466	107.437	99.836	100.03	103.468	101.372	98.706	102.295
16:14	MP15011-B2	101.825	106.182	99.402	98.397	102.325	100.942	97.742	104.066
16:21	MP15011-S3	95.243	88.369	83.541	82.301	78.754	87.942	91.609	92.465
16:26	MP15011-S4	93.24	86.898	80.225	80.59	77.786	84.914	89.976	88.657

INTERNAL STANDARD SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:31	JC87015-12	93.405	87.521	80.372	80.542	78.812	84.648	89.414	88.658
16:36	MP15011-SD1	102.043	97.22	91.738	93.582	91.95	95.286	100.125	96.809
16:41	MP15011-PS1	94.711	90.843	83.792	82.736	80.77	87.986	91.486	91.856
16:46	JC87982-1	99.5	101.732	92.566	93.049	95.753	96.597	96.09	98.816
16:51	MA46738-CCVA4	101.457	101.391	96.236	96.857	97.425	98.819	98.191	101.026
16:56	MA46738-CCB4	102.305	102.522	98.875	99.146	100.987	101.699	100.955	101.385
17:02	MA46738-CRI2	104.086	103.803	99.902	100.085	101.454	101.216	101.147	101.771
17:07	MP15041-MB1	104.724	106.135	100.213	100.236	102.481	102.102	99.677	102.652
17:12	MP15041-MB2	105.618	109.631	100.845	100.277	104.054	102.056	98.79	103.206
17:17	MP15041-B1	103.277	109.53	98.563	98.482	102.877	100.764	97.315	104.052
17:22	MP15041-B2	105.894	109.941	100.513	99.779	103.452	102.708	98.122	105.327
17:27	MP15041-B3	102.98	107.163	94.578	95.308	97.799	98.642	93.667	101.601
17:32	MP15041-S1	102.867	108.191	91.655	92.852	95.652	97.187	94.339	101.13
17:37	MP15041-S2	103.513	108.151	94.333	93.329	97.492	98.879	94.88	102.591
17:42	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:47	MA46738-CCVA5	106.559	105.311	100.986	100.05	100.994	102.919	101.381	104.201
17:52	MA46738-CCB5	106.616	106.155	102.402	102.426	103.435	103.616	103.975	102.705
17:57	JC88061-1	103.57	106.142	94.814	93.827	96.307	98.643	96.215	102.086
18:02	MP15041-SD1	108.402	105.856	100.807	100.097	99.632	103.479	103.561	103.276
18:07	ZZZZZZ	107.781	111.4	99.419	98.98	101.717	102.081	99.953	103.747
18:12	ZZZZZZ	106.01	108.424	97.484	96.357	98.676	101.146	97.709	102.814
18:17	ZZZZZZ	104.117	108.665	98.199	96.563	100.321	102.044	97.819	103.623
18:22	ZZZZZZ	104.323	108.24	97.529	96.084	100.946	100.217	97.405	102.381
18:27	ZZZZZZ	104.463	108.301	97.187	97.046	100.917	100.095	97.37	102.128
18:32	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:37	MA46738-CCVA6	98.611	98.788	93.009	94.081	95.822	95.768	96.983	97.54
18:42	MA46738-CCB6	100.346	98.409	95.587	96.177	98.05	97.078	98.287	98.671
18:47	ZZZZZZ	100.245	103.588	92.939	93.136	97.42	95.481	95.057	98.797
18:52	ZZZZZZ	101.14	104.502	93.456	93.668	96.777	97.606	94.668	100.37
18:57	ZZZZZZ	100.323	99.228	88.22	87.279	88.287	92.361	93.03	96.709
19:02	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:07	MA46738-CCVA7	102.01	98.206	94.226	95.016	93.645	95.434	98.686	97.279
19:12	MA46738-CCB7	100.696	98.328	96.528	96.753	96.068	97.117	99.998	96.011

INTERNAL STANDARD SUMMARY

Login Number: JC87982
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Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
19:17	MP15102-MB1	102.235	97.868	96.336	98.004	97.068	97.117	101.096	96.264
19:22	MP15102-B1	101.848	98.607	96.015	96.755	95.923	96.719	99.825	96.566
19:27	MP15102-S1	102.515	95.575	93.499	94.946	92.434	95.106	101.534	95.101
19:32	MP15102-S2	102.892	95.583	93.485	95.155	91.909	94.669	100.866	94.966
19:37	JC88002-99	104.159	95.318	93.68	95.155	92.129	94.608	102.783	94.078
19:42	MP15102-S3	103.523	95.341	93.529	95.374	92.63	94.677	102.7	94.792
19:47	JC88002-100	103.491	94.851	92.273	95.004	92.087	93.755	101.186	93.398
19:52	ZZZZZZ	102.985	94.52	93.213	95.193	91.876	94.368	100.917	94.272
19:58	ZZZZZZ	103.211	93.908	92.712	94.675	91.659	94.001	101.379	94.368
20:02	ZZZZZZ	102.378	94.394	92.63	94.507	91.116	94.556	100.747	93.686
20:08	MA46738-CCVA8	96.111	92.472	90.547	91.452	90.145	91.555	95.919	93.031
20:13	MA46738-CCB8	97.66	92.118	92.335	92.802	92.421	93.048	96.644	92.888
20:18	ZZZZZZ	100.367	91.633	90.708	92.645	90.322	91.974	99.398	92.451
20:23	ZZZZZZ	101.693	91.355	90.365	92.472	89.581	92.811	100.132	92.538
20:28	ZZZZZZ	102.653	93.017	91.836	94.774	90.587	93.831	100.566	93.702
20:33	ZZZZZZ	102.132	92.843	91.537	93.705	90.495	92.943	100.497	93.142
20:38	ZZZZZZ	101.353	92.842	91.542	93.465	90.655	93.1	100.72	93.233
20:43	ZZZZZZ	100.729	92.811	91.378	93.46	90.271	92.568	99.87	92.652
20:48	ZZZZZZ	102.098	93.066	91.282	93.206	90.245	92.874	100.071	93.231
20:53	ZZZZZZ	101.86	92.908	91.881	93.48	90.321	93.115	100.106	92.9
20:58	ZZZZZZ	101.032	93.419	91.046	93.084	89.964	92.827	100.694	92.403
21:03	ZZZZZZ	101.104	93.471	90.841	93.198	90.475	92.878	100.244	92.945
21:08	MA46738-CCVA9	95.705	91.197	88.722	89.626	89.14	90.687	94.849	92.731
21:13	MA46738-CCB9	95.226	91.049	90.955	91.36	91.107	90.962	95.121	91.259
21:18	ZZZZZZ	99.193	91.042	89.273	91.902	89.601	91.294	98.945	91.265
21:23	ZZZZZZ	100.702	92.825	90.027	91.888	89.629	91.538	99.132	91.786
21:28	ZZZZZZ	99.709	92.259	90.093	92.304	89.977	92.379	99.528	91.799
21:33	ZZZZZZ	100.808	93.507	91.062	93.784	90.654	92.642	100.709	92.917
21:38	ZZZZZZ	101.896	92.031	90.834	93.115	89.963	92.557	99.83	92.896
21:43	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:48	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:53	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:58	MA46738-CCVA10	94.258	89.799	88.211	88.773	88.258	89.921	93.825	91.7

INTERNAL STANDARD SUMMARY

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Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
22:03	MA46738-CCB10	94.7	91.804	89.946	92.62	92.24	90.527	95.446	91.882
22:08	ZZZZZZ	No results reported for the elements associated with this internal standard.							
22:13	ZZZZZZ	No results reported for the elements associated with this internal standard.							

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#9	Germanium (74-2)	60-125 %
Istd#10	Germanium (74-3)	60-125 %
Istd#11	Rhodium (103-1)	60-125 %
Istd#12	Rhodium (103-2)	60-125 %
Istd#13	Rhodium (103-3)	60-125 %
Istd#14	Indium (115-1)	60-125 %
Istd#15	Indium (115-2)	60-125 %
Istd#16	Terbium (159-1)	60-125 %

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Analyst: GT Run ID: MA46738
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Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
12:53	MA46738-STD1	100	100	100	100	100	100
12:58	MA46738-STD2	100	100	100	100	100	100
13:03	MA46738-STD3	100	100	100	100	100	100
13:08	MA46738-STD4	100.229	100.107	100.318	99.836	100.369	99.785
13:13	MA46738-STD5	100.119	100.36	99.889	99.9	100.586	99.994
13:18	MA46738-STD6	99.763	100.745	100.541	100.261	100.715	99.99
13:23	MA46738-STD7	100.742	100.757	100.159	99.962	100.58	100.778
13:28	MA46738-STD8	100.104	100.01	100.009	100.037	100.445	99.98
13:33	MA46738-STD9	100.277	100.476	99.585	99.798	100.214	99.781
13:38	MA46738-STD10	99.708	99.896	100.049	100.021	99.804	99.662
13:43	MA46738-STD11	99.799	99.347	99.768	99.151	96.904	96.737
13:48	MA46738-STD12	99.802	97.955	98.587	100.225	95.201	96.295
14:04	MA46738-ICVA1	101.522	99.288	100.745	101.553	98.547	99.47
14:09	MA46738-ICV1	101.401	100.669	99.861	102.236	100.516	101.495
14:23	MA46738-ICVA2	102.158	98.828	101.871	102.236	99.059	100.1
14:32	MA46738-ICB1	102.48	100.496	101.468	103.492	101.468	102.59
14:37	MA46738-CCVA1	101.218	99.729	100.208	101.671	98.413	98.989
14:42	MA46738-CCB1	101.227	101.284	101.363	100.919	100.391	101.98
14:47	MA46738-CRI1	102.572	100.957	101.001	102.153	101.591	101.899
15:01	MA46738-ICSA1	93.411	88.745	90.685	94.156	83.83	86.084
15:06	MA46738-ICSAB1	93.149	89.388	93.35	93.228	85.746	85.647
15:11	ZZZZZZ	No results reported for the elements associated with this internal standard.					
15:29	MA46738-CCVA2	99.905	98.593	100.089	99.594	99.518	98.539
15:34	MA46738-CCB2	99.679	100.26	101.695	99.814	102.606	100.366
15:40	ZZZZZZ	101.217	100.081	101.142	101.411	101.442	101.753
15:45	ZZZZZZ	101.031	99.866	100.041	102.269	101.527	102.326
15:50	ZZZZZZ	101.072	100.597	100.73	101.86	101.835	102.658
15:59	MA46738-CCVA3	100.152	100.764	103.606	100.819	101.953	99.286
16:04	MA46738-CCB3	100.697	101.96	102.952	101.28	103.267	101.496
16:09	MP15011-MB1	99.57	103.184	102.977	99.997	113.529	106.746
16:14	MP15011-B2	99.432	104.136	105.347	100.46	105.425	101.18
16:21	MP15011-S3	92.611	87.93	93.105	92.911	84.492	84.124
16:26	MP15011-S4	91.529	86.892	90.152	91.962	80.501	82.641

INTERNAL STANDARD SUMMARY

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Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
16:31	JC87015-12	91.381	87.771	89.876	92.394	80.906	82.302
16:36	MP15011-SD1	98.767	97.044	97.867	99.627	93.531	95.4
16:41	MP15011-PS1	91.92	89.498	92.791	93.14	83.685	82.696
16:46	JC87982-1	97.211	100.195	100.031	98.717	97.684	95.265
16:51	MA46738-CCVA4	99.08	100.332	102.645	100.431	100.871	97.42
16:56	MA46738-CCB4	99.013	100.706	102.383	99.834	101.81	100.002
17:02	MA46738-CRI2	98.92	101.366	102.838	99.849	103.033	99.405
17:07	MP15041-MB1	99.212	101.945	102.652	99.515	103.932	99.774
17:12	MP15041-MB2	99.285	104.081	103.969	99.289	104.803	99.967
17:17	MP15041-B1	98.493	103.45	103.77	98.617	102.891	96.758
17:22	MP15041-B2	99.223	104.652	105.988	99.75	103.165	97.789
17:27	MP15041-B3	96.669	100.986	103.767	97.277	96.547	93.694
17:32	MP15041-S1	97.014	101.359	102.664	97.763	94.881	90.689
17:37	MP15041-S2	96.969	102.515	103.75	98.364	96.059	90.682
17:42	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:47	MA46738-CCVA5	100.431	101.466	104.58	102.06	101.234	98.518
17:52	MA46738-CCB5	100.286	102.164	103.307	100.44	103.073	100.477
17:57	JC88061-1	97.615	100.722	103.209	98.526	95.596	91.631
18:02	MP15041-SD1	100.737	101.122	105.075	101.888	102.507	99.072
18:07	ZZZZZZ	99.111	103.224	105.127	100.113	101.058	96.457
18:12	ZZZZZZ	98.419	102.065	103.604	99.34	97.336	93.231
18:17	ZZZZZZ	98.64	102.668	105.04	99.341	100.499	94.603
18:22	ZZZZZZ	97.819	102.734	103.731	98.222	100.004	95.776
18:27	ZZZZZZ	98.215	103.359	104.08	99.121	100.977	96.124
18:32	ZZZZZZ	No results reported for the elements associated with this internal standard.					
18:37	MA46738-CCVA6	96.355	98.352	98.112	97.776	97.311	95.856
18:42	MA46738-CCB6	96.557	97.895	99.137	98.542	98.894	98.238
18:47	ZZZZZZ	96.5	100.291	100.881	97.378	97.587	94.524
18:52	ZZZZZZ	97.155	100.682	101.804	98.468	96.65	93.639
18:57	ZZZZZZ	94.106	94.558	97.259	94.615	85.419	83.622
19:02	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:07	MA46738-CCVA7	97.926	96.779	97.266	98.912	95.488	96.513
19:12	MA46738-CCB7	97.131	97.156	97.368	98.432	97.972	97.281

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Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
19:17	MP15102-MB1	97.947	97.204	97.715	98.041	96.969	97.21
19:22	MP15102-B1	97.109	96.936	96.498	98.387	97.461	97.91
19:27	MP15102-S1	98.34	95.21	95.955	98.751	94.2	96.459
19:32	MP15102-S2	98.295	94.986	95.367	99.275	94.306	96.566
19:37	JC88002-99	98.907	95.42	95.643	99.17	94.42	97.434
19:42	MP15102-S3	98.744	95.573	95.307	98.813	94.919	97.557
19:47	JC88002-100	98.479	95.475	95	98.856	93.661	97.302
19:52	ZZZZZZ	98.226	94.925	94.673	99.776	93.741	97.491
19:58	ZZZZZZ	97.913	95	95.243	98.733	94.462	97.986
20:02	ZZZZZZ	97.635	94.093	95.063	98.618	93.375	97.407
20:08	MA46738-CCVA8	94.822	93.83	93.514	96.157	92.232	93.347
20:13	MA46738-CCB8	95.057	93.853	93.529	95.582	94.618	95.827
20:18	ZZZZZZ	96.414	93.37	93.753	97.028	92.817	96.34
20:23	ZZZZZZ	97.37	93.559	93.424	97.751	91.98	95.875
20:28	ZZZZZZ	97.017	93.611	94.813	98.234	93.256	97.062
20:33	ZZZZZZ	97.43	93.824	93.949	97.433	92.677	96.075
20:38	ZZZZZZ	96.504	93.843	93.91	96.669	92.951	96.742
20:43	ZZZZZZ	97.157	93.923	93.726	97.19	93.064	96.204
20:48	ZZZZZZ	97.091	93.659	94.018	97.714	93.036	96.199
20:53	ZZZZZZ	96.858	93.745	94.216	97.668	92.256	96.004
20:58	ZZZZZZ	97.421	93.428	93.424	97.784	92.769	95.97
21:03	ZZZZZZ	96.899	93.784	94.146	97.6	93.276	96.497
21:08	MA46738-CCVA9	94.773	93.025	94.015	95.207	91.573	92.196
21:13	MA46738-CCB9	93.982	92.238	92.172	94.79	92.825	95.091
21:18	ZZZZZZ	96.206	93.898	91.637	97.267	91.632	96.367
21:23	ZZZZZZ	96.345	93.315	92.905	96.084	91.93	95.576
21:28	ZZZZZZ	95.684	93.34	92.776	96.418	92.671	95.711
21:33	ZZZZZZ	97.096	94.353	94.01	98.009	92.897	96.727
21:38	ZZZZZZ	96.487	92.716	94.039	97.797	94.185	96.994
21:43	ZZZZZZ	No results reported for the elements associated with this internal standard.					
21:48	ZZZZZZ	No results reported for the elements associated with this internal standard.					
21:53	ZZZZZZ	No results reported for the elements associated with this internal standard.					
21:58	MA46738-CCVA10	93.853	92.673	92.645	94.528	91.397	92.524

INTERNAL STANDARD SUMMARY

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Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46738
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
22:03	MA46738-CCB10	93.699	94.091	92.669	94.834	92.942	94.986
22:08	ZZZZZZ	No results reported for the elements associated with this internal standard.					
22:13	ZZZZZZ	No results reported for the elements associated with this internal standard.					

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#17	Terbium (159-2)	60-125 %
Istd#18	Terbium (159-3)	60-125 %
Istd#19	Holmium (165-1)	60-125 %
Istd#20	Holmium (165-2)	60-125 %
Istd#21	Bismuth (209-1)	60-125 %
Istd#22	Bismuth (209-2)	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46738 Units: ug/l

Time: / Sample ID:				14:32 ICB1		14:42 CCB1		15:34 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.0239	<1.5	0.0299	<1.5	0.0249	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.30	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	1.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.025	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46738 Units: ug/l

Time: / Sample ID:				16:04 CCB3		16:56 CCB4		17:52 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.0244	<0.50	0.0279	<1.5	0.0599	<0.50
Barium	1.0	.008	0.50						
Beryllium	0.30	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	1.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.025	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46738 Units: ug/l

Time:		14:04			14:09			14:23	
Sample ID:	ICVA	ICVA1		ICV	ICV1		ICVA	ICVA2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic							60	59.3	98.8
Barium									
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46738 Units: ug/l

Time:		14:37			15:29			15:59	
Sample ID:	CCVA	CCVA1		CCVA	CCVA2		CCVA	CCVA3	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	50	51.0	102.0	50	53.2	106.4	50	52.3	104.6
Barium									
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46738 Units: ug/l

Time:		16:51			17:47	
Sample ID:	CCVA	CCVA4		CCVA	CCVA5	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	50	52.9	105.8	50	52.8	105.6
Barium						
Beryllium						
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron	anr					
Lead	anr					
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium						
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46738 Units: ug/l

Time:			14:47		17:02	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	25	25	anr			
Antimony	2.0	0.25	anr			
Arsenic	0.50	0.50	0.494	98.8	0.579	115.8
Barium	1.0	0.50				
Beryllium	0.50	0.25				
Boron	25	2.5				
Cadmium	0.50	0.25	anr			
Calcium	250	125				
Chromium	1.0	2.0	anr			
Cobalt	0.50	0.25				
Copper	2.0	2.0	anr			
Iron	25	25	anr			
Lead	0.50	0.25	anr			
Magnesium	250	125				
Manganese	1.0	0.25				
Molybdenum	1.0	0.50				
Nickel	1.0	2.0	anr			
Potassium	250	125				
Selenium	0.50	0.50	anr			
Silver	0.50	1.0	anr			
Sodium	250	125				
Strontium	5.0	0.50				
Thallium	0.50	0.25	anr			
Tin	5.0	0.50				
Titanium	1.0	0.50				
Vanadium	1.0	2.0				
Zinc	5.0	2.0	anr			

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA051619M1L.CSV Date Analyzed: 05/16/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46738 Units: ug/l

Time:			15:01		15:06	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	101000	101.0	97800	97.8
Antimony			0.213		0.192	
Arsenic		20	0.0890		19.7	98.5
Barium			0.273		0.285	
Beryllium			0.000641		0.00201	
Boron		50	2.98		56.5	113.0
Cadmium		20	-0.368		18.7	93.5
Calcium	100000	100000	101000	101.0	97700	97.7
Chromium		20	0.287		20.5	102.5
Cobalt		20	0.350*(a		20.1	100.5
Copper		20	0.415		19.0	95.0
Iron	100000	100000	93700	93.7	92300	92.3
Lead			0.0794		0.0752	
Magnesium	100000	100000	96600	96.6	94300	94.3
Manganese		20	0.509		21.2	106.0
Molybdenum	2000	2000	2260	113.0	2210	110.5
Nickel		20	0.667		19.5	97.5
Potassium	100000	100000	103000	103.0	101000	101.0
Selenium		20	0.142		19.2	96.0
Silver		20	0.0310		20.2	101.0
Sodium	100000	100000	94700	94.7	93400	93.4
Strontium	2000	2000	2160	108.0	2110	105.5
Thallium			0.00662		0.00342	
Tin	2000	2000	2120	106.0	2120	106.0
Titanium	2000	2000	1960	98.0	1930	96.5
Vanadium		20	0.0141		22.1	110.5
Zinc		20	-0.498		16.8	84.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) No DOD samples reported for this element in the area bracketed by this QC.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP15011
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/14/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.55	32		
Antimony	4.0	.19	1.7		
Arsenic	3.0	.026	.94	0.13	<3.0
Barium	2.0	.016	.73		
Beryllium	1.0	.008	.15		
Boron	50	1.3	14		
Cadmium	6.0	.008	.17		
Calcium	500	12	64		
Chromium	8.0	.028	.62		
Cobalt	1.0	.004	.17		
Copper	10	.042	1.9		
Iron	50	.86	19		
Lead	3.0	.018	.52		
Magnesium	500	.3	46		
Manganese	4.0	.014	.63		
Molybdenum	2.0	.03	.45		
Nickel	8.0	.034	.95		
Potassium	500	1.4	68		
Selenium	2.0	.14	.55		
Silver	2.0	.008	.16		
Sodium	500	2.1	140		
Strontium	20	.006	2.4		
Thallium	2.0	.008	.17		
Tin	10	.14	2.6		
Titanium	4.0	.07	1.6		
Vanadium	3.0	.018	1.8		
Zinc	20	.058	5.4		

Associated samples MP15011: JC87982-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP15011 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 05/14/19

Metal	JC87015-12 Original	MS	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum					
Antimony					
Arsenic	12.5	83.6	80	88.9	75-125
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP15011: JC87982-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP15011 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 05/14/19

Metal	JC87015-12 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	12.5	83.9	80	89.3	0.4	20
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP15011: JC87982-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP15011
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/14/19

Metal	BSP Result	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum				
Antimony				
Arsenic	75.6	80	94.5	80-120
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15011: JC87982-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP15011 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 05/14/19

Metal	JC87015-12 Original	SDL 2:10	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	12.5	14.5	15.9*(a)	0-10
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15011: JC87982-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: JC87982
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP15011 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 05/14/19

Metal	Sample ml	Final ml	JC87015-12 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.14	10	12.48115	11.40777	83.576	0.2	4	80	90.2	75-125
Barium										
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP15011: JC87982-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Instrument Detection Limits

Job Number: JC87982
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Aluminum	.045
Aluminum	.276
Antimony	.094
Arsenic	.12
Arsenic	.013
Barium	.008
Beryllium	.004
Boron	.648
Cadmium	.007
Cadmium	.004
Calcium	6.11
Chromium	.036
Chromium	.014
Cobalt	.0041
Cobalt	.002
Copper	.1044
Copper	.021
Iron	1.21
Iron	.432
Lead	.009
Magnesium	.033
Magnesium	.152
Manganese	.006
Manganese	.007
Molybdenum	.015
Nickel	.046
Nickel	.017
Potassium	.506
Potassium	.707
Selenium	.503
Selenium	.072
Silver	.004
Sodium	.357
Sodium	1.037
Strontium	.003
Thallium	.004
Tin	.025
Tin	.071
Titanium	.035
Titanium	.035
Vanadium	.112
Vanadium	.009
Zinc	.041
Zinc	.029

Instrument Detection Limits

Job Number: JC87982
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l

The above applies to the following instrument runs:
MA46738

Instrument Linear Ranges

Job Number: JC87982
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC87982
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA46738

Metals Analysis

Raw Data

Quantitation Report

File Name 001CALB.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 12:53
Sample Name STDA 4
Sample Type CalBlk
Comment 0
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	1617.10	10.67	5.095E-06	Pulse	0.25	3
B			1	0.000	ug/l	-15721.14	1,760.14	8.443E-04	Pulse	0.15	3
Ca			1	0.052	ug/l	930.43	11,811.33	4.453E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-375.23	423.36	1.322E-04	Pulse	0.10	3
Mo			1	0.002	ug/l	194.13	56.67	1.767E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	158.47	33.33	9.515E-06	Pulse	0.10	3
Sn			1	0.030	ug/l	92.39	6,331.62	1.810E-03	Pulse	0.10	3
Sb			1	0.007	ug/l	49.18	220.01	4.859E-05	Pulse	0.10	3
Ba			1	0.006	ug/l	42.31	96.67	2.135E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	77.33	306.68	1.190E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	37.89	476.69	1.851E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	19.02	376.68	1.460E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	13.26	1,740.11	6.750E-04	Pulse	0.10	3
Na			2	0.231	ug/l	99.30	9,775.15	1.220E-01	Pulse	0.30	3
Mg			2	-0.011	ug/l	-92.12	65.55	8.179E-04	Pulse	0.30	3
Al			2	0.319	ug/l	5.89	118.89	1.483E-03	Pulse	0.30	3
K			2	0.509	ug/l	29.67	7,792.99	9.724E-02	Pulse	0.30	3
Ca			2	-0.474	ug/l	-90.49	45.56	5.685E-04	Pulse	0.30	3
Ti			2	-0.075	ug/l	-27.41	1.11	1.383E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-203.73	104.45	1.303E-03	Pulse	0.30	3
Cr			2	0.011	ug/l	59.62	381.12	4.756E-03	Pulse	0.30	3
Mn			2	0.005	ug/l	191.93	46.67	5.827E-04	Pulse	0.30	3
Fe			2	0.004	ug/l	883.84	1,813.46	2.263E-02	Pulse	0.30	3
Co			2	0.005	ug/l	7.15	82.22	1.026E-03	Pulse	0.30	3
Ni			2	0.012	ug/l	117.71	71.11	8.878E-04	Pulse	0.30	3
Cu			2	0.024	ug/l	78.93	841.14	1.050E-02	Pulse	0.30	3
Zn			2	32.859	ug/l	9.41	20,623.20	2.573E-01	Pulse	0.30	3
As			2	0.021	ug/l	42.16	12.33	1.539E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.009	ug/l	129.55	14.66	3.460E-05	Pulse	0.30	3
Sn			2	0.049	ug/l	165.48	1,020.05	2.410E-03	Pulse	0.30	3
Se			3	0.005	ug/l	303.63	4.60	5.766E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,083,484.60	1.03	100.0	Pulse	0.10	3
1	Sc		2,652,445.58	1.56	100.0	Pulse	0.10	3
1	Ge		491,026.11	2.49	100.0	Pulse	0.10	3
1	Ge		683,912.28	1.76	100.0	Pulse	0.10	3
1	Rh		3,198,813.08	1.60	100.0	Pulse	0.10	3
1	In		3,497,382.17	1.60	100.0	Pulse	0.10	3
1	Tb		4,522,166.91	1.31	100.0	Pulse	0.10	3
1	Ho		439,859.63	0.83	100.0	Pulse	0.10	3
1	Bi		2,578,870.22	1.72	100.0	Pulse	0.10	3
2	Sc		80,143.57	0.36	100.0	Pulse	0.30	3
2	Ge		44,111.79	0.45	100.0	Pulse	0.30	3
2	Ge		66,912.03	0.68	100.0	Pulse	0.30	3
2	Rh		1,287,257.66	0.21	100.0	Pulse	0.30	3
2	In		423,360.86	0.12	100.0	Pulse	0.30	3
2	Tb		1,597,755.11	0.27	100.0	Pulse	0.30	3
2	Ho		157,303.68	1.15	100.0	Pulse	0.30	3
2	Bi		1,050,030.79	0.65	100.0	Pulse	0.30	3
3	Sc		83,902.91	0.47	100.0	Pulse	0.30	3
3	Ge		51,543.40	1.62	100.0	Pulse	0.30	3
3	Ge		79,618.55	1.45	100.0	Pulse	0.30	3
3	Rh		902,563.68	0.90	100.0	Pulse	0.30	3
3	Tb		1,361,444.01	0.88	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 12:58
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-146.62	6.67	3.211E-06	Pulse	0.25	3
B			1	0.006	ug/l	263.67	1,782.37	8.573E-04	Pulse	0.15	3
Ca			1	0.279	ug/l	265.19	11,881.37	4.525E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-850.86	426.69	1.333E-04	Pulse	0.10	3
Mo			1	-0.005	ug/l	-15.05	6.67	2.075E-06	Pulse	0.10	3
Ag			1	0.000	ug/l	-770.47	23.33	6.691E-06	Pulse	0.10	3
Sn			1	-0.001	ug/l	-980.69	5,931.33	1.712E-03	Pulse	0.10	3
Sb			1	0.002	ug/l	165.90	156.68	3.475E-05	Pulse	0.10	3
Ba			1	-0.008	ug/l	-29.83	23.33	5.208E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	-1971.44	243.34	9.341E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	319.58	320.01	1.227E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	367.26	300.01	1.150E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	18.66	1,450.08	5.562E-04	Pulse	0.10	3
Na			2	-0.012	ug/l	-2214.75	9,673.97	1.196E-01	Pulse	0.30	3
Mg			2	-0.010	ug/l	-680.34	66.67	8.253E-04	Pulse	0.30	3
Al			2	0.017	ug/l	1002.88	85.55	1.057E-03	Pulse	0.30	3
K			2	0.657	ug/l	177.82	7,899.72	9.765E-02	Pulse	0.30	3
Ca			2	0.049	ug/l	2748.43	52.22	6.465E-04	Pulse	0.30	3
Ti			2	-0.040	ug/l	-102.67	4.45	5.490E-05	Pulse	0.30	3
V			2	-0.005	ug/l	-120.35	100.00	1.236E-03	Pulse	0.30	3
Cr			2	0.008	ug/l	10.22	375.57	4.643E-03	Pulse	0.30	3
Mn			2	-0.003	ug/l	-147.24	32.22	3.979E-04	Pulse	0.30	3
Fe			2	0.004	ug/l	1156.31	1,830.13	2.263E-02	Pulse	0.30	3
Co			2	0.000	ug/l	460.16	55.55	6.867E-04	Pulse	0.30	3
Ni			2	-0.007	ug/l	-136.09	38.89	4.813E-04	Pulse	0.30	3
Cu			2	0.031	ug/l	42.49	885.59	1.095E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	5.094	ug/l	13.15	4,229.49	5.231E-02	Pulse	0.30	3
As			2	0.014	ug/l	39.82	10.00	1.235E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	340.00	6.67	1.555E-05	Pulse	0.30	3
Sn			2	0.002	ug/l	600.57	948.93	2.208E-03	Pulse	0.30	3
Se			3	0.012	ug/l	135.89	5.07	6.381E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,078,930.05	0.32	100.0	Pulse	0.10	3
1	Sc		2,625,286.84	0.60	100.0	Pulse	0.10	3
1	Ge		488,415.90	1.42	100.0	Pulse	0.10	3
1	Ge		682,262.23	0.25	100.0	Pulse	0.10	3
1	Rh		3,201,178.08	0.73	100.0	Pulse	0.10	3
1	In		3,465,083.56	1.36	100.0	Pulse	0.10	3
1	Tb		4,504,002.85	1.72	100.0	Pulse	0.10	3
1	Ho		435,017.82	1.56	100.0	Pulse	0.10	3
1	Bi		2,606,935.79	0.76	100.0	Pulse	0.10	3
2	Sc		80,898.22	0.87	100.0	Pulse	0.30	3
2	Ge		44,623.12	0.91	100.0	Pulse	0.30	3
2	Ge		67,366.16	0.84	100.0	Pulse	0.30	3
2	Rh		1,304,880.19	0.66	100.0	Pulse	0.30	3
2	In		429,742.02	0.52	100.0	Pulse	0.30	3
2	Tb		1,626,136.95	0.79	100.0	Pulse	0.30	3
2	Ho		158,910.42	0.61	100.0	Pulse	0.30	3
2	Bi		1,067,329.19	0.68	100.0	Pulse	0.30	3
3	Sc		84,173.24	1.36	100.0	Pulse	0.30	3
3	Ge		51,186.59	0.62	100.0	Pulse	0.30	3
3	Ge		79,381.87	0.77	100.0	Pulse	0.30	3
3	Rh		901,292.25	0.24	100.0	Pulse	0.30	3
3	Tb		1,360,969.18	0.58	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 13:03
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-1954.08	9.33	4.490E-06	Pulse	0.25	3
B			1	0.000	ug/l	---	1,749.03	8.448E-04	Pulse	0.15	3
Ca			1	0.000	ug/l	---	11,591.11	4.437E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-2437.72	436.69	1.370E-04	Pulse	0.10	3
Mo			1	0.000	ug/l	756.11	46.67	1.465E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	871.51	26.67	7.651E-06	Pulse	0.10	3
Sn			1	0.006	ug/l	339.77	6,031.36	1.733E-03	Pulse	0.10	3
Sb			1	0.000	ug/l	-34740.37	136.67	3.017E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	---	63.33	1.400E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	-288.58	236.68	9.159E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-7518.41	303.35	1.174E-04	Pulse	0.10	3
Pb			1	0.001	ug/l	1704.69	283.35	1.098E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-133.60	1,196.74	4.633E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	9,797.38	1.197E-01	Pulse	0.30	3
Mg			2	-0.012	ug/l	-158.08	66.67	8.147E-04	Pulse	0.30	3
Al			2	0.000	ug/l	---	84.45	1.032E-03	Pulse	0.30	3
K			2	0.388	ug/l	196.80	7,931.96	9.690E-02	Pulse	0.30	3
Ca			2	-0.009	ug/l	-1897.52	52.22	6.380E-04	Pulse	0.30	3
Ti			2	-0.063	ug/l	-63.91	2.22	2.728E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-522.05	108.89	1.330E-03	Pulse	0.30	3
Cr			2	0.000	ug/l	-5492.09	346.68	4.235E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	37.78	4.612E-04	Pulse	0.30	3
Fe			2	0.000	ug/l	---	1,839.04	2.247E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-718.16	51.11	6.239E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-1872.60	50.00	6.101E-04	Pulse	0.30	3
Cu			2	0.000	ug/l	---	743.36	9.083E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.418	ug/l	40.93	1,455.64	1.779E-02	Pulse	0.30	3
As			2	0.000	ug/l	2288.53	5.33	6.525E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	-6229.23	5.33	1.213E-05	Pulse	0.30	3
Sn			2	0.022	ug/l	86.12	1,005.60	2.296E-03	Pulse	0.30	3
Se			3	0.005	ug/l	161.73	4.60	5.818E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,069,471.10	0.73	100.0	Pulse	0.10	3
1	Sc		2,612,841.84	0.84	100.0	Pulse	0.10	3
1	Ge		488,552.03	0.84	100.0	Pulse	0.10	3
1	Ge		680,393.01	0.14	100.0	Pulse	0.10	3
1	Rh		3,187,567.97	1.26	100.0	Pulse	0.10	3
1	In		3,481,057.90	1.08	100.0	Pulse	0.10	3
1	Tb		4,531,040.35	1.09	100.0	Pulse	0.10	3
1	Ho		434,344.89	1.34	100.0	Pulse	0.10	3
1	Bi		2,583,813.14	0.95	100.0	Pulse	0.10	3
2	Sc		81,854.83	0.39	100.0	Pulse	0.30	3
2	Ge		45,005.22	0.53	100.0	Pulse	0.30	3
2	Ge		68,601.31	0.61	100.0	Pulse	0.30	3
2	Rh		1,308,196.20	0.27	100.0	Pulse	0.30	3
2	In		438,043.76	0.53	100.0	Pulse	0.30	3
2	Tb		1,628,145.87	0.68	100.0	Pulse	0.30	3
2	Ho		159,675.47	0.66	100.0	Pulse	0.30	3
2	Bi		1,071,981.14	0.58	100.0	Pulse	0.30	3
3	Sc		84,008.10	1.63	100.0	Pulse	0.30	3
3	Ge		51,340.41	1.24	100.0	Pulse	0.30	3
3	Ge		79,114.00	1.21	100.0	Pulse	0.30	3
3	Rh		901,384.51	0.41	100.0	Pulse	0.30	3
3	Tb		1,361,464.46	0.51	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 13:08
Sample Name STDB
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.525	ug/l	3.10	3,695.13	1.792E-03	Pulse	0.25	3
B			1	25.340	ug/l	1.52	116,884.97	5.671E-02	Pulse	0.15	3
Ca			1	259.461	ug/l	0.66	224,547.98	8.584E-02	Pulse	0.10	3
Sr			1	5.178	ug/l	1.94	195,982.15	6.108E-02	Pulse	0.10	3
Mo			1	0.977	ug/l	6.22	7,315.27	2.280E-03	Pulse	0.10	3
Ag			1	0.492	ug/l	2.02	8,756.04	2.499E-03	Pulse	0.10	3
Sn			1	4.649	ug/l	1.56	58,205.34	1.661E-02	Pulse	0.10	3
Sb			1	2.063	ug/l	2.03	25,978.81	5.713E-03	Pulse	0.10	3
Ba			1	1.072	ug/l	2.75	5,654.56	1.243E-03	Pulse	0.10	3
Tl			1	0.532	ug/l	2.66	15,962.43	6.155E-03	Pulse	0.10	3
Pb			1	0.530	ug/l	4.67	5,657.95	2.181E-03	Pulse	0.10	3
Pb			1	0.506	ug/l	6.34	4,807.62	1.854E-03	Pulse	0.10	3
Pb			1	0.527	ug/l	2.90	22,747.77	8.772E-03	Pulse	0.10	3
Na			2	247.521	ug/l	0.67	210,215.39	2.558E+00	Pulse	0.30	3
Mg			2	258.850	ug/l	0.18	96,055.40	1.169E+00	Pulse	0.30	3
Al			2	25.855	ug/l	3.72	3,091.43	3.761E-02	Pulse	0.30	3
K			2	251.449	ug/l	1.70	65,960.19	8.026E-01	Pulse	0.30	3
Ca			2	287.266	ug/l	5.03	3,573.76	4.350E-02	Pulse	0.30	3
Ti			2	1.185	ug/l	5.76	122.23	1.486E-03	Pulse	0.30	3
V			2	1.061	ug/l	4.79	3,365.94	4.096E-02	Pulse	0.30	3
Cr			2	1.055	ug/l	5.46	4,550.68	5.536E-02	Pulse	0.30	3
Mn			2	1.076	ug/l	8.48	2,071.27	2.518E-02	Pulse	0.30	3
Fe			2	25.428	ug/l	1.19	87,159.33	1.060E+00	Pulse	0.30	3
Co			2	0.528	ug/l	2.39	3,495.96	4.254E-02	Pulse	0.30	3
Ni			2	1.042	ug/l	5.58	1,912.35	2.326E-02	Pulse	0.30	3
Cu			2	2.204	ug/l	2.81	11,506.34	1.400E-01	Pulse	0.30	3
Zn			2	4.549	ug/l	6.64	3,968.30	4.828E-02	Pulse	0.30	3
As			2	0.497	ug/l	4.05	180.00	2.191E-03	Pulse	1.00	3
Cd			2	0.521	ug/l	8.02	579.67	1.322E-03	Pulse	0.30	3
Sn			2	4.696	ug/l	1.01	9,750.92	2.224E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.481	ug/l	14.07	38.60	4.855E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,061,247.45	0.73	99.6	Pulse	0.10	3
1	Sc		2,615,964.08	0.53	100.1	Pulse	0.10	3
1	Ge		490,839.81	0.68	100.5	Pulse	0.10	3
1	Ge		683,635.36	0.62	100.5	Pulse	0.10	3
1	Rh		3,208,776.72	1.20	100.7	Pulse	0.10	3
1	In		3,503,929.25	1.40	100.7	Pulse	0.10	3
1	Tb		4,547,302.12	0.59	100.4	Pulse	0.10	3
1	Ho		435,724.00	1.74	100.3	Pulse	0.10	3
1	Bi		2,593,349.23	0.46	100.4	Pulse	0.10	3
2	Sc		82,196.61	1.51	100.4	Pulse	0.30	3
2	Ge		45,350.73	1.23	100.8	Pulse	0.30	3
2	Ge		68,769.61	0.25	100.2	Pulse	0.30	3
2	Rh		1,303,735.43	0.57	99.7	Pulse	0.30	3
2	In		438,541.95	0.62	100.1	Pulse	0.30	3
2	Tb		1,631,871.91	0.49	100.2	Pulse	0.30	3
2	Ho		159,414.04	0.48	99.8	Pulse	0.30	3
2	Bi		1,069,675.55	0.72	99.8	Pulse	0.30	3
3	Sc		84,159.82	0.43	100.2	Pulse	0.30	3
3	Ge		51,465.36	1.30	100.2	Pulse	0.30	3
3	Ge		79,570.39	0.91	100.6	Pulse	0.30	3
3	Rh		896,218.99	0.43	99.4	Pulse	0.30	3
3	Tb		1,362,917.97	0.39	100.1	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 13:13
Sample Name STDC
Sample Type CalStd
Comment 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.906	ug/l	0.93	34,269.06	1.671E-02	Pulse	0.25	3
B			1	5.214	ug/l	1.91	25,299.20	1.234E-02	Pulse	0.15	3
Ca			1	9.696	ug/l	2.44	19,248.60	7.479E-03	Pulse	0.10	3
Sr			1	4.874	ug/l	0.81	183,675.03	5.750E-02	Pulse	0.10	3
Mo			1	4.819	ug/l	1.49	35,767.93	1.120E-02	Pulse	0.10	3
Ag			1	4.860	ug/l	1.79	85,702.10	2.463E-02	Pulse	0.10	3
Sn			1	4.898	ug/l	1.44	60,567.30	1.741E-02	Pulse	0.10	3
Sb			1	4.841	ug/l	1.25	60,236.28	1.336E-02	Pulse	0.10	3
Ba			1	4.996	ug/l	0.69	25,899.00	5.745E-03	Pulse	0.10	3
Tl			1	4.862	ug/l	1.51	144,075.25	5.544E-02	Pulse	0.10	3
Pb			1	4.973	ug/l	1.43	50,610.72	1.947E-02	Pulse	0.10	3
Pb			1	4.957	ug/l	1.03	44,718.58	1.721E-02	Pulse	0.10	3
Pb			1	4.925	ug/l	0.27	202,530.98	7.793E-02	Pulse	0.10	3
Na			2	4.336	ug/l	4.44	13,402.07	1.624E-01	Pulse	0.30	3
Mg			2	4.989	ug/l	1.39	1,929.02	2.338E-02	Pulse	0.30	3
Al			2	5.210	ug/l	7.43	693.36	8.403E-03	Pulse	0.30	3
K			2	6.321	ug/l	5.20	9,371.61	1.136E-01	Pulse	0.30	3
Ca			2	27.120	ug/l	1.89	386.68	4.686E-03	Pulse	0.30	3
Ti			2	4.802	ug/l	11.19	471.13	5.712E-03	Pulse	0.30	3
V			2	4.949	ug/l	1.12	15,348.35	1.860E-01	Pulse	0.30	3
Cr			2	4.763	ug/l	2.65	19,385.97	2.350E-01	Pulse	0.30	3
Mn			2	4.918	ug/l	0.40	9,366.09	1.135E-01	Pulse	0.30	3
Fe			2	4.913	ug/l	3.59	18,402.63	2.230E-01	Pulse	0.30	3
Co			2	4.917	ug/l	1.03	32,242.71	3.907E-01	Pulse	0.30	3
Ni			2	4.852	ug/l	0.17	8,749.08	1.060E-01	Pulse	0.30	3
Cu			2	5.026	ug/l	0.36	25,386.40	3.076E-01	Pulse	0.30	3
Zn			2	3.739	ug/l	6.35	3,490.41	4.231E-02	Pulse	0.30	3
As			2	5.001	ug/l	4.48	1,772.44	2.148E-02	Pulse	1.00	3
Cd			2	4.868	ug/l	2.94	5,327.05	1.225E-02	Pulse	0.30	3
Sn			2	4.864	ug/l	1.53	9,979.91	2.295E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	4.670	ug/l	2.05	335.13	4.251E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,050,425.63	0.41	99.1	Pulse	0.10	3
1	Sc		2,573,868.40	1.04	98.5	Pulse	0.10	3
1	Ge		484,521.88	1.08	99.2	Pulse	0.10	3
1	Ge		679,409.13	0.71	99.9	Pulse	0.10	3
1	Rh		3,193,959.43	1.09	100.2	Pulse	0.10	3
1	In		3,479,157.08	1.16	99.9	Pulse	0.10	3
1	Tb		4,507,743.27	1.31	99.5	Pulse	0.10	3
1	Ho		433,864.79	0.92	99.9	Pulse	0.10	3
1	Bi		2,598,950.22	0.67	100.6	Pulse	0.10	3
2	Sc		82,518.15	0.66	100.8	Pulse	0.30	3
2	Ge		45,559.01	1.53	101.2	Pulse	0.30	3
2	Ge		69,033.07	1.05	100.6	Pulse	0.30	3
2	Rh		1,301,842.27	0.41	99.5	Pulse	0.30	3
2	In		434,812.93	0.10	99.3	Pulse	0.30	3
2	Tb		1,630,081.46	0.42	100.1	Pulse	0.30	3
2	Ho		159,515.12	0.26	99.9	Pulse	0.30	3
2	Bi		1,071,919.23	0.19	100.0	Pulse	0.30	3
3	Sc		83,975.58	0.58	100.0	Pulse	0.30	3
3	Ge		50,822.09	0.67	99.0	Pulse	0.30	3
3	Ge		78,848.27	1.01	99.7	Pulse	0.30	3
3	Rh		901,598.47	0.75	100.0	Pulse	0.30	3
3	Tb		1,366,364.74	0.80	100.4	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 13:18
Sample Name STDD
Sample Type CalStd
Comment 25
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	25.578	ug/l	1.15	177,841.66	8.711E-02	Pulse	0.25	3
B			1	24.967	ug/l	1.28	114,095.04	5.589E-02	Pulse	0.15	3
Ca			1	35.362	ug/l	2.12	40,413.49	1.553E-02	Pulse	0.10	3
Sr			1	25.118	ug/l	0.29	938,119.05	2.958E-01	Pulse	0.10	3
Mo			1	25.337	ug/l	0.85	186,517.86	5.881E-02	Pulse	0.10	3
Ag			1	25.393	ug/l	1.19	446,945.48	1.287E-01	Pulse	0.10	3
Sn			1	25.087	ug/l	0.76	285,226.75	8.211E-02	Pulse	0.10	3
Sb			1	25.323	ug/l	0.69	314,968.23	6.978E-02	Pulse	0.10	3
Ba			1	25.356	ug/l	0.88	131,349.65	2.910E-02	Pulse	0.10	3
Tl			1	24.928	ug/l	0.53	738,707.02	2.839E-01	Pulse	0.10	3
Pb			1	24.992	ug/l	0.91	253,485.37	9.741E-02	Pulse	0.10	3
Pb			1	25.050	ug/l	0.55	225,142.32	8.651E-02	Pulse	0.10	3
Pb			1	24.967	ug/l	0.59	1,022,926.94	3.931E-01	Pulse	0.10	3
Na			2	24.334	ug/l	0.61	29,615.98	3.594E-01	Pulse	0.30	3
Mg			2	25.384	ug/l	0.76	9,508.34	1.154E-01	Pulse	0.30	3
Al			2	25.103	ug/l	6.41	3,011.42	3.655E-02	Pulse	0.30	3
K			2	25.746	ug/l	2.52	13,859.21	1.682E-01	Pulse	0.30	3
Ca			2	137.698	ug/l	4.63	1,745.67	2.118E-02	Pulse	0.30	3
Ti			2	25.757	ug/l	6.00	2,487.99	3.019E-02	Pulse	0.30	3
V			2	25.090	ug/l	0.92	77,227.44	9.372E-01	Pulse	0.30	3
Cr			2	25.083	ug/l	0.45	100,463.94	1.219E+00	Pulse	0.30	3
Mn			2	25.180	ug/l	2.66	47,729.92	5.793E-01	Pulse	0.30	3
Fe			2	24.626	ug/l	0.57	84,692.97	1.028E+00	Pulse	0.30	3
Co			2	25.317	ug/l	0.32	165,567.38	2.009E+00	Pulse	0.30	3
Ni			2	25.128	ug/l	1.82	45,033.76	5.465E-01	Pulse	0.30	3
Cu			2	25.324	ug/l	0.48	124,707.08	1.513E+00	Pulse	0.30	3
Zn			2	24.360	ug/l	1.20	16,031.31	1.945E-01	Pulse	0.30	3
As			2	24.976	ug/l	0.85	8,820.73	1.070E-01	Pulse	1.00	3
Cd			2	25.148	ug/l	2.36	27,520.57	6.323E-02	Pulse	0.30	3
Sn			2	25.373	ug/l	0.66	48,073.05	1.105E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	23.932	ug/l	1.80	1,696.02	2.157E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,041,492.23	0.66	98.6	Pulse	0.10	3
1	Sc		2,602,251.63	0.90	99.6	Pulse	0.10	3
1	Ge		485,492.70	0.38	99.4	Pulse	0.10	3
1	Ge		674,930.54	0.16	99.2	Pulse	0.10	3
1	Rh		3,171,503.08	1.16	99.5	Pulse	0.10	3
1	In		3,473,707.99	1.23	99.8	Pulse	0.10	3
1	Tb		4,513,669.72	0.94	99.6	Pulse	0.10	3
1	Ho		436,693.38	1.22	100.5	Pulse	0.10	3
1	Bi		2,602,289.39	1.36	100.7	Pulse	0.10	3
2	Sc		82,407.87	0.83	100.7	Pulse	0.30	3
2	Ge		45,497.65	0.63	101.1	Pulse	0.30	3
2	Ge		68,822.12	0.64	100.3	Pulse	0.30	3
2	Rh		1,302,078.56	0.90	99.5	Pulse	0.30	3
2	In		435,238.04	0.20	99.4	Pulse	0.30	3
2	Tb		1,624,282.12	0.17	99.8	Pulse	0.30	3
2	Ho		160,092.81	0.73	100.3	Pulse	0.30	3
2	Bi		1,071,873.74	0.23	100.0	Pulse	0.30	3
3	Sc		83,710.91	0.43	99.6	Pulse	0.30	3
3	Ge		51,398.40	0.86	100.1	Pulse	0.30	3
3	Ge		78,650.55	0.93	99.4	Pulse	0.30	3
3	Rh		898,968.99	0.64	99.7	Pulse	0.30	3
3	Tb		1,371,600.92	0.44	100.7	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 13:23
Sample Name	STDE
Sample Type	CalStd
Comment	50
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.920	ug/l	0.70	355,786.64	1.734E-01	Pulse	0.25	3
B			1	49.844	ug/l	1.77	227,175.72	1.107E-01	Pulse	0.15	3
Ca			1	61.563	ug/l	2.28	61,809.00	2.375E-02	Pulse	0.10	3
Sr			1	50.663	ug/l	1.55	1,884,796.17	5.965E-01	Pulse	0.10	3
Mo			1	50.586	ug/l	1.59	370,963.73	1.174E-01	Pulse	0.10	3
Ag			1	50.845	ug/l	0.40	888,354.41	2.576E-01	Pulse	0.10	3
Sn			1	50.525	ug/l	0.72	564,217.44	1.636E-01	Pulse	0.10	3
Sb			1	50.344	ug/l	1.24	625,455.37	1.387E-01	Pulse	0.10	3
Ba			1	51.418	ug/l	1.34	266,074.28	5.900E-02	Pulse	0.10	3
Tl			1	50.575	ug/l	1.38	1,496,489.40	5.758E-01	Pulse	0.10	3
Pb			1	50.916	ug/l	1.33	515,418.07	1.983E-01	Pulse	0.10	3
Pb			1	50.812	ug/l	0.87	455,773.86	1.754E-01	Pulse	0.10	3
Pb			1	50.885	ug/l	0.70	2,080,709.02	8.006E-01	Pulse	0.10	3
Na			2	45.195	ug/l	1.44	46,649.48	5.648E-01	Pulse	0.30	3
Mg			2	46.721	ug/l	1.05	17,479.18	2.116E-01	Pulse	0.30	3
Al			2	47.123	ug/l	3.60	5,590.98	6.770E-02	Pulse	0.30	3
K			2	48.282	ug/l	1.81	19,119.95	2.315E-01	Pulse	0.30	3
Ca			2	273.036	ug/l	1.16	3,417.07	4.138E-02	Pulse	0.30	3
Ti			2	49.239	ug/l	2.66	4,759.62	5.763E-02	Pulse	0.30	3
V			2	50.985	ug/l	0.40	157,158.71	1.903E+00	Pulse	0.30	3
Cr			2	50.600	ug/l	1.17	202,746.99	2.455E+00	Pulse	0.30	3
Mn			2	50.928	ug/l	1.64	96,715.85	1.171E+00	Pulse	0.30	3
Fe			2	47.020	ug/l	1.80	160,371.42	1.942E+00	Pulse	0.30	3
Co			2	50.935	ug/l	0.83	333,766.03	4.041E+00	Pulse	0.30	3
Ni			2	51.214	ug/l	1.56	91,927.72	1.113E+00	Pulse	0.30	3
Cu			2	51.293	ug/l	1.22	252,371.47	3.056E+00	Pulse	0.30	3
Zn			2	50.980	ug/l	0.33	32,297.38	3.911E-01	Pulse	0.30	3
As			2	50.029	ug/l	0.12	17,701.26	2.143E-01	Pulse	1.00	3
Cd			2	50.032	ug/l	0.89	54,870.40	1.258E-01	Pulse	0.30	3
Sn			2	50.343	ug/l	1.26	94,646.12	2.170E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	48.175	ug/l	0.59	3,436.83	4.336E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,051,601.86	0.54	99.1	Pulse	0.10	3
1	Sc		2,602,215.85	0.29	99.6	Pulse	0.10	3
1	Ge		482,132.73	1.78	98.7	Pulse	0.10	3
1	Ge		681,345.61	1.22	100.1	Pulse	0.10	3
1	Rh		3,160,616.31	2.46	99.2	Pulse	0.10	3
1	In		3,448,215.71	1.73	99.1	Pulse	0.10	3
1	Tb		4,510,440.87	2.15	99.5	Pulse	0.10	3
1	Ho		435,036.97	3.02	100.2	Pulse	0.10	3
1	Bi		2,598,810.43	0.53	100.6	Pulse	0.10	3
2	Sc		82,587.57	0.44	100.9	Pulse	0.30	3
2	Ge		45,570.06	2.15	101.3	Pulse	0.30	3
2	Ge		68,848.92	0.28	100.4	Pulse	0.30	3
2	Rh		1,304,313.35	0.63	99.7	Pulse	0.30	3
2	In		436,196.39	0.25	99.6	Pulse	0.30	3
2	Tb		1,640,220.04	0.98	100.7	Pulse	0.30	3
2	Ho		159,615.05	1.07	100.0	Pulse	0.30	3
2	Bi		1,080,321.69	0.43	100.8	Pulse	0.30	3
3	Sc		83,684.19	0.57	99.6	Pulse	0.30	3
3	Ge		51,231.21	1.79	99.8	Pulse	0.30	3
3	Ge		79,270.10	0.90	100.2	Pulse	0.30	3
3	Rh		899,273.40	1.16	99.8	Pulse	0.30	3
3	Tb		1,371,766.54	0.08	100.8	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 13:28
Sample Name	STDF
Sample Type	CalStd
Comment	100
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	98.622	ug/l	0.42	682,640.90	3.359E-01	Pulse	0.25	3
B			1	97.365	ug/l	0.69	437,983.44	2.155E-01	Pulse	0.15	3
Ca			1	124.390	ug/l	2.05	110,907.93	4.346E-02	Pulse	0.10	3
Sr			1	98.044	ug/l	0.54	3,639,604.11	1.154E+00	Pulse	0.10	3
Mo			1	99.304	ug/l	0.39	726,695.56	2.305E-01	Pulse	0.10	3
Ag			1	98.946	ug/l	0.51	1,713,122.89	5.014E-01	Pulse	0.10	3
Sn			1	99.734	ug/l	0.74	1,097,951.42	3.213E-01	Pulse	0.10	3
Sb			1	99.112	ug/l	0.74	1,227,318.50	2.730E-01	Pulse	0.10	3
Ba			1	99.201	ug/l	0.51	511,635.47	1.138E-01	Pulse	0.10	3
Tl			1	99.617	ug/l	0.26	2,943,295.69	1.134E+00	Pulse	0.10	3
Pb			1	99.605	ug/l	0.65	1,006,579.36	3.879E-01	Pulse	0.10	3
Pb			1	99.266	ug/l	0.62	888,909.88	3.425E-01	Pulse	0.10	3
Pb			1	99.221	ug/l	0.15	4,050,490.15	1.561E+00	Pulse	0.10	3
Na			2	94.352	ug/l	1.96	85,931.44	1.049E+00	Pulse	0.30	3
Mg			2	96.795	ug/l	2.80	35,840.24	4.375E-01	Pulse	0.30	3
Al			2	95.801	ug/l	3.33	11,186.03	1.366E-01	Pulse	0.30	3
K			2	96.760	ug/l	2.27	30,128.33	3.678E-01	Pulse	0.30	3
Ca			2	523.901	ug/l	2.55	6,456.88	7.881E-02	Pulse	0.30	3
Ti			2	97.368	ug/l	3.54	9,327.16	1.139E-01	Pulse	0.30	3
V			2	98.951	ug/l	0.95	302,462.09	3.692E+00	Pulse	0.30	3
Cr			2	98.501	ug/l	0.90	391,187.29	4.775E+00	Pulse	0.30	3
Mn			2	99.494	ug/l	1.14	187,392.55	2.287E+00	Pulse	0.30	3
Fe			2	95.682	ug/l	1.01	321,823.32	3.928E+00	Pulse	0.30	3
Co			2	98.840	ug/l	1.07	642,412.00	7.842E+00	Pulse	0.30	3
Ni			2	98.815	ug/l	1.64	175,896.89	2.147E+00	Pulse	0.30	3
Cu			2	99.267	ug/l	1.22	483,795.64	5.906E+00	Pulse	0.30	3
Zn			2	99.692	ug/l	1.15	61,500.25	7.507E-01	Pulse	0.30	3
As			2	97.823	ug/l	0.78	34,328.19	4.190E-01	Pulse	1.00	3
Cd			2	99.936	ug/l	1.27	109,011.15	2.512E-01	Pulse	0.30	3
Sn			2	99.594	ug/l	0.92	185,312.22	4.271E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	93.816	ug/l	1.00	6,594.86	8.438E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,032,436.24	0.26	98.2	Pulse	0.10	3
1	Sc		2,551,971.01	0.66	97.7	Pulse	0.10	3
1	Ge		479,519.34	0.92	98.2	Pulse	0.10	3
1	Ge		675,279.83	0.21	99.2	Pulse	0.10	3
1	Rh		3,153,383.70	0.77	98.9	Pulse	0.10	3
1	In		3,416,961.31	0.50	98.2	Pulse	0.10	3
1	Tb		4,495,565.87	0.85	99.2	Pulse	0.10	3
1	Ho		434,382.39	1.29	100.0	Pulse	0.10	3
1	Bi		2,595,320.02	1.05	100.4	Pulse	0.10	3
2	Sc		81,927.67	1.12	100.1	Pulse	0.30	3
2	Ge		45,078.76	1.84	100.2	Pulse	0.30	3
2	Ge		67,765.28	0.88	98.8	Pulse	0.30	3
2	Rh		1,283,799.88	0.12	98.1	Pulse	0.30	3
2	In		433,880.82	0.15	99.0	Pulse	0.30	3
2	Tb		1,629,840.46	0.16	100.1	Pulse	0.30	3
2	Ho		159,734.67	0.07	100.0	Pulse	0.30	3
2	Bi		1,071,762.00	0.05	100.0	Pulse	0.30	3
3	Sc		83,819.27	1.67	99.8	Pulse	0.30	3
3	Ge		51,066.18	1.46	99.5	Pulse	0.30	3
3	Ge		78,154.76	0.78	98.8	Pulse	0.30	3
3	Rh		890,675.35	0.46	98.8	Pulse	0.30	3
3	Tb		1,361,606.13	0.60	100.0	Pulse	0.30	3

Quantitation Report

File Name 009CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 13:33
Sample Name STDG
Sample Type CalStd
Comment 500MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.018	ug/l	16.81	133.33	6.608E-05	Pulse	0.25	3
B			1	201.313	ug/l	0.85	897,383.47	4.447E-01	Pulse	0.15	3
Ca			1	508.243	ug/l	0.62	420,882.23	1.639E-01	Pulse	0.10	3
Sr			1	0.030	ug/l	5.19	1,556.80	4.948E-04	Pulse	0.10	3
Mo			1	0.148	ug/l	21.20	1,130.09	3.585E-04	Pulse	0.10	3
Ag			1	0.024	ug/l	12.24	446.69	1.305E-04	Pulse	0.10	3
Sn			1	0.068	ug/l	57.18	6,618.30	1.933E-03	Pulse	0.10	3
Sb			1	0.888	ug/l	3.31	11,090.99	2.476E-03	Pulse	0.10	3
Ba			1	0.037	ug/l	38.18	250.01	5.595E-05	Pulse	0.10	3
Tl			1	0.035	ug/l	7.27	1,270.10	4.906E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	24.87	613.38	2.367E-04	Pulse	0.10	3
Pb			1	0.040	ug/l	25.64	640.04	2.469E-04	Pulse	0.10	3
Pb			1	0.038	ug/l	14.79	2,816.89	1.087E-03	Pulse	0.10	3
Na			2	503.834	ug/l	0.60	410,695.01	5.082E+00	Pulse	0.30	3
Mg			2	511.243	ug/l	0.75	186,446.59	2.307E+00	Pulse	0.30	3
Al			2	509.326	ug/l	0.83	58,313.48	7.216E-01	Pulse	0.30	3
K			2	509.506	ug/l	1.05	123,468.95	1.528E+00	Pulse	0.30	3
Ca			2	505.532	ug/l	1.11	6,146.75	7.607E-02	Pulse	0.30	3
Ti			2	0.172	ug/l	31.18	24.44	3.025E-04	Pulse	0.30	3
V			2	0.007	ug/l	12.81	134.45	1.664E-03	Pulse	0.30	3
Cr			2	0.009	ug/l	52.34	377.79	4.676E-03	Pulse	0.30	3
Mn			2	0.044	ug/l	29.98	118.89	1.470E-03	Pulse	0.30	3
Fe			2	504.588	ug/l	0.66	1,666,363.37	2.062E+01	Pulse	0.30	3
Co			2	0.037	ug/l	14.08	291.12	3.603E-03	Pulse	0.30	3
Ni			2	0.046	ug/l	43.39	132.23	1.635E-03	Pulse	0.30	3
Cu			2	0.085	ug/l	13.64	1,142.28	1.413E-02	Pulse	0.30	3
Zn			2	-1.291	ug/l	-1.27	417.79	5.170E-03	Pulse	0.30	3
As			2	0.045	ug/l	39.83	20.67	2.559E-04	Pulse	1.00	3
Cd			2	0.012	ug/l	93.19	18.59	4.238E-05	Pulse	0.30	3
Sn			2	0.175	ug/l	48.46	1,293.40	2.946E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	196.664	ug/l	0.90	14,039.66	1.768E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,018,079.06	0.42	97.5	Pulse	0.10	3
1	Sc		2,568,238.92	1.59	98.3	Pulse	0.10	3
1	Ge		479,253.98	2.39	98.1	Pulse	0.10	3
1	Ge		672,204.68	1.55	98.8	Pulse	0.10	3
1	Rh		3,147,283.60	1.29	98.7	Pulse	0.10	3
1	In		3,422,920.50	1.46	98.3	Pulse	0.10	3
1	Tb		4,478,793.48	1.51	98.8	Pulse	0.10	3
1	Ho		432,544.13	1.96	99.6	Pulse	0.10	3
1	Bi		2,589,348.14	1.18	100.2	Pulse	0.10	3
2	Sc		80,811.41	0.55	98.7	Pulse	0.30	3
2	Ge		44,846.98	0.86	99.6	Pulse	0.30	3
2	Ge		69,090.86	1.07	100.7	Pulse	0.30	3
2	Rh		1,290,661.30	0.24	98.7	Pulse	0.30	3
2	In		439,159.67	0.29	100.3	Pulse	0.30	3
2	Tb		1,632,651.36	0.36	100.3	Pulse	0.30	3
2	Ho		159,352.55	1.53	99.8	Pulse	0.30	3
2	Bi		1,069,628.74	0.11	99.8	Pulse	0.30	3
3	Sc		84,102.79	1.59	100.1	Pulse	0.30	3
3	Ge		51,427.34	1.30	100.2	Pulse	0.30	3
3	Ge		79,399.74	0.94	100.4	Pulse	0.30	3
3	Rh		889,634.69	0.51	98.7	Pulse	0.30	3
3	Tb		1,367,950.50	0.58	100.5	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 13:38
Sample Name	STDH
Sample Type	CalStd
Comment	1000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	31.45	56.00	2.781E-05	Pulse	0.25	3
B			1	7.176	ug/l	2.66	33,562.28	1.667E-02	Pulse	0.15	3
Ca			1	996.754	ug/l	0.08	808,902.64	3.172E-01	Pulse	0.10	3
Sr			1	0.025	ug/l	9.27	1,346.77	4.333E-04	Pulse	0.10	3
Mo			1	0.044	ug/l	31.33	360.02	1.161E-04	Pulse	0.10	3
Ag			1	0.010	ug/l	2.35	193.34	5.643E-05	Pulse	0.10	3
Sn			1	-0.095	ug/l	-32.02	4,827.60	1.409E-03	Pulse	0.10	3
Sb			1	0.309	ug/l	7.40	3,963.99	8.803E-04	Pulse	0.10	3
Ba			1	0.056	ug/l	17.77	353.35	7.839E-05	Pulse	0.10	3
Tl			1	0.010	ug/l	13.40	550.03	2.132E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	9.76	383.35	1.486E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	100.45	366.68	1.422E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	58.64	1,593.43	6.178E-04	Pulse	0.10	3
Na			2	985.766	ug/l	1.07	803,377.55	9.829E+00	Pulse	0.30	3
Mg			2	1013.052	ug/l	0.81	373,624.17	4.571E+00	Pulse	0.30	3
Al			2	1000.697	ug/l	0.78	115,806.10	1.417E+00	Pulse	0.30	3
K			2	996.953	ug/l	0.60	236,881.32	2.898E+00	Pulse	0.30	3
Ca			2	996.184	ug/l	1.86	12,201.25	1.493E-01	Pulse	0.30	3
Ti			2	-0.051	ug/l	-118.24	3.33	4.106E-05	Pulse	0.30	3
V			2	0.009	ug/l	154.36	142.23	1.742E-03	Pulse	0.30	3
Cr			2	-0.003	ug/l	-365.74	335.56	4.106E-03	Pulse	0.30	3
Mn			2	0.041	ug/l	30.64	114.45	1.402E-03	Pulse	0.30	3
Fe			2	992.174	ug/l	0.87	3,312,457.65	4.053E+01	Pulse	0.30	3
Co			2	0.052	ug/l	8.16	393.34	4.812E-03	Pulse	0.30	3
Ni			2	0.086	ug/l	24.19	203.34	2.485E-03	Pulse	0.30	3
Cu			2	0.091	ug/l	30.82	1,185.61	1.451E-02	Pulse	0.30	3
Zn			2	-0.766	ug/l	-11.91	738.91	9.043E-03	Pulse	0.30	3
As			2	0.011	ug/l	92.05	9.00	1.103E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	183.30	6.64	1.523E-05	Pulse	0.30	3
Sn			2	-0.040	ug/l	-9.26	885.59	2.031E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	402.560	ug/l	0.16	28,693.51	3.619E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,014,232.27	0.91	97.3	Pulse	0.10	3
1	Sc		2,550,513.56	0.62	97.6	Pulse	0.10	3
1	Ge		478,272.18	1.62	97.9	Pulse	0.10	3
1	Ge		671,811.58	1.06	98.7	Pulse	0.10	3
1	Rh		3,106,802.77	1.43	97.5	Pulse	0.10	3
1	In		3,425,612.29	1.04	98.4	Pulse	0.10	3
1	Tb		4,503,204.62	1.00	99.4	Pulse	0.10	3
1	Ho		434,559.36	1.41	100.0	Pulse	0.10	3
1	Bi		2,578,750.85	0.98	99.8	Pulse	0.10	3
2	Sc		81,740.91	0.87	99.9	Pulse	0.30	3
2	Ge		44,602.99	1.00	99.1	Pulse	0.30	3
2	Ge		69,108.86	0.54	100.7	Pulse	0.30	3
2	Rh		1,288,331.41	0.80	98.5	Pulse	0.30	3
2	In		436,033.69	0.19	99.5	Pulse	0.30	3
2	Tb		1,623,385.21	0.63	99.7	Pulse	0.30	3
2	Ho		159,708.23	0.66	100.0	Pulse	0.30	3
2	Bi		1,068,356.90	0.41	99.7	Pulse	0.30	3
3	Sc		82,986.10	1.22	98.8	Pulse	0.30	3
3	Ge		50,471.13	0.31	98.3	Pulse	0.30	3
3	Ge		79,283.76	0.34	100.2	Pulse	0.30	3
3	Rh		887,230.90	0.47	98.4	Pulse	0.30	3
3	Tb		1,360,043.63	0.60	99.9	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 13:43
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	135.11	20.00	1.015E-05	Pulse	0.25	3
B			1	4.307	ug/l	1.18	20,372.51	1.034E-02	Pulse	0.15	3
Ca			1	4989.700	ug/l	0.27	3,971,319.00	1.570E+00	Pulse	0.10	3
Sr			1	0.068	ug/l	3.33	2,877.04	9.410E-04	Pulse	0.10	3
Mo			1	0.024	ug/l	22.46	213.34	6.980E-05	Pulse	0.10	3
Ag			1	0.007	ug/l	44.02	136.67	4.057E-05	Pulse	0.10	3
Sn			1	0.011	ug/l	246.63	5,871.32	1.747E-03	Pulse	0.10	3
Sb			1	0.205	ug/l	5.95	2,663.66	5.938E-04	Pulse	0.10	3
Ba			1	0.044	ug/l	10.92	286.68	6.391E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	7.25	403.35	1.611E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	45.03	403.36	1.610E-04	Pulse	0.10	3
Pb			1	0.001	ug/l	488.24	276.68	1.105E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	19.44	1,553.43	6.203E-04	Pulse	0.10	3
Na			2	4901.089	ug/l	1.60	3,901,553.18	4.839E+01	Pulse	0.30	3
Mg			2	4998.880	ug/l	1.74	1,818,230.48	2.255E+01	Pulse	0.30	3
Al			2	4974.309	ug/l	1.02	567,521.19	7.039E+00	Pulse	0.30	3
K			2	4943.909	ug/l	1.14	1,128,136.69	1.399E+01	Pulse	0.30	3
Ca			2	4955.586	ug/l	1.08	59,671.81	7.400E-01	Pulse	0.30	3
Ti			2	-0.004	ug/l	-2230.86	7.78	9.658E-05	Pulse	0.30	3
V			2	0.001	ug/l	2302.18	115.56	1.439E-03	Pulse	0.30	3
Cr			2	0.028	ug/l	4.86	451.12	5.595E-03	Pulse	0.30	3
Mn			2	0.175	ug/l	7.29	362.23	4.495E-03	Pulse	0.30	3
Fe			2	4915.973	ug/l	2.09	16,180,531.02	2.007E+02	Analog	0.30	3
Co			2	0.252	ug/l	5.00	1,666.77	2.066E-02	Pulse	0.30	3
Ni			2	0.261	ug/l	9.46	507.79	6.303E-03	Pulse	0.30	3
Cu			2	0.402	ug/l	3.82	2,656.92	3.294E-02	Pulse	0.30	3
Zn			2	-1.071	ug/l	-6.50	547.79	6.792E-03	Pulse	0.30	3
As			2	0.050	ug/l	16.55	22.33	2.773E-04	Pulse	1.00	3
Cd			2	0.009	ug/l	65.99	14.65	3.409E-05	Pulse	0.30	3
Sn			2	0.024	ug/l	110.54	992.26	2.305E-03	Pulse	0.30	3
Se			3	0.200	ug/l	10.27	17.87	2.334E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,970,110.19	0.14	95.2	Pulse	0.10	3
1	Sc		2,529,649.60	1.27	96.8	Pulse	0.10	3
1	Ge		468,044.93	0.57	95.8	Pulse	0.10	3

Quantitation Report

1	Ge		659,857.32	1.27	97.0	Pulse	0.10	3
1	Rh		3,057,387.56	0.35	95.9	Pulse	0.10	3
1	In		3,360,757.05	0.99	96.5	Pulse	0.10	3
1	Tb		4,484,959.00	1.13	99.0	Pulse	0.10	3
1	Ho		433,339.07	1.34	99.8	Pulse	0.10	3
1	Bi		2,503,807.04	0.87	96.9	Pulse	0.10	3
2	Sc		80,635.77	1.47	98.5	Pulse	0.30	3
2	Ge		44,093.82	1.62	98.0	Pulse	0.30	3
2	Ge		66,788.21	0.15	97.4	Pulse	0.30	3
2	Rh		1,258,598.84	0.57	96.2	Pulse	0.30	3
2	In		430,453.73	0.48	98.3	Pulse	0.30	3
2	Tb		1,624,869.07	1.69	99.8	Pulse	0.30	3
2	Ho		158,320.23	0.64	99.2	Pulse	0.30	3
2	Bi		1,037,000.06	0.44	96.7	Pulse	0.30	3
3	Sc		81,552.43	0.73	97.1	Pulse	0.30	3
3	Ge		50,142.21	0.73	97.7	Pulse	0.30	3
3	Ge		76,569.76	0.59	96.8	Pulse	0.30	3
3	Rh		868,220.64	0.43	96.3	Pulse	0.30	3
3	Tb		1,352,571.16	0.37	99.3	Pulse	0.30	3

Quantitation Report

File Name	012CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 13:48
Sample Name	STDJ
Sample Type	CalStd
Comment	10000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	141.24	12.00	6.195E-06	Pulse	0.25	3
B			1	3.287	ug/l	0.83	15,669.82	8.092E-03	Pulse	0.15	3
Ca			1	10004.826	ug/l	0.94	7,784,314.68	3.143E+00	Analog	0.10	3
Sr			1	0.096	ug/l	10.12	3,807.27	1.266E-03	Pulse	0.10	3
Mo			1	0.024	ug/l	25.40	210.01	6.983E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	77.07	66.67	2.019E-05	Pulse	0.10	3
Sn			1	-0.018	ug/l	-121.78	5,477.82	1.654E-03	Pulse	0.10	3
Sb			1	0.155	ug/l	7.81	2,030.21	4.579E-04	Pulse	0.10	3
Ba			1	0.028	ug/l	96.53	203.34	4.592E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	66.70	340.02	1.384E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	87.41	353.35	1.436E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	214.86	283.35	1.151E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	30.15	1,310.07	5.326E-04	Pulse	0.10	3
Na			2	10050.749	ug/l	2.08	7,913,090.24	9.911E+01	Analog	0.30	3
Mg			2	9968.802	ug/l	0.34	3,590,657.77	4.497E+01	Pulse	0.30	3
Al			2	10012.364	ug/l	0.63	1,131,036.07	1.417E+01	Pulse	0.30	3
K			2	10052.205	ug/l	0.58	2,263,515.05	2.835E+01	Pulse	0.30	3
Ca			2	9992.608	ug/l	0.41	119,084.84	1.492E+00	Pulse	0.30	3
Ti			2	-0.015	ug/l	-475.71	6.67	8.363E-05	Pulse	0.30	3
V			2	-0.007	ug/l	-129.95	90.00	1.127E-03	Pulse	0.30	3
Cr			2	0.038	ug/l	50.44	484.46	6.069E-03	Pulse	0.30	3
Mn			2	0.231	ug/l	1.57	461.12	5.776E-03	Pulse	0.30	3
Fe			2	10042.624	ug/l	0.41	32,732,875.37	4.100E+02	Analog	0.30	3
Co			2	0.505	ug/l	4.86	3,252.58	4.074E-02	Pulse	0.30	3
Ni			2	0.405	ug/l	1.80	752.25	9.422E-03	Pulse	0.30	3
Cu			2	0.147	ug/l	7.80	1,423.42	1.783E-02	Pulse	0.30	3
Zn			2	-0.656	ug/l	-7.78	786.70	9.853E-03	Pulse	0.30	3
As			2	0.064	ug/l	36.33	27.00	3.382E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	113.91	10.65	2.496E-05	Pulse	0.30	3
Sn			2	0.025	ug/l	79.82	986.71	2.307E-03	Pulse	0.30	3
Se			3	0.090	ug/l	39.69	10.13	1.338E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,936,462.81	0.43	93.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,476,474.44	0.37	94.8	Pulse	0.10	3
1	Ge		467,277.70	1.21	95.6	Pulse	0.10	3
1	Ge		651,111.11	0.31	95.7	Pulse	0.10	3
1	Rh		3,005,882.67	0.55	94.3	Pulse	0.10	3
1	In		3,310,065.42	1.10	95.1	Pulse	0.10	3
1	Tb		4,431,429.72	1.28	97.8	Pulse	0.10	3
1	Ho		428,206.43	1.41	98.6	Pulse	0.10	3
1	Bi		2,459,808.71	1.05	95.2	Pulse	0.10	3
2	Sc		79,839.90	0.27	97.5	Pulse	0.30	3
2	Ge		43,684.92	1.30	97.1	Pulse	0.30	3
2	Ge		66,905.28	1.05	97.5	Pulse	0.30	3
2	Rh		1,237,057.76	0.28	94.6	Pulse	0.30	3
2	In		427,602.54	0.50	97.6	Pulse	0.30	3
2	Tb		1,624,914.38	0.60	99.8	Pulse	0.30	3
2	Ho		160,034.00	0.58	100.2	Pulse	0.30	3
2	Bi		1,032,262.46	0.94	96.3	Pulse	0.30	3
3	Sc		81,219.92	0.41	96.7	Pulse	0.30	3
3	Ge		49,181.56	1.98	95.8	Pulse	0.30	3
3	Ge		75,675.73	1.12	95.7	Pulse	0.30	3
3	Rh		848,577.00	0.37	94.1	Pulse	0.30	3
3	Tb		1,333,627.45	0.19	98.0	Pulse	0.30	3

Quantitation Report

File Name 013_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 14:04
Sample Name ICVA 5
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	61.902	ug/l	0.55	417,216.99	2.108E-01	Pulse	0.25	3
B			1	127.222	ug/l	0.77	556,786.00	2.813E-01	Pulse	0.15	3
Ca			1	5434.613	ug/l	0.52	4,342,760.25	1.709E+00	Pulse	0.10	3
Sr			1	65.870	ug/l	1.01	2,389,107.78	7.755E-01	Pulse	0.10	3
Mo			1	62.327	ug/l	1.19	445,570.28	1.446E-01	Pulse	0.10	3
Ag			1	60.035	ug/l	0.67	1,030,230.61	3.042E-01	Pulse	0.10	3
Sn			1	62.528	ug/l	1.45	684,324.37	2.021E-01	Pulse	0.10	3
Sb			1	63.942	ug/l	0.11	794,122.54	1.761E-01	Pulse	0.10	3
Ba			1	64.020	ug/l	1.96	331,149.56	7.345E-02	Pulse	0.10	3
Tl			1	66.274	ug/l	0.95	1,921,244.45	7.545E-01	Pulse	0.10	3
Pb			1	65.762	ug/l	0.27	652,140.87	2.561E-01	Pulse	0.10	3
Pb			1	62.122	ug/l	0.63	545,903.61	2.144E-01	Pulse	0.10	3
Pb			1	63.692	ug/l	0.80	2,551,403.57	1.002E+00	Pulse	0.10	3
Na			2	5280.650	ug/l	1.17	4,305,835.66	5.213E+01	Pulse	0.30	3
Mg			2	5386.609	ug/l	1.29	2,007,217.35	2.430E+01	Pulse	0.30	3
Al			2	5417.830	ug/l	1.51	633,180.48	7.666E+00	Pulse	0.30	3
K			2	5384.193	ug/l	1.29	1,257,923.01	1.523E+01	Pulse	0.30	3
Ca			2	5691.951	ug/l	0.09	70,202.43	8.499E-01	Pulse	0.30	3
Ti			2	62.404	ug/l	1.90	6,030.05	7.301E-02	Pulse	0.30	3
V			2	62.269	ug/l	1.12	191,944.80	2.324E+00	Pulse	0.30	3
Cr			2	60.940	ug/l	0.65	244,145.93	2.956E+00	Pulse	0.30	3
Mn			2	62.990	ug/l	0.78	119,634.55	1.448E+00	Pulse	0.30	3
Fe			2	5327.288	ug/l	0.16	17,965,347.06	2.175E+02	Analog	0.30	3
Co			2	61.068	ug/l	1.26	400,206.93	4.845E+00	Pulse	0.30	3
Ni			2	61.261	ug/l	0.39	109,975.46	1.331E+00	Pulse	0.30	3
Cu			2	61.237	ug/l	0.96	301,200.02	3.647E+00	Pulse	0.30	3
Zn			2	61.637	ug/l	2.54	38,797.00	4.698E-01	Pulse	0.30	3
As			2	61.964	ug/l	0.24	21,927.00	2.655E-01	Pulse	1.00	3
Cd			2	61.987	ug/l	0.72	68,809.55	1.558E-01	Pulse	0.30	3
Sn			2	61.543	ug/l	0.21	116,894.19	2.648E-01	Pulse	0.30	3
Se			3	254.632	ug/l	1.39	17,960.42	2.289E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,979,106.08	0.80	95.6	Pulse	0.10	3
1	Sc		2,540,475.90	0.89	97.2	Pulse	0.10	3
1	Ge		477,601.40	0.51	97.8	Pulse	0.10	3

Quantitation Report

1	Ge		675,680.28	1.04	99.3	Pulse	0.10	3
1	Rh		3,080,617.14	0.92	96.6	Pulse	0.10	3
1	In		3,386,770.71	1.90	97.3	Pulse	0.10	3
1	Tb		4,508,315.97	1.14	99.5	Pulse	0.10	3
1	Ho		437,580.94	0.60	100.7	Pulse	0.10	3
1	Bi		2,546,263.03	0.62	98.5	Pulse	0.10	3
2	Sc		82,602.07	0.84	100.9	Pulse	0.30	3
2	Ge		45,419.64	2.15	100.9	Pulse	0.30	3
2	Ge		69,569.64	1.71	101.4	Pulse	0.30	3
2	Rh		1,278,142.10	0.79	97.7	Pulse	0.30	3
2	In		441,509.61	1.19	100.8	Pulse	0.30	3
2	Tb		1,652,923.93	0.87	101.5	Pulse	0.30	3
2	Ho		162,154.52	0.37	101.6	Pulse	0.30	3
2	Bi		1,066,301.80	0.21	99.5	Pulse	0.30	3
3	Sc		82,504.94	1.10	98.2	Pulse	0.30	3
3	Ge		50,300.71	1.28	98.0	Pulse	0.30	3
3	Ge		78,458.67	1.13	99.2	Pulse	0.30	3
3	Rh		867,850.87	0.10	96.3	Pulse	0.30	3
3	Tb		1,351,777.14	0.33	99.3	Pulse	0.30	3

Quantitation Report

File Name	014_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 14:09
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.026	ug/l	6.50	185.33	9.305E-05	Pulse	0.25	3
B			1	4.429	ug/l	0.79	21,124.74	1.061E-02	Pulse	0.15	3
Ca			1	9.699	ug/l	8.68	18,844.53	7.480E-03	Pulse	0.10	3
Sr			1	0.024	ug/l	1.80	1,323.44	4.200E-04	Pulse	0.10	3
Mo			1	0.084	ug/l	9.48	660.04	2.092E-04	Pulse	0.10	3
Ag			1	0.023	ug/l	31.84	420.02	1.223E-04	Pulse	0.10	3
Sn			1	-0.140	ug/l	-27.22	4,340.76	1.265E-03	Pulse	0.10	3
Sb			1	0.097	ug/l	12.27	1,330.10	2.961E-04	Pulse	0.10	3
Ba			1	0.038	ug/l	27.15	260.01	5.802E-05	Pulse	0.10	3
Tl			1	0.025	ug/l	13.34	1,000.07	3.850E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	68.40	440.02	1.696E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	9.69	436.69	1.681E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	26.81	1,986.80	7.654E-04	Pulse	0.10	3
Na			2	1.780	ug/l	8.37	11,380.59	1.372E-01	Pulse	0.30	3
Mg			2	1.435	ug/l	4.62	608.91	7.343E-03	Pulse	0.30	3
Al			2	64.405	ug/l	2.14	7,642.93	9.215E-02	Pulse	0.30	3
K			2	1.241	ug/l	42.27	8,235.45	9.930E-02	Pulse	0.30	3
Ca			2	11.249	ug/l	13.66	192.23	2.318E-03	Pulse	0.30	3
Ti			2	0.005	ug/l	995.50	8.89	1.074E-04	Pulse	0.30	3
V			2	0.007	ug/l	89.13	137.78	1.662E-03	Pulse	0.30	3
Cr			2	0.043	ug/l	33.14	524.46	6.322E-03	Pulse	0.30	3
Mn			2	0.074	ug/l	5.98	178.89	2.157E-03	Pulse	0.30	3
Fe			2	3.321	ug/l	4.89	13,104.80	1.580E-01	Pulse	0.30	3
Co			2	0.008	ug/l	44.13	106.67	1.285E-03	Pulse	0.30	3
Ni			2	0.100	ug/l	8.61	232.23	2.800E-03	Pulse	0.30	3
Cu			2	0.088	ug/l	17.28	1,184.50	1.428E-02	Pulse	0.30	3
Zn			2	-0.793	ug/l	-6.94	733.36	8.843E-03	Pulse	0.30	3
As			2	0.026	ug/l	13.73	14.33	1.729E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.010	ug/l	108.78	17.28	3.848E-05	Pulse	0.30	3
Sn			2	-0.077	ug/l	-43.84	838.92	1.872E-03	Pulse	0.30	3
Se			3	0.102	ug/l	6.16	11.53	1.453E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,991,308.89	0.45	96.2	Pulse	0.10	3
1	Sc		2,518,920.90	0.67	96.4	Pulse	0.10	3
1	Ge		478,913.30	1.94	98.0	Pulse	0.10	3
1	Ge		666,822.67	0.97	98.0	Pulse	0.10	3
1	Rh		3,151,293.39	1.76	98.9	Pulse	0.10	3
1	In		3,435,110.79	1.21	98.7	Pulse	0.10	3
1	Tb		4,489,678.06	1.46	99.1	Pulse	0.10	3
1	Ho		433,742.23	1.19	99.9	Pulse	0.10	3
1	Bi		2,597,154.96	0.72	100.5	Pulse	0.10	3
2	Sc		82,933.61	0.70	101.3	Pulse	0.30	3
2	Ge		46,237.53	0.46	102.7	Pulse	0.30	3
2	Ge		70,042.72	0.85	102.1	Pulse	0.30	3
2	Rh		1,319,412.21	0.29	100.9	Pulse	0.30	3
2	In		448,127.78	0.59	102.3	Pulse	0.30	3
2	Tb		1,650,963.96	0.17	101.4	Pulse	0.30	3
2	Ho		163,245.81	0.75	102.2	Pulse	0.30	3
2	Bi		1,088,005.89	0.49	101.5	Pulse	0.30	3
3	Sc		84,053.64	0.39	100.1	Pulse	0.30	3
3	Ge		51,792.90	2.08	100.9	Pulse	0.30	3
3	Ge		79,336.05	1.62	100.3	Pulse	0.30	3
3	Rh		899,619.82	0.20	99.8	Pulse	0.30	3
3	Tb		1,370,571.27	0.68	100.7	Pulse	0.30	3

Quantitation Report

File Name	015_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 14:23
Sample Name	ICVA
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	59.708	ug/l	0.70	402,557.67	2.033E-01	Pulse	0.25	3
B			1	121.709	ug/l	1.07	532,865.55	2.692E-01	Pulse	0.15	3
Ca			1	5220.450	ug/l	0.78	4,172,715.36	1.642E+00	Pulse	0.10	3
Sr			1	63.159	ug/l	0.12	2,305,081.53	7.436E-01	Pulse	0.10	3
Mo			1	59.592	ug/l	0.71	428,713.10	1.383E-01	Pulse	0.10	3
Ag			1	57.626	ug/l	0.38	997,706.70	2.920E-01	Pulse	0.10	3
Sn			1	59.480	ug/l	0.75	657,114.26	1.923E-01	Pulse	0.10	3
Sb			1	61.072	ug/l	0.71	763,177.62	1.682E-01	Pulse	0.10	3
Ba			1	61.833	ug/l	0.42	321,823.91	7.094E-02	Pulse	0.10	3
Tl			1	63.434	ug/l	0.56	1,848,396.33	7.222E-01	Pulse	0.10	3
Pb			1	62.431	ug/l	0.77	622,301.45	2.431E-01	Pulse	0.10	3
Pb			1	59.050	ug/l	0.72	521,616.95	2.038E-01	Pulse	0.10	3
Pb			1	60.450	ug/l	0.48	2,434,084.26	9.510E-01	Pulse	0.10	3
Na			2	5053.353	ug/l	0.51	4,167,155.53	4.989E+01	Pulse	0.30	3
Mg			2	5160.379	ug/l	0.63	1,944,496.03	2.328E+01	Pulse	0.30	3
Al			2	5241.477	ug/l	0.74	619,452.91	7.417E+00	Pulse	0.30	3
K			2	5232.398	ug/l	0.16	1,236,412.86	1.480E+01	Pulse	0.30	3
Ca			2	5515.276	ug/l	1.27	68,782.12	8.235E-01	Pulse	0.30	3
Ti			2	57.043	ug/l	4.84	5,574.34	6.674E-02	Pulse	0.30	3
V			2	60.816	ug/l	0.13	189,569.94	2.270E+00	Pulse	0.30	3
Cr			2	58.868	ug/l	0.53	238,498.18	2.855E+00	Pulse	0.30	3
Mn			2	60.766	ug/l	1.34	116,703.09	1.397E+00	Pulse	0.30	3
Fe			2	5114.218	ug/l	0.23	17,439,459.31	2.088E+02	Analog	0.30	3
Co			2	58.853	ug/l	0.63	390,016.30	4.670E+00	Pulse	0.30	3
Ni			2	59.017	ug/l	1.19	107,130.72	1.283E+00	Pulse	0.30	3
Cu			2	58.722	ug/l	1.13	292,095.92	3.497E+00	Pulse	0.30	3
Zn			2	58.114	ug/l	0.21	37,062.96	4.437E-01	Pulse	0.30	3
As			2	59.337	ug/l	1.70	21,230.75	2.542E-01	Pulse	1.00	3
Cd			2	58.820	ug/l	0.91	65,931.64	1.479E-01	Pulse	0.30	3
Sn			2	59.049	ug/l	0.66	113,297.26	2.541E-01	Pulse	0.30	3
Se			3	249.453	ug/l	0.67	17,503.73	2.243E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,979,636.85	0.46	95.7	Pulse	0.10	3
1	Sc		2,540,796.78	0.34	97.2	Pulse	0.10	3
1	Ge		479,858.08	0.69	98.2	Pulse	0.10	3

Quantitation Report

1	Ge		677,403.35	1.64	99.6	Pulse	0.10	3
1	Rh		3,100,040.79	1.48	97.3	Pulse	0.10	3
1	In		3,416,786.66	1.81	98.2	Pulse	0.10	3
1	Tb		4,536,172.33	1.09	100.1	Pulse	0.10	3
1	Ho		442,471.71	1.64	101.9	Pulse	0.10	3
1	Bi		2,559,511.16	1.71	99.1	Pulse	0.10	3
2	Sc		83,524.46	0.41	102.0	Pulse	0.30	3
2	Ge		46,297.73	0.95	102.9	Pulse	0.30	3
2	Ge		70,103.04	0.77	102.2	Pulse	0.30	3
2	Rh		1,278,501.68	0.41	97.7	Pulse	0.30	3
2	In		445,837.54	0.28	101.8	Pulse	0.30	3
2	Tb		1,663,273.96	0.53	102.2	Pulse	0.30	3
2	Ho		163,246.18	1.13	102.2	Pulse	0.30	3
2	Bi		1,073,053.26	0.47	100.1	Pulse	0.30	3
3	Sc		82,805.17	0.50	98.6	Pulse	0.30	3
3	Ge		50,675.09	0.33	98.7	Pulse	0.30	3
3	Ge		78,044.24	0.41	98.6	Pulse	0.30	3
3	Rh		862,920.52	0.56	95.7	Pulse	0.30	3
3	Tb		1,345,510.74	0.59	98.8	Pulse	0.30	3

Quantitation Report

File Name	016_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 14:32
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	98.21	32.00	1.573E-05	Pulse	0.25	3
B			1	3.393	ug/l	4.14	16,835.27	8.325E-03	Pulse	0.15	3
Ca			1	-2.143	ug/l	-0.89	9,759.90	3.765E-03	Pulse	0.10	3
Sr			1	0.004	ug/l	29.17	583.37	1.816E-04	Pulse	0.10	3
Mo			1	0.023	ug/l	25.01	213.34	6.625E-05	Pulse	0.10	3
Ag			1	0.005	ug/l	14.21	123.34	3.524E-05	Pulse	0.10	3
Sn			1	0.035	ug/l	37.94	6,378.19	1.824E-03	Pulse	0.10	3
Sb			1	0.022	ug/l	39.40	420.02	9.202E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	-5255.31	63.33	1.391E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	27.30	416.69	1.588E-04	Pulse	0.10	3
Pb			1	-0.004	ug/l	-73.25	266.68	1.017E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	-3888.54	280.02	1.070E-04	Pulse	0.10	3
Pb			1	-0.003	ug/l	-50.93	1,153.40	4.398E-04	Pulse	0.10	3
Na			2	-0.404	ug/l	-20.51	9,779.61	1.157E-01	Pulse	0.30	3
Mg			2	0.236	ug/l	5.95	163.34	1.932E-03	Pulse	0.30	3
Al			2	0.192	ug/l	156.71	110.00	1.304E-03	Pulse	0.30	3
K			2	-0.207	ug/l	-556.25	8,046.46	9.523E-02	Pulse	0.30	3
Ca			2	0.652	ug/l	330.88	62.22	7.365E-04	Pulse	0.30	3
Ti			2	-0.053	ug/l	-64.62	3.33	3.965E-05	Pulse	0.30	3
V			2	0.001	ug/l	51.90	123.34	1.459E-03	Pulse	0.30	3
Cr			2	0.003	ug/l	145.65	368.90	4.365E-03	Pulse	0.30	3
Mn			2	0.008	ug/l	32.29	54.44	6.441E-04	Pulse	0.30	3
Fe			2	0.327	ug/l	12.98	3,025.88	3.580E-02	Pulse	0.30	3
Co			2	0.000	ug/l	557.87	58.89	6.958E-04	Pulse	0.30	3
Ni			2	-0.010	ug/l	-81.09	34.44	4.072E-04	Pulse	0.30	3
Cu			2	0.008	ug/l	67.68	805.59	9.531E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-1.680	ug/l	-1.77	194.45	2.300E-03	Pulse	0.30	3
As			2	0.024	ug/l	110.42	14.00	1.659E-04	Pulse	1.00	3
Cd			2	0.004	ug/l	92.36	10.65	2.327E-05	Pulse	0.30	3
Sn			2	0.091	ug/l	46.37	1,185.62	2.591E-03	Pulse	0.30	3
Se			3	0.106	ug/l	22.30	11.80	1.484E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,022,900.57	1.20	97.7	Pulse	0.10	3
1	Sc		2,592,391.47	0.97	99.2	Pulse	0.10	3
1	Ge		487,925.14	1.14	99.9	Pulse	0.10	3
1	Ge		677,241.48	0.49	99.5	Pulse	0.10	3
1	Rh		3,213,824.95	1.66	100.8	Pulse	0.10	3
1	In		3,496,843.87	1.29	100.5	Pulse	0.10	3
1	Tb		4,562,513.37	1.85	100.7	Pulse	0.10	3
1	Ho		440,722.55	1.05	101.5	Pulse	0.10	3
1	Bi		2,621,747.20	1.45	101.5	Pulse	0.10	3
2	Sc		84,513.61	0.80	103.2	Pulse	0.30	3
2	Ge		46,727.83	0.89	103.8	Pulse	0.30	3
2	Ge		71,079.37	1.05	103.6	Pulse	0.30	3
2	Rh		1,333,647.27	0.44	101.9	Pulse	0.30	3
2	In		457,776.43	0.83	104.5	Pulse	0.30	3
2	Tb		1,668,529.00	0.68	102.5	Pulse	0.30	3
2	Ho		165,252.02	0.35	103.5	Pulse	0.30	3
2	Bi		1,099,743.18	0.47	102.6	Pulse	0.30	3
3	Sc		84,846.61	0.28	101.0	Pulse	0.30	3
3	Ge		52,145.14	1.41	101.6	Pulse	0.30	3
3	Ge		79,570.63	0.41	100.6	Pulse	0.30	3
3	Rh		902,845.42	0.18	100.2	Pulse	0.30	3
3	Tb		1,368,211.58	0.84	100.5	Pulse	0.30	3

Quantitation Report

File Name 017_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 14:37
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	52.164	ug/l	1.04	353,563.00	1.777E-01	Pulse	0.25	3
B			1	104.710	ug/l	1.57	461,101.20	2.317E-01	Pulse	0.15	3
Ca			1	5140.827	ug/l	0.51	4,142,880.05	1.617E+00	Pulse	0.10	3
Sr			1	52.957	ug/l	0.77	1,923,752.78	6.235E-01	Pulse	0.10	3
Mo			1	53.482	ug/l	0.33	382,990.59	1.241E-01	Pulse	0.10	3
Ag			1	51.003	ug/l	1.27	887,283.21	2.584E-01	Pulse	0.10	3
Sn			1	51.040	ug/l	0.95	567,451.07	1.653E-01	Pulse	0.10	3
Sb			1	53.659	ug/l	1.25	664,654.42	1.478E-01	Pulse	0.10	3
Ba			1	52.343	ug/l	0.74	270,037.09	6.006E-02	Pulse	0.10	3
Tl			1	52.747	ug/l	0.86	1,526,973.62	6.006E-01	Pulse	0.10	3
Pb			1	52.814	ug/l	0.74	523,076.27	2.057E-01	Pulse	0.10	3
Pb			1	52.134	ug/l	0.87	457,521.68	1.799E-01	Pulse	0.10	3
Pb			1	52.355	ug/l	0.58	2,094,628.82	8.238E-01	Pulse	0.10	3
Na			2	4951.858	ug/l	0.84	4,076,534.70	4.889E+01	Pulse	0.30	3
Mg			2	5059.006	ug/l	1.42	1,902,935.90	2.282E+01	Pulse	0.30	3
Al			2	5088.947	ug/l	1.12	600,390.08	7.201E+00	Pulse	0.30	3
K			2	5126.092	ug/l	0.81	1,209,334.26	1.450E+01	Pulse	0.30	3
Ca			2	5298.954	ug/l	0.72	65,974.12	7.912E-01	Pulse	0.30	3
Ti			2	53.051	ug/l	2.96	5,176.42	6.208E-02	Pulse	0.30	3
V			2	52.017	ug/l	0.87	161,871.49	1.941E+00	Pulse	0.30	3
Cr			2	50.941	ug/l	0.30	206,073.99	2.471E+00	Pulse	0.30	3
Mn			2	52.084	ug/l	0.27	99,865.49	1.198E+00	Pulse	0.30	3
Fe			2	5110.246	ug/l	1.16	17,396,385.97	2.086E+02	Analog	0.30	3
Co			2	51.070	ug/l	0.62	337,876.86	4.052E+00	Pulse	0.30	3
Ni			2	52.045	ug/l	0.73	94,317.48	1.131E+00	Pulse	0.30	3
Cu			2	51.804	ug/l	0.23	257,333.06	3.086E+00	Pulse	0.30	3
Zn			2	50.936	ug/l	0.76	32,581.29	3.907E-01	Pulse	0.30	3
As			2	51.000	ug/l	1.68	18,216.81	2.185E-01	Pulse	1.00	3
Cd			2	50.922	ug/l	1.52	56,885.22	1.280E-01	Pulse	0.30	3
Sn			2	51.079	ug/l	0.52	97,801.50	2.201E-01	Pulse	0.30	3
Se			3	195.047	ug/l	0.92	13,749.56	1.754E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,990,280.93	0.59	96.2	Pulse	0.10	3
1	Sc		2,561,695.95	0.97	98.0	Pulse	0.10	3
1	Ge		481,428.91	0.22	98.5	Pulse	0.10	3

Quantitation Report

1	Ge		675,259.94	0.88	99.2	Pulse	0.10	3
1	Rh		3,085,565.79	0.86	96.8	Pulse	0.10	3
1	In		3,433,697.85	1.51	98.6	Pulse	0.10	3
1	Tb		4,496,319.93	0.33	99.2	Pulse	0.10	3
1	Ho		435,246.93	1.06	100.2	Pulse	0.10	3
1	Bi		2,542,818.87	1.33	98.4	Pulse	0.10	3
2	Sc		83,380.27	0.69	101.9	Pulse	0.30	3
2	Ge		46,192.95	1.28	102.6	Pulse	0.30	3
2	Ge		70,425.48	0.67	102.7	Pulse	0.30	3
2	Rh		1,281,400.51	0.13	98.0	Pulse	0.30	3
2	In		444,309.30	0.25	101.4	Pulse	0.30	3
2	Tb		1,647,981.81	0.33	101.2	Pulse	0.30	3
2	Ho		162,343.89	0.56	101.7	Pulse	0.30	3
2	Bi		1,061,140.48	0.65	99.0	Pulse	0.30	3
3	Sc		83,602.59	0.82	99.5	Pulse	0.30	3
3	Ge		51,751.89	0.52	100.8	Pulse	0.30	3
3	Ge		78,401.58	0.51	99.1	Pulse	0.30	3
3	Rh		875,036.04	0.49	97.1	Pulse	0.30	3
3	Tb		1,357,775.92	0.75	99.7	Pulse	0.30	3

Quantitation Report

File Name 018_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 14:42
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	32.61	53.33	2.659E-05	Pulse	0.25	3
B			1	4.729	ug/l	2.31	22,617.62	1.127E-02	Pulse	0.15	3
Ca			1	-1.805	ug/l	-0.57	9,833.33	3.871E-03	Pulse	0.10	3
Sr			1	0.010	ug/l	11.96	820.05	2.579E-04	Pulse	0.10	3
Mo			1	0.126	ug/l	2.34	976.73	3.071E-04	Pulse	0.10	3
Ag			1	0.019	ug/l	28.11	353.35	1.018E-04	Pulse	0.10	3
Sn			1	0.181	ug/l	16.23	7,959.02	2.292E-03	Pulse	0.10	3
Sb			1	0.221	ug/l	7.22	2,903.72	6.391E-04	Pulse	0.10	3
Ba			1	0.008	ug/l	62.57	103.34	2.282E-05	Pulse	0.10	3
Tl			1	0.021	ug/l	21.12	860.06	3.317E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	62.17	413.36	1.593E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	54.25	350.02	1.350E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	14.06	1,590.10	6.131E-04	Pulse	0.10	3
Na			2	-0.140	ug/l	-160.56	9,877.42	1.183E-01	Pulse	0.30	3
Mg			2	0.512	ug/l	14.98	265.56	3.180E-03	Pulse	0.30	3
Al			2	0.457	ug/l	39.50	140.00	1.678E-03	Pulse	0.30	3
K			2	-0.781	ug/l	-32.96	7,815.24	9.361E-02	Pulse	0.30	3
Ca			2	2.149	ug/l	84.21	80.00	9.599E-04	Pulse	0.30	3
Ti			2	-0.030	ug/l	-177.33	5.56	6.662E-05	Pulse	0.30	3
V			2	0.002	ug/l	385.81	124.45	1.489E-03	Pulse	0.30	3
Cr			2	0.010	ug/l	117.13	393.34	4.709E-03	Pulse	0.30	3
Mn			2	0.010	ug/l	7.39	57.78	6.920E-04	Pulse	0.30	3
Fe			2	0.921	ug/l	8.32	5,016.38	6.008E-02	Pulse	0.30	3
Co			2	0.005	ug/l	92.85	85.56	1.025E-03	Pulse	0.30	3
Ni			2	-0.010	ug/l	-36.24	33.33	3.996E-04	Pulse	0.30	3
Cu			2	0.003	ug/l	244.54	772.25	9.253E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-1.666	ug/l	-4.22	200.01	2.399E-03	Pulse	0.30	3
As			2	0.030	ug/l	26.71	16.00	1.914E-04	Pulse	1.00	3
Cd			2	0.016	ug/l	57.39	23.95	5.287E-05	Pulse	0.30	3
Sn			2	0.202	ug/l	17.46	1,385.63	3.063E-03	Pulse	0.30	3
Se			3	0.117	ug/l	22.16	12.73	1.585E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,007,000.47	0.56	97.0	Pulse	0.10	3
1	Sc		2,540,279.02	0.69	97.2	Pulse	0.10	3
1	Ge		479,318.73	0.48	98.1	Pulse	0.10	3
1	Ge		673,260.17	1.42	99.0	Pulse	0.10	3
1	Rh		3,180,105.68	0.70	99.8	Pulse	0.10	3
1	In		3,472,347.40	0.54	99.7	Pulse	0.10	3
1	Tb		4,540,214.72	1.67	100.2	Pulse	0.10	3
1	Ho		440,262.99	0.89	101.4	Pulse	0.10	3
1	Bi		2,593,910.22	0.72	100.4	Pulse	0.10	3
2	Sc		83,483.99	0.92	102.0	Pulse	0.30	3
2	Ge		46,684.31	1.87	103.7	Pulse	0.30	3
2	Ge		70,995.75	1.28	103.5	Pulse	0.30	3
2	Rh		1,319,652.80	0.85	100.9	Pulse	0.30	3
2	In		452,321.96	0.97	103.3	Pulse	0.30	3
2	Tb		1,648,121.01	0.81	101.2	Pulse	0.30	3
2	Ho		161,142.84	1.40	100.9	Pulse	0.30	3
2	Bi		1,093,208.60	0.98	102.0	Pulse	0.30	3
3	Sc		84,785.19	0.37	100.9	Pulse	0.30	3
3	Ge		51,792.88	0.72	100.9	Pulse	0.30	3
3	Ge		80,329.69	0.22	101.5	Pulse	0.30	3
3	Rh		904,340.03	0.08	100.3	Pulse	0.30	3
3	Tb		1,378,941.75	0.38	101.3	Pulse	0.30	3

Quantitation Report

File Name 019LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 14:47
Sample Name CRI
Sample Type LLCCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.520	ug/l	3.21	3,608.45	1.774E-03	Pulse	0.25	3
B			1	27.968	ug/l	0.79	127,096.28	6.250E-02	Pulse	0.15	3
Ca			1	253.361	ug/l	0.54	217,374.19	8.392E-02	Pulse	0.10	3
Sr			1	5.183	ug/l	1.63	194,991.47	6.115E-02	Pulse	0.10	3
Mo			1	0.994	ug/l	2.73	7,395.36	2.319E-03	Pulse	0.10	3
Ag			1	0.499	ug/l	2.98	8,842.78	2.535E-03	Pulse	0.10	3
Sn			1	4.689	ug/l	1.81	58,406.32	1.674E-02	Pulse	0.10	3
Sb			1	2.124	ug/l	2.48	26,746.74	5.879E-03	Pulse	0.10	3
Ba			1	1.059	ug/l	5.04	5,587.86	1.228E-03	Pulse	0.10	3
Tl			1	0.506	ug/l	1.78	15,378.55	5.859E-03	Pulse	0.10	3
Pb			1	0.527	ug/l	3.72	5,694.65	2.169E-03	Pulse	0.10	3
Pb			1	0.513	ug/l	5.96	4,924.34	1.876E-03	Pulse	0.10	3
Pb			1	0.515	ug/l	2.94	22,514.23	8.578E-03	Pulse	0.10	3
Na			2	243.159	ug/l	1.47	211,891.41	2.515E+00	Pulse	0.30	3
Mg			2	252.657	ug/l	0.83	96,119.11	1.141E+00	Pulse	0.30	3
Al			2	25.735	ug/l	1.84	3,154.78	3.744E-02	Pulse	0.30	3
K			2	250.190	ug/l	0.81	67,331.27	7.990E-01	Pulse	0.30	3
Ca			2	273.456	ug/l	2.94	3,491.52	4.144E-02	Pulse	0.30	3
Ti			2	0.895	ug/l	15.02	96.67	1.147E-03	Pulse	0.30	3
V			2	1.084	ug/l	2.33	3,527.08	4.185E-02	Pulse	0.30	3
Cr			2	1.011	ug/l	2.41	4,481.77	5.319E-02	Pulse	0.30	3
Mn			2	1.103	ug/l	4.59	2,175.72	2.582E-02	Pulse	0.30	3
Fe			2	25.204	ug/l	0.49	88,594.24	1.051E+00	Pulse	0.30	3
Co			2	0.527	ug/l	8.89	3,578.21	4.248E-02	Pulse	0.30	3
Ni			2	1.025	ug/l	2.05	1,929.03	2.289E-02	Pulse	0.30	3
Cu			2	2.121	ug/l	1.20	11,381.82	1.351E-01	Pulse	0.30	3
Zn			2	4.030	ug/l	2.21	3,746.03	4.445E-02	Pulse	0.30	3
As			2	0.494	ug/l	2.06	183.67	2.180E-03	Pulse	1.00	3
Cd			2	0.541	ug/l	11.98	623.64	1.373E-03	Pulse	0.30	3
Sn			2	4.624	ug/l	2.35	9,961.02	2.193E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.618	ug/l	4.85	49.07	6.087E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,033,471.48	1.05	98.3	Pulse	0.10	3
1	Sc		2,590,079.50	0.77	99.1	Pulse	0.10	3
1	Ge		484,537.73	1.08	99.2	Pulse	0.10	3
1	Ge		679,973.27	0.49	99.9	Pulse	0.10	3
1	Rh		3,188,876.41	0.89	100.0	Pulse	0.10	3
1	In		3,489,332.40	1.08	100.2	Pulse	0.10	3
1	Tb		4,549,955.77	0.74	100.4	Pulse	0.10	3
1	Ho		438,691.83	1.61	101.0	Pulse	0.10	3
1	Bi		2,624,928.66	0.49	101.6	Pulse	0.10	3
2	Sc		84,267.98	0.75	102.9	Pulse	0.30	3
2	Ge		46,831.41	0.85	104.1	Pulse	0.30	3
2	Ge		71,227.94	1.44	103.8	Pulse	0.30	3
2	Rh		1,328,141.06	0.61	101.5	Pulse	0.30	3
2	In		454,262.90	0.48	103.7	Pulse	0.30	3
2	Tb		1,670,016.22	0.31	102.6	Pulse	0.30	3
2	Ho		163,112.62	0.84	102.2	Pulse	0.30	3
2	Bi		1,092,335.20	0.18	101.9	Pulse	0.30	3
3	Sc		85,247.31	0.68	101.5	Pulse	0.30	3
3	Ge		52,420.41	1.75	102.1	Pulse	0.30	3
3	Ge		80,616.89	0.97	101.9	Pulse	0.30	3
3	Rh		902,868.72	1.00	100.2	Pulse	0.30	3
3	Tb		1,374,496.54	0.86	101.0	Pulse	0.30	3

Quantitation Report

File Name 020ICSA.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 15:01
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	108.97	12.00	6.918E-06	Pulse	0.25	3
B			1	2.984	ug/l	2.51	12,916.32	7.424E-03	Pulse	0.15	3
Ca			1	100534.057	ug/l	0.80	72,573,728.92	3.155E+01	Analog	0.10	3
Sr			1	2161.960	ug/l	0.53	66,388,617.34	2.545E+01	Analog	0.10	3
Mo			1	2263.065	ug/l	0.65	13,701,723.54	5.252E+00	Analog	0.10	3
Ag			1	0.031	ug/l	9.05	493.36	1.644E-04	Pulse	0.10	3
Sn			1	2091.682	ug/l	0.39	20,100,438.45	6.705E+00	Analog	0.10	3
Sb			1	0.213	ug/l	9.57	2,506.96	6.172E-04	Pulse	0.10	3
Ba			1	0.273	ug/l	9.44	1,326.78	3.268E-04	Pulse	0.10	3
Tl			1	0.007	ug/l	71.30	370.02	1.703E-04	Pulse	0.10	3
Pb			1	0.088	ug/l	12.77	996.74	4.605E-04	Pulse	0.10	3
Pb			1	0.091	ug/l	7.10	910.06	4.199E-04	Pulse	0.10	3
Pb			1	0.079	ug/l	8.35	3,753.64	1.732E-03	Pulse	0.10	3
Na			2	94714.222	ug/l	1.57	73,502,588.19	9.330E+02	Analog	0.30	3
Mg			2	96648.173	ug/l	1.31	34,349,423.08	4.360E+02	Analog	0.30	3
Al			2	100618.836	ug/l	1.49	11,214,619.00	1.424E+02	Analog	0.30	3
K			2	103497.468	ug/l	1.33	22,927,698.53	2.910E+02	Analog	0.30	3
Ca			2	108619.695	ug/l	1.31	1,276,788.60	1.621E+01	Pulse	0.30	3
Ti			2	1957.502	ug/l	1.57	180,170.67	2.287E+00	Pulse	0.30	3
V			2	0.014	ug/l	41.62	152.23	1.931E-03	Pulse	0.30	3
Cr			2	0.287	ug/l	4.52	1,427.86	1.813E-02	Pulse	0.30	3
Mn			2	0.509	ug/l	3.89	958.93	1.217E-02	Pulse	0.30	3
Fe			2	93684.156	ug/l	1.12	301,311,108.03	3.824E+03	Analog	0.30	3
Co			2	0.350	ug/l	3.56	2,240.18	2.844E-02	Pulse	0.30	3
Ni			2	0.667	ug/l	6.78	1,191.17	1.511E-02	Pulse	0.30	3
Cu			2	0.415	ug/l	9.89	2,655.81	3.373E-02	Pulse	0.30	3
Zn			2	-0.498	ug/l	-28.83	867.81	1.102E-02	Pulse	0.30	3
As			2	0.089	ug/l	52.90	35.00	4.445E-04	Pulse	1.00	3
Cd			2	-0.368	ug/l	-6.98	-363.58	-9.137E-04	Pulse	0.30	3
Sn			2	2116.896	ug/l	0.50	3,595,346.38	9.034E+00	Pulse	0.30	3
Se			3	0.142	ug/l	17.83	12.67	1.809E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,739,494.86	1.35	84.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,300,678.71	1.00	88.1	Pulse	0.10	3
1	Ge		437,194.72	2.04	89.5	Pulse	0.10	3
1	Ge		587,244.12	1.58	86.3	Pulse	0.10	3
1	Rh		2,608,874.96	1.85	81.8	Pulse	0.10	3
1	In		2,997,964.15	1.76	86.1	Pulse	0.10	3
1	Tb		4,063,029.31	1.51	89.7	Pulse	0.10	3
1	Ho		393,887.52	1.56	90.7	Pulse	0.10	3
1	Bi		2,166,008.40	1.58	83.8	Pulse	0.10	3
2	Sc		78,789.17	1.20	96.3	Pulse	0.30	3
2	Ge		43,514.57	0.19	96.7	Pulse	0.30	3
2	Ge		64,443.34	0.38	93.9	Pulse	0.30	3
2	Rh		1,102,003.53	0.82	84.2	Pulse	0.30	3
2	In		398,001.77	0.36	90.9	Pulse	0.30	3
2	Tb		1,520,862.89	0.45	93.4	Pulse	0.30	3
2	Ho		150,344.28	0.69	94.2	Pulse	0.30	3
2	Bi		922,803.71	0.40	86.1	Pulse	0.30	3
3	Sc		76,275.50	1.68	90.8	Pulse	0.30	3
3	Ge		46,922.80	1.60	91.4	Pulse	0.30	3
3	Ge		70,012.64	0.87	88.5	Pulse	0.30	3
3	Rh		741,971.74	0.45	82.3	Pulse	0.30	3
3	Tb		1,208,237.69	0.64	88.7	Pulse	0.30	3

Quantitation Report

File Name 021ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 15:06
Sample Name ICSAB
Sample Type ICSB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	88.87	20.00	1.158E-05	Pulse	0.25	3
B			1	56.521	ug/l	1.51	216,467.89	1.255E-01	Pulse	0.15	3
Ca			1	97730.506	ug/l	0.06	72,669,977.25	3.067E+01	Analog	0.10	3
Sr			1	2112.155	ug/l	0.76	66,982,149.00	2.486E+01	Analog	0.10	3
Mo			1	2211.086	ug/l	2.17	13,822,210.63	5.131E+00	Analog	0.10	3
Ag			1	20.177	ug/l	1.17	316,636.24	1.022E-01	Pulse	0.10	3
Sn			1	2074.291	ug/l	1.25	20,589,454.69	6.649E+00	Analog	0.10	3
Sb			1	0.192	ug/l	3.39	2,350.27	5.602E-04	Pulse	0.10	3
Ba			1	0.285	ug/l	8.72	1,430.12	3.410E-04	Pulse	0.10	3
Tl			1	0.003	ug/l	69.37	296.68	1.338E-04	Pulse	0.10	3
Pb			1	0.078	ug/l	13.27	930.07	4.201E-04	Pulse	0.10	3
Pb			1	0.074	ug/l	23.16	800.05	3.612E-04	Pulse	0.10	3
Pb			1	0.075	ug/l	11.11	3,686.99	1.665E-03	Pulse	0.10	3
Na			2	93407.953	ug/l	0.82	72,442,583.79	9.201E+02	Analog	0.30	3
Mg			2	94313.736	ug/l	1.98	33,494,616.45	4.255E+02	Analog	0.30	3
Al			2	97841.261	ug/l	1.63	10,897,324.57	1.384E+02	Analog	0.30	3
K			2	100903.437	ug/l	1.62	22,335,080.23	2.837E+02	Analog	0.30	3
Ca			2	106371.810	ug/l	0.97	1,249,531.51	1.587E+01	Pulse	0.30	3
Ti			2	1929.622	ug/l	1.41	177,483.16	2.254E+00	Pulse	0.30	3
V			2	22.057	ug/l	2.54	64,870.58	8.241E-01	Pulse	0.30	3
Cr			2	20.472	ug/l	1.75	78,389.70	9.958E-01	Pulse	0.30	3
Mn			2	21.175	ug/l	1.12	38,356.72	4.872E-01	Pulse	0.30	3
Fe			2	92334.357	ug/l	1.26	296,745,143.76	3.769E+03	Analog	0.30	3
Co			2	20.059	ug/l	2.07	125,324.39	1.592E+00	Pulse	0.30	3
Ni			2	19.459	ug/l	3.24	33,323.79	4.233E-01	Pulse	0.30	3
Cu			2	18.997	ug/l	2.11	89,546.26	1.138E+00	Pulse	0.30	3
Zn			2	16.799	ug/l	2.01	10,920.40	1.387E-01	Pulse	0.30	3
As			2	19.680	ug/l	0.30	6,641.36	8.435E-02	Pulse	1.00	3
Cd			2	18.739	ug/l	2.99	18,804.33	4.712E-02	Pulse	0.30	3
Sn			2	2118.095	ug/l	0.86	3,607,092.91	9.039E+00	Pulse	0.30	3
Se			3	19.176	ug/l	3.77	1,228.58	1.729E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,725,517.91	0.45	83.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,369,749.86	0.98	90.7	Pulse	0.10	3
1	Ge		446,597.99	0.92	91.4	Pulse	0.10	3
1	Ge		610,228.29	0.91	89.7	Pulse	0.10	3
1	Rh		2,694,269.86	1.00	84.5	Pulse	0.10	3
1	In		3,096,700.72	0.83	89.0	Pulse	0.10	3
1	Tb		4,194,646.40	1.11	92.6	Pulse	0.10	3
1	Ho		405,462.88	1.05	93.4	Pulse	0.10	3
1	Bi		2,215,506.27	1.13	85.7	Pulse	0.10	3
2	Sc		78,734.48	1.23	96.2	Pulse	0.30	3
2	Ge		42,853.96	0.01	95.2	Pulse	0.30	3
2	Ge		65,258.79	1.18	95.1	Pulse	0.30	3
2	Rh		1,116,029.08	0.18	85.3	Pulse	0.30	3
2	In		399,082.39	0.44	91.1	Pulse	0.30	3
2	Tb		1,516,608.86	0.33	93.1	Pulse	0.30	3
2	Ho		148,861.81	0.58	93.2	Pulse	0.30	3
2	Bi		918,116.56	0.21	85.6	Pulse	0.30	3
3	Sc		78,523.58	0.65	93.5	Pulse	0.30	3
3	Ge		47,602.49	0.67	92.7	Pulse	0.30	3
3	Ge		71,052.65	0.16	89.8	Pulse	0.30	3
3	Rh		751,279.85	0.78	83.3	Pulse	0.30	3
3	Tb		1,216,986.79	0.60	89.4	Pulse	0.30	3

Quantitation Report

File Name 022SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 15:11
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-215.27	5.33	3.092E-06	Pulse	0.25	3
B			1	2.236	ug/l	1.98	9,923.11	5.775E-03	Pulse	0.15	3
Ca			1	11.198	ug/l	6.88	18,504.22	7.950E-03	Pulse	0.10	3
Sr			1	0.301	ug/l	4.02	11,160.91	3.683E-03	Pulse	0.10	3
Mo			1	1.099	ug/l	4.03	7,772.19	2.564E-03	Pulse	0.10	3
Ag			1	0.011	ug/l	4.77	210.01	6.260E-05	Pulse	0.10	3
Sn			1	0.521	ug/l	5.10	11,347.85	3.383E-03	Pulse	0.10	3
Sb			1	0.020	ug/l	16.25	380.02	8.563E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	2855.62	63.34	1.432E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-489.78	226.68	8.787E-05	Pulse	0.10	3
Pb			1	-0.014	ug/l	-47.00	163.34	6.350E-05	Pulse	0.10	3
Pb			1	-0.021	ug/l	-15.75	86.67	3.374E-05	Pulse	0.10	3
Pb			1	-0.017	ug/l	-19.20	546.70	2.127E-04	Pulse	0.10	3
Na			2	13.366	ug/l	8.37	18,906.25	2.513E-01	Pulse	0.30	3
Mg			2	9.971	ug/l	14.22	3,449.29	4.585E-02	Pulse	0.30	3
Al			2	10.295	ug/l	11.22	1,173.39	1.560E-02	Pulse	0.30	3
K			2	8.872	ug/l	27.46	9,082.54	1.207E-01	Pulse	0.30	3
Ca			2	12.551	ug/l	33.39	188.89	2.512E-03	Pulse	0.30	3
Ti			2	0.495	ug/l	28.86	51.11	6.794E-04	Pulse	0.30	3
V			2	-0.003	ug/l	-211.35	97.78	1.300E-03	Pulse	0.30	3
Cr			2	-0.001	ug/l	-1354.92	316.67	4.210E-03	Pulse	0.30	3
Mn			2	0.003	ug/l	106.02	40.00	5.317E-04	Pulse	0.30	3
Fe			2	12.971	ug/l	8.91	41,522.40	5.520E-01	Pulse	0.30	3
Co			2	0.003	ug/l	82.22	68.89	9.164E-04	Pulse	0.30	3
Ni			2	-0.006	ug/l	-55.67	37.78	5.023E-04	Pulse	0.30	3
Cu			2	0.109	ug/l	24.78	1,168.95	1.554E-02	Pulse	0.30	3
Zn			2	-1.741	ug/l	-0.58	138.89	1.847E-03	Pulse	0.30	3
As			2	0.024	ug/l	103.38	12.67	1.684E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.013	ug/l	27.95	19.57	4.585E-05	Pulse	0.30	3
Sn			2	0.445	ug/l	6.69	1,750.12	4.100E-03	Pulse	0.30	3
Se			3	0.035	ug/l	39.53	6.47	8.517E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,718,297.63	0.59	83.0	Pulse	0.10	3
1	Sc		2,327,666.69	0.75	89.1	Pulse	0.10	3
1	Ge		450,725.12	1.34	92.3	Pulse	0.10	3
1	Ge		631,305.61	0.38	92.8	Pulse	0.10	3
1	Rh		3,030,898.39	0.53	95.1	Pulse	0.10	3
1	In		3,354,181.18	0.56	96.4	Pulse	0.10	3
1	Tb		4,438,068.89	0.98	97.9	Pulse	0.10	3
1	Ho		427,370.04	0.88	98.4	Pulse	0.10	3
1	Bi		2,574,879.70	1.13	99.7	Pulse	0.10	3
2	Sc		75,215.20	0.37	91.9	Pulse	0.30	3
2	Ge		43,511.11	0.99	96.7	Pulse	0.30	3
2	Ge		66,478.07	0.90	96.9	Pulse	0.30	3
2	Rh		1,255,898.39	0.20	96.0	Pulse	0.30	3
2	In		426,818.47	0.17	97.4	Pulse	0.30	3
2	Tb		1,597,928.51	0.67	98.1	Pulse	0.30	3
2	Ho		158,355.70	0.45	99.2	Pulse	0.30	3
2	Bi		1,064,657.39	0.79	99.3	Pulse	0.30	3
3	Sc		78,577.50	1.54	93.5	Pulse	0.30	3
3	Ge		49,446.91	1.93	96.3	Pulse	0.30	3
3	Ge		75,938.88	0.25	96.0	Pulse	0.30	3
3	Rh		885,503.75	0.97	98.2	Pulse	0.30	3
3	Tb		1,352,563.87	0.66	99.3	Pulse	0.30	3

Quantitation Report

File Name	023_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 15:29
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.619	ug/l	0.47	303,598.76	1.724E-01	Pulse	0.25	3
B			1	104.547	ug/l	1.35	407,405.65	2.313E-01	Pulse	0.15	3
Ca			1	5124.666	ug/l	0.61	3,835,947.34	1.612E+00	Pulse	0.10	3
Sr			1	52.340	ug/l	0.13	1,860,533.46	6.162E-01	Pulse	0.10	3
Mo			1	52.901	ug/l	0.95	370,698.69	1.228E-01	Pulse	0.10	3
Ag			1	50.581	ug/l	0.66	868,398.24	2.563E-01	Pulse	0.10	3
Sn			1	51.661	ug/l	0.70	566,724.45	1.673E-01	Pulse	0.10	3
Sb			1	53.657	ug/l	1.10	668,933.87	1.478E-01	Pulse	0.10	3
Ba			1	51.756	ug/l	0.57	268,728.55	5.938E-02	Pulse	0.10	3
Tl			1	52.286	ug/l	0.28	1,530,706.80	5.953E-01	Pulse	0.10	3
Pb			1	52.671	ug/l	0.41	527,507.01	2.052E-01	Pulse	0.10	3
Pb			1	52.249	ug/l	0.72	463,674.76	1.803E-01	Pulse	0.10	3
Pb			1	52.349	ug/l	0.17	2,117,902.43	8.237E-01	Pulse	0.10	3
Na			2	4819.195	ug/l	0.63	3,707,280.13	4.759E+01	Pulse	0.30	3
Mg			2	4910.271	ug/l	0.71	1,725,843.16	2.215E+01	Pulse	0.30	3
Al			2	4888.741	ug/l	1.15	538,899.84	6.917E+00	Pulse	0.30	3
K			2	5085.174	ug/l	1.20	1,120,967.04	1.439E+01	Pulse	0.30	3
Ca			2	5338.478	ug/l	1.65	62,100.65	7.971E-01	Pulse	0.30	3
Ti			2	51.426	ug/l	0.81	4,688.49	6.018E-02	Pulse	0.30	3
V			2	52.204	ug/l	0.98	151,792.53	1.948E+00	Pulse	0.30	3
Cr			2	51.332	ug/l	2.05	194,002.22	2.490E+00	Pulse	0.30	3
Mn			2	52.161	ug/l	0.88	93,446.16	1.199E+00	Pulse	0.30	3
Fe			2	5091.022	ug/l	0.54	16,193,162.69	2.078E+02	Analog	0.30	3
Co			2	51.622	ug/l	1.08	319,087.17	4.096E+00	Pulse	0.30	3
Ni			2	52.572	ug/l	1.43	89,019.42	1.143E+00	Pulse	0.30	3
Cu			2	52.209	ug/l	1.22	242,305.40	3.110E+00	Pulse	0.30	3
Zn			2	52.892	ug/l	2.88	31,561.57	4.052E-01	Pulse	0.30	3
As			2	53.153	ug/l	0.42	17,741.29	2.277E-01	Pulse	1.00	3
Cd			2	49.994	ug/l	1.41	54,546.85	1.257E-01	Pulse	0.30	3
Sn			2	51.889	ug/l	1.05	97,021.62	2.236E-01	Pulse	0.30	3
Se			3	194.790	ug/l	0.49	13,646.67	1.751E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,761,067.63	0.63	85.1	Pulse	0.10	3
1	Sc		2,379,342.62	1.08	91.1	Pulse	0.10	3
1	Ge		460,161.02	1.82	94.2	Pulse	0.10	3

Quantitation Report

1	Ge		646,230.03	0.79	95.0	Pulse	0.10	3
1	Rh		3,019,211.94	0.98	94.7	Pulse	0.10	3
1	In		3,388,444.09	1.92	97.3	Pulse	0.10	3
1	Tb		4,525,446.81	1.65	99.9	Pulse	0.10	3
1	Ho		434,733.35	1.76	100.1	Pulse	0.10	3
1	Bi		2,571,367.72	1.68	99.5	Pulse	0.10	3
2	Sc		77,911.05	1.21	95.2	Pulse	0.30	3
2	Ge		44,766.79	0.69	99.5	Pulse	0.30	3
2	Ge		68,407.26	1.43	99.7	Pulse	0.30	3
2	Rh		1,248,679.71	0.77	95.5	Pulse	0.30	3
2	In		433,959.90	0.22	99.1	Pulse	0.30	3
2	Tb		1,626,605.87	0.16	99.9	Pulse	0.30	3
2	Ho		159,027.77	0.81	99.6	Pulse	0.30	3
2	Bi		1,056,322.63	0.22	98.5	Pulse	0.30	3
3	Sc		81,885.23	0.52	97.5	Pulse	0.30	3
3	Ge		50,039.75	0.83	97.5	Pulse	0.30	3
3	Ge		77,914.94	0.64	98.5	Pulse	0.30	3
3	Rh		865,717.78	0.25	96.0	Pulse	0.30	3
3	Tb		1,342,310.40	0.54	98.6	Pulse	0.30	3

Quantitation Report

File Name	024_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 15:34
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	22.03	46.67	2.604E-05	Pulse	0.25	3
B			1	3.824	ug/l	1.90	16,628.49	9.276E-03	Pulse	0.15	3
Ca			1	-1.667	ug/l	-45.07	9,363.07	3.914E-03	Pulse	0.10	3
Sr			1	0.022	ug/l	2.81	1,246.76	4.001E-04	Pulse	0.10	3
Mo			1	0.128	ug/l	13.02	970.07	3.113E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	11.45	236.68	6.864E-05	Pulse	0.10	3
Sn			1	0.137	ug/l	23.91	7,422.00	2.152E-03	Pulse	0.10	3
Sb			1	0.213	ug/l	9.94	2,813.68	6.159E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	170.41	70.00	1.534E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	11.44	783.39	2.953E-04	Pulse	0.10	3
Pb			1	0.001	ug/l	1022.92	320.01	1.205E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	73.59	313.35	1.182E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	-2072.94	1,273.41	4.801E-04	Pulse	0.10	3
Na			2	1.404	ug/l	25.23	10,468.89	1.335E-01	Pulse	0.30	3
Mg			2	1.104	ug/l	16.47	458.90	5.851E-03	Pulse	0.30	3
Al			2	0.963	ug/l	5.57	187.78	2.395E-03	Pulse	0.30	3
K			2	2.021	ug/l	54.71	7,956.41	1.015E-01	Pulse	0.30	3
Ca			2	1.321	ug/l	67.18	65.56	8.363E-04	Pulse	0.30	3
Ti			2	-0.026	ug/l	-157.18	5.55	7.053E-05	Pulse	0.30	3
V			2	0.002	ug/l	142.70	116.67	1.488E-03	Pulse	0.30	3
Cr			2	0.014	ug/l	99.65	383.35	4.893E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	147.34	46.67	5.963E-04	Pulse	0.30	3
Fe			2	1.363	ug/l	3.82	6,124.54	7.811E-02	Pulse	0.30	3
Co			2	0.008	ug/l	42.12	101.11	1.288E-03	Pulse	0.30	3
Ni			2	-0.013	ug/l	-79.64	26.67	3.406E-04	Pulse	0.30	3
Cu			2	0.007	ug/l	137.12	746.69	9.524E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-1.705	ug/l	-1.70	165.56	2.112E-03	Pulse	0.30	3
As			2	0.025	ug/l	35.74	13.33	1.703E-04	Pulse	1.00	3
Cd			2	0.008	ug/l	49.23	14.61	3.321E-05	Pulse	0.30	3
Sn			2	0.234	ug/l	34.84	1,405.64	3.201E-03	Pulse	0.30	3
Se			3	0.120	ug/l	6.42	12.73	1.610E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,792,685.67	0.32	86.6	Pulse	0.10	3
1	Sc		2,391,145.33	1.07	91.5	Pulse	0.10	3
1	Ge		463,012.94	0.91	94.8	Pulse	0.10	3
1	Ge		653,244.16	1.99	96.0	Pulse	0.10	3
1	Rh		3,115,977.97	1.11	97.8	Pulse	0.10	3
1	In		3,449,273.63	0.82	99.1	Pulse	0.10	3
1	Tb		4,566,590.66	1.08	100.8	Pulse	0.10	3
1	Ho		441,709.07	1.43	101.7	Pulse	0.10	3
1	Bi		2,651,138.87	1.58	102.6	Pulse	0.10	3
2	Sc		78,410.85	0.91	95.8	Pulse	0.30	3
2	Ge		45,267.12	0.87	100.6	Pulse	0.30	3
2	Ge		69,209.51	1.33	100.9	Pulse	0.30	3
2	Rh		1,292,759.78	0.33	98.8	Pulse	0.30	3
2	In		439,283.70	0.65	100.3	Pulse	0.30	3
2	Tb		1,622,914.90	0.28	99.7	Pulse	0.30	3
2	Ho		159,379.09	0.91	99.8	Pulse	0.30	3
2	Bi		1,075,901.49	0.40	100.4	Pulse	0.30	3
3	Sc		82,855.65	0.17	98.6	Pulse	0.30	3
3	Ge		51,320.44	0.81	100.0	Pulse	0.30	3
3	Ge		79,136.21	1.06	100.0	Pulse	0.30	3
3	Rh		897,196.32	0.66	99.5	Pulse	0.30	3
3	Tb		1,365,004.39	0.32	100.3	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 15:40
Sample Name jc88012-5q 4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	59.71	20.00	1.128E-05	Pulse	0.25	3
B			1	4.389	ug/l	2.43	10,078.82	5.683E-03	Pulse	0.15	3
Ca			1	10.416	ug/l	3.99	14,603.63	6.071E-03	Pulse	0.10	3
Sr			1	0.048	ug/l	12.71	1,320.12	4.213E-04	Pulse	0.10	3
Mo			1	0.141	ug/l	21.59	556.70	1.776E-04	Pulse	0.10	3
Ag			1	0.007	ug/l	69.21	86.67	2.499E-05	Pulse	0.10	3
Sn			1	-0.843	ug/l	-3.40	1,263.44	3.633E-04	Pulse	0.10	3
Sb			1	0.049	ug/l	17.45	443.36	9.727E-05	Pulse	0.10	3
Ba			1	0.022	ug/l	71.56	120.00	2.634E-05	Pulse	0.10	3
Tl			1	0.024	ug/l	12.83	600.03	2.290E-04	Pulse	0.10	3
Pb			1	-0.015	ug/l	-75.69	230.01	8.793E-05	Pulse	0.10	3
Pb			1	-0.023	ug/l	-8.88	176.68	6.738E-05	Pulse	0.10	3
Pb			1	-0.022	ug/l	-16.99	813.38	3.106E-04	Pulse	0.10	3
Na			2	2.718	ug/l	24.93	10,526.70	1.331E-01	Pulse	0.30	3
Mg			2	4.188	ug/l	11.02	815.59	1.032E-02	Pulse	0.30	3
Al			2	4.099	ug/l	9.33	311.12	3.932E-03	Pulse	0.30	3
K			2	-2.681	ug/l	-64.15	7,281.66	9.204E-02	Pulse	0.30	3
Ca			2	18.547	ug/l	16.43	160.00	2.023E-03	Pulse	0.30	3
Ti			2	0.189	ug/l	233.69	16.67	2.114E-04	Pulse	0.30	3
V			2	-0.056	ug/l	-14.21	28.89	3.650E-04	Pulse	0.30	3
Cr			2	-0.097	ug/l	-11.19	148.89	1.884E-03	Pulse	0.30	3
Mn			2	0.049	ug/l	29.05	81.11	1.025E-03	Pulse	0.30	3
Fe			2	2.819	ug/l	1.34	6,329.08	8.001E-02	Pulse	0.30	3
Co			2	-0.006	ug/l	-47.08	33.33	4.213E-04	Pulse	0.30	3
Ni			2	-0.012	ug/l	-82.66	38.89	4.923E-04	Pulse	0.30	3
Cu			2	-0.092	ug/l	-22.41	503.35	6.360E-03	Pulse	0.30	3
Zn			2	-3.061	ug/l	-5.49	268.89	3.399E-03	Pulse	0.30	3
As			2	0.035	ug/l	104.59	11.00	1.388E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.007	ug/l	63.08	9.30	2.069E-05	Pulse	0.30	3
Sn			2	-0.789	ug/l	-4.66	233.34	5.185E-04	Pulse	0.30	3
Se			3	0.014	ug/l	230.02	4.67	5.960E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,773,563.36	0.27	85.7	Pulse	0.10	3
1	Sc		2,405,271.37	0.84	92.1	Pulse	0.10	3
1	Ge		474,009.80	0.62	97.0	Pulse	0.10	3
1	Ge		660,883.48	0.87	97.1	Pulse	0.10	3
1	Rh		3,134,003.08	0.73	98.3	Pulse	0.10	3
1	In		3,477,830.81	0.99	99.9	Pulse	0.10	3
1	Tb		4,556,466.70	0.61	100.6	Pulse	0.10	3
1	Ho		439,306.48	0.33	101.1	Pulse	0.10	3
1	Bi		2,621,064.60	1.28	101.4	Pulse	0.10	3
2	Sc		79,110.75	0.94	96.6	Pulse	0.30	3
2	Ge		46,348.90	0.96	103.0	Pulse	0.30	3
2	Ge		70,625.20	0.72	103.0	Pulse	0.30	3
2	Rh		1,303,141.58	0.13	99.6	Pulse	0.30	3
2	In		450,087.13	0.55	102.7	Pulse	0.30	3
2	Tb		1,647,964.55	0.24	101.2	Pulse	0.30	3
2	Ho		161,927.79	1.24	101.4	Pulse	0.30	3
2	Bi		1,090,767.87	0.85	101.8	Pulse	0.30	3
3	Sc		79,926.83	0.38	95.1	Pulse	0.30	3
3	Ge		50,322.82	1.04	98.0	Pulse	0.30	3
3	Ge		78,401.32	0.94	99.1	Pulse	0.30	3
3	Rh		888,151.39	0.37	98.5	Pulse	0.30	3
3	Tb		1,362,573.03	0.23	100.1	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 15:45
Sample Name	jc88151-1q
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	133.40	14.67	8.190E-06	Pulse	0.25	3
B			1	4.316	ug/l	3.00	10,012.08	5.602E-03	Pulse	0.15	3
Ca			1	53.191	ug/l	1.31	30,909.68	1.278E-02	Pulse	0.10	3
Sr			1	0.712	ug/l	2.26	13,689.59	4.325E-03	Pulse	0.10	3
Mo			1	0.123	ug/l	17.66	496.70	1.567E-04	Pulse	0.10	3
Ag			1	0.005	ug/l	15.10	66.67	1.906E-05	Pulse	0.10	3
Sn			1	0.069	ug/l	48.63	6,381.53	1.824E-03	Pulse	0.10	3
Sb			1	0.016	ug/l	34.39	240.01	5.279E-05	Pulse	0.10	3
Ba			1	0.019	ug/l	49.17	113.34	2.498E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	101.30	283.35	1.079E-04	Pulse	0.10	3
Pb			1	-0.012	ug/l	-62.86	246.68	9.391E-05	Pulse	0.10	3
Pb			1	-0.018	ug/l	-18.20	200.01	7.620E-05	Pulse	0.10	3
Pb			1	-0.015	ug/l	-34.51	963.38	3.669E-04	Pulse	0.10	3
Na			2	287.865	ug/l	1.34	122,447.89	1.537E+00	Pulse	0.30	3
Mg			2	8.115	ug/l	7.58	1,526.76	1.917E-02	Pulse	0.30	3
Al			2	5.642	ug/l	8.57	400.01	5.023E-03	Pulse	0.30	3
K			2	-0.727	ug/l	-109.86	7,549.57	9.479E-02	Pulse	0.30	3
Ca			2	66.616	ug/l	6.83	446.68	5.609E-03	Pulse	0.30	3
Ti			2	-0.102	ug/l	-70.18	3.33	4.183E-05	Pulse	0.30	3
V			2	-0.056	ug/l	-10.31	28.89	3.631E-04	Pulse	0.30	3
Cr			2	0.242	ug/l	15.45	803.36	1.009E-02	Pulse	0.30	3
Mn			2	0.097	ug/l	30.75	125.56	1.576E-03	Pulse	0.30	3
Fe			2	2.176	ug/l	2.53	5,326.49	6.688E-02	Pulse	0.30	3
Co			2	0.005	ug/l	44.88	68.89	8.654E-04	Pulse	0.30	3
Ni			2	-0.036	ug/l	-12.27	18.89	2.371E-04	Pulse	0.30	3
Cu			2	-0.073	ug/l	-20.70	551.13	6.918E-03	Pulse	0.30	3
Zn			2	-3.034	ug/l	-2.30	278.90	3.501E-03	Pulse	0.30	3
As			2	0.009	ug/l	279.54	6.67	8.368E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	-949.60	5.31	1.182E-05	Pulse	0.30	3
Sn			2	0.015	ug/l	382.93	1,004.49	2.234E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.062	ug/l	85.16	6.40	8.138E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,787,120.30	0.56	86.4	Pulse	0.10	3
1	Sc		2,418,201.11	1.81	92.6	Pulse	0.10	3
1	Ge		474,456.52	1.25	97.1	Pulse	0.10	3
1	Ge		670,745.75	1.64	98.6	Pulse	0.10	3
1	Rh		3,165,120.89	1.19	99.3	Pulse	0.10	3
1	In		3,498,392.68	1.76	100.5	Pulse	0.10	3
1	Tb		4,545,400.77	1.13	100.3	Pulse	0.10	3
1	Ho		434,523.90	0.87	100.0	Pulse	0.10	3
1	Bi		2,623,269.65	1.25	101.5	Pulse	0.10	3
2	Sc		79,646.51	0.66	97.3	Pulse	0.30	3
2	Ge		47,025.27	1.34	104.5	Pulse	0.30	3
2	Ge		70,985.76	0.73	103.5	Pulse	0.30	3
2	Rh		1,309,627.03	0.42	100.1	Pulse	0.30	3
2	In		449,584.74	0.34	102.6	Pulse	0.30	3
2	Tb		1,644,937.68	0.62	101.0	Pulse	0.30	3
2	Ho		163,299.23	0.31	102.3	Pulse	0.30	3
2	Bi		1,096,916.31	0.69	102.3	Pulse	0.30	3
3	Sc		80,998.71	1.09	96.4	Pulse	0.30	3
3	Ge		50,694.01	0.68	98.7	Pulse	0.30	3
3	Ge		78,846.05	1.31	99.7	Pulse	0.30	3
3	Rh		889,207.01	0.74	98.6	Pulse	0.30	3
3	Tb		1,359,639.11	0.69	99.9	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 15:50
Sample Name	jc88152-1q
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-736.51	8.00	4.435E-06	Pulse	0.25	3
B			1	4.208	ug/l	3.29	9,889.79	5.483E-03	Pulse	0.15	3
Ca			1	21.902	ug/l	8.99	19,301.88	7.873E-03	Pulse	0.10	3
Sr			1	0.092	ug/l	4.08	2,150.23	6.799E-04	Pulse	0.10	3
Mo			1	0.083	ug/l	10.39	350.02	1.106E-04	Pulse	0.10	3
Ag			1	0.003	ug/l	55.66	53.33	1.535E-05	Pulse	0.10	3
Sn			1	8.486	ug/l	0.81	53,200.60	1.531E-02	Pulse	0.10	3
Sb			1	0.022	ug/l	22.08	273.35	6.002E-05	Pulse	0.10	3
Ba			1	0.314	ug/l	1.55	883.39	1.940E-04	Pulse	0.10	3
Tl			1	0.007	ug/l	17.10	350.02	1.330E-04	Pulse	0.10	3
Pb			1	0.354	ug/l	5.10	2,123.56	8.072E-04	Pulse	0.10	3
Pb			1	0.314	ug/l	6.14	1,706.83	6.488E-04	Pulse	0.10	3
Pb			1	0.336	ug/l	6.89	8,214.54	3.123E-03	Pulse	0.10	3
Na			2	176.641	ug/l	1.86	79,383.34	9.896E-01	Pulse	0.30	3
Mg			2	4.718	ug/l	5.76	923.37	1.151E-02	Pulse	0.30	3
Al			2	1.948	ug/l	27.45	193.34	2.410E-03	Pulse	0.30	3
K			2	0.342	ug/l	295.20	7,724.10	9.629E-02	Pulse	0.30	3
Ca			2	29.496	ug/l	17.54	227.78	2.840E-03	Pulse	0.30	3
Ti			2	0.040	ug/l	176.71	10.00	1.246E-04	Pulse	0.30	3
V			2	-0.001	ug/l	-894.54	111.11	1.385E-03	Pulse	0.30	3
Cr			2	0.393	ug/l	9.66	1,103.94	1.376E-02	Pulse	0.30	3
Mn			2	0.080	ug/l	6.71	111.11	1.385E-03	Pulse	0.30	3
Fe			2	3.337	ug/l	12.65	7,266.82	9.058E-02	Pulse	0.30	3
Co			2	0.007	ug/l	62.22	74.45	9.281E-04	Pulse	0.30	3
Ni			2	0.018	ug/l	82.23	65.56	8.173E-04	Pulse	0.30	3
Cu			2	1.911	ug/l	3.44	5,282.01	6.584E-02	Pulse	0.30	3
Zn			2	-3.044	ug/l	-3.61	277.78	3.463E-03	Pulse	0.30	3
As			2	0.003	ug/l	403.96	5.67	7.066E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.014	ug/l	78.59	13.32	2.956E-05	Pulse	0.30	3
Sn			2	8.252	ug/l	3.86	8,924.83	1.980E-02	Pulse	0.30	3
Se			3	0.035	ug/l	156.94	5.53	6.921E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,803,806.30	0.36	87.2	Pulse	0.10	3
1	Sc		2,451,781.16	1.51	93.8	Pulse	0.10	3
1	Ge		480,814.41	1.64	98.4	Pulse	0.10	3
1	Ge		670,528.04	1.10	98.6	Pulse	0.10	3
1	Rh		3,161,570.16	1.33	99.2	Pulse	0.10	3
1	In		3,474,755.59	0.78	99.8	Pulse	0.10	3
1	Tb		4,552,124.72	1.06	100.5	Pulse	0.10	3
1	Ho		437,517.12	1.11	100.7	Pulse	0.10	3
1	Bi		2,631,235.27	0.80	101.8	Pulse	0.10	3
2	Sc		80,218.07	0.11	98.0	Pulse	0.30	3
2	Ge		46,999.67	1.39	104.4	Pulse	0.30	3
2	Ge		71,724.56	0.22	104.6	Pulse	0.30	3
2	Rh		1,318,414.25	0.27	100.8	Pulse	0.30	3
2	In		450,617.98	0.84	102.9	Pulse	0.30	3
2	Tb		1,645,598.68	0.63	101.1	Pulse	0.30	3
2	Ho		162,645.42	0.71	101.9	Pulse	0.30	3
2	Bi		1,100,470.76	0.42	102.7	Pulse	0.30	3
3	Sc		82,085.13	0.52	97.7	Pulse	0.30	3
3	Ge		51,150.94	1.45	99.6	Pulse	0.30	3
3	Ge		79,918.76	0.16	101.0	Pulse	0.30	3
3	Rh		894,572.29	0.69	99.2	Pulse	0.30	3
3	Tb		1,369,598.38	0.44	100.6	Pulse	0.30	3

Quantitation Report

File Name	028_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 15:59
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.823	ug/l	1.77	330,031.54	1.731E-01	Pulse	0.25	3
B			1	104.700	ug/l	1.36	441,739.34	2.317E-01	Pulse	0.15	3
Ca			1	5145.493	ug/l	0.64	4,059,437.44	1.619E+00	Pulse	0.10	3
Sr			1	52.951	ug/l	0.84	1,949,379.92	6.234E-01	Pulse	0.10	3
Mo			1	52.984	ug/l	1.36	384,526.65	1.230E-01	Pulse	0.10	3
Ag			1	51.118	ug/l	1.70	903,150.09	2.590E-01	Pulse	0.10	3
Sn			1	52.095	ug/l	1.18	588,114.90	1.687E-01	Pulse	0.10	3
Sb			1	53.719	ug/l	1.17	689,016.47	1.480E-01	Pulse	0.10	3
Ba			1	51.844	ug/l	0.76	276,978.30	5.949E-02	Pulse	0.10	3
Tl			1	52.099	ug/l	0.65	1,562,608.05	5.932E-01	Pulse	0.10	3
Pb			1	52.103	ug/l	1.14	534,636.48	2.029E-01	Pulse	0.10	3
Pb			1	51.921	ug/l	1.08	472,106.87	1.792E-01	Pulse	0.10	3
Pb			1	51.818	ug/l	0.52	2,147,771.48	8.153E-01	Pulse	0.10	3
Na			2	4849.224	ug/l	0.42	3,968,814.71	4.788E+01	Pulse	0.30	3
Mg			2	4901.487	ug/l	0.54	1,832,887.50	2.211E+01	Pulse	0.30	3
Al			2	4837.967	ug/l	0.54	567,421.02	6.846E+00	Pulse	0.30	3
K			2	5017.748	ug/l	0.16	1,176,996.86	1.420E+01	Pulse	0.30	3
Ca			2	5209.362	ug/l	0.76	64,479.54	7.779E-01	Pulse	0.30	3
Ti			2	51.027	ug/l	1.89	4,949.68	5.972E-02	Pulse	0.30	3
V			2	52.762	ug/l	0.56	163,231.79	1.969E+00	Pulse	0.30	3
Cr			2	50.937	ug/l	1.13	204,834.57	2.471E+00	Pulse	0.30	3
Mn			2	51.086	ug/l	1.32	97,369.52	1.175E+00	Pulse	0.30	3
Fe			2	4992.874	ug/l	0.25	16,896,367.66	2.038E+02	Analog	0.30	3
Co			2	51.141	ug/l	0.05	336,348.37	4.058E+00	Pulse	0.30	3
Ni			2	52.051	ug/l	1.25	93,772.23	1.131E+00	Pulse	0.30	3
Cu			2	51.168	ug/l	1.13	252,677.15	3.049E+00	Pulse	0.30	3
Zn			2	51.250	ug/l	2.44	32,576.84	3.931E-01	Pulse	0.30	3
As			2	52.306	ug/l	1.48	18,573.54	2.241E-01	Pulse	1.00	3
Cd			2	50.390	ug/l	0.71	56,026.28	1.267E-01	Pulse	0.30	3
Sn			2	51.659	ug/l	0.48	98,438.83	2.226E-01	Pulse	0.30	3
Se			3	193.877	ug/l	1.62	14,075.36	1.743E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,906,865.66	0.60	92.1	Pulse	0.10	3
1	Sc		2,507,935.64	1.80	96.0	Pulse	0.10	3
1	Ge		479,223.65	0.92	98.1	Pulse	0.10	3

Quantitation Report

1	Ge		678,322.85	1.35	99.7	Pulse	0.10	3
1	Rh		3,126,858.60	0.86	98.1	Pulse	0.10	3
1	In		3,487,165.26	1.59	100.2	Pulse	0.10	3
1	Tb		4,656,566.07	1.97	102.8	Pulse	0.10	3
1	Ho		450,008.42	2.07	103.6	Pulse	0.10	3
1	Bi		2,634,265.90	1.10	102.0	Pulse	0.10	3
2	Sc		82,890.08	0.86	101.3	Pulse	0.30	3
2	Ge		46,316.61	2.01	102.9	Pulse	0.30	3
2	Ge		70,780.46	0.69	103.2	Pulse	0.30	3
2	Rh		1,277,038.04	1.10	97.6	Pulse	0.30	3
2	In		442,239.67	0.56	101.0	Pulse	0.30	3
2	Tb		1,630,615.67	0.88	100.2	Pulse	0.30	3
2	Ho		160,982.65	1.41	100.8	Pulse	0.30	3
2	Bi		1,064,329.30	0.91	99.3	Pulse	0.30	3
3	Sc		85,790.32	0.12	102.1	Pulse	0.30	3
3	Ge		52,067.28	0.74	101.4	Pulse	0.30	3
3	Ge		80,751.76	1.43	102.1	Pulse	0.30	3
3	Rh		888,051.46	0.25	98.5	Pulse	0.30	3
3	Tb		1,371,865.54	0.49	100.8	Pulse	0.30	3

Quantitation Report

File Name	029_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 16:04
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	10.49	76.00	3.984E-05	Pulse	0.25	3
B			1	3.835	ug/l	3.15	17,736.25	9.299E-03	Pulse	0.15	3
Ca			1	-2.134	ug/l	-14.10	9,379.74	3.768E-03	Pulse	0.10	3
Sr			1	0.012	ug/l	12.30	873.39	2.744E-04	Pulse	0.10	3
Mo			1	0.086	ug/l	13.17	683.37	2.144E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	6.93	276.68	7.840E-05	Pulse	0.10	3
Sn			1	0.170	ug/l	12.50	7,958.99	2.257E-03	Pulse	0.10	3
Sb			1	0.217	ug/l	6.46	2,878.70	6.267E-04	Pulse	0.10	3
Ba			1	0.006	ug/l	220.30	93.34	2.040E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	12.61	843.39	3.160E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	84.82	380.02	1.427E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	91.15	333.35	1.248E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	78.27	1,446.75	5.428E-04	Pulse	0.10	3
Na			2	1.016	ug/l	22.70	10,557.91	1.297E-01	Pulse	0.30	3
Mg			2	0.700	ug/l	18.09	327.79	4.027E-03	Pulse	0.30	3
Al			2	0.274	ug/l	69.94	115.56	1.419E-03	Pulse	0.30	3
K			2	1.270	ug/l	102.49	8,088.70	9.938E-02	Pulse	0.30	3
Ca			2	-0.807	ug/l	-71.40	42.22	5.188E-04	Pulse	0.30	3
Ti			2	0.019	ug/l	378.17	10.00	1.229E-04	Pulse	0.30	3
V			2	0.000	ug/l	-1119.83	113.34	1.392E-03	Pulse	0.30	3
Cr			2	0.008	ug/l	157.54	375.57	4.614E-03	Pulse	0.30	3
Mn			2	0.008	ug/l	112.11	53.33	6.554E-04	Pulse	0.30	3
Fe			2	0.975	ug/l	5.00	5,067.53	6.226E-02	Pulse	0.30	3
Co			2	0.006	ug/l	24.47	90.00	1.106E-03	Pulse	0.30	3
Ni			2	0.004	ug/l	202.33	57.78	7.098E-04	Pulse	0.30	3
Cu			2	0.010	ug/l	107.36	785.59	9.651E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-1.649	ug/l	-3.41	205.56	2.525E-03	Pulse	0.30	3
As			2	0.024	ug/l	66.75	13.67	1.678E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	45.83	10.62	2.383E-05	Pulse	0.30	3
Sn			2	0.260	ug/l	9.35	1,475.64	3.310E-03	Pulse	0.30	3
Se			3	0.115	ug/l	24.53	12.87	1.567E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,907,587.70	0.79	92.2	Pulse	0.10	3
1	Sc		2,489,625.12	0.63	95.3	Pulse	0.10	3
1	Ge		483,332.42	1.69	98.9	Pulse	0.10	3
1	Ge		671,223.92	0.79	98.7	Pulse	0.10	3
1	Rh		3,184,144.12	1.20	99.9	Pulse	0.10	3
1	In		3,527,373.85	1.48	101.3	Pulse	0.10	3
1	Tb		4,592,650.24	0.78	101.4	Pulse	0.10	3
1	Ho		447,167.55	1.08	103.0	Pulse	0.10	3
1	Bi		2,668,213.66	1.88	103.3	Pulse	0.10	3
2	Sc		81,395.83	0.15	99.4	Pulse	0.30	3
2	Ge		46,741.04	0.70	103.9	Pulse	0.30	3
2	Ge		70,801.66	0.99	103.2	Pulse	0.30	3
2	Rh		1,316,838.59	0.43	100.7	Pulse	0.30	3
2	In		445,832.98	0.88	101.8	Pulse	0.30	3
2	Tb		1,639,486.29	0.37	100.7	Pulse	0.30	3
2	Ho		161,719.05	0.82	101.3	Pulse	0.30	3
2	Bi		1,088,023.01	0.27	101.5	Pulse	0.30	3
3	Sc		86,374.23	0.19	102.8	Pulse	0.30	3
3	Ge		53,379.11	0.16	104.0	Pulse	0.30	3
3	Ge		82,086.33	0.40	103.8	Pulse	0.30	3
3	Rh		920,075.83	1.13	102.1	Pulse	0.30	3
3	Tb		1,388,146.89	0.32	102.0	Pulse	0.30	3

Quantitation Report

File Name 030SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 16:09
Sample Name mp15011-mb1 5
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	45.62	22.67	1.165E-05	Pulse	0.25	3
B			1	7.085	ug/l	0.73	16,837.54	8.655E-03	Pulse	0.15	3
Ca			1	18.079	ug/l	4.35	18,280.76	7.273E-03	Pulse	0.10	3
Sr			1	0.058	ug/l	22.31	1,530.14	4.805E-04	Pulse	0.10	3
Mo			1	0.201	ug/l	10.93	786.72	2.470E-04	Pulse	0.10	3
Ag			1	0.031	ug/l	12.89	300.01	8.500E-05	Pulse	0.10	3
Sn			1	0.680	ug/l	15.14	9,893.57	2.803E-03	Pulse	0.10	3
Sb			1	0.449	ug/l	6.43	3,003.74	6.479E-04	Pulse	0.10	3
Ba			1	0.024	ug/l	52.22	130.01	2.802E-05	Pulse	0.10	3
Tl			1	0.045	ug/l	20.93	1,036.75	3.535E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	40.30	523.36	1.784E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	33.98	450.02	1.535E-04	Pulse	0.10	3
Pb			1	0.032	ug/l	27.73	2,156.82	7.355E-04	Pulse	0.10	3
Na			2	11.326	ug/l	12.22	13,979.39	1.755E-01	Pulse	0.30	3
Mg			2	2.785	ug/l	11.72	570.02	7.149E-03	Pulse	0.30	3
Al			2	3.927	ug/l	58.88	304.47	3.810E-03	Pulse	0.30	3
K			2	1.638	ug/l	218.90	7,815.24	9.811E-02	Pulse	0.30	3
Ca			2	20.925	ug/l	41.10	175.56	2.200E-03	Pulse	0.30	3
Ti			2	0.424	ug/l	120.74	27.78	3.490E-04	Pulse	0.30	3
V			2	0.158	ug/l	41.15	345.56	4.344E-03	Pulse	0.30	3
Cr			2	0.423	ug/l	6.80	1,154.50	1.449E-02	Pulse	0.30	3
Mn			2	0.082	ug/l	15.65	112.22	1.409E-03	Pulse	0.30	3
Fe			2	3.946	ug/l	7.63	8,205.48	1.030E-01	Pulse	0.30	3
Co			2	0.022	ug/l	56.16	122.22	1.536E-03	Pulse	0.30	3
Ni			2	0.082	ug/l	39.05	121.12	1.518E-03	Pulse	0.30	3
Cu			2	0.834	ug/l	5.84	2,698.03	3.385E-02	Pulse	0.30	3
Zn			2	-1.637	ug/l	-2.17	690.02	8.659E-03	Pulse	0.30	3
As			2	0.131	ug/l	34.10	27.33	3.437E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.020	ug/l	38.30	15.96	3.693E-05	Pulse	0.30	3
Sn			2	0.843	ug/l	4.38	1,729.01	3.999E-03	Pulse	0.30	3
Se			3	0.328	ug/l	31.97	17.07	2.009E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,945,438.48	0.34	94.0	Pulse	0.10	3
1	Sc		2,513,465.85	0.51	96.2	Pulse	0.10	3
1	Ge		490,834.37	1.96	100.5	Pulse	0.10	3
1	Ge		685,956.79	1.05	100.8	Pulse	0.10	3
1	Rh		3,182,346.20	1.98	99.8	Pulse	0.10	3
1	In		3,528,823.37	0.47	101.4	Pulse	0.10	3
1	Tb		4,635,032.12	0.67	102.3	Pulse	0.10	3
1	Ho		447,276.39	1.36	103.0	Pulse	0.10	3
1	Bi		2,933,381.10	0.46	113.5	Pulse	0.10	3
2	Sc		79,684.66	1.06	97.3	Pulse	0.30	3
2	Ge		47,019.74	1.97	104.5	Pulse	0.30	3
2	Ge		70,979.04	2.04	103.5	Pulse	0.30	3
2	Rh		1,308,588.80	0.32	100.0	Pulse	0.30	3
2	In		432,375.28	0.45	98.7	Pulse	0.30	3
2	Tb		1,621,141.50	0.23	99.6	Pulse	0.30	3
2	Ho		159,670.90	0.75	100.0	Pulse	0.30	3
2	Bi		1,144,300.82	0.80	106.7	Pulse	0.30	3
3	Sc		87,943.53	0.85	104.7	Pulse	0.30	3
3	Ge		54,914.26	0.50	107.0	Pulse	0.30	3
3	Ge		84,997.87	0.74	107.4	Pulse	0.30	3
3	Rh		932,643.23	0.55	103.5	Pulse	0.30	3
3	Tb		1,404,809.15	0.45	103.2	Pulse	0.30	3

Quantitation Report

File Name	031SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 16:14
Sample Name	mp15011-b2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.920	ug/l	1.25	255,736.62	1.344E-01	Pulse	0.25	3
B			1	93.627	ug/l	0.87	198,006.95	1.041E-01	Pulse	0.15	3
Ca			1	3998.516	ug/l	0.47	1,566,875.55	6.317E-01	Pulse	0.10	3
Sr			1	82.645	ug/l	1.13	1,541,516.02	4.865E-01	Pulse	0.10	3
Mo			1	79.798	ug/l	1.27	293,432.76	9.260E-02	Pulse	0.10	3
Ag			1	78.126	ug/l	0.73	695,511.01	1.979E-01	Pulse	0.10	3
Sn			1	80.321	ug/l	0.65	458,223.34	1.304E-01	Pulse	0.10	3
Sb			1	80.163	ug/l	0.22	520,688.18	1.104E-01	Pulse	0.10	3
Ba			1	82.886	ug/l	1.26	224,236.57	4.755E-02	Pulse	0.10	3
Tl			1	81.115	ug/l	0.38	1,257,863.13	4.618E-01	Pulse	0.10	3
Pb			1	81.398	ug/l	0.27	431,892.79	1.586E-01	Pulse	0.10	3
Pb			1	81.602	ug/l	0.21	383,667.82	1.408E-01	Pulse	0.10	3
Pb			1	81.083	ug/l	0.56	1,737,938.83	6.380E-01	Pulse	0.10	3
Na			2	3841.249	ug/l	0.74	1,526,843.38	1.904E+01	Pulse	0.30	3
Mg			2	3829.749	ug/l	0.50	692,935.04	8.639E+00	Pulse	0.30	3
Al			2	3686.732	ug/l	0.19	209,258.91	2.609E+00	Pulse	0.30	3
K			2	3869.707	ug/l	0.61	443,879.50	5.534E+00	Pulse	0.30	3
Ca			2	4320.741	ug/l	1.04	25,903.63	3.230E-01	Pulse	0.30	3
Ti			2	78.047	ug/l	1.59	3,664.88	4.569E-02	Pulse	0.30	3
V			2	84.314	ug/l	0.71	126,220.55	1.574E+00	Pulse	0.30	3
Cr			2	82.994	ug/l	0.48	161,543.61	2.014E+00	Pulse	0.30	3
Mn			2	82.631	ug/l	1.18	76,206.52	9.502E-01	Pulse	0.30	3
Fe			2	3959.560	ug/l	0.68	6,484,035.99	8.084E+01	Analog	0.30	3
Co			2	84.408	ug/l	1.22	268,594.65	3.349E+00	Pulse	0.30	3
Ni			2	83.630	ug/l	1.37	72,904.59	9.090E-01	Pulse	0.30	3
Cu			2	84.425	ug/l	0.77	201,840.13	2.517E+00	Pulse	0.30	3
Zn			2	74.389	ug/l	0.84	23,203.20	2.893E-01	Pulse	0.30	3
As			2	75.581	ug/l	0.80	12,987.17	1.619E-01	Pulse	1.00	3
Cd			2	79.586	ug/l	0.18	42,836.76	1.001E-01	Pulse	0.30	3
Sn			2	79.895	ug/l	0.54	73,911.97	1.726E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	316.337	ug/l	0.62	11,947.61	1.422E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,902,987.62	0.19	92.0	Pulse	0.10	3
1	Sc		2,480,577.83	0.89	94.9	Pulse	0.10	3
1	Ge		481,919.32	0.38	98.6	Pulse	0.10	3
1	Ge		678,288.69	0.83	99.7	Pulse	0.10	3
1	Rh		3,168,522.04	1.18	99.4	Pulse	0.10	3
1	In		3,513,852.84	1.11	100.9	Pulse	0.10	3
1	Tb		4,715,263.47	0.31	104.1	Pulse	0.10	3
1	Ho		457,570.48	1.66	105.3	Pulse	0.10	3
1	Bi		2,723,984.02	1.22	105.4	Pulse	0.10	3
2	Sc		80,207.05	0.43	98.0	Pulse	0.30	3
2	Ge		45,209.09	1.65	100.5	Pulse	0.30	3
2	Ge		69,853.23	0.66	101.8	Pulse	0.30	3
2	Rh		1,287,228.46	0.59	98.4	Pulse	0.30	3
2	In		428,151.08	0.27	97.7	Pulse	0.30	3
2	Tb		1,618,904.24	0.34	99.4	Pulse	0.30	3
2	Ho		160,409.53	1.14	100.5	Pulse	0.30	3
2	Bi		1,084,631.83	0.22	101.2	Pulse	0.30	3
3	Sc		88,327.89	0.52	105.1	Pulse	0.30	3
3	Ge		54,431.46	1.77	106.0	Pulse	0.30	3
3	Ge		84,004.56	0.60	106.2	Pulse	0.30	3
3	Rh		922,343.64	0.25	102.3	Pulse	0.30	3
3	Tb		1,417,770.88	0.57	104.1	Pulse	0.30	3

Quantitation Report

File Name	032SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 16:21
Sample Name	mp15011-s3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	103.864	ug/l	1.16	235,407.06	1.769E-01	Pulse	0.25	3
B			1	925.348	ug/l	0.67	1,358,789.56	1.021E+00	Pulse	0.15	3
Ca			1	7683.492	ug/l	0.34	3,021,032.87	1.210E+00	Pulse	0.10	3
Sr			1	1197.158	ug/l	1.20	18,760,973.89	7.046E+00	Analog	0.10	3
Mo			1	105.318	ug/l	1.22	325,397.38	1.222E-01	Pulse	0.10	3
Ag			1	74.327	ug/l	0.83	576,453.30	1.883E-01	Pulse	0.10	3
Sn			1	83.225	ug/l	1.54	413,405.48	1.351E-01	Pulse	0.10	3
Sb			1	81.114	ug/l	0.88	468,101.31	1.117E-01	Pulse	0.10	3
Ba			1	130.368	ug/l	0.78	313,353.38	7.479E-02	Pulse	0.10	3
Tl			1	84.329	ug/l	0.55	1,048,088.58	4.801E-01	Pulse	0.10	3
Pb			1	87.598	ug/l	1.32	372,487.15	1.706E-01	Pulse	0.10	3
Pb			1	86.638	ug/l	0.29	326,440.40	1.495E-01	Pulse	0.10	3
Pb			1	86.944	ug/l	0.58	1,493,421.39	6.841E-01	Pulse	0.10	3
Na			2	399093.261	ug/l	0.51	153,316,571.69	1.966E+03	Analog	0.30	3
Mg			2	3708.066	ug/l	0.81	652,454.96	8.365E+00	Pulse	0.30	3
Al			2	7140.633	ug/l	0.77	394,049.00	5.052E+00	Pulse	0.30	3
K			2	633323.101	ug/l	0.84	69,430,677.24	8.902E+02	Analog	0.30	3
Ca			2	11926.657	ug/l	0.81	69,453.96	8.904E-01	Pulse	0.30	3
Ti			2	77.230	ug/l	2.62	3,525.98	4.521E-02	Pulse	0.30	3
V			2	88.779	ug/l	0.26	129,247.14	1.657E+00	Pulse	0.30	3
Cr			2	79.360	ug/l	1.54	150,227.36	1.926E+00	Pulse	0.30	3
Mn			2	80.982	ug/l	1.10	72,628.17	9.312E-01	Pulse	0.30	3
Fe			2	3924.991	ug/l	0.19	6,250,500.58	8.014E+01	Analog	0.30	3
Co			2	75.870	ug/l	0.32	234,789.84	3.010E+00	Pulse	0.30	3
Ni			2	89.089	ug/l	0.90	75,521.76	9.683E-01	Pulse	0.30	3
Cu			2	74.347	ug/l	0.87	172,935.65	2.217E+00	Pulse	0.30	3
Zn			2	68.516	ug/l	3.10	20,871.18	2.676E-01	Pulse	0.30	3
As			2	83.599	ug/l	0.78	13,969.31	1.791E-01	Pulse	1.00	3
Cd			2	71.638	ug/l	0.92	36,140.26	9.006E-02	Pulse	0.30	3
Sn			2	82.512	ug/l	0.97	71,512.00	1.782E-01	Pulse	0.30	3
Se			3	296.372	ug/l	0.84	9,315.98	1.333E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,331,047.95	1.03	64.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,497,248.25	0.92	95.6	Pulse	0.10	3
1	Ge		456,777.94	1.52	93.5	Pulse	0.10	3
1	Ge		623,793.53	1.35	91.7	Pulse	0.10	3
1	Rh		2,662,911.16	1.52	83.5	Pulse	0.10	3
1	In		3,061,304.07	1.59	87.9	Pulse	0.10	3
1	Tb		4,189,617.12	1.31	92.5	Pulse	0.10	3
1	Ho		404,398.55	2.14	93.1	Pulse	0.10	3
1	Bi		2,183,109.29	1.11	84.5	Pulse	0.10	3
2	Sc		78,000.19	1.23	95.3	Pulse	0.30	3
2	Ge		42,941.99	1.47	95.4	Pulse	0.30	3
2	Ge		65,337.97	0.96	95.2	Pulse	0.30	3
2	Rh		1,076,662.77	0.43	82.3	Pulse	0.30	3
2	In		401,286.05	0.40	91.6	Pulse	0.30	3
2	Tb		1,507,846.02	1.19	92.6	Pulse	0.30	3
2	Ho		148,355.94	0.32	92.9	Pulse	0.30	3
2	Bi		901,797.81	0.55	84.1	Pulse	0.30	3
3	Sc		75,313.38	0.84	89.7	Pulse	0.30	3
3	Ge		45,535.52	0.44	88.7	Pulse	0.30	3
3	Ge		69,912.22	0.56	88.4	Pulse	0.30	3
3	Rh		709,872.73	0.37	78.8	Pulse	0.30	3
3	Tb		1,197,139.54	0.09	87.9	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 16:26
Sample Name	mp15011-s4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	106.795	ug/l	2.02	225,910.07	1.819E-01	Pulse	0.25	3
B			1	937.908	ug/l	1.70	1,285,401.24	1.035E+00	Pulse	0.15	3
Ca			1	7666.578	ug/l	0.62	2,876,522.04	1.207E+00	Pulse	0.10	3
Sr			1	1175.674	ug/l	1.87	17,691,920.57	6.920E+00	Analog	0.10	3
Mo			1	104.627	ug/l	0.16	310,476.00	1.214E-01	Pulse	0.10	3
Ag			1	74.286	ug/l	0.91	556,375.36	1.882E-01	Pulse	0.10	3
Sn			1	82.642	ug/l	0.90	396,498.97	1.341E-01	Pulse	0.10	3
Sb			1	81.287	ug/l	0.94	449,843.01	1.120E-01	Pulse	0.10	3
Ba			1	131.230	ug/l	1.54	302,408.46	7.528E-02	Pulse	0.10	3
Tl			1	85.351	ug/l	0.58	1,010,594.62	4.859E-01	Pulse	0.10	3
Pb			1	88.421	ug/l	0.77	358,190.92	1.722E-01	Pulse	0.10	3
Pb			1	87.697	ug/l	0.14	314,826.30	1.514E-01	Pulse	0.10	3
Pb			1	87.676	ug/l	0.36	1,434,797.68	6.898E-01	Pulse	0.10	3
Na			2	396954.833	ug/l	1.29	147,196,100.82	1.955E+03	Analog	0.30	3
Mg			2	3710.619	ug/l	1.00	630,235.69	8.371E+00	Pulse	0.30	3
Al			2	7143.074	ug/l	1.02	380,516.55	5.054E+00	Pulse	0.30	3
K			2	628209.108	ug/l	0.80	66,479,737.36	8.830E+02	Analog	0.30	3
Ca			2	12004.154	ug/l	2.06	67,471.56	8.962E-01	Pulse	0.30	3
Ti			2	80.577	ug/l	1.87	3,551.53	4.717E-02	Pulse	0.30	3
V			2	89.623	ug/l	1.52	125,939.50	1.673E+00	Pulse	0.30	3
Cr			2	80.450	ug/l	0.39	147,005.11	1.952E+00	Pulse	0.30	3
Mn			2	81.842	ug/l	1.07	70,855.39	9.411E-01	Pulse	0.30	3
Fe			2	3931.989	ug/l	0.76	6,044,208.09	8.028E+01	Analog	0.30	3
Co			2	76.445	ug/l	0.86	228,352.18	3.033E+00	Pulse	0.30	3
Ni			2	89.532	ug/l	1.11	73,264.07	9.731E-01	Pulse	0.30	3
Cu			2	74.871	ug/l	1.50	168,108.39	2.233E+00	Pulse	0.30	3
Zn			2	67.229	ug/l	2.28	19,790.94	2.629E-01	Pulse	0.30	3
As			2	83.911	ug/l	0.24	13,533.95	1.798E-01	Pulse	1.00	3
Cd			2	72.448	ug/l	0.54	35,896.10	9.108E-02	Pulse	0.30	3
Sn			2	83.062	ug/l	0.39	70,701.68	1.794E-01	Pulse	0.30	3
Se			3	292.367	ug/l	1.47	9,036.42	1.315E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,242,375.24	0.86	60.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,383,137.99	0.81	91.2	Pulse	0.10	3
1	Ge		436,327.40	1.04	89.3	Pulse	0.10	3
1	Ge		601,374.68	2.39	88.4	Pulse	0.10	3
1	Rh		2,557,227.46	1.30	80.2	Pulse	0.10	3
1	In		2,955,898.37	1.31	84.9	Pulse	0.10	3
1	Tb		4,017,086.82	1.32	88.7	Pulse	0.10	3
1	Ho		391,571.23	1.44	90.2	Pulse	0.10	3
1	Bi		2,079,989.35	1.64	80.5	Pulse	0.10	3
2	Sc		75,291.04	0.17	92.0	Pulse	0.30	3
2	Ge		42,405.02	1.29	94.2	Pulse	0.30	3
2	Ge		63,963.60	2.70	93.2	Pulse	0.30	3
2	Rh		1,054,274.89	0.43	80.6	Pulse	0.30	3
2	In		394,133.04	0.72	90.0	Pulse	0.30	3
2	Tb		1,490,220.53	0.75	91.5	Pulse	0.30	3
2	Ho		146,841.03	1.21	92.0	Pulse	0.30	3
2	Bi		885,895.03	1.00	82.6	Pulse	0.30	3
3	Sc		72,825.95	1.11	86.7	Pulse	0.30	3
3	Ge		45,268.13	1.02	88.2	Pulse	0.30	3
3	Ge		68,748.36	1.14	86.9	Pulse	0.30	3
3	Rh		701,155.23	0.40	77.8	Pulse	0.30	3
3	Tb		1,183,005.86	0.22	86.9	Pulse	0.30	3

Quantitation Report

File Name	034SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 16:31
Sample Name	jc87015-12
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	65.33	34.67	2.746E-05	Pulse	0.25	3
B			1	831.742	ug/l	1.22	1,155,264.37	9.177E-01	Pulse	0.15	3
Ca			1	3956.805	ug/l	0.21	1,481,512.84	6.251E-01	Pulse	0.10	3
Sr			1	1103.236	ug/l	0.80	16,634,170.58	6.493E+00	Analog	0.10	3
Mo			1	17.010	ug/l	2.15	50,601.11	1.975E-02	Pulse	0.10	3
Ag			1	0.049	ug/l	44.41	386.69	1.311E-04	Pulse	0.10	3
Sn			1	1.415	ug/l	8.04	11,731.49	3.981E-03	Pulse	0.10	3
Sb			1	1.219	ug/l	2.45	6,861.73	1.708E-03	Pulse	0.10	3
Ba			1	47.583	ug/l	2.03	109,675.67	2.731E-02	Pulse	0.10	3
Tl			1	0.041	ug/l	8.51	690.04	3.302E-04	Pulse	0.10	3
Pb			1	2.803	ug/l	1.57	11,651.64	5.573E-03	Pulse	0.10	3
Pb			1	2.760	ug/l	3.49	10,173.85	4.868E-03	Pulse	0.10	3
Pb			1	2.739	ug/l	0.77	46,032.73	2.202E-02	Pulse	0.10	3
Na			2	403193.054	ug/l	1.05	148,744,989.65	1.986E+03	Analog	0.30	3
Mg			2	80.060	ug/l	3.92	13,590.04	1.815E-01	Pulse	0.30	3
Al			2	3415.721	ug/l	1.82	181,058.38	2.417E+00	Pulse	0.30	3
K			2	637157.900	ug/l	1.92	67,078,630.67	8.956E+02	Analog	0.30	3
Ca			2	7885.984	ug/l	0.64	44,118.28	5.889E-01	Pulse	0.30	3
Ti			2	0.741	ug/l	37.10	40.00	5.338E-04	Pulse	0.30	3
V			2	7.627	ug/l	1.90	10,759.17	1.436E-01	Pulse	0.30	3
Cr			2	2.697	ug/l	4.01	5,208.66	6.955E-02	Pulse	0.30	3
Mn			2	0.618	ug/l	14.73	566.69	7.559E-03	Pulse	0.30	3
Fe			2	174.887	ug/l	1.62	269,059.70	3.592E+00	Pulse	0.30	3
Co			2	0.227	ug/l	2.79	724.47	9.671E-03	Pulse	0.30	3
Ni			2	16.922	ug/l	2.42	13,813.68	1.844E-01	Pulse	0.30	3
Cu			2	2.713	ug/l	1.68	6,717.01	8.967E-02	Pulse	0.30	3
Zn			2	2.437	ug/l	12.01	1,775.67	2.369E-02	Pulse	0.30	3
As			2	12.481	ug/l	3.15	2,006.46	2.679E-02	Pulse	1.00	3
Cd			2	0.039	ug/l	95.16	24.23	6.177E-05	Pulse	0.30	3
Sn			2	1.369	ug/l	14.83	2,005.71	5.121E-03	Pulse	0.30	3
Se			3	1.520	ug/l	3.45	51.00	7.365E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,259,086.17	1.91	60.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,369,958.92	0.90	90.7	Pulse	0.10	3
1	Ge		436,850.70	1.05	89.4	Pulse	0.10	3
1	Ge		597,349.30	0.67	87.8	Pulse	0.10	3
1	Rh		2,561,913.30	1.01	80.4	Pulse	0.10	3
1	In		2,946,652.45	0.40	84.6	Pulse	0.10	3
1	Tb		4,017,115.46	1.02	88.7	Pulse	0.10	3
1	Ho		390,373.96	1.93	89.9	Pulse	0.10	3
1	Bi		2,090,449.71	1.09	80.9	Pulse	0.10	3
2	Sc		74,914.77	1.45	91.5	Pulse	0.30	3
2	Ge		42,322.60	1.52	94.0	Pulse	0.30	3
2	Ge		64,077.39	0.70	93.4	Pulse	0.30	3
2	Rh		1,053,641.11	0.46	80.5	Pulse	0.30	3
2	In		391,670.38	0.27	89.4	Pulse	0.30	3
2	Tb		1,487,815.53	0.34	91.4	Pulse	0.30	3
2	Ho		147,530.65	0.08	92.4	Pulse	0.30	3
2	Bi		882,259.62	0.26	82.3	Pulse	0.30	3
3	Sc		75,261.15	0.94	89.6	Pulse	0.30	3
3	Ge		45,671.49	0.44	89.0	Pulse	0.30	3
3	Ge		69,241.65	0.64	87.5	Pulse	0.30	3
3	Rh		710,402.12	0.63	78.8	Pulse	0.30	3
3	Tb		1,194,977.17	0.66	87.8	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 16:36
Sample Name	mp15011-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.050	ug/l	8.25	37.33	2.192E-05	Pulse	0.25	3
B			1	723.488	ug/l	0.92	273,196.68	1.603E-01	Pulse	0.15	3
Ca			1	4295.034	ug/l	1.19	339,092.26	1.392E-01	Pulse	0.10	3
Sr			1	1076.630	ug/l	1.05	3,706,034.73	1.267E+00	Pulse	0.10	3
Mo			1	16.297	ug/l	4.70	11,100.91	3.796E-03	Pulse	0.10	3
Ag			1	0.098	ug/l	21.36	190.01	5.727E-05	Pulse	0.10	3
Sn			1	-2.827	ug/l	-4.62	2,676.99	8.075E-04	Pulse	0.10	3
Sb			1	1.381	ug/l	16.84	1,803.51	4.106E-04	Pulse	0.10	3
Ba			1	50.574	ug/l	1.09	25,511.68	5.815E-03	Pulse	0.10	3
Tl			1	0.059	ug/l	53.33	393.36	1.626E-04	Pulse	0.10	3
Pb			1	2.867	ug/l	10.63	2,980.40	1.233E-03	Pulse	0.10	3
Pb			1	2.692	ug/l	8.66	2,503.64	1.036E-03	Pulse	0.10	3
Pb			1	2.839	ug/l	0.36	11,955.71	4.947E-03	Pulse	0.10	3
Na			2	430357.708	ug/l	1.33	34,486,788.63	4.240E+02	Analog	0.30	3
Mg			2	98.631	ug/l	4.54	3,689.33	4.536E-02	Pulse	0.30	3
Al			2	3593.692	ug/l	0.27	41,439.53	5.095E-01	Pulse	0.30	3
K			2	678359.729	ug/l	0.78	15,517,564.94	1.908E+02	Analog	0.30	3
Ca			2	8361.409	ug/l	2.94	10,201.01	1.254E-01	Pulse	0.30	3
Ti			2	1.353	ug/l	53.25	21.11	2.593E-04	Pulse	0.30	3
V			2	8.225	ug/l	4.48	2,610.24	3.208E-02	Pulse	0.30	3
Cr			2	2.941	ug/l	25.41	1,502.52	1.848E-02	Pulse	0.30	3
Mn			2	0.887	ug/l	13.22	203.34	2.501E-03	Pulse	0.30	3
Fe			2	191.957	ug/l	1.72	65,562.60	8.061E-01	Pulse	0.30	3
Co			2	0.294	ug/l	18.68	243.34	2.993E-03	Pulse	0.30	3
Ni			2	18.672	ug/l	7.96	3,351.50	4.119E-02	Pulse	0.30	3
Cu			2	2.838	ug/l	4.60	2,110.16	2.594E-02	Pulse	0.30	3
Zn			2	-7.601	ug/l	-14.39	738.92	9.088E-03	Pulse	0.30	3
As			2	14.461	ug/l	3.22	509.01	6.257E-03	Pulse	1.00	3
Cd			2	0.115	ug/l	79.27	18.10	4.129E-05	Pulse	0.30	3
Sn			2	-2.701	ug/l	-12.40	460.01	1.049E-03	Pulse	0.30	3
Se			3	2.725	ug/l	9.31	22.93	2.982E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,703,738.23	1.11	82.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,436,331.48	1.50	93.2	Pulse	0.10	3
1	Ge		462,946.43	1.87	94.8	Pulse	0.10	3
1	Ge		644,945.82	1.81	94.8	Pulse	0.10	3
1	Rh		2,924,205.79	1.78	91.7	Pulse	0.10	3
1	In		3,316,957.66	1.61	95.3	Pulse	0.10	3
1	Tb		4,386,467.54	1.45	96.8	Pulse	0.10	3
1	Ho		425,080.87	1.87	97.9	Pulse	0.10	3
1	Bi		2,416,660.95	0.88	93.5	Pulse	0.10	3
2	Sc		81,341.40	0.72	99.4	Pulse	0.30	3
2	Ge		46,334.43	0.73	103.0	Pulse	0.30	3
2	Ge		70,002.61	1.23	102.0	Pulse	0.30	3
2	Rh		1,224,242.48	0.29	93.6	Pulse	0.30	3
2	In		438,593.26	0.34	100.1	Pulse	0.30	3
2	Tb		1,608,071.57	0.29	98.8	Pulse	0.30	3
2	Ho		159,079.29	0.49	99.6	Pulse	0.30	3
2	Bi		1,022,669.16	1.00	95.4	Pulse	0.30	3
3	Sc		82,904.72	0.93	98.7	Pulse	0.30	3
3	Ge		50,479.97	0.15	98.3	Pulse	0.30	3
3	Ge		76,914.46	0.43	97.2	Pulse	0.30	3
3	Rh		828,827.31	0.03	92.0	Pulse	0.30	3
3	Tb		1,321,220.09	0.28	97.0	Pulse	0.30	3

Quantitation Report

File Name	036SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 16:41
Sample Name	mp15011-ps1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	101.535	ug/l	1.38	236,259.07	1.729E-01	Pulse	0.25	3
B			1	839.948	ug/l	1.50	1,266,323.63	9.267E-01	Pulse	0.15	3
Ca			1	7380.848	ug/l	0.29	2,869,941.31	1.162E+00	Pulse	0.10	3
Sr			1	1084.795	ug/l	1.11	17,052,145.58	6.385E+00	Analog	0.10	3
Mo			1	104.812	ug/l	0.79	324,841.95	1.216E-01	Pulse	0.10	3
Ag			1	74.039	ug/l	0.39	574,552.09	1.876E-01	Pulse	0.10	3
Sn			1	83.980	ug/l	0.55	417,375.71	1.363E-01	Pulse	0.10	3
Sb			1	82.865	ug/l	1.30	475,066.05	1.141E-01	Pulse	0.10	3
Ba			1	126.745	ug/l	1.11	302,632.81	7.271E-02	Pulse	0.10	3
Tl			1	85.087	ug/l	1.00	1,047,310.43	4.844E-01	Pulse	0.10	3
Pb			1	88.023	ug/l	0.88	370,707.56	1.714E-01	Pulse	0.10	3
Pb			1	87.103	ug/l	0.24	325,061.25	1.503E-01	Pulse	0.10	3
Pb			1	87.571	ug/l	0.44	1,489,761.35	6.890E-01	Pulse	0.10	3
Na			2	365741.316	ug/l	0.99	139,702,612.23	1.801E+03	Analog	0.30	3
Mg			2	3721.037	ug/l	0.89	651,033.91	8.394E+00	Pulse	0.30	3
Al			2	6802.785	ug/l	0.66	373,299.26	4.813E+00	Pulse	0.30	3
K			2	573074.424	ug/l	1.22	62,469,617.52	8.055E+02	Analog	0.30	3
Ca			2	11406.056	ug/l	1.24	66,042.35	8.515E-01	Pulse	0.30	3
Ti			2	77.284	ug/l	2.78	3,509.29	4.525E-02	Pulse	0.30	3
V			2	88.792	ug/l	0.69	128,528.16	1.657E+00	Pulse	0.30	3
Cr			2	80.270	ug/l	0.26	151,095.69	1.948E+00	Pulse	0.30	3
Mn			2	80.324	ug/l	0.79	71,635.36	9.236E-01	Pulse	0.30	3
Fe			2	3847.709	ug/l	0.82	6,092,960.87	7.856E+01	Analog	0.30	3
Co			2	76.791	ug/l	0.48	236,291.89	3.047E+00	Pulse	0.30	3
Ni			2	88.529	ug/l	0.94	74,626.70	9.622E-01	Pulse	0.30	3
Cu			2	74.180	ug/l	0.57	171,578.94	2.212E+00	Pulse	0.30	3
Zn			2	72.215	ug/l	1.19	21,815.75	2.813E-01	Pulse	0.30	3
As			2	83.576	ug/l	0.97	13,885.58	1.790E-01	Pulse	1.00	3
Cd			2	72.924	ug/l	2.51	36,737.37	9.168E-02	Pulse	0.30	3
Sn			2	83.393	ug/l	0.62	72,170.47	1.801E-01	Pulse	0.30	3
Se			3	303.312	ug/l	0.97	9,800.66	1.364E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,366,418.10	0.62	66.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,469,280.95	0.56	94.5	Pulse	0.10	3
1	Ge		448,379.11	0.88	91.8	Pulse	0.10	3
1	Ge		621,126.46	1.57	91.3	Pulse	0.10	3
1	Rh		2,670,935.59	0.83	83.8	Pulse	0.10	3
1	In		3,062,838.03	0.95	88.0	Pulse	0.10	3
1	Tb		4,162,012.13	1.01	91.9	Pulse	0.10	3
1	Ho		403,034.53	1.25	92.8	Pulse	0.10	3
1	Bi		2,162,266.95	1.38	83.7	Pulse	0.10	3
2	Sc		77,558.07	0.53	94.8	Pulse	0.30	3
2	Ge		42,931.88	0.32	95.4	Pulse	0.30	3
2	Ge		64,973.19	1.88	94.7	Pulse	0.30	3
2	Rh		1,082,349.78	0.34	82.7	Pulse	0.30	3
2	In		400,749.96	0.41	91.5	Pulse	0.30	3
2	Tb		1,496,596.02	1.12	91.9	Pulse	0.30	3
2	Ho		148,721.53	1.36	93.1	Pulse	0.30	3
2	Bi		886,486.32	0.36	82.7	Pulse	0.30	3
3	Sc		77,665.12	1.19	92.4	Pulse	0.30	3
3	Ge		46,679.81	0.58	90.9	Pulse	0.30	3
3	Ge		71,869.48	0.89	90.8	Pulse	0.30	3
3	Rh		728,044.64	0.51	80.8	Pulse	0.30	3
3	Tb		1,218,485.41	0.13	89.5	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 16:46
Sample Name	jc87982-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	22.57	44.00	2.411E-05	Pulse	0.25	3
B			1	135.011	ug/l	0.80	273,115.36	1.497E-01	Pulse	0.15	3
Ca			1	38568.367	ug/l	1.96	14,425,137.29	6.055E+00	Analog	0.10	3
Sr			1	301.922	ug/l	0.51	5,243,580.55	1.777E+00	Pulse	0.10	3
Mo			1	0.359	ug/l	7.41	1,270.10	4.305E-04	Pulse	0.10	3
Ag			1	0.033	ug/l	52.04	303.35	9.026E-05	Pulse	0.10	3
Sn			1	0.539	ug/l	9.40	8,662.66	2.576E-03	Pulse	0.10	3
Sb			1	0.302	ug/l	1.61	2,000.20	4.467E-04	Pulse	0.10	3
Ba			1	15.240	ug/l	2.23	39,200.61	8.755E-03	Pulse	0.10	3
Tl			1	0.028	ug/l	28.53	636.71	2.526E-04	Pulse	0.10	3
Pb			1	0.102	ug/l	16.51	796.73	3.160E-04	Pulse	0.10	3
Pb			1	0.101	ug/l	30.71	710.05	2.811E-04	Pulse	0.10	3
Pb			1	0.108	ug/l	14.48	3,360.29	1.332E-03	Pulse	0.10	3
Na			2	23410.805	ug/l	0.80	8,835,100.76	1.154E+02	Analog	0.30	3
Mg			2	5101.506	ug/l	0.59	880,994.10	1.151E+01	Pulse	0.30	3
Al			2	7.934	ug/l	41.20	507.91	6.645E-03	Pulse	0.30	3
K			2	7280.396	ug/l	0.71	790,621.15	1.033E+01	Pulse	0.30	3
Ca			2	39318.578	ug/l	0.87	224,595.35	2.934E+00	Pulse	0.30	3
Ti			2	0.273	ug/l	53.14	20.00	2.607E-04	Pulse	0.30	3
V			2	0.956	ug/l	5.63	1,472.31	1.924E-02	Pulse	0.30	3
Cr			2	0.770	ug/l	4.06	1,752.34	2.289E-02	Pulse	0.30	3
Mn			2	20.389	ug/l	1.63	17,975.47	2.348E-01	Pulse	0.30	3
Fe			2	475.216	ug/l	1.28	744,241.29	9.722E+00	Pulse	0.30	3
Co			2	0.387	ug/l	1.03	1,226.73	1.602E-02	Pulse	0.30	3
Ni			2	5.398	ug/l	2.55	4,536.23	5.926E-02	Pulse	0.30	3
Cu			2	18.740	ug/l	2.21	43,300.25	5.657E-01	Pulse	0.30	3
Zn			2	4.560	ug/l	8.43	2,413.54	3.153E-02	Pulse	0.30	3
As			2	19.649	ug/l	1.71	3,225.99	4.214E-02	Pulse	1.00	3
Cd			2	0.061	ug/l	31.89	37.28	8.864E-05	Pulse	0.30	3
Sn			2	0.635	ug/l	11.38	1,496.75	3.556E-03	Pulse	0.30	3
Se			3	0.322	ug/l	4.30	15.93	1.980E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,824,774.13	0.30	88.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,382,839.91	0.98	91.2	Pulse	0.10	3
1	Ge		485,392.14	1.22	99.4	Pulse	0.10	3
1	Ge		657,798.80	1.51	96.7	Pulse	0.10	3
1	Rh		2,950,603.60	0.98	92.6	Pulse	0.10	3
1	In		3,362,594.21	1.14	96.6	Pulse	0.10	3
1	Tb		4,477,397.12	0.34	98.8	Pulse	0.10	3
1	Ho		434,478.85	0.85	100.0	Pulse	0.10	3
1	Bi		2,523,961.26	1.53	97.7	Pulse	0.10	3
2	Sc		76,556.89	0.90	93.5	Pulse	0.30	3
2	Ge		44,929.45	0.10	99.8	Pulse	0.30	3
2	Ge		68,258.56	0.30	99.5	Pulse	0.30	3
2	Rh		1,217,263.08	0.64	93.0	Pulse	0.30	3
2	In		420,918.23	0.59	96.1	Pulse	0.30	3
2	Tb		1,582,731.85	0.76	97.2	Pulse	0.30	3
2	Ho		157,627.00	1.02	98.7	Pulse	0.30	3
2	Bi		1,021,224.71	0.44	95.3	Pulse	0.30	3
3	Sc		82,930.32	1.77	98.7	Pulse	0.30	3
3	Ge		52,458.38	0.98	102.2	Pulse	0.30	3
3	Ge		80,483.92	0.80	101.7	Pulse	0.30	3
3	Rh		863,103.63	0.40	95.8	Pulse	0.30	3
3	Tb		1,364,120.23	0.68	100.2	Pulse	0.30	3

Quantitation Report

File Name 038_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 16:51
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.926	ug/l	0.51	315,415.25	1.700E-01	Pulse	0.25	3
B			1	110.214	ug/l	0.92	452,306.34	2.438E-01	Pulse	0.15	3
Ca			1	5146.005	ug/l	0.45	3,991,287.65	1.619E+00	Pulse	0.10	3
Sr			1	53.427	ug/l	0.23	1,929,590.08	6.290E-01	Pulse	0.10	3
Mo			1	52.969	ug/l	1.23	377,083.21	1.229E-01	Pulse	0.10	3
Ag			1	50.657	ug/l	1.52	882,927.46	2.567E-01	Pulse	0.10	3
Sn			1	51.915	ug/l	0.60	578,167.96	1.681E-01	Pulse	0.10	3
Sb			1	54.120	ug/l	0.54	682,483.56	1.491E-01	Pulse	0.10	3
Ba			1	52.650	ug/l	1.06	276,529.02	6.041E-02	Pulse	0.10	3
Tl			1	52.494	ug/l	0.39	1,557,681.07	5.977E-01	Pulse	0.10	3
Pb			1	52.071	ug/l	0.31	528,603.98	2.028E-01	Pulse	0.10	3
Pb			1	52.021	ug/l	0.42	467,959.64	1.796E-01	Pulse	0.10	3
Pb			1	51.983	ug/l	0.15	2,131,712.07	8.179E-01	Pulse	0.10	3
Na			2	4865.211	ug/l	0.78	3,806,559.57	4.804E+01	Pulse	0.30	3
Mg			2	4902.996	ug/l	0.31	1,752,785.24	2.212E+01	Pulse	0.30	3
Al			2	4867.592	ug/l	0.55	545,794.67	6.888E+00	Pulse	0.30	3
K			2	5080.855	ug/l	0.97	1,139,213.64	1.438E+01	Pulse	0.30	3
Ca			2	5323.055	ug/l	0.72	62,983.87	7.948E-01	Pulse	0.30	3
Ti			2	49.708	ug/l	3.66	4,609.58	5.818E-02	Pulse	0.30	3
V			2	52.752	ug/l	0.83	156,010.02	1.969E+00	Pulse	0.30	3
Cr			2	51.518	ug/l	0.45	198,060.11	2.499E+00	Pulse	0.30	3
Mn			2	52.027	ug/l	0.85	94,803.56	1.196E+00	Pulse	0.30	3
Fe			2	5097.496	ug/l	1.05	16,490,506.01	2.081E+02	Analog	0.30	3
Co			2	52.035	ug/l	1.20	327,155.48	4.129E+00	Pulse	0.30	3
Ni			2	52.820	ug/l	0.55	90,970.17	1.148E+00	Pulse	0.30	3
Cu			2	51.770	ug/l	1.30	244,385.92	3.084E+00	Pulse	0.30	3
Zn			2	51.719	ug/l	0.54	31,421.22	3.965E-01	Pulse	0.30	3
As			2	52.897	ug/l	1.24	17,956.51	2.266E-01	Pulse	1.00	3
Cd			2	50.974	ug/l	1.87	55,124.46	1.282E-01	Pulse	0.30	3
Sn			2	51.964	ug/l	1.14	96,302.33	2.239E-01	Pulse	0.30	3
Se			3	193.335	ug/l	0.60	13,943.79	1.738E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,855,020.61	0.53	89.6	Pulse	0.10	3
1	Sc		2,465,373.71	0.56	94.4	Pulse	0.10	3
1	Ge		476,356.06	0.58	97.5	Pulse	0.10	3

Quantitation Report

1	Ge		666,827.25	0.22	98.0	Pulse	0.10	3
1	Rh		3,067,592.98	0.72	96.2	Pulse	0.10	3
1	In		3,439,962.64	0.80	98.8	Pulse	0.10	3
1	Tb		4,577,539.52	0.34	101.0	Pulse	0.10	3
1	Ho		445,832.31	1.25	102.6	Pulse	0.10	3
1	Bi		2,606,321.68	0.79	100.9	Pulse	0.10	3
2	Sc		79,241.54	0.70	96.8	Pulse	0.30	3
2	Ge		45,357.25	0.53	100.8	Pulse	0.30	3
2	Ge		69,600.83	0.88	101.5	Pulse	0.30	3
2	Rh		1,267,085.54	0.60	96.9	Pulse	0.30	3
2	In		430,121.63	0.20	98.2	Pulse	0.30	3
2	Tb		1,613,171.36	0.71	99.1	Pulse	0.30	3
2	Ho		160,364.21	1.27	100.4	Pulse	0.30	3
2	Bi		1,044,321.14	0.66	97.4	Pulse	0.30	3
3	Sc		83,945.54	0.69	99.9	Pulse	0.30	3
3	Ge		52,169.74	0.26	101.6	Pulse	0.30	3
3	Ge		80,214.85	1.40	101.4	Pulse	0.30	3
3	Rh		878,176.20	0.54	97.4	Pulse	0.30	3
3	Tb		1,365,989.53	0.56	100.3	Pulse	0.30	3

Quantitation Report

File Name	039_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 16:56
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	7.25	69.33	3.650E-05	Pulse	0.25	3
B			1	9.105	ug/l	0.80	39,728.84	2.092E-02	Pulse	0.15	3
Ca			1	-1.326	ug/l	-40.20	10,016.76	4.021E-03	Pulse	0.10	3
Sr			1	0.033	ug/l	9.34	1,666.82	5.289E-04	Pulse	0.10	3
Mo			1	0.109	ug/l	23.37	843.40	2.675E-04	Pulse	0.10	3
Ag			1	0.018	ug/l	26.89	356.68	1.008E-04	Pulse	0.10	3
Sn			1	0.199	ug/l	11.27	8,322.53	2.351E-03	Pulse	0.10	3
Sb			1	0.214	ug/l	15.75	2,847.04	6.195E-04	Pulse	0.10	3
Ba			1	0.011	ug/l	36.02	123.34	2.686E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	18.33	820.05	3.118E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	72.44	376.69	1.433E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	99.85	336.68	1.279E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	18.82	1,446.75	5.500E-04	Pulse	0.10	3
Na			2	16.440	ug/l	5.69	22,576.23	2.816E-01	Pulse	0.30	3
Mg			2	0.686	ug/l	14.27	317.79	3.964E-03	Pulse	0.30	3
Al			2	0.681	ug/l	30.85	160.00	1.996E-03	Pulse	0.30	3
K			2	18.587	ug/l	5.06	11,868.77	1.481E-01	Pulse	0.30	3
Ca			2	0.824	ug/l	18.97	61.11	7.623E-04	Pulse	0.30	3
Ti			2	0.115	ug/l	175.81	18.89	2.355E-04	Pulse	0.30	3
V			2	0.038	ug/l	31.54	226.67	2.827E-03	Pulse	0.30	3
Cr			2	0.007	ug/l	49.39	365.56	4.560E-03	Pulse	0.30	3
Mn			2	0.013	ug/l	79.50	61.11	7.621E-04	Pulse	0.30	3
Fe			2	1.022	ug/l	6.49	5,144.21	6.417E-02	Pulse	0.30	3
Co			2	0.010	ug/l	41.36	117.78	1.469E-03	Pulse	0.30	3
Ni			2	0.009	ug/l	88.37	66.67	8.317E-04	Pulse	0.30	3
Cu			2	0.035	ug/l	16.43	893.37	1.114E-02	Pulse	0.30	3
Zn			2	-1.696	ug/l	-3.01	174.45	2.176E-03	Pulse	0.30	3
As			2	0.028	ug/l	29.98	14.67	1.829E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.015	ug/l	94.26	22.62	5.113E-05	Pulse	0.30	3
Sn			2	0.290	ug/l	14.86	1,521.20	3.440E-03	Pulse	0.30	3
Se			3	0.191	ug/l	15.90	18.27	2.252E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,899,368.98	0.37	91.8	Pulse	0.10	3
1	Sc		2,490,337.15	1.65	95.3	Pulse	0.10	3
1	Ge		483,527.56	0.95	99.0	Pulse	0.10	3
1	Ge		672,576.24	1.95	98.9	Pulse	0.10	3
1	Rh		3,151,715.58	1.25	98.9	Pulse	0.10	3
1	In		3,540,187.19	0.73	101.7	Pulse	0.10	3
1	Tb		4,593,780.14	0.42	101.4	Pulse	0.10	3
1	Ho		444,697.22	1.06	102.4	Pulse	0.10	3
1	Bi		2,630,583.30	0.59	101.8	Pulse	0.10	3
2	Sc		80,166.84	0.19	97.9	Pulse	0.30	3
2	Ge		46,602.96	0.27	103.6	Pulse	0.30	3
2	Ge		70,182.23	0.68	102.3	Pulse	0.30	3
2	Rh		1,297,022.31	1.00	99.1	Pulse	0.30	3
2	In		442,226.12	0.18	101.0	Pulse	0.30	3
2	Tb		1,612,072.68	0.27	99.0	Pulse	0.30	3
2	Ho		159,410.81	0.69	99.8	Pulse	0.30	3
2	Bi		1,071,997.46	0.74	100.0	Pulse	0.30	3
3	Sc		85,967.93	0.15	102.3	Pulse	0.30	3
3	Ge		53,109.41	0.74	103.4	Pulse	0.30	3
3	Ge		81,109.13	0.13	102.5	Pulse	0.30	3
3	Rh		910,283.06	0.53	101.0	Pulse	0.30	3
3	Tb		1,371,076.16	0.20	100.7	Pulse	0.30	3

Quantitation Report

File Name 040LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 17:02
Sample Name CRI
Sample Type LLCCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.498	ug/l	1.92	3,273.69	1.699E-03	Pulse	0.25	3
B			1	32.428	ug/l	1.99	139,370.25	7.234E-02	Pulse	0.15	3
Ca			1	255.918	ug/l	0.62	213,805.58	8.473E-02	Pulse	0.10	3
Sr			1	5.313	ug/l	0.94	199,571.19	6.267E-02	Pulse	0.10	3
Mo			1	0.958	ug/l	7.90	7,125.18	2.238E-03	Pulse	0.10	3
Ag			1	0.538	ug/l	6.47	9,629.94	2.733E-03	Pulse	0.10	3
Sn			1	4.741	ug/l	2.18	59,563.47	1.691E-02	Pulse	0.10	3
Sb			1	2.157	ug/l	1.24	27,531.52	5.970E-03	Pulse	0.10	3
Ba			1	1.027	ug/l	4.45	5,494.52	1.192E-03	Pulse	0.10	3
Tl			1	0.536	ug/l	2.73	16,493.07	6.195E-03	Pulse	0.10	3
Pb			1	0.526	ug/l	0.62	5,761.30	2.164E-03	Pulse	0.10	3
Pb			1	0.489	ug/l	1.30	4,780.96	1.796E-03	Pulse	0.10	3
Pb			1	0.513	ug/l	1.55	22,771.04	8.554E-03	Pulse	0.10	3
Na			2	251.465	ug/l	1.43	212,458.29	2.596E+00	Pulse	0.30	3
Mg			2	245.551	ug/l	1.70	90,714.22	1.109E+00	Pulse	0.30	3
Al			2	24.104	ug/l	2.57	2,874.73	3.513E-02	Pulse	0.30	3
K			2	263.497	ug/l	1.57	68,441.02	8.364E-01	Pulse	0.30	3
Ca			2	283.814	ug/l	2.53	3,517.09	4.298E-02	Pulse	0.30	3
Ti			2	1.319	ug/l	14.03	134.45	1.642E-03	Pulse	0.30	3
V			2	1.170	ug/l	5.28	3,687.13	4.505E-02	Pulse	0.30	3
Cr			2	1.001	ug/l	3.06	4,316.17	5.274E-02	Pulse	0.30	3
Mn			2	1.078	ug/l	5.81	2,065.71	2.525E-02	Pulse	0.30	3
Fe			2	25.038	ug/l	1.63	85,470.15	1.045E+00	Pulse	0.30	3
Co			2	0.525	ug/l	2.20	3,463.74	4.233E-02	Pulse	0.30	3
Ni			2	1.099	ug/l	3.52	2,005.71	2.451E-02	Pulse	0.30	3
Cu			2	2.186	ug/l	2.44	11,368.50	1.389E-01	Pulse	0.30	3
Zn			2	4.089	ug/l	5.20	3,672.68	4.489E-02	Pulse	0.30	3
As			2	0.579	ug/l	4.67	208.00	2.541E-03	Pulse	1.00	3
Cd			2	0.493	ug/l	3.58	554.31	1.251E-03	Pulse	0.30	3
Sn			2	4.871	ug/l	2.00	10,183.38	2.298E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.574	ug/l	13.09	46.73	5.695E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,926,957.45	1.14	93.1	Pulse	0.10	3
1	Sc		2,523,437.88	0.52	96.6	Pulse	0.10	3
1	Ge		485,124.71	0.30	99.3	Pulse	0.10	3
1	Ge		678,173.32	0.74	99.7	Pulse	0.10	3
1	Rh		3,184,442.97	0.96	99.9	Pulse	0.10	3
1	In		3,523,402.25	1.18	101.2	Pulse	0.10	3
1	Tb		4,611,266.39	0.92	101.8	Pulse	0.10	3
1	Ho		446,671.30	1.29	102.8	Pulse	0.10	3
1	Bi		2,662,186.00	0.36	103.0	Pulse	0.10	3
2	Sc		81,829.36	0.79	100.0	Pulse	0.30	3
2	Ge		47,368.41	0.10	105.3	Pulse	0.30	3
2	Ge		71,404.11	1.11	104.1	Pulse	0.30	3
2	Rh		1,309,302.69	0.62	100.1	Pulse	0.30	3
2	In		443,067.62	0.69	101.1	Pulse	0.30	3
2	Tb		1,610,568.10	0.85	98.9	Pulse	0.30	3
2	Ho		159,435.13	0.82	99.8	Pulse	0.30	3
2	Bi		1,065,602.32	0.93	99.4	Pulse	0.30	3
3	Sc		86,902.53	1.37	103.4	Pulse	0.30	3
3	Ge		53,322.29	0.63	103.9	Pulse	0.30	3
3	Ge		82,122.93	1.03	103.8	Pulse	0.30	3
3	Rh		914,490.41	0.87	101.5	Pulse	0.30	3
3	Tb		1,380,055.99	0.52	101.4	Pulse	0.30	3

Quantitation Report

File Name	041SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 17:07
Sample Name	mp15041-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	115.04	20.00	9.965E-06	Pulse	0.25	3
B			1	16.508	ug/l	0.70	38,220.90	1.904E-02	Pulse	0.15	3
Ca			1	23.531	ug/l	8.57	20,763.71	8.128E-03	Pulse	0.10	3
Sr			1	0.054	ug/l	12.83	1,456.80	4.561E-04	Pulse	0.10	3
Mo			1	0.057	ug/l	23.02	256.68	8.025E-05	Pulse	0.10	3
Ag			1	0.023	ug/l	13.55	233.35	6.556E-05	Pulse	0.10	3
Sn			1	-0.222	ug/l	-38.15	4,827.62	1.358E-03	Pulse	0.10	3
Sb			1	0.186	ug/l	20.09	1,336.77	2.869E-04	Pulse	0.10	3
Ba			1	0.034	ug/l	90.55	156.67	3.370E-05	Pulse	0.10	3
Tl			1	0.011	ug/l	20.78	416.69	1.552E-04	Pulse	0.10	3
Pb			1	-0.002	ug/l	-480.28	306.68	1.141E-04	Pulse	0.10	3
Pb			1	-0.017	ug/l	-29.85	210.01	7.813E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-104.01	1,176.73	4.378E-04	Pulse	0.10	3
Na			2	22.027	ug/l	4.14	18,682.62	2.282E-01	Pulse	0.30	3
Mg			2	3.716	ug/l	13.30	757.80	9.251E-03	Pulse	0.30	3
Al			2	2.822	ug/l	33.57	247.78	3.029E-03	Pulse	0.30	3
K			2	24.780	ug/l	11.56	10,696.87	1.306E-01	Pulse	0.30	3
Ca			2	35.277	ug/l	10.90	267.79	3.271E-03	Pulse	0.30	3
Ti			2	0.128	ug/l	111.89	14.45	1.761E-04	Pulse	0.30	3
V			2	0.245	ug/l	16.75	488.90	5.974E-03	Pulse	0.30	3
Cr			2	0.404	ug/l	11.58	1,146.72	1.401E-02	Pulse	0.30	3
Mn			2	0.096	ug/l	17.27	127.78	1.561E-03	Pulse	0.30	3
Fe			2	3.356	ug/l	3.46	7,449.55	9.097E-02	Pulse	0.30	3
Co			2	0.016	ug/l	32.41	104.45	1.276E-03	Pulse	0.30	3
Ni			2	0.033	ug/l	74.14	81.11	9.893E-04	Pulse	0.30	3
Cu			2	0.225	ug/l	16.56	1,290.07	1.576E-02	Pulse	0.30	3
Zn			2	-0.202	ug/l	-142.76	1,142.28	1.395E-02	Pulse	0.30	3
As			2	0.134	ug/l	42.69	28.67	3.505E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.022	ug/l	70.27	17.32	3.969E-05	Pulse	0.30	3
Sn			2	-0.095	ug/l	-118.07	872.26	1.998E-03	Pulse	0.30	3
Se			3	0.339	ug/l	11.50	17.27	2.056E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,007,217.36	1.00	97.0	Pulse	0.10	3
1	Sc		2,554,148.03	1.28	97.8	Pulse	0.10	3
1	Ge		501,420.92	1.19	102.6	Pulse	0.10	3
1	Ge		690,008.45	1.08	101.4	Pulse	0.10	3
1	Rh		3,194,349.01	1.15	100.2	Pulse	0.10	3
1	In		3,554,240.62	1.77	102.1	Pulse	0.10	3
1	Tb		4,651,218.57	1.64	102.7	Pulse	0.10	3
1	Ho		445,862.90	1.95	102.7	Pulse	0.10	3
1	Bi		2,685,414.86	1.27	103.9	Pulse	0.10	3
2	Sc		81,885.03	0.68	100.0	Pulse	0.30	3
2	Ge		47,204.72	0.75	104.9	Pulse	0.30	3
2	Ge		71,841.76	0.87	104.7	Pulse	0.30	3
2	Rh		1,311,287.90	0.17	100.2	Pulse	0.30	3
2	In		436,628.83	0.63	99.7	Pulse	0.30	3
2	Tb		1,615,319.00	0.43	99.2	Pulse	0.30	3
2	Ho		158,901.19	0.98	99.5	Pulse	0.30	3
2	Bi		1,069,553.85	1.06	99.8	Pulse	0.30	3
3	Sc		88,451.77	0.79	105.3	Pulse	0.30	3
3	Ge		54,892.93	1.51	106.9	Pulse	0.30	3
3	Ge		83,968.01	0.28	106.1	Pulse	0.30	3
3	Rh		923,749.62	0.55	102.5	Pulse	0.30	3
3	Tb		1,387,951.09	0.29	101.9	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 17:12
Sample Name mp15041-mb2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	94.60	28.00	1.402E-05	Pulse	0.25	3
B			1	16.162	ug/l	0.57	37,323.40	1.866E-02	Pulse	0.15	3
Ca			1	23.307	ug/l	6.02	20,650.10	8.093E-03	Pulse	0.10	3
Sr			1	1.417	ug/l	1.68	27,244.01	8.474E-03	Pulse	0.10	3
Mo			1	0.054	ug/l	23.70	246.68	7.684E-05	Pulse	0.10	3
Ag			1	0.019	ug/l	15.27	200.01	5.621E-05	Pulse	0.10	3
Sn			1	0.139	ug/l	70.35	6,878.39	1.936E-03	Pulse	0.10	3
Sb			1	0.181	ug/l	5.47	1,306.77	2.795E-04	Pulse	0.10	3
Ba			1	0.042	ug/l	15.30	176.68	3.781E-05	Pulse	0.10	3
Tl			1	0.022	ug/l	43.06	593.37	2.195E-04	Pulse	0.10	3
Pb			1	0.001	ug/l	2453.89	323.35	1.190E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	202.59	356.68	1.316E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	85.74	1,480.08	5.461E-04	Pulse	0.10	3
Na			2	26.719	ug/l	3.06	20,415.73	2.513E-01	Pulse	0.30	3
Mg			2	2.817	ug/l	5.82	586.69	7.223E-03	Pulse	0.30	3
Al			2	3.730	ug/l	105.32	297.86	3.671E-03	Pulse	0.30	3
K			2	20.625	ug/l	6.46	10,139.84	1.248E-01	Pulse	0.30	3
Ca			2	30.675	ug/l	18.65	237.78	2.928E-03	Pulse	0.30	3
Ti			2	1.095	ug/l	117.67	60.02	7.406E-04	Pulse	0.30	3
V			2	0.339	ug/l	17.64	627.80	7.724E-03	Pulse	0.30	3
Cr			2	0.487	ug/l	11.26	1,303.40	1.604E-02	Pulse	0.30	3
Mn			2	0.199	ug/l	8.47	223.34	2.748E-03	Pulse	0.30	3
Fe			2	4.165	ug/l	1.70	8,732.40	1.075E-01	Pulse	0.30	3
Co			2	0.064	ug/l	12.91	260.00	3.202E-03	Pulse	0.30	3
Ni			2	0.061	ug/l	12.15	104.45	1.285E-03	Pulse	0.30	3
Cu			2	0.638	ug/l	8.17	2,276.85	2.803E-02	Pulse	0.30	3
Zn			2	0.528	ug/l	39.09	1,352.29	1.665E-02	Pulse	0.30	3
As			2	0.156	ug/l	22.69	32.33	3.975E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.027	ug/l	0.37	19.98	4.617E-05	Pulse	0.30	3
Sn			2	0.275	ug/l	31.46	1,206.73	2.788E-03	Pulse	0.30	3
Se			3	0.256	ug/l	19.24	14.60	1.683E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,000,146.21	0.39	96.7	Pulse	0.10	3
1	Sc		2,551,833.87	1.35	97.7	Pulse	0.10	3
1	Ge		512,674.04	1.67	104.9	Pulse	0.10	3
1	Ge		698,307.33	1.84	102.6	Pulse	0.10	3
1	Rh		3,214,516.51	1.47	100.8	Pulse	0.10	3
1	In		3,552,630.58	1.80	102.1	Pulse	0.10	3
1	Tb		4,676,288.06	1.68	103.2	Pulse	0.10	3
1	Ho		451,584.32	1.16	104.0	Pulse	0.10	3
1	Bi		2,707,921.73	1.76	104.8	Pulse	0.10	3
2	Sc		81,254.33	1.14	99.3	Pulse	0.30	3
2	Ge		47,838.67	0.77	106.3	Pulse	0.30	3
2	Ge		72,455.51	1.02	105.6	Pulse	0.30	3
2	Rh		1,311,815.99	0.78	100.3	Pulse	0.30	3
2	In		432,741.25	0.27	98.8	Pulse	0.30	3
2	Tb		1,616,511.57	0.36	99.3	Pulse	0.30	3
2	Ho		158,540.56	0.23	99.3	Pulse	0.30	3
2	Bi		1,071,624.68	0.65	100.0	Pulse	0.30	3
3	Sc		89,709.56	0.76	106.8	Pulse	0.30	3
3	Ge		56,690.08	0.33	110.4	Pulse	0.30	3
3	Ge		86,733.59	0.07	109.6	Pulse	0.30	3
3	Rh		937,927.74	0.76	104.1	Pulse	0.30	3
3	Tb		1,417,028.97	1.11	104.1	Pulse	0.30	3

Quantitation Report

File Name 043SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 17:17
Sample Name mp15041-b1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.617	ug/l	0.53	263,390.13	1.339E-01	Pulse	0.25	3
B			1	102.476	ug/l	0.53	223,904.64	1.138E-01	Pulse	0.15	3
Ca			1	4010.046	ug/l	0.32	1,599,796.90	6.335E-01	Pulse	0.10	3
Sr			1	85.855	ug/l	1.39	1,587,847.69	5.054E-01	Pulse	0.10	3
Mo			1	82.130	ug/l	0.72	299,422.97	9.531E-02	Pulse	0.10	3
Ag			1	81.059	ug/l	1.16	720,270.38	2.054E-01	Pulse	0.10	3
Sn			1	80.587	ug/l	1.19	458,893.56	1.308E-01	Pulse	0.10	3
Sb			1	81.464	ug/l	1.46	529,037.44	1.122E-01	Pulse	0.10	3
Ba			1	84.591	ug/l	1.52	228,798.89	4.853E-02	Pulse	0.10	3
Tl			1	84.244	ug/l	1.13	1,275,010.66	4.796E-01	Pulse	0.10	3
Pb			1	84.112	ug/l	1.05	435,520.29	1.638E-01	Pulse	0.10	3
Pb			1	84.355	ug/l	1.40	387,023.34	1.456E-01	Pulse	0.10	3
Pb			1	84.025	ug/l	0.93	1,757,481.77	6.611E-01	Pulse	0.10	3
Na			2	3903.196	ug/l	0.61	1,548,718.31	1.934E+01	Pulse	0.30	3
Mg			2	3873.574	ug/l	0.69	699,679.07	8.738E+00	Pulse	0.30	3
Al			2	3716.399	ug/l	1.05	210,577.37	2.630E+00	Pulse	0.30	3
K			2	3972.880	ug/l	1.34	454,726.94	5.679E+00	Pulse	0.30	3
Ca			2	4298.070	ug/l	1.59	25,725.54	3.213E-01	Pulse	0.30	3
Ti			2	77.975	ug/l	2.65	3,656.00	4.565E-02	Pulse	0.30	3
V			2	87.265	ug/l	1.25	130,407.84	1.629E+00	Pulse	0.30	3
Cr			2	84.790	ug/l	0.98	164,750.26	2.058E+00	Pulse	0.30	3
Mn			2	83.335	ug/l	2.44	76,717.83	9.583E-01	Pulse	0.30	3
Fe			2	4043.363	ug/l	1.15	6,609,909.74	8.255E+01	Analog	0.30	3
Co			2	86.370	ug/l	0.47	274,374.35	3.427E+00	Pulse	0.30	3
Ni			2	84.735	ug/l	1.24	73,744.94	9.210E-01	Pulse	0.30	3
Cu			2	85.375	ug/l	1.58	203,745.56	2.545E+00	Pulse	0.30	3
Zn			2	74.895	ug/l	2.00	23,315.58	2.912E-01	Pulse	0.30	3
As			2	76.275	ug/l	0.93	13,083.59	1.634E-01	Pulse	1.00	3
Cd			2	80.272	ug/l	1.55	43,015.91	1.009E-01	Pulse	0.30	3
Sn			2	81.419	ug/l	1.49	74,970.31	1.759E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	316.537	ug/l	1.17	12,331.96	1.423E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,967,408.63	0.89	95.1	Pulse	0.10	3
1	Sc		2,525,379.86	0.56	96.7	Pulse	0.10	3
1	Ge		497,842.17	0.69	101.9	Pulse	0.10	3
1	Ge		690,854.62	1.45	101.5	Pulse	0.10	3
1	Rh		3,141,763.71	0.71	98.6	Pulse	0.10	3
1	In		3,507,669.93	1.73	100.8	Pulse	0.10	3
1	Tb		4,714,617.22	1.15	104.1	Pulse	0.10	3
1	Ho		450,721.23	0.68	103.8	Pulse	0.10	3
1	Bi		2,658,502.46	1.17	102.9	Pulse	0.10	3
2	Sc		80,074.37	1.13	97.8	Pulse	0.30	3
2	Ge		46,561.82	0.77	103.5	Pulse	0.30	3
2	Ge		70,849.45	0.64	103.3	Pulse	0.30	3
2	Rh		1,288,335.36	0.39	98.5	Pulse	0.30	3
2	In		426,282.38	0.67	97.3	Pulse	0.30	3
2	Tb		1,603,609.69	0.63	98.5	Pulse	0.30	3
2	Ho		157,466.37	0.31	98.6	Pulse	0.30	3
2	Bi		1,037,232.11	0.95	96.8	Pulse	0.30	3
3	Sc		90,560.55	0.91	107.8	Pulse	0.30	3
3	Ge		55,627.67	0.36	108.4	Pulse	0.30	3
3	Ge		86,653.19	0.49	109.5	Pulse	0.30	3
3	Rh		927,321.39	0.81	102.9	Pulse	0.30	3
3	Tb		1,408,433.76	0.31	103.4	Pulse	0.30	3

Quantitation Report

File Name 044SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 17:22
Sample Name mp15041-b2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	79.446	ug/l	0.98	265,029.36	1.353E-01	Pulse	0.25	3
B			1	103.511	ug/l	1.65	225,184.07	1.149E-01	Pulse	0.15	3
Ca			1	4035.841	ug/l	0.68	1,639,208.68	6.375E-01	Pulse	0.10	3
Sr			1	84.782	ug/l	0.87	1,598,985.71	4.991E-01	Pulse	0.10	3
Mo			1	80.971	ug/l	1.70	300,987.18	9.396E-02	Pulse	0.10	3
Ag			1	80.253	ug/l	0.64	726,981.13	2.033E-01	Pulse	0.10	3
Sn			1	80.591	ug/l	1.21	467,839.81	1.308E-01	Pulse	0.10	3
Sb			1	81.823	ug/l	0.46	537,915.04	1.127E-01	Pulse	0.10	3
Ba			1	83.934	ug/l	0.30	229,815.59	4.816E-02	Pulse	0.10	3
Tl			1	84.474	ug/l	1.26	1,281,768.81	4.809E-01	Pulse	0.10	3
Pb			1	84.512	ug/l	0.98	438,773.89	1.646E-01	Pulse	0.10	3
Pb			1	84.186	ug/l	1.30	387,276.82	1.453E-01	Pulse	0.10	3
Pb			1	84.004	ug/l	0.75	1,761,773.74	6.610E-01	Pulse	0.10	3
Na			2	3861.199	ug/l	1.35	1,574,700.70	1.913E+01	Pulse	0.30	3
Mg			2	3860.095	ug/l	1.71	716,591.03	8.708E+00	Pulse	0.30	3
Al			2	3684.152	ug/l	1.48	214,552.39	2.607E+00	Pulse	0.30	3
K			2	3952.139	ug/l	1.06	464,989.10	5.650E+00	Pulse	0.30	3
Ca			2	4278.937	ug/l	0.40	26,325.34	3.199E-01	Pulse	0.30	3
Ti			2	75.832	ug/l	1.70	3,653.77	4.440E-02	Pulse	0.30	3
V			2	85.614	ug/l	0.93	131,507.67	1.598E+00	Pulse	0.30	3
Cr			2	83.892	ug/l	0.95	167,547.38	2.036E+00	Pulse	0.30	3
Mn			2	82.514	ug/l	0.94	78,085.14	9.488E-01	Pulse	0.30	3
Fe			2	3997.360	ug/l	1.48	6,717,426.68	8.161E+01	Analog	0.30	3
Co			2	84.318	ug/l	0.83	275,307.54	3.345E+00	Pulse	0.30	3
Ni			2	82.708	ug/l	0.27	73,988.30	8.990E-01	Pulse	0.30	3
Cu			2	83.224	ug/l	0.51	204,182.48	2.481E+00	Pulse	0.30	3
Zn			2	73.855	ug/l	1.62	23,648.27	2.873E-01	Pulse	0.30	3
As			2	75.609	ug/l	0.93	13,331.12	1.620E-01	Pulse	1.00	3
Cd			2	79.969	ug/l	0.70	43,209.37	1.005E-01	Pulse	0.30	3
Sn			2	82.100	ug/l	0.67	76,223.97	1.773E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	315.832	ug/l	0.13	12,351.25	1.420E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,959,032.25	0.09	94.7	Pulse	0.10	3
1	Sc		2,571,193.82	0.34	98.4	Pulse	0.10	3
1	Ge		508,441.15	1.91	104.1	Pulse	0.10	3
1	Ge		698,431.68	0.77	102.7	Pulse	0.10	3
1	Rh		3,203,913.39	1.97	100.5	Pulse	0.10	3
1	In		3,575,326.74	0.91	102.7	Pulse	0.10	3
1	Tb		4,772,389.72	1.23	105.3	Pulse	0.10	3
1	Ho		460,353.26	1.38	106.0	Pulse	0.10	3
1	Bi		2,665,601.05	1.58	103.2	Pulse	0.10	3
2	Sc		82,305.07	1.43	100.6	Pulse	0.30	3
2	Ge		46,980.80	1.48	104.4	Pulse	0.30	3
2	Ge		72,645.00	0.15	105.9	Pulse	0.30	3
2	Rh		1,305,301.48	1.00	99.8	Pulse	0.30	3
2	In		429,818.46	0.85	98.1	Pulse	0.30	3
2	Tb		1,615,501.88	0.32	99.2	Pulse	0.30	3
2	Ho		159,276.03	1.58	99.7	Pulse	0.30	3
2	Bi		1,048,276.42	0.84	97.8	Pulse	0.30	3
3	Sc		91,851.00	0.75	109.3	Pulse	0.30	3
3	Ge		56,723.63	0.11	110.5	Pulse	0.30	3
3	Ge		86,979.03	0.44	109.9	Pulse	0.30	3
3	Rh		932,502.32	0.70	103.5	Pulse	0.30	3
3	Tb		1,424,802.10	0.54	104.7	Pulse	0.30	3

Quantitation Report

File Name	045SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 17:27
Sample Name	mp15041-b3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	1893.467	ug/l	0.68	6,156,506.83	3.224E+00	Analog	0.25	3
B			1	2196.272	ug/l	1.44	4,624,495.65	2.422E+00	Analog	0.15	3
Ca			1	25121.944	ug/l	0.46	9,863,292.98	3.945E+00	Analog	0.10	3
Sr			1	2126.376	ug/l	0.40	37,727,491.94	1.251E+01	Analog	0.10	3
Mo			1	2086.479	ug/l	0.52	7,298,162.60	2.421E+00	Analog	0.10	3
Ag			1	237.433	ug/l	1.21	2,065,194.71	6.015E-01	Pulse	0.10	3
Sn			1	2066.901	ug/l	1.18	11,375,858.16	3.313E+00	Analog	0.10	3
Sb			1	2100.085	ug/l	0.79	13,313,611.88	2.892E+00	Analog	0.10	3
Ba			1	2085.077	ug/l	1.84	5,505,604.29	1.196E+00	Mix	0.10	3
Tl			1	2131.857	ug/l	1.35	30,266,040.38	1.213E+01	Analog	0.10	3
Pb			1	2387.243	ug/l	0.28	11,591,726.49	4.647E+00	Analog	0.10	3
Pb			1	2397.272	ug/l	0.75	10,313,676.51	4.135E+00	Analog	0.10	3
Pb			1	2376.160	ug/l	0.92	46,601,717.64	1.868E+01	Analog	0.10	3
Na			2	22313.409	ug/l	0.51	9,506,796.57	1.100E+02	Analog	0.30	3
Mg			2	21581.537	ug/l	0.66	4,206,986.64	4.868E+01	Pulse	0.30	3
Al			2	20864.765	ug/l	0.51	1,275,599.95	1.476E+01	Pulse	0.30	3
K			2	22303.254	ug/l	0.44	2,717,156.70	3.144E+01	Pulse	0.30	3
Ca			2	30347.285	ug/l	0.64	195,703.76	2.265E+00	Pulse	0.30	3
Ti			2	1796.299	ug/l	0.71	90,689.39	1.049E+00	Pulse	0.30	3
V			2	1917.461	ug/l	0.66	3,090,231.96	3.576E+01	Pulse	0.30	3
Cr			2	1868.626	ug/l	0.92	3,911,020.12	4.526E+01	Pulse	0.30	3
Mn			2	1841.173	ug/l	0.48	1,828,773.68	2.116E+01	Pulse	0.30	3
Fe			2	21938.824	ug/l	0.57	38,700,147.35	4.478E+02	Analog	0.30	3
Co			2	1905.969	ug/l	0.51	6,533,548.21	7.560E+01	Analog	0.30	3
Ni			2	1811.859	ug/l	0.41	1,700,768.06	1.968E+01	Pulse	0.30	3
Cu			2	1806.927	ug/l	0.82	4,638,566.20	5.368E+01	Pulse	0.30	3
Zn			2	1629.062	ug/l	0.31	520,953.31	6.028E+00	Pulse	0.30	3
As			2	1698.286	ug/l	0.73	314,294.91	3.637E+00	Pulse	1.00	3
Cd			2	1919.871	ug/l	0.79	990,153.06	2.413E+00	Pulse	0.30	3
Sn			2	2078.028	ug/l	0.39	1,819,677.01	4.435E+00	Pulse	0.30	3
Se			3	1474.236	ug/l	1.43	56,172.69	6.626E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,909,453.16	0.41	92.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,499,979.23	1.43	95.7	Pulse	0.10	3
1	Ge		483,417.76	0.69	98.9	Pulse	0.10	3
1	Ge		691,102.02	1.70	101.6	Pulse	0.10	3
1	Rh		3,014,741.10	1.46	94.6	Pulse	0.10	3
1	In		3,433,777.26	2.28	98.6	Pulse	0.10	3
1	Tb		4,603,568.16	1.85	101.6	Pulse	0.10	3
1	Ho		450,708.70	1.70	103.8	Pulse	0.10	3
1	Bi		2,494,586.63	1.39	96.5	Pulse	0.10	3
2	Sc		86,421.14	0.55	105.6	Pulse	0.30	3
2	Ge		46,277.56	0.11	102.8	Pulse	0.30	3
2	Ge		70,645.36	0.46	103.0	Pulse	0.30	3
2	Rh		1,246,813.46	0.87	95.3	Pulse	0.30	3
2	In		410,301.13	0.21	93.7	Pulse	0.30	3
2	Tb		1,573,905.77	0.62	96.7	Pulse	0.30	3
2	Ho		155,327.08	0.67	97.3	Pulse	0.30	3
2	Bi		1,004,384.99	0.40	93.7	Pulse	0.30	3
3	Sc		98,211.21	0.51	116.9	Pulse	0.30	3
3	Ge		55,103.82	0.67	107.3	Pulse	0.30	3
3	Ge		84,781.07	1.25	107.2	Pulse	0.30	3
3	Rh		881,548.47	0.41	97.8	Pulse	0.30	3
3	Tb		1,374,887.55	0.34	101.0	Pulse	0.30	3

Quantitation Report

File Name	046SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 17:32
Sample Name	mp15041-s1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	79.567	ug/l	0.85	245,813.15	1.355E-01	Pulse	0.25	3
B			1	182.565	ug/l	0.96	366,634.74	2.021E-01	Pulse	0.15	3
Ca			1	93579.508	ug/l	1.49	36,298,166.13	1.468E+01	Analog	0.10	3
Sr			1	676.782	ug/l	0.72	11,637,143.58	3.983E+00	Analog	0.10	3
Mo			1	94.988	ug/l	1.65	322,026.45	1.102E-01	Pulse	0.10	3
Ag			1	76.666	ug/l	0.74	657,097.27	1.942E-01	Pulse	0.10	3
Sn			1	82.808	ug/l	0.94	454,723.78	1.344E-01	Pulse	0.10	3
Sb			1	83.072	ug/l	0.35	524,341.74	1.144E-01	Pulse	0.10	3
Ba			1	210.825	ug/l	1.03	554,117.22	1.209E-01	Pulse	0.10	3
Tl			1	85.927	ug/l	1.05	1,199,234.88	4.892E-01	Pulse	0.10	3
Pb			1	87.887	ug/l	0.49	419,661.70	1.712E-01	Pulse	0.10	3
Pb			1	87.632	ug/l	0.64	370,811.87	1.512E-01	Pulse	0.10	3
Pb			1	87.678	ug/l	0.34	1,691,199.94	6.898E-01	Pulse	0.10	3
Na			2	138063.125	ug/l	1.66	53,804,846.75	6.800E+02	Analog	0.30	3
Mg			2	16992.815	ug/l	1.30	3,032,765.02	3.833E+01	Pulse	0.30	3
Al			2	3859.402	ug/l	1.58	216,086.52	2.731E+00	Pulse	0.30	3
K			2	11697.937	ug/l	1.19	1,308,355.54	1.654E+01	Pulse	0.30	3
Ca			2	96188.714	ug/l	1.10	567,814.48	7.176E+00	Pulse	0.30	3
Ti			2	89.533	ug/l	2.62	4,146.13	5.240E-02	Pulse	0.30	3
V			2	88.633	ug/l	1.56	130,884.83	1.654E+00	Pulse	0.30	3
Cr			2	83.726	ug/l	1.35	160,760.77	2.032E+00	Pulse	0.30	3
Mn			2	2880.028	ug/l	1.45	2,618,992.53	3.310E+01	Pulse	0.30	3
Fe			2	10265.444	ug/l	1.88	16,579,732.67	2.096E+02	Analog	0.30	3
Co			2	88.529	ug/l	1.42	277,890.55	3.512E+00	Pulse	0.30	3
Ni			2	86.481	ug/l	1.27	74,370.04	9.400E-01	Pulse	0.30	3
Cu			2	83.025	ug/l	0.57	195,827.77	2.475E+00	Pulse	0.30	3
Zn			2	73.572	ug/l	2.12	22,650.17	2.863E-01	Pulse	0.30	3
As			2	91.767	ug/l	0.94	15,554.08	1.966E-01	Pulse	1.00	3
Cd			2	78.260	ug/l	1.29	40,655.83	9.838E-02	Pulse	0.30	3
Sn			2	85.090	ug/l	0.58	75,915.58	1.837E-01	Pulse	0.30	3
Se			3	301.649	ug/l	0.50	11,608.71	1.356E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,814,240.25	0.10	87.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,471,868.82	0.66	94.6	Pulse	0.10	3
1	Ge		476,677.34	1.19	97.6	Pulse	0.10	3
1	Ge		666,715.82	1.00	98.0	Pulse	0.10	3
1	Rh		2,921,554.54	1.07	91.7	Pulse	0.10	3
1	In		3,383,125.29	1.62	97.2	Pulse	0.10	3
1	Tb		4,582,219.93	1.32	101.1	Pulse	0.10	3
1	Ho		445,916.91	1.31	102.7	Pulse	0.10	3
1	Bi		2,451,558.77	1.19	94.9	Pulse	0.10	3
2	Sc		79,126.43	0.78	96.7	Pulse	0.30	3
2	Ge		45,963.35	1.39	102.1	Pulse	0.30	3
2	Ge		70,568.42	1.83	102.9	Pulse	0.30	3
2	Rh		1,214,682.52	0.18	92.9	Pulse	0.30	3
2	In		413,245.50	1.04	94.3	Pulse	0.30	3
2	Tb		1,579,523.13	0.96	97.0	Pulse	0.30	3
2	Ho		156,103.82	0.92	97.8	Pulse	0.30	3
2	Bi		972,166.31	0.28	90.7	Pulse	0.30	3
3	Sc		88,888.61	0.91	105.8	Pulse	0.30	3
3	Ge		54,692.30	0.36	106.5	Pulse	0.30	3
3	Ge		85,593.88	0.54	108.2	Pulse	0.30	3
3	Rh		862,193.49	0.48	95.7	Pulse	0.30	3
3	Tb		1,379,961.27	0.18	101.4	Pulse	0.30	3

Quantitation Report

File Name	047SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 17:37
Sample Name	mp15041-s2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	79.452	ug/l	0.73	253,521.25	1.353E-01	Pulse	0.25	3
B			1	163.395	ug/l	0.72	339,091.20	1.810E-01	Pulse	0.15	3
Ca			1	94272.419	ug/l	1.10	37,239,329.45	1.479E+01	Analog	0.10	3
Sr			1	673.813	ug/l	1.29	11,923,422.74	3.966E+00	Analog	0.10	3
Mo			1	93.855	ug/l	0.47	327,472.35	1.089E-01	Pulse	0.10	3
Ag			1	77.728	ug/l	1.07	677,883.82	1.969E-01	Pulse	0.10	3
Sn			1	82.489	ug/l	1.06	460,866.54	1.339E-01	Pulse	0.10	3
Sb			1	82.425	ug/l	0.86	527,805.70	1.135E-01	Pulse	0.10	3
Ba			1	216.072	ug/l	0.13	576,151.25	1.239E-01	Pulse	0.10	3
Tl			1	85.372	ug/l	0.64	1,206,243.18	4.860E-01	Pulse	0.10	3
Pb			1	87.009	ug/l	0.28	420,636.19	1.695E-01	Pulse	0.10	3
Pb			1	86.248	ug/l	0.83	369,466.60	1.489E-01	Pulse	0.10	3
Pb			1	86.629	ug/l	0.36	1,691,690.77	6.816E-01	Pulse	0.10	3
Na			2	139315.638	ug/l	0.61	54,962,943.37	6.862E+02	Analog	0.30	3
Mg			2	17015.253	ug/l	0.54	3,074,271.82	3.838E+01	Pulse	0.30	3
Al			2	3875.191	ug/l	0.73	219,654.46	2.742E+00	Pulse	0.30	3
K			2	11774.245	ug/l	1.20	1,333,051.33	1.664E+01	Pulse	0.30	3
Ca			2	96288.707	ug/l	0.98	575,393.14	7.184E+00	Pulse	0.30	3
Ti			2	87.743	ug/l	4.08	4,112.78	5.136E-02	Pulse	0.30	3
V			2	89.254	ug/l	1.06	133,427.45	1.666E+00	Pulse	0.30	3
Cr			2	84.525	ug/l	0.36	164,298.40	2.051E+00	Pulse	0.30	3
Mn			2	2890.802	ug/l	0.35	2,661,256.56	3.323E+01	Pulse	0.30	3
Fe			2	10348.920	ug/l	1.15	16,920,790.44	2.113E+02	Analog	0.30	3
Co			2	88.820	ug/l	1.72	282,230.29	3.524E+00	Pulse	0.30	3
Ni			2	86.906	ug/l	1.28	75,654.82	9.446E-01	Pulse	0.30	3
Cu			2	83.373	ug/l	0.57	199,066.48	2.485E+00	Pulse	0.30	3
Zn			2	72.858	ug/l	0.81	22,720.32	2.836E-01	Pulse	0.30	3
As			2	91.919	ug/l	1.38	15,770.96	1.969E-01	Pulse	1.00	3
Cd			2	77.618	ug/l	1.32	40,551.65	9.758E-02	Pulse	0.30	3
Sn			2	83.932	ug/l	0.66	75,323.97	1.812E-01	Pulse	0.30	3
Se			3	306.723	ug/l	0.29	11,799.78	1.379E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,873,881.24	0.79	90.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,517,689.96	1.45	96.4	Pulse	0.10	3
1	Ge		485,296.62	1.25	99.3	Pulse	0.10	3
1	Ge		681,649.42	0.73	100.2	Pulse	0.10	3
1	Rh		3,006,932.25	1.63	94.3	Pulse	0.10	3
1	In		3,442,043.77	0.91	98.9	Pulse	0.10	3
1	Tb		4,648,446.60	0.86	102.6	Pulse	0.10	3
1	Ho		450,633.11	0.69	103.8	Pulse	0.10	3
1	Bi		2,481,987.05	1.60	96.1	Pulse	0.10	3
2	Sc		80,098.99	0.68	97.9	Pulse	0.30	3
2	Ge		46,407.98	0.63	103.1	Pulse	0.30	3
2	Ge		71,011.36	0.30	103.5	Pulse	0.30	3
2	Rh		1,220,925.54	0.34	93.3	Pulse	0.30	3
2	In		415,614.10	0.80	94.9	Pulse	0.30	3
2	Tb		1,578,794.14	0.48	97.0	Pulse	0.30	3
2	Ho		157,063.17	0.69	98.4	Pulse	0.30	3
2	Bi		972,094.37	0.35	90.7	Pulse	0.30	3
3	Sc		90,895.84	0.54	108.2	Pulse	0.30	3
3	Ge		55,627.57	0.86	108.4	Pulse	0.30	3
3	Ge		85,562.83	0.13	108.2	Pulse	0.30	3
3	Rh		878,778.63	0.60	97.5	Pulse	0.30	3
3	Tb		1,395,699.32	0.57	102.5	Pulse	0.30	3

Quantitation Report

File Name 048SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 17:42
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.031	ug/l	31.24	216.01	1.105E-04	Pulse	0.25	3
B			1	11.554	ug/l	2.36	51,440.19	2.632E-02	Pulse	0.15	3
Ca			1	4.738	ug/l	18.03	15,654.52	5.924E-03	Pulse	0.10	3
Sr			1	0.078	ug/l	3.83	3,550.53	1.053E-03	Pulse	0.10	3
Mo			1	0.088	ug/l	6.23	733.38	2.177E-04	Pulse	0.10	3
Ag			1	0.019	ug/l	6.93	376.69	1.017E-04	Pulse	0.10	3
Sn			1	0.117	ug/l	20.36	7,735.51	2.088E-03	Pulse	0.10	3
Sb			1	0.106	ug/l	20.36	1,543.47	3.223E-04	Pulse	0.10	3
Ba			1	0.047	ug/l	24.52	323.35	6.753E-05	Pulse	0.10	3
Tl			1	0.052	ug/l	13.72	1,876.86	6.924E-04	Pulse	0.10	3
Pb			1	0.083	ug/l	11.20	1,196.75	4.414E-04	Pulse	0.10	3
Pb			1	0.062	ug/l	23.25	870.06	3.209E-04	Pulse	0.10	3
Pb			1	0.073	ug/l	12.77	4,413.75	1.628E-03	Pulse	0.10	3
Na			2	15.048	ug/l	5.78	23,081.36	2.679E-01	Pulse	0.30	3
Mg			2	1.252	ug/l	8.97	561.13	6.516E-03	Pulse	0.30	3
Al			2	0.455	ug/l	32.36	144.45	1.676E-03	Pulse	0.30	3
K			2	6.462	ug/l	11.43	9,816.31	1.140E-01	Pulse	0.30	3
Ca			2	5.476	ug/l	35.58	125.56	1.456E-03	Pulse	0.30	3
Ti			2	0.046	ug/l	73.53	13.33	1.549E-04	Pulse	0.30	3
V			2	0.029	ug/l	34.20	213.34	2.479E-03	Pulse	0.30	3
Cr			2	0.021	ug/l	43.05	454.46	5.276E-03	Pulse	0.30	3
Mn			2	0.197	ug/l	19.52	430.01	4.991E-03	Pulse	0.30	3
Fe			2	1.031	ug/l	7.75	5,560.99	6.455E-02	Pulse	0.30	3
Co			2	0.021	ug/l	20.69	203.34	2.359E-03	Pulse	0.30	3
Ni			2	0.029	ug/l	25.54	108.89	1.265E-03	Pulse	0.30	3
Cu			2	0.085	ug/l	13.56	1,215.62	1.411E-02	Pulse	0.30	3
Zn			2	-1.650	ug/l	-0.57	216.67	2.515E-03	Pulse	0.30	3
As			2	0.057	ug/l	31.60	26.67	3.093E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.030	ug/l	34.79	39.96	8.665E-05	Pulse	0.30	3
Sn			2	0.108	ug/l	47.24	1,226.73	2.661E-03	Pulse	0.30	3
Se			3	0.186	ug/l	14.55	18.87	2.202E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,954,679.79	0.74	94.5	Pulse	0.10	3
1	Sc		2,643,846.57	1.44	101.2	Pulse	0.10	3
1	Ge		510,230.32	0.87	104.4	Pulse	0.10	3
1	Ge		712,303.24	0.53	104.7	Pulse	0.10	3
1	Rh		3,371,051.41	1.44	105.8	Pulse	0.10	3
1	In		3,706,228.75	0.89	106.5	Pulse	0.10	3
1	Tb		4,784,198.89	0.85	105.6	Pulse	0.10	3
1	Ho		462,573.29	0.84	106.5	Pulse	0.10	3
1	Bi		2,711,822.77	1.27	105.0	Pulse	0.10	3
2	Sc		86,137.47	0.75	105.2	Pulse	0.30	3
2	Ge		49,337.69	1.90	109.6	Pulse	0.30	3
2	Ge		74,837.40	1.31	109.1	Pulse	0.30	3
2	Rh		1,368,208.77	0.81	104.6	Pulse	0.30	3
2	In		461,030.80	0.43	105.2	Pulse	0.30	3
2	Tb		1,654,938.72	0.79	101.6	Pulse	0.30	3
2	Ho		163,765.27	0.86	102.6	Pulse	0.30	3
2	Bi		1,092,596.35	0.75	101.9	Pulse	0.30	3
3	Sc		90,523.84	0.31	107.8	Pulse	0.30	3
3	Ge		55,996.59	1.24	109.1	Pulse	0.30	3
3	Ge		85,663.40	0.70	108.3	Pulse	0.30	3
3	Rh		951,920.76	1.00	105.6	Pulse	0.30	3
3	Tb		1,417,867.31	0.88	104.1	Pulse	0.30	3

Quantitation Report

File Name 049_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File
Method Path
Acq Time 5/16/2019 17:47
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/17/2019 8:48
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.613	ug/l	1.12	330,447.87	1.724E-01	Pulse	0.25	3
B			1	114.152	ug/l	1.41	484,083.10	2.525E-01	Pulse	0.15	3
Ca			1	5145.344	ug/l	0.30	4,201,642.23	1.619E+00	Pulse	0.10	3
Sr			1	53.020	ug/l	1.06	2,009,409.24	6.242E-01	Pulse	0.10	3
Mo			1	53.140	ug/l	1.26	396,990.29	1.233E-01	Pulse	0.10	3
Ag			1	50.752	ug/l	0.48	921,312.56	2.572E-01	Pulse	0.10	3
Sn			1	51.580	ug/l	0.45	598,302.83	1.670E-01	Pulse	0.10	3
Sb			1	54.193	ug/l	0.91	704,908.51	1.493E-01	Pulse	0.10	3
Ba			1	52.851	ug/l	0.77	286,322.49	6.064E-02	Pulse	0.10	3
Tl			1	52.919	ug/l	0.89	1,576,009.61	6.025E-01	Pulse	0.10	3
Pb			1	52.406	ug/l	1.04	533,925.00	2.041E-01	Pulse	0.10	3
Pb			1	52.313	ug/l	0.29	472,284.59	1.806E-01	Pulse	0.10	3
Pb			1	52.404	ug/l	0.58	2,156,717.10	8.245E-01	Pulse	0.10	3
Na			2	4832.134	ug/l	0.15	4,034,539.00	4.771E+01	Pulse	0.30	3
Mg			2	4852.824	ug/l	0.47	1,851,235.13	2.189E+01	Pulse	0.30	3
Al			2	4764.627	ug/l	0.85	570,067.04	6.742E+00	Pulse	0.30	3
K			2	5043.662	ug/l	1.00	1,206,811.03	1.427E+01	Pulse	0.30	3
Ca			2	5262.341	ug/l	1.90	66,441.56	7.858E-01	Pulse	0.30	3
Ti			2	50.137	ug/l	3.77	4,960.80	5.868E-02	Pulse	0.30	3
V			2	52.563	ug/l	1.45	165,880.62	1.962E+00	Pulse	0.30	3
Cr			2	51.225	ug/l	0.20	210,149.42	2.485E+00	Pulse	0.30	3
Mn			2	51.027	ug/l	0.37	99,219.42	1.173E+00	Pulse	0.30	3
Fe			2	5008.956	ug/l	0.68	17,291,431.53	2.045E+02	Analog	0.30	3
Co			2	51.562	ug/l	0.87	345,928.01	4.091E+00	Pulse	0.30	3
Ni			2	52.031	ug/l	1.26	95,621.54	1.131E+00	Pulse	0.30	3
Cu			2	51.241	ug/l	0.68	258,133.86	3.053E+00	Pulse	0.30	3
Zn			2	51.267	ug/l	0.59	33,247.09	3.932E-01	Pulse	0.30	3
As			2	52.841	ug/l	0.91	19,141.54	2.264E-01	Pulse	1.00	3
Cd			2	51.007	ug/l	1.03	56,950.42	1.282E-01	Pulse	0.30	3
Sn			2	51.904	ug/l	1.34	99,313.05	2.236E-01	Pulse	0.30	3
Se			3	193.791	ug/l	1.31	14,516.01	1.742E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,917,175.71	0.73	92.6	Pulse	0.10	3
1	Sc		2,595,732.20	0.96	99.3	Pulse	0.10	3
1	Ge		497,787.24	1.15	101.9	Pulse	0.10	3

Quantitation Report

1	Ge		705,753.48	0.70	103.7	Pulse	0.10	3
1	Rh		3,218,988.29	0.86	101.0	Pulse	0.10	3
1	In		3,582,671.48	1.64	102.9	Pulse	0.10	3
1	Tb		4,721,376.39	1.12	104.2	Pulse	0.10	3
1	Ho		454,239.72	1.02	104.6	Pulse	0.10	3
1	Bi		2,615,694.96	0.69	101.2	Pulse	0.10	3
2	Sc		84,558.26	0.79	103.3	Pulse	0.30	3
2	Ge		48,528.58	0.17	107.8	Pulse	0.30	3
2	Ge		73,100.55	1.03	106.6	Pulse	0.30	3
2	Rh		1,308,856.06	0.09	100.1	Pulse	0.30	3
2	In		444,091.28	0.51	101.4	Pulse	0.30	3
2	Tb		1,635,168.06	0.82	100.4	Pulse	0.30	3
2	Ho		162,964.24	0.15	102.1	Pulse	0.30	3
2	Bi		1,056,095.62	0.46	98.5	Pulse	0.30	3
3	Sc		89,381.19	0.56	106.4	Pulse	0.30	3
3	Ge		54,269.82	0.72	105.7	Pulse	0.30	3
3	Ge		83,315.68	1.37	105.3	Pulse	0.30	3
3	Rh		910,347.46	0.58	101.0	Pulse	0.30	3
3	Tb		1,381,422.72	1.02	101.5	Pulse	0.30	3

Quantitation Report

File Name	050_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 17:52
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	2.19	106.67	5.535E-05	Pulse	0.25	3
B			1	10.981	ug/l	1.02	48,282.02	2.505E-02	Pulse	0.15	3
Ca			1	-1.241	ug/l	-42.36	10,413.67	4.048E-03	Pulse	0.10	3
Sr			1	0.020	ug/l	16.60	1,226.77	3.761E-04	Pulse	0.10	3
Mo			1	0.120	ug/l	5.00	956.73	2.932E-04	Pulse	0.10	3
Ag			1	0.024	ug/l	15.85	470.03	1.303E-04	Pulse	0.10	3
Sn			1	0.159	ug/l	5.34	8,022.30	2.224E-03	Pulse	0.10	3
Sb			1	0.232	ug/l	7.69	3,113.79	6.689E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	48.81	130.01	2.799E-05	Pulse	0.10	3
Tl			1	0.029	ug/l	17.78	1,133.42	4.258E-04	Pulse	0.10	3
Pb			1	0.033	ug/l	21.02	650.04	2.441E-04	Pulse	0.10	3
Pb			1	0.034	ug/l	31.29	596.70	2.242E-04	Pulse	0.10	3
Pb			1	0.035	ug/l	15.40	2,770.21	1.040E-03	Pulse	0.10	3
Na			2	8.270	ug/l	10.18	16,767.34	2.012E-01	Pulse	0.30	3
Mg			2	0.842	ug/l	15.19	388.90	4.666E-03	Pulse	0.30	3
Al			2	0.731	ug/l	28.04	172.22	2.067E-03	Pulse	0.30	3
K			2	5.054	ug/l	4.42	9,171.51	1.100E-01	Pulse	0.30	3
Ca			2	0.628	ug/l	176.86	61.11	7.330E-04	Pulse	0.30	3
Ti			2	0.084	ug/l	69.60	16.67	1.997E-04	Pulse	0.30	3
V			2	0.009	ug/l	117.70	144.45	1.734E-03	Pulse	0.30	3
Cr			2	0.000	ug/l	-2084.75	352.23	4.226E-03	Pulse	0.30	3
Mn			2	0.041	ug/l	20.56	117.78	1.412E-03	Pulse	0.30	3
Fe			2	1.103	ug/l	6.80	5,626.60	6.750E-02	Pulse	0.30	3
Co			2	0.018	ug/l	41.61	175.56	2.107E-03	Pulse	0.30	3
Ni			2	-0.005	ug/l	-134.83	43.33	5.196E-04	Pulse	0.30	3
Cu			2	0.064	ug/l	25.08	1,076.71	1.291E-02	Pulse	0.30	3
Zn			2	-1.576	ug/l	-0.83	255.56	3.066E-03	Pulse	0.30	3
As			2	0.060	ug/l	27.48	26.67	3.199E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.012	ug/l	96.00	19.94	4.365E-05	Pulse	0.30	3
Sn			2	0.220	ug/l	16.69	1,431.20	3.142E-03	Pulse	0.30	3
Se			3	0.180	ug/l	14.89	18.07	2.152E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,927,240.80	0.47	93.1	Pulse	0.10	3
1	Sc		2,571,833.40	1.25	98.4	Pulse	0.10	3
1	Ge		494,293.69	1.64	101.2	Pulse	0.10	3
1	Ge		694,181.11	1.32	102.0	Pulse	0.10	3
1	Rh		3,264,121.30	1.50	102.4	Pulse	0.10	3
1	In		3,606,934.79	1.70	103.6	Pulse	0.10	3
1	Tb		4,653,593.99	1.51	102.7	Pulse	0.10	3
1	Ho		448,709.58	1.16	103.3	Pulse	0.10	3
1	Bi		2,663,222.46	0.66	103.1	Pulse	0.10	3
2	Sc		83,366.68	0.44	101.8	Pulse	0.30	3
2	Ge		48,609.93	1.43	108.0	Pulse	0.30	3
2	Ge		73,139.77	0.87	106.6	Pulse	0.30	3
2	Rh		1,339,932.03	0.15	102.4	Pulse	0.30	3
2	In		455,457.27	0.77	104.0	Pulse	0.30	3
2	Tb		1,632,795.94	0.47	100.3	Pulse	0.30	3
2	Ho		160,378.54	1.35	100.4	Pulse	0.30	3
2	Bi		1,077,098.43	0.48	100.5	Pulse	0.30	3
3	Sc		89,446.18	1.01	106.5	Pulse	0.30	3
3	Ge		54,712.31	1.54	106.6	Pulse	0.30	3
3	Ge		83,983.44	0.67	106.2	Pulse	0.30	3
3	Rh		932,346.42	0.55	103.4	Pulse	0.30	3
3	Tb		1,390,931.44	0.87	102.2	Pulse	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Method File	
Method Path	
Acq Time	5/16/2019 17:57
Sample Name	jc88061-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/17/2019 8:48
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.055	ug/l	13.33	185.33	9.777E-05	Pulse	0.25	3
B			1	61.101	ug/l	0.89	129,312.02	6.820E-02	Pulse	0.15	3
Ca			1	91485.846	ug/l	0.29	36,838,889.45	1.436E+01	Analog	0.10	3
Sr			1	602.928	ug/l	0.55	10,724,684.42	3.549E+00	Analog	0.10	3
Mo			1	11.851	ug/l	2.27	41,595.06	1.376E-02	Pulse	0.10	3
Ag			1	0.058	ug/l	15.08	533.36	1.552E-04	Pulse	0.10	3
Sn			1	32.958	ug/l	6.34	187,155.95	5.452E-02	Pulse	0.10	3
Sb			1	5.960	ug/l	4.09	38,090.41	8.238E-03	Pulse	0.10	3
Ba			1	131.509	ug/l	0.50	348,948.08	7.544E-02	Pulse	0.10	3
Tl			1	0.069	ug/l	20.36	1,206.76	4.887E-04	Pulse	0.10	3
Pb			1	1.781	ug/l	2.86	8,849.64	3.583E-03	Pulse	0.10	3
Pb			1	1.676	ug/l	5.36	7,402.11	2.998E-03	Pulse	0.10	3
Pb			1	1.735	ug/l	1.08	34,890.78	1.413E-02	Pulse	0.10	3
Na			2	136501.708	ug/l	1.03	54,345,110.06	6.723E+02	Analog	0.30	3
Mg			2	13417.566	ug/l	0.46	2,446,387.82	3.027E+01	Pulse	0.30	3
Al			2	179.200	ug/l	1.68	10,329.95	1.278E-01	Pulse	0.30	3
K			2	7973.869	ug/l	0.57	913,543.64	1.130E+01	Pulse	0.30	3
Ca			2	94281.996	ug/l	0.65	568,568.05	7.034E+00	Pulse	0.30	3
Ti			2	18.779	ug/l	28.71	894.58	1.107E-02	Pulse	0.30	3
V			2	2.142	ug/l	2.27	3,341.49	4.134E-02	Pulse	0.30	3
Cr			2	1.048	ug/l	3.48	2,393.54	2.961E-02	Pulse	0.30	3
Mn			2	2856.542	ug/l	0.50	2,653,745.66	3.283E+01	Pulse	0.30	3
Fe			2	6397.394	ug/l	0.51	10,556,384.30	1.306E+02	Analog	0.30	3
Co			2	6.228	ug/l	1.09	20,022.31	2.477E-01	Pulse	0.30	3
Ni			2	5.951	ug/l	6.15	5,275.36	6.526E-02	Pulse	0.30	3
Cu			2	3.420	ug/l	1.43	8,944.74	1.107E-01	Pulse	0.30	3
Zn			2	0.483	ug/l	19.67	1,332.29	1.648E-02	Pulse	0.30	3
As			2	35.432	ug/l	7.14	6,138.51	7.594E-02	Pulse	1.00	3
Cd			2	0.077	ug/l	20.76	46.14	1.096E-04	Pulse	0.30	3
Sn			2	21.884	ug/l	13.38	20,618.21	4.888E-02	Pulse	0.30	3
Se			3	0.561	ug/l	13.79	25.67	3.057E-04	Pulse	5.00	3

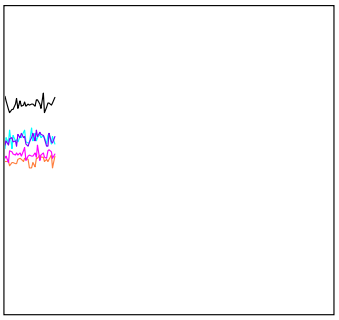
ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,896,236.73	0.66	91.6	Pulse	0.10	3

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	2764	2848.7	2.97
59	5000	2881	2835.3	2.73
89	10000	5128	4965.7	2.42
140	10000	5186	5171.5	2.39
205	5000	3521	3407.8	2.19
156/140	1	0.598 %	0.620 %	20.32
70/140	20	12.306 %	12.475 %	5.43
9	20	2	1.0	72.86
11	500	188	212.0	7.00
88	100	32	46.3	16.52
95	20	4	3.0	55.78
107	20	3	3.3	69.07
121	50	17	11.6	36.24
137	20	12	10.1	31.30
208	50	27	36.0	14.82
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-38	V
Extract 2	-200.0	V	Cell Exit	-60	V
Omega Bias	-100	V	Deflect	15.2	V
Omega Lens	7.5	V	Plate Bias	-40	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.57E+2	Pa	S/C Temp (L)	2.0	℃
TMP Revolution	100.0	%	Carrier Gas(BP)	1.42E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

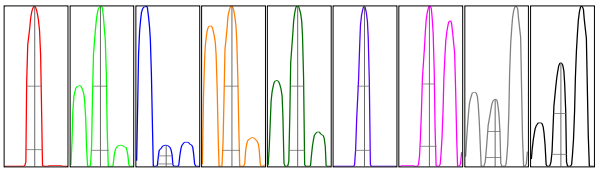
Batch Folder C:\Agilent\ICPMH\1\DATA\xa051619m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	102612	0.63	5.00	
24	315583	0.93	5.00	
25	41669	0.70	5.00	
26	47443	0.81	5.00	
59	391173	0.43	5.00	
115	519059	0.59	5.00	
206	121623	0.45	5.00	
207	110780	0.50	5.00	
208	262187	0.36	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	101726	102246	103346	102697	103043
24	319924	317149	314486	312972	313383
25	41394	41893	41721	41996	41342
26	46920	47827	47705	47595	47167
59	389218	391583	393580	389947	391536
115	517644	523396	516921	521143	516191
206	121961	122103	121121	121982	120949
207	110712	111645	110836	110106	110601
208	262817	262319	263317	261370	261114

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	15696	8.95	8.9 - 9.1		0.780	0.900	
24	50823	23.95	23.9 - 24.1		0.788	0.900	
25	6667	24.95	24.9 - 25.1		0.737	0.900	
26	7609	25.95	25.9 - 26.1		0.794	0.900	
59	64367	58.95	58.9 - 59.1		0.730	0.900	
115	95551	115.00	114.9 - 115.1		0.693	0.900	
206	21746	205.95	205.9 - 206.1		0.743	0.900	
207	19778	206.95	206.9 - 207.1		0.716	0.900	
208	47095	207.95	207.9 - 208.1		0.702	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

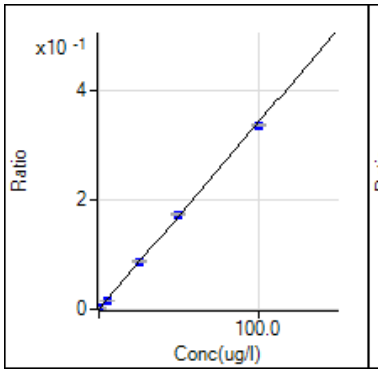
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.9	V			
Extract 2	-180.0	V	Cell Entrance	-40	V			
Omega Bias	-90	V	Cell Exit	-60	V			
Deflect	15.8	V						

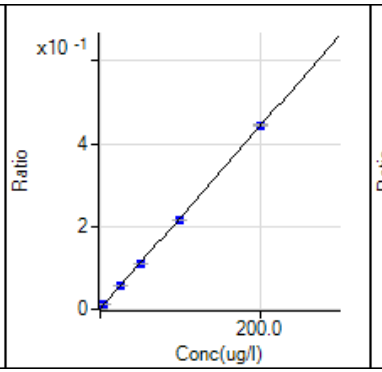
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

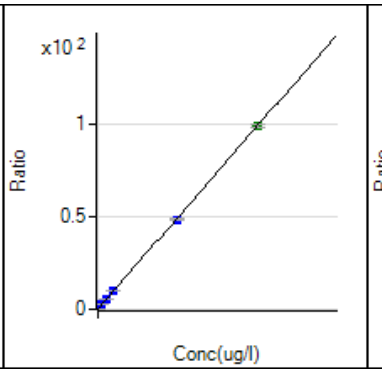
Calibration for C:\Agilent\ICPMH\1\DATA\xa051619m1.b\077_CCV.d



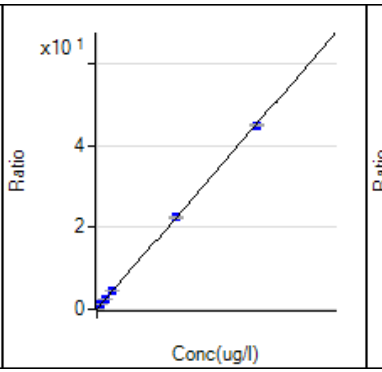
9 Be [1] / ISTD: 6 Li
y = 3.406E-3 x + 4.736E-6
R 0.9998
DL 0.004246
BEC 0.001391



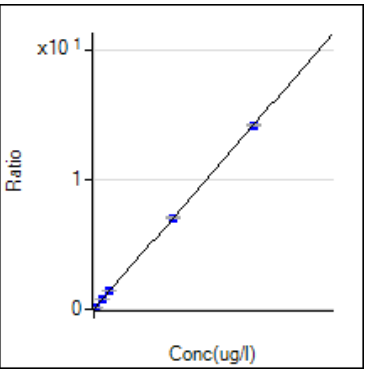
11 B [1] / ISTD: 6 Li
y = 2.205E-3 x + 8.448E-4
R 0.9999
DL 0.108
BEC 0.3832



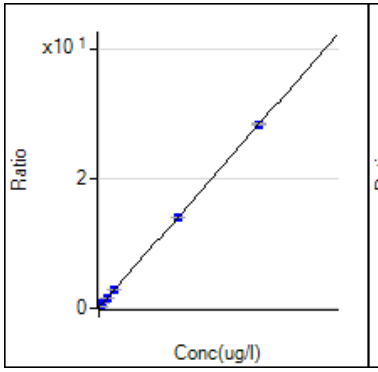
23 Na [2] / ISTD: 45 Sc
y = 9.849E-3 x + 1.197E-1
R 0.9999
DL 0.7723
BEC 12.15



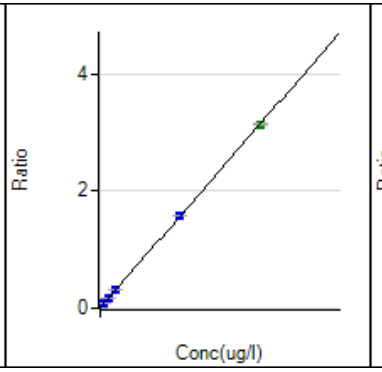
24 Mg [2] / ISTD: 45 Sc
y = 4.511E-3 x + 8.682E-4
R 1.0000
DL 0.05625
BEC 0.1924



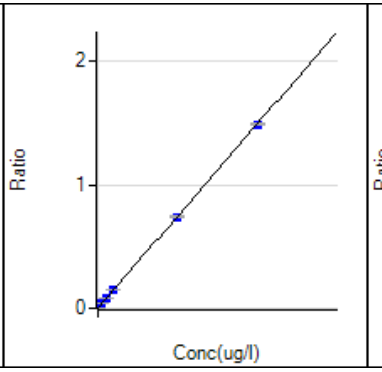
27 Al [2] / ISTD: 45 Sc
y = 1.415E-3 x + 1.032E-3
R 1.0000
DL 0.4525
BEC 0.7296



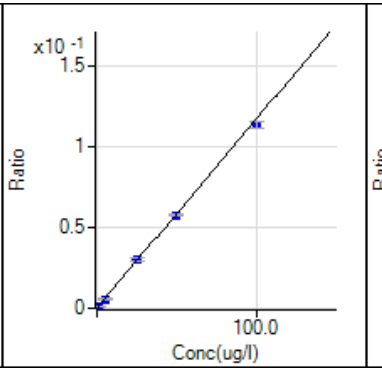
39 K [2] / ISTD: 45 Sc
y = 2.811E-3 x + 9.581E-2
R 1.0000
DL 2.289
BEC 34.09



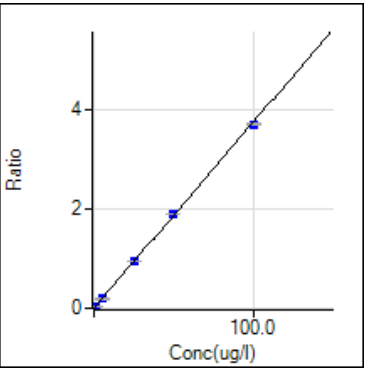
44 Ca [1] / ISTD: 45 Sc
y = 3.137E-4 x + 4.437E-3
R 1.0000
DL 1.84
BEC 14.14



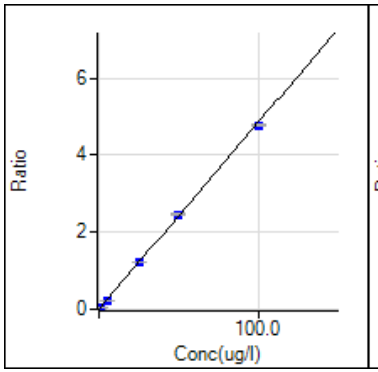
44 Ca [2] / ISTD: 45 Sc
y = 1.492E-4 x + 6.393E-4
R 1.0000
DL 0.4871
BEC 4.285



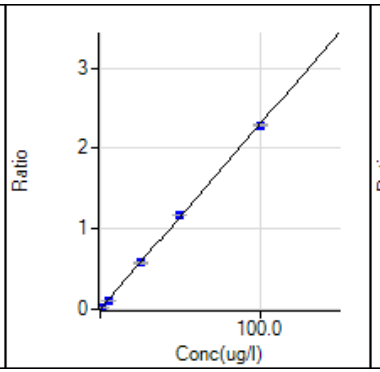
47 Ti [2] / ISTD: 45 Sc
y = 1.168E-3 x + 1.012E-4
R 0.9999
DL 0.1213
BEC 0.08663



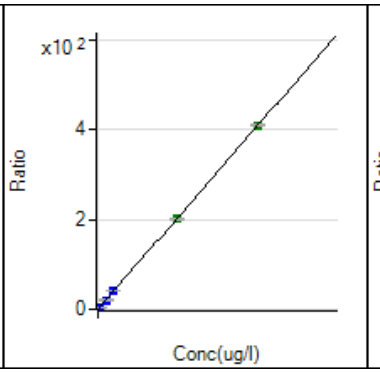
51 V [2] / ISTD: 45 Sc
y = 3.730E-2 x + 1.406E-3
R 0.9999
DL 0.03199
BEC 0.03769



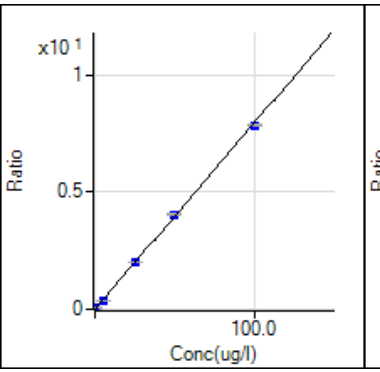
52 Cr [2] / ISTD: 45 Sc
y = 4.843E-2 x + 4.237E-3
R 0.9999
DL 0.006682
BEC 0.08748



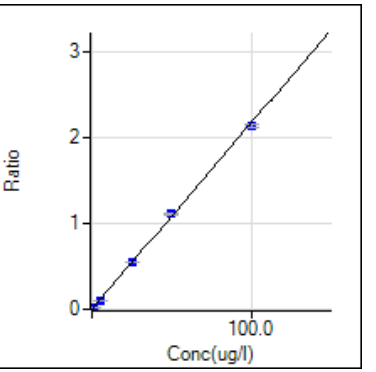
55 Mn [2] / ISTD: 45 Sc
y = 2.299E-2 x + 4.612E-4
R 0.9999
DL 0.01844
BEC 0.02006



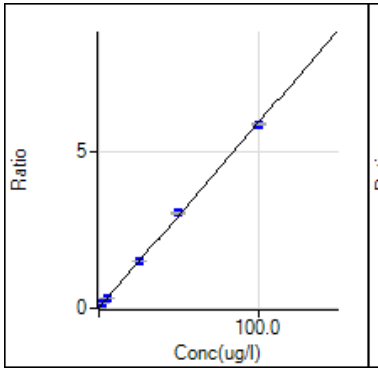
56 Fe [2] / ISTD: 45 Sc
y = 4.082E-2 x + 2.247E-2
R 1.0000
DL 0.1163
BEC 0.5504



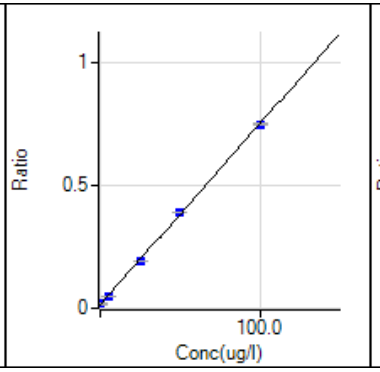
59 Co [2] / ISTD: 45 Sc
y = 7.933E-2 x + 6.579E-4
R 0.9999
DL 0.009229
BEC 0.008293



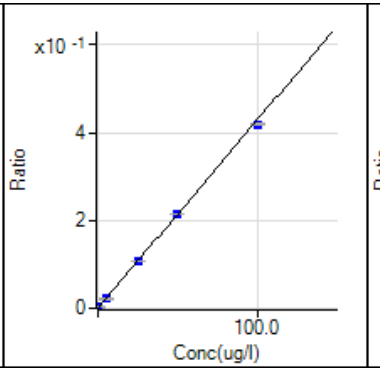
60 Ni [2] / ISTD: 45 Sc
y = 2.172E-2 x + 6.257E-4
R 0.9998
DL 0.04029
BEC 0.0288



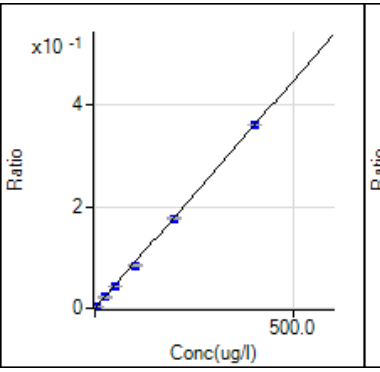
63 Cu [2] / ISTD: 45 Sc
y = 5.940E-2 x + 9.083E-3
R 0.9999
DL 0.03902
BEC 0.1529



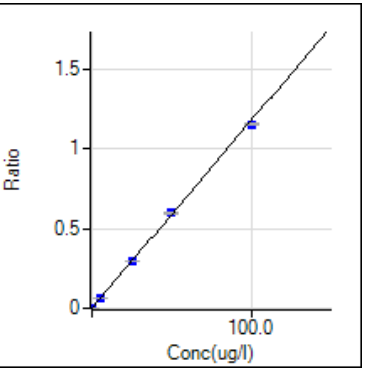
66 Zn [2] / ISTD: 45 Sc
y = 7.383E-3 x + 1.470E-2
R 0.9999
DL 0.5135
BEC 1.991



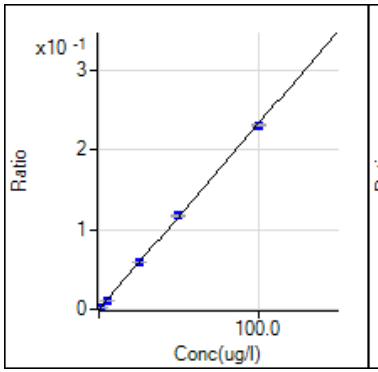
75 As [2] / ISTD: 45 Sc
y = 4.283E-3 x + 6.352E-5
R 0.9999
DL 0.02773
BEC 0.01483



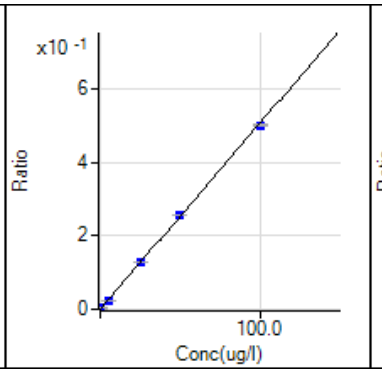
78 Se [3] / ISTD: 74 Ge
y = 8.989E-4 x + 5.331E-5
R 0.9998
DL 0.02627
BEC 0.05931



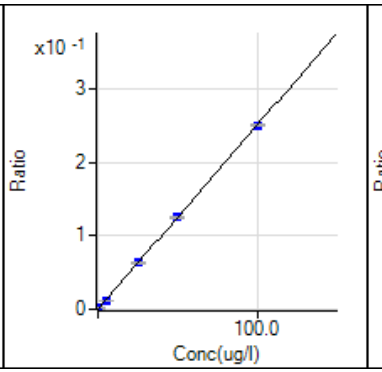
88 Sr [1] / ISTD: 103 Rh
y = 1.177E-2 x + 1.376E-4
R 0.9999
DL 0.003658
BEC 0.01169



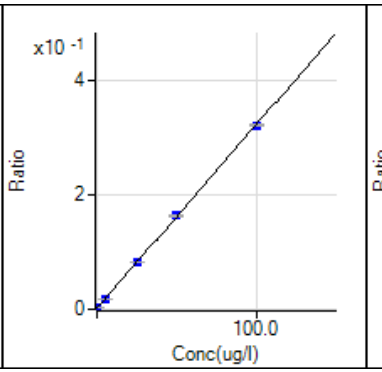
95 Mo [1] / ISTD: 103 Rh
y = 2.321E-3 x + 1.402E-5
R 0.9999
DL 0.006216
BEC 0.00604



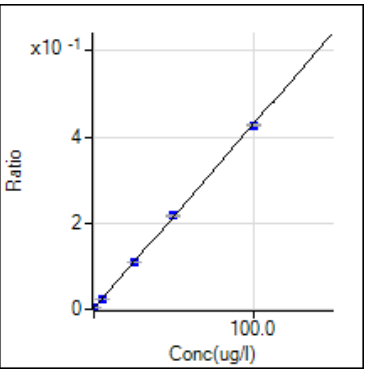
107 Ag [1] / ISTD: 115 In
y = 5.067E-3 x + 7.468E-6
R 0.9999
DL 0.0009447
BEC 0.001474



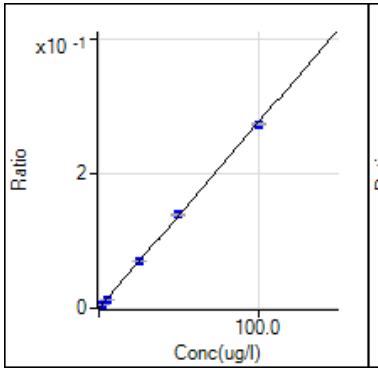
111 Cd [2] / ISTD: 115 In
y = 2.514E-3 x + 1.236E-5
R 1.0000
DL 0.01655
BEC 0.004915



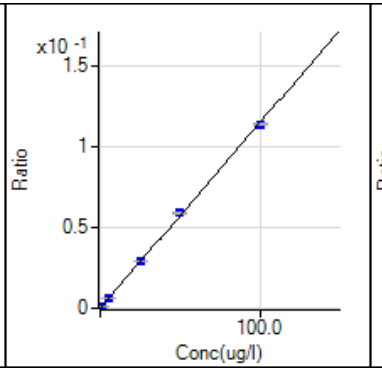
118 Sn [1] / ISTD: 115 In
y = 3.205E-3 x + 1.713E-3
R 1.0000
DL 0.06193
BEC 0.5347



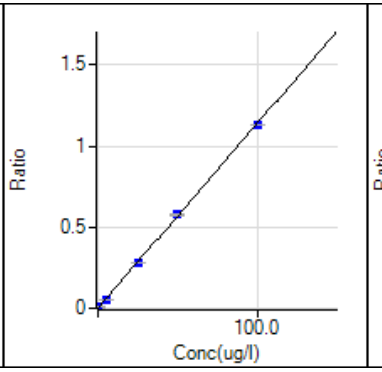
118 Sn [2] / ISTD: 115 In
y = 4.266E-3 x + 2.201E-3
R 1.0000
DL 0.05736
BEC 0.5159



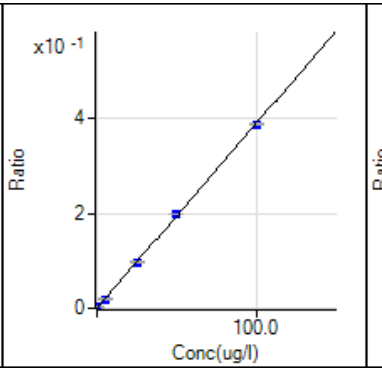
121 Sb [1] / ISTD: 159 Tb
y = 2.754E-3 x + 3.018E-5
R 1.0000
DL 0.003759
BEC 0.01096



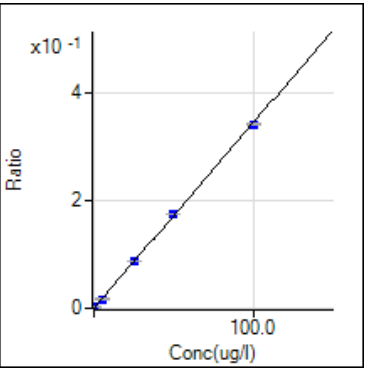
137 Ba [1] / ISTD: 159 Tb
y = 1.147E-3 x + 1.400E-5
R 0.9998
DL 0.007003
BEC 0.0122



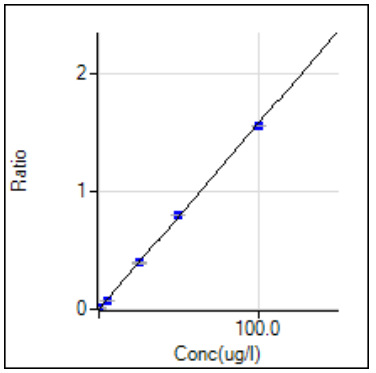
205 Tl [1] / ISTD: 209 Bi
y = 1.138E-2 x + 9.489E-5
R 1.0000
DL 0.002517
BEC 0.008336



206 Pb [1] / ISTD: 209 Bi
y = 3.893E-3 x + 1.174E-4
R 0.9999
DL 0.000893
BEC 0.03016



207 Pb [1] / ISTD: 209 Bi
y = 3.449E-3 x + 1.077E-4
R 0.9999
DL 0.03182
BEC 0.03122



208 Pb [1] / ISTD: 209 Bi

y = 1.572E-2 x + 4.826E-4

R	0.9999
DL	0.004928
BEC	0.03069

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP15011	5/16/2019	5:05	5/16/2019	10:30	JC87015-12	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	8	4156601	94	0	94
1	End	8	4156601	94	0	94
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812114	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP15011-MB1	N/A	N	50	50	AB		
MP15011-B1	N/A	N	50	50	AB	ABCD	
MP15011-S1	7	Y	50	50	AB	ABCD	
MP15011-S2	7	Y	50	50	AB	ABCD	
MP15011-SD1	7	Y	50	50	AB		
JC87015-12	7	Y	50	50	AB		
JC87982-1	1	Y	50	50	AB		
MP15011-B2	N/A	N	50	50	AB	EFGHI	
MP15011-S3	7	Y	50	50	AB	EFGHI	
MP15011-S4	7	Y	50	50	AB	EFGHI	
JC87015-12F	10	Y	50	50	AB		"A" BATCH ONLY

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E	ACCUTEST 13B REV1	0.2
F	AG 20PPM	0.625
G	ACCUTEST 14B REV1	0.2
H	MINERALS 1000PPM	0.2

Comments:

Analyst TAYLORG **Approved by** RAKESHP **Approved on** 5/16/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL), Devens, MA

AC001.M01

SGS Job Number: JC91275

Sampling Date: 07/08/19

Report to:

Sovereign Consulting
9 Payson Road Suite 150
Foxborough, MA 02035
SPassafaro@SovCon.com

ATTN: Steve Passafaro

Total number of pages in report: **640**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp
General Manager

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: JC91275

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC91275-1	07/08/19	13:03	CJT	07/08/19	AQ	Effluent	EFFLUENT
JC91275-1A	07/08/19	13:03	CJT	07/08/19	AQ	Effluent	EFFLUENT
JC91275-2	07/08/19	13:10	CJT	07/08/19	AQ	Ground Water	EW-01
JC91275-2A	07/08/19	13:10	CJT	07/08/19	AQ	Ground Water	EW-01
JC91275-3	07/08/19	13:12	CJT	07/08/19	AQ	Ground Water	EW-04
JC91275-3A	07/08/19	13:12	CJT	07/08/19	AQ	Ground Water	EW-04

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Sovereign Consulting	**Job No**	JC91275
Site:	Shepley's Hill (SHL), Devens, MA	**Report Date**	7/25/2019 10:15:25 A

On 07/08/2019, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 4.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC91275 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

Metals Analysis By Method SW846 6010D

Matrix: AQ **Batch ID:** MP16437

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC91275-2AMS, JC91275-2AMSD, JC91275-2APS, JC91275-2ASDL were used as the QC samples for metals.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP16329

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC91111-1MS, JC91111-1MSD, JC91111-1PS, JC91111-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic are outside control limits for sample MP16329-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

General Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP22543

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC91330-1DUP, JC91330-1MS were used as the QC samples for Sulfate, Chloride.
- Matrix Spike Recovery(s) for Chloride are outside control limits. Spike recovery indicates possible matrix interference.

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** GP22423

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC91201-1DUP, JC91201-1MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** R179795

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JC91275-1A for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ **Batch ID:** GN97342

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC91275-1ADUP, JC91275-1AMS were used as the QC samples for Nitrogen, Nitrite.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC91275
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 07/08/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC91275-1	**EFFLUENT**					
Arsenic		16.2	3.0	2.0	ug/l	SW846 6020B
JC91275-1A	**EFFLUENT**					
Barium		14.2 J	200	100	ug/l	SW846 6010D
Magnesium		5940	5000	500	ug/l	SW846 6010D
Manganese		18.4	15	5.0	ug/l	SW846 6010D
Chloride		37.9	2.0	1.0	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate [a]		0.21	0.11	0.10	mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite		0.21	0.10	0.095	mg/l	EPA 353.2/LACHAT
Sulfate		5.7	2.0	1.0	mg/l	EPA 300/SW846 9056A
JC91275-2	**EW-01**					
Arsenic		1620	38	25	ug/l	SW846 6020B
JC91275-2A	**EW-01**					
Iron		69300	100	50	ug/l	SW846 6010D
Manganese		2170	15	5.0	ug/l	SW846 6010D
JC91275-3	**EW-04**					
Arsenic		3520	75	50	ug/l	SW846 6020B
JC91275-3A	**EW-04**					
Iron		47800	100	50	ug/l	SW846 6010D
Manganese		2560	15	5.0	ug/l	SW846 6010D

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	JC91275-1	**Date Sampled:**	07/08/19
Matrix:	AQ - Effluent	**Date Received:**	07/08/19
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL), Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	16.2	3.0	2.0	0.94	ug/l	2	07/10/19	07/11/19	SN	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA47084
(2) Prep QC Batch: MP16329

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: EFFLUENT
Lab Sample ID: JC91275-1A
Matrix: AQ - Effluent
Project: Shepley's Hill (SHL), Devens, MA

Date Sampled: 07/08/19
Date Received: 07/08/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Barium	14.2 J	200	100	13	ug/l	1	07/17/19	07/18/19	ND	SW846 6010D [1]	SW846 3010A [2]
Magnesium	5940	5000	500	140	ug/l	1	07/17/19	07/18/19	ND	SW846 6010D [1]	SW846 3010A [2]
Manganese	18.4	15	5.0	1.4	ug/l	1	07/17/19	07/18/19	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA47130
(2) Prep QC Batch: MP16437

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: EFFLUENT
Lab Sample ID: JC91275-1A
Matrix: AQ - Effluent
Project: Shepley's Hill (SHL), Devens, MA

Date Sampled: 07/08/19
Date Received: 07/08/19
Percent Solids: n/a

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chloride	37.9	2.0	1.0	0.83	mg/l	1	07/23/19 22:14	NV	EPA 300/SW846 9056A
Nitrogen, Nitrate [a]	0.21	0.11	0.10	0.093	mg/l	1	07/17/19 13:06	KI	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.21	0.10	0.095	0.090	mg/l	1	07/17/19 13:06	KI	EPA 353.2/LACHAT
Nitrogen, Nitrite	0.0050 U	0.010	0.0050	0.0030	mg/l	1	07/09/19 23:45	MS	SM4500NO2 B-11
Sulfate	5.7	2.0	1.0	0.89	mg/l	1	07/23/19 22:14	NV	EPA 300/SW846 9056A

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EW-01		
Lab Sample ID:	JC91275-2	**Date Sampled:**	07/08/19
Matrix:	AQ - Ground Water	**Date Received:**	07/08/19
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL), Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	1620	38	25	12	ug/l	25	07/10/19	07/12/19	SN	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA47091
(2) Prep QC Batch: MP16329

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EW-01		
Lab Sample ID:	JC91275-2A	**Date Sampled:**	07/08/19
Matrix:	AQ - Ground Water	**Date Received:**	07/08/19
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL), Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	69300	100	50	32	ug/l	1	07/17/19	07/18/19	ND	SW846 6010D [1]	SW846 3010A [2]
Manganese	2170	15	5.0	1.4	ug/l	1	07/17/19	07/18/19	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA47130
(2) Prep QC Batch: MP16437

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EW-04		
Lab Sample ID:	JC91275-3	**Date Sampled:**	07/08/19
Matrix:	AQ - Ground Water	**Date Received:**	07/08/19
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL), Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3520	75	50	24	ug/l	50	07/10/19	07/12/19	SN	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA47091
(2) Prep QC Batch: MP16329

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: EW-04
Lab Sample ID: JC91275-3A
Matrix: AQ - Ground Water
Project: Shepley's Hill (SHL), Devens, MA

Date Sampled: 07/08/19
Date Received: 07/08/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	47800	100	50	32	ug/l	1	07/17/19	07/18/19	ND	SW846 6010D [1]	SW846 3010A [2]
Manganese	2560	15	5.0	1.4	ug/l	1	07/17/19	07/18/19	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA47130
(2) Prep QC Batch: MP16437

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody
- QC Evaluation: DOD QSM5 Limits

SGS GW

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

PAGE 1 OF 1

FED-EX Tracking #
Bottle Order Control #
SGS Quote #
SGS Job # JC 91275

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Street Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steve Passafaro E-mail: (spassafaro@sovcon.com)
Phone #: (508) 339-3200 Fax #: (
Sampler(s) Name(s): Sovereign Staff Phone #:

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project #: AC001.M01
Client Purchase Order #:
Project Manager: Steve Passafaro

Billing Information (If different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Lab Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Total As - 6020A	Total Ba, Mn, Mg - 6010C	Chloride 300.0	Nitrate - 353.2	Sulfate - 300.0	Total Fe & Mn - 6010C	LAB USE ONLY
1	Effluent		7/8/19	13:03	CJT	GW	4			X		X				X	X	X	X	X		
2	EW-01		7/8/19	13:10	CJT	GW	1 ~~2~~			X						X					X	A38
3	EW-04		7/8/19	13:12	CJT	GW	1 ~~2~~			X						X					X	M9

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [x] 5 Day RUSH - Arsenic Only
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available via LabLink

Approved by (SGS Project Manager)/Date:
INITIAL ASESSMENT AP 3-B
LABEL VERIFICATION

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [x] Other See QAPP

Commercial "A" = Results Only; Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions
See Project QAPP for all specfic project requirements
5 Day Rush on Arsenic

SGS-ACCUTEST MARLBOR 7/8

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	7/8/19 1653	1 [signature]	2 [signature]	7/8/19 1730	2 [signature]
3 [signature]	7-9-19 0800	3 [signature]	4		4
5		5			

Custody Seal # ☐ Intact ☐ Not intact
Preserved where applicable ☑ AP
On Ice ☑
Cooler Temp. 4-3°C IP IR 5

Form:SM088-03C (revised 2/12/18)

http://www.sgs.com/en/terms-and-conditions.

5.1
5

JC91275: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC91275 **Client:** _____ **Project:** _____

Date / Time Received: 7/8/2019 5:30:00 PM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (4.3);

Cooler Temps (Corrected) °C: Cooler 1: (4.3);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

Sovereign Consulting

Job No: JC91275

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC91275-1 EFFLUENT	Collected: 08-JUL-19 13:03 By: CJT		Received: 08-JUL-19 By: JK			
JC91275-1	SW846 6020B	11-JUL-19 18:53	SN	10-JUL-19	MR	ASMS
JC91275-2 EW-01	Collected: 08-JUL-19 13:10 By: CJT		Received: 08-JUL-19 By: JK			
JC91275-2	SW846 6020B	12-JUL-19 14:19	SN	10-JUL-19	MR	ASMS
JC91275-3 EW-04	Collected: 08-JUL-19 13:12 By: CJT		Received: 08-JUL-19 By: JK			
JC91275-3	SW846 6020B	12-JUL-19 14:24	SN	10-JUL-19	MR	ASMS
JC91275-1A EFFLUENT	Collected: 08-JUL-19 13:03 By: CJT		Received: 08-JUL-19 By: JK			
JC91275-1A	SM4500NO2 B-11	09-JUL-19 23:45	MS			NO2
JC91275-1A	EPA353.2/SM4500NO2B	17-JUL-19 13:06	KI			NO3O
JC91275-1A	EPA 353.2/LACHAT	17-JUL-19 13:06	KI	17-JUL-19	KI	NO32
JC91275-1A	SW846 6010D	18-JUL-19 15:56	ND	17-JUL-19	MR	BA,MG,MN
JC91275-1A	EPA 300/SW846 9056A	23-JUL-19 22:14	NV	23-JUL-19	NV	CHL,SO4
JC91275-2A EW-01	Collected: 08-JUL-19 13:10 By: CJT		Received: 08-JUL-19 By: JK			
JC91275-2A	SW846 6010D	18-JUL-19 15:40	ND	17-JUL-19	MR	FE,MN
JC91275-3A EW-04	Collected: 08-JUL-19 13:12 By: CJT		Received: 08-JUL-19 By: JK			
JC91275-3A	SW846 6010D	18-JUL-19 16:00	ND	17-JUL-19	MR	FE,MN

SGS Internal Chain of Custody

Job Number: JC91275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Received: 07/08/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC91275-1.1	Secured Storage	Dwayne Johnson	07/10/19 11:57	Retrieve from Storage
JC91275-1.1	Dwayne Johnson	Secured Staging Area	07/10/19 11:57	Return to Storage
JC91275-1.1	Secured Staging Area	Moustafa Ramadan	07/10/19 16:03	Retrieve from Storage
JC91275-1.1	Moustafa Ramadan	Secured Storage	07/10/19 18:15	Return to Storage
JC91275-1.1	Secured Storage	Todd Shoemaker	07/17/19 14:18	Retrieve from Storage
JC91275-1.1	Todd Shoemaker	Secured Staging Area	07/17/19 14:19	Return to Storage
JC91275-1.1	Secured Staging Area	Moustafa Ramadan	07/17/19 17:48	Retrieve from Storage
JC91275-1.1	Moustafa Ramadan	Secured Storage	07/17/19 19:10	Return to Storage
JC91275-1.1.1	Moustafa Ramadan	Metals Digestion	07/10/19 16:05	Digestate from JC91275-1.1
JC91275-1.1.1	Metals Digestion	Moustafa Ramadan	07/10/19 16:06	Digestate from JC91275-1.1
JC91275-1.1.1	Moustafa Ramadan	Metals Digestate Storage	07/10/19 16:06	Return to Storage
JC91275-1.1.2	Moustafa Ramadan	Metals Digestion	07/17/19 17:49	Digestate from JC91275-1.1
JC91275-1.1.2	Metals Digestion	Moustafa Ramadan	07/17/19 17:49	Digestate from JC91275-1.1
JC91275-1.1.2	Moustafa Ramadan	Metals Digestate Storage	07/17/19 17:49	Return to Storage
JC91275-1.1.2	Metals Digestate Storage	Nancy Duan	07/18/19 14:18	Retrieve from Storage
JC91275-1.1.2	Nancy Duan	Metals Digestate Storage	07/18/19 14:18	Return to Storage
JC91275-1.2	Secured Storage	Todd Shoemaker	07/19/19 10:07	Retrieve from Storage
JC91275-1.2	Todd Shoemaker	Secured Staging Area	07/19/19 10:08	Return to Storage
JC91275-1.2	Secured Staging Area	Natasha Verma	07/19/19 14:07	Retrieve from Storage
JC91275-1.2	Natasha Verma	Secured Storage	07/19/19 14:13	Return to Storage
JC91275-1.3	Secured Storage	Matthew Robbins	07/15/19 21:17	Retrieve from Storage
JC91275-1.3	Matthew Robbins	Secured Staging Area	07/15/19 21:17	Return to Storage
JC91275-1.3	Secured Staging Area	Todd Shoemaker	07/16/19 15:26	Retrieve from Storage
JC91275-1.3	Todd Shoemaker	Secured Storage	07/16/19 15:26	Return to Storage
JC91275-1.3	Secured Storage	Todd Shoemaker	07/17/19 08:25	Retrieve from Storage
JC91275-1.3	Todd Shoemaker	Secured Staging Area	07/17/19 08:25	Return to Storage
JC91275-1.3	Secured Staging Area	Kimberly Ignace	07/17/19 17:31	Retrieve from Storage
JC91275-1.3	Kimberly Ignace	Secured Storage	07/17/19 17:57	Return to Storage
JC91275-1.4	Secured Storage	Todd Shoemaker	07/09/19 12:17	Retrieve from Storage
JC91275-1.4	Todd Shoemaker	Secured Staging Area	07/09/19 12:17	Return to Storage
JC91275-1.4	Secured Staging Area	Elaine Banting	07/10/19 00:35	Retrieve from Storage
JC91275-1.4	Elaine Banting	Secured Storage	07/11/19 02:34	Return to Storage
JC91275-2.1	Secured Storage	Dwayne Johnson	07/10/19 11:57	Retrieve from Storage
JC91275-2.1	Dwayne Johnson	Secured Staging Area	07/10/19 11:57	Return to Storage
JC91275-2.1	Secured Staging Area	Moustafa Ramadan	07/10/19 16:03	Retrieve from Storage
JC91275-2.1	Moustafa Ramadan	Secured Storage	07/10/19 18:15	Return to Storage
JC91275-2.1	Secured Storage	Todd Shoemaker	07/17/19 14:18	Retrieve from Storage
JC91275-2.1	Todd Shoemaker	Secured Staging Area	07/17/19 14:19	Return to Storage

SGS Internal Chain of Custody

Job Number: JC91275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Received: 07/08/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC91275-2.1	Secured Staging Area	Moustafa Ramadan	07/17/19 17:48	Retrieve from Storage
JC91275-2.1	Moustafa Ramadan	Secured Storage	07/17/19 19:10	Return to Storage
JC91275-2.1.1	Moustafa Ramadan	Metals Digestion	07/10/19 16:05	Digestate from JC91275-2.1
JC91275-2.1.1	Metals Digestion	Moustafa Ramadan	07/10/19 16:06	Digestate from JC91275-2.1
JC91275-2.1.1	Moustafa Ramadan	Metals Digestate Storage	07/10/19 16:06	Return to Storage
JC91275-2.1.2	Moustafa Ramadan	Metals Digestion	07/17/19 17:49	Digestate from JC91275-2.1
JC91275-2.1.2	Metals Digestion	Moustafa Ramadan	07/17/19 17:49	Digestate from JC91275-2.1
JC91275-2.1.2	Moustafa Ramadan	Metals Digestate Storage	07/17/19 17:49	Return to Storage
JC91275-2.1.2	Metals Digestate Storage	Nancy Duan	07/18/19 14:18	Retrieve from Storage
JC91275-2.1.2	Nancy Duan	Metals Digestate Storage	07/18/19 14:18	Return to Storage
JC91275-3.1	Secured Storage	Dwayne Johnson	07/10/19 11:57	Retrieve from Storage
JC91275-3.1	Dwayne Johnson	Secured Staging Area	07/10/19 11:57	Return to Storage
JC91275-3.1	Secured Staging Area	Moustafa Ramadan	07/10/19 16:03	Retrieve from Storage
JC91275-3.1	Moustafa Ramadan	Secured Storage	07/10/19 18:15	Return to Storage
JC91275-3.1	Secured Storage	Todd Shoemaker	07/17/19 14:18	Retrieve from Storage
JC91275-3.1	Todd Shoemaker	Secured Staging Area	07/17/19 14:19	Return to Storage
JC91275-3.1	Secured Staging Area	Moustafa Ramadan	07/17/19 17:48	Retrieve from Storage
JC91275-3.1	Moustafa Ramadan	Secured Storage	07/17/19 19:10	Return to Storage
JC91275-3.1.1	Moustafa Ramadan	Metals Digestion	07/10/19 16:05	Digestate from JC91275-3.1
JC91275-3.1.1	Metals Digestion	Moustafa Ramadan	07/10/19 16:06	Digestate from JC91275-3.1
JC91275-3.1.1	Moustafa Ramadan	Metals Digestate Storage	07/10/19 16:06	Return to Storage
JC91275-3.1.2	Moustafa Ramadan	Metals Digestion	07/17/19 17:49	Digestate from JC91275-3.1
JC91275-3.1.2	Metals Digestion	Moustafa Ramadan	07/17/19 17:49	Digestate from JC91275-3.1
JC91275-3.1.2	Moustafa Ramadan	Metals Digestate Storage	07/17/19 17:49	Return to Storage
JC91275-3.1.2	Metals Digestate Storage	Nancy Duan	07/18/19 14:18	Retrieve from Storage
JC91275-3.1.2	Nancy Duan	Metals Digestate Storage	07/18/19 14:18	Return to Storage

QC Evaluation: DOD QSM5 Limits

Job Number: JC91275
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 07/08/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP16329	SW846 6020B						
MP16329-B2	7440-38-2	Arsenic	BSP	REC	87.6	%	84-116
MP16329-S3*	7440-38-2	Arsenic	MS	REC	88.6	%	84-116
MP16329-S4*	7440-38-2	Arsenic	MSD	REC	87.9	%	84-116
MP16329-S4*	7440-38-2	Arsenic	MSD	RPD	.8	%	20
MP16437	SW846 6010D						
MP16437-B1	7440-39-3	Barium	BSP	REC	105.5	%	88-113
MP16437-B1	7439-89-6	Iron	BSP	REC	104	%	87-115
MP16437-B1	7439-95-4	Magnesium	BSP	REC	102.8	%	85-113
MP16437-B1	7439-96-5	Manganese	BSP	REC	96.5	%	90-114
MP16437-S1	7440-39-3	Barium	MS	REC	102.9	%	88-113
MP16437-S1	7439-89-6	Iron	MS	REC	117.2	%	87-115
MP16437-S1	7439-95-4	Magnesium	MS	REC	99.3	%	85-113
MP16437-S1	7439-96-5	Manganese	MS	REC	98.5	%	90-114
MP16437-S2	7440-39-3	Barium	MSD	REC	100.9	%	88-113
MP16437-S2	7440-39-3	Barium	MSD	RPD	1.9	%	20
MP16437-S2	7439-89-6	Iron	MSD	REC	120.4	%	87-115
MP16437-S2	7439-89-6	Iron	MSD	RPD	.8	%	20
MP16437-S2	7439-95-4	Magnesium	MSD	REC	97.3	%	85-113
MP16437-S2	7439-95-4	Magnesium	MSD	RPD	1.6	%	20
MP16437-S2	7439-96-5	Manganese	MSD	REC	99.5	%	90-114
MP16437-S2	7439-96-5	Manganese	MSD	RPD	.5	%	20
GP22543	EPA 300/SW846 9056A						
GP22543-B1	16887-00-6	Chloride	BSP	REC	108.5	%	87-111
GP22543-B1	14808-79-8	Sulfate	BSP	REC	108.3	%	87-112
GP22543-S1*	16887-00-6	Chloride	MS	REC	122.5 [a]	%	87-111
GP22543-S1*	14808-79-8	Sulfate	MS	REC	95	%	87-112
GP22543-D1*	16887-00-6	Chloride	DUP	RPD	0	%	15
GP22543-D1*	14808-79-8	Sulfate	DUP	RPD	.4	%	15

(a) Spike recovery indicates possible matrix interference.

* Sample used for QC is not from job JC91275

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:05	MA47084-STD1	1		STDA
14:10	MA47084-STD2	1		STDA
14:16	MA47084-STD3	1		STDB
14:21	MA47084-STD4	1		STDC
14:26	MA47084-STD5	1		STDD
14:31	MA47084-STD6	1		STDE
14:36	MA47084-STD7	1		STDF
14:41	MA47084-STD8	1		STDG
14:46	MA47084-STD9	1		STDH
14:51	MA47084-STD10	1		STDI
14:56	MA47084-STD11	1		STDJ
15:01	MA47084-STD12	1		STDA
15:06	MA47084-ICVA1	1		
15:11	MA47084-ICV1	1		60ppb Al.
15:16	MA47084-ICB1	1		
15:21	MA47084-CCVA1	1		
15:26	MA47084-CCB1	1		
15:31	MA47084-CRI1	1		
15:36	MA47084-ICSA1	1		
15:41	MA47084-ICSAB1	1		Cu out
15:46	ZZZZZZ	1		
15:51	ZZZZZZ	1		
16:01	ZZZZZZ	2		
16:06	MA47084-CCVA2	1		
16:11	ZZZZZZ	1		
16:16	MA47084-CCVA3	1		
16:21	MA47084-CCB2	1		
16:26	ZZZZZZ	5		
16:31	ZZZZZZ	2		
16:36	ZZZZZZ	2		
16:41	MP16289A-PS1	5		
16:46	ZZZZZZ	5		
16:51	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:56	ZZZZZZ	200		
17:01	ZZZZZZ	100		
17:06	ZZZZZZ	2		
17:13	ZZZZZZ	2		
17:18	MA47084-CCVA4	1		
17:23	MA47084-CCB3	1		
17:28	ZZZZZZ	10		
17:33	ZZZZZZ	2		
17:38	MP16329-B2	2		
17:43	MP16329-S3	2		Mn overrange
17:48	MP16329-S4	2		Mn overrange
17:53	JC91111-1	2		(sample used for QC only; not part of login JC91275)
17:58	MP16329-SD1	10		Mn overrange
18:03	MP16329-PS1	2		Mn overrange
18:08	MA47084-CCVA5	1		
18:13	MA47084-CCB4	1		
18:18	ZZZZZZ	2		
18:23	ZZZZZZ	2		
18:28	ZZZZZZ	2		
18:33	ZZZZZZ	2		
18:38	ZZZZZZ	2		
18:43	ZZZZZZ	2		
18:48	ZZZZZZ	2		
18:53	JC91275-1	2		
18:58	MA47084-CCVA6	1		
19:03	MA47084-CCB5	1		
19:09	JC91275-2	2		Overrange
19:13	JC91275-3	2		Overrange
19:19	MP16333-MB1	2		As>1/2 RL, batch to reanalysis for As.
19:24	MP16333-B2	2		Batch to reanalysis for Cu, ICSAB out
19:29	MP16333-S3	2		Zn overrange
19:34	MP16333-S4	2		
19:39	JC91206-1	2		(sample used for QC only; not part of login JC91275)

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:44	MP16333-SD1	10		
19:49	MA47084-CCVA7	1		
19:54	MA47084-CCB6	1		
19:59	ZZZZZZ	2		
20:04	ZZZZZZ	2		
20:09	ZZZZZZ	2		
20:14	ZZZZZZ	2		
20:19	ZZZZZZ	2		
20:24	ZZZZZZ	2		
20:29	ZZZZZZ	2		
20:34	ZZZZZZ	2		
20:39	MA47084-CCVA8	1		
20:44	MA47084-CCB7	1		
20:49	ZZZZZZ	2		
20:54	ZZZZZZ	25		
20:59	ZZZZZZ	2		
21:04	MP16329-MB1	2		
---------->	Last reportable sample/prep for job JC91275			
21:09	ZZZZZZ	1		
21:14	ZZZZZZ	1		
21:19	MA47084-CCVA9	1		
21:24	MA47084-CCB8	1		
---------->	Last reportable CCB for job JC91275			
21:29	MP16335A-MB1	2		
21:34	MP16335A-B1	25		
21:39	MP16335A-S1	25		
21:44	MP16335A-S2	25		
21:49	JC89030-3AR	2		(sample used for QC only; not part of login JC91275)
21:55	MP16335A-SD1	10		
22:00	ZZZZZZ	2		
22:05	ZZZZZZ	2		
22:10	ZZZZZZ	1		
22:15	ZZZZZZ	1		
22:20	MA47084-CCVA10	1		
22:25	MA47084-CCB9	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:30	ZZZZZZ	1		
22:35	ZZZZZZ	1		
22:40	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Element: Dilution	As
15:06	MA47084-ICVA1	1	X
15:11	MA47084-ICV1	1	
15:16	MA47084-ICB1	1	X
15:21	MA47084-CCVA1	1	X
15:26	MA47084-CCB1	1	X
15:31	MA47084-CRI1	1	X
15:36	MA47084-ICSA1	1	X
15:41	MA47084-ICSAB1	1	X
15:46	ZZZZZZ	1	
15:51	ZZZZZZ	1	
16:01	ZZZZZZ	2	
16:06	MA47084-CCVA2	1	X
16:11	ZZZZZZ	1	
16:16	MA47084-CCVA3	1	X
16:21	MA47084-CCB2	1	X
16:26	ZZZZZZ	5	
16:31	ZZZZZZ	2	
16:36	ZZZZZZ	2	
16:41	MP16289A-PS1	5	
16:46	ZZZZZZ	5	
16:51	ZZZZZZ	5	
16:56	ZZZZZZ	200	
17:01	ZZZZZZ	100	
17:06	ZZZZZZ	2	
17:13	ZZZZZZ	2	
17:18	MA47084-CCVA4	1	X
17:23	MA47084-CCB3	1	X
17:28	ZZZZZZ	10	
17:33	ZZZZZZ	2	
17:38	MP16329-B2	2	X
17:43	MP16329-S3	2	X
17:48	MP16329-S4	2	X
17:53	JC91111-1	2	X (a)
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Element: Dilution	As
17:58	MP16329-SD1	10	X
18:03	MP16329-PS1	2	X
18:08	MA47084-CCVA5	1	X
18:13	MA47084-CCB4	1	X
18:18	ZZZZZZ	2	
18:23	ZZZZZZ	2	
18:28	ZZZZZZ	2	
18:33	ZZZZZZ	2	
18:38	ZZZZZZ	2	
18:43	ZZZZZZ	2	
18:48	ZZZZZZ	2	
18:53	JC91275-1	2	X
18:58	MA47084-CCVA6	1	X
19:03	MA47084-CCB5	1	X
19:09	JC91275-2	2	
19:13	JC91275-3	2	
19:19	MP16333-MB1	2	
19:24	MP16333-B2	2	
19:29	MP16333-S3	2	
19:34	MP16333-S4	2	
19:39	JC91206-1	2	(a)
19:44	MP16333-SD1	10	
19:49	MA47084-CCVA7	1	X
19:54	MA47084-CCB6	1	X
19:59	ZZZZZZ	2	
20:04	ZZZZZZ	2	
20:09	ZZZZZZ	2	
20:14	ZZZZZZ	2	
20:19	ZZZZZZ	2	
20:24	ZZZZZZ	2	
20:29	ZZZZZZ	2	
20:34	ZZZZZZ	2	
20:39	MA47084-CCVA8	1	X
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Element: Dilution	As
20:44	MA47084-CCB7	1	X
20:49	ZZZZZZ	2	
20:54	ZZZZZZ	25	
20:59	ZZZZZZ	2	
21:04	MP16329-MB1	2	X
21:09	ZZZZZZ	1	
21:14	ZZZZZZ	1	
21:19	MA47084-CCVA9	1	X
21:24	MA47084-CCB8	1	X
21:29	MP16335A-MB1	2	
21:34	MP16335A-B1	25	
21:39	MP16335A-S1	25	
21:44	MP16335A-S2	25	
21:49	JC89030-3AR	2	(a)
21:55	MP16335A-SD1	10	
22:00	ZZZZZZ	2	
22:05	ZZZZZZ	2	
22:10	ZZZZZZ	1	
22:15	ZZZZZZ	1	
22:20	MA47084-CCVA10	1	X
22:25	MA47084-CCB9	1	X
22:30	ZZZZZZ	1	
22:35	ZZZZZZ	1	
22:40	ZZZZZZ	1	

(a) Sample used for QC only; not part of login JC91275.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
14:05	MA47084-STD1	100	100	100	100	100	100	100	100
14:10	MA47084-STD2	100	100	100	100	100	100	100	100
14:16	MA47084-STD3	99.84	101.245	100.696	99.497	100.529	100.178	98.891	101.439
14:21	MA47084-STD4	100.454	100.688	100.169	100.337	100.815	101.939	101.59	100.939
14:26	MA47084-STD5	99.465	100.899	100.372	98.92	100.783	101.307	99.881	101.202
14:31	MA47084-STD6	99.344	98.43	99.367	98.761	99.233	99.481	101.646	99.689
14:36	MA47084-STD7	96.799	97.317	96.805	98.223	97.629	96.761	98.654	98.014
14:41	MA47084-STD8	95.397	96.422	97.739	98.499	96.096	98.809	99.242	97.648
14:46	MA47084-STD9	98.672	99.818	101.698	100.551	98.906	101.519	100.616	100.885
14:51	MA47084-STD10	100.648	101.935	104.616	102.104	101.215	103.644	101.785	100.987
14:56	MA47084-STD11	102.165	102.835	104.72	101.115	101.532	104.375	100.945	101.644
15:01	MA47084-STD12	100	100	100	100	100	100	100	100
15:06	MA47084-ICVA1	97.616	98.912	97.225	96.319	98.133	98.811	95.013	99.398
15:11	MA47084-ICV1	97.488	96.594	96.478	98.845	96.651	95.756	97.194	96.829
15:16	MA47084-ICB1	98.646	97.526	97.79	97.551	97.674	98.474	96.575	97.837
15:21	MA47084-CCVA1	97.663	97.089	96.052	97.659	97.717	95.758	94.07	97.908
15:26	MA47084-CCB1	96.684	95.22	96.831	97.717	95.822	95.536	96.437	95.722
15:31	MA47084-CRI1	97.465	97.104	97.257	98.426	97.113	97.17	96.078	97.719
15:36	MA47084-ICSA1	83.175	84.995	82.592	87.726	85.522	85.052	82.75	84.673
15:41	MA47084-ICSAB1	78.3	81.824	81.4	87.552	84.04	83.052	82.453	82.184
15:46	ZZZZZZ	77.996	82.093	83.36	92.588	85.65	87.253	91.611	86.219
15:51	ZZZZZZ	78.517	81.846	82.171	88.922	85.023	84.52	85.052	82.452
16:01	ZZZZZZ	No results reported for the elements associated with this internal standard.							
16:06	MA47084-CCVA2	86.352	90.193	89.906	97.007	93.537	92.601	94.444	94.407
16:11	ZZZZZZ	88.812	91.18	90.936	98.607	94.998	93.846	95.703	96.379
16:16	MA47084-CCVA3	89.217	91.371	91.045	98.73	93.533	92.026	94.446	95.163
16:21	MA47084-CCB2	90.282	92.084	92.744	100.151	95.071	94.658	96.686	95.363
16:26	ZZZZZZ	86.413	98.586	97.95	109.683	92.297	93.73	98.47	92.53
16:31	ZZZZZZ	89.53	91.252	90.838	103.245	96.175	95.776	101.416	96.44
16:36	ZZZZZZ	92.77	93.617	94.239	106.989	95.993	95.489	103.859	97.367
16:41	MP16289A-PS1	93.797	100.791	99.623	108.716	98.139	98.836	99.354	98.035
16:46	ZZZZZZ	97.562	96.703	97.306	104.983	98.184	99.977	101.24	99.626
16:51	ZZZZZZ	98.735	100.249	100.725	108.545	100.967	101.639	103.622	101.814

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:56	ZZZZZZ	100.872	100.726	97.862	105.101	103.321	102.316	101.936	102.402
17:01	ZZZZZZ	96.547	96.618	95.76	103.87	98.695	98.495	100.407	98.605
17:06	ZZZZZZ	95.309	94.632	93.976	106.479	98.14	98.135	104.087	99.074
17:13	ZZZZZZ	97.286	97.289	96.796	108.065	98.781	98.388	103.558	100.208
17:18	MA47084-CCVA4	95.195	96.908	97.849	104.739	98.079	98.664	98.269	99.343
17:23	MA47084-CCB3	90.934	88.808	100.107	106.376	92.852	101.628	101.899	93.199
17:28	ZZZZZZ	98.182	98.979	99.342	104.265	103.689	103.199	102.398	99.613
17:33	ZZZZZZ	97.808	97.769	97.819	107.989	100.804	100.774	105.485	101.543
17:38	MP16329-B2	96.944	96.2	96.943	107.428	98.809	97.524	102.887	99.754
17:43	MP16329-S3	92.902	94.452	94.922	108.878	97.703	97.585	102.952	98.178
17:48	MP16329-S4	96.396	96.408	96.511	109.051	98.261	99.056	104.54	99.229
17:53	JC91111-1	96.832	97.496	97.639	107.8	99.464	99.715	105.055	99.207
17:58	MP16329-SD1	95.043	98.499	98.921	104.89	99.817	100.842	100.604	100.477
18:03	MP16329-PS1	97.441	98.331	98.543	110.345	99.83	100.457	104.957	100.46
18:08	MA47084-CCVA5	95.926	98.942	100.725	106.639	100.566	100.149	100.67	100.47
18:13	MA47084-CCB4	96.562	96.534	97.821	105.271	97.673	99.665	100.59	99.594
18:18	ZZZZZZ	99.847	100.364	101.206	110.313	103.324	101.802	106.664	103.58
18:23	ZZZZZZ	100.262	99.949	100.335	109.881	102.466	102.253	105.967	102.324
18:28	ZZZZZZ	99.45	97.085	97.97	108.953	101.357	99.28	105.735	99.475
18:33	ZZZZZZ	98.24	96.802	96.726	107.628	100.12	97.849	104.98	98.495
18:38	ZZZZZZ	99.378	98.11	99.465	109.506	100.899	99.529	106.144	100.176
18:43	ZZZZZZ	98.622	97.216	97.523	110.444	100.889	99.873	106.14	100.168
18:48	ZZZZZZ	98.892	96.551	95.865	109.449	100.016	100.489	105.738	99.517
18:53	JC91275-1	98.646	95.522	96.761	108.804	98.885	97.535	105.537	98.054
18:58	MA47084-CCVA6	94.635	93.636	96.206	102.715	95.008	96.102	98.546	96.044
19:03	MA47084-CCB5	97.388	95.206	97.331	104.067	95.518	98.904	100.413	97.428
19:09	JC91275-2	95.613	93.274	94.294	106.089	95.275	95.819	103.644	95.465
19:13	JC91275-3	96.202	94.935	95.723	107.661	97.808	99.291	105.89	97.2
19:19	MP16333-MB1	103.552	100.519	102.089	110.07	102.912	104.36	107.952	103.93
19:24	MP16333-B2	99.744	97.895	99.526	109.478	99.848	99.901	106.057	100.199
19:29	MP16333-S3	97.18	97.303	98.001	110.232	98.231	98.531	105.344	98.734
19:34	MP16333-S4	98.388	97.461	98.763	108.618	99.1	98.352	104.082	98.448
19:39	JC91206-1	96.909	96.923	97.32	107.232	97.595	98.187	104.847	97.681

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
19:44	MP16333-SD1	96.456	95.962	97.741	102.758	96.965	99.545	98.563	98.031
19:49	MA47084-CCVA7	95.197	95.836	98.252	103.22	95.861	97.406	97.416	97.509
19:54	MA47084-CCB6	96.411	93.851	96.706	102.893	95.326	99.174	98.144	95.952
19:59	ZZZZZZ	95.816	94.824	94.462	105.741	96.971	97.109	101.53	97.405
20:04	ZZZZZZ	94.371	92.356	91.504	103.192	94.617	93.898	98.861	94.755
20:09	ZZZZZZ	91.462	89.493	91.241	102.649	92.197	92.297	99.829	92.51
20:14	ZZZZZZ	91.586	90.102	91.374	103.027	91.878	93.203	100.37	92.582
20:19	ZZZZZZ	93.412	92.797	93.373	104.615	92.775	93.18	98.71	92.777
20:24	ZZZZZZ	94.642	93.981	92.482	106.087	94.498	94.255	101.845	95.233
20:29	ZZZZZZ	92.356	91.915	91.254	103.358	93.099	93.067	100.273	94.549
20:34	ZZZZZZ	90.254	89.009	89.34	102.433	91.273	91.069	100.087	92.187
20:39	MA47084-CCVA8	91.964	90.088	92.032	98.826	91.185	93.458	93.754	92.367
20:44	MA47084-CCB7	92.17	89.505	82.704	97.978	91.753	84.903	94.223	93.073
20:49	ZZZZZZ	93.065	89.975	90.421	102.286	92.88	92.413	100.767	93.147
20:54	ZZZZZZ	88.608	89.131	90.775	93.898	89.909	92.492	88.586	89.959
20:59	ZZZZZZ	88.689	88.345	90.182	102.252	90.188	90.344	96.608	91.424
21:04	MP16329-MB1	92.755	90.868	91.63	98.556	91.619	93.511	95.224	93.807
21:09	ZZZZZZ	91.34	89.364	91.539	98.124	90.762	91.827	93.849	91.457
21:14	ZZZZZZ	91.239	89.222	90.747	98.463	90.862	92.021	94.128	91.011
21:19	MA47084-CCVA9	90.65	89.22	90.829	97.587	90.024	92.567	91.995	91.073
21:24	MA47084-CCB8	92.219	91.023	89.413	97.519	91.097	91.677	92.592	92.22
21:29	MP16335A-MB1	91.538	88.072	88.53	99.336	90.186	90.801	98.489	90.976
21:34	MP16335A-B1	88.047	87.577	89.986	92.285	89.395	92.146	88.874	89.961
21:39	MP16335A-S1	86.481	87.137	90.261	92.25	88.444	90.969	87.701	89.246
21:44	MP16335A-S2	86.981	86.237	89.758	91.533	88.036	91.026	88.386	89.513
21:49	JC89030-3AR	86.847	84.24	84.005	94.57	87.819	87.246	94.545	88.684
21:55	MP16335A-SD1	84.036	82.519	85.818	90.921	85.247	88.64	88.379	85.972
22:00	ZZZZZZ	85.79	83.857	84.112	96.179	87.823	88.878	95.539	88.564
22:05	ZZZZZZ	86.488	84.968	84.524	96.854	87.62	88.864	95.91	87.513
22:10	ZZZZZZ	84.066	82.241	84.734	90.932	84.684	85.649	88.385	85.033
22:15	ZZZZZZ	85.238	84.376	86.04	92.104	85.558	88.658	89.645	86.809
22:20	MA47084-CCVA10	88.22	87.164	89.779	94.286	87.865	88.989	89.375	89.331
22:25	MA47084-CCB9	88.075	86.253	87.931	93.409	87.998	88.83	89.506	88.75

INTERNAL STANDARD SUMMARY

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File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
22:30	ZZZZZZ	89.202	87.515	90.063	95.035	87.999	91.127	90.772	89.204
22:35	ZZZZZZ	89.117	89.319	91.06	94.977	89.661	91.741	92.027	90.919
22:40	ZZZZZZ	90.412	87.983	89.098	94.718	89.566	90.423	91.514	89.974

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium (45-1)	70-130 %	70-130 %
Istd#3	Scandium (45-2)	70-130 %	70-130 %
Istd#4	Scandium (45-3)	70-130 %	70-130 %
Istd#5	Germanium (72-1)	70-130 %	70-130 %
Istd#6	Germanium (72-2)	70-130 %	70-130 %
Istd#7	Germanium (72-3)	70-130 %	70-130 %
Istd#8	Germanium (74-1)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
14:05	MA47084-STD1	100	100	100	100	100	100	100	100
14:10	MA47084-STD2	100	100	100	100	100	100	100	100
14:16	MA47084-STD3	100.331	99.875	100.449	100.343	100.449	100.254	102.203	99.985
14:21	MA47084-STD4	101.293	101.226	100.267	99.967	101.115	99.997	100.713	99.624
14:26	MA47084-STD5	99.977	101.279	99.883	100.198	98.954	99.225	101.41	100.16
14:31	MA47084-STD6	100.337	100.163	99.176	99.057	98.958	99.15	98.951	98.725
14:36	MA47084-STD7	97.223	99.402	97.128	97.372	98.275	98.018	98.404	98.14
14:41	MA47084-STD8	97.75	100.762	96.759	98.244	98.89	97.487	99.408	98.404
14:46	MA47084-STD9	102.558	101.906	98.157	100.295	99.394	99.07	102.22	99.563
14:51	MA47084-STD10	103.228	101.319	99.109	99.767	98.601	98.985	103.213	100.081
14:56	MA47084-STD11	102.319	101.295	98.695	99.898	96.979	99.479	102.456	99.944
15:01	MA47084-STD12	100	100	100	100	100	100	100	100
15:06	MA47084-ICVA1	96.992	95.206	96.628	95.555	94.132	98.279	96.426	99.489
15:11	MA47084-ICV1	96.563	97.217	97.482	97.995	97.926	98.722	98.288	98.655
15:16	MA47084-ICB1	97.934	95.904	97.753	98.491	98.409	98.314	98.793	99.86
15:21	MA47084-CCVA1	96.416	95.503	95.472	94.866	94.665	97.05	94.685	99.335
15:26	MA47084-CCB1	95.017	95.938	96.933	97.294	97.826	97.042	96.87	98.722
15:31	MA47084-CRI1	96.374	96.608	97.559	97.438	98.441	98.119	97.87	98.378
15:36	MA47084-ICSA1	83.478	80.626	80.004	79.447	79.443	84.684	82.476	88.942
15:41	MA47084-ICSAB1	82.121	81.428	79.273	79.335	80.289	84.329	80.862	89.161
15:46	ZZZZZZ	86.595	90.922	89.472	90.915	95.905	91.724	89.994	94.208
15:51	ZZZZZZ	83.126	82.189	79.851	80.209	81.307	85.383	81.699	90.482
16:01	ZZZZZZ	No results reported for the elements associated with this internal standard.							
16:06	MA47084-CCVA2	92.746	94.407	94.656	94.149	96.289	96.928	93.838	101.305
16:11	ZZZZZZ	93.842	96.09	97.222	96.059	99.723	99.297	94.693	101.202
16:16	MA47084-CCVA3	93.341	95.451	94.854	94.112	97.167	97.352	92.713	101.316
16:21	MA47084-CCB2	93.997	97.483	97.101	97.864	101.46	98.666	95.708	100.737
16:26	ZZZZZZ	92.263	96.675	92.792	92.686	96.623	95.585	90.869	101.106
16:31	ZZZZZZ	94.651	101.547	96.754	96.2	101.908	97.875	93.053	101.078
16:36	ZZZZZZ	95.789	105.538	96.962	96.736	103.63	100.132	95.141	102.371
16:41	MP16289A-PS1	96.935	98.456	98.157	96.47	98.828	100.805	95.038	103.306
16:46	ZZZZZZ	99.491	101.89	100.746	99.62	104.394	101.593	97.84	103.696
16:51	ZZZZZZ	100.442	103.629	100.802	100.672	104.012	102.769	99.198	104.661

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:56	ZZZZZZ	100.942	101.808	102.333	100.918	102.997	105.04	98.995	104.346
17:01	ZZZZZZ	97.323	99.826	98.556	98.104	101.213	101.306	96.784	103.228
17:06	ZZZZZZ	97.438	104.439	98.889	98.615	104.132	100.189	94.169	102.929
17:13	ZZZZZZ	97.202	105.071	99.212	98.024	103.751	100.898	96.034	104.396
17:18	MA47084-CCVA4	98.858	99.002	98.182	97.616	99.023	100.907	96.437	102.365
17:23	MA47084-CCB3	101.967	102.337	92.118	101.297	104.303	92.596	100.323	93.234
17:28	ZZZZZZ	99.403	98.283	97.837	96.866	96.608	100.814	97.658	103.127
17:33	ZZZZZZ	100.489	105.488	100.506	100.382	104.644	101.673	96.916	104.469
17:38	MP16329-B2	97.457	104.366	98.971	98.138	102.671	100.983	94.633	103.644
17:43	MP16329-S3	96.802	103.294	94.52	95.003	99.882	97.201	92.717	101.25
17:48	MP16329-S4	98.15	105.069	95.051	94.659	100.571	97.809	92.784	102.023
17:53	JC91111-1	98.83	105.659	95.76	95.364	100.892	99.889	93.718	102.486
17:58	MP16329-SD1	101.097	101.575	100.114	99.451	101.348	101.402	98.853	102.977
18:03	MP16329-PS1	99.086	105.652	95.896	96.618	101.267	98.96	94.605	102.114
18:08	MA47084-CCVA5	99.559	101.024	98.776	98.473	99.794	100.428	97.997	102.156
18:13	MA47084-CCB4	99.598	100.061	98.36	98.963	102.346	100.618	97.532	100.763
18:18	ZZZZZZ	102.242	106.702	97.916	96.805	100.92	101.558	96.172	104.602
18:23	ZZZZZZ	101.614	105.883	96.705	96.624	101.675	100.596	94.691	103.854
18:28	ZZZZZZ	98.516	106.025	95.619	96.036	101.304	99.774	93.89	102.81
18:33	ZZZZZZ	98.281	105.683	94.521	95.193	101.047	98.775	92.941	102.684
18:38	ZZZZZZ	98.805	105.807	95.36	95.831	100.75	99.149	93.633	104.261
18:43	ZZZZZZ	99.854	107.169	95.276	95.878	101.613	99.653	94.106	104.178
18:48	ZZZZZZ	98.833	106.387	95.481	95.593	101.609	99.617	92.77	103.784
18:53	JC91275-1	97.072	106.023	95.01	94.654	101.229	99.224	92.809	104.271
18:58	MA47084-CCVA6	95.689	98.822	94.979	95.335	99.061	98.141	94.721	102.269
19:03	MA47084-CCB5	97.495	99.966	97.861	98.867	101.91	99.951	97.328	101.724
19:09	JC91275-2	94.759	103.029	93.031	93.114	98.512	96.875	90.69	101.892
19:13	JC91275-3	97.271	104.978	94.476	94.919	100.469	98.414	93.534	102.167
19:19	MP16333-MB1	103.298	108.866	102.113	102.166	105.924	104.194	99.111	105.462
19:24	MP16333-B2	98.918	105.346	99.009	97.942	102.677	100.922	95.063	103.74
19:29	MP16333-S3	98.174	104.419	93.722	94.14	98.826	98.166	92.453	102.199
19:34	MP16333-S4	98.903	104.334	93.588	94.27	98.847	98.228	92.673	103.048
19:39	JC91206-1	97.669	103.835	93.441	93.684	99.578	98.452	92.543	102.055

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Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
19:44	MP16333-SD1	99.922	99.119	96.724	97.264	98.982	99.802	97.224	101.17
19:49	MA47084-CCVA7	96.968	98.174	95.347	95.363	97.508	98.134	95.105	100.27
19:54	MA47084-CCB6	96.857	98.44	96.583	96.731	100.573	98.719	96.337	98.844
19:59	ZZZZZZ	96.998	101.699	91.435	91.495	96.762	96.63	91.028	101.059
20:04	ZZZZZZ	93.248	99.122	89.811	89.953	96.133	94.741	88.567	99.974
20:09	ZZZZZZ	91.987	99.885	89.342	89.961	95.609	93.719	88.563	99.204
20:14	ZZZZZZ	91.897	100.16	88.823	89.503	95.798	94.085	87.738	99.258
20:19	ZZZZZZ	93.025	99.379	87.293	87.172	92.416	93.192	87.202	99.255
20:24	ZZZZZZ	93.935	102.274	91.505	91.481	97.041	95.99	89.822	100.845
20:29	ZZZZZZ	92.195	100.287	91.025	90.44	96.142	95.566	88.787	99.996
20:34	ZZZZZZ	91.392	99.57	87.893	88.809	95.411	93.267	87.491	98.44
20:39	MA47084-CCVA8	92.54	95.184	91.124	91.816	94.877	94.933	91.575	99.393
20:44	MA47084-CCB7	85.648	94.993	93.968	85.351	96.6	95.869	84.026	98.212
20:49	ZZZZZZ	92.413	100.95	92.234	92.177	99.18	95.218	89.587	98.911
20:54	ZZZZZZ	91.204	88.458	87.213	87.445	87.503	92.114	91.184	96.338
20:59	ZZZZZZ	90.889	96.947	86.481	87.1	92.329	92.467	87.737	98.124
21:04	MP16329-MB1	93.83	95.682	94.588	94.305	98.141	96.698	93.576	99.366
21:09	ZZZZZZ	92.507	95.293	93.469	92.739	97.948	95.97	92.56	98.407
21:14	ZZZZZZ	91.228	94.071	92.548	93.1	98.22	94.504	92.27	96.337
21:19	MA47084-CCVA9	90.937	92.556	90.049	90.202	93.299	93.549	90.091	97.303
21:24	MA47084-CCB8	92.039	93.492	94.799	93.072	96.367	97.411	91.671	100.465
21:29	MP16335A-MB1	90.688	98.69	91.427	90.925	97.961	94.416	88.226	98.231
21:34	MP16335A-B1	91.351	89.301	91.447	91.262	92.502	93.285	92.506	96.308
21:39	MP16335A-S1	90.657	88.574	89.367	90.588	91.718	92.148	91.624	94.732
21:44	MP16335A-S2	90.616	89.542	89.432	89.775	91.209	92.343	90.601	95.388
21:49	JC89030-3AR	87.551	95.618	86.855	86.74	93.205	90.688	85.232	95.279
21:55	MP16335A-SD1	87.546	88.825	87.133	89.427	92.326	90.781	89.694	93.189
22:00	ZZZZZZ	88.094	95.93	86.437	86.965	93.989	89.817	85.956	95.19
22:05	ZZZZZZ	87.805	96.182	85.492	86.7	93.707	89.869	84.911	96.251
22:10	ZZZZZZ	87.486	88.218	87.302	88.01	92.876	89.591	87.431	92.541
22:15	ZZZZZZ	88.473	89.366	87.879	89.239	93.125	90.786	88.339	93.188
22:20	MA47084-CCVA10	89.973	90.588	88.744	88.42	91.698	91.176	88.935	94.395
22:25	MA47084-CCB9	88.53	89.793	90.595	90.029	93.669	91.974	89.721	94.366

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
22:30	ZZZZZZ	89.721	91.209	90.422	91.242	94.434	92.337	90.796	93.866
22:35	ZZZZZZ	90.844	91.632	90.767	91.228	94.28	93.152	91.203	95.156
22:40	ZZZZZZ	91.353	91.769	90.153	91.45	94.479	92.577	90.962	94.916

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#9	Germanium (74-2)	70-130 %	70-130 %
Istd#10	Germanium (74-3)	70-130 %	70-130 %
Istd#11	Rhodium (103-1)	70-130 %	70-130 %
Istd#12	Rhodium (103-2)	70-130 %	70-130 %
Istd#13	Rhodium (103-3)	70-130 %	70-130 %
Istd#14	Indium (115-1)	70-130 %	70-130 %
Istd#15	Indium (115-2)	70-130 %	70-130 %
Istd#16	Terbium (159-1)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
14:05	MA47084-STD1	100	100	100	100	100	100
14:10	MA47084-STD2	100	100	100	100	100	100
14:16	MA47084-STD3	100.742	101.23	100.651	100.617	100.024	99.818
14:21	MA47084-STD4	100.218	101.561	100.564	100.618	100.945	99.824
14:26	MA47084-STD5	100.321	100.433	101.702	100.68	101.112	100.355
14:31	MA47084-STD6	99.493	99.864	99.761	99.639	100.054	99.366
14:36	MA47084-STD7	99.208	99.337	98.599	98.642	99.455	98.608
14:41	MA47084-STD8	99.569	100.405	99.415	99.408	98.946	99.002
14:46	MA47084-STD9	101.222	100.574	100.168	101.307	99.829	101.111
14:51	MA47084-STD10	101.686	100.285	100.539	101.948	98.457	99.067
14:56	MA47084-STD11	102.503	100.193	100.841	102.913	96.522	97.707
15:01	MA47084-STD12	100	100	100	100	100	100
15:06	MA47084-ICVA1	98.203	97.884	99.084	97.735	96.661	96.728
15:11	MA47084-ICV1	98.28	98.855	98.008	97.741	98.672	99.171
15:16	MA47084-ICB1	98.887	98.863	99.471	98.975	99.293	98.831
15:21	MA47084-CCVA1	98.126	98.117	99.068	97.698	97.345	96.696
15:26	MA47084-CCB1	97.811	99.208	98.082	96.941	98.39	98.439
15:31	MA47084-CRI1	99.047	99.161	98.103	98.002	98.815	98.713
15:36	MA47084-ICSA1	87.518	88.909	89.618	86.87	84.088	82.7
15:41	MA47084-ICSAB1	87.326	89.366	89.219	87.164	85.055	82.254
15:46	ZZZZZZ	94.103	98.123	94.997	93.036	97.498	95.93
15:51	ZZZZZZ	88.028	90.015	91.017	87.611	86.061	83.8
16:01	ZZZZZZ	No results reported for the elements associated with this internal standard.					
16:06	MA47084-CCVA2	96.76	100.472	101.649	96.71	100.233	97.74
16:11	ZZZZZZ	97.529	101.462	100.508	97.847	102.82	99.904
16:16	MA47084-CCVA3	97.211	100.806	102.205	97.116	100.221	97.333
16:21	MA47084-CCB2	98.043	101.438	101.995	97.808	102.148	99.387
16:26	ZZZZZZ	96.128	101.785	111.552	105.505	101.607	96.349
16:31	ZZZZZZ	96.85	102.593	102.337	97.007	106.482	99.785
16:36	ZZZZZZ	98.574	105.252	102.571	97.499	102.862	98.604
16:41	MP16289A-PS1	98.521	101.031	111.123	105.653	103.457	99.181
16:46	ZZZZZZ	98.534	102.632	103.823	98.706	105.337	101.685
16:51	ZZZZZZ	100.173	104.472	103.428	100.435	103.411	99.47

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
16:56	ZZZZZZ	99.486	102.618	105.686	100.332	104.937	100.972
17:01	ZZZZZZ	97.711	101.814	104.634	99.619	103.158	99.629
17:06	ZZZZZZ	97.205	104.593	103.833	97.73	105.238	98.792
17:13	ZZZZZZ	98.408	104.608	104.76	98.054	104.158	98.313
17:18	MA47084-CCVA4	97.846	101.303	102.463	97.906	99.939	96.462
17:23	MA47084-CCB3	98.962	101.706	93	98.804	93.375	99.591
17:28	ZZZZZZ	97.943	97.646	103.523	98.126	99.839	95.78
17:33	ZZZZZZ	98.632	103.86	104.896	98.875	105.174	99.715
17:38	MP16329-B2	97.059	103.713	104.044	97.086	101.104	96.637
17:43	MP16329-S3	96.147	102.8	102.001	95.657	98.345	94.072
17:48	MP16329-S4	96.017	103.107	102.604	96.191	99.771	94.029
17:53	JC91111-1	96.745	103.936	102.933	96.584	100.459	94.672
17:58	MP16329-SD1	98.711	101.314	102.59	98.564	102.163	99.692
18:03	MP16329-PS1	96.973	103.448	103.549	96.465	99.985	95.28
18:08	MA47084-CCVA5	98.173	100.694	102.665	98.188	99.577	96.515
18:13	MA47084-CCB4	97.217	101.571	100.323	97.72	100.19	97.747
18:18	ZZZZZZ	98.064	103.893	105.286	97.672	101.92	96.195
18:23	ZZZZZZ	98.355	104.442	104.991	99.208	99.91	95.917
18:28	ZZZZZZ	97.424	104.084	103.862	96.94	100.872	94.893
18:33	ZZZZZZ	96.126	104.405	103.498	97.035	100.25	95.06
18:38	ZZZZZZ	96.598	104.613	104.297	96.793	100.671	94.968
18:43	ZZZZZZ	98.029	105.285	104.765	97.871	100.432	95.429
18:48	ZZZZZZ	96.834	105.545	104.509	97.188	102.046	95.526
18:53	JC91275-1	96.07	105.757	104.608	96.307	101.536	94.025
18:58	MA47084-CCVA6	96.968	101.667	102.677	97.548	100.361	96.751
19:03	MA47084-CCB5	97.941	102.242	101.588	96.619	101.784	98.259
19:09	JC91275-2	95.105	102.646	102.517	94.593	99.969	93.101
19:13	JC91275-3	96.916	102.816	103.042	96.818	100.732	95.893
19:19	MP16333-MB1	99.377	105.548	105.527	99.219	104.358	99.039
19:24	MP16333-B2	97.535	104.661	105.257	98.12	102.587	96.302
19:29	MP16333-S3	94.988	103.152	103.466	95.827	98.458	92.345
19:34	MP16333-S4	95.495	102.834	103.314	96.697	98.844	92.932
19:39	JC91206-1	95.436	102.769	102.53	95.976	98.225	93.387

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
19:44	MP16333-SD1	98.159	101.786	102.173	97.741	101.785	98.655
19:49	MA47084-CCVA7	96.301	100.474	101.51	96.772	98.264	95.107
19:54	MA47084-CCB6	96.459	100.423	98.961	96.139	99.38	96.59
19:59	ZZZZZZ	94.565	101.888	102.63	95.592	97.881	92.587
20:04	ZZZZZZ	93.041	101.309	101.105	93.644	96.994	90.902
20:09	ZZZZZZ	92.789	100.912	99.632	92.311	96.184	90.551
20:14	ZZZZZZ	92.709	100.693	99.862	93.238	96.054	90.432
20:19	ZZZZZZ	92.575	99.975	99.729	93.273	92.341	86.483
20:24	ZZZZZZ	94.54	102.116	101.535	95.102	97.946	92.031
20:29	ZZZZZZ	93.091	101.422	101.119	92.996	97.237	90.819
20:34	ZZZZZZ	91.905	101.486	99.954	92.826	96.403	90.324
20:39	MA47084-CCVA8	94.534	99.024	100.039	94.471	98.38	93.44
20:44	MA47084-CCB7	85.796	98.317	98.896	85.731	99.032	86.874
20:49	ZZZZZZ	93.293	100.902	99.752	92.781	100.787	94.088
20:54	ZZZZZZ	93.814	95.744	97.651	93.581	92.126	90.113
20:59	ZZZZZZ	92.589	100.846	99.311	93.009	94.38	88.828
21:04	MP16329-MB1	95.382	100.058	99.599	95.918	99.589	96.576
21:09	ZZZZZZ	94.309	99.432	98.612	94.284	99.276	95.801
21:14	ZZZZZZ	93.632	99.414	97.526	93.083	98.661	94.839
21:19	MA47084-CCVA9	93.607	97.846	97.965	93.459	96.272	92.244
21:24	MA47084-CCB8	93.938	98.083	99.089	93.498	99.217	94.621
21:29	MP16335A-MB1	92.773	100.834	98.957	93.062	100.993	95.317
21:34	MP16335A-B1	94.353	95.961	97.519	93.725	97.394	95.113
21:39	MP16335A-S1	93.518	95.598	95.267	93.969	96.332	94.061
21:44	MP16335A-S2	93.088	96.093	96.177	93.072	95.45	94.018
21:49	JC89030-3AR	90.434	98.534	96.443	90.882	97.422	91.604
21:55	MP16335A-SD1	92.138	95.845	93.975	92.558	94.677	93.286
22:00	ZZZZZZ	90.714	99.469	96.985	90.673	95.498	90.782
22:05	ZZZZZZ	90.837	99.275	97.912	91.666	95.303	90.49
22:10	ZZZZZZ	90.093	95.904	92.946	90.323	94.786	91.626
22:15	ZZZZZZ	90.862	95.888	93.366	91.017	95.325	92.748
22:20	MA47084-CCVA10	92.003	96.193	95.276	91.989	93.361	91.237
22:25	MA47084-CCB9	91.834	96.223	94.602	92.218	94.744	93.692

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
Analyst: SN Run ID: MA47084
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
22:30	ZZZZZZ	92.207	96.371	93.858	91.537	95.307	93.068
22:35	ZZZZZZ	93.286	96.609	95.329	92.857	96.012	93.75
22:40	ZZZZZZ	92.814	96.734	95.482	92.268	95.329	93.613

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#17	Terbium (159-2)	70-130 %	70-130 %
Istd#18	Terbium (159-3)	70-130 %	70-130 %
Istd#19	Holmium (165-1)	70-130 %	70-130 %
Istd#20	Holmium (165-2)	70-130 %	70-130 %
Istd#21	Bismuth (209-1)	70-130 %	70-130 %
Istd#22	Bismuth (209-2)	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47084 Units: ug/l

Time: / Sample ID:				15:16 ICB1		15:26 CCB1		16:21 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	-0.00197	<1.5	0.0241	<1.5	0.00592	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47084 Units: ug/l

Time: / Sample ID:				17:23 CCB3		18:13 CCB4		19:03 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.0369	<0.50	0.0298	<1.5	0.0293	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47084 Units: ug/l

Time: / Sample ID:				19:54 CCB6		20:44 CCB7		21:24 CCB8	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.0382	<0.50	0.0401	<0.50	0.0214	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47084 Units: ug/l

Time:		15:06			15:11			15:21	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	60	61.0	101.7				50	49.7	99.4
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47084 Units: ug/l

Time:		16:06			16:16			17:18	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	50	51.7	103.4	50	51.3	102.6	50	50.5	101.0
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47084 Units: ug/l

Time:		18:08			18:58			19:49	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	50	49.7	99.4	50	49.7	99.4	50	49.3	98.6
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47084 Units: ug/l

Time:		20:39			21:19	
Sample ID:	CCVA	CCVA8		CCVA	CCVA9	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	50	50.5	101.0	50	50.2	100.4
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Magnesium						
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium	anr					
Tin	anr					
Titanium						
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA47084 Units: ug/l

Time:			15:31	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25	anr	
Antimony	2.0	0.25	anr	
Arsenic	0.50	0.50	0.520	104.0
Barium	1.0	0.50	anr	
Beryllium	0.50	0.25	anr	
Boron	25	2.5		
Cadmium	0.50	0.25	anr	
Calcium	250	125		
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25	anr	
Copper	2.0	2.0	anr	
Iron	25	25	anr	
Lead	0.50	0.25	anr	
Magnesium	250	125		
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50	anr	
Nickel	1.0	2.0	anr	
Potassium	250	125		
Selenium	0.50	0.50	anr	
Silver	0.50	1.0	anr	
Sodium	250	125		
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50	anr	
Titanium	1.0	0.50		
Vanadium	1.0	2.0	anr	
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071119M2L.CSV Date Analyzed: 07/11/19 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA47084 Units: ug/l

Time:			15:36		15:41	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	100000	100.0	96300	96.3
Antimony			0.160		0.124	
Arsenic		20	0.0810		19.7	98.5
Barium			0.292		0.251	
Beryllium			0.00373		0.00182	
Boron		50	4.80		53.9	107.8
Cadmium		20	-0.452		18.3	91.5
Calcium	100000	100000	96800	96.8	94900	94.9
Chromium		20	0.252		20.4	102.0
Cobalt		20	0.220		19.7	98.5
Copper		20	0.225		24.1	120.5*(a
Iron	100000	100000	96800	96.8	94500	94.5
Lead			0.0994		0.517	
Magnesium	100000	100000	97700	97.7	93500	93.5
Manganese		20	0.391		20.3	101.5
Molybdenum	2000	2000	2090	104.5	2050	102.5
Nickel		20	0.621		21.3	106.5
Potassium	100000	100000	101000	101.0	97700	97.7
Selenium		20	0.0490		20.2	101.0
Silver		20	0.0244		19.6	98.0
Sodium	100000	100000	97300	97.3	92600	92.6
Strontium	2000	2000	2010	100.5	1970	98.5
Thallium			0.00185		-0.000728	
Tin	2000	2000	1850	92.5	1850	92.5
Titanium	2000	2000	1910	95.5	1850	92.5
Vanadium		20	0.00541		21.4	107.0
Zinc		20	0.393		19.7	98.5

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:19	MA47091-STD1	1		STDA
10:24	MA47091-STD2	1		STDACONF
10:29	MA47091-STD3	1		STDA
10:34	MA47091-STD4	1		STDB
10:39	MA47091-STD5	1		STDC
10:44	MA47091-STD6	1		STDD
10:49	MA47091-STD7	1		STDE
10:54	MA47091-STD8	1		STDF
10:59	MA47091-STD9	1		STDG
11:04	MA47091-STD10	1		STDH
11:09	MA47091-STD11	1		STDI
11:14	MA47091-STD12	1		STDJ
11:19	ZZZZZZ	1		
11:32	MA47091-ICVA1	1		
11:37	MA47091-ICV1	1		
11:43	ZZZZZZ	1		
11:48	MA47091-ICB1	1		
11:53	MA47091-CCVA1	1		
11:58	MA47091-CCB1	1		
12:03	MA47091-CRI1	1		
12:08	MA47091-ICSA1	1		
12:13	MA47091-ICSAB1	1		
12:18	ZZZZZZ	1		
12:36	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:48	MA47091-CCVA2	1		
12:53	MA47091-CCB2	1		
12:59	ZZZZZZ	2		
13:03	ZZZZZZ	2		
13:09	MP16329-S3	10		
13:14	MP16329-S4	10		
13:19	JC91111-1	10		(sample used for QC only; not part of login JC91275)
13:24	MP16329-SD1	50		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:29	MP16329-PS1	10		
13:34	ZZZZZZ	5		
13:39	MA47091-CCVA3	1		
13:44	MA47091-CCB3	1		
13:49	ZZZZZZ	10		
13:54	ZZZZZZ	10		
13:59	ZZZZZZ	10		
14:04	ZZZZZZ	5		
14:09	ZZZZZZ	5		
14:14	ZZZZZZ	10		
14:19	JC91275-2	25		
14:24	JC91275-3	50		
---------->	Last reportable sample/prep for job JC91275			
14:29	MA47091-CCVA4	1		
14:34	MA47091-CCB4	1		
---------->	Last reportable CCB for job JC91275			
14:39	MP16333-MB1	2		
14:44	MP16333-B2	2		
14:49	MP16333-S3	2		
14:54	MP16333-S4	2		
14:59	JC91206-1	2		(sample used for QC only; not part of login JC91275)
15:04	MP16333-SD1	10		
15:09	ZZZZZZ	2		
15:14	ZZZZZZ	2		
15:19	MA47091-CCVA5	1		
15:24	MA47091-CCB5	1		
15:29	ZZZZZZ	2		
15:34	ZZZZZZ	2		
15:39	ZZZZZZ	2		
15:44	ZZZZZZ	2		
15:49	ZZZZZZ	2		
15:54	ZZZZZZ	2		
15:59	ZZZZZZ	2		
16:04	ZZZZZZ	25		
16:09	MA47091-CCVA6	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:15	MA47091-CCB6	1		
16:20	ZZZZZZ	2		
16:25	MP16333-S3	5		
16:30	MP16333-S4	5		
16:35	JC91206-1	5		(sample used for QC only; not part of login JC91275)
16:40	MP16333-SD1	25		
16:45	MP16340A-MB1	2		
16:50	ZZZZZZ	2		
16:55	ZZZZZZ	2		
17:00	MA47091-CCVA7	1		
17:05	MA47091-CCB7	1		
17:10	MP16340A-B2	2		
17:15	MP16340A-S3	2		
17:20	MP16340A-S4	2		
17:25	JC91344-4	2		(sample used for QC only; not part of login JC91275)
17:30	MP16340A-SD1	10		
17:35	ZZZZZZ	2		
17:40	ZZZZZZ	2		
17:45	ZZZZZZ	2		
17:50	MA47091-CCVA8	1		
17:55	MA47091-CCB8	1		
18:00	ZZZZZZ	2		
18:05	ZZZZZZ	2		
18:10	ZZZZZZ	2		
18:15	ZZZZZZ	2		
18:20	ZZZZZZ	2		
18:25	ZZZZZZ	2		
18:30	MP16347-MB1	1		
18:35	MP16347-B1	1		
18:40	MA47091-CCVA9	1		
18:45	MA47091-CCB9	1		
18:50	MP16347-S1	1		
18:55	MP16347-S2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:00	JC90694-3R	1		(sample used for QC only; not part of login JC91275)
19:05	MP16347-S3	1		
19:10	MP16347-S4	1		
19:15	JC90694-3FR	1		(sample used for QC only; not part of login JC91275)
19:20	ZZZZZZ	1		
19:25	ZZZZZZ	1		
19:31	MA47091-CCVA10	1		
19:36	MA47091-CCB10	1		
19:41	ZZZZZZ	1		
19:46	ZZZZZZ	1		
19:51	ZZZZZZ	1		
19:56	ZZZZZZ	1		
20:01	ZZZZZZ	1		
20:06	ZZZZZZ	1		
20:11	ZZZZZZ	1		
20:16	ZZZZZZ	1		
20:21	MA47091-CCVA11	1		
20:26	MA47091-CCB11	1		
20:31	ZZZZZZ	1		
20:36	ZZZZZZ	1		
20:41	ZZZZZZ	1		
20:46	ZZZZZZ	1		
20:51	ZZZZZZ	1		
20:56	ZZZZZZ	1		
21:01	ZZZZZZ	1		
21:06	ZZZZZZ	1		
21:11	MA47091-CCVA12	1		
21:16	MA47091-CCB12	1		
21:21	MP16348-MB1	1		
21:26	MP16348-B1	1		
21:31	MP16348-S1	1		
21:36	MP16348-S2	1		
21:41	JC90694-11R	1		(sample used for QC only; not part of login JC91275)

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:46	ZZZZZZ	1		
21:51	ZZZZZZ	1		
21:56	ZZZZZZ	1		
22:01	MA47091-CCVA13	1		
22:06	MA47091-CCB13	1		
22:11	ZZZZZZ	1		
22:17	ZZZZZZ	1		
22:22	ZZZZZZ	1		
22:27	ZZZZZZ	1		
22:32	ZZZZZZ	1		
22:37	ZZZZZZ	1		
22:42	ZZZZZZ	1		
22:47	ZZZZZZ	1		
22:52	ZZZZZZ	1		
22:57	ZZZZZZ	1		
23:02	MA47091-CCVA14	1		
23:07	MA47091-CCB14	1		
23:12	ZZZZZZ	1		
23:17	ZZZZZZ	1		
23:22	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Element: Dilution	As
11:19	ZZZZZZ	1	
11:32	MA47091-ICVA1	1	X
11:37	MA47091-ICV1	1	
11:43	ZZZZZZ	1	
11:48	MA47091-ICB1	1	X
11:53	MA47091-CCVA1	1	X
11:58	MA47091-CCB1	1	X
12:03	MA47091-CRI1	1	X
12:08	MA47091-ICSA1	1	X
12:13	MA47091-ICSAB1	1	X
12:18	ZZZZZZ	1	
12:36	ZZZZZZ	1	
12:41	ZZZZZZ	1	
12:48	MA47091-CCVA2	1	X
12:53	MA47091-CCB2	1	X
12:59	ZZZZZZ	2	
13:03	ZZZZZZ	2	
13:09	MP16329-S3	10	
13:14	MP16329-S4	10	
13:19	JC91111-1	10	(a)
13:24	MP16329-SD1	50	
13:29	MP16329-PS1	10	
13:34	ZZZZZZ	5	
13:39	MA47091-CCVA3	1	X
13:44	MA47091-CCB3	1	X
13:49	ZZZZZZ	10	
13:54	ZZZZZZ	10	
13:59	ZZZZZZ	10	
14:04	ZZZZZZ	5	
14:09	ZZZZZZ	5	
14:14	ZZZZZZ	10	
14:19	JC91275-2	25	X
14:24	JC91275-3	50	X
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Element: Dilution	As	
14:29	MA47091-CCVA4	1	X	
14:34	MA47091-CCB4	1	X	
14:39	MP16333-MB1	2	X	
14:44	MP16333-B2	2	X	
14:49	MP16333-S3	2	X	
14:54	MP16333-S4	2	X	
14:59	JC91206-1	2	X	(a)
15:04	MP16333-SD1	10	X	
15:09	ZZZZZZ	2		
15:14	ZZZZZZ	2		
15:19	MA47091-CCVA5	1	X	
15:24	MA47091-CCB5	1	X	
15:29	ZZZZZZ	2		
15:34	ZZZZZZ	2		
15:39	ZZZZZZ	2		
15:44	ZZZZZZ	2		
15:49	ZZZZZZ	2		
15:54	ZZZZZZ	2		
15:59	ZZZZZZ	2		
16:04	ZZZZZZ	25		
16:09	MA47091-CCVA6	1	X	
16:15	MA47091-CCB6	1	X	
16:20	ZZZZZZ	2		
16:25	MP16333-S3	5		
16:30	MP16333-S4	5		
16:35	JC91206-1	5		(a)
16:40	MP16333-SD1	25		
16:45	MP16340A-MB1	2	X	
16:50	ZZZZZZ	2		
16:55	ZZZZZZ	2		
17:00	MA47091-CCVA7	1	X	
17:05	MA47091-CCB7	1	X	
17:10	MP16340A-B2	2	X	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Element: Dilution	As	
17:15	MP16340A-S3	2	X	
17:20	MP16340A-S4	2	X	
17:25	JC91344-4	2	X	(a)
17:30	MP16340A-SD1	10	X	
17:35	ZZZZZZ	2		
17:40	ZZZZZZ	2		
17:45	ZZZZZZ	2		
17:50	MA47091-CCVA8	1	X	
17:55	MA47091-CCB8	1	X	
18:00	ZZZZZZ	2		
18:05	ZZZZZZ	2		
18:10	ZZZZZZ	2		
18:15	ZZZZZZ	2		
18:20	ZZZZZZ	2		
18:25	ZZZZZZ	2		
18:30	MP16347-MB1	1	X	
18:35	MP16347-B1	1	X	
18:40	MA47091-CCVA9	1	X	
18:45	MA47091-CCB9	1	X	
18:50	MP16347-S1	1	X	
18:55	MP16347-S2	1	X	
19:00	JC90694-3R	1	X	(a)
19:05	MP16347-S3	1	X	
19:10	MP16347-S4	1	X	
19:15	JC90694-3FR	1	X	(a)
19:20	ZZZZZZ	1		
19:25	ZZZZZZ	1		
19:31	MA47091-CCVA10	1	X	
19:36	MA47091-CCB10	1	X	
19:41	ZZZZZZ	1		
19:46	ZZZZZZ	1		
19:51	ZZZZZZ	1		
19:56	ZZZZZZ	1		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Element: Dilution	As	
20:01	ZZZZZZ	1		
20:06	ZZZZZZ	1		
20:11	ZZZZZZ	1		
20:16	ZZZZZZ	1		
20:21	MA47091-CCVA11	1	X	
20:26	MA47091-CCB11	1	X	
20:31	ZZZZZZ	1		
20:36	ZZZZZZ	1		
20:41	ZZZZZZ	1		
20:46	ZZZZZZ	1		
20:51	ZZZZZZ	1		
20:56	ZZZZZZ	1		
21:01	ZZZZZZ	1		
21:06	ZZZZZZ	1		
21:11	MA47091-CCVA12	1	X	
21:16	MA47091-CCB12	1	X	
21:21	MP16348-MB1	1	X	
21:26	MP16348-B1	1	X	
21:31	MP16348-S1	1	X	
21:36	MP16348-S2	1	X	
21:41	JC90694-11R	1	X	(a)
21:46	ZZZZZZ	1		
21:51	ZZZZZZ	1		
21:56	ZZZZZZ	1		
22:01	MA47091-CCVA13	1	X	
22:06	MA47091-CCB13	1	X	
22:11	ZZZZZZ	1		
22:17	ZZZZZZ	1		
22:22	ZZZZZZ	1		
22:27	ZZZZZZ	1		
22:32	ZZZZZZ	1		
22:37	ZZZZZZ	1		
22:42	ZZZZZZ	1		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Element: Dilution	As
22:47	ZZZZZZ	1	
22:52	ZZZZZZ	1	
22:57	ZZZZZZ	1	
23:02	MA47091-CCVA14	1	X
23:07	MA47091-CCB14	1	X
23:12	ZZZZZZ	1	
23:17	ZZZZZZ	1	
23:22	ZZZZZZ	1	

(a) Sample used for QC only; not part of login JC91275.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
10:19	MA47091-STD1	100	100	100	100	100	100	100	100
10:24	MA47091-STD2	100	100	100	100	100	100	100	100
10:29	MA47091-STD3	100	100	100	100	100	100	100	100
10:34	MA47091-STD4	99.682	99.103	98.875	99.256	99.68	99.578	100.325	99.818
10:39	MA47091-STD5	98.963	99.63	99.528	100.199	99.235	99.214	101.443	99.471
10:44	MA47091-STD6	98.888	98.651	100.08	101.319	99.539	100.331	101.463	99.012
10:49	MA47091-STD7	98.471	98.588	99.208	100.302	98.923	98.342	100.172	98.353
10:54	MA47091-STD8	98.117	97.736	99.489	100.297	98.181	98.246	99.542	99.046
10:59	MA47091-STD9	98.199	97.718	98.775	100.496	98.074	99.552	100.821	98.751
11:04	MA47091-STD10	101.144	101.088	103.357	102.329	102.326	103.635	103.134	102.635
11:09	MA47091-STD11	102.959	102.691	106.549	104.508	102.968	105.736	104.95	102.971
11:14	MA47091-STD12	104.587	105.473	108.215	105.704	104.757	105.7	104.543	103.105
11:19	ZZZZZZ	106.248	107.584	110.182	106.622	107.653	110.397	106.215	107.411
11:32	MA47091-ICVA1	105.308	106.785	108.746	104.727	106.129	108.836	104.081	106.443
11:37	MA47091-ICV1	105.401	104.926	108.542	105.742	105.393	108.279	105.935	105.486
11:43	ZZZZZZ	106.918	105.717	108.432	105.568	105.715	109.851	106.077	106.66
11:48	MA47091-ICB1	106.899	106.041	110.211	105.915	106.341	110.14	106.975	106.384
11:53	MA47091-CCVA1	104.765	105.344	107.902	105.244	104.857	105.807	103.606	105.435
11:58	MA47091-CCB1	104.283	104.519	108.401	104.931	104.271	107.633	105.57	105.454
12:03	MA47091-CRI1	105.725	106.727	109.677	106.343	106.611	109.09	105.236	106.705
12:08	MA47091-ICSA1	92.706	95.08	96.37	96.033	95.549	96.118	91.547	93.222
12:13	MA47091-ICSAB1	85.956	90.376	93.235	95.187	93.012	93.188	91.686	90.322
12:18	ZZZZZZ	84.406	90.617	92.462	99.866	94.496	97.285	101.413	95.043
12:36	ZZZZZZ	87.624	92.053	94.957	98.142	94.829	96.622	93.947	92.103
12:41	ZZZZZZ	87.563	92.794	94.806	103.268	96.981	100.448	103.384	97.598
12:48	MA47091-CCVA2	93.104	97.827	100.324	105.877	101.134	102.828	104.18	101.434
12:53	MA47091-CCB2	95.041	99.515	102.755	108.541	102.987	104.932	108.564	102.936
12:59	ZZZZZZ	99.809	102.196	105.019	111.902	105.796	107.057	113.302	105.119
13:03	ZZZZZZ	101.76	104.249	105.957	114.375	106.464	106.28	115.42	107.183
13:09	MP16329-S3	100.274	103.699	104.283	110.631	106.126	107.613	109.854	106.346
13:14	MP16329-S4	98.775	102.833	103.752	111.046	104.924	105.33	110.143	105.039
13:19	JC91111-1	100.307	103.633	103.922	110.416	105.792	107.484	110.243	105.404
13:24	MP16329-SD1	100.214	102.43	105.415	111.924	105.364	108.181	111.515	105.491

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
13:29	MP16329-PS1	101.627	104.572	105.881	112.824	106.693	107.536	111.098	107.363
13:34	ZZZZZZ	105.141	107.281	109.536	115.964	108.703	109.745	113.285	108.646
13:39	MA47091-CCVA3	103.336	106.413	107.756	110.881	107.52	109.39	109.922	108.443
13:44	MA47091-CCB3	102.414	103.574	105.495	110.195	105.675	108.502	109.666	105.869
13:49	ZZZZZZ	105.869	107.68	111.118	115.663	109.526	111.412	113.498	109.441
13:54	ZZZZZZ	106.585	109.026	111.377	114.912	110.44	112.612	113.317	110.501
13:59	ZZZZZZ	106.29	108.399	109.855	115.359	110.096	111.91	112.064	109.546
14:04	ZZZZZZ	108.5	110.87	113.664	118.042	112.187	113.924	115.844	111.773
14:09	ZZZZZZ	108.603	110.946	113.811	117.352	111.942	112.671	114.504	112.031
14:14	ZZZZZZ	109.351	110.189	112.33	117.06	111.546	113.874	115.206	112.115
14:19	JC91275-2	109.399	111.324	115.302	118.856	111.731	115.962	115.825	112.231
14:24	JC91275-3	110.739	114.076	116.695	118.79	113.952	117.672	116.597	115.027
14:29	MA47091-CCVA4	109.519	112.903	114.654	115.772	112.739	112.674	111.923	113.193
14:34	MA47091-CCB4	106.969	109.589	112.189	115.247	110.071	112.806	112.6	109.812
14:39	MP16333-MB1	107.349	110.25	114.453	113.679	111.529	115.499	113.22	111.553
14:44	MP16333-B2	107.327	108.635	109.89	116.722	109.547	109.638	116.45	108.569
14:49	MP16333-S3	106.719	108.962	111.263	117.528	110.68	110.872	117.014	110.124
14:54	MP16333-S4	109.909	112.019	113.735	121.537	111.535	113.526	119.944	112.408
14:59	JC91206-1	111.586	114.123	115.33	122.286	112.312	112.735	119.813	113.129
15:04	MP16333-SD1	110.483	112.424	115.706	115.57	112.881	116.376	114.477	112.842
15:09	ZZZZZZ	109.828	110.682	112.469	119.782	110.379	111.958	119.869	108.853
15:14	ZZZZZZ	111.185	112.128	112.976	120.169	111.469	113.294	119.189	112.07
15:19	MA47091-CCVA5	111.834	114.705	119.458	119.031	114.324	116.501	115.09	114.843
15:24	MA47091-CCB5	115.045	116.972	120.974	120.824	116.704	121.249	117.741	117.132
15:29	ZZZZZZ	109.236	110.419	112.172	118.951	110.464	110.972	118.609	110.799
15:34	ZZZZZZ	107.736	108.649	109.604	116.996	107.01	109.201	116.012	107.934
15:39	ZZZZZZ	107.386	109.34	110.886	117.583	107.442	108.758	114.595	106.724
15:44	ZZZZZZ	109.852	111.302	113.127	120.589	110.835	113.16	117.926	110.401
15:49	ZZZZZZ	110.408	110.632	111.739	119.516	110.776	112.185	117.995	110.898
15:54	ZZZZZZ	107.721	107.498	108.022	116.377	108.813	107.397	115.258	108.623
15:59	ZZZZZZ	110.546	108.089	111.103	117.677	110.86	112.142	119.084	109.287
16:04	ZZZZZZ	104.211	106.888	110.125	107.446	106.673	109.497	104.633	106.716
16:09	MA47091-CCVA6	104.243	104.828	107.549	112.225	105.177	107.318	109.293	106.343

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:15	MA47091-CCB6	104.776	103.95	107.077	113.251	104.743	107.5	109.879	105.23
16:20	ZZZZZZ	104.967	103.832	107.657	114.318	103.42	106.584	112.569	103.591
16:25	MP16333-S3	101.168	100.127	103.541	110.479	100.771	103.444	108.185	101.892
16:30	MP16333-S4	101.652	100.077	102.928	110.521	101.309	103.967	108.223	101.588
16:35	JC91206-1	101.134	99.032	102.63	110.31	100.412	102.808	107.903	100.615
16:40	MP16333-SD1	101.309	100.376	102.699	108.339	101.72	105.387	107.072	102.083
16:45	MP16340A-MB1	103.526	99.381	101.81	111.089	101.615	104.464	112.252	101.796
16:50	ZZZZZZ	102.668	99.676	102.308	111.277	102.249	102.844	114.142	102.182
16:55	ZZZZZZ	103.63	100.217	103.804	112.639	101.877	105.559	113.875	101.886
17:00	MA47091-CCVA7	101.638	101.596	107.087	108.291	102.178	106.298	106.02	103.265
17:05	MA47091-CCB7	103.145	102.516	107.192	109.194	103.38	107.607	107.17	103.956
17:10	MP16340A-B2	105.28	103.281	107.309	113.755	103.661	106.3	112.804	104.54
17:15	MP16340A-S3	101.088	100.009	102.606	109.284	100.348	100.815	108.453	101.235
17:20	MP16340A-S4	99.423	98.679	101.632	109.454	98.334	101.252	107.84	99.661
17:25	JC91344-4	99.267	98.674	100.57	108.667	99.397	100.227	107.705	98.784
17:30	MP16340A-SD1	98.746	98.58	103.174	104.882	100.478	104.75	105.403	100.579
17:35	ZZZZZZ	103.619	100.39	103.785	110.876	102.501	104.394	112.266	102.419
17:40	ZZZZZZ	103.648	100.932	104.911	111.901	103.388	105.752	113.258	103.579
17:45	ZZZZZZ	97.476	97.938	100.815	105.965	95.505	98.653	102.158	95.197
17:50	MA47091-CCVA8	99.709	100.758	107.459	108.118	101.696	106.559	106.324	102.332
17:55	MA47091-CCB8	101.538	102.109	107.964	109.878	103.28	108.822	106.711	103.754
18:00	ZZZZZZ	98.98	100.673	102.688	108.251	98.401	99.877	105.347	98.833
18:05	ZZZZZZ	99.943	99.458	101.414	108.583	100.977	103.471	108.661	101.025
18:10	ZZZZZZ	98.531	98.176	100.424	109.149	99.324	102.099	109.021	98.699
18:15	ZZZZZZ	96.29	97.212	99.968	104.587	95.773	99.014	102.681	96.032
18:20	ZZZZZZ	101.17	98.931	104.116	112.407	100.17	105.534	111.605	100.266
18:25	ZZZZZZ	104.205	103.563	107.469	113.39	103.797	106.827	112.322	103.581
18:30	MP16347-MB1	104.964	106.733	112.635	109.696	107.916	112.149	109.127	107.677
18:35	MP16347-B1	100.681	101.998	109.449	106.326	103.173	110.598	103.96	104.763
18:40	MA47091-CCVA9	100.271	100.783	106.007	106.253	101.332	105.471	104.011	102.786
18:45	MA47091-CCB9	100.619	99.673	104.697	106.133	100.334	104.198	104.801	100.7
18:50	MP16347-S1	96.025	97.631	102.02	104.104	97.996	102.19	101.226	98.774
18:55	MP16347-S2	95.4	97.718	103.11	104.978	97.499	102.244	101.179	98.051

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
19:00	JC90694-3R	96.032	98.298	102.226	103.055	97.748	103.321	101.695	98.247
19:05	MP16347-S3	96.438	98.831	103.191	105.631	97.433	102.826	101.754	99.083
19:10	MP16347-S4	95.314	97.088	101.044	103.74	97.18	100.109	99.546	97.712
19:15	JC90694-3FR	93.753	95.748	99.902	102.045	95.745	100.509	100.596	96.307
19:20	ZZZZZZ	95.04	96.24	101.76	103.143	96.126	100.156	99.825	96.92
19:25	ZZZZZZ	94.814	96.196	100.789	102.795	96.212	100.298	99.5	96.268
19:31	MA47091-CCVA10	96.406	96.045	102.563	103.704	96.817	100.586	100.724	97.554
19:36	MA47091-CCB10	96.142	95.543	100.565	102.397	96.76	99.282	101.899	96.577
19:41	ZZZZZZ	92.689	93.606	98.907	100.135	94.485	98.701	98.947	94.661
19:46	ZZZZZZ	92.976	94.341	98.43	101.451	95.215	99.684	99.215	95.217
19:51	ZZZZZZ	92.467	94.481	98.338	101.35	95.183	100.518	99.655	95.6
19:56	ZZZZZZ	92.096	94.565	98.338	99.628	94.562	99.836	97.363	94.571
20:01	ZZZZZZ	92.758	94.376	98.576	100.209	95.114	99.748	98.291	94.812
20:06	ZZZZZZ	92.241	93.784	97.468	99.98	93.966	97.699	97.097	94.144
20:11	ZZZZZZ	91.212	92.52	96.872	99.961	93.178	99.105	98.416	93.473
20:16	ZZZZZZ	89.893	91.027	96.165	99.246	92.52	97.669	97.245	92.399
20:21	MA47091-CCVA11	93.403	93.041	98.364	100.311	94.233	98.344	100.023	94.842
20:26	MA47091-CCB11	94.055	93.905	97.177	101.006	95.831	100.377	99.812	96.009
20:31	ZZZZZZ	90.812	91.837	96.371	99.364	92.831	96.658	97.161	93.122
20:36	ZZZZZZ	90.697	90.984	95.457	98.474	93.26	97.265	97.213	93.885
20:41	ZZZZZZ	89.709	90.861	97.225	98.829	92.4	96.27	97.731	92.203
20:46	ZZZZZZ	89.426	90.986	94.626	98.93	91.123	94.839	95.993	91.434
20:51	ZZZZZZ	89.539	91.187	94.575	98.101	91.952	95.707	95.982	91.97
20:56	ZZZZZZ	89.28	90.27	94.402	97.035	90.996	94.68	96.264	91.251
21:01	ZZZZZZ	88.131	89.879	94.011	98.334	89.847	94.512	94.98	91.091
21:06	ZZZZZZ	89.252	90.292	94.086	97.873	91.236	96.322	95.257	90.883
21:11	MA47091-CCVA12	90.582	91.029	95.905	99.274	92.322	96.458	98.234	92.826
21:16	MA47091-CCB12	91.769	91.197	95.753	99.577	93.027	97.705	99.379	92.862
21:21	MP16348-MB1	92.177	92.393	97.675	99.484	93.882	99.436	98.769	95.023
21:26	MP16348-B1	91.701	92.291	97.4	98.961	93.611	97.231	97.73	94.669
21:31	MP16348-S1	89.131	90.455	94.72	98.157	91.555	96.658	96.568	92.514
21:36	MP16348-S2	89.351	90.846	94.67	99.809	90.634	94.358	97.81	92.734
21:41	JC90694-11R	89.174	89.949	94.842	97.875	92.125	96.872	96.722	91.92

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Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
21:46	ZZZZZZ	88.715	90.861	93.988	98.536	91.396	95.741	96.45	91.132
21:51	ZZZZZZ	87.08	90.204	94.35	95.641	89.653	93.56	92.823	89.813
21:56	ZZZZZZ	85.769	88.076	92.453	95.72	88.604	93.601	94.579	89.978
22:01	MA47091-CCVA13	87.857	89.023	93.659	97.539	90.175	94.405	96.648	91.498
22:06	MA47091-CCB13	89.055	89.345	94.157	97.35	91.501	95.634	96.978	91.473
22:11	ZZZZZZ	87.555	88.709	92.976	97.22	90.102	94.31	94.726	90.434
22:17	ZZZZZZ	88.196	89.056	94.331	96.552	90.886	94.521	95.414	90.618
22:22	ZZZZZZ	88.477	89.82	94.225	97.289	89.946	95.259	95.299	90.714
22:27	ZZZZZZ	86.575	89.066	92.369	94.66	88.1	93.217	92.085	88.914
22:32	ZZZZZZ	85.821	87.711	92.087	95.713	88.992	92.886	94.375	89.728
22:37	ZZZZZZ	86.595	86.986	91.848	95.596	88.886	94.255	95.093	89.585
22:42	ZZZZZZ	90.141	89.835	94.269	97.583	92.345	96.96	97.427	92.221
22:47	ZZZZZZ	89.447	88.92	93.88	96.91	91.018	95.011	96.47	91.514
22:52	ZZZZZZ	89.143	88.279	91.546	95.493	90.294	94.535	95.348	90.37
22:57	ZZZZZZ	87.793	87.299	91.214	95.671	89.216	94.055	95.816	89.215
23:02	MA47091-CCVA14	86.837	86.411	91.931	94.864	87.528	92.266	93.044	88.504
23:07	MA47091-CCB14	87.143	86.364	90.786	94.804	88.213	93.824	94.637	89.175
23:12	ZZZZZZ	87.322	87.651	92.066	95.605	89.065	93.045	96.18	88.394
23:17	ZZZZZZ	88.721	87.931	92.223	95.91	89.733	94.18	95.897	90.145
23:22	ZZZZZZ	87.651	87.165	92.862	95.611	89.814	94.208	95.393	90.352

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	60-125 %	60-125 %
Istd#2	Scandium (45-1)	60-125 %	60-125 %
Istd#3	Scandium (45-2)	60-125 %	60-125 %
Istd#4	Scandium (45-3)	60-125 %	60-125 %
Istd#5	Germanium (72-1)	60-125 %	60-125 %
Istd#6	Germanium (72-2)	60-125 %	60-125 %
Istd#7	Germanium (72-3)	60-125 %	60-125 %
Istd#8	Germanium (74-1)	60-125 %	60-125 %

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Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
10:19	MA47091-STD1	100	100	100	100	100	100	100	100
10:24	MA47091-STD2	100	100	100	100	100	100	100	100
10:29	MA47091-STD3	100	100	100	100	100	100	100	100
10:34	MA47091-STD4	99.218	101.121	99.006	98.91	99.959	99.461	99.921	98.259
10:39	MA47091-STD5	99.464	100.843	98.892	99.297	100.591	98.348	98.878	97.971
10:44	MA47091-STD6	100.21	101.032	99.452	99.226	100.096	98.929	99.752	98.493
10:49	MA47091-STD7	99.679	99.311	99.099	98.663	99.963	98.996	98.075	99.171
10:54	MA47091-STD8	98.645	99.649	99.022	98.581	100.189	99.159	98.808	98.313
10:59	MA47091-STD9	99.151	101.577	98.347	98.837	100.411	98.713	99.633	99.063
11:04	MA47091-STD10	103.499	103.683	99.53	101.34	101.545	100.97	103.353	100.79
11:09	MA47091-STD11	106.568	104.622	100.927	102.424	101.405	101.6	104.136	101.343
11:14	MA47091-STD12	106.891	103.521	101.545	101.843	99.783	101.226	104.393	102.629
11:19	ZZZZZZ	109.574	106.842	105.492	107.316	105.59	104.846	108.291	102.409
11:32	MA47091-ICVA1	107.52	105.199	102.755	102.774	100.132	102.788	106.268	102.743
11:37	MA47091-ICV1	109.117	104.952	104.304	106.25	104.931	103.888	107.514	102.727
11:43	ZZZZZZ	109.492	105.441	105.683	106.245	105.457	104.286	107.693	102.496
11:48	MA47091-ICB1	109.808	105.78	105.164	106.653	104.927	103.452	107.911	102.492
11:53	MA47091-CCVA1	107.094	104.692	102.18	102.352	101.24	102.524	104.94	101.555
11:58	MA47091-CCB1	107.607	105.359	103.96	105.121	104.814	103.041	107.513	101.849
12:03	MA47091-CRI1	108.91	106.39	104.086	106.124	105.1	104.689	108.376	102.729
12:08	MA47091-ICSA1	94.601	89.325	87.146	87.74	85.129	90.742	92.64	93.432
12:13	MA47091-ICSAB1	92.573	89.277	85.686	86.627	85.435	89.552	91.03	93.316
12:18	ZZZZZZ	97.921	99.934	96.248	98.583	103.141	97.105	98.387	98.527
12:36	ZZZZZZ	95.249	92.237	87.623	88.833	87.943	91.749	94.364	95.427
12:41	ZZZZZZ	100.023	102.839	99.93	100.725	105.553	101.307	101.645	102.078
12:48	MA47091-CCVA2	103.15	104.678	101.419	101.699	103.367	103.283	102.822	104.524
12:53	MA47091-CCB2	106.148	108.626	104.981	105.983	109.093	104.763	106.325	105.836
12:59	ZZZZZZ	107.589	112.75	106.34	106.967	110.561	106.301	106.04	107.56
13:03	ZZZZZZ	108.087	113.749	106.079	106.97	110.672	106.952	105.886	108.04
13:09	MP16329-S3	106.73	109.894	104.854	104.835	108.9	105.799	105.478	107.269
13:14	MP16329-S4	107.411	109.565	104.181	104.211	108.142	104.85	103.209	106.458
13:19	JC91111-1	106.687	110.138	105.216	104.178	108.503	106.152	104.346	107.182
13:24	MP16329-SD1	109.052	109.898	104.417	106.016	109.358	106.515	105.167	106.089

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
13:29	MP16329-PS1	107.932	110.203	105.203	105.085	108.908	106.159	104.754	107.118
13:34	ZZZZZZ	110.169	112.855	105.779	106.461	108.494	107.688	106.036	108.84
13:39	MA47091-CCVA3	108.984	108.247	105.667	105.255	106.315	106.864	105.905	107.694
13:44	MA47091-CCB3	107.512	108.732	104.626	106.216	109.518	105.628	105.662	107.078
13:49	ZZZZZZ	112.664	112.657	107.912	107.961	110.466	108.483	108.103	108.092
13:54	ZZZZZZ	112.55	113.469	108.122	108.767	110.543	109.22	108.116	108.086
13:59	ZZZZZZ	110.624	112.037	107.519	107.523	109.567	108.355	107.863	109.226
14:04	ZZZZZZ	113.024	114.964	109.427	108.562	110.315	109.811	109.003	110.389
14:09	ZZZZZZ	114.296	114.697	108.23	108.946	110.347	109.171	108.63	109.749
14:14	ZZZZZZ	114.36	113.42	109.304	109.821	110.73	110.141	109.394	108.898
14:19	JC91275-2	115.554	113.897	109.731	111.084	111.75	110.704	112.323	110.057
14:24	JC91275-3	117.795	114.475	112.313	113.281	112.874	111.629	113.915	111.313
14:29	MA47091-CCVA4	113.913	111.513	109.179	108.84	107.863	110.102	110.014	109.63
14:34	MA47091-CCB4	112.338	113.255	108.931	110.487	110.798	108.961	110.06	108.847
14:39	MP16333-MB1	115.338	112.18	109.833	111.364	109.963	109.878	111.906	107.521
14:44	MP16333-B2	108.487	115.368	106.762	106.558	109.064	107.166	105.867	108.511
14:49	MP16333-S3	111.702	115.663	104.318	105.307	107.203	106.651	105.83	109.074
14:54	MP16333-S4	114.301	119.045	105.849	107.076	109.034	107.857	105.844	110.623
14:59	JC91206-1	113.929	118.959	107.147	108.052	109.938	108.592	107.332	111.212
15:04	MP16333-SD1	116.923	112.66	110.315	111.277	110.512	111.577	113.262	111.432
15:09	ZZZZZZ	111.45	119.02	104.234	105.364	108.993	106.968	105.355	108.846
15:14	ZZZZZZ	112.972	118.256	105.673	105.879	109.544	108.106	106.073	110.144
15:19	MA47091-CCVA5	118.208	114.45	110.993	111.722	110.578	111.633	112.871	111.278
15:24	MA47091-CCB5	120.315	116.616	114.531	115.571	115.093	113.479	116.52	110.522
15:29	ZZZZZZ	112.717	117.112	105.048	105.625	108.8	107.441	105.642	110.516
15:34	ZZZZZZ	109.923	114.585	102.929	103.432	107.347	104.724	103.895	109.754
15:39	ZZZZZZ	107.757	112.437	100.316	100.447	102.591	104.673	102.087	106.709
15:44	ZZZZZZ	113.75	117.915	105.633	106.798	109.262	108.421	107.025	112.701
15:49	ZZZZZZ	112.397	118.466	105.164	104.497	108.69	108.608	105.811	112.363
15:54	ZZZZZZ	108.044	113.622	102.135	103	106.942	106.764	102.795	109.662
15:59	ZZZZZZ	112.16	118.285	106.786	108.089	113.302	108.75	107.12	112.233
16:04	ZZZZZZ	108.809	104.111	100.9	101.393	99.835	104.783	106.814	107.498
16:09	MA47091-CCVA6	107.926	108.78	103.97	104.779	106.918	105.167	104.855	107.826

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:15	MA47091-CCB6	108.166	109.529	105.069	106.856	109.401	105.336	107.152	107.341
16:20	ZZZZZZ	106.072	111.94	99.312	99.958	103.482	103.561	102.17	108.999
16:25	MP16333-S3	103.042	107.948	100.241	101.29	105.637	102.253	101.192	107.716
16:30	MP16333-S4	103.52	107.703	99.729	100.649	105.916	102.469	101.143	106.338
16:35	JC91206-1	102.876	107.887	99.631	100.16	104.931	102.571	100.936	107.23
16:40	MP16333-SD1	104.852	107.087	101.895	102.234	105.997	104.182	102.748	107.007
16:45	MP16340A-MB1	104.065	112.183	100.913	102.544	107.69	103.048	100.818	107.821
16:50	ZZZZZZ	103.047	112.489	100.662	102.412	108.996	102.725	100.934	106.65
16:55	ZZZZZZ	104.595	113.879	101.423	103.643	109.209	103.585	101.841	107.45
17:00	MA47091-CCVA7	106.242	106.725	100.757	103.164	104.055	102.097	104.074	106.554
17:05	MA47091-CCB7	107.453	106.665	103.367	104.571	107.388	103.915	105.333	105.439
17:10	MP16340A-B2	105.878	112.735	103.252	103.357	107.897	104.795	102.264	108.016
17:15	MP16340A-S3	102.656	107.33	95.154	95.172	99.614	98.443	97.137	106.044
17:20	MP16340A-S4	101.363	107.638	93.849	94.514	99.473	99.054	96.917	104.862
17:25	JC91344-4	100.439	107.91	94.128	94.666	100.153	98.443	97.127	105.566
17:30	MP16340A-SD1	105.235	104.334	99.062	100.921	103.186	101.769	103.661	104.437
17:35	ZZZZZZ	104.142	112.467	100.89	102.49	108.859	102.457	101.932	106.769
17:40	ZZZZZZ	105.309	112.348	102.753	103.278	108.719	104.606	102.621	107.245
17:45	ZZZZZZ	98.057	101.02	89.988	89.819	91.816	94.427	94.596	99.702
17:50	MA47091-CCVA8	106.629	106.324	100.438	102.188	103.51	101.536	105.005	104.985
17:55	MA47091-CCB8	109.284	106.658	104.018	106.033	107.589	104.27	107.552	105.423
18:00	ZZZZZZ	101.007	104.267	92.37	92.474	95.045	96.87	97.028	103.762
18:05	ZZZZZZ	103.04	108.004	99.41	100.037	104.915	101.807	101.199	107.209
18:10	ZZZZZZ	101.396	108.006	97.101	98.356	104.329	100.215	99.028	104.891
18:15	ZZZZZZ	99.208	102.725	91.032	91.805	94.847	95.929	95.425	101.846
18:20	ZZZZZZ	105.293	110.789	96.845	99.203	103.773	99.62	100.511	105.645
18:25	ZZZZZZ	106.258	112.173	99.275	101.078	104.003	102.852	102.355	107.386
18:30	MP16347-MB1	112.868	108.461	107.174	108.362	108.145	107.693	111.493	108.562
18:35	MP16347-B1	109.438	103.993	101.694	104.922	103.173	103.38	108.311	105.709
18:40	MA47091-CCVA9	105.887	104.296	99.916	100.68	102.687	101.106	103.194	105.054
18:45	MA47091-CCB9	105.403	104.57	101.143	102.64	104.751	101.873	104.502	105.154
18:50	MP16347-S1	102.63	100.54	95.007	96.207	97.609	97.89	100.774	101.672
18:55	MP16347-S2	103.836	101.85	94.993	97.241	98.076	98.494	100.407	101.127

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
19:00	JC90694-3R	102.869	100.989	96.004	97.253	98.333	99.157	102.271	104.209
19:05	MP16347-S3	104.343	101.126	95.777	97.394	98.423	98.759	101.382	105.558
19:10	MP16347-S4	102.279	99.511	94.783	96.081	98.009	99.057	100.085	104.123
19:15	JC90694-3FR	101.304	99.696	94.042	95.731	97.886	97.2	100.136	99.982
19:20	ZZZZZZ	101.051	99.802	93.608	95.89	97.477	97.892	100.523	103.04
19:25	ZZZZZZ	101.609	99.52	93.412	95.316	97.621	97.308	99.918	101.083
19:31	MA47091-CCVA10	101.242	101.218	96.576	98.043	99.725	98.823	100.776	102
19:36	MA47091-CCB10	100.571	101.567	98.396	99.542	102.995	99.451	101.975	101.313
19:41	ZZZZZZ	98.888	99.128	93.217	94.617	97.47	96.842	99.132	99.579
19:46	ZZZZZZ	100.173	98.42	92.634	95.221	96.439	97.25	99.516	100.355
19:51	ZZZZZZ	99.62	97.482	92.578	94.072	95.885	96.035	98.475	99.588
19:56	ZZZZZZ	100.115	97.831	91.566	93.432	96.686	95.632	98.692	102.547
20:01	ZZZZZZ	99.52	97.725	92.856	94.341	96.516	95.983	99.224	99.625
20:06	ZZZZZZ	98.188	96.938	91.46	92.471	94.185	95.635	97.723	101.568
20:11	ZZZZZZ	98.08	98.181	92.134	92.922	96.389	96.024	97.323	99.861
20:16	ZZZZZZ	97.443	97.013	89.88	92.528	95.651	94.075	97.865	98.867
20:21	MA47091-CCVA11	98.38	98.695	94.333	95.416	98	96.827	98.236	101.844
20:26	MA47091-CCB11	99.952	99.485	95.987	98.126	100.762	98.074	99.754	103.311
20:31	ZZZZZZ	98.06	96.214	90.37	93.072	95.053	94.212	96.927	97.699
20:36	ZZZZZZ	97.5	97.156	91.942	93.524	96.275	95.205	97.089	98.362
20:41	ZZZZZZ	97.04	96.82	90.463	92.621	95.41	93.876	96.802	99.252
20:46	ZZZZZZ	95.544	96.039	89.302	91.176	94.461	93.728	95.391	99.784
20:51	ZZZZZZ	95.907	96.01	89.512	91.461	94.802	94.472	95.242	98.021
20:56	ZZZZZZ	95.318	95.311	89.256	91.062	95.538	93.721	95.347	97.315
21:01	ZZZZZZ	94.415	95.016	88.741	90.347	93.475	93.713	94.993	96.986
21:06	ZZZZZZ	96.702	95.953	90.375	91.473	95.241	93.91	97.653	99.497
21:11	MA47091-CCVA12	96.788	98.284	92.521	93.271	96.785	94.471	97.015	100.761
21:16	MA47091-CCB12	98.145	98.982	94.187	96.669	100.122	96.306	98.631	100.94
21:21	MP16348-MB1	99.363	99.171	95.602	97.222	100.903	97.025	100.107	101.404
21:26	MP16348-B1	98.49	97.484	94.475	95.77	97.784	96.155	98.922	99.989
21:31	MP16348-S1	96.15	96.152	90.679	91.777	94.808	94.317	96.228	98.437
21:36	MP16348-S2	95.464	97.866	90.231	92.186	95.255	93.659	95.151	97.509
21:41	JC90694-11R	96.296	96.162	90.713	92.549	95.525	94.301	96.946	97.936

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Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
21:46	ZZZZZZ	95.942	95.314	90.207	91.771	95.004	94.202	96.757	98.891
21:51	ZZZZZZ	94.376	92.765	86.212	87.47	89.702	91.436	93.926	97.693
21:56	ZZZZZZ	95.441	94.949	88.104	89.805	93.499	92.717	95.278	96.429
22:01	MA47091-CCVA13	94.097	96.362	90.411	92.198	96.194	92.901	95.475	98.155
22:06	MA47091-CCB13	95.875	97.163	92.657	94.945	98.818	94.797	97.117	99.857
22:11	ZZZZZZ	95.099	95.865	89.935	91.313	95.199	93.467	96.023	97.794
22:17	ZZZZZZ	96.145	95.636	89.723	91.538	94.46	93.327	95.193	96.469
22:22	ZZZZZZ	94.619	95.03	89.045	91.127	95.622	93.438	95.632	97.383
22:27	ZZZZZZ	93.611	91.117	85.705	87.552	89.666	90.789	93.536	95.551
22:32	ZZZZZZ	94.097	93.677	87.733	90.058	92.715	92.228	94.862	95.541
22:37	ZZZZZZ	94.088	95.205	88.607	90.719	94.859	91.571	95.315	97.04
22:42	ZZZZZZ	96.568	97.984	93.642	95.109	98.918	95.634	97.726	96.629
22:47	ZZZZZZ	96.203	96.372	92.922	94.179	98.913	94.906	96.326	97.034
22:52	ZZZZZZ	95.287	95.299	92.391	93.886	98.042	92.794	96.598	96.701
22:57	ZZZZZZ	94.153	94.368	91.205	92.898	97.93	93.026	94.983	95.646
23:02	MA47091-CCVA14	92.114	94.057	88.255	90.731	93.496	91.641	92.716	94.835
23:07	MA47091-CCB14	93.528	94.374	90.291	92.398	97.302	92.095	94.188	96.319
23:12	ZZZZZZ	93.57	94.937	90.767	92.797	97.664	92.653	95.395	96.709
23:17	ZZZZZZ	94.274	95.659	91.233	92.877	97.707	93.615	95.428	96.488
23:22	ZZZZZZ	93.746	95.303	90.817	93.193	97.418	93.222	95.713	95.136

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#9	Germanium (74-2)	60-125 %	60-125 %
Istd#10	Germanium (74-3)	60-125 %	60-125 %
Istd#11	Rhodium (103-1)	60-125 %	60-125 %
Istd#12	Rhodium (103-2)	60-125 %	60-125 %
Istd#13	Rhodium (103-3)	60-125 %	60-125 %
Istd#14	Indium (115-1)	60-125 %	60-125 %
Istd#15	Indium (115-2)	60-125 %	60-125 %
Istd#16	Terbium (159-1)	60-125 %	60-125 %

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Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
10:19	MA47091-STD1	100	100	100	100	100	100
10:24	MA47091-STD2	100	100	100	100	100	100
10:29	MA47091-STD3	100	100	100	100	100	100
10:34	MA47091-STD4	100.185	100.543	98.427	100.128	98.925	99.402
10:39	MA47091-STD5	99.03	100.157	98.143	99.51	99.336	99.767
10:44	MA47091-STD6	100.108	100.284	99.019	100.058	99.333	99.914
10:49	MA47091-STD7	98.973	99.901	98.691	98.573	99.56	99.312
10:54	MA47091-STD8	99.784	99.906	99.19	99.606	99.714	100.362
10:59	MA47091-STD9	100.012	100.842	99.36	100.55	99.539	99.889
11:04	MA47091-STD10	102.089	101.725	100.392	101.841	100.894	102.055
11:09	MA47091-STD11	103.072	101.768	99.927	103.688	99.292	101.921
11:14	MA47091-STD12	104.537	101.679	101.647	104.814	98.365	99.743
11:19	ZZZZZZ	105.845	103.13	102.634	105.82	103.04	104.773
11:32	MA47091-ICVA1	105.4	101.831	103.18	105.279	101.076	102.234
11:37	MA47091-ICV1	105.656	103.259	101.82	105.224	103.148	105.269
11:43	ZZZZZZ	105.633	103.063	102.904	105.942	104.183	105.197
11:48	MA47091-ICB1	106.08	103.52	102.422	106.054	103.703	105.025
11:53	MA47091-CCVA1	104.502	101.631	102.278	103.994	100.651	101.644
11:58	MA47091-CCB1	105.343	103.227	101.335	104.607	103.005	104.43
12:03	MA47091-CRI1	106.196	103.695	102.46	105.574	102.1	104.694
12:08	MA47091-ICSA1	94.482	92.432	93.992	94.592	87.72	88.267
12:13	MA47091-ICSAB1	94.395	92.944	93.372	94.764	88.355	88.035
12:18	ZZZZZZ	100.575	102.764	98.134	100.76	101.049	101.87
12:36	ZZZZZZ	97.146	94.707	96.056	97.865	91.348	91.546
12:41	ZZZZZZ	103.032	104.925	102.459	103.228	104.105	104.879
12:48	MA47091-CCVA2	104.523	104.124	103.38	104.226	104.256	104.367
12:53	MA47091-CCB2	106.451	106.612	105.282	105.615	106.358	107.133
12:59	ZZZZZZ	107.038	109.089	106.284	107.306	113.549	110.706
13:03	ZZZZZZ	107.713	109.603	108.481	107.184	109.275	107.202
13:09	MP16329-S3	105.309	107.852	106.605	105.076	108.703	106.159
13:14	MP16329-S4	104.926	107.331	105.877	104.755	106.698	104.796
13:19	JC91111-1	105.292	107.449	106.826	105.457	107.665	105.793
13:24	MP16329-SD1	104.447	106.864	105.115	105.004	107.365	104.951

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Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
13:29	MP16329-PS1	104.787	107.752	105.758	104.482	107.76	104.975
13:34	ZZZZZZ	106.695	108.618	107.45	106.567	107.529	105.823
13:39	MA47091-CCVA3	105.038	106.245	107.933	105.595	105.024	104.38
13:44	MA47091-CCB3	104.771	106.557	105.594	104.566	106.749	105.403
13:49	ZZZZZZ	106.21	108.149	107.17	106.743	107.861	106.791
13:54	ZZZZZZ	106.974	108.401	107.623	106.888	108.152	106.519
13:59	ZZZZZZ	105.922	107.843	108.068	106.272	107.541	106.533
14:04	ZZZZZZ	108.209	109.331	108.56	107.98	108.386	105.896
14:09	ZZZZZZ	108.138	109.341	108.481	107.945	108.29	106.904
14:14	ZZZZZZ	107.328	108.411	107.991	107.329	109.231	107.566
14:19	JC91275-2	109.234	108.781	108.588	109.457	108.587	108.983
14:24	JC91275-3	109.891	108.896	108.538	109.504	109.412	109.518
14:29	MA47091-CCVA4	107.898	106.48	108.216	107.219	106.647	104.555
14:34	MA47091-CCB4	106.923	107.373	107.052	106.182	107.464	106.675
14:39	MP16333-MB1	107.905	105.145	105.856	107.978	107.013	107.617
14:44	MP16333-B2	106.837	108.089	107.037	106.434	109.691	105.989
14:49	MP16333-S3	106.279	108.545	107.371	106.304	104.793	102.932
14:54	MP16333-S4	107.132	109.282	109.351	107.576	106.015	103.411
14:59	JC91206-1	107.107	110.131	109.737	108.495	106.571	103.984
15:04	MP16333-SD1	110.148	108.182	109.479	109.578	109.401	109.079
15:09	ZZZZZZ	106.726	110.144	107.631	108.267	105.897	103.046
15:14	ZZZZZZ	107.159	110.216	108.755	106.327	106.027	102.611
15:19	MA47091-CCVA5	109.502	108.395	110.195	110.135	108.126	107.316
15:24	MA47091-CCB5	110.94	109.77	109.587	110.971	109.413	109.706
15:29	ZZZZZZ	106.276	109.548	108.795	106.901	106.38	103.144
15:34	ZZZZZZ	105.339	108.545	107.754	105.96	104.428	101.244
15:39	ZZZZZZ	104.997	106.421	106.877	106.162	100.942	97.412
15:44	ZZZZZZ	108.062	110.457	109.077	107.981	106.51	103.582
15:49	ZZZZZZ	106.428	110.682	109.939	106.274	106.76	102.542
15:54	ZZZZZZ	103.964	109.591	108.41	104.498	106.309	101.989
15:59	ZZZZZZ	106.715	111.907	108.814	107.449	109.505	106.424
16:04	ZZZZZZ	106.621	104.526	106.071	106.953	100.49	100.96
16:09	MA47091-CCVA6	105.315	107.225	107.137	105.876	106.697	104.815

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
16:15	MA47091-CCB6	105.459	107.855	105.248	105.661	108.069	106.079
16:20	ZZZZZZ	103.929	107.653	107.399	105.405	104.02	100.605
16:25	MP16333-S3	104.198	108.084	105.009	103.845	105.883	102.928
16:30	MP16333-S4	102.993	108.009	104.544	103.02	104.844	102.441
16:35	JC91206-1	102.225	107.394	104.84	102.201	105.82	102.659
16:40	MP16333-SD1	102.997	106.74	103.718	103.625	106.773	104.765
16:45	MP16340A-MB1	102.357	108.094	105.167	103.134	107.612	103.444
16:50	ZZZZZZ	103.115	109.018	105.249	103.113	106.216	103.515
16:55	ZZZZZZ	103.064	109.703	105.558	104.202	107.592	103.959
17:00	MA47091-CCVA7	104.331	106.139	103.851	104.305	104.136	103.659
17:05	MA47091-CCB7	104.319	106.832	104.49	104.6	106.179	104.948
17:10	MP16340A-B2	104.097	108.746	106.196	104.147	106.331	103.187
17:15	MP16340A-S3	101.642	105.43	104.964	102.307	99.019	95.936
17:20	MP16340A-S4	100.829	105.16	103.554	102.042	98.465	95.865
17:25	JC91344-4	100.528	105.76	102.621	100.97	98.508	95.889
17:30	MP16340A-SD1	103.395	104.827	103.525	104.642	105.026	104.268
17:35	ZZZZZZ	102.538	108.431	105.179	103.258	107.28	103.429
17:40	ZZZZZZ	103.211	108.229	105.111	103.489	106.34	103.864
17:45	ZZZZZZ	98.07	98.92	99.054	98.546	91.041	88.834
17:50	MA47091-CCVA8	104.766	105.297	104.082	106.045	103.22	104.168
17:55	MA47091-CCB8	105.674	106.525	103.67	105.806	105.573	106.122
18:00	ZZZZZZ	100.428	101.697	102.075	101.102	94.86	92.161
18:05	ZZZZZZ	102.565	106.837	104.614	103.872	103.079	102.89
18:10	ZZZZZZ	102.208	106.763	103.183	102.715	103.496	100.774
18:15	ZZZZZZ	98.388	101.247	101.157	99.951	94.514	92.707
18:20	ZZZZZZ	103.554	106.946	104.304	104.576	101.832	100.038
18:25	ZZZZZZ	104.867	107.029	105.861	105.226	101.808	100.584
18:30	MP16347-MB1	107.332	105.894	104.511	108.388	107.338	108.255
18:35	MP16347-B1	107.3	104.555	103.366	107.539	104.207	105.636
18:40	MA47091-CCVA9	104.559	104.372	103.368	104.045	101.886	101.447
18:45	MA47091-CCB9	103.05	104.694	101.942	103.221	103.725	104.03
18:50	MP16347-S1	101.425	102.446	101.18	102.721	98.832	98.349
18:55	MP16347-S2	102.31	103.364	101.007	102.471	98.521	99.321

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
19:00	JC90694-3R	103.026	103.085	101.824	103.428	99.544	99.432
19:05	MP16347-S3	102.984	102.993	102.214	104.137	98.839	99.057
19:10	MP16347-S4	101.998	102.793	101.514	102.588	99.668	99.08
19:15	JC90694-3FR	100.515	101.535	102.026	102.22	98.712	99.273
19:20	ZZZZZZ	101.75	102.043	101.4	103.388	98.722	99.53
19:25	ZZZZZZ	100.774	102.771	100.622	102.356	98.163	98.983
19:31	MA47091-CCVA10	100.825	103.084	101.986	101.937	100.228	101.401
19:36	MA47091-CCB10	101.304	103.218	99.975	101.536	102.366	102.303
19:41	ZZZZZZ	100.091	101.809	98.811	100.462	98.401	98.664
19:46	ZZZZZZ	101.347	101.377	99.679	102.122	97.843	97.761
19:51	ZZZZZZ	100.719	101.449	99.383	100.993	98.313	97.884
19:56	ZZZZZZ	100.719	101.455	99.515	101.498	97.653	98.783
20:01	ZZZZZZ	100.458	101.572	100.432	100.884	98.496	97.843
20:06	ZZZZZZ	99.52	100.491	100.489	101.205	96.785	96.309
20:11	ZZZZZZ	100.547	101.555	99.447	101.015	98.11	97.119
20:16	ZZZZZZ	98.754	100.883	98.556	99.9	95.841	97.286
20:21	MA47091-CCVA11	100.182	101.959	99.32	100.206	98.66	98.716
20:26	MA47091-CCB11	100.004	101.68	100.317	99.947	102.112	101.227
20:31	ZZZZZZ	99.427	101.742	98.252	99.997	96.975	96.395
20:36	ZZZZZZ	99.59	100.614	99.668	100.681	98.191	98.274
20:41	ZZZZZZ	98.511	101.328	98.443	98.839	96.43	96.709
20:46	ZZZZZZ	98.09	100.833	97.306	99.48	95.862	96.088
20:51	ZZZZZZ	98.869	100.814	98.107	99.553	97.044	97.231
20:56	ZZZZZZ	97.618	100.368	98.501	98.516	97.179	96.659
21:01	ZZZZZZ	98.053	100.421	96.561	98.495	95.651	95.249
21:06	ZZZZZZ	99.256	100.981	98.444	98.481	97.109	96.371
21:11	MA47091-CCVA12	98.606	101.349	98.007	99.095	98.169	98.064
21:16	MA47091-CCB12	99.454	101.947	99.167	100.28	100.604	100.813
21:21	MP16348-MB1	100.264	102.296	98.747	100.715	102.35	103
21:26	MP16348-B1	100.469	100.759	98.582	100.759	100.22	100.509
21:31	MP16348-S1	98.727	100.872	98.217	99.502	97.753	97.472
21:36	MP16348-S2	97.949	101.178	98.006	98.564	98.388	97.366
21:41	JC90694-11R	98.74	100.457	98.285	99.162	97.959	97.415

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47091
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
21:46	ZZZZZZ	98.695	100.715	97.918	99.096	97.336	97.277
21:51	ZZZZZZ	97.641	97.965	96.446	98.248	93.06	92.584
21:56	ZZZZZZ	97.666	100.245	96.947	98.724	95.139	95.732
22:01	MA47091-CCVA13	97.093	100.528	96.838	97.736	97.344	97.166
22:06	MA47091-CCB13	97.935	101.005	96.647	98.361	99.398	99.52
22:11	ZZZZZZ	96.82	100.424	97.538	98.221	97.42	97.006
22:17	ZZZZZZ	97.801	100.18	97.251	99.037	97.467	96.951
22:22	ZZZZZZ	97.867	101.421	98.473	98.671	97.142	97.492
22:27	ZZZZZZ	96.503	97.925	95.789	97.592	92.044	92.62
22:32	ZZZZZZ	96.872	99.255	97.03	98.128	94.569	95.177
22:37	ZZZZZZ	97.686	100.213	96.434	99.203	96.806	96.669
22:42	ZZZZZZ	98.167	100.628	97.139	98.908	99.319	100.268
22:47	ZZZZZZ	97.722	100.76	97.624	97.907	99.36	99.419
22:52	ZZZZZZ	97.186	100.282	95.98	97.84	98.419	98.641
22:57	ZZZZZZ	96.615	99.821	96.02	97.293	97.868	98.466
23:02	MA47091-CCVA14	95.719	98.575	95.062	96.848	95.085	95.867
23:07	MA47091-CCB14	96.019	99.4	95.418	96.222	97.609	97.436
23:12	ZZZZZZ	96.122	99.967	95.22	96.195	97.512	98.021
23:17	ZZZZZZ	96.281	99.507	96.087	96.776	98.372	98.091
23:22	ZZZZZZ	96.871	100.004	95.979	97.457	97.257	98.042

! = Outside limits.

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Terbium (159-2)	60-125 %	60-125 %
Istd#18	Terbium (159-3)	60-125 %	60-125 %
Istd#19	Holmium (165-1)	60-125 %	60-125 %
Istd#20	Holmium (165-2)	60-125 %	60-125 %
Istd#21	Bismuth (209-1)	60-125 %	60-125 %
Istd#22	Bismuth (209-2)	60-125 %	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47091 Units: ug/l

Time: / Sample ID:				11:48 ICB1		11:58 CCB1		12:53 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.00815	<1.5	0.00612	<1.5	0.000862	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47091 Units: ug/l

Time: / Sample ID:				13:44 CCB3		14:34 CCB4	
Metal	RL	IDL	LOD	raw	final	raw	final
Aluminum	25	.28	20				
Antimony	2.0	.094	1.5				
Arsenic	0.50	.013	1.0	0.00579	<1.5	0.00448	<1.5
Barium	1.0	.008	0.50				
Beryllium	0.50	.004	0.25				
Boron	25	.65	20				
Cadmium	0.50	.004	2.0				
Calcium	250	6.1	50				
Chromium	1.0	.014	3.0				
Cobalt	0.50	.002	0.25				
Copper	2.0	.021	4.0				
Iron	25	.43	13				
Lead	0.50	.009	1.0				
Magnesium	250	.15	130				
Manganese	1.0	.007	1.0				
Molybdenum	1.0	.015	0.50				
Nickel	1.0	.017	3.0				
Potassium	250	.71	50				
Selenium	0.50	.072	0.50				
Silver	0.50	.004	0.50				
Sodium	250	1	100				
Strontium	5.0	.003	5.0				
Thallium	0.50	.004	0.50				
Tin	5.0	.071	2.5				
Titanium	1.0	.035	1.0				
Vanadium	1.0	.009	1.0				
Zinc	5.0	.029	7.5				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47091 Units: ug/l

Time:		11:32			11:37			11:53	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	60	60.5	100.8				50	49.7	99.4
Barium									
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper	anr								
Iron									
Lead									
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47091 Units: ug/l

Time:		12:48			13:39			14:29	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	50	51.4	102.8	50	50.4	100.8	50	49.9	99.8
Barium									
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper	anr								
Iron									
Lead									
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA47091 Units: ug/l

Time:			12:03	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25		
Antimony	2.0	0.25		
Arsenic	0.50	0.50	0.484	96.8
Barium	1.0	0.50		
Beryllium	0.50	0.25		
Boron	25	2.5		
Cadmium	0.50	0.25		
Calcium	250	125		
Chromium	1.0	2.0		
Cobalt	0.50	0.25		
Copper	2.0	2.0	anr	
Iron	25	25		
Lead	0.50	0.25		
Magnesium	250	125		
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50		
Nickel	1.0	2.0		
Potassium	250	125		
Selenium	0.50	0.50		
Silver	0.50	1.0		
Sodium	250	125		
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0		
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA071219M1L.CSV Date Analyzed: 07/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA47091 Units: ug/l

Time:			12:08		12:13	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	96200	96.2	93200	93.2
Antimony			0.208		0.174	
Arsenic		20	0.0541		19.8	99.0
Barium			0.265		0.240	
Beryllium			0.00309		-0.00114	
Boron		50	4.19		54.5	109.0
Cadmium		20	-0.475		18.1	90.5
Calcium	100000	100000	92100	92.1	91000	91.0
Chromium		20	0.275		20.0	100.0
Cobalt		20	0.214		19.6	98.0
Copper		20	0.152		24.0	120.0
Iron	100000	100000	92900	92.9	91800	91.8
Lead			-0.0169		0.387	
Magnesium	100000	100000	97000	97.0	93800	93.8
Manganese		20	0.375		20.4	102.0
Molybdenum	2000	2000	2130	106.5	2090	104.5
Nickel		20	0.537		21.0	105.0
Potassium	100000	100000	101000	101.0	97300	97.3
Selenium		20	0.135		19.7	98.5
Silver		20	0.0158		19.8	99.0
Sodium	100000	100000	96000	96.0	93500	93.5
Strontium	2000	2000	2050	102.5	2010	100.5
Thallium			-0.00577		-0.00275	
Tin	2000	2000	1830	91.5	1830	91.5
Titanium	2000	2000	1870	93.5	1830	91.5
Vanadium		20	0.00818		21.1	105.5
Zinc		20	-0.0818		19.4	97.0

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA47130
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:41	MA47130-STD1	1		STDA
13:46	MA47130-STD2	1		STDB
13:52	ZZZZZZ	1		
13:57	ZZZZZZ	1		
14:02	MA47130-ICV1	1		
14:07	MA47130-ICB1	1		
14:12	MA47130-CCV1	1		
14:17	MA47130-CCB1	1		
14:22	MA47130-CRID1	1		
14:27	MA47130-CRI1	1		
14:32	MA47130-ICSA1	1		
14:38	MA47130-ICSAB1	1		
14:43	MA47130-HSTD1	1		
14:49	MA47130-HSTD2	1		
14:54	ZZZZZZ	1		
15:00	ZZZZZZ	1		
15:05	ZZZZZZ	1		
15:10	MA47130-CCV2	1		
15:15	MA47130-CCB2	1		
15:20	MP16437-MB1	1		
15:25	MP16437-B1	1		
15:30	MP16437-S1	1		
15:35	MP16437-S2	1		
15:40	JC91275-2A	1		
15:45	ZZZZZZ	5		
15:50	MP16437-PS1	1		
15:56	JC91275-1A	1		
16:00	JC91275-3A	1		
16:06	MA47130-CCV3	1		
16:11	MA47130-CCB3	1		
16:16	ZZZZZZ	5		
16:21	MP16437-S1	1		
16:27	MP16437-PS1	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA47130
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:31	MP16437-SD1	5		
16:36	MP16437-S1	2		
16:41	MP16437-S2	2		
---------->	Last reportable sample/prep for job JC91275			
16:46	MA47130-CCV4	1		
16:51	MA47130-CCB4	1		
---------->	Last reportable CCB for job JC91275			
16:56	ZZZZZZ	1		
17:01	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA47130
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n
13:52	ZZZZZZ	1				
13:57	ZZZZZZ	1				
14:02	MA47130-ICV1	1	X	X	X	X
14:07	MA47130-ICB1	1	X	X	X	X
14:12	MA47130-CCV1	1	X	X	X	X
14:17	MA47130-CCB1	1	X	X	X	X
14:22	MA47130-CRID1	1	X	X	X	X
14:27	MA47130-CRI1	1	X	X	X	X
14:32	MA47130-ICSA1	1	X	X	X	X
14:38	MA47130-ICSAB1	1	X	X	X	X
14:43	MA47130-HSTD1	1	X	X	X	X
14:49	MA47130-HSTD2	1	X	X	X	X
14:54	ZZZZZZ	1				
15:00	ZZZZZZ	1				
15:05	ZZZZZZ	1				
15:10	MA47130-CCV2	1	X	X	X	X
15:15	MA47130-CCB2	1	X	X	X	X
15:20	MP16437-MB1	1	X	X	X	X
15:25	MP16437-B1	1	X	X	X	X
15:30	MP16437-S1	1				
15:35	MP16437-S2	1	X		X	
15:40	JC91275-2A	1		X		X
15:45	ZZZZZZ	5				
15:50	MP16437-PS1	1	X		X	
15:56	JC91275-1A	1	X		X	X
16:00	JC91275-3A	1		X		X
16:06	MA47130-CCV3	1	X	X	X	X
16:11	MA47130-CCB3	1	X	X	X	X
16:16	ZZZZZZ	5				
16:21	MP16437-S1	1	X		X	
16:27	MP16437-PS1	5		X		X
16:31	MP16437-SD1	5	X	X	X	X
16:36	MP16437-S1	2		X		X
		Element:	B a	F e	M g	M n

REPORTED ELEMENTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA47130
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n
16:41	MP16437-S2	2		X		X
16:46	MA47130-CCV4	1	X	X	X	X
16:51	MA47130-CCB4	1	X	X	X	X
16:56	ZZZZZZ	1				
17:01	ZZZZZZ	1				
		Element:	B a	F e	M g	M n

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA47130
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:41	MA47130-STD1	10063 R	230140 R	36324 R	13641 R
13:46	MA47130-STD2	9560	215790	36463	12450
13:52	ZZZZZZ	9837	222650	36611	12830
13:57	ZZZZZZ	10094	243640	36766	13681
14:02	MA47130-ICV1	9852	225110	36651	12857
14:07	MA47130-ICB1	10154	236930	37198	13771
14:12	MA47130-CCV1	9852	225720	36980	12888
14:17	MA47130-CCB1	10229	236270	37541	13871
14:22	MA47130-CRID1	10246	234440	37655	13872
14:27	MA47130-CRI1	10235	235590	37344	13780
14:32	MA47130-ICSA1	9281	210100	35960	11851
14:38	MA47130-ICSAB1	9292	212900	36241	11886
14:43	MA47130-HSTD1	9983	234120	37826	13721
14:49	MA47130-HSTD2	9252	210690	36224	11815
14:54	ZZZZZZ	10077	230820	37582	13962
15:00	ZZZZZZ	10003	235710	37812	13849
15:05	ZZZZZZ	10236	240130	37674	13916
15:10	MA47130-CCV2	9952	226040	37264	13017
15:15	MA47130-CCB2	10185	238720	37707	13847
15:20	MP16437-MB1	10166	238440	38096	13811
15:25	MP16437-B1	10061	232580	36746	13258
15:30	MP16437-S1	No results reported for the elements associated with this internal standard.			
15:35	MP16437-S2	9913	228520	38029	13141
15:40	JC91275-2A	10107	235490	38384	13526
15:45	ZZZZZZ	10221	237590	37979	13824
15:50	MP16437-PS1	9965	227610	37003	13210
15:56	JC91275-1A	10056	232940	37850	13398
16:00	JC91275-3A	10213	236480	37809	13736
16:06	MA47130-CCV3	9823	227500	37190	12875
16:11	MA47130-CCB3	10254	238280	37934	13944
16:16	ZZZZZZ	27815 !	592530 !	72588 !	36334 !
16:21	MP16437-S1	9749	227360	37371	12958
16:27	MP16437-PS1	10180	235700	37777	13605

INTERNAL STANDARD SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA47130
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:31	MP16437-SD1	10160	238310	38126	13787
16:36	MP16437-S1	9957	232400	37550	13249
16:41	MP16437-S2	10048	234000	37905	13358
16:46	MA47130-CCV4	9958	228870	37415	13035
16:51	MA47130-CCB4	10163	235080	37381	13846
16:56	ZZZZZZ	10276	238410	37278	13956
17:01	ZZZZZZ	10377	238620	37540	14076

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA47130 Units: ug/l

Time:				14:07		14:17		15:15	
Sample ID:				ICB1		CCB1		CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	200	14	100						
Antimony	6.0	1.4	5.0						
Arsenic	5.0	1.5	3.0						
Barium	200	.5	100	-0.500	<200	-0.500	<200	-0.400	<200
Beryllium	2.0	.1	1.0						
Bismuth	20	1.8	10						
Boron	200	.8	100						
Cadmium	3.0	.3	2.0						
Calcium	5000	3.9	200						
Chromium	10	.3	5.0						
Cobalt	50	.3	10						
Copper	10	.6	8.0						
Iron	100	2.6	50	3.70	<100	2.30	<100	4.60	<100
Lead	5.0	1.6	3.0						
Lithium	50	2.1	20						
Magnesium	5000	16	500	8.00	<5000	14.9	<5000	29.8	<5000
Manganese	15	.1	5.0	0.00	<15	0.00	<15	0.200	<15
Molybdenum	20	.4	8.0						
Nickel	10	.5	8.0						
Phosphorus	50	1.9	25						
Potassium	10000	79	500						
Selenium	10	3	8.0						
Silicon	200	1.2	150						
Silver	10	.5	4.0						
Sodium	10000	9.9	1000						
Strontium	10	.3	2.0						
Sulfur	100	3.5	50						
Thallium	10	1.3	5.0						
Tin	10	.7	8.0						
Titanium	10	.5	4.0						
Tungsten	100	1.7	50						
Vanadium	50	.5	4.0						
Zinc	20	.2	10						

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA47130 Units: ug/l

Time:				14:07		14:17		15:15	
Sample ID:				ICB1		CCB1		CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Zirconium	10	.3	5.0						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA47130 Units: ug/l

Time: / Sample ID:				16:11 CCB3		16:51 CCB4	
Metal	RL	IDL	LOD	raw	final	raw	final
Aluminum	200	14	100				
Antimony	6.0	1.4	5.0				
Arsenic	5.0	1.5	3.0				
Barium	200	.5	100	-0.300	<200	0.100	<200
Beryllium	2.0	.1	1.0				
Bismuth	20	1.8	10				
Boron	200	.8	100				
Cadmium	3.0	.3	2.0				
Calcium	5000	3.9	200				
Chromium	10	.3	5.0				
Cobalt	50	.3	10				
Copper	10	.6	8.0				
Iron	100	2.6	50	7.50	<100	7.10	<100
Lead	5.0	1.6	3.0				
Lithium	50	2.1	20				
Magnesium	5000	16	500	21.0	<5000	26.6	<5000
Manganese	15	.1	5.0	0.200	<15	0.200	<15
Molybdenum	20	.4	8.0				
Nickel	10	.5	8.0				
Phosphorus	50	1.9	25				
Potassium	10000	79	500				
Selenium	10	3	8.0				
Silicon	200	1.2	150				
Silver	10	.5	4.0				
Sodium	10000	9.9	1000				
Strontium	10	.3	2.0				
Sulfur	100	3.5	50				
Thallium	10	1.3	5.0				
Tin	10	.7	8.0				
Titanium	10	.5	4.0				
Tungsten	100	1.7	50				
Vanadium	50	.5	4.0				
Zinc	20	.2	10				

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA47130 Units: ug/l

Time:				16:11		16:51	
Sample ID:				CCB3		CCB4	
Metal	RL	IDL	LOD	raw	final	raw	final
Zirconium	10	.3	5.0				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47130 Units: ug/l

Time:		14:02			14:12			15:10	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic									
Barium	2000	2060	103.0	2000	2060	103.0	2000	2080	104.0
Beryllium									
Bismuth									
Boron									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron	40000	40600	101.5	40000	40100	100.3	40000	40100	100.3
Lead									
Lithium									
Magnesium	40000	40600	101.5	40000	39900	99.8	40000	39700	99.3
Manganese	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Molybdenum									
Nickel									
Phosphorus									
Potassium									
Selenium									
Silicon									
Silver									
Sodium									
Strontium									
Sulfur									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc									

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47130 Units: ug/l

Time:		14:02			14:12			15:10	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47130 Units: ug/l

Time:		16:06			16:46	
Sample ID:	CCV	CCV3		CCV	CCV4	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic						
Barium	2000	2080	104.0	2000	2050	102.5
Beryllium						
Bismuth						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron	40000	40100	100.3	40000	39600	99.0
Lead						
Lithium						
Magnesium	40000	39600	99.0	40000	39200	98.0
Manganese	2000	1980	99.0	2000	1940	97.0
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47130 Units: ug/l

Time:		16:06			16:46	
Sample ID:	CCV	CCV3		CCV	CCV4	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA47130 Units: ug/l

Time:		14:43			14:49	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic						
Barium	8000	8180	102.3			
Beryllium						
Bismuth						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron				200000	189000	94.5
Lead						
Lithium						
Magnesium				300000	301000	100.3
Manganese	8000	7710	96.4			
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						

HIGH STANDARD CHECK SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA47130 Units: ug/l

Time:		14:43			14:49	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA47130 Units: ug/l

Time:				14:22		14:27	
Sample ID:	CRI	CRIA	CRID	CRID1		CRI1	
Metal	True	True	True	Results	% Rec	Results	% Rec
Aluminum	200	500	100				
Antimony	6.0	20	3.0				
Arsenic	8.0	20	3.0				
Barium	200		4.0	3.30	82.5	198	99.0
Beryllium	2.0		1.0				
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0				
Calcium	5000	2000	1000				
Chromium	10		2.0				
Cobalt	50		3.0				
Copper	10		2.0				
Iron	100	500				104	104.0
Lead	3.0	20	2.5				
Lithium	50						
Magnesium	5000	2000	100	110	110.0	5050	101.0
Manganese	15		3.0	3.10	103.3	14.9	99.3
Molybdenum	20						
Nickel	10		4.0				
Phosphorus	50						
Potassium	5000		2000				
Selenium	10	20	5.0				
Silicon	200						
Silver	5.0		2.0				
Sodium	5000		1000				
Strontium	10						
Sulfur	50						
Thallium	10		2.0				
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0				
Zinc	20		10				

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA47130 Units: ug/l

Time:				14:22		14:27	
Sample ID:	CRI	CRIA	CRID	CRID1		CRI1	
Metal	True	True	True	Results	% Rec	Results	% Rec
Zirconium	10						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA47130 Units: ug/l

Time:			14:32		14:38	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	459000	91.8	466000	93.2
Antimony		1000	-2.30		932	93.2
Arsenic		1000	-1.00		973	97.3
Barium		500	-1.20		486	97.2
Beryllium		500	0.300		469	93.8
Bismuth		500	-4.80		465	93.0
Boron		500	-1.20		456	91.2
Cadmium		1000	0.500		937	93.7
Calcium	400000	400000	350000	87.5	350000	87.5
Chromium		500	-0.300		437	87.4
Cobalt		500	-0.300		449	89.8
Copper		500	-6.10*		452	90.4
Iron	200000	200000	173000	86.5	180000	90.0
Lead		1000	-2.10		852	85.2
Lithium		500	-5.30		493	98.6
Magnesium	500000	500000	458000	91.6	466000	93.2
Manganese		500	-0.200		456	91.2
Molybdenum		500	0.200		450	90.0
Nickel		1000	0.00		900	90.0
Phosphorus		500	18.0		517	103.4
Potassium			177		172	
Selenium		1000	-1.80		963	96.3
Silicon		500	3.20		462	92.4
Silver		1000	-1.40		995	99.5
Sodium			166		154	
Strontium		500	-0.400		479	95.8
Sulfur		500	10.8		477	95.4
Thallium		1000	-5.80*		933	93.3
Tin		500	-2.50		440	88.0
Titanium		500	-1.50		462	92.4
Tungsten		500	-33.4		373	74.6*
Vanadium		500	7.70		454	90.8
Zinc		1000	-0.900		879	87.9

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC071819M1L.ICP Date Analyzed: 07/18/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA47130 Units: ug/l

Time:			14:32		14:38	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Zirconium		500	7.40*		491	98.2

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16329
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 07/10/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.55	32		
Antimony	4.0	.19	1.7		
Arsenic	3.0	.026	.94	-0.026	<3.0
Barium	2.0	.016	.73		
Beryllium	1.0	.008	.15		
Boron	50	1.3	14		
Cadmium	6.0	.008	.17		
Calcium	500	12	64		
Chromium	8.0	.028	.62		
Cobalt	1.0	.004	.17		
Copper	10	.042	1.9		
Iron	50	.86	19		
Lead	3.0	.018	.52		
Magnesium	500	.3	46		
Manganese	4.0	.014	.63		
Molybdenum	2.0	.03	.45		
Nickel	8.0	.034	.95		
Potassium	500	1.4	68		
Selenium	2.0	.14	.55		
Silver	2.0	.008	.16		
Sodium	500	2.1	140		
Strontium	20	.006	2.4		
Thallium	2.0	.008	.17		
Tin	10	.14	2.6		
Titanium	4.0	.07	1.6		
Vanadium	3.0	.018	1.8		
Zinc	20	.058	5.4		

Associated samples MP16329: JC91275-1, JC91275-2, JC91275-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16329 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 07/10/19

Metal	JC91111-1 Original	MS	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	anr				
Antimony	anr				
Arsenic	0.60	71.5	80	88.6	75-125
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium					
Chromium					
Cobalt	anr				
Copper					
Iron	anr				
Lead	anr				
Magnesium					
Manganese	anr				
Molybdenum	anr				
Nickel	anr				
Potassium					
Selenium	anr				
Silver	anr				
Sodium					
Strontium					
Thallium	anr				
Tin	anr				
Titanium					
Vanadium	anr				
Zinc	anr				

Associated samples MP16329: JC91275-1, JC91275-2, JC91275-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16329 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 07/10/19

Metal	JC91111-1 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	0.60	70.9	80	87.9	0.8	20
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium						
Chromium						
Cobalt	anr					
Copper						
Iron	anr					
Lead	anr					
Magnesium						
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium	anr					
Tin	anr					
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP16329: JC91275-1, JC91275-2, JC91275-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16329
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 07/10/19

Metal	BSP Result	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	70.1	80	87.6	80-120
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium				
Cobalt	anr			
Copper				
Iron	anr			
Lead	anr			
Magnesium				
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin	anr			
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP16329: JC91275-1, JC91275-2, JC91275-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16329 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 07/10/19

Metal	JC91111-1 Original	SDL 2:10	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	0.602	0.476	21.0 (a)	0-10
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium				
Cobalt	anr			
Copper				
Iron	anr			
Lead	anr			
Magnesium				
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin	anr			
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP16329: JC91275-1, JC91275-2, JC91275-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16329 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 07/10/19

Metal	Sample ml	Final ml	JC91111-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.14	10	.6022214	.5504304	77.19359	0.2	4	80	95.8	75-125
Barium										
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP16329: JC91275-1, JC91275-2, JC91275-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16437
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 07/17/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	46		
Antimony	6.0	1.4	4.7		
Arsenic	5.0	1.5	2.8		
Barium	200	.5	13	-0.60	<200
Beryllium	2.0	.1	.5		
Bismuth	20	1.8	4		
Boron	200	.8	63		
Cadmium	3.0	.3	1		
Calcium	5000	3.9	99		
Chromium	10	.3	2		
Cobalt	50	.3	2.6		
Copper	10	.6	5.9		
Iron	100	2.6	32	6.0	<100
Lead	5.0	1.6	1.8		
Lithium	50	2.1	7.3		
Magnesium	5000	16	140	14.4	<5000
Manganese	15	.1	1.4	0.10	<15
Molybdenum	20	.4	3.6		
Nickel	10	.5	1.7		
Phosphorus	50	1.9	18		
Potassium	10000	79	200		
Selenium	10	3	4.9		
Silicon	200	1.2	100		
Silver	10	.5	1.9		
Sodium	10000	9.9	570		
Strontium	10	.3	1		
Sulfur	100	3.5	45		
Thallium	10	1.3	1.8		
Tin	10	.7	3.7		
Titanium	10	.5	2.5		
Tungsten	100	1.7	40		
Vanadium	50	.5	1.8		
Zinc	20	.2	6.9		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16437 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 07/17/19

Metal	RL	IDL	MDL	MB raw	final
Zirconium	10	.3	4.1		

Associated samples MP16437: JC91275-1A, JC91275-2A, JC91275-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16437
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 07/17/19

Metal	JC91275-2A Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium	51.9	2070	2000	100.9	1.9	20
Beryllium						
Bismuth						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron	69300	99400	25000	120.4	0.8	20
Lead						
Lithium						
Magnesium	7170	31500	25000	97.3	1.6	20
Manganese	2170	4160	2000	99.5	0.5	20
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16437 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 07/17/19

Metal	JC91275-2A Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zirconium					

Associated samples MP16437: JC91275-1A, JC91275-2A, JC91275-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16437
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 07/17/19

Metal	JC91275-2A Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium	51.9	2110	2000	102.9	75-125
Beryllium					
Bismuth					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron	69300	98600	25000	117.2	75-125
Lead					
Lithium					
Magnesium	7170	32000	25000	99.3	75-125
Manganese	2170	4140	2000	98.5	75-125
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium					
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16437 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 07/17/19

Metal	JC91275-2A Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP16437: JC91275-1A, JC91275-2A, JC91275-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16437
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 07/17/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium	2110	2000	105.5	80-120
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	26000	25000	104.0	80-120
Lead				
Lithium				
Magnesium	25700	25000	102.8	80-120
Manganese	1930	2000	96.5	80-120
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16437
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 07/17/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP16437: JC91275-1A, JC91275-2A, JC91275-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16437
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 07/17/19

Metal	JC91275-2A Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium	51.9	52.7	1.5	0-10
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	69300	71000	2.4	0-10
Lead				
Lithium				
Magnesium	7170	7430	3.6	0-10
Manganese	2170	2250	3.6	0-10
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16437 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 07/17/19

	JC91275-2A		QC
Metal	Original SDL 1:5	%DIF	Limits
Zirconium			

Associated samples MP16437: JC91275-1A, JC91275-2A, JC91275-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16437
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 07/17/19

Metal	Sample ml	Final ml	JC91275-2A Raw	JC91275-2A Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium	19.25	20	51.9	49.95375	2210	0.2	200	2000	108.0	80-120
Beryllium										
Bismuth										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	19.25	20	69340	66739.75	94590	0.1	5000	25000	111.4	80-120
Lead										
Lithium										
Magnesium	19.25	20	7171	6902.088	33340	0.1	5000	25000	105.8	80-120
Manganese	19.25	20	2168	2086.7	4189	0.2	200	2000	105.1	80-120
Molybdenum										
Nickel										
Phosphorus										
Potassium										
Selenium										
Silicon										
Silver										
Sodium										
Strontium										
Sulfur										
Thallium										
Tin										
Titanium										
Tungsten										
Vanadium										
Zinc										

POST DIGESTATE SPIKE SUMMARY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16437 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 07/17/19

Metal	Sample ml	Final ml	JC91275-2A Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Zirconium										

Associated samples MP16437: JC91275-1A, JC91275-2A, JC91275-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Instrument Detection Limits

Job Number: JC91275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Aluminum	.045
Aluminum	.276
Antimony	.094
Arsenic	.12
Arsenic	.013
Barium	.008
Beryllium	.004
Boron	.648
Cadmium	.007
Cadmium	.004
Calcium	6.11
Chromium	.036
Chromium	.014
Cobalt	.0041
Cobalt	.002
Copper	.1044
Copper	.021
Iron	1.21
Iron	.432
Lead	.009
Magnesium	.033
Magnesium	.152
Manganese	.006
Manganese	.007
Molybdenum	.015
Nickel	.046
Nickel	.017
Potassium	.506
Potassium	.707
Selenium	.503
Selenium	.072
Silver	.004
Sodium	.357
Sodium	1.037
Strontium	.003
Thallium	.004
Tin	.025
Tin	.071
Titanium	.035
Titanium	.035
Vanadium	.112
Vanadium	.009
Zinc	.041
Zinc	.029

Instrument Detection Limits

Job Number: JC91275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l

The above applies to the following instrument runs:
MA47084,MA47091

Instrument Detection Limits

Job Number: JC91275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: SSTRACE3 **Effective Date:** 02/18/19

Analyte	IDL ug/l
Aluminum	14.3
Antimony	1.4
Arsenic	1.5
Barium	.5
Beryllium	.1
Bismuth	1.8
Boron	.8
Cadmium	.3
Calcium	3.9
Chromium	.3
Cobalt	.3
Copper	.6
Iron	2.6
Lead	1.6
Lithium	2.1
Magnesium	16.3
Manganese	.1
Molybdenum	.4
Nickel	.5
Phosphorus	1.9
Potassium	79
Selenium	3
Silicon	1.2
Silver	.5
Sodium	9.9
Sulfur	3.5
Strontium	.3
Thallium	1.3
Tin	.7
Titanium	.5
Tungsten	1.7
Vanadium	.5
Yttrium	5
Zinc	.2
Zirconium	.3

The above applies to the following instrument runs:
MA47130

Instrument Linear Ranges

Job Number: JC91275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC91275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA47084,MA47091

Instrument Linear Ranges

Job Number: JC91275
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: SSTRACE3 **Effective Date:** 07/16/18

Analyte	Linear Range ug/l
Aluminum	300000
Antimony	8000
Arsenic	8000
Barium	8000
Beryllium	8000
Bismuth	8000
Boron	8000
Cadmium	8000
Calcium	200000
Chromium	8000
Cobalt	8000
Copper	8000
Iron	200000
Lead	8000
Lithium	8000
Magnesium	300000
Manganese	8000
Molybdenum	8000
Nickel	8000
Palladium	8000
Phosphorus	8000
Potassium	200000
Selenium	8000
Silicon	25000
Silver	625
Sodium	200000
Sulfur	100000
Strontium	8000
Thallium	8000
Tin	8000
Titanium	8000
Tungsten	8000
Vanadium	8000
Zinc	8000
Zirconium	8000

The above applies to the following instrument runs:
MA47130

Metals Analysis

Raw Data

Quantitation Report

File Name 001CALB.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 14:05
Sample Name STDA 4
Sample Type CalBlk
Comment 0
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.003	ug/l	-23.91	16.00	9.489E-06	Pulse	0.25	3
B			1	0.975	ug/l	3.68	5,427.68	3.212E-03	Pulse	0.15	3
Ca			1	-2.102	ug/l	-16.23	8,352.46	3.398E-03	Pulse	0.10	3
Sr			1	-0.002	ug/l	-39.23	240.01	7.706E-05	Pulse	0.10	3
Mo			1	-0.006	ug/l	-11.98	103.33	3.318E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-36.81	13.33	4.163E-06	Pulse	0.10	3
Sn			1	-0.057	ug/l	-18.30	2,023.54	6.322E-04	Pulse	0.10	3
Sb			1	-0.053	ug/l	-9.78	206.68	4.880E-05	Pulse	0.10	3
Ba			1	-0.002	ug/l	-108.07	30.00	7.090E-06	Pulse	0.10	3
Tl			1	-0.002	ug/l	-32.38	393.35	1.607E-04	Pulse	0.10	3
Pb			1	-0.008	ug/l	-38.72	156.67	6.403E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-61.46	106.67	4.367E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-9.60	500.02	2.044E-04	Pulse	0.10	3
Na			2	-1.314	ug/l	-6.70	4,312.83	5.425E-02	Pulse	0.30	3
Mg			2	-1.447	ug/l	-1.56	60.00	7.546E-04	Pulse	0.30	3
Al			2	-4.248	ug/l	-1.95	52.22	6.567E-04	Pulse	0.30	3
K			2	-0.867	ug/l	-78.52	6,681.40	8.405E-02	Pulse	0.30	3
Ca			2	-3.333	ug/l	-22.67	46.67	5.869E-04	Pulse	0.30	3
Ti			2	0.014	ug/l	457.15	6.67	8.396E-05	Pulse	0.30	3
V			2	-0.007	ug/l	-71.72	86.67	1.090E-03	Pulse	0.30	3
Cr			2	-0.005	ug/l	-104.45	374.45	4.711E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	61.48	62.22	7.826E-04	Pulse	0.30	3
Fe			2	-1.686	ug/l	-1.02	2,910.29	3.661E-02	Pulse	0.30	3
Co			2	-0.002	ug/l	-85.15	38.88	4.891E-04	Pulse	0.30	3
Ni			2	0.013	ug/l	56.09	57.78	7.267E-04	Pulse	0.30	3
Cu			2	-0.004	ug/l	-162.83	456.68	5.745E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.201	ug/l	12.14	364.45	4.584E-03	Pulse	0.30	3
As			2	-0.004	ug/l	-148.17	8.33	1.048E-04	Pulse	1.00	3
Cd			2	-0.003	ug/l	-197.05	7.77	1.849E-05	Pulse	0.30	3
Sn			2	-0.022	ug/l	-112.76	343.34	8.166E-04	Pulse	0.30	3
Se			3	0.014	ug/l	202.19	8.60	7.795E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,689,954.01	1.30	100.0	Pulse	0.10	3
1	Sc		2,457,481.37	0.94	100.0	Pulse	0.10	3
1	Ge		472,625.03	2.44	100.0	Pulse	0.10	3
1	Ge		654,107.19	0.81	100.0	Pulse	0.10	3
1	Rh		3,114,829.53	0.86	100.0	Pulse	0.10	3
1	In		3,201,118.55	0.21	100.0	Pulse	0.10	3
1	Tb		4,238,947.54	0.79	100.0	Pulse	0.10	3
1	Ho		416,657.23	0.70	100.0	Pulse	0.10	3
1	Bi		2,446,850.27	0.95	100.0	Pulse	0.10	3
2	Sc		79,495.99	0.27	100.0	Pulse	0.30	3
2	Ge		46,085.97	0.44	100.0	Pulse	0.30	3
2	Ge		69,509.48	1.22	100.0	Pulse	0.30	3
2	Rh		1,326,630.92	0.34	100.0	Pulse	0.30	3
2	In		420,584.04	0.34	100.0	Pulse	0.30	3
2	Tb		1,606,254.17	1.18	100.0	Pulse	0.30	3
2	Ho		161,577.86	1.35	100.0	Pulse	0.30	3
2	Bi		1,063,016.56	0.36	100.0	Pulse	0.30	3
3	Sc		110,870.97	0.45	100.0	Pulse	0.30	3
3	Ge		71,936.33	0.22	100.0	Pulse	0.30	3
3	Ge		110,290.56	0.49	100.0	Pulse	0.30	3
3	Rh		1,211,162.04	0.65	100.0	Pulse	0.30	3
3	Tb		1,772,204.79	0.76	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 14:10
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-178.47	21.33	1.259E-05	Pulse	0.25	3
B			1	0.859	ug/l	3.68	4,883.05	2.878E-03	Pulse	0.15	3
Ca			1	-2.056	ug/l	-10.67	8,402.42	3.414E-03	Pulse	0.10	3
Sr			1	-0.001	ug/l	-176.00	283.35	9.040E-05	Pulse	0.10	3
Mo			1	-0.002	ug/l	-179.18	140.01	4.466E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-51.21	6.67	2.062E-06	Pulse	0.10	3
Sn			1	-0.064	ug/l	-8.02	1,936.86	6.036E-04	Pulse	0.10	3
Sb			1	-0.056	ug/l	-9.18	156.67	3.675E-05	Pulse	0.10	3
Ba			1	-0.002	ug/l	-83.48	26.67	6.214E-06	Pulse	0.10	3
Tl			1	0.002	ug/l	144.25	516.70	2.106E-04	Pulse	0.10	3
Pb			1	-0.011	ug/l	-18.50	123.34	5.023E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-217.59	136.67	5.578E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-16.50	530.02	2.157E-04	Pulse	0.10	3
Na			2	-1.390	ug/l	-23.91	4,280.59	5.347E-02	Pulse	0.30	3
Mg			2	-1.422	ug/l	-0.74	70.00	8.749E-04	Pulse	0.30	3
Al			2	-4.423	ug/l	-1.58	31.11	3.889E-04	Pulse	0.30	3
K			2	-0.555	ug/l	-193.75	6,802.57	8.500E-02	Pulse	0.30	3
Ca			2	-4.363	ug/l	-12.15	33.33	4.170E-04	Pulse	0.30	3
Ti			2	-0.018	ug/l	-177.49	3.33	4.194E-05	Pulse	0.30	3
V			2	-0.009	ug/l	-15.24	80.00	9.990E-04	Pulse	0.30	3
Cr			2	-0.011	ug/l	-71.01	347.78	4.343E-03	Pulse	0.30	3
Mn			2	-0.001	ug/l	-396.52	46.67	5.822E-04	Pulse	0.30	3
Fe			2	-1.679	ug/l	-1.50	2,956.97	3.694E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-535.14	52.21	6.516E-04	Pulse	0.30	3
Ni			2	0.011	ug/l	33.55	54.44	6.795E-04	Pulse	0.30	3
Cu			2	-0.006	ug/l	-71.59	447.79	5.594E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.077	ug/l	-40.38	154.45	1.929E-03	Pulse	0.30	3
As			2	-0.006	ug/l	-88.49	7.67	9.589E-05	Pulse	1.00	3
Cd			2	0.002	ug/l	633.37	13.32	3.189E-05	Pulse	0.30	3
Sn			2	-0.026	ug/l	-35.27	331.12	7.944E-04	Pulse	0.30	3
Se			3	-0.029	ug/l	-60.07	3.80	3.494E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,696,460.05	0.33	100.0	Pulse	0.10	3
1	Sc		2,461,495.02	1.40	100.0	Pulse	0.10	3
1	Ge		471,505.59	1.46	100.0	Pulse	0.10	3
1	Ge		652,105.00	0.33	100.0	Pulse	0.10	3
1	Rh		3,134,777.97	0.15	100.0	Pulse	0.10	3
1	In		3,208,858.18	0.77	100.0	Pulse	0.10	3
1	Tb		4,275,245.87	1.55	100.0	Pulse	0.10	3
1	Ho		417,754.50	1.29	100.0	Pulse	0.10	3
1	Bi		2,458,028.61	1.44	100.0	Pulse	0.10	3
2	Sc		80,045.33	1.12	100.0	Pulse	0.30	3
2	Ge		46,204.19	0.74	100.0	Pulse	0.30	3
2	Ge		69,823.09	0.60	100.0	Pulse	0.30	3
2	Rh		1,331,591.16	0.60	100.0	Pulse	0.30	3
2	In		416,897.35	0.56	100.0	Pulse	0.30	3
2	Tb		1,602,289.28	0.90	100.0	Pulse	0.30	3
2	Ho		161,292.98	0.72	100.0	Pulse	0.30	3
2	Bi		1,065,423.33	0.86	100.0	Pulse	0.30	3
3	Sc		110,483.89	1.04	100.0	Pulse	0.30	3
3	Ge		72,151.74	0.39	100.0	Pulse	0.30	3
3	Ge		108,761.63	0.22	100.0	Pulse	0.30	3
3	Rh		1,204,539.22	0.85	100.0	Pulse	0.30	3
3	Tb		1,755,698.78	0.89	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 14:16
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.502	ug/l	3.75	3,372.38	1.991E-03	Pulse	0.25	3
B			1	24.190	ug/l	1.89	118,639.77	7.004E-02	Pulse	0.15	3
Ca			1	260.153	ug/l	0.86	233,304.66	9.362E-02	Pulse	0.10	3
Sr			1	5.124	ug/l	0.84	213,345.43	6.775E-02	Pulse	0.10	3
Mo			1	0.957	ug/l	5.65	7,975.62	2.534E-03	Pulse	0.10	3
Ag			1	0.502	ug/l	3.54	9,900.15	3.078E-03	Pulse	0.10	3
Sn			1	5.095	ug/l	1.62	65,718.62	2.043E-02	Pulse	0.10	3
Sb			1	2.047	ug/l	1.25	29,598.65	6.925E-03	Pulse	0.10	3
Ba			1	1.044	ug/l	6.92	6,081.42	1.423E-03	Pulse	0.10	3
Tl			1	0.510	ug/l	3.00	17,057.07	6.938E-03	Pulse	0.10	3
Pb			1	0.524	ug/l	2.17	6,071.51	2.469E-03	Pulse	0.10	3
Pb			1	0.512	ug/l	3.56	5,197.78	2.114E-03	Pulse	0.10	3
Pb			1	0.518	ug/l	2.10	24,061.96	9.787E-03	Pulse	0.10	3
Na			2	253.821	ug/l	0.68	217,143.52	2.694E+00	Pulse	0.30	3
Mg			2	260.216	ug/l	0.42	101,617.37	1.261E+00	Pulse	0.30	3
Al			2	21.570	ug/l	6.27	3,231.46	4.009E-02	Pulse	0.30	3
K			2	254.951	ug/l	0.75	69,198.87	8.585E-01	Pulse	0.30	3
Ca			2	272.392	ug/l	0.86	3,712.68	4.606E-02	Pulse	0.30	3
Ti			2	0.930	ug/l	36.21	104.44	1.296E-03	Pulse	0.30	3
V			2	1.004	ug/l	2.36	3,717.13	4.612E-02	Pulse	0.30	3
Cr			2	0.999	ug/l	2.99	4,976.38	6.174E-02	Pulse	0.30	3
Mn			2	1.041	ug/l	3.55	2,354.64	2.921E-02	Pulse	0.30	3
Fe			2	24.404	ug/l	1.23	96,159.48	1.193E+00	Pulse	0.30	3
Co			2	0.509	ug/l	2.23	3,982.50	4.941E-02	Pulse	0.30	3
Ni			2	1.046	ug/l	9.73	2,229.07	2.766E-02	Pulse	0.30	3
Cu			2	2.018	ug/l	1.37	12,226.88	1.517E-01	Pulse	0.30	3
Zn			2	5.020	ug/l	3.32	4,088.34	5.073E-02	Pulse	0.30	3
As			2	0.473	ug/l	2.13	207.00	2.568E-03	Pulse	1.00	3
Cd			2	0.496	ug/l	9.49	552.94	1.298E-03	Pulse	0.30	3
Sn			2	5.104	ug/l	0.16	11,663.30	2.737E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.503	ug/l	4.08	62.13	5.719E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,693,738.95	0.32	99.8	Pulse	0.10	3
1	Sc		2,492,138.77	1.40	101.2	Pulse	0.10	3
1	Ge		474,001.69	1.22	100.5	Pulse	0.10	3
1	Ge		661,491.42	1.32	101.4	Pulse	0.10	3
1	Rh		3,148,853.18	1.15	100.4	Pulse	0.10	3
1	In		3,217,001.79	1.41	100.3	Pulse	0.10	3
1	Tb		4,274,625.25	0.78	100.0	Pulse	0.10	3
1	Ho		420,472.34	0.79	100.7	Pulse	0.10	3
1	Bi		2,458,609.65	0.34	100.0	Pulse	0.10	3
2	Sc		80,602.60	0.43	100.7	Pulse	0.30	3
2	Ge		46,286.63	1.61	100.2	Pulse	0.30	3
2	Ge		70,053.93	0.99	100.3	Pulse	0.30	3
2	Rh		1,336,152.83	0.47	100.3	Pulse	0.30	3
2	In		426,080.69	0.18	102.2	Pulse	0.30	3
2	Tb		1,614,178.51	0.48	100.7	Pulse	0.30	3
2	Ho		162,287.94	0.38	100.6	Pulse	0.30	3
2	Bi		1,063,489.54	0.19	99.8	Pulse	0.30	3
3	Sc		109,927.73	1.57	99.5	Pulse	0.30	3
3	Ge		71,351.43	0.83	98.9	Pulse	0.30	3
3	Ge		108,625.48	0.94	99.9	Pulse	0.30	3
3	Rh		1,209,952.45	0.41	100.4	Pulse	0.30	3
3	Tb		1,777,292.22	0.57	101.2	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 14:21
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.013	ug/l	1.64	33,559.78	1.969E-02	Pulse	0.25	3
B			1	6.181	ug/l	0.76	31,013.23	1.820E-02	Pulse	0.15	3
Ca			1	19.367	ug/l	6.77	26,728.84	1.078E-02	Pulse	0.10	3
Sr			1	4.961	ug/l	1.25	206,192.56	6.560E-02	Pulse	0.10	3
Mo			1	4.884	ug/l	1.50	39,990.90	1.272E-02	Pulse	0.10	3
Ag			1	4.971	ug/l	1.04	97,542.60	3.040E-02	Pulse	0.10	3
Sn			1	5.080	ug/l	2.02	65,376.50	2.038E-02	Pulse	0.10	3
Sb			1	5.033	ug/l	1.50	71,132.08	1.670E-02	Pulse	0.10	3
Ba			1	5.007	ug/l	2.16	28,927.89	6.793E-03	Pulse	0.10	3
Tl			1	5.003	ug/l	0.63	164,755.92	6.640E-02	Pulse	0.10	3
Pb			1	5.010	ug/l	2.46	56,488.80	2.277E-02	Pulse	0.10	3
Pb			1	5.027	ug/l	1.63	50,015.72	2.016E-02	Pulse	0.10	3
Pb			1	4.958	ug/l	0.33	225,781.07	9.099E-02	Pulse	0.10	3
Na			2	6.422	ug/l	2.15	10,769.08	1.343E-01	Pulse	0.30	3
Mg			2	4.685	ug/l	6.04	2,427.98	3.028E-02	Pulse	0.30	3
Al			2	3.740	ug/l	13.00	1,031.15	1.286E-02	Pulse	0.30	3
K			2	6.592	ug/l	19.67	8,548.94	1.066E-01	Pulse	0.30	3
Ca			2	37.828	ug/l	13.13	591.13	7.375E-03	Pulse	0.30	3
Ti			2	4.736	ug/l	5.65	507.79	6.331E-03	Pulse	0.30	3
V			2	4.957	ug/l	2.56	17,813.02	2.222E-01	Pulse	0.30	3
Cr			2	5.080	ug/l	2.28	23,549.12	2.937E-01	Pulse	0.30	3
Mn			2	5.037	ug/l	0.54	11,146.06	1.390E-01	Pulse	0.30	3
Fe			2	4.710	ug/l	1.06	25,668.98	3.201E-01	Pulse	0.30	3
Co			2	5.026	ug/l	0.77	38,638.46	4.819E-01	Pulse	0.30	3
Ni			2	5.148	ug/l	0.69	10,790.29	1.346E-01	Pulse	0.30	3
Cu			2	5.008	ug/l	1.41	29,465.36	3.675E-01	Pulse	0.30	3
Zn			2	5.650	ug/l	5.34	4,551.80	5.675E-02	Pulse	0.30	3
As			2	5.014	ug/l	2.61	2,085.47	2.602E-02	Pulse	1.00	3
Cd			2	4.914	ug/l	3.37	5,301.18	1.262E-02	Pulse	0.30	3
Sn			2	5.155	ug/l	2.31	11,603.25	2.764E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	5.005	ug/l	0.63	562.81	5.112E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,704,168.98	0.92	100.5	Pulse	0.10	3
1	Sc		2,478,430.74	0.92	100.7	Pulse	0.10	3
1	Ge		475,347.79	0.81	100.8	Pulse	0.10	3
1	Ge		658,230.33	0.60	100.9	Pulse	0.10	3
1	Rh		3,143,132.24	0.44	100.3	Pulse	0.10	3
1	In		3,208,766.88	0.42	100.0	Pulse	0.10	3
1	Tb		4,259,160.15	0.66	99.6	Pulse	0.10	3
1	Ho		420,111.52	0.50	100.6	Pulse	0.10	3
1	Bi		2,481,265.95	0.11	100.9	Pulse	0.10	3
2	Sc		80,180.39	1.17	100.2	Pulse	0.30	3
2	Ge		47,099.90	0.79	101.9	Pulse	0.30	3
2	Ge		70,725.83	1.88	101.3	Pulse	0.30	3
2	Rh		1,331,157.76	1.63	100.0	Pulse	0.30	3
2	In		419,869.36	0.70	100.7	Pulse	0.30	3
2	Tb		1,605,780.77	0.64	100.2	Pulse	0.30	3
2	Ho		162,289.57	1.43	100.6	Pulse	0.30	3
2	Bi		1,063,550.69	0.56	99.8	Pulse	0.30	3
3	Sc		110,856.43	1.68	100.3	Pulse	0.30	3
3	Ge		73,299.06	0.63	101.6	Pulse	0.30	3
3	Ge		110,094.79	0.31	101.2	Pulse	0.30	3
3	Rh		1,217,969.85	0.47	101.1	Pulse	0.30	3
3	Tb		1,783,097.29	0.80	101.6	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 14:26
Sample Name	STDD
Sample Type	CalStd
Comment	25
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	25.178	ug/l	1.90	166,760.46	9.883E-02	Pulse	0.25	3
B			1	24.605	ug/l	2.05	120,203.08	7.124E-02	Pulse	0.15	3
Ca			1	36.074	ug/l	0.13	41,058.26	1.653E-02	Pulse	0.10	3
Sr			1	25.160	ug/l	0.81	1,040,297.90	3.322E-01	Pulse	0.10	3
Mo			1	24.985	ug/l	0.66	203,172.50	6.489E-02	Pulse	0.10	3
Ag			1	24.482	ug/l	0.83	476,620.42	1.497E-01	Pulse	0.10	3
Sn			1	25.164	ug/l	0.87	310,653.77	9.757E-02	Pulse	0.10	3
Sb			1	25.312	ug/l	0.75	355,825.98	8.310E-02	Pulse	0.10	3
Ba			1	24.777	ug/l	1.93	143,774.57	3.358E-02	Pulse	0.10	3
Tl			1	24.718	ug/l	0.37	813,540.43	3.273E-01	Pulse	0.10	3
Pb			1	24.953	ug/l	1.22	280,833.00	1.130E-01	Pulse	0.10	3
Pb			1	24.806	ug/l	1.14	246,540.08	9.920E-02	Pulse	0.10	3
Pb			1	24.840	ug/l	1.08	1,129,869.74	4.546E-01	Pulse	0.10	3
Na			2	26.306	ug/l	1.16	27,316.56	3.400E-01	Pulse	0.30	3
Mg			2	24.524	ug/l	1.39	10,107.55	1.258E-01	Pulse	0.30	3
Al			2	22.868	ug/l	2.91	3,379.27	4.207E-02	Pulse	0.30	3
K			2	24.234	ug/l	3.81	12,858.40	1.600E-01	Pulse	0.30	3
Ca			2	137.979	ug/l	5.87	1,919.02	2.389E-02	Pulse	0.30	3
Ti			2	24.904	ug/l	3.69	2,652.47	3.301E-02	Pulse	0.30	3
V			2	25.034	ug/l	1.70	89,714.17	1.117E+00	Pulse	0.30	3
Cr			2	24.979	ug/l	0.16	114,478.88	1.425E+00	Pulse	0.30	3
Mn			2	24.654	ug/l	1.64	54,464.91	6.780E-01	Pulse	0.30	3
Fe			2	24.624	ug/l	1.38	96,626.90	1.203E+00	Pulse	0.30	3
Co			2	24.830	ug/l	0.64	191,051.66	2.378E+00	Pulse	0.30	3
Ni			2	25.128	ug/l	1.11	52,651.72	6.554E-01	Pulse	0.30	3
Cu			2	24.717	ug/l	1.47	143,807.38	1.790E+00	Pulse	0.30	3
Zn			2	25.427	ug/l	0.99	19,770.90	2.461E-01	Pulse	0.30	3
As			2	25.006	ug/l	2.89	10,380.98	1.292E-01	Pulse	1.00	3
Cd			2	24.877	ug/l	1.02	26,974.16	6.380E-02	Pulse	0.30	3
Sn			2	24.878	ug/l	1.10	54,885.16	1.298E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	24.399	ug/l	1.39	2,717.76	2.467E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,687,387.46	0.54	99.5	Pulse	0.10	3
1	Sc		2,483,618.76	0.73	100.9	Pulse	0.10	3
1	Ge		475,196.50	1.44	100.8	Pulse	0.10	3
1	Ge		659,941.79	0.83	101.2	Pulse	0.10	3
1	Rh		3,131,124.95	0.53	99.9	Pulse	0.10	3
1	In		3,183,994.55	1.29	99.2	Pulse	0.10	3
1	Tb		4,282,072.44	1.80	100.2	Pulse	0.10	3
1	Ho		424,866.13	0.97	101.7	Pulse	0.10	3
1	Bi		2,485,372.41	0.93	101.1	Pulse	0.10	3
2	Sc		80,343.34	1.23	100.4	Pulse	0.30	3
2	Ge		46,808.06	0.66	101.3	Pulse	0.30	3
2	Ge		69,807.21	0.25	100.0	Pulse	0.30	3
2	Rh		1,334,226.51	0.96	100.2	Pulse	0.30	3
2	In		422,777.32	0.74	101.4	Pulse	0.30	3
2	Tb		1,607,432.89	0.48	100.3	Pulse	0.30	3
2	Ho		162,389.39	0.63	100.7	Pulse	0.30	3
2	Bi		1,069,202.32	0.18	100.4	Pulse	0.30	3
3	Sc		109,290.65	0.08	98.9	Pulse	0.30	3
3	Ge		72,065.84	1.54	99.9	Pulse	0.30	3
3	Ge		110,153.21	0.70	101.3	Pulse	0.30	3
3	Rh		1,191,941.34	1.01	99.0	Pulse	0.30	3
3	Tb		1,763,298.96	0.36	100.4	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 14:31
Sample Name	STDE
Sample Type	CalStd
Comment	50
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.979	ug/l	1.07	330,612.69	1.962E-01	Pulse	0.25	3
B			1	48.106	ug/l	0.68	234,090.69	1.389E-01	Pulse	0.15	3
Ca			1	71.795	ug/l	2.11	69,827.88	2.882E-02	Pulse	0.10	3
Sr			1	49.367	ug/l	0.32	2,026,404.97	6.518E-01	Pulse	0.10	3
Mo			1	49.427	ug/l	0.47	398,934.28	1.283E-01	Pulse	0.10	3
Ag			1	49.781	ug/l	0.95	968,316.65	3.044E-01	Pulse	0.10	3
Sn			1	49.662	ug/l	0.52	609,970.24	1.917E-01	Pulse	0.10	3
Sb			1	50.204	ug/l	0.72	694,774.10	1.646E-01	Pulse	0.10	3
Ba			1	49.944	ug/l	1.84	285,618.71	6.767E-02	Pulse	0.10	3
Tl			1	49.903	ug/l	0.48	1,624,783.62	6.607E-01	Pulse	0.10	3
Pb			1	49.946	ug/l	0.35	556,007.85	2.261E-01	Pulse	0.10	3
Pb			1	50.139	ug/l	2.15	492,853.72	2.004E-01	Pulse	0.10	3
Pb			1	49.876	ug/l	1.05	2,244,090.77	9.126E-01	Pulse	0.10	3
Na			2	51.355	ug/l	1.14	47,658.07	5.992E-01	Pulse	0.30	3
Mg			2	50.312	ug/l	1.23	19,884.04	2.500E-01	Pulse	0.30	3
Al			2	52.582	ug/l	3.07	6,954.85	8.745E-02	Pulse	0.30	3
K			2	49.764	ug/l	2.54	18,876.31	2.373E-01	Pulse	0.30	3
Ca			2	285.887	ug/l	2.50	3,840.50	4.829E-02	Pulse	0.30	3
Ti			2	49.868	ug/l	0.87	5,252.00	6.603E-02	Pulse	0.30	3
V			2	49.602	ug/l	0.42	175,852.32	2.211E+00	Pulse	0.30	3
Cr			2	49.780	ug/l	0.51	225,461.61	2.835E+00	Pulse	0.30	3
Mn			2	49.675	ug/l	0.24	108,604.46	1.365E+00	Pulse	0.30	3
Fe			2	50.576	ug/l	0.91	187,155.14	2.353E+00	Pulse	0.30	3
Co			2	49.854	ug/l	0.57	379,709.34	4.774E+00	Pulse	0.30	3
Ni			2	49.462	ug/l	0.31	102,578.50	1.290E+00	Pulse	0.30	3
Cu			2	49.031	ug/l	0.49	281,978.60	3.545E+00	Pulse	0.30	3
Zn			2	49.488	ug/l	0.95	37,894.84	4.764E-01	Pulse	0.30	3
As			2	50.086	ug/l	0.57	20,579.27	2.587E-01	Pulse	1.00	3
Cd			2	50.098	ug/l	0.23	52,990.61	1.285E-01	Pulse	0.30	3
Sn			2	49.810	ug/l	0.82	106,838.56	2.590E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	48.507	ug/l	0.61	5,336.74	4.899E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,685,324.79	0.58	99.3	Pulse	0.10	3
1	Sc		2,422,842.88	0.15	98.4	Pulse	0.10	3
1	Ge		467,888.10	0.55	99.2	Pulse	0.10	3
1	Ge		650,079.21	0.34	99.7	Pulse	0.10	3
1	Rh		3,108,958.39	0.56	99.2	Pulse	0.10	3
1	In		3,181,579.31	1.07	99.1	Pulse	0.10	3
1	Tb		4,220,750.35	0.46	98.7	Pulse	0.10	3
1	Ho		416,758.15	1.14	99.8	Pulse	0.10	3
1	Bi		2,459,347.78	1.35	100.1	Pulse	0.10	3
2	Sc		79,538.63	0.56	99.4	Pulse	0.30	3
2	Ge		45,964.55	0.36	99.5	Pulse	0.30	3
2	Ge		70,058.47	0.67	100.3	Pulse	0.30	3
2	Rh		1,319,028.32	0.50	99.1	Pulse	0.30	3
2	In		412,524.08	0.68	99.0	Pulse	0.30	3
2	Tb		1,594,158.17	0.66	99.5	Pulse	0.30	3
2	Ho		160,711.24	0.11	99.6	Pulse	0.30	3
2	Bi		1,058,665.06	0.20	99.4	Pulse	0.30	3
3	Sc		109,114.89	0.33	98.8	Pulse	0.30	3
3	Ge		73,339.38	1.06	101.6	Pulse	0.30	3
3	Ge		108,938.44	0.56	100.2	Pulse	0.30	3
3	Rh		1,191,982.80	0.21	99.0	Pulse	0.30	3
3	Tb		1,753,306.94	0.72	99.9	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 14:36
Sample Name	STDF
Sample Type	CalStd
Comment	100
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	99.829	ug/l	1.17	643,398.77	3.918E-01	Pulse	0.25	3
B			1	95.619	ug/l	0.95	452,693.68	2.757E-01	Pulse	0.15	3
Ca			1	136.926	ug/l	0.47	122,714.13	5.123E-02	Pulse	0.10	3
Sr			1	100.362	ug/l	1.00	4,033,920.15	1.325E+00	Pulse	0.10	3
Mo			1	100.762	ug/l	0.94	796,250.12	2.615E-01	Pulse	0.10	3
Ag			1	100.782	ug/l	0.61	1,938,118.25	6.162E-01	Pulse	0.10	3
Sn			1	100.123	ug/l	0.92	1,213,000.11	3.857E-01	Pulse	0.10	3
Sb			1	99.818	ug/l	1.09	1,372,312.95	3.271E-01	Pulse	0.10	3
Ba			1	100.083	ug/l	0.52	568,923.00	1.356E-01	Pulse	0.10	3
Tl			1	100.371	ug/l	1.24	3,247,961.62	1.329E+00	Pulse	0.10	3
Pb			1	100.134	ug/l	1.38	1,107,739.33	4.532E-01	Pulse	0.10	3
Pb			1	100.052	ug/l	0.57	977,621.03	3.999E-01	Pulse	0.10	3
Pb			1	100.311	ug/l	0.77	4,485,798.09	1.835E+00	Pulse	0.10	3
Na			2	102.836	ug/l	0.14	87,705.12	1.132E+00	Pulse	0.30	3
Mg			2	101.647	ug/l	0.45	38,525.01	4.972E-01	Pulse	0.30	3
Al			2	101.071	ug/l	1.17	12,514.77	1.615E-01	Pulse	0.30	3
K			2	99.600	ug/l	1.29	30,080.50	3.882E-01	Pulse	0.30	3
Ca			2	549.865	ug/l	4.60	7,116.05	9.182E-02	Pulse	0.30	3
Ti			2	100.104	ug/l	2.70	10,264.37	1.325E-01	Pulse	0.30	3
V			2	100.408	ug/l	0.88	346,673.09	4.474E+00	Pulse	0.30	3
Cr			2	101.276	ug/l	0.52	446,469.74	5.762E+00	Pulse	0.30	3
Mn			2	100.247	ug/l	0.90	213,462.79	2.755E+00	Pulse	0.30	3
Fe			2	102.876	ug/l	1.30	361,934.51	4.671E+00	Pulse	0.30	3
Co			2	100.283	ug/l	0.97	744,037.94	9.602E+00	Pulse	0.30	3
Ni			2	100.230	ug/l	1.74	202,460.00	2.613E+00	Pulse	0.30	3
Cu			2	99.733	ug/l	0.69	558,270.74	7.205E+00	Pulse	0.30	3
Zn			2	100.148	ug/l	1.43	74,497.03	9.614E-01	Pulse	0.30	3
As			2	99.922	ug/l	0.72	39,986.68	5.161E-01	Pulse	1.00	3
Cd			2	100.118	ug/l	0.58	105,302.14	2.567E-01	Pulse	0.30	3
Sn			2	100.215	ug/l	0.33	213,385.69	5.201E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	97.326	ug/l	0.93	10,619.11	9.823E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,642,157.73	0.43	96.8	Pulse	0.10	3
1	Sc		2,395,445.69	0.35	97.3	Pulse	0.10	3
1	Ge		460,326.54	0.57	97.6	Pulse	0.10	3
1	Ge		639,155.59	1.16	98.0	Pulse	0.10	3
1	Rh		3,044,742.14	1.38	97.1	Pulse	0.10	3
1	In		3,145,271.88	1.16	98.0	Pulse	0.10	3
1	Tb		4,195,734.21	0.32	98.1	Pulse	0.10	3
1	Ho		411,900.40	0.48	98.6	Pulse	0.10	3
1	Bi		2,444,644.02	0.72	99.5	Pulse	0.10	3
2	Sc		77,487.70	0.79	96.8	Pulse	0.30	3
2	Ge		44,707.69	0.73	96.8	Pulse	0.30	3
2	Ge		67,883.85	1.11	97.2	Pulse	0.30	3
2	Rh		1,296,594.32	1.14	97.4	Pulse	0.30	3
2	In		410,243.67	0.43	98.4	Pulse	0.30	3
2	Tb		1,589,594.62	0.13	99.2	Pulse	0.30	3
2	Ho		159,102.57	0.74	98.6	Pulse	0.30	3
2	Bi		1,050,590.59	0.85	98.6	Pulse	0.30	3
3	Sc		108,520.06	0.94	98.2	Pulse	0.30	3
3	Ge		71,180.72	1.06	98.7	Pulse	0.30	3
3	Ge		108,110.88	1.10	99.4	Pulse	0.30	3
3	Rh		1,183,761.90	1.14	98.3	Pulse	0.30	3
3	Tb		1,744,066.11	1.11	99.3	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 14:41
Sample Name STDG
Sample Type CalStd
Comment 500MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.027	ug/l	11.67	204.01	1.261E-04	Pulse	0.25	3
B			1	202.785	ug/l	1.30	945,435.90	5.842E-01	Pulse	0.15	3
Ca			1	508.083	ug/l	1.39	424,593.94	1.789E-01	Pulse	0.10	3
Sr			1	0.036	ug/l	13.04	1,783.52	5.882E-04	Pulse	0.10	3
Mo			1	0.103	ug/l	19.55	963.40	3.173E-04	Pulse	0.10	3
Ag			1	0.020	ug/l	29.96	410.03	1.312E-04	Pulse	0.10	3
Sn			1	0.706	ug/l	6.93	11,147.67	3.563E-03	Pulse	0.10	3
Sb			1	0.758	ug/l	4.04	11,377.82	2.704E-03	Pulse	0.10	3
Ba			1	0.075	ug/l	13.18	463.36	1.103E-04	Pulse	0.10	3
Tl			1	0.042	ug/l	5.92	1,806.85	7.428E-04	Pulse	0.10	3
Pb			1	0.030	ug/l	36.81	570.04	2.343E-04	Pulse	0.10	3
Pb			1	0.038	ug/l	18.07	536.70	2.208E-04	Pulse	0.10	3
Pb			1	0.038	ug/l	3.18	2,450.19	1.007E-03	Pulse	0.10	3
Na			2	504.830	ug/l	0.43	413,943.58	5.291E+00	Pulse	0.30	3
Mg			2	508.804	ug/l	0.66	192,275.57	2.458E+00	Pulse	0.30	3
Al			2	503.586	ug/l	0.69	60,727.48	7.762E-01	Pulse	0.30	3
K			2	502.569	ug/l	1.23	125,812.45	1.608E+00	Pulse	0.30	3
Ca			2	512.843	ug/l	4.79	6,704.76	8.572E-02	Pulse	0.30	3
Ti			2	-0.018	ug/l	-182.72	3.33	4.242E-05	Pulse	0.30	3
V			2	0.002	ug/l	513.54	116.67	1.491E-03	Pulse	0.30	3
Cr			2	0.016	ug/l	83.31	462.23	5.911E-03	Pulse	0.30	3
Mn			2	0.066	ug/l	24.05	190.00	2.427E-03	Pulse	0.30	3
Fe			2	509.300	ug/l	0.80	1,774,742.43	2.269E+01	Pulse	0.30	3
Co			2	0.038	ug/l	20.49	337.44	4.315E-03	Pulse	0.30	3
Ni			2	0.058	ug/l	6.50	147.78	1.889E-03	Pulse	0.30	3
Cu			2	0.092	ug/l	9.39	990.04	1.265E-02	Pulse	0.30	3
Zn			2	0.649	ug/l	9.69	694.47	8.875E-03	Pulse	0.30	3
As			2	0.027	ug/l	60.98	20.67	2.644E-04	Pulse	1.00	3
Cd			2	0.010	ug/l	17.82	22.15	5.346E-05	Pulse	0.30	3
Sn			2	0.839	ug/l	8.49	2,185.73	5.275E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	201.314	ug/l	0.68	22,259.14	2.031E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,618,366.21	0.15	95.4	Pulse	0.10	3
1	Sc		2,373,427.05	1.30	96.4	Pulse	0.10	3
1	Ge		453,099.04	1.33	96.1	Pulse	0.10	3
1	Ge		636,766.80	0.47	97.6	Pulse	0.10	3
1	Rh		3,033,185.48	0.84	96.8	Pulse	0.10	3
1	In		3,128,206.25	0.44	97.5	Pulse	0.10	3
1	Tb		4,207,007.96	1.28	98.4	Pulse	0.10	3
1	Ho		415,312.22	1.53	99.4	Pulse	0.10	3
1	Bi		2,432,131.68	0.63	98.9	Pulse	0.10	3
2	Sc		78,235.61	0.66	97.7	Pulse	0.30	3
2	Ge		45,653.67	1.11	98.8	Pulse	0.30	3
2	Ge		68,252.00	0.63	97.7	Pulse	0.30	3
2	Rh		1,308,213.56	0.39	98.2	Pulse	0.30	3
2	In		414,427.76	0.31	99.4	Pulse	0.30	3
2	Tb		1,595,389.21	0.50	99.6	Pulse	0.30	3
2	Ho		160,338.24	0.59	99.4	Pulse	0.30	3
2	Bi		1,054,785.48	0.66	99.0	Pulse	0.30	3
3	Sc		108,825.52	1.71	98.5	Pulse	0.30	3
3	Ge		71,604.81	1.00	99.2	Pulse	0.30	3
3	Ge		109,590.68	0.60	100.8	Pulse	0.30	3
3	Rh		1,191,173.32	1.35	98.9	Pulse	0.30	3
3	Tb		1,762,802.43	1.21	100.4	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 14:46
Sample Name	STDH
Sample Type	CalStd
Comment	1000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	86.33	68.00	4.063E-05	Pulse	0.25	3
B			1	9.476	ug/l	2.46	46,336.45	2.769E-02	Pulse	0.15	3
Ca			1	999.710	ug/l	0.15	855,149.23	3.480E-01	Pulse	0.10	3
Sr			1	0.012	ug/l	16.67	830.06	2.696E-04	Pulse	0.10	3
Mo			1	0.020	ug/l	58.00	316.68	1.027E-04	Pulse	0.10	3
Ag			1	0.003	ug/l	19.27	80.00	2.516E-05	Pulse	0.10	3
Sn			1	0.315	ug/l	4.35	6,551.64	2.061E-03	Pulse	0.10	3
Sb			1	0.202	ug/l	6.92	3,753.89	8.820E-04	Pulse	0.10	3
Ba			1	0.013	ug/l	27.90	113.34	2.662E-05	Pulse	0.10	3
Tl			1	0.008	ug/l	36.21	693.38	2.825E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	44.50	320.02	1.304E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	82.66	266.68	1.087E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	18.17	1,236.74	5.041E-04	Pulse	0.10	3
Na			2	996.783	ug/l	1.05	845,007.86	1.038E+01	Pulse	0.30	3
Mg			2	1008.220	ug/l	1.40	395,787.87	4.862E+00	Pulse	0.30	3
Al			2	998.858	ug/l	1.25	124,752.28	1.533E+00	Pulse	0.30	3
K			2	992.408	ug/l	1.60	251,612.91	3.091E+00	Pulse	0.30	3
Ca			2	984.997	ug/l	3.30	13,314.32	1.636E-01	Pulse	0.30	3
Ti			2	0.085	ug/l	147.14	14.45	1.779E-04	Pulse	0.30	3
V			2	-0.002	ug/l	-194.59	105.56	1.298E-03	Pulse	0.30	3
Cr			2	0.004	ug/l	234.50	425.57	5.231E-03	Pulse	0.30	3
Mn			2	0.061	ug/l	8.23	186.67	2.293E-03	Pulse	0.30	3
Fe			2	1007.689	ug/l	1.04	3,644,645.55	4.478E+01	Pulse	0.30	3
Co			2	0.045	ug/l	3.34	402.39	4.944E-03	Pulse	0.30	3
Ni			2	0.059	ug/l	12.25	156.67	1.925E-03	Pulse	0.30	3
Cu			2	0.033	ug/l	34.19	683.36	8.397E-03	Pulse	0.30	3
Zn			2	0.096	ug/l	41.66	291.12	3.579E-03	Pulse	0.30	3
As			2	0.015	ug/l	60.05	16.33	2.009E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-462.83	9.97	2.345E-05	Pulse	0.30	3
Sn			2	0.375	ug/l	8.63	1,224.51	2.875E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	403.617	ug/l	0.33	45,127.81	4.072E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,673,939.48	1.38	98.7	Pulse	0.10	3
1	Sc		2,457,017.72	1.21	99.8	Pulse	0.10	3
1	Ge		466,347.67	0.90	98.9	Pulse	0.10	3
1	Ge		657,877.71	0.82	100.9	Pulse	0.10	3
1	Rh		3,076,999.85	1.29	98.2	Pulse	0.10	3
1	In		3,179,023.28	0.31	99.1	Pulse	0.10	3
1	Tb		4,256,553.89	0.46	99.6	Pulse	0.10	3
1	Ho		418,456.14	0.83	100.2	Pulse	0.10	3
1	Bi		2,453,821.79	0.35	99.8	Pulse	0.10	3
2	Sc		81,404.11	1.02	101.7	Pulse	0.30	3
2	Ge		46,906.11	0.72	101.5	Pulse	0.30	3
2	Ge		71,609.49	0.93	102.6	Pulse	0.30	3
2	Rh		1,335,524.84	0.54	100.3	Pulse	0.30	3
2	In		426,153.46	1.11	102.2	Pulse	0.30	3
2	Tb		1,621,875.21	0.19	101.2	Pulse	0.30	3
2	Ho		163,400.71	0.26	101.3	Pulse	0.30	3
2	Bi		1,077,256.97	0.18	101.1	Pulse	0.30	3
3	Sc		111,092.35	0.60	100.6	Pulse	0.30	3
3	Ge		72,595.94	0.43	100.6	Pulse	0.30	3
3	Ge		110,834.35	0.44	101.9	Pulse	0.30	3
3	Rh		1,197,238.04	0.64	99.4	Pulse	0.30	3
3	Tb		1,765,784.86	0.79	100.6	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 14:51
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-228.70	28.00	1.637E-05	Pulse	0.25	3
B			1	6.155	ug/l	3.14	30,950.90	1.813E-02	Pulse	0.15	3
Ca			1	5024.457	ug/l	1.19	4,346,995.56	1.733E+00	Pulse	0.10	3
Sr			1	0.045	ug/l	10.25	2,183.57	7.027E-04	Pulse	0.10	3
Mo			1	0.015	ug/l	82.00	273.35	8.777E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	49.07	93.34	2.936E-05	Pulse	0.10	3
Sn			1	0.294	ug/l	2.24	6,291.47	1.981E-03	Pulse	0.10	3
Sb			1	0.088	ug/l	15.09	2,180.23	5.092E-04	Pulse	0.10	3
Ba			1	0.008	ug/l	50.87	86.67	2.030E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	160.94	476.69	1.968E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	246.59	263.35	1.087E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	119.82	223.34	9.252E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	22.96	980.05	4.051E-04	Pulse	0.10	3
Na			2	4984.621	ug/l	0.46	4,324,402.47	5.164E+01	Pulse	0.30	3
Mg			2	5004.180	ug/l	0.97	2,018,399.78	2.410E+01	Pulse	0.30	3
Al			2	4994.046	ug/l	0.76	639,284.92	7.634E+00	Pulse	0.30	3
K			2	4994.043	ug/l	0.40	1,273,341.13	1.521E+01	Pulse	0.30	3
Ca			2	4929.516	ug/l	0.67	68,176.27	8.141E-01	Pulse	0.30	3
Ti			2	0.061	ug/l	124.66	12.22	1.461E-04	Pulse	0.30	3
V			2	-0.001	ug/l	-276.09	113.34	1.354E-03	Pulse	0.30	3
Cr			2	-0.009	ug/l	-36.80	373.34	4.458E-03	Pulse	0.30	3
Mn			2	0.069	ug/l	26.13	211.11	2.520E-03	Pulse	0.30	3
Fe			2	4985.496	ug/l	0.34	18,513,659.27	2.211E+02	Analog	0.30	3
Co			2	0.225	ug/l	10.68	1,856.81	2.217E-02	Pulse	0.30	3
Ni			2	0.178	ug/l	17.07	421.12	5.027E-03	Pulse	0.30	3
Cu			2	0.034	ug/l	16.81	706.69	8.438E-03	Pulse	0.30	3
Zn			2	0.105	ug/l	91.52	306.67	3.664E-03	Pulse	0.30	3
As			2	0.018	ug/l	32.05	18.33	2.189E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-4.86	9.99	2.321E-05	Pulse	0.30	3
Sn			2	0.340	ug/l	9.48	1,158.94	2.693E-03	Pulse	0.30	3
Se			3	0.169	ug/l	1.39	25.80	2.341E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,707,456.08	0.74	100.6	Pulse	0.10	3
1	Sc		2,509,115.12	1.68	101.9	Pulse	0.10	3
1	Ge		477,234.12	0.64	101.2	Pulse	0.10	3

Quantitation Report

1	Ge		658,538.97	1.02	101.0	Pulse	0.10	3
1	Rh		3,106,840.27	1.25	99.1	Pulse	0.10	3
1	In		3,176,286.00	1.01	99.0	Pulse	0.10	3
1	Tb		4,278,712.12	1.47	100.1	Pulse	0.10	3
1	Ho		420,004.43	0.93	100.5	Pulse	0.10	3
1	Bi		2,420,100.74	1.19	98.5	Pulse	0.10	3
2	Sc		83,739.96	0.37	104.6	Pulse	0.30	3
2	Ge		47,887.77	1.43	103.6	Pulse	0.30	3
2	Ge		72,077.12	0.69	103.2	Pulse	0.30	3
2	Rh		1,328,486.58	0.29	99.8	Pulse	0.30	3
2	In		430,291.79	0.73	103.2	Pulse	0.30	3
2	Tb		1,629,311.29	0.63	101.7	Pulse	0.30	3
2	Ho		164,435.71	0.31	101.9	Pulse	0.30	3
2	Bi		1,055,485.31	0.64	99.1	Pulse	0.30	3
3	Sc		112,808.20	0.70	102.1	Pulse	0.30	3
3	Ge		73,439.64	1.29	101.8	Pulse	0.30	3
3	Ge		110,195.83	1.18	101.3	Pulse	0.30	3
3	Rh		1,187,692.24	0.75	98.6	Pulse	0.30	3
3	Tb		1,760,699.10	0.35	100.3	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 14:56
Sample Name	STDJ
Sample Type	CalStd
Comment	10000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-173.56	25.33	1.458E-05	Pulse	0.25	3
B			1	4.391	ug/l	0.37	22,611.01	1.305E-02	Pulse	0.15	3
Ca			1	9840.367	ug/l	0.58	8,579,448.83	3.389E+00	Analog	0.10	3
Sr			1	0.093	ug/l	6.85	4,127.36	1.334E-03	Pulse	0.10	3
Mo			1	0.009	ug/l	116.26	223.34	7.205E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	82.58	96.67	3.021E-05	Pulse	0.10	3
Sn			1	0.146	ug/l	17.34	4,497.48	1.410E-03	Pulse	0.10	3
Sb			1	0.069	ug/l	8.13	1,906.85	4.462E-04	Pulse	0.10	3
Ba			1	0.043	ug/l	21.28	290.01	6.782E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-122.13	406.69	1.715E-04	Pulse	0.10	3
Pb			1	0.051	ug/l	9.66	776.71	3.274E-04	Pulse	0.10	3
Pb			1	0.053	ug/l	18.75	666.71	2.809E-04	Pulse	0.10	3
Pb			1	0.059	ug/l	7.03	3,296.94	1.390E-03	Pulse	0.10	3
Na			2	10007.674	ug/l	0.52	8,685,047.15	1.036E+02	Analog	0.30	3
Mg			2	9969.393	ug/l	0.59	4,024,613.17	4.801E+01	Pulse	0.30	3
Al			2	10002.888	ug/l	0.77	1,281,136.23	1.528E+01	Pulse	0.30	3
K			2	10006.919	ug/l	0.37	2,546,736.01	3.038E+01	Pulse	0.30	3
Ca			2	9914.375	ug/l	0.35	137,157.01	1.636E+00	Pulse	0.30	3
Ti			2	0.010	ug/l	1013.70	6.67	7.913E-05	Pulse	0.30	3
V			2	-0.005	ug/l	-38.02	100.00	1.193E-03	Pulse	0.30	3
Cr			2	0.050	ug/l	17.16	653.35	7.795E-03	Pulse	0.30	3
Mn			2	0.178	ug/l	13.66	461.13	5.501E-03	Pulse	0.30	3
Fe			2	9921.938	ug/l	0.59	36,872,090.75	4.399E+02	Analog	0.30	3
Co			2	0.434	ug/l	4.15	3,538.67	4.221E-02	Pulse	0.30	3
Ni			2	0.416	ug/l	2.87	942.26	1.124E-02	Pulse	0.30	3
Cu			2	0.074	ug/l	12.20	951.15	1.135E-02	Pulse	0.30	3
Zn			2	1.225	ug/l	7.11	1,205.62	1.439E-02	Pulse	0.30	3
As			2	0.058	ug/l	29.26	35.67	4.252E-04	Pulse	1.00	3
Cd			2	-0.003	ug/l	-136.53	7.77	1.817E-05	Pulse	0.30	3
Sn			2	0.204	ug/l	13.15	847.81	1.985E-03	Pulse	0.30	3
Se			3	0.041	ug/l	22.58	11.67	1.060E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,733,195.26	0.97	102.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,531,281.11	0.74	102.8	Pulse	0.10	3
1	Ge		478,730.83	0.72	101.5	Pulse	0.10	3
1	Ge		662,828.50	1.03	101.6	Pulse	0.10	3
1	Rh		3,093,865.48	0.81	98.7	Pulse	0.10	3
1	In		3,192,153.04	1.36	99.5	Pulse	0.10	3
1	Tb		4,272,850.45	1.26	99.9	Pulse	0.10	3
1	Ho		421,268.92	1.47	100.8	Pulse	0.10	3
1	Bi		2,372,546.37	0.77	96.5	Pulse	0.10	3
2	Sc		83,823.86	0.47	104.7	Pulse	0.30	3
2	Ge		48,225.47	0.41	104.4	Pulse	0.30	3
2	Ge		71,442.12	0.68	102.3	Pulse	0.30	3
2	Rh		1,330,227.83	0.42	99.9	Pulse	0.30	3
2	In		427,134.76	0.16	102.5	Pulse	0.30	3
2	Tb		1,642,395.87	0.15	102.5	Pulse	0.30	3
2	Ho		165,991.85	0.56	102.9	Pulse	0.30	3
2	Bi		1,040,995.31	0.55	97.7	Pulse	0.30	3
3	Sc		111,716.34	1.28	101.1	Pulse	0.30	3
3	Ge		72,833.67	1.52	100.9	Pulse	0.30	3
3	Ge		110,169.90	0.91	101.3	Pulse	0.30	3
3	Rh		1,168,146.31	0.32	97.0	Pulse	0.30	3
3	Tb		1,759,089.59	0.04	100.2	Pulse	0.30	3

Quantitation Report

File Name	012SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 15:01
Sample Name	STDA
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-1482.91	34.67	1.963E-05	Pulse	0.25	3
B			1	3.514	ug/l	0.98	18,585.91	1.052E-02	Pulse	0.15	3
Ca			1	-0.249	ug/l	-140.54	10,420.35	4.036E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-1310.93	346.68	1.077E-04	Pulse	0.10	3
Mo			1	0.001	ug/l	312.57	173.34	5.386E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	2949.24	30.00	9.219E-06	Pulse	0.10	3
Sn			1	-0.044	ug/l	-20.65	2,226.92	6.822E-04	Pulse	0.10	3
Sb			1	0.000	ug/l	---	953.40	2.208E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	---	40.00	9.322E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	-572.02	450.02	1.811E-04	Pulse	0.10	3
Pb			1	-0.004	ug/l	-110.19	193.34	7.781E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-790.92	163.34	6.576E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-475.49	740.04	2.979E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	5,788.84	6.785E-02	Pulse	0.30	3
Mg			2	-0.094	ug/l	-155.13	620.02	7.269E-03	Pulse	0.30	3
Al			2	-3.032	ug/l	-2.84	214.45	2.514E-03	Pulse	0.30	3
K			2	-0.318	ug/l	-145.60	7,310.58	8.571E-02	Pulse	0.30	3
Ca			2	-0.964	ug/l	-51.09	83.33	9.776E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	5.56	6.561E-05	Pulse	0.30	3
V			2	0.000	ug/l	6141.45	120.00	1.408E-03	Pulse	0.30	3
Cr			2	0.001	ug/l	1564.49	427.79	5.010E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	52.22	6.121E-04	Pulse	0.30	3
Fe			2	0.003	ug/l	1395.78	9,510.63	1.115E-01	Pulse	0.30	3
Co			2	0.000	ug/l	-2318.00	56.64	6.653E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-331.92	31.11	3.651E-04	Pulse	0.30	3
Cu			2	0.000	ug/l	-1425.57	512.23	6.003E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.084	ug/l	-46.25	158.89	1.860E-03	Pulse	0.30	3
As			2	0.001	ug/l	600.49	11.33	1.326E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	576.19	12.21	2.764E-05	Pulse	0.30	3
Sn			2	-0.002	ug/l	-1554.95	405.56	9.176E-04	Pulse	0.30	3
Se			3	0.004	ug/l	47.59	7.80	6.823E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,766,338.51	0.35	100.0	Pulse	0.10	3
1	Sc		2,581,552.41	1.10	100.0	Pulse	0.10	3
1	Ge		492,277.41	0.66	100.0	Pulse	0.10	3
1	Ge		677,981.45	0.87	100.0	Pulse	0.10	3
1	Rh		3,213,888.91	1.12	100.0	Pulse	0.10	3
1	In		3,265,052.19	0.91	100.0	Pulse	0.10	3
1	Tb		4,312,943.27	2.26	100.0	Pulse	0.10	3
1	Ho		423,720.10	1.00	100.0	Pulse	0.10	3
1	Bi		2,484,780.80	0.63	100.0	Pulse	0.10	3
2	Sc		85,304.59	1.34	100.0	Pulse	0.30	3
2	Ge		49,230.64	0.45	100.0	Pulse	0.30	3
2	Ge		74,397.54	0.42	100.0	Pulse	0.30	3
2	Rh		1,383,204.35	0.57	100.0	Pulse	0.30	3
2	In		441,912.27	0.42	100.0	Pulse	0.30	3
2	Tb		1,654,826.77	0.66	100.0	Pulse	0.30	3
2	Ho		167,462.57	0.32	100.0	Pulse	0.30	3
2	Bi		1,092,448.47	0.27	100.0	Pulse	0.30	3
3	Sc		113,955.90	0.75	100.0	Pulse	0.30	3
3	Ge		75,641.76	0.13	100.0	Pulse	0.30	3
3	Ge		114,332.36	0.64	100.0	Pulse	0.30	3
3	Rh		1,235,898.08	0.84	100.0	Pulse	0.30	3
3	Tb		1,783,831.59	0.38	100.0	Pulse	0.30	3

Quantitation Report

File Name 013_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 15:06
Sample Name ICVA 5
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	61.150	ug/l	2.45	413,711.08	2.400E-01	Pulse	0.25	3
B			1	121.364	ug/l	1.86	603,017.93	3.498E-01	Pulse	0.15	3
Ca			1	5590.171	ug/l	1.19	4,921,506.80	1.927E+00	Pulse	0.10	3
Sr			1	62.374	ug/l	1.10	2,557,330.49	8.235E-01	Pulse	0.10	3
Mo			1	59.043	ug/l	1.37	475,930.38	1.533E-01	Pulse	0.10	3
Ag			1	58.940	ug/l	1.54	1,156,218.89	3.604E-01	Pulse	0.10	3
Sn			1	59.303	ug/l	1.56	734,034.44	2.288E-01	Pulse	0.10	3
Sb			1	63.692	ug/l	0.78	895,772.88	2.088E-01	Pulse	0.10	3
Ba			1	62.309	ug/l	0.98	362,229.94	8.442E-02	Pulse	0.10	3
Tl			1	64.256	ug/l	0.34	2,043,154.66	8.507E-01	Pulse	0.10	3
Pb			1	63.696	ug/l	0.43	692,419.52	2.883E-01	Pulse	0.10	3
Pb			1	60.208	ug/l	1.27	578,023.79	2.407E-01	Pulse	0.10	3
Pb			1	61.920	ug/l	0.41	2,720,849.18	1.133E+00	Pulse	0.10	3
Na			2	5530.011	ug/l	1.17	4,750,577.03	5.728E+01	Pulse	0.30	3
Mg			2	5577.886	ug/l	1.54	2,227,960.26	2.687E+01	Pulse	0.30	3
Al			2	5631.059	ug/l	1.55	713,760.27	8.607E+00	Pulse	0.30	3
K			2	5558.273	ug/l	0.97	1,402,716.33	1.691E+01	Pulse	0.30	3
Ca			2	5782.820	ug/l	0.72	79,198.07	9.549E-01	Pulse	0.30	3
Ti			2	56.528	ug/l	2.36	6,206.78	7.484E-02	Pulse	0.30	3
V			2	61.291	ug/l	1.63	226,517.81	2.732E+00	Pulse	0.30	3
Cr			2	60.436	ug/l	1.10	285,308.57	3.440E+00	Pulse	0.30	3
Mn			2	60.327	ug/l	1.37	137,501.69	1.658E+00	Pulse	0.30	3
Fe			2	5514.573	ug/l	1.62	20,278,328.64	2.445E+02	Analog	0.30	3
Co			2	59.279	ug/l	1.63	470,726.08	5.676E+00	Pulse	0.30	3
Ni			2	58.577	ug/l	1.59	126,654.77	1.527E+00	Pulse	0.30	3
Cu			2	58.048	ug/l	1.44	347,964.74	4.196E+00	Pulse	0.30	3
Zn			2	58.204	ug/l	2.17	46,427.76	5.599E-01	Pulse	0.30	3
As			2	61.005	ug/l	1.43	26,131.48	3.151E-01	Pulse	1.00	3
Cd			2	60.237	ug/l	0.51	65,811.45	1.544E-01	Pulse	0.30	3
Sn			2	59.649	ug/l	0.81	132,091.81	3.100E-01	Pulse	0.30	3
Se			3	262.037	ug/l	1.08	28,775.37	2.644E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,724,224.92	1.98	97.6	Pulse	0.10	3
1	Sc		2,553,472.77	0.91	98.9	Pulse	0.10	3
1	Ge		483,085.69	0.26	98.1	Pulse	0.10	3

Quantitation Report

1	Ge		673,902.21	0.58	99.4	Pulse	0.10	3
1	Rh		3,105,514.54	1.34	96.6	Pulse	0.10	3
1	In		3,208,858.05	1.36	98.3	Pulse	0.10	3
1	Tb		4,290,901.81	1.81	99.5	Pulse	0.10	3
1	Ho		419,838.12	1.45	99.1	Pulse	0.10	3
1	Bi		2,401,824.76	0.98	96.7	Pulse	0.10	3
2	Sc		82,937.14	1.45	97.2	Pulse	0.30	3
2	Ge		48,645.52	0.89	98.8	Pulse	0.30	3
2	Ge		72,159.88	0.35	97.0	Pulse	0.30	3
2	Rh		1,321,727.83	0.89	95.6	Pulse	0.30	3
2	In		426,117.55	0.94	96.4	Pulse	0.30	3
2	Tb		1,625,092.57	0.48	98.2	Pulse	0.30	3
2	Ho		163,668.74	1.12	97.7	Pulse	0.30	3
2	Bi		1,056,699.33	0.83	96.7	Pulse	0.30	3
3	Sc		109,761.53	0.64	96.3	Pulse	0.30	3
3	Ge		71,869.53	0.27	95.0	Pulse	0.30	3
3	Ge		108,850.91	0.49	95.2	Pulse	0.30	3
3	Rh		1,163,380.82	0.42	94.1	Pulse	0.30	3
3	Tb		1,746,084.27	0.33	97.9	Pulse	0.30	3

Quantitation Report

File Name	014_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 15:11
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	14.82	142.67	8.289E-05	Pulse	0.25	3
B			1	6.079	ug/l	1.23	30,834.97	1.791E-02	Pulse	0.15	3
Ca			1	37.618	ug/l	1.43	42,545.48	1.706E-02	Pulse	0.10	3
Sr			1	0.043	ug/l	0.93	2,130.22	6.799E-04	Pulse	0.10	3
Mo			1	0.103	ug/l	13.64	996.73	3.185E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	13.63	326.68	1.014E-04	Pulse	0.10	3
Sn			1	0.256	ug/l	2.44	5,908.02	1.833E-03	Pulse	0.10	3
Sb			1	0.108	ug/l	17.87	2,446.96	5.748E-04	Pulse	0.10	3
Ba			1	0.041	ug/l	32.16	276.68	6.496E-05	Pulse	0.10	3
Tl			1	0.024	ug/l	11.78	1,220.10	4.975E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	34.83	450.03	1.837E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	52.11	406.69	1.656E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	12.62	1,930.14	7.869E-04	Pulse	0.10	3
Na			2	3.774	ug/l	19.22	8,797.53	1.069E-01	Pulse	0.30	3
Mg			2	1.049	ug/l	7.92	1,051.16	1.277E-02	Pulse	0.30	3
Al			2	65.646	ug/l	1.48	8,839.06	1.074E-01	Pulse	0.30	3
K			2	2.121	ug/l	10.39	7,661.82	9.310E-02	Pulse	0.30	3
Ca			2	34.125	ug/l	12.13	556.68	6.765E-03	Pulse	0.30	3
Ti			2	0.195	ug/l	56.66	26.67	3.242E-04	Pulse	0.30	3
V			2	0.009	ug/l	73.22	146.67	1.782E-03	Pulse	0.30	3
Cr			2	0.028	ug/l	34.82	541.13	6.575E-03	Pulse	0.30	3
Mn			2	0.067	ug/l	17.23	202.23	2.457E-03	Pulse	0.30	3
Fe			2	2.174	ug/l	7.14	17,094.66	2.077E-01	Pulse	0.30	3
Co			2	0.011	ug/l	9.81	142.18	1.728E-03	Pulse	0.30	3
Ni			2	0.054	ug/l	12.19	147.78	1.796E-03	Pulse	0.30	3
Cu			2	0.056	ug/l	9.96	830.03	1.009E-02	Pulse	0.30	3
Zn			2	4.423	ug/l	2.91	3,703.79	4.500E-02	Pulse	0.30	3
As			2	0.272	ug/l	12.11	126.00	1.531E-03	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.006	ug/l	117.40	18.82	4.327E-05	Pulse	0.30	3
Sn			2	0.314	ug/l	8.21	1,111.17	2.558E-03	Pulse	0.30	3
Se			3	0.155	ug/l	9.37	24.47	2.201E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,721,964.04	0.63	97.5	Pulse	0.10	3
1	Sc		2,493,628.97	1.38	96.6	Pulse	0.10	3
1	Ge		475,791.27	1.88	96.7	Pulse	0.10	3
1	Ge		656,481.67	2.43	96.8	Pulse	0.10	3
1	Rh		3,132,955.06	1.41	97.5	Pulse	0.10	3
1	In		3,223,309.63	2.01	98.7	Pulse	0.10	3
1	Tb		4,254,928.27	0.85	98.7	Pulse	0.10	3
1	Ho		415,278.81	1.39	98.0	Pulse	0.10	3
1	Bi		2,451,772.98	0.77	98.7	Pulse	0.10	3
2	Sc		82,300.53	0.15	96.5	Pulse	0.30	3
2	Ge		47,141.27	0.66	95.8	Pulse	0.30	3
2	Ge		71,840.64	0.99	96.6	Pulse	0.30	3
2	Rh		1,355,465.74	0.26	98.0	Pulse	0.30	3
2	In		434,344.97	0.79	98.3	Pulse	0.30	3
2	Tb		1,626,360.00	0.46	98.3	Pulse	0.30	3
2	Ho		163,678.82	0.51	97.7	Pulse	0.30	3
2	Bi		1,083,389.19	0.65	99.2	Pulse	0.30	3
3	Sc		112,639.55	0.42	98.8	Pulse	0.30	3
3	Ge		73,518.94	0.56	97.2	Pulse	0.30	3
3	Ge		111,150.96	0.37	97.2	Pulse	0.30	3
3	Rh		1,210,271.69	0.96	97.9	Pulse	0.30	3
3	Tb		1,763,407.92	1.18	98.9	Pulse	0.30	3

Quantitation Report

File Name	015_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 15:16
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-111.14	29.33	1.682E-05	Pulse	0.25	3
B			1	3.942	ug/l	2.96	20,479.51	1.176E-02	Pulse	0.15	3
Ca			1	-1.581	ug/l	-29.73	9,006.08	3.577E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	796.21	356.69	1.133E-04	Pulse	0.10	3
Mo			1	0.009	ug/l	118.03	230.01	7.312E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	57.62	90.00	2.810E-05	Pulse	0.10	3
Sn			1	-0.044	ug/l	-23.47	2,183.55	6.804E-04	Pulse	0.10	3
Sb			1	-0.028	ug/l	-10.27	563.36	1.307E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	53.47	60.00	1.395E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	287.55	480.03	1.945E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	-97.79	236.68	9.593E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-105.70	140.01	5.682E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	73.03	883.38	3.581E-04	Pulse	0.10	3
Na			2	-0.809	ug/l	-24.23	4,963.01	5.949E-02	Pulse	0.30	3
Mg			2	-1.323	ug/l	-9.20	112.23	1.350E-03	Pulse	0.30	3
Al			2	-4.155	ug/l	-2.35	66.67	7.978E-04	Pulse	0.30	3
K			2	-1.309	ug/l	-36.73	6,899.27	8.271E-02	Pulse	0.30	3
Ca			2	-3.738	ug/l	-12.37	43.33	5.201E-04	Pulse	0.30	3
Ti			2	-0.009	ug/l	-186.69	4.44	5.326E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-104.17	107.78	1.293E-03	Pulse	0.30	3
Cr			2	-0.007	ug/l	-135.27	382.23	4.587E-03	Pulse	0.30	3
Mn			2	0.001	ug/l	406.75	53.33	6.404E-04	Pulse	0.30	3
Fe			2	-1.430	ug/l	-4.75	3,999.42	4.797E-02	Pulse	0.30	3
Co			2	0.001	ug/l	138.90	63.32	7.585E-04	Pulse	0.30	3
Ni			2	0.012	ug/l	58.04	57.78	6.942E-04	Pulse	0.30	3
Cu			2	0.009	ug/l	71.06	556.69	6.674E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.039	ug/l	85.53	253.34	3.038E-03	Pulse	0.30	3
As			2	-0.002	ug/l	-553.34	9.67	1.157E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	1488.05	12.20	2.794E-05	Pulse	0.30	3
Sn			2	0.012	ug/l	104.24	433.34	9.925E-04	Pulse	0.30	3
Se			3	0.108	ug/l	31.49	19.00	1.734E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,742,427.94	0.77	98.6	Pulse	0.10	3
1	Sc		2,517,676.06	1.41	97.5	Pulse	0.10	3
1	Ge		480,828.31	1.07	97.7	Pulse	0.10	3
1	Ge		663,317.91	1.51	97.8	Pulse	0.10	3
1	Rh		3,141,662.24	1.13	97.8	Pulse	0.10	3
1	In		3,209,991.48	1.37	98.3	Pulse	0.10	3
1	Tb		4,306,924.73	1.17	99.9	Pulse	0.10	3
1	Ho		421,480.27	0.09	99.5	Pulse	0.10	3
1	Bi		2,467,219.29	0.96	99.3	Pulse	0.10	3
2	Sc		83,419.56	1.38	97.8	Pulse	0.30	3
2	Ge		48,479.53	1.28	98.5	Pulse	0.30	3
2	Ge		72,860.63	0.57	97.9	Pulse	0.30	3
2	Rh		1,362,335.50	0.89	98.5	Pulse	0.30	3
2	In		436,579.87	0.38	98.8	Pulse	0.30	3
2	Tb		1,636,406.95	0.32	98.9	Pulse	0.30	3
2	Ho		165,746.18	0.12	99.0	Pulse	0.30	3
2	Bi		1,079,680.37	0.30	98.8	Pulse	0.30	3
3	Sc		111,165.21	0.80	97.6	Pulse	0.30	3
3	Ge		73,051.40	0.46	96.6	Pulse	0.30	3
3	Ge		109,648.76	1.44	95.9	Pulse	0.30	3
3	Rh		1,216,236.41	0.52	98.4	Pulse	0.30	3
3	Tb		1,763,550.21	1.42	98.9	Pulse	0.30	3

Quantitation Report

File Name 016_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 15:21
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	51.938	ug/l	0.40	351,667.79	2.039E-01	Pulse	0.25	3
B			1	101.909	ug/l	1.26	506,762.01	2.938E-01	Pulse	0.15	3
Ca			1	5094.552	ug/l	0.41	4,403,251.92	1.757E+00	Pulse	0.10	3
Sr			1	52.660	ug/l	0.91	2,133,161.58	6.953E-01	Pulse	0.10	3
Mo			1	52.041	ug/l	0.43	414,517.69	1.351E-01	Pulse	0.10	3
Ag			1	50.892	ug/l	0.44	985,944.83	3.112E-01	Pulse	0.10	3
Sn			1	50.939	ug/l	0.73	623,065.14	1.966E-01	Pulse	0.10	3
Sb			1	52.968	ug/l	1.40	743,987.18	1.737E-01	Pulse	0.10	3
Ba			1	50.948	ug/l	1.71	295,732.29	6.903E-02	Pulse	0.10	3
Tl			1	51.890	ug/l	1.25	1,661,607.37	6.870E-01	Pulse	0.10	3
Pb			1	51.623	ug/l	0.99	565,192.98	2.337E-01	Pulse	0.10	3
Pb			1	51.303	ug/l	0.56	496,072.57	2.051E-01	Pulse	0.10	3
Pb			1	51.386	ug/l	0.56	2,274,058.14	9.402E-01	Pulse	0.10	3
Na			2	5075.721	ug/l	1.23	4,308,190.94	5.258E+01	Pulse	0.30	3
Mg			2	5084.432	ug/l	1.76	2,006,416.24	2.449E+01	Pulse	0.30	3
Al			2	5069.807	ug/l	1.93	634,929.92	7.750E+00	Pulse	0.30	3
K			2	5054.743	ug/l	1.42	1,260,871.86	1.539E+01	Pulse	0.30	3
Ca			2	5211.998	ug/l	0.51	70,525.04	8.607E-01	Pulse	0.30	3
Ti			2	49.775	ug/l	1.69	5,399.84	6.591E-02	Pulse	0.30	3
V			2	50.838	ug/l	1.30	185,653.55	2.266E+00	Pulse	0.30	3
Cr			2	50.568	ug/l	1.75	235,916.17	2.879E+00	Pulse	0.30	3
Mn			2	51.228	ug/l	1.25	115,370.86	1.408E+00	Pulse	0.30	3
Fe			2	5084.755	ug/l	0.90	18,475,224.82	2.255E+02	Analog	0.30	3
Co			2	50.232	ug/l	1.18	394,099.52	4.810E+00	Pulse	0.30	3
Ni			2	49.844	ug/l	0.55	106,485.05	1.300E+00	Pulse	0.30	3
Cu			2	49.029	ug/l	0.96	290,445.52	3.545E+00	Pulse	0.30	3
Zn			2	48.528	ug/l	1.95	38,280.18	4.672E-01	Pulse	0.30	3
As			2	49.718	ug/l	1.25	21,042.85	2.568E-01	Pulse	1.00	3
Cd			2	50.406	ug/l	0.69	54,077.10	1.292E-01	Pulse	0.30	3
Sn			2	50.976	ug/l	0.47	110,899.54	2.650E-01	Pulse	0.30	3
Se			3	200.881	ug/l	0.20	22,130.89	2.027E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,725,066.01	0.85	97.7	Pulse	0.10	3
1	Sc		2,506,396.37	0.55	97.1	Pulse	0.10	3
1	Ge		481,040.71	0.28	97.7	Pulse	0.10	3

Quantitation Report

1	Ge		663,798.45	0.84	97.9	Pulse	0.10	3
1	Rh		3,068,348.39	1.33	95.5	Pulse	0.10	3
1	In		3,168,720.24	1.28	97.0	Pulse	0.10	3
1	Tb		4,284,243.58	0.56	99.3	Pulse	0.10	3
1	Ho		419,772.95	0.06	99.1	Pulse	0.10	3
1	Bi		2,418,804.13	0.56	97.3	Pulse	0.10	3
2	Sc		81,936.53	0.97	96.1	Pulse	0.30	3
2	Ge		47,142.31	0.81	95.8	Pulse	0.30	3
2	Ge		71,731.30	0.17	96.4	Pulse	0.30	3
2	Rh		1,312,187.06	0.43	94.9	Pulse	0.30	3
2	In		418,424.88	0.65	94.7	Pulse	0.30	3
2	Tb		1,623,809.87	0.79	98.1	Pulse	0.30	3
2	Ho		163,608.12	0.36	97.7	Pulse	0.30	3
2	Bi		1,056,358.43	0.10	96.7	Pulse	0.30	3
3	Sc		111,288.14	0.74	97.7	Pulse	0.30	3
3	Ge		71,156.42	1.61	94.1	Pulse	0.30	3
3	Ge		109,191.02	0.19	95.5	Pulse	0.30	3
3	Rh		1,169,966.10	0.54	94.7	Pulse	0.30	3
3	Tb		1,750,244.86	0.58	98.1	Pulse	0.30	3

Quantitation Report

File Name	017_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 15:26
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	33.91	109.33	6.400E-05	Pulse	0.25	3
B			1	5.451	ug/l	1.35	27,493.72	1.610E-02	Pulse	0.15	3
Ca			1	-0.889	ug/l	-28.60	9,379.67	3.816E-03	Pulse	0.10	3
Sr			1	0.009	ug/l	9.57	730.05	2.344E-04	Pulse	0.10	3
Mo			1	0.058	ug/l	17.47	626.70	2.009E-04	Pulse	0.10	3
Ag			1	0.010	ug/l	29.45	220.01	6.961E-05	Pulse	0.10	3
Sn			1	0.049	ug/l	60.56	3,290.47	1.038E-03	Pulse	0.10	3
Sb			1	0.044	ug/l	32.60	1,553.47	3.648E-04	Pulse	0.10	3
Ba			1	0.016	ug/l	62.57	130.01	3.059E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	24.28	1,070.08	4.381E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	86.80	393.35	1.612E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	49.37	316.68	1.296E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	13.88	1,476.75	6.042E-04	Pulse	0.10	3
Na			2	-0.351	ug/l	-39.84	5,304.23	6.422E-02	Pulse	0.30	3
Mg			2	-0.790	ug/l	-28.24	323.34	3.917E-03	Pulse	0.30	3
Al			2	-3.673	ug/l	-4.59	126.67	1.534E-03	Pulse	0.30	3
K			2	-1.204	ug/l	-15.70	6,858.15	8.303E-02	Pulse	0.30	3
Ca			2	-2.649	ug/l	-19.89	57.78	6.997E-04	Pulse	0.30	3
Ti			2	0.042	ug/l	261.57	10.00	1.213E-04	Pulse	0.30	3
V			2	-0.004	ug/l	-70.07	101.11	1.224E-03	Pulse	0.30	3
Cr			2	-0.004	ug/l	-141.53	390.01	4.722E-03	Pulse	0.30	3
Mn			2	0.019	ug/l	8.51	93.33	1.130E-03	Pulse	0.30	3
Fe			2	-0.726	ug/l	-6.45	6,538.09	7.916E-02	Pulse	0.30	3
Co			2	0.007	ug/l	33.04	113.32	1.372E-03	Pulse	0.30	3
Ni			2	0.025	ug/l	32.92	86.67	1.050E-03	Pulse	0.30	3
Cu			2	0.005	ug/l	39.61	526.68	6.376E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.069	ug/l	48.03	274.45	3.323E-03	Pulse	0.30	3
As			2	0.024	ug/l	63.85	20.67	2.504E-04	Pulse	1.00	3
Cd			2	0.011	ug/l	112.49	23.29	5.428E-05	Pulse	0.30	3
Sn			2	0.106	ug/l	28.01	633.35	1.480E-03	Pulse	0.30	3
Se			3	0.059	ug/l	16.08	13.53	1.234E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,707,762.71	1.28	96.7	Pulse	0.10	3
1	Sc		2,458,155.54	0.35	95.2	Pulse	0.10	3
1	Ge		471,709.81	0.87	95.8	Pulse	0.10	3
1	Ge		648,977.28	0.66	95.7	Pulse	0.10	3
1	Rh		3,115,305.48	1.37	96.9	Pulse	0.10	3
1	In		3,168,466.76	1.45	97.0	Pulse	0.10	3
1	Tb		4,257,809.00	0.66	98.7	Pulse	0.10	3
1	Ho		415,591.19	1.09	98.1	Pulse	0.10	3
1	Bi		2,444,780.33	1.08	98.4	Pulse	0.10	3
2	Sc		82,600.91	0.44	96.8	Pulse	0.30	3
2	Ge		47,033.22	1.17	95.5	Pulse	0.30	3
2	Ge		70,690.09	1.01	95.0	Pulse	0.30	3
2	Rh		1,345,768.00	0.66	97.3	Pulse	0.30	3
2	In		428,079.25	0.61	96.9	Pulse	0.30	3
2	Tb		1,618,608.37	0.60	97.8	Pulse	0.30	3
2	Ho		162,340.67	0.45	96.9	Pulse	0.30	3
2	Bi		1,075,398.95	0.21	98.4	Pulse	0.30	3
3	Sc		111,354.26	1.06	97.7	Pulse	0.30	3
3	Ge		72,946.44	1.29	96.4	Pulse	0.30	3
3	Ge		109,687.76	0.76	95.9	Pulse	0.30	3
3	Rh		1,209,029.53	0.57	97.8	Pulse	0.30	3
3	Tb		1,769,709.72	0.95	99.2	Pulse	0.30	3

Quantitation Report

File Name	018LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 15:31
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.494	ug/l	4.03	3,369.72	1.957E-03	Pulse	0.25	3
B			1	27.258	ug/l	0.08	135,789.00	7.888E-02	Pulse	0.15	3
Ca			1	262.720	ug/l	2.03	236,868.99	9.450E-02	Pulse	0.10	3
Sr			1	5.130	ug/l	0.86	212,666.78	6.783E-02	Pulse	0.10	3
Mo			1	0.997	ug/l	1.79	8,272.45	2.638E-03	Pulse	0.10	3
Ag			1	0.484	ug/l	2.22	9,506.53	2.967E-03	Pulse	0.10	3
Sn			1	5.240	ug/l	1.30	67,244.30	2.099E-02	Pulse	0.10	3
Sb			1	2.149	ug/l	1.97	30,794.45	7.257E-03	Pulse	0.10	3
Ba			1	1.054	ug/l	3.93	6,098.07	1.437E-03	Pulse	0.10	3
Tl			1	0.515	ug/l	2.93	17,177.18	6.997E-03	Pulse	0.10	3
Pb			1	0.524	ug/l	4.52	6,064.79	2.469E-03	Pulse	0.10	3
Pb			1	0.546	ug/l	7.05	5,521.23	2.249E-03	Pulse	0.10	3
Pb			1	0.521	ug/l	2.01	24,135.18	9.830E-03	Pulse	0.10	3
Na			2	255.826	ug/l	0.50	225,225.75	2.715E+00	Pulse	0.30	3
Mg			2	261.742	ug/l	1.56	105,198.03	1.268E+00	Pulse	0.30	3
Al			2	22.091	ug/l	4.29	3,391.50	4.088E-02	Pulse	0.30	3
K			2	256.053	ug/l	0.54	71,505.07	8.619E-01	Pulse	0.30	3
Ca			2	278.894	ug/l	2.44	3,910.50	4.713E-02	Pulse	0.30	3
Ti			2	1.165	ug/l	37.82	133.33	1.606E-03	Pulse	0.30	3
V			2	1.043	ug/l	3.41	3,971.64	4.788E-02	Pulse	0.30	3
Cr			2	1.009	ug/l	6.63	5,173.09	6.236E-02	Pulse	0.30	3
Mn			2	0.991	ug/l	6.01	2,309.08	2.783E-02	Pulse	0.30	3
Fe			2	24.753	ug/l	1.01	100,258.19	1.208E+00	Pulse	0.30	3
Co			2	0.514	ug/l	1.32	4,138.08	4.988E-02	Pulse	0.30	3
Ni			2	1.000	ug/l	1.96	2,194.62	2.645E-02	Pulse	0.30	3
Cu			2	1.949	ug/l	2.21	12,173.52	1.467E-01	Pulse	0.30	3
Zn			2	5.154	ug/l	3.45	4,315.07	5.201E-02	Pulse	0.30	3
As			2	0.520	ug/l	3.01	233.00	2.808E-03	Pulse	1.00	3
Cd			2	0.484	ug/l	12.69	548.48	1.268E-03	Pulse	0.30	3
Sn			2	5.315	ug/l	2.86	12,311.59	2.846E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.501	ug/l	5.43	62.87	5.690E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,721,561.09	0.32	97.5	Pulse	0.10	3
1	Sc		2,506,795.95	1.08	97.1	Pulse	0.10	3
1	Ge		478,065.71	0.82	97.1	Pulse	0.10	3
1	Ge		662,518.66	0.76	97.7	Pulse	0.10	3
1	Rh		3,135,434.02	0.64	97.6	Pulse	0.10	3
1	In		3,203,640.62	0.67	98.1	Pulse	0.10	3
1	Tb		4,242,968.06	0.62	98.4	Pulse	0.10	3
1	Ho		415,684.16	1.06	98.1	Pulse	0.10	3
1	Bi		2,455,336.32	1.15	98.8	Pulse	0.10	3
2	Sc		82,965.04	0.58	97.3	Pulse	0.30	3
2	Ge		47,837.57	1.58	97.2	Pulse	0.30	3
2	Ge		71,699.99	0.81	96.4	Pulse	0.30	3
2	Rh		1,347,768.59	0.61	97.4	Pulse	0.30	3
2	In		432,501.73	0.38	97.9	Pulse	0.30	3
2	Tb		1,639,058.82	1.05	99.0	Pulse	0.30	3
2	Ho		164,116.30	0.14	98.0	Pulse	0.30	3
2	Bi		1,078,393.47	0.52	98.7	Pulse	0.30	3
3	Sc		112,162.67	0.45	98.4	Pulse	0.30	3
3	Ge		72,675.08	0.58	96.1	Pulse	0.30	3
3	Ge		110,454.08	0.99	96.6	Pulse	0.30	3
3	Rh		1,216,625.65	0.70	98.4	Pulse	0.30	3
3	Tb		1,768,858.33	0.50	99.2	Pulse	0.30	3

Quantitation Report

File Name	019ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 15:36
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	75.85	50.67	3.451E-05	Pulse	0.25	3
B			1	4.802	ug/l	3.62	20,906.59	1.423E-02	Pulse	0.15	3
Ca			1	96793.099	ug/l	0.73	73,073,130.58	3.330E+01	Analog	0.10	3
Sr			1	2012.133	ug/l	1.22	68,291,598.98	2.656E+01	Analog	0.10	3
Mo			1	2088.514	ug/l	1.03	13,935,921.04	5.420E+00	Analog	0.10	3
Ag			1	0.024	ug/l	9.41	436.69	1.580E-04	Pulse	0.10	3
Sn			1	1808.027	ug/l	1.00	19,217,013.05	6.950E+00	Analog	0.10	3
Sb			1	0.160	ug/l	7.45	2,863.71	7.462E-04	Pulse	0.10	3
Ba			1	0.292	ug/l	8.22	1,550.14	4.044E-04	Pulse	0.10	3
Tl			1	0.002	ug/l	177.22	433.36	2.075E-04	Pulse	0.10	3
Pb			1	0.092	ug/l	9.69	1,076.75	5.156E-04	Pulse	0.10	3
Pb			1	0.101	ug/l	22.30	980.08	4.698E-04	Pulse	0.10	3
Pb			1	0.099	ug/l	4.63	4,433.78	2.123E-03	Pulse	0.10	3
Na			2	97297.022	ug/l	1.25	70,923,708.29	1.007E+03	Analog	0.30	3
Mg			2	97714.250	ug/l	0.52	33,148,957.57	4.705E+02	Analog	0.30	3
Al			2	100310.763	ug/l	1.31	10,793,130.96	1.532E+02	Analog	0.30	3
K			2	101174.470	ug/l	0.37	21,586,968.03	3.064E+02	Analog	0.30	3
Ca			2	107509.020	ug/l	0.63	1,249,244.40	1.773E+01	Pulse	0.30	3
Ti			2	1906.309	ug/l	1.12	177,651.15	2.522E+00	Pulse	0.30	3
V			2	0.005	ug/l	125.53	115.56	1.639E-03	Pulse	0.30	3
Cr			2	0.252	ug/l	12.43	1,360.07	1.929E-02	Pulse	0.30	3
Mn			2	0.391	ug/l	6.52	798.92	1.134E-02	Pulse	0.30	3
Fe			2	96763.578	ug/l	1.14	302,148,787.99	4.289E+03	Analog	0.30	3
Co			2	0.220	ug/l	4.36	1,529.96	2.172E-02	Pulse	0.30	3
Ni			2	0.621	ug/l	5.67	1,167.84	1.657E-02	Pulse	0.30	3
Cu			2	0.225	ug/l	7.63	1,565.65	2.223E-02	Pulse	0.30	3
Zn			2	0.393	ug/l	34.31	452.23	6.428E-03	Pulse	0.30	3
As			2	0.081	ug/l	6.65	38.33	5.439E-04	Pulse	1.00	3
Cd			2	-0.452	ug/l	-2.82	-412.70	-1.132E-03	Pulse	0.30	3
Sn			2	1850.649	ug/l	0.43	3,494,925.21	9.589E+00	Pulse	0.30	3
Se			3	0.049	ug/l	20.46	10.47	1.135E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,469,145.90	0.55	83.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,194,200.75	0.38	85.0	Pulse	0.10	3
1	Ge		421,007.45	0.94	85.5	Pulse	0.10	3
1	Ge		574,067.76	0.88	84.7	Pulse	0.10	3
1	Rh		2,571,233.61	1.09	80.0	Pulse	0.10	3
1	In		2,764,981.98	0.75	84.7	Pulse	0.10	3
1	Tb		3,836,022.75	1.39	88.9	Pulse	0.10	3
1	Ho		379,727.49	1.04	89.6	Pulse	0.10	3
1	Bi		2,089,398.20	1.22	84.1	Pulse	0.10	3
2	Sc		70,454.65	1.33	82.6	Pulse	0.30	3
2	Ge		41,871.42	1.64	85.1	Pulse	0.30	3
2	Ge		62,105.60	0.78	83.5	Pulse	0.30	3
2	Rh		1,098,913.32	0.39	79.4	Pulse	0.30	3
2	In		364,471.74	0.75	82.5	Pulse	0.30	3
2	Tb		1,448,264.63	0.14	87.5	Pulse	0.30	3
2	Ho		145,475.42	0.64	86.9	Pulse	0.30	3
2	Bi		903,458.30	0.39	82.7	Pulse	0.30	3
3	Sc		99,969.42	0.34	87.7	Pulse	0.30	3
3	Ge		62,593.78	0.40	82.8	Pulse	0.30	3
3	Ge		92,181.75	1.28	80.6	Pulse	0.30	3
3	Rh		981,834.61	0.98	79.4	Pulse	0.30	3
3	Tb		1,585,994.17	0.34	88.9	Pulse	0.30	3

Quantitation Report

File Name 020ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 15:41
Sample Name ICSAB
Sample Type ICSB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	131.91	37.33	2.702E-05	Pulse	0.25	3
B			1	53.865	ug/l	1.25	215,037.37	1.555E-01	Pulse	0.15	3
Ca			1	94876.700	ug/l	1.06	68,951,418.97	3.264E+01	Analog	0.10	3
Sr			1	1972.393	ug/l	0.24	66,336,179.01	2.604E+01	Analog	0.10	3
Mo			1	2049.701	ug/l	0.82	13,550,895.22	5.319E+00	Analog	0.10	3
Ag			1	19.623	ug/l	0.34	330,353.20	1.200E-01	Pulse	0.10	3
Sn			1	1794.901	ug/l	0.79	18,996,443.05	6.900E+00	Analog	0.10	3
Sb			1	0.124	ug/l	15.44	2,410.28	6.267E-04	Pulse	0.10	3
Ba			1	0.251	ug/l	8.90	1,343.45	3.493E-04	Pulse	0.10	3
Tl			1	-0.001	ug/l	-346.43	366.69	1.734E-04	Pulse	0.10	3
Pb			1	0.530	ug/l	5.15	5,271.15	2.495E-03	Pulse	0.10	3
Pb			1	0.500	ug/l	9.16	4,364.13	2.065E-03	Pulse	0.10	3
Pb			1	0.517	ug/l	3.08	20,609.74	9.753E-03	Pulse	0.10	3
Na			2	92562.671	ug/l	0.48	66,504,668.47	9.578E+02	Analog	0.30	3
Mg			2	93541.279	ug/l	0.40	31,277,189.87	4.504E+02	Analog	0.30	3
Al			2	96313.866	ug/l	1.78	10,213,664.04	1.471E+02	Analog	0.30	3
K			2	97729.595	ug/l	1.51	20,550,651.41	2.960E+02	Analog	0.30	3
Ca			2	104227.010	ug/l	0.69	1,193,665.51	1.719E+01	Pulse	0.30	3
Ti			2	1849.057	ug/l	1.38	169,827.79	2.446E+00	Pulse	0.30	3
V			2	21.415	ug/l	1.70	66,330.61	9.553E-01	Pulse	0.30	3
Cr			2	20.417	ug/l	0.39	80,935.16	1.166E+00	Pulse	0.30	3
Mn			2	20.328	ug/l	1.34	38,823.33	5.591E-01	Pulse	0.30	3
Fe			2	94527.711	ug/l	1.21	290,928,877.33	4.190E+03	Analog	0.30	3
Co			2	19.716	ug/l	0.87	131,120.02	1.888E+00	Pulse	0.30	3
Ni			2	21.267	ug/l	2.27	38,519.46	5.547E-01	Pulse	0.30	3
Cu			2	24.142	ug/l	0.43	121,420.29	1.749E+00	Pulse	0.30	3
Zn			2	19.720	ug/l	1.68	13,293.29	1.915E-01	Pulse	0.30	3
As			2	19.715	ug/l	1.47	7,077.22	1.019E-01	Pulse	1.00	3
Cd			2	18.303	ug/l	1.34	16,776.80	4.695E-02	Pulse	0.30	3
Sn			2	1850.874	ug/l	0.78	3,426,895.70	9.590E+00	Pulse	0.30	3
Se			3	20.239	ug/l	1.03	1,906.51	2.048E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,383,043.15	0.52	78.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,112,323.77	1.16	81.8	Pulse	0.10	3
1	Ge		413,710.59	1.21	84.0	Pulse	0.10	3
1	Ge		557,190.25	0.44	82.2	Pulse	0.10	3
1	Rh		2,547,738.92	1.27	79.3	Pulse	0.10	3
1	In		2,753,391.08	0.91	84.3	Pulse	0.10	3
1	Tb		3,845,443.07	0.65	89.2	Pulse	0.10	3
1	Ho		378,038.85	1.76	89.2	Pulse	0.10	3
1	Bi		2,113,425.91	1.37	85.1	Pulse	0.10	3
2	Sc		69,438.21	0.77	81.4	Pulse	0.30	3
2	Ge		40,886.79	0.26	83.1	Pulse	0.30	3
2	Ge		61,096.17	1.39	82.1	Pulse	0.30	3
2	Rh		1,097,367.18	0.46	79.3	Pulse	0.30	3
2	In		357,338.46	0.60	80.9	Pulse	0.30	3
2	Tb		1,445,089.98	0.18	87.3	Pulse	0.30	3
2	Ho		145,967.55	0.38	87.2	Pulse	0.30	3
2	Bi		898,587.57	0.08	82.3	Pulse	0.30	3
3	Sc		99,770.42	0.71	87.6	Pulse	0.30	3
3	Ge		62,368.59	1.54	82.5	Pulse	0.30	3
3	Ge		93,098.07	1.06	81.4	Pulse	0.30	3
3	Rh		992,289.20	0.32	80.3	Pulse	0.30	3
3	Tb		1,594,134.59	0.67	89.4	Pulse	0.30	3

Quantitation Report

File Name	021SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 15:46
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-308.19	24.00	1.740E-05	Pulse	0.25	3
B			1	2.961	ug/l	5.19	12,300.29	8.930E-03	Pulse	0.15	3
Ca			1	14.714	ug/l	2.96	19,462.70	9.184E-03	Pulse	0.10	3
Sr			1	0.313	ug/l	6.39	12,205.09	4.246E-03	Pulse	0.10	3
Mo			1	0.845	ug/l	2.33	6,448.18	2.242E-03	Pulse	0.10	3
Ag			1	0.008	ug/l	30.87	173.34	5.789E-05	Pulse	0.10	3
Sn			1	0.435	ug/l	3.97	7,552.10	2.522E-03	Pulse	0.10	3
Sb			1	-0.031	ug/l	-5.55	483.36	1.190E-04	Pulse	0.10	3
Ba			1	0.005	ug/l	104.71	66.67	1.638E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-116.25	396.69	1.639E-04	Pulse	0.10	3
Pb			1	-0.009	ug/l	-14.97	136.67	5.641E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	2238.10	166.67	6.881E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-22.51	603.36	2.491E-04	Pulse	0.10	3
Na			2	15.071	ug/l	10.71	15,909.88	2.238E-01	Pulse	0.30	3
Mg			2	10.936	ug/l	12.70	4,293.94	6.038E-02	Pulse	0.30	3
Al			2	8.403	ug/l	22.34	1,421.19	1.998E-02	Pulse	0.30	3
K			2	11.786	ug/l	8.59	8,700.13	1.224E-01	Pulse	0.30	3
Ca			2	8.941	ug/l	27.59	185.56	2.611E-03	Pulse	0.30	3
Ti			2	0.505	ug/l	27.44	52.22	7.334E-04	Pulse	0.30	3
V			2	-0.006	ug/l	-38.49	80.00	1.126E-03	Pulse	0.30	3
Cr			2	-0.007	ug/l	-70.50	324.45	4.564E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-79.45	38.89	5.468E-04	Pulse	0.30	3
Fe			2	12.964	ug/l	7.02	48,778.03	6.860E-01	Pulse	0.30	3
Co			2	0.000	ug/l	721.17	48.75	6.857E-04	Pulse	0.30	3
Ni			2	0.005	ug/l	71.83	36.67	5.152E-04	Pulse	0.30	3
Cu			2	0.095	ug/l	8.39	914.48	1.286E-02	Pulse	0.30	3
Zn			2	-0.076	ug/l	-18.86	137.78	1.937E-03	Pulse	0.30	3
As			2	-0.015	ug/l	-44.33	3.33	4.670E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.002	ug/l	-238.61	8.53	2.146E-05	Pulse	0.30	3
Sn			2	0.379	ug/l	5.70	1,150.61	2.893E-03	Pulse	0.30	3
Se			3	-0.024	ug/l	-7.22	4.20	4.040E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,377,668.12	0.61	78.0	Pulse	0.10	3
1	Sc		2,119,281.58	0.26	82.1	Pulse	0.10	3
1	Ge		421,635.07	0.34	85.6	Pulse	0.10	3
1	Ge		584,546.58	0.75	86.2	Pulse	0.10	3
1	Rh		2,875,527.14	1.14	89.5	Pulse	0.10	3
1	In		2,994,842.95	0.55	91.7	Pulse	0.10	3
1	Tb		4,063,120.25	0.96	94.2	Pulse	0.10	3
1	Ho		402,522.46	1.15	95.0	Pulse	0.10	3
1	Bi		2,422,618.82	1.24	97.5	Pulse	0.10	3
2	Sc		71,109.73	1.02	83.4	Pulse	0.30	3
2	Ge		42,955.35	1.05	87.3	Pulse	0.30	3
2	Ge		64,424.29	1.35	86.6	Pulse	0.30	3
2	Rh		1,257,543.04	1.54	90.9	Pulse	0.30	3
2	In		397,695.41	0.51	90.0	Pulse	0.30	3
2	Tb		1,557,239.17	0.49	94.1	Pulse	0.30	3
2	Ho		155,801.17	0.80	93.0	Pulse	0.30	3
2	Bi		1,047,981.04	0.37	95.9	Pulse	0.30	3
3	Sc		105,509.53	0.55	92.6	Pulse	0.30	3
3	Ge		69,296.20	0.49	91.6	Pulse	0.30	3
3	Ge		103,952.87	0.57	90.9	Pulse	0.30	3
3	Rh		1,185,283.39	0.42	95.9	Pulse	0.30	3
3	Tb		1,750,353.47	0.83	98.1	Pulse	0.30	3

Quantitation Report

File Name	022ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 15:51
Sample Name	sampleconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	1049.48	29.33	2.110E-05	Pulse	0.25	3
B			1	53.296	ug/l	0.90	213,348.21	1.538E-01	Pulse	0.15	3
Ca			1	95424.223	ug/l	1.58	69,364,110.63	3.283E+01	Analog	0.10	3
Sr			1	1982.546	ug/l	0.27	67,163,100.67	2.617E+01	Analog	0.10	3
Mo			1	2063.477	ug/l	1.12	13,741,156.88	5.355E+00	Analog	0.10	3
Ag			1	19.506	ug/l	1.31	332,473.69	1.193E-01	Pulse	0.10	3
Sn			1	1777.924	ug/l	0.26	19,052,763.88	6.834E+00	Analog	0.10	3
Sb			1	0.132	ug/l	12.43	2,550.30	6.536E-04	Pulse	0.10	3
Ba			1	0.220	ug/l	2.79	1,200.09	3.075E-04	Pulse	0.10	3
Tl			1	-0.001	ug/l	-346.43	376.69	1.760E-04	Pulse	0.10	3
Pb			1	0.507	ug/l	3.97	5,116.11	2.393E-03	Pulse	0.10	3
Pb			1	0.506	ug/l	3.02	4,470.84	2.091E-03	Pulse	0.10	3
Pb			1	0.495	ug/l	0.53	20,024.36	9.364E-03	Pulse	0.10	3
Na			2	93395.945	ug/l	1.35	67,735,728.42	9.664E+02	Analog	0.30	3
Mg			2	93944.615	ug/l	0.88	31,707,709.85	4.524E+02	Analog	0.30	3
Al			2	96356.391	ug/l	1.25	10,315,179.59	1.472E+02	Analog	0.30	3
K			2	97681.700	ug/l	0.65	20,734,771.96	2.958E+02	Analog	0.30	3
Ca			2	103898.914	ug/l	1.22	1,201,167.97	1.714E+01	Pulse	0.30	3
Ti			2	1835.105	ug/l	1.32	170,144.09	2.427E+00	Pulse	0.30	3
V			2	21.421	ug/l	0.49	66,982.24	9.556E-01	Pulse	0.30	3
Cr			2	20.489	ug/l	0.42	81,987.82	1.170E+00	Pulse	0.30	3
Mn			2	20.596	ug/l	1.96	39,704.46	5.665E-01	Pulse	0.30	3
Fe			2	94775.439	ug/l	0.36	294,462,726.08	4.201E+03	Analog	0.30	3
Co			2	19.781	ug/l	0.65	132,801.18	1.895E+00	Pulse	0.30	3
Ni			2	21.182	ug/l	0.53	38,729.91	5.525E-01	Pulse	0.30	3
Cu			2	24.260	ug/l	0.90	123,161.11	1.757E+00	Pulse	0.30	3
Zn			2	20.113	ug/l	2.06	13,684.72	1.952E-01	Pulse	0.30	3
As			2	19.512	ug/l	2.28	7,071.21	1.009E-01	Pulse	1.00	3
Cd			2	18.246	ug/l	2.10	16,895.68	4.680E-02	Pulse	0.30	3
Sn			2	1858.264	ug/l	0.47	3,476,252.36	9.629E+00	Pulse	0.30	3
Se			3	20.344	ug/l	1.81	1,934.05	2.058E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,386,880.48	0.71	78.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,112,909.45	1.19	81.8	Pulse	0.10	3
1	Ge		418,550.63	1.26	85.0	Pulse	0.10	3
1	Ge		559,007.61	1.28	82.5	Pulse	0.10	3
1	Rh		2,566,321.94	1.31	79.9	Pulse	0.10	3
1	In		2,787,811.58	0.73	85.4	Pulse	0.10	3
1	Tb		3,902,451.40	0.23	90.5	Pulse	0.10	3
1	Ho		385,657.12	0.28	91.0	Pulse	0.10	3
1	Bi		2,138,430.85	1.02	86.1	Pulse	0.10	3
2	Sc		70,095.21	0.59	82.2	Pulse	0.30	3
2	Ge		41,609.60	0.98	84.5	Pulse	0.30	3
2	Ge		61,843.49	0.99	83.1	Pulse	0.30	3
2	Rh		1,109,456.10	0.30	80.2	Pulse	0.30	3
2	In		361,039.54	0.82	81.7	Pulse	0.30	3
2	Tb		1,456,716.54	0.57	88.0	Pulse	0.30	3
2	Ho		146,715.95	0.64	87.6	Pulse	0.30	3
2	Bi		915,473.37	0.31	83.8	Pulse	0.30	3
3	Sc		101,332.04	0.54	88.9	Pulse	0.30	3
3	Ge		64,334.87	0.86	85.1	Pulse	0.30	3
3	Ge		93,968.57	0.77	82.2	Pulse	0.30	3
3	Rh		1,004,876.97	0.46	81.3	Pulse	0.30	3
3	Tb		1,605,711.43	0.57	90.0	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 16:01
Sample Name	emptycupconf
Sample Type	Sample
Comment	(200.8)
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.010	ug/l	-4.54	4.00	8.583E-07	Pulse	0.25	3
B			1	0.592	ug/l	12.41	5,689.98	1.257E-03	Pulse	0.15	3
Ca			1	-10.727	ug/l	-12.35	14,436.83	2.276E-03	Pulse	0.10	3
Sr			1	0.131	ug/l	21.94	8,242.46	9.779E-04	Pulse	0.10	3
Mo			1	0.225	ug/l	10.08	2,893.72	3.413E-04	Pulse	0.10	3
Ag			1	-0.001	ug/l	-109.26	56.67	6.048E-06	Pulse	0.10	3
Sn			1	-0.033	ug/l	-181.50	7,155.26	7.855E-04	Pulse	0.10	3
Sb			1	-0.073	ug/l	-1.88	1,293.43	1.010E-04	Pulse	0.10	3
Ba			1	-0.012	ug/l	-6.30	13.33	1.058E-06	Pulse	0.10	3
Tl			1	-0.023	ug/l	-2.56	256.68	3.412E-05	Pulse	0.10	3
Pb			1	-0.035	ug/l	-7.68	140.00	1.826E-05	Pulse	0.10	3
Pb			1	-0.019	ug/l	-57.80	230.10	2.961E-05	Pulse	0.10	3
Pb			1	-0.024	ug/l	-10.20	670.12	8.789E-05	Pulse	0.10	3
Na			2	-7.831	ug/l	-5.97	5,974.46	2.734E-02	Pulse	0.30	3
Mg			2	0.158	ug/l	644.28	1,756.79	8.101E-03	Pulse	0.30	3
Al			2	-4.281	ug/l	-32.43	841.16	3.875E-03	Pulse	0.30	3
K			2	-47.764	ug/l	-1.10	3,143.67	1.437E-02	Pulse	0.30	3
Ca			2	-8.778	ug/l	-8.26	90.00	4.128E-04	Pulse	0.30	3
Ti			2	0.061	ug/l	92.92	23.33	1.058E-04	Pulse	0.30	3
V			2	-0.062	ug/l	-0.61	5.56	2.525E-05	Pulse	0.30	3
Cr			2	-0.125	ug/l	-4.47	312.23	1.430E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	-5001.73	132.22	6.074E-04	Pulse	0.30	3
Fe			2	0.482	ug/l	229.80	26,569.13	1.220E-01	Pulse	0.30	3
Co			2	-0.005	ug/l	-17.97	96.60	4.394E-04	Pulse	0.30	3
Ni			2	-0.002	ug/l	-119.71	80.00	3.644E-04	Pulse	0.30	3
Cu			2	-0.094	ug/l	-4.14	576.68	2.633E-03	Pulse	0.30	3
Zn			2	-0.395	ug/l	-3.66	168.89	7.693E-04	Pulse	0.30	3
As			2	-0.043	ug/l	-4.54	3.33	1.515E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.020	ug/l	-6.17	1.02	8.654E-07	Pulse	0.30	3
Sn			2	-0.102	ug/l	-45.43	804.48	6.657E-04	Pulse	0.30	3
Se			3	-0.100	ug/l	-13.31	4.67	1.386E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		4,534,123.15	5.54	256.7	Analog	0.10	3
1	Sc		6,370,695.74	7.14	246.8	Analog	0.10	3
1	Ge		1,209,749.31	6.83	245.7	Pulse	0.10	3
1	Ge		1,685,622.63	6.60	248.6	Pulse	0.10	3
1	Rh		8,498,405.50	6.46	264.4	Analog	0.10	3
1	In		9,171,314.29	6.92	280.9	Analog	0.10	3
1	Tb		12,820,017.73	5.69	297.2	Analog	0.10	3
1	Ho		1,280,456.02	7.82	302.2	Pulse	0.10	3
1	Bi		7,558,946.35	6.69	304.2	Analog	0.10	3
2	Sc		219,135.09	5.22	256.9	Pulse	0.30	3
2	Ge		126,859.18	5.36	257.7	Pulse	0.30	3
2	Ge		192,280.91	4.50	258.5	Pulse	0.30	3
2	Rh		3,832,950.26	4.52	277.1	Pulse	0.30	3
2	In		1,214,487.83	4.55	274.8	Pulse	0.30	3
2	Tb		4,940,159.39	3.72	298.5	Analog	0.30	3
2	Ho		498,385.72	4.08	297.6	Pulse	0.30	3
2	Bi		3,337,183.69	3.97	305.5	Pulse	0.30	3
3	Sc		346,635.06	8.86	304.2	Pulse	0.30	3
3	Ge		221,802.30	8.54	293.2	Pulse	0.30	3
3	Ge		334,384.82	9.16	292.5	Pulse	0.30	3
3	Rh		3,832,443.18	8.94	310.1	Pulse	0.30	3
3	Tb		5,855,599.90	8.63	328.3	Analog	0.30	3

Quantitation Report

File Name 024_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 16:06
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.846	ug/l	0.26	298,416.17	1.956E-01	Pulse	0.25	3
B			1	100.008	ug/l	0.44	439,744.65	2.883E-01	Pulse	0.15	3
Ca			1	5076.884	ug/l	0.67	4,076,357.33	1.751E+00	Pulse	0.10	3
Sr			1	52.130	ug/l	0.11	2,093,792.31	6.883E-01	Pulse	0.10	3
Mo			1	51.767	ug/l	0.91	408,826.26	1.344E-01	Pulse	0.10	3
Ag			1	50.424	ug/l	0.78	975,635.95	3.083E-01	Pulse	0.10	3
Sn			1	51.374	ug/l	1.61	627,573.52	1.983E-01	Pulse	0.10	3
Sb			1	52.582	ug/l	0.52	753,226.84	1.724E-01	Pulse	0.10	3
Ba			1	50.030	ug/l	0.30	296,169.84	6.779E-02	Pulse	0.10	3
Tl			1	51.904	ug/l	1.03	1,711,223.41	6.872E-01	Pulse	0.10	3
Pb			1	51.798	ug/l	1.17	583,882.77	2.345E-01	Pulse	0.10	3
Pb			1	51.567	ug/l	0.60	513,382.55	2.061E-01	Pulse	0.10	3
Pb			1	51.434	ug/l	0.52	2,343,595.22	9.410E-01	Pulse	0.10	3
Na			2	4943.751	ug/l	1.07	3,928,032.48	5.122E+01	Pulse	0.30	3
Mg			2	4932.571	ug/l	0.69	1,822,158.96	2.376E+01	Pulse	0.30	3
Al			2	4854.682	ug/l	0.31	569,179.93	7.421E+00	Pulse	0.30	3
K			2	5009.825	ug/l	0.37	1,169,879.05	1.525E+01	Pulse	0.30	3
Ca			2	5226.839	ug/l	0.53	66,200.66	8.632E-01	Pulse	0.30	3
Ti			2	50.380	ug/l	5.78	5,116.42	6.671E-02	Pulse	0.30	3
V			2	52.067	ug/l	0.43	177,988.21	2.321E+00	Pulse	0.30	3
Cr			2	51.855	ug/l	0.37	226,447.04	2.953E+00	Pulse	0.30	3
Mn			2	51.343	ug/l	0.69	108,235.19	1.411E+00	Pulse	0.30	3
Fe			2	5162.217	ug/l	0.50	17,556,768.19	2.289E+02	Analog	0.30	3
Co			2	51.832	ug/l	0.38	380,665.66	4.963E+00	Pulse	0.30	3
Ni			2	51.044	ug/l	0.19	102,074.18	1.331E+00	Pulse	0.30	3
Cu			2	50.304	ug/l	0.55	278,941.73	3.637E+00	Pulse	0.30	3
Zn			2	49.750	ug/l	1.44	36,731.04	4.789E-01	Pulse	0.30	3
As			2	51.739	ug/l	0.90	20,498.17	2.673E-01	Pulse	1.00	3
Cd			2	50.482	ug/l	1.21	53,670.60	1.294E-01	Pulse	0.30	3
Sn			2	50.692	ug/l	0.92	109,288.15	2.636E-01	Pulse	0.30	3
Se			3	204.134	ug/l	0.16	22,231.03	2.060E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,525,260.86	0.87	86.4	Pulse	0.10	3
1	Sc		2,328,391.89	0.23	90.2	Pulse	0.10	3
1	Ge		460,463.39	0.49	93.5	Pulse	0.10	3

Quantitation Report

1	Ge		640,059.48	0.58	94.4	Pulse	0.10	3
1	Rh		3,042,129.95	0.48	94.7	Pulse	0.10	3
1	In		3,164,752.13	0.47	96.9	Pulse	0.10	3
1	Tb		4,369,247.75	1.50	101.3	Pulse	0.10	3
1	Ho		430,707.89	1.78	101.6	Pulse	0.10	3
1	Bi		2,490,580.07	1.84	100.2	Pulse	0.10	3
2	Sc		76,694.09	0.41	89.9	Pulse	0.30	3
2	Ge		45,587.98	0.66	92.6	Pulse	0.30	3
2	Ge		69,000.77	0.71	92.7	Pulse	0.30	3
2	Rh		1,302,267.48	0.98	94.1	Pulse	0.30	3
2	In		414,679.92	1.27	93.8	Pulse	0.30	3
2	Tb		1,601,204.21	0.49	96.8	Pulse	0.30	3
2	Ho		161,953.30	0.55	96.7	Pulse	0.30	3
2	Bi		1,067,764.51	0.63	97.7	Pulse	0.30	3
3	Sc		110,545.31	0.74	97.0	Pulse	0.30	3
3	Ge		71,438.81	1.13	94.4	Pulse	0.30	3
3	Ge		107,938.10	0.26	94.4	Pulse	0.30	3
3	Rh		1,190,029.78	0.11	96.3	Pulse	0.30	3
3	Tb		1,792,252.78	0.60	100.5	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 16:11
Sample Name 20ppmse&13btestconf
Sample Type Sample
Comment (200.8)
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.805	ug/l	0.73	485,189.04	3.093E-01	Pulse	0.25	3
B			1	79.800	ug/l	0.86	361,012.08	2.301E-01	Pulse	0.15	3
Ca			1	25.847	ug/l	2.43	30,632.36	1.301E-02	Pulse	0.10	3
Sr			1	82.289	ug/l	0.18	3,394,573.91	1.086E+00	Pulse	0.10	3
Mo			1	0.117	ug/l	15.31	1,106.75	3.541E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	27.16	263.35	8.135E-05	Pulse	0.10	3
Sn			1	0.079	ug/l	30.61	3,740.64	1.154E-03	Pulse	0.10	3
Sb			1	0.085	ug/l	7.91	2,173.59	4.981E-04	Pulse	0.10	3
Ba			1	81.986	ug/l	0.61	484,850.12	1.111E-01	Pulse	0.10	3
Tl			1	82.034	ug/l	0.19	2,774,482.98	1.086E+00	Pulse	0.10	3
Pb			1	82.703	ug/l	0.39	956,266.13	3.743E-01	Pulse	0.10	3
Pb			1	82.713	ug/l	0.19	844,669.02	3.306E-01	Pulse	0.10	3
Pb			1	82.723	ug/l	0.29	3,866,322.21	1.513E+00	Pulse	0.10	3
Na			2	3.024	ug/l	8.54	7,690.72	9.914E-02	Pulse	0.30	3
Mg			2	-0.077	ug/l	-267.07	570.02	7.350E-03	Pulse	0.30	3
Al			2	-2.493	ug/l	-9.46	258.89	3.337E-03	Pulse	0.30	3
K			2	2.475	ug/l	20.61	7,305.02	9.417E-02	Pulse	0.30	3
Ca			2	362.705	ug/l	3.20	4,728.51	6.096E-02	Pulse	0.30	3
Ti			2	0.178	ug/l	62.90	23.34	3.006E-04	Pulse	0.30	3
V			2	83.327	ug/l	0.88	288,039.13	3.713E+00	Pulse	0.30	3
Cr			2	83.365	ug/l	1.35	367,977.05	4.744E+00	Pulse	0.30	3
Mn			2	82.259	ug/l	1.30	175,363.95	2.261E+00	Pulse	0.30	3
Fe			2	0.987	ug/l	8.80	12,031.18	1.551E-01	Pulse	0.30	3
Co			2	82.851	ug/l	0.63	615,399.16	7.933E+00	Pulse	0.30	3
Ni			2	82.901	ug/l	1.16	167,654.30	2.161E+00	Pulse	0.30	3
Cu			2	82.324	ug/l	1.02	461,413.25	5.948E+00	Pulse	0.30	3
Zn			2	81.168	ug/l	0.82	60,485.45	7.797E-01	Pulse	0.30	3
As			2	0.022	ug/l	47.15	18.67	2.407E-04	Pulse	1.00	3
Cd			2	81.369	ug/l	0.75	87,299.39	2.086E-01	Pulse	0.30	3
Sn			2	0.165	ug/l	13.28	746.69	1.785E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	201.388	ug/l	0.50	22,322.96	2.032E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,568,713.69	0.54	88.8	Pulse	0.10	3
1	Sc		2,353,870.02	0.30	91.2	Pulse	0.10	3
1	Ge		467,653.78	0.78	95.0	Pulse	0.10	3
1	Ge		653,433.01	0.49	96.4	Pulse	0.10	3
1	Rh		3,124,621.73	0.59	97.2	Pulse	0.10	3
1	In		3,242,109.53	1.07	99.3	Pulse	0.10	3
1	Tb		4,364,789.21	0.76	101.2	Pulse	0.10	3
1	Ho		425,872.05	1.40	100.5	Pulse	0.10	3
1	Bi		2,554,863.56	0.49	102.8	Pulse	0.10	3
2	Sc		77,572.67	0.33	90.9	Pulse	0.30	3
2	Ge		46,200.77	0.56	93.8	Pulse	0.30	3
2	Ge		69,816.42	0.06	93.8	Pulse	0.30	3
2	Rh		1,328,689.01	0.85	96.1	Pulse	0.30	3
2	In		418,458.38	0.40	94.7	Pulse	0.30	3
2	Tb		1,613,939.00	0.27	97.5	Pulse	0.30	3
2	Ho		163,857.88	0.38	97.8	Pulse	0.30	3
2	Bi		1,091,404.54	0.18	99.9	Pulse	0.30	3
3	Sc		112,368.40	0.51	98.6	Pulse	0.30	3
3	Ge		72,391.46	0.35	95.7	Pulse	0.30	3
3	Ge		109,862.06	0.19	96.1	Pulse	0.30	3
3	Rh		1,232,474.05	0.34	99.7	Pulse	0.30	3
3	Tb		1,809,908.89	0.92	101.5	Pulse	0.30	3

Quantitation Report

File Name 026_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 16:16
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.693	ug/l	0.44	313,558.18	1.990E-01	Pulse	0.25	3
B			1	104.257	ug/l	0.54	473,625.12	3.005E-01	Pulse	0.15	3
Ca			1	5081.156	ug/l	0.65	4,132,873.90	1.752E+00	Pulse	0.10	3
Sr			1	52.241	ug/l	0.49	2,102,716.90	6.897E-01	Pulse	0.10	3
Mo			1	51.295	ug/l	0.63	405,951.76	1.332E-01	Pulse	0.10	3
Ag			1	50.203	ug/l	0.80	975,630.06	3.069E-01	Pulse	0.10	3
Sn			1	51.297	ug/l	0.51	629,389.82	1.980E-01	Pulse	0.10	3
Sb			1	52.532	ug/l	1.17	752,605.95	1.722E-01	Pulse	0.10	3
Ba			1	50.948	ug/l	0.68	301,649.22	6.903E-02	Pulse	0.10	3
Tl			1	51.919	ug/l	0.48	1,711,743.62	6.874E-01	Pulse	0.10	3
Pb			1	52.026	ug/l	1.38	586,454.90	2.355E-01	Pulse	0.10	3
Pb			1	51.514	ug/l	0.22	512,831.64	2.059E-01	Pulse	0.10	3
Pb			1	51.778	ug/l	0.42	2,359,183.32	9.473E-01	Pulse	0.10	3
Na			2	4972.517	ug/l	0.96	4,000,814.98	5.152E+01	Pulse	0.30	3
Mg			2	4974.122	ug/l	1.26	1,860,631.25	2.396E+01	Pulse	0.30	3
Al			2	4851.920	ug/l	1.65	575,995.24	7.417E+00	Pulse	0.30	3
K			2	4983.841	ug/l	1.98	1,178,430.96	1.518E+01	Pulse	0.30	3
Ca			2	5240.966	ug/l	1.47	67,213.46	8.655E-01	Pulse	0.30	3
Ti			2	51.158	ug/l	2.77	5,259.79	6.774E-02	Pulse	0.30	3
V			2	52.171	ug/l	1.45	180,582.90	2.325E+00	Pulse	0.30	3
Cr			2	51.473	ug/l	1.31	227,610.28	2.931E+00	Pulse	0.30	3
Mn			2	51.267	ug/l	1.70	109,431.89	1.409E+00	Pulse	0.30	3
Fe			2	5170.652	ug/l	1.88	17,805,931.51	2.293E+02	Analog	0.30	3
Co			2	51.796	ug/l	1.31	385,176.19	4.960E+00	Pulse	0.30	3
Ni			2	50.969	ug/l	0.34	103,212.78	1.329E+00	Pulse	0.30	3
Cu			2	50.483	ug/l	0.82	283,457.62	3.650E+00	Pulse	0.30	3
Zn			2	49.661	ug/l	2.31	37,129.85	4.781E-01	Pulse	0.30	3
As			2	51.342	ug/l	0.72	20,597.62	2.652E-01	Pulse	1.00	3
Cd			2	51.264	ug/l	0.34	53,854.16	1.314E-01	Pulse	0.30	3
Sn			2	51.452	ug/l	0.91	109,593.77	2.675E-01	Pulse	0.30	3
Se			3	202.104	ug/l	1.80	22,250.12	2.039E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,575,866.29	0.51	89.2	Pulse	0.10	3
1	Sc		2,358,783.87	0.93	91.4	Pulse	0.10	3
1	Ge		460,441.36	1.50	93.5	Pulse	0.10	3

Quantitation Report

1	Ge		645,189.30	1.32	95.2	Pulse	0.10	3
1	Rh		3,048,512.45	0.91	94.9	Pulse	0.10	3
1	In		3,178,582.35	0.20	97.4	Pulse	0.10	3
1	Tb		4,369,722.43	0.25	101.3	Pulse	0.10	3
1	Ho		433,064.29	1.54	102.2	Pulse	0.10	3
1	Bi		2,490,278.61	0.53	100.2	Pulse	0.10	3
2	Sc		77,665.22	1.01	91.0	Pulse	0.30	3
2	Ge		45,304.87	1.02	92.0	Pulse	0.30	3
2	Ge		69,443.76	0.62	93.3	Pulse	0.30	3
2	Rh		1,301,754.84	0.94	94.1	Pulse	0.30	3
2	In		409,708.62	0.72	92.7	Pulse	0.30	3
2	Tb		1,608,667.75	0.58	97.2	Pulse	0.30	3
2	Ho		162,633.73	1.12	97.1	Pulse	0.30	3
2	Bi		1,063,308.08	0.34	97.3	Pulse	0.30	3
3	Sc		112,508.26	0.43	98.7	Pulse	0.30	3
3	Ge		71,440.96	1.10	94.4	Pulse	0.30	3
3	Ge		109,131.54	1.44	95.5	Pulse	0.30	3
3	Rh		1,200,880.93	0.68	97.2	Pulse	0.30	3
3	Tb		1,798,207.08	0.10	100.8	Pulse	0.30	3

Quantitation Report

File Name	027_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 16:21
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	22.78	105.33	6.606E-05	Pulse	0.25	3
B			1	7.441	ug/l	0.57	34,807.07	2.183E-02	Pulse	0.15	3
Ca			1	-0.600	ug/l	-25.72	9,306.30	3.915E-03	Pulse	0.10	3
Sr			1	0.019	ug/l	32.14	1,123.42	3.597E-04	Pulse	0.10	3
Mo			1	0.093	ug/l	11.78	906.72	2.905E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	13.05	286.68	8.895E-05	Pulse	0.10	3
Sn			1	0.141	ug/l	41.60	4,483.01	1.393E-03	Pulse	0.10	3
Sb			1	0.106	ug/l	15.76	2,470.30	5.686E-04	Pulse	0.10	3
Ba			1	0.009	ug/l	47.93	93.34	2.149E-05	Pulse	0.10	3
Tl			1	0.022	ug/l	20.15	1,213.44	4.783E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	37.41	450.02	1.775E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	35.54	310.02	1.220E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	21.29	1,746.79	6.886E-04	Pulse	0.10	3
Na			2	1.338	ug/l	11.06	6,462.41	8.169E-02	Pulse	0.30	3
Mg			2	-0.437	ug/l	-50.17	443.35	5.614E-03	Pulse	0.30	3
Al			2	-3.510	ug/l	-2.48	141.12	1.784E-03	Pulse	0.30	3
K			2	2.132	ug/l	25.44	7,367.24	9.313E-02	Pulse	0.30	3
Ca			2	-1.868	ug/l	-63.94	65.55	8.285E-04	Pulse	0.30	3
Ti			2	-0.028	ug/l	-65.08	2.22	2.814E-05	Pulse	0.30	3
V			2	-0.007	ug/l	-61.90	87.78	1.108E-03	Pulse	0.30	3
Cr			2	-0.006	ug/l	-221.01	365.56	4.621E-03	Pulse	0.30	3
Mn			2	0.007	ug/l	28.54	64.44	8.143E-04	Pulse	0.30	3
Fe			2	-0.372	ug/l	-41.51	7,500.67	9.487E-02	Pulse	0.30	3
Co			2	0.005	ug/l	46.03	88.87	1.125E-03	Pulse	0.30	3
Ni			2	0.013	ug/l	70.45	57.78	7.297E-04	Pulse	0.30	3
Cu			2	0.042	ug/l	12.13	714.47	9.033E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.024	ug/l	88.13	228.89	2.892E-03	Pulse	0.30	3
As			2	0.006	ug/l	215.55	12.33	1.565E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	1276.82	12.16	2.877E-05	Pulse	0.30	3
Sn			2	0.194	ug/l	9.31	817.81	1.934E-03	Pulse	0.30	3
Se			3	0.063	ug/l	23.62	14.27	1.280E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,594,677.78	0.30	90.3	Pulse	0.10	3
1	Sc		2,377,184.70	0.52	92.1	Pulse	0.10	3
1	Ge		468,014.98	0.85	95.1	Pulse	0.10	3
1	Ge		646,543.73	2.00	95.4	Pulse	0.10	3
1	Rh		3,120,725.47	0.81	97.1	Pulse	0.10	3
1	In		3,221,499.82	0.82	98.7	Pulse	0.10	3
1	Tb		4,344,744.10	0.34	100.7	Pulse	0.10	3
1	Ho		432,174.55	0.27	102.0	Pulse	0.10	3
1	Bi		2,538,154.03	1.22	102.1	Pulse	0.10	3
2	Sc		79,115.30	1.56	92.7	Pulse	0.30	3
2	Ge		46,600.80	1.55	94.7	Pulse	0.30	3
2	Ge		69,931.25	1.16	94.0	Pulse	0.30	3
2	Rh		1,353,657.52	0.09	97.9	Pulse	0.30	3
2	In		422,944.99	0.74	95.7	Pulse	0.30	3
2	Tb		1,622,444.42	0.46	98.0	Pulse	0.30	3
2	Ho		163,791.67	0.86	97.8	Pulse	0.30	3
2	Bi		1,085,754.44	0.60	99.4	Pulse	0.30	3
3	Sc		114,128.11	0.15	100.2	Pulse	0.30	3
3	Ge		73,134.89	0.39	96.7	Pulse	0.30	3
3	Ge		111,455.02	0.58	97.5	Pulse	0.30	3
3	Rh		1,253,947.17	0.54	101.5	Pulse	0.30	3
3	Tb		1,809,490.48	0.48	101.4	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 16:26
Sample Name	jc91169-3 4
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.865	ug/l	3.78	5,858.43	3.839E-03	Pulse	0.25	3
B			1	144.119	ug/l	1.26	127,273.54	8.338E-02	Pulse	0.15	3
Ca			1	43429.195	ug/l	1.82	7,614,006.14	2.992E+00	Analog	0.10	3
Sr			1	185.295	ug/l	0.33	1,459,298.16	4.893E-01	Pulse	0.10	3
Mo			1	5.269	ug/l	3.82	8,305.79	2.785E-03	Pulse	0.10	3
Ag			1	0.586	ug/l	1.54	2,263.59	7.252E-04	Pulse	0.10	3
Sn			1	7.956	ug/l	2.60	21,745.58	6.966E-03	Pulse	0.10	3
Sb			1	1.680	ug/l	8.34	5,761.25	1.321E-03	Pulse	0.10	3
Ba			1	524.406	ug/l	0.35	619,639.83	1.421E-01	Pulse	0.10	3
Tl			1	0.906	ug/l	3.22	6,515.03	2.580E-03	Pulse	0.10	3
Pb			1	107.653	ug/l	0.48	246,188.11	9.751E-02	Pulse	0.10	3
Pb			1	102.332	ug/l	2.29	206,690.42	8.186E-02	Pulse	0.10	3
Pb			1	104.726	ug/l	0.38	967,959.65	3.834E-01	Pulse	0.10	3
Na			2	4117.712	ug/l	1.01	717,564.33	8.589E+00	Pulse	0.30	3
Mg			2	36413.530	ug/l	0.87	2,930,499.40	3.508E+01	Pulse	0.30	3
Al			2	88984.767	ug/l	1.76	2,271,305.82	2.719E+01	Pulse	0.30	3
K			2	12567.415	ug/l	1.76	642,956.66	7.696E+00	Pulse	0.30	3
Ca			2	43869.723	ug/l	0.95	120,994.58	1.448E+00	Pulse	0.30	3
Ti			2	1756.409	ug/l	2.76	38,821.06	4.647E-01	Pulse	0.30	3
V			2	132.823	ug/l	1.95	98,973.66	1.185E+00	Pulse	0.30	3
Cr			2	136.791	ug/l	1.33	130,342.22	1.560E+00	Pulse	0.30	3
Mn			2	1094.682	ug/l	1.21	502,610.33	6.016E+00	Pulse	0.30	3
Fe			2	72556.380	ug/l	2.72	53,738,781.20	6.433E+02	Analog	0.30	3
Co			2	44.352	ug/l	1.75	71,009.64	8.500E-01	Pulse	0.30	3
Ni			2	97.197	ug/l	2.48	42,364.29	5.071E-01	Pulse	0.30	3
Cu			2	114.192	ug/l	1.20	138,229.75	1.655E+00	Pulse	0.30	3
Zn			2	289.423	ug/l	1.83	46,519.15	5.568E-01	Pulse	0.30	3
As			2	10.874	ug/l	0.96	948.70	1.135E-02	Pulse	1.00	3
Cd			2	0.377	ug/l	24.85	88.50	2.203E-04	Pulse	0.30	3
Sn			2	8.201	ug/l	4.81	3,784.94	9.427E-03	Pulse	0.30	3
Se			3	7.145	ug/l	3.58	166.40	1.505E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,526,346.41	0.60	86.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,545,049.28	1.60	98.6	Pulse	0.10	3
1	Ge		454,356.13	1.68	92.3	Pulse	0.10	3
1	Ge		627,335.95	1.88	92.5	Pulse	0.10	3
1	Rh		2,982,240.06	0.82	92.8	Pulse	0.10	3
1	In		3,120,912.93	1.84	95.6	Pulse	0.10	3
1	Tb		4,360,665.87	0.64	101.1	Pulse	0.10	3
1	Ho		472,668.01	1.30	111.6	Pulse	0.10	3
1	Bi		2,524,700.64	0.88	101.6	Pulse	0.10	3
2	Sc		83,555.62	1.36	97.9	Pulse	0.30	3
2	Ge		46,144.09	1.00	93.7	Pulse	0.30	3
2	Ge		68,641.39	0.83	92.3	Pulse	0.30	3
2	Rh		1,282,031.24	1.14	92.7	Pulse	0.30	3
2	In		401,559.49	0.57	90.9	Pulse	0.30	3
2	Tb		1,590,751.32	0.79	96.1	Pulse	0.30	3
2	Ho		176,681.27	1.03	105.5	Pulse	0.30	3
2	Bi		1,052,565.72	1.05	96.3	Pulse	0.30	3
3	Sc		124,990.53	0.23	109.7	Pulse	0.30	3
3	Ge		74,484.31	0.44	98.5	Pulse	0.30	3
3	Ge		110,531.38	0.38	96.7	Pulse	0.30	3
3	Rh		1,194,162.11	0.35	96.6	Pulse	0.30	3
3	Tb		1,815,677.08	0.13	101.8	Pulse	0.30	3

Quantitation Report

File Name 029SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 16:31
Sample Name mp16258a-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	113.89	44.00	2.781E-05	Pulse	0.25	3
B			1	11.731	ug/l	2.00	27,344.64	1.729E-02	Pulse	0.15	3
Ca			1	104.790	ug/l	2.10	52,162.61	2.215E-02	Pulse	0.10	3
Sr			1	0.187	ug/l	3.82	4,184.06	1.346E-03	Pulse	0.10	3
Mo			1	0.261	ug/l	14.71	1,210.10	3.889E-04	Pulse	0.10	3
Ag			1	0.020	ug/l	16.68	223.34	6.990E-05	Pulse	0.10	3
Sn			1	1.205	ug/l	7.65	10,110.26	3.165E-03	Pulse	0.10	3
Sb			1	0.352	ug/l	3.92	3,473.85	7.970E-04	Pulse	0.10	3
Ba			1	0.161	ug/l	18.48	516.69	1.186E-04	Pulse	0.10	3
Tl			1	0.032	ug/l	17.85	1,040.07	3.929E-04	Pulse	0.10	3
Pb			1	0.078	ug/l	16.33	723.38	2.735E-04	Pulse	0.10	3
Pb			1	0.074	ug/l	26.36	566.70	2.144E-04	Pulse	0.10	3
Pb			1	0.078	ug/l	5.63	2,683.54	1.014E-03	Pulse	0.10	3
Na			2	12.203	ug/l	2.66	10,148.72	1.310E-01	Pulse	0.30	3
Mg			2	4.067	ug/l	17.48	1,356.74	1.751E-02	Pulse	0.30	3
Al			2	3.448	ug/l	29.19	757.80	9.777E-03	Pulse	0.30	3
K			2	5.207	ug/l	23.76	7,326.13	9.456E-02	Pulse	0.30	3
Ca			2	108.204	ug/l	13.95	778.92	1.006E-02	Pulse	0.30	3
Ti			2	0.662	ug/l	50.57	38.89	5.033E-04	Pulse	0.30	3
V			2	0.101	ug/l	10.87	283.34	3.657E-03	Pulse	0.30	3
Cr			2	0.272	ug/l	4.70	984.49	1.271E-02	Pulse	0.30	3
Mn			2	0.150	ug/l	33.69	206.67	2.672E-03	Pulse	0.30	3
Fe			2	6.229	ug/l	6.10	19,321.47	2.494E-01	Pulse	0.30	3
Co			2	0.016	ug/l	18.28	113.29	1.463E-03	Pulse	0.30	3
Ni			2	0.058	ug/l	45.75	88.89	1.146E-03	Pulse	0.30	3
Cu			2	0.455	ug/l	2.22	1,740.12	2.245E-02	Pulse	0.30	3
Zn			2	4.578	ug/l	3.18	1,904.58	2.458E-02	Pulse	0.30	3
As			2	0.173	ug/l	17.69	44.33	5.725E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.015	ug/l	-74.62	3.26	7.947E-06	Pulse	0.30	3
Sn			2	1.283	ug/l	7.94	1,749.01	4.253E-03	Pulse	0.30	3
Se			3	0.077	ug/l	1.83	11.93	1.028E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,581,410.61	0.61	89.5	Pulse	0.10	3
1	Sc		2,355,713.87	1.54	91.3	Pulse	0.10	3
1	Ge		473,447.92	0.97	96.2	Pulse	0.10	3
1	Ge		653,845.67	1.02	96.4	Pulse	0.10	3
1	Rh		3,109,552.04	1.20	96.8	Pulse	0.10	3
1	In		3,195,661.60	1.33	97.9	Pulse	0.10	3
1	Tb		4,359,435.77	1.65	101.1	Pulse	0.10	3
1	Ho		433,623.82	1.18	102.3	Pulse	0.10	3
1	Bi		2,645,852.36	0.96	106.5	Pulse	0.10	3
2	Sc		77,489.13	1.09	90.8	Pulse	0.30	3
2	Ge		47,151.18	0.69	95.8	Pulse	0.30	3
2	Ge		70,417.68	2.05	94.7	Pulse	0.30	3
2	Rh		1,330,643.25	0.61	96.2	Pulse	0.30	3
2	In		411,210.81	0.25	93.1	Pulse	0.30	3
2	Tb		1,602,696.19	0.36	96.8	Pulse	0.30	3
2	Ho		162,450.78	0.68	97.0	Pulse	0.30	3
2	Bi		1,090,097.42	0.99	99.8	Pulse	0.30	3
3	Sc		117,653.64	0.41	103.2	Pulse	0.30	3
3	Ge		76,712.50	0.73	101.4	Pulse	0.30	3
3	Ge		116,101.30	0.29	101.5	Pulse	0.30	3
3	Rh		1,259,484.98	0.61	101.9	Pulse	0.30	3
3	Tb		1,830,089.99	0.40	102.6	Pulse	0.30	3

Quantitation Report

File Name 030SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 16:36
Sample Name mp16258a-b2conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.314	ug/l	1.47	242,210.83	1.478E-01	Pulse	0.25	3
B			1	87.316	ug/l	1.76	206,618.42	1.261E-01	Pulse	0.15	3
Ca			1	4066.273	ug/l	0.62	1,700,356.59	7.036E-01	Pulse	0.10	3
Sr			1	80.875	ug/l	0.99	1,663,735.65	5.339E-01	Pulse	0.10	3
Mo			1	73.820	ug/l	0.28	298,641.54	9.583E-02	Pulse	0.10	3
Ag			1	76.838	ug/l	0.99	767,899.08	2.349E-01	Pulse	0.10	3
Sn			1	74.943	ug/l	0.69	473,622.90	1.449E-01	Pulse	0.10	3
Sb			1	75.271	ug/l	0.59	545,105.12	1.235E-01	Pulse	0.10	3
Ba			1	79.175	ug/l	1.15	236,852.98	5.364E-02	Pulse	0.10	3
Tl			1	79.712	ug/l	1.74	1,348,774.72	5.277E-01	Pulse	0.10	3
Pb			1	82.740	ug/l	1.48	478,657.15	1.873E-01	Pulse	0.10	3
Pb			1	82.632	ug/l	1.25	422,174.77	1.652E-01	Pulse	0.10	3
Pb			1	82.903	ug/l	1.28	1,938,512.85	7.585E-01	Pulse	0.10	3
Na			2	3962.606	ug/l	0.78	1,653,329.80	2.057E+01	Pulse	0.30	3
Mg			2	3956.483	ug/l	1.01	766,338.28	9.533E+00	Pulse	0.30	3
Al			2	3769.025	ug/l	1.13	231,936.20	2.885E+00	Pulse	0.30	3
K			2	3971.020	ug/l	0.94	490,166.54	6.098E+00	Pulse	0.30	3
Ca			2	4283.589	ug/l	0.77	28,488.92	3.544E-01	Pulse	0.30	3
Ti			2	71.088	ug/l	5.07	3,784.92	4.708E-02	Pulse	0.30	3
V			2	81.862	ug/l	1.13	146,676.02	1.825E+00	Pulse	0.30	3
Cr			2	80.565	ug/l	1.22	184,463.49	2.295E+00	Pulse	0.30	3
Mn			2	78.483	ug/l	0.22	86,723.33	1.079E+00	Pulse	0.30	3
Fe			2	4108.896	ug/l	1.17	7,329,123.04	9.117E+01	Analog	0.30	3
Co			2	80.359	ug/l	1.16	309,289.11	3.848E+00	Pulse	0.30	3
Ni			2	79.944	ug/l	1.60	83,781.47	1.042E+00	Pulse	0.30	3
Cu			2	79.231	ug/l	0.69	230,349.65	2.866E+00	Pulse	0.30	3
Zn			2	74.154	ug/l	1.72	28,746.41	3.576E-01	Pulse	0.30	3
As			2	69.640	ug/l	0.88	14,462.40	1.799E-01	Pulse	1.00	3
Cd			2	76.090	ug/l	2.69	41,008.10	9.756E-02	Pulse	0.30	3
Sn			2	75.204	ug/l	0.42	82,298.77	1.957E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	344.732	ug/l	0.85	20,983.93	1.739E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,638,633.22	0.41	92.8	Pulse	0.10	3
1	Sc		2,416,760.22	0.60	93.6	Pulse	0.10	3
1	Ge		472,550.63	0.94	96.0	Pulse	0.10	3
1	Ge		660,128.35	0.22	97.4	Pulse	0.10	3
1	Rh		3,116,239.54	0.93	97.0	Pulse	0.10	3
1	In		3,269,364.12	1.28	100.1	Pulse	0.10	3
1	Tb		4,415,212.02	1.18	102.4	Pulse	0.10	3
1	Ho		434,615.33	1.01	102.6	Pulse	0.10	3
1	Bi		2,555,899.13	0.57	102.9	Pulse	0.10	3
2	Sc		80,390.17	1.13	94.2	Pulse	0.30	3
2	Ge		47,009.67	1.19	95.5	Pulse	0.30	3
2	Ge		71,264.59	0.27	95.8	Pulse	0.30	3
2	Rh		1,338,049.77	0.27	96.7	Pulse	0.30	3
2	In		420,438.42	1.30	95.1	Pulse	0.30	3
2	Tb		1,631,234.72	0.95	98.6	Pulse	0.30	3
2	Ho		163,274.55	1.33	97.5	Pulse	0.30	3
2	Bi		1,077,199.99	0.44	98.6	Pulse	0.30	3
3	Sc		121,920.15	1.11	107.0	Pulse	0.30	3
3	Ge		78,560.89	1.42	103.9	Pulse	0.30	3
3	Ge		120,664.14	1.59	105.5	Pulse	0.30	3
3	Rh		1,280,758.42	1.14	103.6	Pulse	0.30	3
3	Tb		1,877,512.29	0.99	105.3	Pulse	0.30	3

Quantitation Report

File Name 031SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 16:41
Sample Name mp16289a-ps1 4
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	206.894	ug/l	0.63	269,081.29	1.624E-01	Pulse	0.25	3
B			1	256.330	ug/l	0.91	245,196.01	1.480E-01	Pulse	0.15	3
Ca			1	19021.010	ug/l	0.47	3,415,992.35	1.313E+00	Pulse	0.10	3
Sr			1	333.168	ug/l	0.22	2,775,288.29	8.797E-01	Pulse	0.10	3
Mo			1	208.683	ug/l	1.09	341,846.27	1.084E-01	Pulse	0.10	3
Ag			1	99.007	ug/l	0.39	398,478.75	1.211E-01	Pulse	0.10	3
Sn			1	247.239	ug/l	0.71	628,351.38	1.909E-01	Pulse	0.10	3
Sb			1	206.662	ug/l	0.40	604,015.78	1.356E-01	Pulse	0.10	3
Ba			1	892.425	ug/l	0.51	1,077,416.39	2.418E-01	Pulse	0.10	3
Tl			1	206.614	ug/l	0.82	1,406,390.76	5.471E-01	Pulse	0.10	3
Pb			1	1061.020	ug/l	1.14	2,468,221.79	9.602E-01	Pulse	0.10	3
Pb			1	1022.715	ug/l	1.32	2,101,258.45	8.175E-01	Pulse	0.10	3
Pb			1	1042.379	ug/l	0.66	9,802,440.37	3.813E+00	Pulse	0.10	3
Na			2	5050.155	ug/l	1.46	893,743.12	1.052E+01	Pulse	0.30	3
Mg			2	11629.400	ug/l	1.78	952,265.69	1.121E+01	Pulse	0.30	3
Al			2	60863.761	ug/l	1.26	1,580,311.88	1.860E+01	Pulse	0.30	3
K			2	6550.936	ug/l	1.67	344,404.71	4.053E+00	Pulse	0.30	3
Ca			2	20136.644	ug/l	0.84	56,538.74	6.653E-01	Pulse	0.30	3
Ti			2	1466.090	ug/l	3.91	32,954.95	3.879E-01	Pulse	0.30	3
V			2	401.186	ug/l	1.75	303,815.66	3.576E+00	Pulse	0.30	3
Cr			2	349.753	ug/l	1.62	338,288.08	3.981E+00	Pulse	0.30	3
Mn			2	511.129	ug/l	1.09	238,725.24	2.809E+00	Pulse	0.30	3
Fe			2	71575.609	ug/l	1.27	53,924,771.19	6.346E+02	Analog	0.30	3
Co			2	225.594	ug/l	1.79	367,125.45	4.321E+00	Pulse	0.30	3
Ni			2	398.828	ug/l	1.17	176,710.79	2.080E+00	Pulse	0.30	3
Cu			2	568.020	ug/l	1.81	697,259.29	8.206E+00	Pulse	0.30	3
Zn			2	1913.232	ug/l	1.25	311,509.25	3.666E+00	Pulse	0.30	3
As			2	218.295	ug/l	0.95	19,166.56	2.256E-01	Pulse	1.00	3
Cd			2	221.733	ug/l	2.04	47,751.52	1.137E-01	Pulse	0.30	3
Sn			2	251.475	ug/l	1.15	109,823.99	2.615E-01	Pulse	0.30	3
Se			3	542.061	ug/l	1.21	12,315.82	1.094E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,656,773.25	0.50	93.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,601,967.36	1.00	100.8	Pulse	0.10	3
1	Ge		483,116.14	1.13	98.1	Pulse	0.10	3
1	Ge		664,658.45	0.55	98.0	Pulse	0.10	3
1	Rh		3,154,660.27	0.63	98.2	Pulse	0.10	3
1	In		3,291,346.89	0.74	100.8	Pulse	0.10	3
1	Tb		4,455,520.56	0.94	103.3	Pulse	0.10	3
1	Ho		470,849.93	0.25	111.1	Pulse	0.10	3
1	Bi		2,570,671.58	1.22	103.5	Pulse	0.10	3
2	Sc		84,983.04	1.41	99.6	Pulse	0.30	3
2	Ge		48,657.83	1.84	98.8	Pulse	0.30	3
2	Ge		72,117.44	1.59	96.9	Pulse	0.30	3
2	Rh		1,334,380.99	0.69	96.5	Pulse	0.30	3
2	In		419,984.31	0.85	95.0	Pulse	0.30	3
2	Tb		1,630,351.81	1.16	98.5	Pulse	0.30	3
2	Ho		176,928.62	1.26	105.7	Pulse	0.30	3
2	Bi		1,083,506.69	1.06	99.2	Pulse	0.30	3
3	Sc		123,887.95	1.39	108.7	Pulse	0.30	3
3	Ge		75,153.02	1.57	99.4	Pulse	0.30	3
3	Ge		112,567.10	0.55	98.5	Pulse	0.30	3
3	Rh		1,221,410.12	0.44	98.8	Pulse	0.30	3
3	Tb		1,802,214.93	0.90	101.0	Pulse	0.30	3

Quantitation Report

File Name	032SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 16:46
Sample Name	mp16289a-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.134	ug/l	13.04	216.01	1.252E-04	Pulse	0.25	3
B			1	24.794	ug/l	5.36	25,288.12	1.468E-02	Pulse	0.15	3
Ca			1	123.299	ug/l	4.41	31,460.49	1.261E-02	Pulse	0.10	3
Sr			1	0.578	ug/l	3.10	5,294.46	1.635E-03	Pulse	0.10	3
Mo			1	0.655	ug/l	16.55	1,263.43	3.900E-04	Pulse	0.10	3
Ag			1	0.055	ug/l	18.06	253.34	7.636E-05	Pulse	0.10	3
Sn			1	17.538	ug/l	1.16	47,543.03	1.433E-02	Pulse	0.10	3
Sb			1	1.040	ug/l	3.88	4,033.98	9.020E-04	Pulse	0.10	3
Ba			1	0.549	ug/l	8.16	706.71	1.580E-04	Pulse	0.10	3
Tl			1	0.135	ug/l	15.78	1,410.11	5.392E-04	Pulse	0.10	3
Pb			1	0.517	ug/l	1.92	1,480.13	5.655E-04	Pulse	0.10	3
Pb			1	0.501	ug/l	8.55	1,223.43	4.677E-04	Pulse	0.10	3
Pb			1	0.525	ug/l	2.48	5,820.69	2.224E-03	Pulse	0.10	3
Na			2	58.810	ug/l	6.23	15,735.41	1.895E-01	Pulse	0.30	3
Mg			2	9.903	ug/l	13.97	1,432.30	1.726E-02	Pulse	0.30	3
Al			2	6.564	ug/l	107.88	760.04	9.149E-03	Pulse	0.30	3
K			2	26.772	ug/l	18.14	8,540.03	1.029E-01	Pulse	0.30	3
Ca			2	122.161	ug/l	11.51	428.90	5.166E-03	Pulse	0.30	3
Ti			2	0.713	ug/l	24.41	21.11	2.543E-04	Pulse	0.30	3
V			2	0.200	ug/l	33.41	264.45	3.184E-03	Pulse	0.30	3
Cr			2	0.956	ug/l	1.95	1,315.62	1.585E-02	Pulse	0.30	3
Mn			2	0.541	ug/l	3.69	297.79	3.587E-03	Pulse	0.30	3
Fe			2	34.551	ug/l	2.32	34,668.71	4.176E-01	Pulse	0.30	3
Co			2	0.116	ug/l	10.43	241.02	2.903E-03	Pulse	0.30	3
Ni			2	0.493	ug/l	4.27	245.56	2.958E-03	Pulse	0.30	3
Cu			2	1.376	ug/l	8.62	2,147.94	2.588E-02	Pulse	0.30	3
Zn			2	21.309	ug/l	6.35	3,607.11	4.346E-02	Pulse	0.30	3
As			2	0.197	ug/l	27.62	27.33	3.292E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.163	ug/l	23.53	47.70	1.103E-04	Pulse	0.30	3
Sn			2	17.449	ug/l	4.32	8,217.80	1.901E-02	Pulse	0.30	3
Se			3	0.369	ug/l	18.45	16.13	1.386E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,723,273.22	1.37	97.6	Pulse	0.10	3
1	Sc		2,496,442.51	1.17	96.7	Pulse	0.10	3
1	Ge		483,336.27	1.76	98.2	Pulse	0.10	3
1	Ge		675,444.73	1.19	99.6	Pulse	0.10	3
1	Rh		3,237,869.43	0.61	100.7	Pulse	0.10	3
1	In		3,317,069.48	1.88	101.6	Pulse	0.10	3
1	Tb		4,472,336.60	1.11	103.7	Pulse	0.10	3
1	Ho		439,918.85	1.71	103.8	Pulse	0.10	3
1	Bi		2,617,387.52	1.20	105.3	Pulse	0.10	3
2	Sc		83,006.10	0.54	97.3	Pulse	0.30	3
2	Ge		49,219.44	0.78	100.0	Pulse	0.30	3
2	Ge		74,019.16	1.03	99.5	Pulse	0.30	3
2	Rh		1,377,949.53	0.47	99.6	Pulse	0.30	3
2	In		432,368.16	0.83	97.8	Pulse	0.30	3
2	Tb		1,630,564.48	0.55	98.5	Pulse	0.30	3
2	Ho		165,294.82	0.68	98.7	Pulse	0.30	3
2	Bi		1,110,852.56	0.52	101.7	Pulse	0.30	3
3	Sc		119,633.88	0.48	105.0	Pulse	0.30	3
3	Ge		76,579.42	0.17	101.2	Pulse	0.30	3
3	Ge		116,493.46	1.37	101.9	Pulse	0.30	3
3	Rh		1,290,199.05	0.99	104.4	Pulse	0.30	3
3	Tb		1,830,785.14	0.60	102.6	Pulse	0.30	3

Quantitation Report

File Name 033SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 16:51
Sample Name mp16289a-b2conf
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	190.877	ug/l	0.57	261,324.48	1.498E-01	Pulse	0.25	3
B			1	200.625	ug/l	0.50	202,159.48	1.159E-01	Pulse	0.15	3
Ca			1	9805.429	ug/l	0.22	1,756,688.73	6.788E-01	Pulse	0.10	3
Sr			1	198.645	ug/l	0.93	1,699,333.15	5.246E-01	Pulse	0.10	3
Mo			1	184.560	ug/l	0.26	310,481.83	9.584E-02	Pulse	0.10	3
Ag			1	95.390	ug/l	0.17	391,403.94	1.166E-01	Pulse	0.10	3
Sn			1	197.484	ug/l	1.25	512,184.63	1.527E-01	Pulse	0.10	3
Sb			1	194.807	ug/l	1.16	576,887.99	1.278E-01	Pulse	0.10	3
Ba			1	193.519	ug/l	1.38	236,723.83	5.244E-02	Pulse	0.10	3
Tl			1	193.713	ug/l	0.68	1,318,109.07	5.130E-01	Pulse	0.10	3
Pb			1	201.097	ug/l	0.92	467,844.75	1.821E-01	Pulse	0.10	3
Pb			1	201.558	ug/l	1.56	414,120.63	1.612E-01	Pulse	0.10	3
Pb			1	201.209	ug/l	1.07	1,892,051.38	7.363E-01	Pulse	0.10	3
Na			2	9629.285	ug/l	0.45	1,717,913.51	1.999E+01	Pulse	0.30	3
Mg			2	9480.026	ug/l	0.79	785,096.17	9.137E+00	Pulse	0.30	3
Al			2	9191.190	ug/l	0.57	241,832.99	2.815E+00	Pulse	0.30	3
K			2	9584.853	ug/l	0.60	506,102.51	5.890E+00	Pulse	0.30	3
Ca			2	10386.780	ug/l	2.05	29,535.25	3.437E-01	Pulse	0.30	3
Ti			2	180.254	ug/l	5.03	4,102.77	4.775E-02	Pulse	0.30	3
V			2	195.299	ug/l	1.29	149,617.07	1.741E+00	Pulse	0.30	3
Cr			2	193.927	ug/l	1.00	189,860.83	2.210E+00	Pulse	0.30	3
Mn			2	186.746	ug/l	1.00	88,223.66	1.027E+00	Pulse	0.30	3
Fe			2	9781.519	ug/l	2.15	7,459,751.93	8.682E+01	Analog	0.30	3
Co			2	191.401	ug/l	0.49	314,977.24	3.666E+00	Pulse	0.30	3
Ni			2	191.130	ug/l	0.84	85,647.36	9.968E-01	Pulse	0.30	3
Cu			2	189.302	ug/l	0.10	235,328.71	2.739E+00	Pulse	0.30	3
Zn			2	197.076	ug/l	1.94	32,650.38	3.800E-01	Pulse	0.30	3
As			2	187.720	ug/l	0.42	16,667.17	1.940E-01	Pulse	1.00	3
Cd			2	188.301	ug/l	0.41	42,334.53	9.657E-02	Pulse	0.30	3
Sn			2	198.932	ug/l	2.37	90,764.66	2.071E-01	Pulse	0.30	3
Se			3	482.676	ug/l	0.48	11,543.99	9.743E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,743,993.96	0.30	98.7	Pulse	0.10	3
1	Sc		2,587,985.54	0.25	100.2	Pulse	0.10	3
1	Ge		497,035.53	0.17	101.0	Pulse	0.10	3

Quantitation Report

1	Ge		690,276.89	0.90	101.8	Pulse	0.10	3
1	Rh		3,239,652.35	1.04	100.8	Pulse	0.10	3
1	In		3,355,453.29	1.13	102.8	Pulse	0.10	3
1	Tb		4,513,972.54	0.16	104.7	Pulse	0.10	3
1	Ho		438,243.60	0.82	103.4	Pulse	0.10	3
1	Bi		2,569,539.13	0.70	103.4	Pulse	0.10	3
2	Sc		85,922.96	0.25	100.7	Pulse	0.30	3
2	Ge		50,037.51	0.78	101.6	Pulse	0.30	3
2	Ge		74,726.74	0.53	100.4	Pulse	0.30	3
2	Rh		1,392,493.66	1.26	100.7	Pulse	0.30	3
2	In		438,369.22	0.87	99.2	Pulse	0.30	3
2	Tb		1,657,696.22	0.30	100.2	Pulse	0.30	3
2	Ho		168,190.55	0.19	100.4	Pulse	0.30	3
2	Bi		1,086,659.16	0.44	99.5	Pulse	0.30	3
3	Sc		123,693.30	0.74	108.5	Pulse	0.30	3
3	Ge		78,381.26	1.90	103.6	Pulse	0.30	3
3	Ge		118,481.62	0.21	103.6	Pulse	0.30	3
3	Rh		1,285,485.37	0.18	104.0	Pulse	0.30	3
3	Tb		1,863,603.19	0.28	104.5	Pulse	0.30	3

Quantitation Report

File Name 034SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 16:56
Sample Name jc91272-2 4
Sample Type Sample
Comment
Prep Dilution 200.000
Auto Dilution N/A
Total Dilution 200.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.607	ug/l	4.73	1,734.79	9.737E-04	Pulse	0.25	3
B			1	1315.285	ug/l	2.04	34,455.27	1.934E-02	Pulse	0.15	3
Ca			1	312778.420	ug/l	0.66	1,409,739.56	5.421E-01	Pulse	0.10	3
Sr			1	1862.738	ug/l	0.70	404,723.13	1.231E-01	Pulse	0.10	3
Mo			1	12.224	ug/l	23.34	686.71	2.086E-04	Pulse	0.10	3
Ag			1	1.359	ug/l	66.89	173.34	5.058E-05	Pulse	0.10	3
Sn			1	1.059	ug/l	187.94	2,983.72	8.700E-04	Pulse	0.10	3
Sb			1	16.522	ug/l	12.36	2,210.25	4.913E-04	Pulse	0.10	3
Ba			1	33.382	ug/l	8.48	1,060.07	2.354E-04	Pulse	0.10	3
Tl			1	7.887	ug/l	23.31	1,840.19	7.050E-04	Pulse	0.10	3
Pb			1	15.905	ug/l	7.57	1,193.42	4.578E-04	Pulse	0.10	3
Pb			1	15.437	ug/l	0.52	980.07	3.759E-04	Pulse	0.10	3
Pb			1	15.531	ug/l	4.90	4,497.10	1.724E-03	Pulse	0.10	3
Na			2	312835.142	ug/l	0.39	1,356,687.86	1.625E+01	Pulse	0.30	3
Mg			2	137537.973	ug/l	0.32	277,073.42	3.319E+00	Pulse	0.30	3
Al			2	1979.408	ug/l	4.35	1,857.91	2.226E-02	Pulse	0.30	3
K			2	4978.309	ug/l	5.68	13,523.36	1.620E-01	Pulse	0.30	3
Ca			2	313306.523	ug/l	2.26	21,658.64	2.595E-01	Pulse	0.30	3
Ti			2	8.332	ug/l	254.77	10.00	1.207E-04	Pulse	0.30	3
V			2	10.877	ug/l	3.22	318.89	3.821E-03	Pulse	0.30	3
Cr			2	10389.502	ug/l	1.03	246,905.72	2.958E+00	Pulse	0.30	3
Mn			2	44934.834	ug/l	0.74	515,340.85	6.174E+00	Pulse	0.30	3
Fe			2	2479298.256	ug/l	1.24	45,872,833.73	5.496E+02	Analog	0.30	3
Co			2	991.369	ug/l	0.57	39,674.07	4.753E-01	Pulse	0.30	3
Ni			2	1025.808	ug/l	1.98	11,191.66	1.341E-01	Pulse	0.30	3
Cu			2	62.947	ug/l	7.18	2,399.10	2.874E-02	Pulse	0.30	3
Zn			2	4146.434	ug/l	1.34	16,789.83	2.011E-01	Pulse	0.30	3
As			2	27.879	ug/l	18.72	70.67	8.457E-04	Pulse	1.00	3
Cd			2	2.453	ug/l	36.77	25.52	5.831E-05	Pulse	0.30	3
Sn			2	15.393	ug/l	12.16	581.13	1.328E-03	Pulse	0.30	3
Se			3	36.418	ug/l	29.73	28.87	2.478E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,781,747.04	0.23	100.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,600,304.08	0.68	100.7	Pulse	0.10	3
1	Ge		508,626.53	1.20	103.3	Pulse	0.10	3
1	Ge		694,268.48	1.48	102.4	Pulse	0.10	3
1	Rh		3,288,883.08	0.91	102.3	Pulse	0.10	3
1	In		3,429,601.01	0.32	105.0	Pulse	0.10	3
1	Tb		4,500,372.54	1.08	104.3	Pulse	0.10	3
1	Ho		447,811.39	0.45	105.7	Pulse	0.10	3
1	Bi		2,607,458.50	1.01	104.9	Pulse	0.10	3
2	Sc		83,480.95	1.41	97.9	Pulse	0.30	3
2	Ge		50,370.71	0.32	102.3	Pulse	0.30	3
2	Ge		75,098.43	0.12	100.9	Pulse	0.30	3
2	Rh		1,395,897.93	1.00	100.9	Pulse	0.30	3
2	In		437,471.23	0.21	99.0	Pulse	0.30	3
2	Tb		1,646,326.46	0.55	99.5	Pulse	0.30	3
2	Ho		168,018.64	0.65	100.3	Pulse	0.30	3
2	Bi		1,103,063.64	1.06	101.0	Pulse	0.30	3
3	Sc		119,769.30	0.50	105.1	Pulse	0.30	3
3	Ge		77,106.35	1.22	101.9	Pulse	0.30	3
3	Ge		116,399.16	0.91	101.8	Pulse	0.30	3
3	Rh		1,272,934.08	0.51	103.0	Pulse	0.30	3
3	Tb		1,830,532.71	0.59	102.6	Pulse	0.30	3

Quantitation Report

File Name 035SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 17:01
Sample Name jc91272-10
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	43.708	ug/l	5.12	2,958.97	1.735E-03	Pulse	0.25	3
B			1	801.320	ug/l	0.39	40,032.01	2.347E-02	Pulse	0.15	3
Ca			1	304668.607	ug/l	0.33	2,624,586.99	1.052E+00	Pulse	0.10	3
Sr			1	1973.007	ug/l	0.84	825,304.36	2.606E-01	Pulse	0.10	3
Mo			1	2.494	ug/l	35.13	363.35	1.147E-04	Pulse	0.10	3
Ag			1	0.577	ug/l	23.65	146.68	4.430E-05	Pulse	0.10	3
Sn			1	-2.600	ug/l	-38.07	2,480.28	7.497E-04	Pulse	0.10	3
Sb			1	5.650	ug/l	11.39	1,806.85	4.058E-04	Pulse	0.10	3
Ba			1	36.993	ug/l	15.61	2,274.02	5.105E-04	Pulse	0.10	3
Tl			1	4.974	ug/l	2.27	2,156.90	8.414E-04	Pulse	0.10	3
Pb			1	8.762	ug/l	15.17	1,266.77	4.945E-04	Pulse	0.10	3
Pb			1	9.774	ug/l	12.19	1,173.43	4.580E-04	Pulse	0.10	3
Pb			1	9.624	ug/l	3.85	5,290.59	2.064E-03	Pulse	0.10	3
Na			2	299267.319	ug/l	1.43	2,534,549.27	3.103E+01	Pulse	0.30	3
Mg			2	128534.606	ug/l	1.56	506,143.63	6.197E+00	Pulse	0.30	3
Al			2	1996.848	ug/l	6.80	3,073.69	3.764E-02	Pulse	0.30	3
K			2	4790.811	ug/l	1.12	18,927.52	2.317E-01	Pulse	0.30	3
Ca			2	308872.456	ug/l	0.50	41,703.28	5.105E-01	Pulse	0.30	3
Ti			2	1.209	ug/l	257.15	6.67	8.159E-05	Pulse	0.30	3
V			2	9.362	ug/l	12.76	454.46	5.568E-03	Pulse	0.30	3
Cr			2	9483.182	ug/l	1.45	440,696.18	5.396E+00	Pulse	0.30	3
Mn			2	40871.918	ug/l	1.37	917,251.60	1.123E+01	Pulse	0.30	3
Fe			2	2246036.445	ug/l	1.25	81,320,654.55	9.956E+02	Analog	0.30	3
Co			2	966.475	ug/l	1.91	75,631.48	9.260E-01	Pulse	0.30	3
Ni			2	997.441	ug/l	2.07	21,267.13	2.604E-01	Pulse	0.30	3
Cu			2	49.417	ug/l	2.38	3,404.84	4.169E-02	Pulse	0.30	3
Zn			2	3956.357	ug/l	1.84	31,152.92	3.814E-01	Pulse	0.30	3
As			2	26.869	ug/l	13.71	123.67	1.513E-03	Pulse	1.00	3
Cd			2	2.292	ug/l	21.81	36.65	8.562E-05	Pulse	0.30	3
Sn			2	2.069	ug/l	65.18	443.35	1.037E-03	Pulse	0.30	3
Se			3	19.761	ug/l	6.87	30.07	2.634E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,705,353.98	0.43	96.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,494,256.68	0.46	96.6	Pulse	0.10	3
1	Ge		485,852.69	0.53	98.7	Pulse	0.10	3
1	Ge		668,521.42	0.50	98.6	Pulse	0.10	3
1	Rh		3,167,477.24	0.77	98.6	Pulse	0.10	3
1	In		3,307,695.81	0.96	101.3	Pulse	0.10	3
1	Tb		4,452,180.97	1.18	103.2	Pulse	0.10	3
1	Ho		443,355.77	0.90	104.6	Pulse	0.10	3
1	Bi		2,563,240.38	0.69	103.2	Pulse	0.10	3
2	Sc		81,687.71	1.49	95.8	Pulse	0.30	3
2	Ge		48,489.50	1.20	98.5	Pulse	0.30	3
2	Ge		72,406.28	0.65	97.3	Pulse	0.30	3
2	Rh		1,356,981.61	0.36	98.1	Pulse	0.30	3
2	In		427,701.15	1.16	96.8	Pulse	0.30	3
2	Tb		1,616,953.62	0.59	97.7	Pulse	0.30	3
2	Ho		166,824.95	0.77	99.6	Pulse	0.30	3
2	Bi		1,088,398.22	0.84	99.6	Pulse	0.30	3
3	Sc		118,365.95	0.08	103.9	Pulse	0.30	3
3	Ge		75,949.94	0.95	100.4	Pulse	0.30	3
3	Ge		114,133.33	0.04	99.8	Pulse	0.30	3
3	Rh		1,250,886.27	0.44	101.2	Pulse	0.30	3
3	Tb		1,816,187.50	0.58	101.8	Pulse	0.30	3

Quantitation Report

File Name	036SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 17:06
Sample Name	mp16312a-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	92.97	48.00	2.848E-05	Pulse	0.25	3
B			1	7.555	ug/l	2.25	18,990.98	1.128E-02	Pulse	0.15	3
Ca			1	12.460	ug/l	4.77	15,304.23	6.265E-03	Pulse	0.10	3
Sr			1	0.055	ug/l	3.84	1,500.14	4.719E-04	Pulse	0.10	3
Mo			1	0.073	ug/l	32.31	460.02	1.446E-04	Pulse	0.10	3
Ag			1	0.017	ug/l	13.98	200.01	6.107E-05	Pulse	0.10	3
Sn			1	0.862	ug/l	5.99	8,202.49	2.507E-03	Pulse	0.10	3
Sb			1	0.157	ug/l	24.41	2,120.22	4.772E-04	Pulse	0.10	3
Ba			1	0.062	ug/l	25.15	226.68	5.105E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	116.74	556.70	2.131E-04	Pulse	0.10	3
Pb			1	0.081	ug/l	13.15	733.38	2.804E-04	Pulse	0.10	3
Pb			1	0.087	ug/l	3.92	633.37	2.422E-04	Pulse	0.10	3
Pb			1	0.090	ug/l	4.39	2,936.89	1.123E-03	Pulse	0.10	3
Na			2	8.803	ug/l	13.69	9,086.96	1.134E-01	Pulse	0.30	3
Mg			2	-0.518	ug/l	-40.05	518.91	6.474E-03	Pulse	0.30	3
Al			2	-4.363	ug/l	-13.61	305.56	3.813E-03	Pulse	0.30	3
K			2	6.751	ug/l	21.28	7,766.34	9.689E-02	Pulse	0.30	3
Ca			2	5.708	ug/l	28.87	128.89	1.607E-03	Pulse	0.30	3
Ti			2	0.340	ug/l	54.17	23.33	2.904E-04	Pulse	0.30	3
V			2	0.118	ug/l	16.28	322.23	4.022E-03	Pulse	0.30	3
Cr			2	0.208	ug/l	21.81	874.48	1.090E-02	Pulse	0.30	3
Mn			2	0.209	ug/l	11.74	278.90	3.478E-03	Pulse	0.30	3
Fe			2	8.134	ug/l	4.53	23,377.95	2.916E-01	Pulse	0.30	3
Co			2	0.021	ug/l	36.29	135.50	1.693E-03	Pulse	0.30	3
Ni			2	0.078	ug/l	38.20	112.22	1.401E-03	Pulse	0.30	3
Cu			2	0.325	ug/l	7.48	1,422.30	1.773E-02	Pulse	0.30	3
Zn			2	3.056	ug/l	6.64	1,385.63	1.729E-02	Pulse	0.30	3
As			2	0.017	ug/l	65.83	13.67	1.702E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.013	ug/l	-57.18	4.42	1.063E-05	Pulse	0.30	3
Sn			2	0.942	ug/l	7.78	1,402.30	3.369E-03	Pulse	0.30	3
Se			3	-0.035	ug/l	-30.39	5.53	4.634E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,683,472.89	0.71	95.3	Pulse	0.10	3
1	Sc		2,442,980.07	0.80	94.6	Pulse	0.10	3
1	Ge		483,122.53	0.81	98.1	Pulse	0.10	3
1	Ge		671,703.90	1.10	99.1	Pulse	0.10	3
1	Rh		3,178,193.81	1.30	98.9	Pulse	0.10	3
1	In		3,271,230.03	1.62	100.2	Pulse	0.10	3
1	Tb		4,439,248.16	1.06	102.9	Pulse	0.10	3
1	Ho		439,961.12	2.46	103.8	Pulse	0.10	3
1	Bi		2,614,926.94	1.23	105.2	Pulse	0.10	3
2	Sc		80,166.03	1.37	94.0	Pulse	0.30	3
2	Ge		48,312.45	1.60	98.1	Pulse	0.30	3
2	Ge		72,491.25	0.73	97.4	Pulse	0.30	3
2	Rh		1,364,041.16	0.52	98.6	Pulse	0.30	3
2	In		416,143.22	0.52	94.2	Pulse	0.30	3
2	Tb		1,608,569.66	0.76	97.2	Pulse	0.30	3
2	Ho		163,661.21	0.44	97.7	Pulse	0.30	3
2	Bi		1,079,248.53	0.93	98.8	Pulse	0.30	3
3	Sc		121,339.51	0.50	106.5	Pulse	0.30	3
3	Ge		78,732.89	0.42	104.1	Pulse	0.30	3
3	Ge		119,407.61	0.19	104.4	Pulse	0.30	3
3	Rh		1,286,970.99	1.09	104.1	Pulse	0.30	3
3	Tb		1,865,754.79	0.59	104.6	Pulse	0.30	3

Quantitation Report

File Name 037SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 17:13
Sample Name mp16312a-b2conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.477	ug/l	0.78	247,800.17	1.442E-01	Pulse	0.25	3
B			1	84.629	ug/l	2.30	210,001.66	1.222E-01	Pulse	0.15	3
Ca			1	3935.896	ug/l	0.59	1,710,788.57	6.811E-01	Pulse	0.10	3
Sr			1	79.992	ug/l	0.64	1,683,860.50	5.281E-01	Pulse	0.10	3
Mo			1	75.873	ug/l	0.86	314,066.01	9.850E-02	Pulse	0.10	3
Ag			1	76.545	ug/l	1.28	770,856.37	2.340E-01	Pulse	0.10	3
Sn			1	76.793	ug/l	0.78	488,988.24	1.484E-01	Pulse	0.10	3
Sb			1	77.393	ug/l	1.19	571,440.49	1.269E-01	Pulse	0.10	3
Ba			1	76.779	ug/l	0.61	234,199.47	5.202E-02	Pulse	0.10	3
Tl			1	76.954	ug/l	0.44	1,318,555.03	5.095E-01	Pulse	0.10	3
Pb			1	79.740	ug/l	0.74	467,145.47	1.805E-01	Pulse	0.10	3
Pb			1	80.696	ug/l	0.84	417,500.25	1.613E-01	Pulse	0.10	3
Pb			1	80.295	ug/l	0.71	1,901,286.18	7.346E-01	Pulse	0.10	3
Na			2	3871.013	ug/l	1.05	1,659,054.79	2.009E+01	Pulse	0.30	3
Mg			2	3833.631	ug/l	1.30	762,684.10	9.238E+00	Pulse	0.30	3
Al			2	3659.060	ug/l	0.68	231,295.88	2.801E+00	Pulse	0.30	3
K			2	3830.111	ug/l	1.41	485,833.99	5.884E+00	Pulse	0.30	3
Ca			2	4152.661	ug/l	1.08	28,368.70	3.436E-01	Pulse	0.30	3
Ti			2	72.836	ug/l	3.03	3,982.74	4.824E-02	Pulse	0.30	3
V			2	79.060	ug/l	2.19	145,487.62	1.762E+00	Pulse	0.30	3
Cr			2	78.515	ug/l	1.39	184,655.23	2.237E+00	Pulse	0.30	3
Mn			2	76.673	ug/l	0.98	87,016.26	1.054E+00	Pulse	0.30	3
Fe			2	3970.181	ug/l	2.20	7,273,069.16	8.810E+01	Analog	0.30	3
Co			2	77.918	ug/l	0.89	308,038.73	3.731E+00	Pulse	0.30	3
Ni			2	77.139	ug/l	2.04	83,036.49	1.006E+00	Pulse	0.30	3
Cu			2	76.742	ug/l	1.65	229,164.04	2.776E+00	Pulse	0.30	3
Zn			2	70.170	ug/l	1.33	27,952.84	3.386E-01	Pulse	0.30	3
As			2	70.496	ug/l	1.79	15,036.26	1.821E-01	Pulse	1.00	3
Cd			2	73.588	ug/l	0.61	40,040.70	9.435E-02	Pulse	0.30	3
Sn			2	76.209	ug/l	1.05	84,178.53	1.983E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	339.850	ug/l	1.99	20,592.77	1.715E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,718,406.64	0.95	97.3	Pulse	0.10	3
1	Sc		2,511,576.58	1.68	97.3	Pulse	0.10	3
1	Ge		486,275.98	1.80	98.8	Pulse	0.10	3
1	Ge		679,391.71	1.60	100.2	Pulse	0.10	3
1	Rh		3,188,563.60	1.05	99.2	Pulse	0.10	3
1	In		3,294,369.86	1.33	100.9	Pulse	0.10	3
1	Tb		4,502,554.31	1.87	104.4	Pulse	0.10	3
1	Ho		443,887.13	0.88	104.8	Pulse	0.10	3
1	Bi		2,588,096.26	1.34	104.2	Pulse	0.10	3
2	Sc		82,571.79	1.22	96.8	Pulse	0.30	3
2	Ge		48,437.15	1.11	98.4	Pulse	0.30	3
2	Ge		72,316.12	0.76	97.2	Pulse	0.30	3
2	Rh		1,355,870.85	0.18	98.0	Pulse	0.30	3
2	In		424,383.93	0.42	96.0	Pulse	0.30	3
2	Tb		1,628,484.45	0.55	98.4	Pulse	0.30	3
2	Ho		164,204.35	0.79	98.1	Pulse	0.30	3
2	Bi		1,074,018.12	0.98	98.3	Pulse	0.30	3
3	Sc		123,145.94	0.75	108.1	Pulse	0.30	3
3	Ge		78,333.31	3.17	103.6	Pulse	0.30	3
3	Ge		120,130.16	1.66	105.1	Pulse	0.30	3
3	Rh		1,282,258.84	0.47	103.8	Pulse	0.30	3
3	Tb		1,866,034.86	0.91	104.6	Pulse	0.30	3

Quantitation Report

File Name 038_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 17:18
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	51.141	ug/l	0.41	337,519.45	2.007E-01	Pulse	0.25	3
B			1	102.184	ug/l	0.52	495,322.31	2.946E-01	Pulse	0.15	3
Ca			1	5117.440	ug/l	0.40	4,414,758.37	1.765E+00	Pulse	0.10	3
Sr			1	52.830	ug/l	0.99	2,200,831.11	6.975E-01	Pulse	0.10	3
Mo			1	52.059	ug/l	0.67	426,418.71	1.351E-01	Pulse	0.10	3
Ag			1	50.220	ug/l	0.50	1,011,579.51	3.070E-01	Pulse	0.10	3
Sn			1	50.405	ug/l	0.57	641,083.98	1.946E-01	Pulse	0.10	3
Sb			1	53.584	ug/l	0.39	775,639.96	1.757E-01	Pulse	0.10	3
Ba			1	51.096	ug/l	1.00	305,638.54	6.923E-02	Pulse	0.10	3
Tl			1	52.374	ug/l	1.18	1,721,824.77	6.934E-01	Pulse	0.10	3
Pb			1	52.088	ug/l	0.75	585,487.73	2.358E-01	Pulse	0.10	3
Pb			1	52.363	ug/l	0.56	519,811.32	2.093E-01	Pulse	0.10	3
Pb			1	52.062	ug/l	0.08	2,365,400.98	9.525E-01	Pulse	0.10	3
Na			2	4972.026	ug/l	0.88	4,299,369.83	5.151E+01	Pulse	0.30	3
Mg			2	4940.370	ug/l	1.14	1,986,156.93	2.380E+01	Pulse	0.30	3
Al			2	4834.393	ug/l	1.49	616,820.78	7.390E+00	Pulse	0.30	3
K			2	5019.795	ug/l	1.33	1,275,643.73	1.528E+01	Pulse	0.30	3
Ca			2	5224.528	ug/l	1.43	72,012.15	8.628E-01	Pulse	0.30	3
Ti			2	50.302	ug/l	1.55	5,558.78	6.660E-02	Pulse	0.30	3
V			2	51.638	ug/l	0.76	192,107.61	2.302E+00	Pulse	0.30	3
Cr			2	51.121	ug/l	1.24	242,965.70	2.911E+00	Pulse	0.30	3
Mn			2	50.638	ug/l	1.85	116,169.16	1.392E+00	Pulse	0.30	3
Fe			2	5104.553	ug/l	2.02	18,892,553.14	2.264E+02	Analog	0.30	3
Co			2	50.998	ug/l	1.79	407,583.84	4.884E+00	Pulse	0.30	3
Ni			2	49.999	ug/l	1.73	108,807.80	1.304E+00	Pulse	0.30	3
Cu			2	49.300	ug/l	0.96	297,515.59	3.565E+00	Pulse	0.30	3
Zn			2	49.612	ug/l	0.43	39,867.23	4.776E-01	Pulse	0.30	3
As			2	50.452	ug/l	0.16	21,754.80	2.606E-01	Pulse	1.00	3
Cd			2	50.149	ug/l	0.10	54,798.78	1.286E-01	Pulse	0.30	3
Sn			2	50.864	ug/l	0.75	112,703.11	2.645E-01	Pulse	0.30	3
Se			3	202.718	ug/l	0.97	23,150.37	2.045E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,681,462.26	0.43	95.2	Pulse	0.10	3
1	Sc		2,501,736.63	0.54	96.9	Pulse	0.10	3
1	Ge		482,822.30	1.25	98.1	Pulse	0.10	3

Quantitation Report

1	Ge		673,526.63	1.04	99.3	Pulse	0.10	3
1	Rh		3,155,447.45	1.48	98.2	Pulse	0.10	3
1	In		3,294,659.78	0.82	100.9	Pulse	0.10	3
1	Tb		4,414,947.02	1.16	102.4	Pulse	0.10	3
1	Ho		434,156.65	0.71	102.5	Pulse	0.10	3
1	Bi		2,483,271.37	0.39	99.9	Pulse	0.10	3
2	Sc		83,469.46	0.88	97.8	Pulse	0.30	3
2	Ge		48,573.02	0.27	98.7	Pulse	0.30	3
2	Ge		73,548.00	0.62	98.9	Pulse	0.30	3
2	Rh		1,350,221.86	0.91	97.6	Pulse	0.30	3
2	In		426,167.81	0.18	96.4	Pulse	0.30	3
2	Tb		1,619,178.55	1.10	97.8	Pulse	0.30	3
2	Ho		163,956.30	0.29	97.9	Pulse	0.30	3
2	Bi		1,053,794.13	0.29	96.5	Pulse	0.30	3
3	Sc		119,356.43	0.67	104.7	Pulse	0.30	3
3	Ge		74,332.46	0.75	98.3	Pulse	0.30	3
3	Ge		113,191.15	0.77	99.0	Pulse	0.30	3
3	Rh		1,223,818.32	0.34	99.0	Pulse	0.30	3
3	Tb		1,807,080.21	0.73	101.3	Pulse	0.30	3

Quantitation Report

File Name 039_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 17:23
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.042	ug/l	16.27	293.34	1.841E-04	Pulse	0.25	3
B			1	5.795	ug/l	10.87	27,280.12	1.709E-02	Pulse	0.15	3
Ca			1	4.345	ug/l	42.77	12,768.63	5.616E-03	Pulse	0.10	3
Sr			1	0.045	ug/l	10.04	2,056.86	6.991E-04	Pulse	0.10	3
Mo			1	0.081	ug/l	11.25	766.72	2.608E-04	Pulse	0.10	3
Ag			1	0.046	ug/l	19.98	870.06	2.921E-04	Pulse	0.10	3
Sn			1	0.120	ug/l	32.13	3,937.31	1.313E-03	Pulse	0.10	3
Sb			1	0.182	ug/l	2.79	3,290.47	8.181E-04	Pulse	0.10	3
Ba			1	0.042	ug/l	62.60	253.35	6.586E-05	Pulse	0.10	3
Tl			1	0.052	ug/l	14.75	1,996.88	8.671E-04	Pulse	0.10	3
Pb			1	0.057	ug/l	16.53	830.05	3.556E-04	Pulse	0.10	3
Pb			1	0.066	ug/l	20.00	766.72	3.299E-04	Pulse	0.10	3
Pb			1	0.058	ug/l	6.76	3,150.25	1.359E-03	Pulse	0.10	3
Na			2	3.195	ug/l	5.52	8,616.72	1.009E-01	Pulse	0.30	3
Mg			2	2.277	ug/l	2.07	1,595.65	1.869E-02	Pulse	0.30	3
Al			2	-0.709	ug/l	-75.91	517.79	6.062E-03	Pulse	0.30	3
K			2	4.041	ug/l	9.45	8,446.68	9.891E-02	Pulse	0.30	3
Ca			2	-0.262	ug/l	-340.43	93.33	1.093E-03	Pulse	0.30	3
Ti			2	-0.001	ug/l	-8002.86	5.56	6.487E-05	Pulse	0.30	3
V			2	0.038	ug/l	8.82	264.45	3.097E-03	Pulse	0.30	3
Cr			2	0.022	ug/l	20.34	532.24	6.233E-03	Pulse	0.30	3
Mn			2	0.045	ug/l	7.17	157.78	1.848E-03	Pulse	0.30	3
Fe			2	2.416	ug/l	4.89	18,655.13	2.184E-01	Pulse	0.30	3
Co			2	0.035	ug/l	8.65	347.74	4.071E-03	Pulse	0.30	3
Ni			2	0.044	ug/l	9.38	132.23	1.548E-03	Pulse	0.30	3
Cu			2	0.053	ug/l	8.23	838.92	9.824E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.097	ug/l	42.63	306.67	3.590E-03	Pulse	0.30	3
As			2	0.037	ug/l	39.03	27.00	3.164E-04	Pulse	1.00	3
Cd			2	0.029	ug/l	15.80	44.38	1.001E-04	Pulse	0.30	3
Sn			2	0.138	ug/l	25.93	728.92	1.644E-03	Pulse	0.30	3
Se			3	0.193	ug/l	19.20	30.27	2.587E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,606,205.00	8.66	90.9	Pulse	0.10	3
1	Sc		2,292,635.43	11.49	88.8	Pulse	0.10	3
1	Ge		457,091.19	11.22	92.9	Pulse	0.10	3
1	Ge		631,872.24	9.76	93.2	Pulse	0.10	3
1	Rh		2,960,554.85	12.00	92.1	Pulse	0.10	3
1	In		3,023,299.00	11.71	92.6	Pulse	0.10	3
1	Tb		4,021,145.04	12.44	93.2	Pulse	0.10	3
1	Ho		394,057.77	12.79	93.0	Pulse	0.10	3
1	Bi		2,320,166.69	9.81	93.4	Pulse	0.10	3
2	Sc		85,396.15	0.55	100.1	Pulse	0.30	3
2	Ge		50,032.08	1.29	101.6	Pulse	0.30	3
2	Ge		75,860.71	0.30	102.0	Pulse	0.30	3
2	Rh		1,401,149.80	0.89	101.3	Pulse	0.30	3
2	In		443,338.04	0.31	100.3	Pulse	0.30	3
2	Tb		1,637,644.83	0.41	99.0	Pulse	0.30	3
2	Ho		165,460.56	1.08	98.8	Pulse	0.30	3
2	Bi		1,087,977.42	0.03	99.6	Pulse	0.30	3
3	Sc		121,221.98	0.50	106.4	Pulse	0.30	3
3	Ge		77,078.49	0.50	101.9	Pulse	0.30	3
3	Ge		117,004.35	0.52	102.3	Pulse	0.30	3
3	Rh		1,289,082.31	0.74	104.3	Pulse	0.30	3
3	Tb		1,814,257.08	0.29	101.7	Pulse	0.30	3

Quantitation Report

File Name 040SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 17:28
Sample Name jc90795-1conf
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	6.620	ug/l	3.39	4,540.67	2.618E-03	Pulse	0.25	3
B			1	48.864	ug/l	4.17	25,092.38	1.447E-02	Pulse	0.15	3
Ca			1	266748.090	ug/l	0.41	23,459,700.48	9.181E+00	Analog	0.10	3
Sr			1	430.505	ug/l	0.18	1,787,316.48	5.684E-01	Pulse	0.10	3
Mo			1	2.776	ug/l	9.16	2,423.62	7.704E-04	Pulse	0.10	3
Ag			1	0.073	ug/l	17.14	176.68	5.374E-05	Pulse	0.10	3
Sn			1	23.471	ug/l	2.18	32,497.75	9.871E-03	Pulse	0.10	3
Sb			1	1.059	ug/l	11.26	2,523.63	5.677E-04	Pulse	0.10	3
Ba			1	1533.776	ug/l	0.46	924,259.91	2.078E-01	Pulse	0.10	3
Tl			1	0.201	ug/l	36.17	1,113.42	4.492E-04	Pulse	0.10	3
Pb			1	1.557	ug/l	7.57	1,990.21	8.023E-04	Pulse	0.10	3
Pb			1	1.563	ug/l	5.05	1,716.84	6.920E-04	Pulse	0.10	3
Pb			1	1.573	ug/l	3.64	7,894.47	3.182E-03	Pulse	0.10	3
Na			2	1660.973	ug/l	0.93	151,376.06	1.786E+00	Pulse	0.30	3
Mg			2	17714.761	ug/l	1.25	723,466.53	8.538E+00	Pulse	0.30	3
Al			2	2892.462	ug/l	1.65	38,038.39	4.489E-01	Pulse	0.30	3
K			2	284.297	ug/l	5.72	14,636.52	1.727E-01	Pulse	0.30	3
Ca			2	267886.923	ug/l	1.22	374,478.10	4.419E+00	Pulse	0.30	3
Ti			2	143.231	ug/l	4.78	1,611.21	1.901E-02	Pulse	0.30	3
V			2	6.107	ug/l	1.39	2,423.54	2.860E-02	Pulse	0.30	3
Cr			2	35.346	ug/l	2.57	17,449.31	2.059E-01	Pulse	0.30	3
Mn			2	19244.584	ug/l	0.98	4,480,606.77	5.288E+01	Pulse	0.30	3
Fe			2	1389789.679	ug/l	2.77	521,958,877.04	6.160E+03	Analog	0.30	3
Co			2	-0.573	ug/l	-20.14	-407.02	-4.809E-03	Pulse	0.30	3
Ni			2	125.821	ug/l	0.27	27,825.90	3.284E-01	Pulse	0.30	3
Cu			2	91.742	ug/l	0.98	56,624.98	6.682E-01	Pulse	0.30	3
Zn			2	57.145	ug/l	3.75	4,861.90	5.737E-02	Pulse	0.30	3
As			2	2.544	ug/l	14.80	122.00	1.440E-03	Pulse	1.00	3
Cd			2	0.035	ug/l	180.47	15.44	3.578E-05	Pulse	0.30	3
Sn			2	24.037	ug/l	4.91	5,775.57	1.338E-02	Pulse	0.30	3
Se			3	0.740	ug/l	23.42	15.60	1.388E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,734,218.07	1.20	98.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,555,204.54	1.09	99.0	Pulse	0.10	3
1	Ge		510,436.56	0.52	103.7	Pulse	0.10	3
1	Ge		675,358.71	1.05	99.6	Pulse	0.10	3
1	Rh		3,144,360.58	0.94	97.8	Pulse	0.10	3
1	In		3,291,630.94	1.82	100.8	Pulse	0.10	3
1	Tb		4,447,795.14	1.23	103.1	Pulse	0.10	3
1	Ho		438,646.74	1.31	103.5	Pulse	0.10	3
1	Bi		2,480,784.34	0.67	99.8	Pulse	0.10	3
2	Sc		84,743.66	0.92	99.3	Pulse	0.30	3
2	Ge		50,805.46	0.83	103.2	Pulse	0.30	3
2	Ge		73,953.32	1.67	99.4	Pulse	0.30	3
2	Rh		1,339,850.33	0.33	96.9	Pulse	0.30	3
2	In		431,563.02	0.14	97.7	Pulse	0.30	3
2	Tb		1,620,789.86	0.74	97.9	Pulse	0.30	3
2	Ho		164,324.14	1.04	98.1	Pulse	0.30	3
2	Bi		1,046,348.33	0.59	95.8	Pulse	0.30	3
3	Sc		118,816.25	0.90	104.3	Pulse	0.30	3
3	Ge		77,455.61	1.92	102.4	Pulse	0.30	3
3	Ge		112,368.92	0.41	98.3	Pulse	0.30	3
3	Rh		1,193,975.37	0.43	96.6	Pulse	0.30	3
3	Tb		1,741,841.29	1.02	97.6	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 17:33
Sample Name mp16329-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/12/2019 7:25
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	110.82	42.67	2.470E-05	Pulse	0.25	3
B			1	7.780	ug/l	1.33	20,047.78	1.160E-02	Pulse	0.15	3
Ca			1	31.594	ug/l	1.03	24,118.26	9.556E-03	Pulse	0.10	3
Sr			1	0.061	ug/l	8.14	1,660.16	5.140E-04	Pulse	0.10	3
Mo			1	0.034	ug/l	27.41	303.35	9.394E-05	Pulse	0.10	3
Ag			1	0.019	ug/l	28.11	220.01	6.618E-05	Pulse	0.10	3
Sn			1	0.655	ug/l	6.42	6,998.48	2.109E-03	Pulse	0.10	3
Sb			1	0.134	ug/l	8.36	1,980.20	4.395E-04	Pulse	0.10	3
Ba			1	0.112	ug/l	21.68	383.36	8.506E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	131.86	550.03	2.104E-04	Pulse	0.10	3
Pb			1	0.050	ug/l	24.24	550.03	2.105E-04	Pulse	0.10	3
Pb			1	0.074	ug/l	31.04	563.36	2.156E-04	Pulse	0.10	3
Pb			1	0.060	ug/l	3.79	2,220.14	8.496E-04	Pulse	0.10	3
Na			2	9.271	ug/l	5.75	9,662.87	1.158E-01	Pulse	0.30	3
Mg			2	0.024	ug/l	613.66	648.91	7.779E-03	Pulse	0.30	3
Al			2	-4.590	ug/l	-11.69	283.34	3.395E-03	Pulse	0.30	3
K			2	7.659	ug/l	32.07	8,198.75	9.827E-02	Pulse	0.30	3
Ca			2	24.195	ug/l	35.21	261.12	3.132E-03	Pulse	0.30	3
Ti			2	0.523	ug/l	57.87	34.44	4.115E-04	Pulse	0.30	3
V			2	0.047	ug/l	41.08	203.34	2.436E-03	Pulse	0.30	3
Cr			2	0.217	ug/l	11.94	930.04	1.115E-02	Pulse	0.30	3
Mn			2	0.571	ug/l	21.51	704.47	8.453E-03	Pulse	0.30	3
Fe			2	36.056	ug/l	18.48	75,900.25	9.104E-01	Pulse	0.30	3
Co			2	0.015	ug/l	25.90	117.57	1.410E-03	Pulse	0.30	3
Ni			2	0.200	ug/l	11.12	250.00	2.997E-03	Pulse	0.30	3
Cu			2	0.262	ug/l	9.67	1,289.51	1.546E-02	Pulse	0.30	3
Zn			2	5.373	ug/l	4.61	2,367.98	2.838E-02	Pulse	0.30	3
As			2	0.047	ug/l	40.50	20.67	2.476E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.003	ug/l	-368.47	9.99	2.326E-05	Pulse	0.30	3
Sn			2	0.832	ug/l	6.24	1,321.18	3.086E-03	Pulse	0.30	3
Se			3	-0.012	ug/l	-108.00	7.00	5.799E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,727,615.01	0.22	97.8	Pulse	0.10	3
1	Sc		2,523,949.29	0.62	97.8	Pulse	0.10	3
1	Ge		496,235.85	0.15	100.8	Pulse	0.10	3
1	Ge		688,440.90	1.20	101.5	Pulse	0.10	3
1	Rh		3,230,165.79	0.75	100.5	Pulse	0.10	3
1	In		3,319,674.73	1.18	101.7	Pulse	0.10	3
1	Tb		4,505,705.35	0.71	104.5	Pulse	0.10	3
1	Ho		444,467.31	1.23	104.9	Pulse	0.10	3
1	Bi		2,613,350.74	0.50	105.2	Pulse	0.10	3
2	Sc		83,443.98	0.98	97.8	Pulse	0.30	3
2	Ge		49,611.84	1.43	100.8	Pulse	0.30	3
2	Ge		74,761.57	0.66	100.5	Pulse	0.30	3
2	Rh		1,388,489.67	0.59	100.4	Pulse	0.30	3
2	In		428,283.75	0.89	96.9	Pulse	0.30	3
2	Tb		1,632,193.03	0.63	98.6	Pulse	0.30	3
2	Ho		165,578.38	0.21	98.9	Pulse	0.30	3
2	Bi		1,089,331.63	0.74	99.7	Pulse	0.30	3
3	Sc		123,060.33	0.27	108.0	Pulse	0.30	3
3	Ge		79,790.36	0.97	105.5	Pulse	0.30	3
3	Ge		120,607.34	1.29	105.5	Pulse	0.30	3
3	Rh		1,293,294.29	0.84	104.6	Pulse	0.30	3
3	Tb		1,852,678.88	0.58	103.9	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 17:38
Sample Name mp16329-b2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.048	ug/l	1.82	245,472.86	1.434E-01	Pulse	0.25	3
B			1	84.438	ug/l	2.35	208,795.27	1.219E-01	Pulse	0.15	3
Ca			1	3991.415	ug/l	0.78	1,715,321.43	6.907E-01	Pulse	0.10	3
Sr			1	79.765	ug/l	0.62	1,674,905.55	5.266E-01	Pulse	0.10	3
Mo			1	76.036	ug/l	0.72	313,953.67	9.871E-02	Pulse	0.10	3
Ag			1	76.103	ug/l	0.92	767,127.88	2.326E-01	Pulse	0.10	3
Sn			1	75.842	ug/l	0.46	483,346.80	1.466E-01	Pulse	0.10	3
Sb			1	77.311	ug/l	0.53	566,784.54	1.268E-01	Pulse	0.10	3
Ba			1	78.198	ug/l	1.55	236,814.72	5.298E-02	Pulse	0.10	3
Tl			1	79.297	ug/l	0.36	1,318,775.82	5.250E-01	Pulse	0.10	3
Pb			1	81.878	ug/l	0.87	465,543.43	1.853E-01	Pulse	0.10	3
Pb			1	82.328	ug/l	1.36	413,375.05	1.646E-01	Pulse	0.10	3
Pb			1	81.656	ug/l	0.97	1,876,576.98	7.471E-01	Pulse	0.10	3
Na			2	3866.295	ug/l	1.72	1,659,331.91	2.007E+01	Pulse	0.30	3
Mg			2	3817.179	ug/l	1.86	760,476.20	9.198E+00	Pulse	0.30	3
Al			2	3666.582	ug/l	1.53	232,090.19	2.807E+00	Pulse	0.30	3
K			2	3837.316	ug/l	1.01	487,472.69	5.895E+00	Pulse	0.30	3
Ca			2	4131.202	ug/l	2.53	28,258.55	3.418E-01	Pulse	0.30	3
Ti			2	73.564	ug/l	3.78	4,030.54	4.872E-02	Pulse	0.30	3
V			2	78.284	ug/l	1.53	144,280.33	1.745E+00	Pulse	0.30	3
Cr			2	77.883	ug/l	3.38	183,404.39	2.219E+00	Pulse	0.30	3
Mn			2	77.243	ug/l	2.14	87,782.36	1.062E+00	Pulse	0.30	3
Fe			2	3955.809	ug/l	1.98	7,257,405.54	8.778E+01	Analog	0.30	3
Co			2	77.004	ug/l	1.30	304,867.35	3.687E+00	Pulse	0.30	3
Ni			2	76.756	ug/l	0.53	82,757.56	1.001E+00	Pulse	0.30	3
Cu			2	76.615	ug/l	1.69	229,119.34	2.771E+00	Pulse	0.30	3
Zn			2	70.790	ug/l	1.77	28,242.18	3.415E-01	Pulse	0.30	3
As			2	70.095	ug/l	2.34	14,971.54	1.811E-01	Pulse	1.00	3
Cd			2	74.983	ug/l	0.80	40,204.49	9.614E-02	Pulse	0.30	3
Sn			2	77.181	ug/l	0.84	83,999.02	2.009E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	341.559	ug/l	0.39	20,561.86	1.723E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,712,364.74	0.87	96.9	Pulse	0.10	3
1	Sc		2,483,456.63	1.43	96.2	Pulse	0.10	3
1	Ge		486,413.53	1.26	98.8	Pulse	0.10	3
1	Ge		676,310.64	1.58	99.8	Pulse	0.10	3
1	Rh		3,180,806.62	1.45	99.0	Pulse	0.10	3
1	In		3,297,137.98	1.14	101.0	Pulse	0.10	3
1	Tb		4,470,105.45	0.59	103.6	Pulse	0.10	3
1	Ho		440,855.18	1.20	104.0	Pulse	0.10	3
1	Bi		2,512,219.81	1.70	101.1	Pulse	0.10	3
2	Sc		82,697.13	1.74	96.9	Pulse	0.30	3
2	Ge		48,011.49	0.31	97.5	Pulse	0.30	3
2	Ge		72,505.62	1.34	97.5	Pulse	0.30	3
2	Rh		1,357,444.18	1.17	98.1	Pulse	0.30	3
2	In		418,195.50	0.71	94.6	Pulse	0.30	3
2	Tb		1,606,163.44	0.54	97.1	Pulse	0.30	3
2	Ho		162,582.26	1.10	97.1	Pulse	0.30	3
2	Bi		1,055,713.08	1.12	96.6	Pulse	0.30	3
3	Sc		122,421.09	1.01	107.4	Pulse	0.30	3
3	Ge		77,825.45	1.26	102.9	Pulse	0.30	3
3	Ge		119,324.52	0.36	104.4	Pulse	0.30	3
3	Rh		1,268,912.00	0.18	102.7	Pulse	0.30	3
3	Tb		1,850,067.01	0.35	103.7	Pulse	0.30	3

Quantitation Report

File Name	043SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 17:43
Sample Name	mp16329-s3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.209	ug/l	0.73	242,211.31	1.476E-01	Pulse	0.25	3
B			1	106.136	ug/l	0.69	251,359.38	1.532E-01	Pulse	0.15	3
Ca			1	50187.927	ug/l	1.05	21,059,385.94	8.637E+00	Analog	0.10	3
Sr			1	331.295	ug/l	0.63	6,642,707.40	2.187E+00	Analog	0.10	3
Mo			1	78.029	ug/l	0.43	307,700.52	1.013E-01	Pulse	0.10	3
Ag			1	77.159	ug/l	1.06	748,584.00	2.359E-01	Pulse	0.10	3
Sn			1	78.863	ug/l	0.30	483,672.60	1.524E-01	Pulse	0.10	3
Sb			1	78.255	ug/l	1.99	560,324.67	1.283E-01	Pulse	0.10	3
Ba			1	147.490	ug/l	1.57	436,213.51	9.991E-02	Pulse	0.10	3
Tl			1	80.436	ug/l	0.63	1,301,319.01	5.325E-01	Pulse	0.10	3
Pb			1	83.083	ug/l	0.49	459,525.06	1.881E-01	Pulse	0.10	3
Pb			1	83.252	ug/l	0.88	406,707.48	1.664E-01	Pulse	0.10	3
Pb			1	82.803	ug/l	0.31	1,851,247.03	7.575E-01	Pulse	0.10	3
Na			2	13090.392	ug/l	1.03	5,489,204.78	6.779E+01	Analog	0.30	3
Mg			2	22663.071	ug/l	1.01	4,418,517.32	5.457E+01	Pulse	0.30	3
Al			2	3747.553	ug/l	1.12	232,282.06	2.869E+00	Pulse	0.30	3
K			2	5132.916	ug/l	0.80	636,134.80	7.857E+00	Pulse	0.30	3
Ca			2	51161.791	ug/l	0.49	341,701.26	4.220E+00	Pulse	0.30	3
Ti			2	75.654	ug/l	2.99	4,057.21	5.010E-02	Pulse	0.30	3
V			2	81.021	ug/l	0.99	146,224.50	1.806E+00	Pulse	0.30	3
Cr			2	79.671	ug/l	0.96	183,747.68	2.269E+00	Pulse	0.30	3
Mn			2	557.396	ug/l	0.32	620,070.27	7.658E+00	Pulse	0.30	3
Fe			2	6642.859	ug/l	0.76	11,929,001.47	1.473E+02	Analog	0.30	3
Co			2	77.725	ug/l	0.85	301,335.72	3.722E+00	Pulse	0.30	3
Ni			2	76.825	ug/l	1.18	81,103.65	1.002E+00	Pulse	0.30	3
Cu			2	75.395	ug/l	0.78	220,814.36	2.727E+00	Pulse	0.30	3
Zn			2	69.377	ug/l	1.28	27,104.70	3.348E-01	Pulse	0.30	3
As			2	71.510	ug/l	0.98	14,958.52	1.847E-01	Pulse	1.00	3
Cd			2	75.556	ug/l	0.28	39,691.00	9.687E-02	Pulse	0.30	3
Sn			2	78.314	ug/l	0.43	83,503.87	2.038E-01	Pulse	0.30	3
Se			3	340.817	ug/l	1.74	20,302.01	1.719E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,640,963.58	0.97	92.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,438,332.52	0.81	94.5	Pulse	0.10	3
1	Ge		480,967.45	0.95	97.7	Pulse	0.10	3
1	Ge		665,631.81	0.83	98.2	Pulse	0.10	3
1	Rh		3,037,771.93	1.30	94.5	Pulse	0.10	3
1	In		3,173,675.73	1.30	97.2	Pulse	0.10	3
1	Tb		4,366,870.35	2.26	101.3	Pulse	0.10	3
1	Ho		432,198.79	1.93	102.0	Pulse	0.10	3
1	Bi		2,443,660.07	1.67	98.3	Pulse	0.10	3
2	Sc		80,972.88	0.97	94.9	Pulse	0.30	3
2	Ge		48,041.69	0.31	97.6	Pulse	0.30	3
2	Ge		72,018.08	1.26	96.8	Pulse	0.30	3
2	Rh		1,314,089.43	0.41	95.0	Pulse	0.30	3
2	In		409,729.98	0.73	92.7	Pulse	0.30	3
2	Tb		1,591,058.86	0.94	96.1	Pulse	0.30	3
2	Ho		160,190.25	0.73	95.7	Pulse	0.30	3
2	Bi		1,027,684.89	0.40	94.1	Pulse	0.30	3
3	Sc		124,073.04	0.54	108.9	Pulse	0.30	3
3	Ge		77,874.48	1.74	103.0	Pulse	0.30	3
3	Ge		118,098.94	1.90	103.3	Pulse	0.30	3
3	Rh		1,234,439.39	0.83	99.9	Pulse	0.30	3
3	Tb		1,833,787.08	0.47	102.8	Pulse	0.30	3

Quantitation Report

File Name 044SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 17:48
Sample Name mp16329-s4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.990	ug/l	0.62	250,595.35	1.472E-01	Pulse	0.25	3
B			1	107.433	ug/l	0.66	263,995.66	1.550E-01	Pulse	0.15	3
Ca			1	50754.270	ug/l	1.11	21,738,291.34	8.735E+00	Analog	0.10	3
Sr			1	334.469	ug/l	1.33	6,743,639.48	2.208E+00	Analog	0.10	3
Mo			1	78.518	ug/l	0.23	311,371.60	1.019E-01	Pulse	0.10	3
Ag			1	77.552	ug/l	0.52	757,121.97	2.371E-01	Pulse	0.10	3
Sn			1	78.844	ug/l	1.99	486,520.27	1.524E-01	Pulse	0.10	3
Sb			1	78.544	ug/l	0.78	566,780.51	1.288E-01	Pulse	0.10	3
Ba			1	146.777	ug/l	1.17	437,524.26	9.943E-02	Pulse	0.10	3
Tl			1	80.139	ug/l	0.88	1,315,312.82	5.305E-01	Pulse	0.10	3
Pb			1	82.309	ug/l	0.31	461,852.19	1.863E-01	Pulse	0.10	3
Pb			1	83.443	ug/l	1.22	413,525.81	1.668E-01	Pulse	0.10	3
Pb			1	82.710	ug/l	0.41	1,875,975.10	7.567E-01	Pulse	0.10	3
Na			2	13174.535	ug/l	1.52	5,616,392.14	6.822E+01	Analog	0.30	3
Mg			2	22857.466	ug/l	0.70	4,531,173.71	5.504E+01	Pulse	0.30	3
Al			2	3741.948	ug/l	0.34	235,834.45	2.865E+00	Pulse	0.30	3
K			2	5176.880	ug/l	0.87	652,277.65	7.923E+00	Pulse	0.30	3
Ca			2	51686.556	ug/l	0.94	350,986.84	4.263E+00	Pulse	0.30	3
Ti			2	76.033	ug/l	4.79	4,146.13	5.035E-02	Pulse	0.30	3
V			2	79.985	ug/l	0.81	146,779.79	1.783E+00	Pulse	0.30	3
Cr			2	79.947	ug/l	0.86	187,477.23	2.277E+00	Pulse	0.30	3
Mn			2	557.461	ug/l	0.61	630,523.33	7.659E+00	Pulse	0.30	3
Fe			2	6646.674	ug/l	0.72	12,136,204.52	1.474E+02	Analog	0.30	3
Co			2	77.054	ug/l	0.24	303,744.05	3.689E+00	Pulse	0.30	3
Ni			2	75.625	ug/l	1.59	81,177.54	9.860E-01	Pulse	0.30	3
Cu			2	75.640	ug/l	0.87	225,241.04	2.736E+00	Pulse	0.30	3
Zn			2	68.841	ug/l	2.86	27,349.61	3.322E-01	Pulse	0.30	3
As			2	70.918	ug/l	2.10	15,082.63	1.832E-01	Pulse	1.00	3
Cd			2	75.036	ug/l	0.48	39,446.71	9.621E-02	Pulse	0.30	3
Sn			2	78.701	ug/l	0.74	83,975.41	2.048E-01	Pulse	0.30	3
Se			3	342.046	ug/l	1.23	20,728.80	1.726E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,702,685.90	0.74	96.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,488,816.53	0.61	96.4	Pulse	0.10	3
1	Ge		483,715.57	1.11	98.3	Pulse	0.10	3
1	Ge		672,751.58	1.56	99.2	Pulse	0.10	3
1	Rh		3,054,828.60	1.14	95.1	Pulse	0.10	3
1	In		3,193,529.44	1.40	97.8	Pulse	0.10	3
1	Tb		4,400,180.66	1.05	102.0	Pulse	0.10	3
1	Ho		434,754.70	1.47	102.6	Pulse	0.10	3
1	Bi		2,479,087.26	0.99	99.8	Pulse	0.10	3
2	Sc		82,328.53	0.56	96.5	Pulse	0.30	3
2	Ge		48,765.96	2.16	99.1	Pulse	0.30	3
2	Ge		73,021.24	1.30	98.2	Pulse	0.30	3
2	Rh		1,309,324.84	0.41	94.7	Pulse	0.30	3
2	In		410,024.03	0.23	92.8	Pulse	0.30	3
2	Tb		1,588,907.47	0.60	96.0	Pulse	0.30	3
2	Ho		161,084.66	0.54	96.2	Pulse	0.30	3
2	Bi		1,027,218.12	0.82	94.0	Pulse	0.30	3
3	Sc		124,269.75	0.51	109.1	Pulse	0.30	3
3	Ge		79,075.79	1.84	104.5	Pulse	0.30	3
3	Ge		120,127.91	0.94	105.1	Pulse	0.30	3
3	Rh		1,242,959.43	0.60	100.6	Pulse	0.30	3
3	Tb		1,839,248.96	0.51	103.1	Pulse	0.30	3

Quantitation Report

File Name 045SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 17:53
Sample Name jc91111-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.038	ug/l	24.34	161.33	9.439E-05	Pulse	0.25	3
B			1	24.187	ug/l	1.09	60,244.42	3.522E-02	Pulse	0.15	3
Ca			1	46071.938	ug/l	1.19	19,956,563.04	7.929E+00	Analog	0.10	3
Sr			1	246.081	ug/l	0.68	4,999,022.95	1.624E+00	Pulse	0.10	3
Mo			1	0.399	ug/l	8.81	1,746.82	5.675E-04	Pulse	0.10	3
Ag			1	0.041	ug/l	5.26	440.03	1.349E-04	Pulse	0.10	3
Sn			1	0.361	ug/l	5.59	5,034.32	1.543E-03	Pulse	0.10	3
Sb			1	0.075	ug/l	23.28	1,516.79	3.432E-04	Pulse	0.10	3
Ba			1	66.708	ug/l	1.08	199,764.59	4.520E-02	Pulse	0.10	3
Tl			1	0.043	ug/l	16.25	1,160.09	4.647E-04	Pulse	0.10	3
Pb			1	0.150	ug/l	8.87	1,093.41	4.382E-04	Pulse	0.10	3
Pb			1	0.168	ug/l	7.16	1,003.41	4.021E-04	Pulse	0.10	3
Pb			1	0.160	ug/l	9.17	4,407.10	1.766E-03	Pulse	0.10	3
Na			2	8706.912	ug/l	0.42	3,757,276.94	4.511E+01	Pulse	0.30	3
Mg			2	18275.997	ug/l	0.16	3,665,492.91	4.401E+01	Pulse	0.30	3
Al			2	10.054	ug/l	34.14	1,234.61	1.482E-02	Pulse	0.30	3
K			2	1209.881	ug/l	0.26	159,759.35	1.918E+00	Pulse	0.30	3
Ca			2	46119.313	ug/l	1.01	316,860.63	3.804E+00	Pulse	0.30	3
Ti			2	0.385	ug/l	71.97	26.66	3.201E-04	Pulse	0.30	3
V			2	0.148	ug/l	15.83	391.12	4.696E-03	Pulse	0.30	3
Cr			2	0.348	ug/l	14.07	1,238.95	1.487E-02	Pulse	0.30	3
Mn			2	466.161	ug/l	0.66	533,429.51	6.405E+00	Pulse	0.30	3
Fe			2	2563.926	ug/l	0.45	4,741,846.48	5.693E+01	Pulse	0.30	3
Co			2	0.053	ug/l	19.11	267.20	3.207E-03	Pulse	0.30	3
Ni			2	0.106	ug/l	16.60	147.78	1.775E-03	Pulse	0.30	3
Cu			2	0.562	ug/l	2.98	2,191.29	2.631E-02	Pulse	0.30	3
Zn			2	3.873	ug/l	7.87	1,765.67	2.120E-02	Pulse	0.30	3
As			2	0.602	ug/l	7.58	140.00	1.681E-03	Pulse	1.00	3
Cd			2	-0.002	ug/l	-537.39	9.90	2.388E-05	Pulse	0.30	3
Sn			2	0.561	ug/l	3.48	986.71	2.382E-03	Pulse	0.30	3
Se			3	0.117	ug/l	49.47	14.87	1.230E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,710,389.29	0.61	96.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,516,899.08	0.28	97.5	Pulse	0.10	3
1	Ge		489,640.90	0.40	99.5	Pulse	0.10	3
1	Ge		672,607.70	0.45	99.2	Pulse	0.10	3
1	Rh		3,077,618.60	0.68	95.8	Pulse	0.10	3
1	In		3,261,417.65	1.14	99.9	Pulse	0.10	3
1	Tb		4,420,144.31	0.39	102.5	Pulse	0.10	3
1	Ho		436,147.05	0.38	102.9	Pulse	0.10	3
1	Bi		2,496,178.03	0.87	100.5	Pulse	0.10	3
2	Sc		83,290.16	0.30	97.6	Pulse	0.30	3
2	Ge		49,090.17	1.39	99.7	Pulse	0.30	3
2	Ge		73,526.88	0.39	98.8	Pulse	0.30	3
2	Rh		1,319,080.81	1.02	95.4	Pulse	0.30	3
2	In		414,149.99	0.49	93.7	Pulse	0.30	3
2	Tb		1,600,956.57	0.24	96.7	Pulse	0.30	3
2	Ho		161,742.65	0.18	96.6	Pulse	0.30	3
2	Bi		1,034,241.76	0.20	94.7	Pulse	0.30	3
3	Sc		122,844.54	0.09	107.8	Pulse	0.30	3
3	Ge		79,465.55	1.17	105.1	Pulse	0.30	3
3	Ge		120,802.81	0.63	105.7	Pulse	0.30	3
3	Rh		1,246,919.60	0.11	100.9	Pulse	0.30	3
3	Tb		1,854,039.16	0.53	103.9	Pulse	0.30	3

Quantitation Report

File Name	046SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 17:58
Sample Name	mp16329-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.020	ug/l	114.48	46.67	2.781E-05	Pulse	0.25	3
B			1	42.123	ug/l	3.12	21,039.98	1.253E-02	Pulse	0.15	3
Ca			1	45504.812	ug/l	0.74	3,991,086.50	1.570E+00	Pulse	0.10	3
Sr			1	232.581	ug/l	1.21	988,259.96	3.071E-01	Pulse	0.10	3
Mo			1	0.283	ug/l	25.44	396.69	1.233E-04	Pulse	0.10	3
Ag			1	0.068	ug/l	63.37	166.67	5.058E-05	Pulse	0.10	3
Sn			1	-1.019	ug/l	-1.96	1,516.80	4.581E-04	Pulse	0.10	3
Sb			1	-0.175	ug/l	-41.88	726.71	1.635E-04	Pulse	0.10	3
Ba			1	66.764	ug/l	0.87	40,213.22	9.054E-03	Pulse	0.10	3
Tl			1	0.011	ug/l	250.01	500.03	1.972E-04	Pulse	0.10	3
Pb			1	0.164	ug/l	14.80	436.69	1.721E-04	Pulse	0.10	3
Pb			1	0.110	ug/l	75.53	283.35	1.116E-04	Pulse	0.10	3
Pb			1	0.177	ug/l	7.57	1,593.43	6.277E-04	Pulse	0.10	3
Na			2	8443.002	ug/l	1.13	742,812.70	8.803E+00	Pulse	0.30	3
Mg			2	18096.581	ug/l	1.65	735,881.58	8.722E+00	Pulse	0.30	3
Al			2	-19.272	ug/l	-22.79	354.46	4.201E-03	Pulse	0.30	3
K			2	1199.056	ug/l	2.10	37,941.92	4.497E-01	Pulse	0.30	3
Ca			2	45856.882	ug/l	1.35	63,909.55	7.574E-01	Pulse	0.30	3
Ti			2	0.400	ug/l	270.43	10.00	1.185E-04	Pulse	0.30	3
V			2	-0.063	ug/l	-77.72	94.44	1.119E-03	Pulse	0.30	3
Cr			2	-0.165	ug/l	-46.57	341.12	4.040E-03	Pulse	0.30	3
Mn			2	469.217	ug/l	0.76	108,833.41	1.290E+00	Pulse	0.30	3
Fe			2	2546.189	ug/l	0.75	961,672.32	1.140E+01	Pulse	0.30	3
Co			2	0.033	ug/l	71.00	84.08	9.948E-04	Pulse	0.30	3
Ni			2	0.254	ug/l	23.78	88.89	1.053E-03	Pulse	0.30	3
Cu			2	0.314	ug/l	21.47	698.91	8.285E-03	Pulse	0.30	3
Zn			2	5.470	ug/l	5.45	666.69	7.899E-03	Pulse	0.30	3
As			2	0.476	ug/l	21.48	31.33	3.716E-04	Pulse	1.00	3
Cd			2	0.004	ug/l	1088.73	12.21	2.794E-05	Pulse	0.30	3
Sn			2	-0.739	ug/l	-14.49	238.89	5.468E-04	Pulse	0.30	3
Se			3	-0.112	ug/l	-112.85	6.13	5.279E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,678,781.24	0.21	95.0	Pulse	0.10	3
1	Sc		2,542,813.40	0.91	98.5	Pulse	0.10	3
1	Ge		491,376.48	0.93	99.8	Pulse	0.10	3

Quantitation Report

1	Ge		681,213.72	1.05	100.5	Pulse	0.10	3
1	Rh		3,217,547.76	0.40	100.1	Pulse	0.10	3
1	In		3,310,837.35	1.37	101.4	Pulse	0.10	3
1	Tb		4,441,325.14	0.86	103.0	Pulse	0.10	3
1	Ho		434,694.04	1.28	102.6	Pulse	0.10	3
1	Bi		2,538,534.29	0.86	102.2	Pulse	0.10	3
2	Sc		84,384.33	1.04	98.9	Pulse	0.30	3
2	Ge		49,645.14	0.68	100.8	Pulse	0.30	3
2	Ge		75,213.63	0.69	101.1	Pulse	0.30	3
2	Rh		1,375,609.29	1.14	99.5	Pulse	0.30	3
2	In		436,844.24	0.15	98.9	Pulse	0.30	3
2	Tb		1,633,502.71	0.73	98.7	Pulse	0.30	3
2	Ho		165,058.04	0.55	98.6	Pulse	0.30	3
2	Bi		1,089,084.30	1.12	99.7	Pulse	0.30	3
3	Sc		119,528.80	0.81	104.9	Pulse	0.30	3
3	Ge		76,098.65	1.11	100.6	Pulse	0.30	3
3	Ge		116,132.95	1.06	101.6	Pulse	0.30	3
3	Rh		1,252,563.18	0.91	101.3	Pulse	0.30	3
3	Tb		1,807,273.61	0.49	101.3	Pulse	0.30	3

Quantitation Report

File Name	047SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 18:03
Sample Name	mp16329-ps1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	80.157	ug/l	0.94	270,760.74	1.573E-01	Pulse	0.25	3
B			1	109.059	ug/l	0.99	270,891.81	1.574E-01	Pulse	0.15	3
Ca			1	46600.146	ug/l	1.82	20,354,866.78	8.020E+00	Analog	0.10	3
Sr			1	315.824	ug/l	0.72	6,424,474.07	2.085E+00	Analog	0.10	3
Mo			1	84.796	ug/l	0.24	339,242.16	1.101E-01	Pulse	0.10	3
Ag			1	79.784	ug/l	0.51	788,072.02	2.439E-01	Pulse	0.10	3
Sn			1	84.989	ug/l	1.38	530,512.66	1.642E-01	Pulse	0.10	3
Sb			1	83.267	ug/l	1.50	601,348.31	1.365E-01	Pulse	0.10	3
Ba			1	145.202	ug/l	0.20	433,211.28	9.836E-02	Pulse	0.10	3
Tl			1	84.695	ug/l	0.28	1,392,938.63	5.607E-01	Pulse	0.10	3
Pb			1	83.828	ug/l	1.81	471,325.38	1.897E-01	Pulse	0.10	3
Pb			1	83.884	ug/l	0.48	416,572.49	1.677E-01	Pulse	0.10	3
Pb			1	83.674	ug/l	0.99	1,901,695.39	7.655E-01	Pulse	0.10	3
Na			2	12495.772	ug/l	2.78	5,439,506.87	6.471E+01	Analog	0.30	3
Mg			2	20909.908	ug/l	0.65	4,232,498.72	5.035E+01	Pulse	0.30	3
Al			2	3954.814	ug/l	1.03	254,458.52	3.027E+00	Pulse	0.30	3
K			2	5246.223	ug/l	0.73	674,843.74	8.028E+00	Pulse	0.30	3
Ca			2	46997.598	ug/l	0.68	325,877.31	3.877E+00	Pulse	0.30	3
Ti			2	80.891	ug/l	1.50	4,502.89	5.356E-02	Pulse	0.30	3
V			2	84.952	ug/l	0.80	159,170.44	1.894E+00	Pulse	0.30	3
Cr			2	84.179	ug/l	0.47	201,538.40	2.398E+00	Pulse	0.30	3
Mn			2	511.444	ug/l	0.78	590,662.27	7.027E+00	Pulse	0.30	3
Fe			2	6630.037	ug/l	0.96	12,360,490.34	1.470E+02	Analog	0.30	3
Co			2	81.659	ug/l	2.24	328,661.92	3.910E+00	Pulse	0.30	3
Ni			2	79.936	ug/l	1.69	87,606.63	1.042E+00	Pulse	0.30	3
Cu			2	78.698	ug/l	0.91	239,261.26	2.846E+00	Pulse	0.30	3
Zn			2	73.652	ug/l	1.02	29,860.63	3.552E-01	Pulse	0.30	3
As			2	77.194	ug/l	0.97	16,762.93	1.994E-01	Pulse	1.00	3
Cd			2	79.616	ug/l	1.04	42,677.08	1.021E-01	Pulse	0.30	3
Sn			2	84.398	ug/l	1.03	91,789.22	2.196E-01	Pulse	0.30	3
Se			3	358.196	ug/l	0.54	21,828.56	1.807E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,721,131.76	0.92	97.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,538,467.72	1.77	98.3	Pulse	0.10	3
1	Ge		491,442.69	1.98	99.8	Pulse	0.10	3
1	Ge		681,099.86	1.83	100.5	Pulse	0.10	3
1	Rh		3,081,996.93	1.99	95.9	Pulse	0.10	3
1	In		3,231,103.65	0.75	99.0	Pulse	0.10	3
1	Tb		4,404,111.08	1.24	102.1	Pulse	0.10	3
1	Ho		438,757.94	0.55	103.5	Pulse	0.10	3
1	Bi		2,484,400.85	1.41	100.0	Pulse	0.10	3
2	Sc		84,061.78	0.35	98.5	Pulse	0.30	3
2	Ge		49,455.78	1.00	100.5	Pulse	0.30	3
2	Ge		73,717.73	0.97	99.1	Pulse	0.30	3
2	Rh		1,336,426.72	0.25	96.6	Pulse	0.30	3
2	In		418,073.29	0.82	94.6	Pulse	0.30	3
2	Tb		1,604,742.33	0.22	97.0	Pulse	0.30	3
2	Ho		161,543.14	0.15	96.5	Pulse	0.30	3
2	Bi		1,040,880.17	1.26	95.3	Pulse	0.30	3
3	Sc		125,744.08	1.52	110.3	Pulse	0.30	3
3	Ge		79,391.68	0.68	105.0	Pulse	0.30	3
3	Ge		120,793.87	0.27	105.7	Pulse	0.30	3
3	Rh		1,251,552.34	0.67	101.3	Pulse	0.30	3
3	Tb		1,845,332.29	0.82	103.4	Pulse	0.30	3

Quantitation Report

File Name 048_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 18:08
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.574	ug/l	0.90	336,330.53	1.985E-01	Pulse	0.25	3
B			1	104.018	ug/l	0.11	508,067.64	2.999E-01	Pulse	0.15	3
Ca			1	5106.888	ug/l	0.59	4,498,098.37	1.761E+00	Pulse	0.10	3
Sr			1	53.065	ug/l	0.49	2,224,159.03	7.006E-01	Pulse	0.10	3
Mo			1	51.986	ug/l	0.38	428,420.88	1.350E-01	Pulse	0.10	3
Ag			1	50.052	ug/l	0.44	1,003,447.09	3.060E-01	Pulse	0.10	3
Sn			1	50.387	ug/l	0.55	637,838.19	1.945E-01	Pulse	0.10	3
Sb			1	53.398	ug/l	0.59	771,352.64	1.751E-01	Pulse	0.10	3
Ba			1	52.185	ug/l	0.63	311,541.58	7.071E-02	Pulse	0.10	3
Tl			1	52.225	ug/l	0.83	1,710,734.66	6.914E-01	Pulse	0.10	3
Pb			1	51.909	ug/l	0.24	581,358.34	2.350E-01	Pulse	0.10	3
Pb			1	52.044	ug/l	0.92	514,757.56	2.081E-01	Pulse	0.10	3
Pb			1	51.984	ug/l	0.25	2,353,275.59	9.511E-01	Pulse	0.10	3
Na			2	4967.771	ug/l	1.49	4,421,739.13	5.147E+01	Pulse	0.30	3
Mg			2	4940.349	ug/l	1.42	2,044,469.29	2.380E+01	Pulse	0.30	3
Al			2	4860.448	ug/l	1.77	638,350.67	7.430E+00	Pulse	0.30	3
K			2	5041.286	ug/l	0.97	1,318,749.81	1.535E+01	Pulse	0.30	3
Ca			2	5138.132	ug/l	0.31	72,908.26	8.485E-01	Pulse	0.30	3
Ti			2	49.256	ug/l	1.42	5,604.34	6.522E-02	Pulse	0.30	3
V			2	51.278	ug/l	0.95	196,376.69	2.286E+00	Pulse	0.30	3
Cr			2	50.869	ug/l	1.07	248,874.45	2.897E+00	Pulse	0.30	3
Mn			2	49.992	ug/l	0.46	118,069.28	1.374E+00	Pulse	0.30	3
Fe			2	5039.417	ug/l	1.05	19,201,735.90	2.235E+02	Analog	0.30	3
Co			2	50.240	ug/l	0.64	413,352.05	4.811E+00	Pulse	0.30	3
Ni			2	49.557	ug/l	1.68	111,013.61	1.292E+00	Pulse	0.30	3
Cu			2	49.492	ug/l	1.34	307,439.67	3.578E+00	Pulse	0.30	3
Zn			2	48.454	ug/l	0.61	40,085.64	4.665E-01	Pulse	0.30	3
As			2	49.661	ug/l	1.58	22,041.17	2.565E-01	Pulse	1.00	3
Cd			2	50.590	ug/l	1.59	56,174.57	1.297E-01	Pulse	0.30	3
Sn			2	50.852	ug/l	0.17	114,499.50	2.644E-01	Pulse	0.30	3
Se			3	202.304	ug/l	0.65	23,575.36	2.041E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,694,370.05	0.55	95.9	Pulse	0.10	3
1	Sc		2,554,228.29	0.60	98.9	Pulse	0.10	3
1	Ge		495,065.16	0.91	100.6	Pulse	0.10	3

Quantitation Report

1	Ge		681,171.22	0.78	100.5	Pulse	0.10	3
1	Rh		3,174,556.93	0.45	98.8	Pulse	0.10	3
1	In		3,279,026.16	1.09	100.4	Pulse	0.10	3
1	Tb		4,405,948.58	1.17	102.2	Pulse	0.10	3
1	Ho		435,012.17	1.26	102.7	Pulse	0.10	3
1	Bi		2,474,273.19	0.57	99.6	Pulse	0.10	3
2	Sc		85,923.13	1.05	100.7	Pulse	0.30	3
2	Ge		49,304.09	0.53	100.1	Pulse	0.30	3
2	Ge		74,069.64	0.42	99.6	Pulse	0.30	3
2	Rh		1,362,085.02	0.21	98.5	Pulse	0.30	3
2	In		433,060.81	0.19	98.0	Pulse	0.30	3
2	Tb		1,624,588.76	0.64	98.2	Pulse	0.30	3
2	Ho		164,428.38	0.40	98.2	Pulse	0.30	3
2	Bi		1,054,380.79	0.31	96.5	Pulse	0.30	3
3	Sc		121,521.57	0.26	106.6	Pulse	0.30	3
3	Ge		76,148.73	0.36	100.7	Pulse	0.30	3
3	Ge		115,502.96	0.58	101.0	Pulse	0.30	3
3	Rh		1,233,348.08	0.12	99.8	Pulse	0.30	3
3	Tb		1,796,214.10	0.39	100.7	Pulse	0.30	3

Quantitation Report

File Name 049_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 18:13
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.037	ug/l	5.66	282.68	1.658E-04	Pulse	0.25	3
B			1	5.177	ug/l	4.46	26,109.18	1.531E-02	Pulse	0.15	3
Ca			1	3.781	ug/l	16.81	13,509.26	5.422E-03	Pulse	0.10	3
Sr			1	0.046	ug/l	10.24	2,256.90	7.141E-04	Pulse	0.10	3
Mo			1	0.088	ug/l	25.28	876.72	2.772E-04	Pulse	0.10	3
Ag			1	0.048	ug/l	9.59	1,003.40	3.054E-04	Pulse	0.10	3
Sn			1	0.078	ug/l	8.67	3,777.25	1.150E-03	Pulse	0.10	3
Sb			1	0.179	ug/l	6.99	3,507.18	8.073E-04	Pulse	0.10	3
Ba			1	0.042	ug/l	40.49	290.02	6.667E-05	Pulse	0.10	3
Tl			1	0.047	ug/l	4.66	2,003.55	8.046E-04	Pulse	0.10	3
Pb			1	0.047	ug/l	27.62	773.38	3.111E-04	Pulse	0.10	3
Pb			1	0.051	ug/l	0.69	676.71	2.718E-04	Pulse	0.10	3
Pb			1	0.054	ug/l	1.27	3,206.92	1.288E-03	Pulse	0.10	3
Na			2	3.355	ug/l	7.39	8,557.80	1.026E-01	Pulse	0.30	3
Mg			2	2.578	ug/l	5.90	1,680.11	2.013E-02	Pulse	0.30	3
Al			2	-1.059	ug/l	-28.31	461.12	5.527E-03	Pulse	0.30	3
K			2	3.647	ug/l	16.79	8,153.18	9.771E-02	Pulse	0.30	3
Ca			2	1.996	ug/l	162.75	122.23	1.466E-03	Pulse	0.30	3
Ti			2	-0.030	ug/l	-58.91	2.22	2.656E-05	Pulse	0.30	3
V			2	0.024	ug/l	20.61	206.67	2.477E-03	Pulse	0.30	3
Cr			2	0.020	ug/l	17.74	510.01	6.113E-03	Pulse	0.30	3
Mn			2	0.060	ug/l	11.58	188.89	2.263E-03	Pulse	0.30	3
Fe			2	2.425	ug/l	4.42	18,261.36	2.189E-01	Pulse	0.30	3
Co			2	0.037	ug/l	19.43	351.07	4.205E-03	Pulse	0.30	3
Ni			2	0.054	ug/l	10.48	150.01	1.798E-03	Pulse	0.30	3
Cu			2	0.055	ug/l	12.60	834.48	9.998E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.065	ug/l	55.09	274.45	3.287E-03	Pulse	0.30	3
As			2	0.030	ug/l	27.47	23.33	2.796E-04	Pulse	1.00	3
Cd			2	0.041	ug/l	34.31	56.60	1.314E-04	Pulse	0.30	3
Sn			2	0.138	ug/l	18.47	708.91	1.645E-03	Pulse	0.30	3
Se			3	0.175	ug/l	7.38	27.53	2.406E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,705,606.73	0.67	96.6	Pulse	0.10	3
1	Sc		2,492,083.55	1.01	96.5	Pulse	0.10	3
1	Ge		480,822.57	1.14	97.7	Pulse	0.10	3
1	Ge		675,225.48	0.86	99.6	Pulse	0.10	3
1	Rh		3,161,178.91	1.24	98.4	Pulse	0.10	3
1	In		3,285,245.33	0.63	100.6	Pulse	0.10	3
1	Tb		4,345,872.12	1.03	100.8	Pulse	0.10	3
1	Ho		425,090.75	0.56	100.3	Pulse	0.10	3
1	Bi		2,489,507.36	1.32	100.2	Pulse	0.10	3
2	Sc		83,446.22	0.78	97.8	Pulse	0.30	3
2	Ge		49,065.78	1.53	99.7	Pulse	0.30	3
2	Ge		74,098.39	0.42	99.6	Pulse	0.30	3
2	Rh		1,368,859.70	0.34	99.0	Pulse	0.30	3
2	In		431,004.43	0.56	97.5	Pulse	0.30	3
2	Tb		1,608,772.82	0.12	97.2	Pulse	0.30	3
2	Ho		163,644.90	0.07	97.7	Pulse	0.30	3
2	Bi		1,067,834.89	0.33	97.7	Pulse	0.30	3
3	Sc		119,962.76	0.83	105.3	Pulse	0.30	3
3	Ge		76,088.38	1.02	100.6	Pulse	0.30	3
3	Ge		114,402.13	0.76	100.1	Pulse	0.30	3
3	Rh		1,264,886.72	0.45	102.3	Pulse	0.30	3
3	Tb		1,811,849.86	0.36	101.6	Pulse	0.30	3

Quantitation Report

File Name 050SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 18:18
Sample Name jc91111-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	72.10	62.67	3.551E-05	Pulse	0.25	3
B			1	29.422	ug/l	0.61	75,406.20	4.276E-02	Pulse	0.15	3
Ca			1	71979.290	ug/l	2.47	32,085,960.36	1.239E+01	Analog	0.10	3
Sr			1	420.016	ug/l	0.38	8,724,319.25	2.772E+00	Analog	0.10	3
Mo			1	0.704	ug/l	1.03	3,033.73	9.640E-04	Pulse	0.10	3
Ag			1	0.042	ug/l	17.21	453.36	1.369E-04	Pulse	0.10	3
Sn			1	0.662	ug/l	8.99	7,038.48	2.122E-03	Pulse	0.10	3
Sb			1	0.448	ug/l	11.32	4,304.09	9.537E-04	Pulse	0.10	3
Ba			1	18.728	ug/l	0.93	57,269.36	1.270E-02	Pulse	0.10	3
Tl			1	0.017	ug/l	41.16	743.39	2.939E-04	Pulse	0.10	3
Pb			1	0.104	ug/l	9.70	843.39	3.332E-04	Pulse	0.10	3
Pb			1	0.095	ug/l	16.30	653.38	2.577E-04	Pulse	0.10	3
Pb			1	0.102	ug/l	3.12	3,140.25	1.240E-03	Pulse	0.10	3
Na			2	11817.599	ug/l	2.43	5,283,976.32	6.120E+01	Analog	0.30	3
Mg			2	26237.361	ug/l	1.81	5,454,111.45	6.318E+01	Analog	0.30	3
Al			2	-4.941	ug/l	-3.10	291.12	3.371E-03	Pulse	0.30	3
K			2	1801.978	ug/l	0.39	242,971.03	2.814E+00	Pulse	0.30	3
Ca			2	71793.473	ug/l	0.58	511,208.04	5.921E+00	Pulse	0.30	3
Ti			2	0.425	ug/l	106.48	30.00	3.468E-04	Pulse	0.30	3
V			2	0.189	ug/l	12.34	484.46	5.612E-03	Pulse	0.30	3
Cr			2	0.314	ug/l	5.70	1,201.17	1.391E-02	Pulse	0.30	3
Mn			2	395.292	ug/l	0.91	468,862.74	5.431E+00	Pulse	0.30	3
Fe			2	18.571	ug/l	1.92	45,140.76	5.229E-01	Pulse	0.30	3
Co			2	0.432	ug/l	4.88	1,844.45	2.137E-02	Pulse	0.30	3
Ni			2	1.905	ug/l	4.32	2,177.95	2.522E-02	Pulse	0.30	3
Cu			2	0.332	ug/l	8.14	1,554.54	1.801E-02	Pulse	0.30	3
Zn			2	6.313	ug/l	3.51	2,839.17	3.288E-02	Pulse	0.30	3
As			2	0.246	ug/l	9.16	65.67	7.603E-04	Pulse	1.00	3
Cd			2	0.007	ug/l	316.99	15.40	3.624E-05	Pulse	0.30	3
Sn			2	0.815	ug/l	4.19	1,292.29	3.041E-03	Pulse	0.30	3
Se			3	0.083	ug/l	40.60	12.93	1.060E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,763,642.35	0.45	99.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,590,937.98	0.84	100.4	Pulse	0.10	3
1	Ge		508,642.82	1.19	103.3	Pulse	0.10	3
1	Ge		702,251.03	0.74	103.6	Pulse	0.10	3
1	Rh		3,146,924.12	1.10	97.9	Pulse	0.10	3
1	In		3,315,910.60	1.59	101.6	Pulse	0.10	3
1	Tb		4,511,438.37	1.17	104.6	Pulse	0.10	3
1	Ho		446,117.68	0.63	105.3	Pulse	0.10	3
1	Bi		2,532,494.70	1.29	101.9	Pulse	0.10	3
2	Sc		86,333.12	0.89	101.2	Pulse	0.30	3
2	Ge		50,117.94	0.45	101.8	Pulse	0.30	3
2	Ge		76,065.28	0.38	102.2	Pulse	0.30	3
2	Rh		1,339,012.10	0.65	96.8	Pulse	0.30	3
2	In		424,994.90	0.07	96.2	Pulse	0.30	3
2	Tb		1,622,792.99	0.30	98.1	Pulse	0.30	3
2	Ho		163,564.41	0.81	97.7	Pulse	0.30	3
2	Bi		1,050,879.68	0.25	96.2	Pulse	0.30	3
3	Sc		125,707.93	1.32	110.3	Pulse	0.30	3
3	Ge		80,682.43	1.24	106.7	Pulse	0.30	3
3	Ge		121,995.30	0.31	106.7	Pulse	0.30	3
3	Rh		1,247,273.53	0.54	100.9	Pulse	0.30	3
3	Tb		1,853,284.72	1.24	103.9	Pulse	0.30	3

Quantitation Report

File Name 051SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 18:23
Sample Name jc91111-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	70.32	81.33	4.603E-05	Pulse	0.25	3
B			1	26.938	ug/l	0.58	69,385.41	3.918E-02	Pulse	0.15	3
Ca			1	68851.344	ug/l	1.55	30,567,007.88	1.185E+01	Analog	0.10	3
Sr			1	409.968	ug/l	0.43	8,410,534.66	2.706E+00	Analog	0.10	3
Mo			1	0.645	ug/l	11.66	2,757.01	8.868E-04	Pulse	0.10	3
Ag			1	0.032	ug/l	10.83	353.35	1.076E-04	Pulse	0.10	3
Sn			1	0.446	ug/l	8.40	5,604.55	1.707E-03	Pulse	0.10	3
Sb			1	0.219	ug/l	12.18	2,596.98	5.798E-04	Pulse	0.10	3
Ba			1	18.500	ug/l	2.99	56,169.82	1.254E-02	Pulse	0.10	3
Tl			1	0.006	ug/l	55.27	556.70	2.242E-04	Pulse	0.10	3
Pb			1	0.076	ug/l	25.81	670.04	2.698E-04	Pulse	0.10	3
Pb			1	0.100	ug/l	20.66	663.38	2.672E-04	Pulse	0.10	3
Pb			1	0.086	ug/l	3.90	2,706.86	1.090E-03	Pulse	0.10	3
Na			2	11368.840	ug/l	1.06	5,040,128.27	5.888E+01	Mix	0.30	3
Mg			2	25193.199	ug/l	1.97	5,192,922.85	6.066E+01	Mix	0.30	3
Al			2	-6.197	ug/l	-8.29	206.67	2.412E-03	Pulse	0.30	3
K			2	1735.291	ug/l	1.22	232,223.47	2.713E+00	Pulse	0.30	3
Ca			2	69558.316	ug/l	1.04	491,002.92	5.737E+00	Pulse	0.30	3
Ti			2	0.194	ug/l	102.84	16.67	1.937E-04	Pulse	0.30	3
V			2	0.266	ug/l	5.23	626.68	7.320E-03	Pulse	0.30	3
Cr			2	0.318	ug/l	4.81	1,200.07	1.402E-02	Pulse	0.30	3
Mn			2	417.418	ug/l	1.49	490,807.53	5.735E+00	Pulse	0.30	3
Fe			2	16.443	ug/l	0.36	40,721.22	4.758E-01	Pulse	0.30	3
Co			2	0.474	ug/l	6.68	1,998.92	2.335E-02	Pulse	0.30	3
Ni			2	1.863	ug/l	8.60	2,112.39	2.467E-02	Pulse	0.30	3
Cu			2	0.223	ug/l	13.76	1,203.39	1.405E-02	Pulse	0.30	3
Zn			2	4.554	ug/l	3.93	2,093.49	2.446E-02	Pulse	0.30	3
As			2	0.307	ug/l	7.70	78.67	9.187E-04	Pulse	1.00	3
Cd			2	-0.013	ug/l	-112.05	4.32	1.036E-05	Pulse	0.30	3
Sn			2	0.582	ug/l	4.30	1,020.04	2.437E-03	Pulse	0.30	3
Se			3	0.009	ug/l	465.70	8.33	6.885E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,770,964.64	1.20	100.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,580,227.67	0.70	99.9	Pulse	0.10	3
1	Ge		504,419.20	0.97	102.5	Pulse	0.10	3
1	Ge		693,736.82	1.09	102.3	Pulse	0.10	3
1	Rh		3,108,006.21	0.48	96.7	Pulse	0.10	3
1	In		3,284,504.78	1.65	100.6	Pulse	0.10	3
1	Tb		4,479,168.68	0.08	103.9	Pulse	0.10	3
1	Ho		444,867.37	0.39	105.0	Pulse	0.10	3
1	Bi		2,482,541.99	0.46	99.9	Pulse	0.10	3
2	Sc		85,590.34	1.20	100.3	Pulse	0.30	3
2	Ge		50,339.65	2.95	102.3	Pulse	0.30	3
2	Ge		75,598.41	1.10	101.6	Pulse	0.30	3
2	Rh		1,336,511.26	0.78	96.6	Pulse	0.30	3
2	In		418,450.78	0.55	94.7	Pulse	0.30	3
2	Tb		1,627,603.37	0.60	98.4	Pulse	0.30	3
2	Ho		166,136.20	1.24	99.2	Pulse	0.30	3
2	Bi		1,047,841.62	0.91	95.9	Pulse	0.30	3
3	Sc		125,216.34	0.89	109.9	Pulse	0.30	3
3	Ge		80,155.56	0.83	106.0	Pulse	0.30	3
3	Ge		121,058.39	0.67	105.9	Pulse	0.30	3
3	Rh		1,256,594.60	0.77	101.7	Pulse	0.30	3
3	Tb		1,863,064.72	0.59	104.4	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 18:28
Sample Name	jc91111-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	55.34	61.33	3.497E-05	Pulse	0.25	3
B			1	26.404	ug/l	2.13	67,477.83	3.841E-02	Pulse	0.15	3
Ca			1	56340.357	ug/l	1.73	24,296,289.64	9.695E+00	Analog	0.10	3
Sr			1	270.679	ug/l	1.02	5,490,277.00	1.787E+00	Analog	0.10	3
Mo			1	2.323	ug/l	2.87	9,416.38	3.065E-03	Pulse	0.10	3
Ag			1	0.025	ug/l	7.79	276.68	8.488E-05	Pulse	0.10	3
Sn			1	1.004	ug/l	12.88	9,059.47	2.780E-03	Pulse	0.10	3
Sb			1	0.522	ug/l	2.88	4,765.90	1.075E-03	Pulse	0.10	3
Ba			1	176.103	ug/l	0.39	528,997.19	1.193E-01	Pulse	0.10	3
Tl			1	0.002	ug/l	293.76	490.03	1.953E-04	Pulse	0.10	3
Pb			1	0.112	ug/l	11.37	880.06	3.509E-04	Pulse	0.10	3
Pb			1	0.132	ug/l	24.89	830.05	3.311E-04	Pulse	0.10	3
Pb			1	0.134	ug/l	11.99	3,840.36	1.532E-03	Pulse	0.10	3
Na			2	8777.933	ug/l	1.42	3,800,471.79	4.548E+01	Pulse	0.30	3
Mg			2	20547.926	ug/l	1.22	4,134,767.48	4.948E+01	Pulse	0.30	3
Al			2	-3.295	ug/l	-9.43	386.68	4.628E-03	Pulse	0.30	3
K			2	1738.083	ug/l	1.31	227,106.58	2.718E+00	Pulse	0.30	3
Ca			2	56370.498	ug/l	1.35	388,563.07	4.650E+00	Pulse	0.30	3
Ti			2	0.745	ug/l	7.17	46.67	5.582E-04	Pulse	0.30	3
V			2	0.334	ug/l	11.19	737.81	8.828E-03	Pulse	0.30	3
Cr			2	0.316	ug/l	2.45	1,166.72	1.396E-02	Pulse	0.30	3
Mn			2	659.508	ug/l	1.12	757,176.03	9.061E+00	Pulse	0.30	3
Fe			2	9.604	ug/l	3.08	27,090.09	3.242E-01	Pulse	0.30	3
Co			2	0.078	ug/l	6.80	369.94	4.426E-03	Pulse	0.30	3
Ni			2	0.267	ug/l	19.97	323.34	3.869E-03	Pulse	0.30	3
Cu			2	1.158	ug/l	40.63	4,003.87	4.782E-02	Pulse	0.30	3
Zn			2	10.461	ug/l	2.38	4,407.31	5.274E-02	Pulse	0.30	3
As			2	3.968	ug/l	1.57	866.69	1.037E-02	Pulse	1.00	3
Cd			2	-0.009	ug/l	-69.45	6.24	1.506E-05	Pulse	0.30	3
Sn			2	0.989	ug/l	4.49	1,448.98	3.493E-03	Pulse	0.30	3
Se			3	2.238	ug/l	2.33	144.60	1.193E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,756,621.98	1.01	99.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,506,287.57	1.14	97.1	Pulse	0.10	3
1	Ge		498,957.66	0.29	101.4	Pulse	0.10	3
1	Ge		674,422.57	0.85	99.5	Pulse	0.10	3
1	Rh		3,073,088.50	1.54	95.6	Pulse	0.10	3
1	In		3,257,667.67	1.60	99.8	Pulse	0.10	3
1	Tb		4,434,134.21	1.70	102.8	Pulse	0.10	3
1	Ho		440,085.25	2.49	103.9	Pulse	0.10	3
1	Bi		2,506,448.24	1.65	100.9	Pulse	0.10	3
2	Sc		83,572.49	0.84	98.0	Pulse	0.30	3
2	Ge		48,876.40	1.56	99.3	Pulse	0.30	3
2	Ge		73,293.72	1.06	98.5	Pulse	0.30	3
2	Rh		1,328,377.97	0.21	96.0	Pulse	0.30	3
2	In		414,911.50	0.93	93.9	Pulse	0.30	3
2	Tb		1,612,199.10	0.32	97.4	Pulse	0.30	3
2	Ho		162,338.44	0.66	96.9	Pulse	0.30	3
2	Bi		1,036,654.65	0.84	94.9	Pulse	0.30	3
3	Sc		124,158.27	0.39	109.0	Pulse	0.30	3
3	Ge		79,980.09	0.39	105.7	Pulse	0.30	3
3	Ge		121,220.48	0.71	106.0	Pulse	0.30	3
3	Rh		1,252,012.90	0.67	101.3	Pulse	0.30	3
3	Tb		1,856,690.20	0.36	104.1	Pulse	0.30	3

Quantitation Report

File Name	053SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 18:33
Sample Name	jc91111-1f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	32.14	60.00	3.459E-05	Pulse	0.25	3
B			1	22.318	ug/l	1.79	56,447.33	3.253E-02	Pulse	0.15	3
Ca			1	46299.409	ug/l	1.44	19,910,677.62	7.968E+00	Analog	0.10	3
Sr			1	246.038	ug/l	0.90	4,933,811.39	1.624E+00	Pulse	0.10	3
Mo			1	0.418	ug/l	11.86	1,800.17	5.928E-04	Pulse	0.10	3
Ag			1	0.032	ug/l	12.59	346.68	1.075E-04	Pulse	0.10	3
Sn			1	1.116	ug/l	9.53	9,656.60	2.995E-03	Pulse	0.10	3
Sb			1	0.025	ug/l	27.66	1,160.09	2.619E-04	Pulse	0.10	3
Ba			1	62.290	ug/l	1.33	186,902.66	4.220E-02	Pulse	0.10	3
Tl			1	0.006	ug/l	38.55	550.03	2.207E-04	Pulse	0.10	3
Pb			1	0.056	ug/l	38.78	560.03	2.248E-04	Pulse	0.10	3
Pb			1	0.057	ug/l	16.88	453.35	1.819E-04	Pulse	0.10	3
Pb			1	0.063	ug/l	16.06	2,203.49	8.842E-04	Pulse	0.10	3
Na			2	8927.525	ug/l	0.70	3,816,337.90	4.625E+01	Pulse	0.30	3
Mg			2	18729.676	ug/l	0.20	3,721,337.49	4.510E+01	Pulse	0.30	3
Al			2	-3.414	ug/l	-64.07	374.48	4.537E-03	Pulse	0.30	3
K			2	1222.786	ug/l	0.75	159,876.28	1.938E+00	Pulse	0.30	3
Ca			2	46230.968	ug/l	0.35	314,652.74	3.813E+00	Pulse	0.30	3
Ti			2	0.165	ug/l	182.10	14.44	1.748E-04	Pulse	0.30	3
V			2	0.304	ug/l	5.49	673.36	8.160E-03	Pulse	0.30	3
Cr			2	0.264	ug/l	3.63	1,030.05	1.248E-02	Pulse	0.30	3
Mn			2	463.598	ug/l	0.53	525,545.67	6.369E+00	Pulse	0.30	3
Fe			2	906.326	ug/l	0.10	1,666,484.69	2.020E+01	Pulse	0.30	3
Co			2	0.048	ug/l	13.46	246.62	2.989E-03	Pulse	0.30	3
Ni			2	0.084	ug/l	7.38	122.22	1.481E-03	Pulse	0.30	3
Cu			2	0.271	ug/l	1.50	1,302.29	1.578E-02	Pulse	0.30	3
Zn			2	7.589	ug/l	3.96	3,217.03	3.899E-02	Pulse	0.30	3
As			2	0.444	ug/l	21.50	105.00	1.272E-03	Pulse	1.00	3
Cd			2	-0.015	ug/l	-42.63	3.25	7.859E-06	Pulse	0.30	3
Sn			2	1.301	ug/l	5.72	1,765.67	4.301E-03	Pulse	0.30	3
Se			3	0.013	ug/l	74.79	8.53	7.061E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,735,246.23	0.95	98.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,498,982.62	1.17	96.8	Pulse	0.10	3
1	Ge		492,866.49	0.81	100.1	Pulse	0.10	3
1	Ge		667,778.64	1.26	98.5	Pulse	0.10	3
1	Rh		3,037,789.12	0.79	94.5	Pulse	0.10	3
1	In		3,225,062.63	1.11	98.8	Pulse	0.10	3
1	Tb		4,428,702.12	0.55	102.7	Pulse	0.10	3
1	Ho		438,540.20	1.57	103.5	Pulse	0.10	3
1	Bi		2,490,998.76	1.23	100.3	Pulse	0.10	3
2	Sc		82,511.62	0.39	96.7	Pulse	0.30	3
2	Ge		48,171.92	0.88	97.8	Pulse	0.30	3
2	Ge		73,118.48	0.41	98.3	Pulse	0.30	3
2	Rh		1,316,712.41	0.42	95.2	Pulse	0.30	3
2	In		410,718.81	1.68	92.9	Pulse	0.30	3
2	Tb		1,590,714.17	1.00	96.1	Pulse	0.30	3
2	Ho		162,497.51	1.59	97.0	Pulse	0.30	3
2	Bi		1,038,477.00	0.44	95.1	Pulse	0.30	3
3	Sc		122,647.95	0.32	107.6	Pulse	0.30	3
3	Ge		79,408.59	0.87	105.0	Pulse	0.30	3
3	Ge		120,829.52	0.61	105.7	Pulse	0.30	3
3	Rh		1,248,834.43	0.55	101.0	Pulse	0.30	3
3	Tb		1,862,414.09	0.29	104.4	Pulse	0.30	3

Quantitation Report

File Name 054SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 18:38
Sample Name jc91111-2f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	93.66	72.00	4.121E-05	Pulse	0.25	3
B			1	25.388	ug/l	2.35	64,843.38	3.695E-02	Pulse	0.15	3
Ca			1	71115.351	ug/l	0.81	30,991,806.21	1.224E+01	Analog	0.10	3
Sr			1	416.597	ug/l	2.00	8,425,516.12	2.750E+00	Analog	0.10	3
Mo			1	0.679	ug/l	4.24	2,853.69	9.315E-04	Pulse	0.10	3
Ag			1	0.028	ug/l	22.02	310.01	9.561E-05	Pulse	0.10	3
Sn			1	0.454	ug/l	12.35	5,574.52	1.722E-03	Pulse	0.10	3
Sb			1	0.132	ug/l	12.97	1,963.52	4.369E-04	Pulse	0.10	3
Ba			1	17.512	ug/l	1.18	53,375.86	1.187E-02	Pulse	0.10	3
Tl			1	0.005	ug/l	59.76	540.03	2.160E-04	Pulse	0.10	3
Pb			1	0.047	ug/l	28.15	510.03	2.036E-04	Pulse	0.10	3
Pb			1	0.054	ug/l	13.41	440.02	1.757E-04	Pulse	0.10	3
Pb			1	0.058	ug/l	4.12	2,083.48	8.328E-04	Pulse	0.10	3
Na			2	11827.156	ug/l	1.93	5,197,157.99	6.125E+01	Analog	0.30	3
Mg			2	25821.444	ug/l	2.76	5,275,522.71	6.218E+01	Analog	0.30	3
Al			2	-5.960	ug/l	-6.81	220.00	2.593E-03	Pulse	0.30	3
K			2	1763.586	ug/l	0.33	233,864.89	2.756E+00	Pulse	0.30	3
Ca			2	70599.201	ug/l	0.90	494,070.05	5.823E+00	Pulse	0.30	3
Ti			2	0.099	ug/l	34.59	11.11	1.309E-04	Pulse	0.30	3
V			2	0.272	ug/l	9.89	633.35	7.464E-03	Pulse	0.30	3
Cr			2	0.248	ug/l	3.65	1,020.04	1.202E-02	Pulse	0.30	3
Mn			2	293.242	ug/l	1.27	341,853.69	4.029E+00	Pulse	0.30	3
Fe			2	13.706	ug/l	1.63	35,220.84	4.151E-01	Pulse	0.30	3
Co			2	0.286	ug/l	1.53	1,219.97	1.438E-02	Pulse	0.30	3
Ni			2	1.283	ug/l	4.17	1,452.30	1.712E-02	Pulse	0.30	3
Cu			2	0.195	ug/l	1.58	1,107.83	1.306E-02	Pulse	0.30	3
Zn			2	4.970	ug/l	0.95	2,244.62	2.645E-02	Pulse	0.30	3
As			2	0.248	ug/l	14.57	65.00	7.662E-04	Pulse	1.00	3
Cd			2	0.010	ug/l	184.71	16.53	3.978E-05	Pulse	0.30	3
Sn			2	0.620	ug/l	1.85	1,048.94	2.535E-03	Pulse	0.30	3
Se			3	0.000	ug/l	-12084.35	7.73	6.397E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,755,352.55	1.76	99.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,532,755.64	0.77	98.1	Pulse	0.10	3
1	Ge		496,700.85	0.89	100.9	Pulse	0.10	3
1	Ge		679,171.58	1.57	100.2	Pulse	0.10	3
1	Rh		3,064,761.21	1.88	95.4	Pulse	0.10	3
1	In		3,237,265.75	1.45	99.1	Pulse	0.10	3
1	Tb		4,496,735.98	1.65	104.3	Pulse	0.10	3
1	Ho		441,925.33	2.12	104.3	Pulse	0.10	3
1	Bi		2,501,444.81	1.73	100.7	Pulse	0.10	3
2	Sc		84,848.54	0.22	99.5	Pulse	0.30	3
2	Ge		48,999.00	0.88	99.5	Pulse	0.30	3
2	Ge		73,508.24	0.84	98.8	Pulse	0.30	3
2	Rh		1,325,545.43	0.83	95.8	Pulse	0.30	3
2	In		413,774.90	1.03	93.6	Pulse	0.30	3
2	Tb		1,598,535.11	0.31	96.6	Pulse	0.30	3
2	Ho		162,092.33	1.03	96.8	Pulse	0.30	3
2	Bi		1,037,474.37	1.34	95.0	Pulse	0.30	3
3	Sc		124,788.17	0.07	109.5	Pulse	0.30	3
3	Ge		80,289.16	0.42	106.1	Pulse	0.30	3
3	Ge		120,972.04	0.74	105.8	Pulse	0.30	3
3	Rh		1,245,163.11	0.40	100.7	Pulse	0.30	3
3	Tb		1,866,117.98	0.41	104.6	Pulse	0.30	3

Quantitation Report

File Name 055SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 18:43
Sample Name jc91111-3f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	93.54	56.00	3.214E-05	Pulse	0.25	3
B			1	24.737	ug/l	1.48	62,731.18	3.601E-02	Pulse	0.15	3
Ca			1	69501.000	ug/l	0.67	30,014,981.22	1.196E+01	Analog	0.10	3
Sr			1	412.519	ug/l	1.70	8,337,670.09	2.723E+00	Analog	0.10	3
Mo			1	0.592	ug/l	1.90	2,503.62	8.178E-04	Pulse	0.10	3
Ag			1	0.025	ug/l	33.64	273.35	8.406E-05	Pulse	0.10	3
Sn			1	0.402	ug/l	7.38	5,281.11	1.623E-03	Pulse	0.10	3
Sb			1	0.100	ug/l	25.85	1,730.17	3.852E-04	Pulse	0.10	3
Ba			1	17.569	ug/l	2.04	53,513.26	1.191E-02	Pulse	0.10	3
Tl			1	0.001	ug/l	373.74	466.69	1.871E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	145.75	306.68	1.229E-04	Pulse	0.10	3
Pb			1	0.028	ug/l	15.08	306.68	1.229E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	27.03	1,246.74	4.995E-04	Pulse	0.10	3
Na			2	11698.467	ug/l	2.03	5,039,944.52	6.059E+01	Mix	0.30	3
Mg			2	25494.704	ug/l	2.19	5,106,192.72	6.139E+01	Mix	0.30	3
Al			2	-3.558	ug/l	-29.82	367.79	4.427E-03	Pulse	0.30	3
K			2	1763.986	ug/l	1.14	229,332.18	2.757E+00	Pulse	0.30	3
Ca			2	70466.562	ug/l	1.24	483,467.10	5.812E+00	Pulse	0.30	3
Ti			2	0.042	ug/l	359.31	7.78	9.350E-05	Pulse	0.30	3
V			2	0.289	ug/l	19.18	652.24	7.840E-03	Pulse	0.30	3
Cr			2	0.284	ug/l	9.60	1,086.72	1.306E-02	Pulse	0.30	3
Mn			2	298.144	ug/l	0.67	340,772.59	4.096E+00	Pulse	0.30	3
Fe			2	16.569	ug/l	0.77	39,811.25	4.786E-01	Pulse	0.30	3
Co			2	0.288	ug/l	2.55	1,201.06	1.444E-02	Pulse	0.30	3
Ni			2	1.459	ug/l	0.96	1,614.55	1.941E-02	Pulse	0.30	3
Cu			2	0.224	ug/l	9.49	1,173.39	1.411E-02	Pulse	0.30	3
Zn			2	4.228	ug/l	5.88	1,904.58	2.290E-02	Pulse	0.30	3
As			2	0.258	ug/l	18.69	66.00	7.933E-04	Pulse	1.00	3
Cd			2	-0.009	ug/l	-70.78	6.54	1.571E-05	Pulse	0.30	3
Sn			2	0.445	ug/l	20.04	865.59	2.082E-03	Pulse	0.30	3
Se			3	-0.027	ug/l	-89.20	6.20	5.049E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,742,001.01	0.64	98.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,509,686.16	0.92	97.2	Pulse	0.10	3
1	Ge		496,652.21	0.74	100.9	Pulse	0.10	3
1	Ge		679,122.05	0.78	100.2	Pulse	0.10	3
1	Rh		3,062,059.64	1.38	95.3	Pulse	0.10	3
1	In		3,253,720.84	0.30	99.7	Pulse	0.10	3
1	Tb		4,493,117.12	0.46	104.2	Pulse	0.10	3
1	Ho		443,908.92	0.90	104.8	Pulse	0.10	3
1	Bi		2,495,509.55	0.89	100.4	Pulse	0.10	3
2	Sc		83,191.64	1.08	97.5	Pulse	0.30	3
2	Ge		49,168.23	1.24	99.9	Pulse	0.30	3
2	Ge		74,289.23	0.61	99.9	Pulse	0.30	3
2	Rh		1,326,188.04	1.14	95.9	Pulse	0.30	3
2	In		415,867.36	0.85	94.1	Pulse	0.30	3
2	Tb		1,622,216.70	0.39	98.0	Pulse	0.30	3
2	Ho		163,896.56	0.69	97.9	Pulse	0.30	3
2	Bi		1,042,516.76	0.43	95.4	Pulse	0.30	3
3	Sc		125,857.17	0.34	110.4	Pulse	0.30	3
3	Ge		80,285.93	1.77	106.1	Pulse	0.30	3
3	Ge		122,528.29	1.43	107.2	Pulse	0.30	3
3	Rh		1,255,830.92	0.32	101.6	Pulse	0.30	3
3	Tb		1,878,109.51	0.42	105.3	Pulse	0.30	3

Quantitation Report

File Name	056SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 18:48
Sample Name	jc91111-4f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-6621.66	34.67	1.982E-05	Pulse	0.25	3
B			1	24.719	ug/l	1.80	62,856.49	3.599E-02	Pulse	0.15	3
Ca			1	56985.332	ug/l	0.49	24,441,836.30	9.806E+00	Analog	0.10	3
Sr			1	269.940	ug/l	1.67	5,466,941.17	1.782E+00	Analog	0.10	3
Mo			1	0.203	ug/l	22.53	960.06	3.130E-04	Pulse	0.10	3
Ag			1	0.022	ug/l	19.70	246.68	7.588E-05	Pulse	0.10	3
Sn			1	0.390	ug/l	15.03	5,201.03	1.598E-03	Pulse	0.10	3
Sb			1	-0.021	ug/l	-52.53	836.72	1.868E-04	Pulse	0.10	3
Ba			1	168.595	ug/l	0.64	511,229.08	1.142E-01	Pulse	0.10	3
Tl			1	0.001	ug/l	649.14	483.36	1.904E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	56.19	336.68	1.327E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	85.68	273.35	1.081E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	27.58	1,340.07	5.290E-04	Pulse	0.10	3
Na			2	8979.761	ug/l	0.33	3,804,446.79	4.652E+01	Pulse	0.30	3
Mg			2	21062.182	ug/l	1.29	4,147,366.64	5.072E+01	Pulse	0.30	3
Al			2	-6.331	ug/l	-5.65	188.89	2.309E-03	Pulse	0.30	3
K			2	1770.838	ug/l	0.91	226,294.38	2.767E+00	Pulse	0.30	3
Ca			2	56915.764	ug/l	0.71	383,903.43	4.695E+00	Pulse	0.30	3
Ti			2	0.394	ug/l	41.67	26.67	3.263E-04	Pulse	0.30	3
V			2	0.329	ug/l	9.63	714.47	8.736E-03	Pulse	0.30	3
Cr			2	0.291	ug/l	6.40	1,082.27	1.323E-02	Pulse	0.30	3
Mn			2	658.012	ug/l	0.62	739,279.43	9.040E+00	Pulse	0.30	3
Fe			2	1.663	ug/l	16.74	12,120.15	1.482E-01	Pulse	0.30	3
Co			2	0.081	ug/l	6.43	372.20	4.552E-03	Pulse	0.30	3
Ni			2	0.169	ug/l	12.02	212.23	2.595E-03	Pulse	0.30	3
Cu			2	0.767	ug/l	5.85	2,754.71	3.369E-02	Pulse	0.30	3
Zn			2	6.890	ug/l	1.68	2,914.74	3.564E-02	Pulse	0.30	3
As			2	0.207	ug/l	18.07	54.00	6.603E-04	Pulse	1.00	3
Cd			2	-0.004	ug/l	-88.55	8.83	2.155E-05	Pulse	0.30	3
Sn			2	0.485	ug/l	5.29	896.70	2.187E-03	Pulse	0.30	3
Se			3	0.082	ug/l	59.30	12.87	1.056E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,746,776.08	1.09	98.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,492,524.44	1.20	96.6	Pulse	0.10	3
1	Ge		492,358.30	0.94	100.0	Pulse	0.10	3
1	Ge		674,709.55	1.05	99.5	Pulse	0.10	3
1	Rh		3,068,659.95	1.49	95.5	Pulse	0.10	3
1	In		3,252,558.19	0.93	99.6	Pulse	0.10	3
1	Tb		4,476,154.00	1.34	103.8	Pulse	0.10	3
1	Ho		442,823.98	0.13	104.5	Pulse	0.10	3
1	Bi		2,535,631.21	1.26	102.0	Pulse	0.10	3
2	Sc		81,777.21	0.30	95.9	Pulse	0.30	3
2	Ge		49,471.37	0.59	100.5	Pulse	0.30	3
2	Ge		73,528.98	0.48	98.8	Pulse	0.30	3
2	Rh		1,322,246.89	0.10	95.6	Pulse	0.30	3
2	In		409,964.18	0.64	92.8	Pulse	0.30	3
2	Tb		1,602,428.24	0.60	96.8	Pulse	0.30	3
2	Ho		162,753.02	0.38	97.2	Pulse	0.30	3
2	Bi		1,043,570.96	0.49	95.5	Pulse	0.30	3
3	Sc		124,723.19	1.01	109.4	Pulse	0.30	3
3	Ge		79,982.37	1.93	105.7	Pulse	0.30	3
3	Ge		121,634.91	1.51	106.4	Pulse	0.30	3
3	Rh		1,255,789.43	0.35	101.6	Pulse	0.30	3
3	Tb		1,882,742.22	0.58	105.5	Pulse	0.30	3

Quantitation Report

File Name 057SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 18:53
Sample Name jc91275-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-29.58	26.67	1.531E-05	Pulse	0.25	3
B			1	118.718	ug/l	1.33	298,455.90	1.713E-01	Pulse	0.15	3
Ca			1	41739.539	ug/l	1.48	17,714,765.57	7.184E+00	Analog	0.10	3
Sr			1	324.736	ug/l	1.12	6,545,838.03	2.144E+00	Analog	0.10	3
Mo			1	0.219	ug/l	13.97	1,020.08	3.342E-04	Pulse	0.10	3
Ag			1	0.027	ug/l	25.61	293.35	9.059E-05	Pulse	0.10	3
Sn			1	0.407	ug/l	7.58	5,287.76	1.632E-03	Pulse	0.10	3
Sb			1	0.036	ug/l	34.41	1,256.77	2.795E-04	Pulse	0.10	3
Ba			1	14.340	ug/l	1.25	43,722.43	9.723E-03	Pulse	0.10	3
Tl			1	-0.009	ug/l	-22.00	310.02	1.228E-04	Pulse	0.10	3
Pb			1	0.230	ug/l	7.26	1,560.14	6.183E-04	Pulse	0.10	3
Pb			1	0.247	ug/l	8.70	1,413.45	5.604E-04	Pulse	0.10	3
Pb			1	0.241	ug/l	6.10	6,324.10	2.506E-03	Pulse	0.10	3
Na			2	25687.703	ug/l	0.85	10,974,486.51	1.330E+02	Analog	0.30	3
Mg			2	5798.411	ug/l	1.65	1,152,812.70	1.397E+01	Pulse	0.30	3
Al			2	-6.147	ug/l	-0.94	202.23	2.450E-03	Pulse	0.30	3
K			2	7428.014	ug/l	1.40	935,156.73	1.133E+01	Pulse	0.30	3
Ca			2	42456.136	ug/l	1.17	289,053.26	3.502E+00	Pulse	0.30	3
Ti			2	0.125	ug/l	74.14	12.22	1.480E-04	Pulse	0.30	3
V			2	0.327	ug/l	14.13	716.69	8.687E-03	Pulse	0.30	3
Cr			2	0.487	ug/l	2.53	1,552.32	1.880E-02	Pulse	0.30	3
Mn			2	17.820	ug/l	2.84	20,253.61	2.454E-01	Pulse	0.30	3
Fe			2	445.841	ug/l	0.63	824,713.16	9.992E+00	Pulse	0.30	3
Co			2	0.339	ug/l	2.26	1,393.40	1.688E-02	Pulse	0.30	3
Ni			2	5.533	ug/l	6.08	5,985.61	7.251E-02	Pulse	0.30	3
Cu			2	22.463	ug/l	1.81	67,405.16	8.167E-01	Pulse	0.30	3
Zn			2	13.200	ug/l	2.02	5,434.29	6.585E-02	Pulse	0.30	3
As			2	16.227	ug/l	1.12	3,468.05	4.202E-02	Pulse	1.00	3
Cd			2	-0.013	ug/l	-58.00	4.39	1.070E-05	Pulse	0.30	3
Sn			2	0.459	ug/l	24.94	867.81	2.118E-03	Pulse	0.30	3
Se			3	0.179	ug/l	7.80	18.73	1.546E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,742,419.30	0.40	98.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,465,950.48	0.96	95.5	Pulse	0.10	3
1	Ge		486,790.58	1.04	98.9	Pulse	0.10	3
1	Ge		664,785.17	0.66	98.1	Pulse	0.10	3
1	Rh		3,053,523.70	1.18	95.0	Pulse	0.10	3
1	In		3,239,712.83	0.80	99.2	Pulse	0.10	3
1	Tb		4,497,138.69	0.70	104.3	Pulse	0.10	3
1	Ho		443,244.21	1.23	104.6	Pulse	0.10	3
1	Bi		2,522,937.56	0.44	101.5	Pulse	0.10	3
2	Sc		82,541.86	1.17	96.8	Pulse	0.30	3
2	Ge		48,017.08	1.33	97.5	Pulse	0.30	3
2	Ge		72,219.02	0.17	97.1	Pulse	0.30	3
2	Rh		1,309,257.31	0.66	94.7	Pulse	0.30	3
2	In		410,132.61	1.08	92.8	Pulse	0.30	3
2	Tb		1,589,796.15	0.89	96.1	Pulse	0.30	3
2	Ho		161,277.57	0.70	96.3	Pulse	0.30	3
2	Bi		1,027,177.81	0.82	94.0	Pulse	0.30	3
3	Sc		123,988.61	0.42	108.8	Pulse	0.30	3
3	Ge		79,830.42	1.02	105.5	Pulse	0.30	3
3	Ge		121,218.39	1.21	106.0	Pulse	0.30	3
3	Rh		1,251,081.79	0.39	101.2	Pulse	0.30	3
3	Tb		1,886,529.51	0.21	105.8	Pulse	0.30	3

Quantitation Report

File Name 058_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 18:58
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.580	ug/l	0.91	325,301.89	1.946E-01	Pulse	0.25	3
B			1	101.623	ug/l	0.68	489,717.22	2.930E-01	Pulse	0.15	3
Ca			1	5109.512	ug/l	1.42	4,259,092.85	1.762E+00	Pulse	0.10	3
Sr			1	53.323	ug/l	1.47	2,148,681.58	7.040E-01	Pulse	0.10	3
Mo			1	51.296	ug/l	2.06	406,392.85	1.332E-01	Pulse	0.10	3
Ag			1	50.053	ug/l	1.49	980,448.32	3.060E-01	Pulse	0.10	3
Sn			1	51.388	ug/l	0.76	635,569.89	1.984E-01	Pulse	0.10	3
Sb			1	52.423	ug/l	1.64	758,044.96	1.719E-01	Pulse	0.10	3
Ba			1	51.042	ug/l	1.26	305,020.66	6.916E-02	Pulse	0.10	3
Tl			1	52.087	ug/l	2.73	1,719,557.79	6.896E-01	Pulse	0.10	3
Pb			1	51.744	ug/l	1.14	584,054.21	2.342E-01	Pulse	0.10	3
Pb			1	52.010	ug/l	0.86	518,478.28	2.079E-01	Pulse	0.10	3
Pb			1	51.725	ug/l	0.84	2,359,925.80	9.464E-01	Pulse	0.10	3
Na			2	5059.985	ug/l	0.28	4,302,075.11	5.242E+01	Pulse	0.30	3
Mg			2	4993.584	ug/l	1.08	1,973,856.31	2.405E+01	Pulse	0.30	3
Al			2	4891.413	ug/l	1.15	613,617.72	7.477E+00	Pulse	0.30	3
K			2	5022.632	ug/l	1.19	1,254,936.31	1.529E+01	Pulse	0.30	3
Ca			2	5228.608	ug/l	1.96	70,859.55	8.635E-01	Pulse	0.30	3
Ti			2	48.681	ug/l	4.15	5,289.79	6.446E-02	Pulse	0.30	3
V			2	51.037	ug/l	1.70	186,672.96	2.275E+00	Pulse	0.30	3
Cr			2	50.489	ug/l	1.15	235,929.47	2.875E+00	Pulse	0.30	3
Mn			2	49.905	ug/l	0.72	112,574.32	1.372E+00	Pulse	0.30	3
Fe			2	5068.491	ug/l	1.91	18,443,790.93	2.248E+02	Analog	0.30	3
Co			2	49.795	ug/l	0.27	391,321.41	4.768E+00	Pulse	0.30	3
Ni			2	49.038	ug/l	0.13	104,934.39	1.279E+00	Pulse	0.30	3
Cu			2	48.696	ug/l	0.86	288,969.90	3.521E+00	Pulse	0.30	3
Zn			2	49.066	ug/l	2.79	38,762.40	4.724E-01	Pulse	0.30	3
As			2	49.692	ug/l	1.59	21,065.21	2.567E-01	Pulse	1.00	3
Cd			2	50.782	ug/l	1.37	54,506.33	1.302E-01	Pulse	0.30	3
Sn			2	50.699	ug/l	0.81	110,336.40	2.636E-01	Pulse	0.30	3
Se			3	201.532	ug/l	1.32	22,972.19	2.033E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,671,573.92	0.52	94.6	Pulse	0.10	3
1	Sc		2,417,267.47	0.18	93.6	Pulse	0.10	3
1	Ge		467,701.05	1.10	95.0	Pulse	0.10	3

Quantitation Report

1	Ge		651,159.26	1.71	96.0	Pulse	0.10	3
1	Rh		3,052,516.41	1.73	95.0	Pulse	0.10	3
1	In		3,204,357.98	1.86	98.1	Pulse	0.10	3
1	Tb		4,410,807.95	0.93	102.3	Pulse	0.10	3
1	Ho		435,064.19	1.01	102.7	Pulse	0.10	3
1	Bi		2,493,756.95	0.59	100.4	Pulse	0.10	3
2	Sc		82,068.35	0.98	96.2	Pulse	0.30	3
2	Ge		47,311.76	1.19	96.1	Pulse	0.30	3
2	Ge		71,190.24	1.33	95.7	Pulse	0.30	3
2	Rh		1,318,677.31	0.99	95.3	Pulse	0.30	3
2	In		418,584.50	0.70	94.7	Pulse	0.30	3
2	Tb		1,604,655.35	1.19	97.0	Pulse	0.30	3
2	Ho		163,356.46	0.93	97.5	Pulse	0.30	3
2	Bi		1,056,958.74	0.70	96.8	Pulse	0.30	3
3	Sc		117,050.26	1.01	102.7	Pulse	0.30	3
3	Ge		74,542.24	0.42	98.5	Pulse	0.30	3
3	Ge		112,985.64	1.07	98.8	Pulse	0.30	3
3	Rh		1,224,289.54	0.52	99.1	Pulse	0.30	3
3	Tb		1,813,576.18	1.05	101.7	Pulse	0.30	3

Quantitation Report

File Name	059_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 19:03
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.030	ug/l	23.16	240.01	1.394E-04	Pulse	0.25	3
B			1	4.852	ug/l	2.50	24,722.81	1.437E-02	Pulse	0.15	3
Ca			1	4.549	ug/l	7.44	13,976.40	5.686E-03	Pulse	0.10	3
Sr			1	0.048	ug/l	6.02	2,353.61	7.482E-04	Pulse	0.10	3
Mo			1	0.083	ug/l	19.98	833.39	2.648E-04	Pulse	0.10	3
Ag			1	0.045	ug/l	1.71	926.73	2.840E-04	Pulse	0.10	3
Sn			1	0.035	ug/l	3.23	3,217.10	9.858E-04	Pulse	0.10	3
Sb			1	0.115	ug/l	9.35	2,623.65	5.982E-04	Pulse	0.10	3
Ba			1	0.042	ug/l	40.75	290.01	6.626E-05	Pulse	0.10	3
Tl			1	0.044	ug/l	6.88	1,943.54	7.685E-04	Pulse	0.10	3
Pb			1	0.051	ug/l	29.06	826.72	3.270E-04	Pulse	0.10	3
Pb			1	0.058	ug/l	11.43	756.71	2.991E-04	Pulse	0.10	3
Pb			1	0.050	ug/l	4.96	3,073.57	1.215E-03	Pulse	0.10	3
Na			2	3.544	ug/l	3.25	8,677.87	1.045E-01	Pulse	0.30	3
Mg			2	2.622	ug/l	7.38	1,689.00	2.034E-02	Pulse	0.30	3
Al			2	-0.909	ug/l	-11.94	477.79	5.755E-03	Pulse	0.30	3
K			2	5.288	ug/l	7.52	8,525.60	1.027E-01	Pulse	0.30	3
Ca			2	1.549	ug/l	41.94	115.56	1.392E-03	Pulse	0.30	3
Ti			2	0.001	ug/l	8079.13	5.55	6.664E-05	Pulse	0.30	3
V			2	0.034	ug/l	23.29	242.23	2.919E-03	Pulse	0.30	3
Cr			2	0.021	ug/l	34.07	513.34	6.184E-03	Pulse	0.30	3
Mn			2	0.049	ug/l	6.91	162.23	1.954E-03	Pulse	0.30	3
Fe			2	2.256	ug/l	5.35	17,548.32	2.114E-01	Pulse	0.30	3
Co			2	0.035	ug/l	29.02	335.52	4.041E-03	Pulse	0.30	3
Ni			2	0.037	ug/l	27.37	112.23	1.351E-03	Pulse	0.30	3
Cu			2	0.045	ug/l	22.78	772.25	9.301E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.025	ug/l	187.76	241.12	2.903E-03	Pulse	0.30	3
As			2	0.029	ug/l	24.41	23.00	2.771E-04	Pulse	1.00	3
Cd			2	0.035	ug/l	38.49	49.95	1.162E-04	Pulse	0.30	3
Sn			2	0.114	ug/l	27.97	653.36	1.519E-03	Pulse	0.30	3
Se			3	0.177	ug/l	22.91	27.73	2.425E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,720,201.67	0.97	97.4	Pulse	0.10	3
1	Sc		2,457,800.90	1.04	95.2	Pulse	0.10	3
1	Ge		470,214.85	1.00	95.5	Pulse	0.10	3
1	Ge		660,541.94	1.77	97.4	Pulse	0.10	3
1	Rh		3,145,141.41	0.69	97.9	Pulse	0.10	3
1	In		3,263,448.58	1.13	100.0	Pulse	0.10	3
1	Tb		4,387,291.08	1.04	101.7	Pulse	0.10	3
1	Ho		430,446.87	1.06	101.6	Pulse	0.10	3
1	Bi		2,529,103.09	0.97	101.8	Pulse	0.10	3
2	Sc		83,027.63	0.45	97.3	Pulse	0.30	3
2	Ge		48,691.31	0.67	98.9	Pulse	0.30	3
2	Ge		72,533.56	0.83	97.5	Pulse	0.30	3
2	Rh		1,367,526.78	0.09	98.9	Pulse	0.30	3
2	In		430,105.54	0.46	97.3	Pulse	0.30	3
2	Tb		1,620,753.30	0.34	97.9	Pulse	0.30	3
2	Ho		161,800.69	0.40	96.6	Pulse	0.30	3
2	Bi		1,073,426.14	0.35	98.3	Pulse	0.30	3
3	Sc		118,589.98	0.96	104.1	Pulse	0.30	3
3	Ge		75,954.51	1.32	100.4	Pulse	0.30	3
3	Ge		114,293.31	1.13	100.0	Pulse	0.30	3
3	Rh		1,259,498.88	0.63	101.9	Pulse	0.30	3
3	Tb		1,823,824.79	0.90	102.2	Pulse	0.30	3

Quantitation Report

File Name	060SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 19:09
Sample Name	jc91275-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.018	ug/l	35.96	93.33	5.521E-05	Pulse	0.25	3
B			1	158.075	ug/l	0.54	384,961.40	2.279E-01	Pulse	0.15	3
Ca			1	49634.380	ug/l	1.18	20,564,575.53	8.542E+00	Analog	0.10	3
Sr			1	407.067	ug/l	2.04	8,032,043.01	2.687E+00	Analog	0.10	3
Mo			1	1.565	ug/l	5.95	6,218.13	2.081E-03	Pulse	0.10	3
Ag			1	0.029	ug/l	18.51	313.35	9.897E-05	Pulse	0.10	3
Sn			1	3.639	ug/l	2.46	24,810.44	7.842E-03	Pulse	0.10	3
Sb			1	0.234	ug/l	4.76	2,656.99	6.046E-04	Pulse	0.10	3
Ba			1	49.942	ug/l	0.72	148,701.17	3.384E-02	Pulse	0.10	3
Tl			1	0.016	ug/l	29.30	713.37	2.874E-04	Pulse	0.10	3
Pb			1	0.053	ug/l	37.29	543.37	2.188E-04	Pulse	0.10	3
Pb			1	0.040	ug/l	22.78	366.68	1.475E-04	Pulse	0.10	3
Pb			1	0.052	ug/l	23.39	1,926.79	7.752E-04	Pulse	0.10	3
Na			2	13167.811	ug/l	0.74	5,484,719.64	6.819E+01	Analog	0.30	3
Mg			2	7063.367	ug/l	0.81	1,368,484.12	1.701E+01	Pulse	0.30	3
Al			2	1.164	ug/l	432.92	645.75	8.033E-03	Pulse	0.30	3
K			2	8539.831	ug/l	0.70	1,046,771.31	1.301E+01	Pulse	0.30	3
Ca			2	50077.585	ug/l	0.79	332,251.87	4.131E+00	Pulse	0.30	3
Ti			2	0.318	ug/l	29.40	22.22	2.761E-04	Pulse	0.30	3
V			2	0.404	ug/l	6.81	835.59	1.039E-02	Pulse	0.30	3
Cr			2	0.719	ug/l	3.27	2,043.48	2.541E-02	Pulse	0.30	3
Mn			2	2126.129	ug/l	0.61	2,349,402.54	2.921E+01	Pulse	0.30	3
Fe			2	67534.647	ug/l	1.46	120,390,764.11	1.497E+03	Analog	0.30	3
Co			2	18.555	ug/l	1.24	71,502.66	8.890E-01	Pulse	0.30	3
Ni			2	6.562	ug/l	1.45	6,911.53	8.592E-02	Pulse	0.30	3
Cu			2	0.724	ug/l	3.81	2,584.67	3.213E-02	Pulse	0.30	3
Zn			2	5.515	ug/l	2.52	2,337.98	2.906E-02	Pulse	0.30	3
As			2	1488.105	ug/l	1.14	309,021.54	3.842E+00	Pulse	1.00	3
Cd			2	0.004	ug/l	259.09	13.02	3.255E-05	Pulse	0.30	3
Sn			2	3.705	ug/l	2.50	4,218.39	1.053E-02	Pulse	0.30	3
Se			3	0.089	ug/l	30.44	12.87	1.092E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,688,853.85	0.63	95.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,407,914.71	2.20	93.3	Pulse	0.10	3
1	Ge		469,016.18	1.40	95.3	Pulse	0.10	3
1	Ge		647,237.40	1.07	95.5	Pulse	0.10	3
1	Rh		2,989,897.25	1.51	93.0	Pulse	0.10	3
1	In		3,163,032.78	1.59	96.9	Pulse	0.10	3
1	Tb		4,394,540.04	1.13	101.9	Pulse	0.10	3
1	Ho		434,385.81	2.08	102.5	Pulse	0.10	3
1	Bi		2,484,017.88	1.38	100.0	Pulse	0.10	3
2	Sc		80,437.39	0.61	94.3	Pulse	0.30	3
2	Ge		47,172.42	2.51	95.8	Pulse	0.30	3
2	Ge		70,498.08	0.35	94.8	Pulse	0.30	3
2	Rh		1,287,950.19	1.22	93.1	Pulse	0.30	3
2	In		400,768.04	0.83	90.7	Pulse	0.30	3
2	Tb		1,573,818.17	0.23	95.1	Pulse	0.30	3
2	Ho		158,408.49	0.60	94.6	Pulse	0.30	3
2	Bi		1,017,083.68	0.60	93.1	Pulse	0.30	3
3	Sc		120,895.03	0.42	106.1	Pulse	0.30	3
3	Ge		78,397.98	0.95	103.6	Pulse	0.30	3
3	Ge		117,795.73	1.16	103.0	Pulse	0.30	3
3	Rh		1,217,508.21	0.32	98.5	Pulse	0.30	3
3	Tb		1,831,030.76	0.37	102.6	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 19:13
Sample Name jc91275-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	34.92	66.67	3.923E-05	Pulse	0.25	3
B			1	64.159	ug/l	0.84	157,617.07	9.276E-02	Pulse	0.15	3
Ca			1	30202.455	ug/l	0.53	12,742,982.73	5.199E+00	Analog	0.10	3
Sr			1	212.166	ug/l	0.82	4,252,704.73	1.400E+00	Pulse	0.10	3
Mo			1	2.221	ug/l	4.70	8,899.50	2.931E-03	Pulse	0.10	3
Ag			1	0.017	ug/l	31.66	200.01	6.240E-05	Pulse	0.10	3
Sn			1	0.512	ug/l	8.14	5,891.32	1.834E-03	Pulse	0.10	3
Sb			1	0.188	ug/l	12.92	2,326.93	5.284E-04	Pulse	0.10	3
Ba			1	17.887	ug/l	1.05	53,426.06	1.213E-02	Pulse	0.10	3
Tl			1	0.009	ug/l	21.40	613.37	2.450E-04	Pulse	0.10	3
Pb			1	0.042	ug/l	40.69	483.36	1.934E-04	Pulse	0.10	3
Pb			1	0.049	ug/l	41.63	416.69	1.662E-04	Pulse	0.10	3
Pb			1	0.052	ug/l	9.02	1,946.79	7.780E-04	Pulse	0.10	3
Na			2	6874.941	ug/l	1.38	2,909,396.97	3.563E+01	Pulse	0.30	3
Mg			2	3450.689	ug/l	1.28	678,948.34	8.316E+00	Pulse	0.30	3
Al			2	-0.587	ug/l	-36.22	546.69	6.696E-03	Pulse	0.30	3
K			2	3947.172	ug/l	0.91	494,937.33	6.062E+00	Pulse	0.30	3
Ca			2	30167.736	ug/l	1.86	203,200.57	2.489E+00	Pulse	0.30	3
Ti			2	0.291	ug/l	43.02	21.11	2.579E-04	Pulse	0.30	3
V			2	0.214	ug/l	10.14	503.35	6.161E-03	Pulse	0.30	3
Cr			2	0.525	ug/l	8.52	1,624.55	1.989E-02	Pulse	0.30	3
Mn			2	2580.418	ug/l	0.88	2,894,485.93	3.545E+01	Pulse	0.30	3
Fe			2	48219.664	ug/l	1.84	87,257,680.98	1.069E+03	Analog	0.30	3
Co			2	16.033	ug/l	2.01	62,719.40	7.682E-01	Pulse	0.30	3
Ni			2	6.992	ug/l	0.34	7,472.89	9.152E-02	Pulse	0.30	3
Cu			2	0.224	ug/l	11.11	1,152.28	1.411E-02	Pulse	0.30	3
Zn			2	6.729	ug/l	2.18	2,848.06	3.487E-02	Pulse	0.30	3
As			2	3153.234	ug/l	0.92	664,697.44	8.141E+00	Pulse	1.00	3
Cd			2	-0.011	ug/l	-83.55	5.10	1.228E-05	Pulse	0.30	3
Sn			2	0.512	ug/l	4.84	932.26	2.256E-03	Pulse	0.30	3
Se			3	-0.006	ug/l	-133.17	7.33	6.111E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,699,244.87	0.46	96.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,450,803.24	0.97	94.9	Pulse	0.10	3
1	Ge		481,487.59	0.43	97.8	Pulse	0.10	3
1	Ge		659,000.16	1.62	97.2	Pulse	0.10	3
1	Rh		3,036,350.27	1.37	94.5	Pulse	0.10	3
1	In		3,213,267.48	1.51	98.4	Pulse	0.10	3
1	Tb		4,406,398.58	1.41	102.2	Pulse	0.10	3
1	Ho		436,608.00	0.89	103.0	Pulse	0.10	3
1	Bi		2,502,975.69	0.94	100.7	Pulse	0.10	3
2	Sc		81,656.44	1.20	95.7	Pulse	0.30	3
2	Ge		48,881.75	1.91	99.3	Pulse	0.30	3
2	Ge		72,367.39	0.45	97.3	Pulse	0.30	3
2	Rh		1,312,920.71	0.18	94.9	Pulse	0.30	3
2	In		413,338.17	0.87	93.5	Pulse	0.30	3
2	Tb		1,603,789.45	0.43	96.9	Pulse	0.30	3
2	Ho		162,133.82	0.82	96.8	Pulse	0.30	3
2	Bi		1,047,578.67	0.62	95.9	Pulse	0.30	3
3	Sc		122,685.89	0.93	107.7	Pulse	0.30	3
3	Ge		80,097.39	0.90	105.9	Pulse	0.30	3
3	Ge		120,023.90	0.33	105.0	Pulse	0.30	3
3	Rh		1,241,692.90	0.79	100.5	Pulse	0.30	3
3	Tb		1,834,060.41	0.52	102.8	Pulse	0.30	3

Quantitation Report

File Name	062SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 19:19
Sample Name	mp16333-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-9451.58	36.00	1.975E-05	Pulse	0.25	3
B			1	8.998	ug/l	3.48	24,426.77	1.336E-02	Pulse	0.15	3
Ca			1	16.911	ug/l	6.74	18,244.00	7.030E-03	Pulse	0.10	3
Sr			1	0.069	ug/l	5.56	1,860.18	5.668E-04	Pulse	0.10	3
Mo			1	0.086	ug/l	17.06	530.03	1.613E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	36.13	180.01	5.302E-05	Pulse	0.10	3
Sn			1	0.671	ug/l	4.47	7,278.64	2.139E-03	Pulse	0.10	3
Sb			1	0.032	ug/l	83.97	1,243.43	2.732E-04	Pulse	0.10	3
Ba			1	0.078	ug/l	5.16	283.34	6.228E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	17.60	806.72	3.112E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	43.68	426.69	1.646E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	12.88	326.68	1.260E-04	Pulse	0.10	3
Pb			1	0.035	ug/l	16.77	1,620.11	6.248E-04	Pulse	0.10	3
Na			2	7.801	ug/l	15.30	9,423.82	1.082E-01	Pulse	0.30	3
Mg			2	-0.907	ug/l	-49.64	482.24	5.538E-03	Pulse	0.30	3
Al			2	-2.968	ug/l	-194.41	424.89	4.878E-03	Pulse	0.30	3
K			2	7.051	ug/l	8.17	8,477.81	9.735E-02	Pulse	0.30	3
Ca			2	6.480	ug/l	59.55	145.56	1.671E-03	Pulse	0.30	3
Ti			2	0.364	ug/l	42.27	26.67	3.063E-04	Pulse	0.30	3
V			2	0.088	ug/l	17.55	293.34	3.368E-03	Pulse	0.30	3
Cr			2	0.195	ug/l	6.46	915.59	1.051E-02	Pulse	0.30	3
Mn			2	0.301	ug/l	1.61	413.34	4.746E-03	Pulse	0.30	3
Fe			2	8.186	ug/l	3.86	25,495.61	2.928E-01	Pulse	0.30	3
Co			2	0.015	ug/l	55.23	119.93	1.377E-03	Pulse	0.30	3
Ni			2	0.052	ug/l	47.85	93.34	1.072E-03	Pulse	0.30	3
Cu			2	0.282	ug/l	5.96	1,408.97	1.618E-02	Pulse	0.30	3
Zn			2	3.898	ug/l	7.02	1,856.79	2.132E-02	Pulse	0.30	3
As			2	0.593	ug/l	6.12	144.33	1.657E-03	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.005	ug/l	-134.20	8.86	2.026E-05	Pulse	0.30	3
Sn			2	0.764	ug/l	11.30	1,274.51	2.909E-03	Pulse	0.30	3
Se			3	-0.040	ug/l	-59.12	5.47	4.387E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,829,080.99	1.22	103.6	Pulse	0.10	3
1	Sc		2,594,938.45	0.47	100.5	Pulse	0.10	3
1	Ge		506,612.74	0.77	102.9	Pulse	0.10	3
1	Ge		704,624.70	0.47	103.9	Pulse	0.10	3
1	Rh		3,281,800.26	1.54	102.1	Pulse	0.10	3
1	In		3,401,982.33	1.50	104.2	Pulse	0.10	3
1	Tb		4,548,507.53	1.20	105.5	Pulse	0.10	3
1	Ho		447,138.11	0.72	105.5	Pulse	0.10	3
1	Bi		2,593,071.94	0.43	104.4	Pulse	0.10	3
2	Sc		87,086.92	0.21	102.1	Pulse	0.30	3
2	Ge		51,377.20	0.79	104.4	Pulse	0.30	3
2	Ge		76,850.90	0.61	103.3	Pulse	0.30	3
2	Rh		1,413,162.06	0.73	102.2	Pulse	0.30	3
2	In		437,985.65	0.64	99.1	Pulse	0.30	3
2	Tb		1,644,521.64	0.60	99.4	Pulse	0.30	3
2	Ho		166,155.02	0.66	99.2	Pulse	0.30	3
2	Bi		1,081,947.49	0.46	99.0	Pulse	0.30	3
3	Sc		125,431.72	0.19	110.1	Pulse	0.30	3
3	Ge		81,657.15	1.46	108.0	Pulse	0.30	3
3	Ge		124,469.31	0.85	108.9	Pulse	0.30	3
3	Rh		1,309,114.98	0.69	105.9	Pulse	0.30	3
3	Tb		1,882,801.94	0.85	105.5	Pulse	0.30	3

Quantitation Report

File Name 063SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 19:24
Sample Name mp16333-b2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.474	ug/l	0.20	260,962.41	1.481E-01	Pulse	0.25	3
B			1	89.050	ug/l	0.81	226,529.40	1.286E-01	Pulse	0.15	3
Ca			1	4039.931	ug/l	0.32	1,766,597.73	6.990E-01	Pulse	0.10	3
Sr			1	82.124	ug/l	1.15	1,725,129.09	5.422E-01	Pulse	0.10	3
Mo			1	77.628	ug/l	0.59	320,651.71	1.008E-01	Pulse	0.10	3
Ag			1	77.482	ug/l	1.37	780,564.23	2.369E-01	Pulse	0.10	3
Sn			1	78.177	ug/l	0.56	497,844.73	1.511E-01	Pulse	0.10	3
Sb			1	78.975	ug/l	1.33	579,449.60	1.295E-01	Pulse	0.10	3
Ba			1	80.290	ug/l	1.07	243,362.52	5.440E-02	Pulse	0.10	3
Tl			1	80.332	ug/l	0.99	1,355,512.69	5.318E-01	Pulse	0.10	3
Pb			1	84.102	ug/l	0.75	485,240.83	1.904E-01	Pulse	0.10	3
Pb			1	83.896	ug/l	0.82	427,484.46	1.677E-01	Pulse	0.10	3
Pb			1	83.840	ug/l	0.17	1,955,244.91	7.670E-01	Pulse	0.10	3
Na			2	3986.938	ug/l	0.67	1,756,789.93	2.069E+01	Pulse	0.30	3
Mg			2	3941.509	ug/l	0.45	806,298.04	9.497E+00	Pulse	0.30	3
Al			2	3756.015	ug/l	0.51	244,109.36	2.875E+00	Pulse	0.30	3
K			2	3930.073	ug/l	1.30	512,396.94	6.036E+00	Pulse	0.30	3
Ca			2	4231.094	ug/l	0.32	29,718.88	3.500E-01	Pulse	0.30	3
Ti			2	74.356	ug/l	5.65	4,181.68	4.924E-02	Pulse	0.30	3
V			2	80.303	ug/l	0.87	151,963.19	1.790E+00	Pulse	0.30	3
Cr			2	79.302	ug/l	0.85	191,772.24	2.259E+00	Pulse	0.30	3
Mn			2	77.266	ug/l	2.47	90,154.81	1.062E+00	Pulse	0.30	3
Fe			2	4012.363	ug/l	0.23	7,558,731.92	8.903E+01	Analog	0.30	3
Co			2	77.814	ug/l	0.52	316,314.82	3.726E+00	Pulse	0.30	3
Ni			2	77.193	ug/l	0.75	85,453.31	1.006E+00	Pulse	0.30	3
Cu			2	76.392	ug/l	0.85	234,572.53	2.763E+00	Pulse	0.30	3
Zn			2	69.082	ug/l	0.64	28,301.20	3.333E-01	Pulse	0.30	3
As			2	70.248	ug/l	2.24	15,406.95	1.815E-01	Pulse	1.00	3
Cd			2	76.829	ug/l	1.08	41,380.27	9.850E-02	Pulse	0.30	3
Sn			2	78.251	ug/l	0.46	85,548.94	2.036E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	348.341	ug/l	0.63	21,165.90	1.757E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,761,810.81	1.16	99.7	Pulse	0.10	3
1	Sc		2,527,207.57	1.03	97.9	Pulse	0.10	3
1	Ge		491,531.14	0.36	99.8	Pulse	0.10	3
1	Ge		679,331.76	1.40	100.2	Pulse	0.10	3
1	Rh		3,182,033.29	1.35	99.0	Pulse	0.10	3
1	In		3,295,171.65	1.00	100.9	Pulse	0.10	3
1	Tb		4,474,248.68	1.37	103.7	Pulse	0.10	3
1	Ho		445,995.07	1.02	105.3	Pulse	0.10	3
1	Bi		2,549,061.11	1.24	102.6	Pulse	0.10	3
2	Sc		84,900.45	0.99	99.5	Pulse	0.30	3
2	Ge		49,181.75	1.41	99.9	Pulse	0.30	3
2	Ge		73,592.79	0.38	98.9	Pulse	0.30	3
2	Rh		1,354,737.03	0.40	97.9	Pulse	0.30	3
2	In		420,095.35	0.35	95.1	Pulse	0.30	3
2	Tb		1,614,028.58	0.55	97.5	Pulse	0.30	3
2	Ho		164,314.95	0.66	98.1	Pulse	0.30	3
2	Bi		1,052,045.90	0.27	96.3	Pulse	0.30	3
3	Sc		124,756.78	0.44	109.5	Pulse	0.30	3
3	Ge		80,223.45	0.20	106.1	Pulse	0.30	3
3	Ge		120,444.86	1.25	105.3	Pulse	0.30	3
3	Rh		1,268,981.83	0.50	102.7	Pulse	0.30	3
3	Tb		1,866,977.01	0.88	104.7	Pulse	0.30	3

Quantitation Report

File Name	064SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 19:29
Sample Name	mp16333-s3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.404	ug/l	0.49	254,016.64	1.480E-01	Pulse	0.25	3
B			1	339.355	ug/l	0.80	839,138.89	4.889E-01	Pulse	0.15	3
Ca			1	101904.628	ug/l	0.68	44,039,917.68	1.753E+01	Analog	0.10	3
Sr			1	685.478	ug/l	0.43	13,628,762.30	4.525E+00	Analog	0.10	3
Mo			1	79.821	ug/l	0.99	312,099.80	1.036E-01	Pulse	0.10	3
Ag			1	75.792	ug/l	0.43	742,634.65	2.317E-01	Pulse	0.10	3
Sn			1	78.018	ug/l	1.03	483,280.87	1.508E-01	Pulse	0.10	3
Sb			1	77.325	ug/l	0.22	558,986.61	1.268E-01	Pulse	0.10	3
Ba			1	250.195	ug/l	0.76	747,052.85	1.695E-01	Pulse	0.10	3
Tl			1	81.653	ug/l	0.73	1,322,401.94	5.405E-01	Pulse	0.10	3
Pb			1	87.645	ug/l	1.31	485,248.21	1.984E-01	Pulse	0.10	3
Pb			1	87.335	ug/l	1.41	427,098.00	1.746E-01	Pulse	0.10	3
Pb			1	87.482	ug/l	0.92	1,957,942.86	8.003E-01	Pulse	0.10	3
Na			2	11176.474	ug/l	1.38	4,838,579.81	5.789E+01	Pulse	0.30	3
Mg			2	19849.571	ug/l	1.78	3,995,087.62	4.780E+01	Pulse	0.30	3
Al			2	4305.516	ug/l	2.68	275,383.83	3.295E+00	Pulse	0.30	3
K			2	7584.128	ug/l	2.66	966,736.49	1.157E+01	Pulse	0.30	3
Ca			2	103455.101	ug/l	1.59	713,178.60	8.532E+00	Pulse	0.30	3
Ti			2	103.839	ug/l	2.24	5,747.74	6.874E-02	Pulse	0.30	3
V			2	82.984	ug/l	1.00	154,618.59	1.850E+00	Pulse	0.30	3
Cr			2	80.093	ug/l	1.67	190,691.05	2.281E+00	Pulse	0.30	3
Mn			2	866.634	ug/l	1.30	995,206.39	1.191E+01	Pulse	0.30	3
Fe			2	8962.577	ug/l	1.00	16,612,827.67	1.987E+02	Analog	0.30	3
Co			2	78.063	ug/l	0.91	312,442.84	3.738E+00	Pulse	0.30	3
Ni			2	138.226	ug/l	1.64	150,613.33	1.802E+00	Pulse	0.30	3
Cu			2	84.937	ug/l	0.88	256,757.92	3.071E+00	Pulse	0.30	3
Zn			2	355.847	ug/l	1.76	142,596.91	1.706E+00	Pulse	0.30	3
As			2	70.929	ug/l	1.07	15,317.53	1.832E-01	Pulse	1.00	3
Cd			2	75.787	ug/l	1.17	39,700.48	9.717E-02	Pulse	0.30	3
Sn			2	78.449	ug/l	1.04	83,405.66	2.042E-01	Pulse	0.30	3
Se			3	340.240	ug/l	1.14	20,491.57	1.717E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,716,521.47	0.71	97.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,511,930.85	1.11	97.3	Pulse	0.10	3
1	Ge		483,566.72	0.96	98.2	Pulse	0.10	3
1	Ge		669,395.38	0.53	98.7	Pulse	0.10	3
1	Rh		3,012,130.68	0.87	93.7	Pulse	0.10	3
1	In		3,205,165.01	1.31	98.2	Pulse	0.10	3
1	Tb		4,407,801.71	1.32	102.2	Pulse	0.10	3
1	Ho		438,404.29	1.09	103.5	Pulse	0.10	3
1	Bi		2,446,462.98	1.59	98.5	Pulse	0.10	3
2	Sc		83,599.33	1.57	98.0	Pulse	0.30	3
2	Ge		48,507.36	1.01	98.5	Pulse	0.30	3
2	Ge		73,039.10	1.08	98.2	Pulse	0.30	3
2	Rh		1,302,152.06	0.25	94.1	Pulse	0.30	3
2	In		408,561.48	0.72	92.5	Pulse	0.30	3
2	Tb		1,571,886.60	0.32	95.0	Pulse	0.30	3
2	Ho		160,474.34	0.15	95.8	Pulse	0.30	3
2	Bi		1,008,824.99	0.26	92.3	Pulse	0.30	3
3	Sc		125,615.46	0.06	110.2	Pulse	0.30	3
3	Ge		79,684.20	0.88	105.3	Pulse	0.30	3
3	Ge		119,384.55	0.79	104.4	Pulse	0.30	3
3	Rh		1,221,387.69	0.82	98.8	Pulse	0.30	3
3	Tb		1,840,066.66	1.40	103.2	Pulse	0.30	3

Quantitation Report

File Name 065SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 19:34
Sample Name mp16333-s4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.973	ug/l	0.85	259,128.96	1.491E-01	Pulse	0.25	3
B			1	341.313	ug/l	0.91	854,554.91	4.917E-01	Pulse	0.15	3
Ca			1	101832.329	ug/l	1.65	44,074,371.01	1.752E+01	Analog	0.10	3
Sr			1	684.615	ug/l	0.30	13,591,660.63	4.519E+00	Analog	0.10	3
Mo			1	80.611	ug/l	0.89	314,736.84	1.046E-01	Pulse	0.10	3
Ag			1	76.408	ug/l	0.43	749,103.79	2.336E-01	Pulse	0.10	3
Sn			1	78.951	ug/l	1.15	489,305.08	1.526E-01	Pulse	0.10	3
Sb			1	77.667	ug/l	0.77	566,087.23	1.274E-01	Pulse	0.10	3
Ba			1	246.330	ug/l	0.55	741,579.02	1.669E-01	Pulse	0.10	3
Tl			1	81.990	ug/l	1.04	1,333,190.63	5.428E-01	Pulse	0.10	3
Pb			1	88.561	ug/l	0.71	492,322.11	2.004E-01	Pulse	0.10	3
Pb			1	88.687	ug/l	0.87	435,401.70	1.773E-01	Pulse	0.10	3
Pb			1	88.123	ug/l	0.27	1,980,111.97	8.062E-01	Pulse	0.10	3
Na			2	11038.870	ug/l	1.31	4,816,104.95	5.717E+01	Pulse	0.30	3
Mg			2	19591.398	ug/l	0.60	3,974,194.01	4.718E+01	Pulse	0.30	3
Al			2	4291.879	ug/l	1.94	276,646.41	3.284E+00	Pulse	0.30	3
K			2	7583.768	ug/l	1.37	974,292.32	1.157E+01	Pulse	0.30	3
Ca			2	102578.895	ug/l	1.76	712,596.41	8.460E+00	Pulse	0.30	3
Ti			2	104.472	ug/l	3.03	5,824.44	6.916E-02	Pulse	0.30	3
V			2	82.290	ug/l	1.83	154,494.40	1.834E+00	Pulse	0.30	3
Cr			2	79.673	ug/l	1.67	191,157.78	2.269E+00	Pulse	0.30	3
Mn			2	857.599	ug/l	1.65	992,408.50	1.178E+01	Pulse	0.30	3
Fe			2	8841.959	ug/l	2.89	16,512,751.01	1.961E+02	Analog	0.30	3
Co			2	77.701	ug/l	1.39	313,391.94	3.720E+00	Pulse	0.30	3
Ni			2	137.835	ug/l	0.90	151,363.02	1.797E+00	Pulse	0.30	3
Cu			2	84.400	ug/l	1.00	257,101.36	3.052E+00	Pulse	0.30	3
Zn			2	348.556	ug/l	1.52	140,766.15	1.671E+00	Pulse	0.30	3
As			2	70.511	ug/l	2.13	15,342.88	1.822E-01	Pulse	1.00	3
Cd			2	76.555	ug/l	1.26	40,197.22	9.815E-02	Pulse	0.30	3
Sn			2	78.899	ug/l	1.10	84,083.51	2.053E-01	Pulse	0.30	3
Se			3	342.120	ug/l	0.22	20,589.16	1.726E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,737,866.70	1.00	98.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,515,995.07	1.63	97.5	Pulse	0.10	3
1	Ge		487,847.32	0.88	99.1	Pulse	0.10	3
1	Ge		667,458.25	1.29	98.4	Pulse	0.10	3
1	Rh		3,007,814.54	1.17	93.6	Pulse	0.10	3
1	In		3,207,188.16	1.76	98.2	Pulse	0.10	3
1	Tb		4,444,412.12	1.60	103.0	Pulse	0.10	3
1	Ho		437,762.57	2.04	103.3	Pulse	0.10	3
1	Bi		2,456,067.88	1.02	98.8	Pulse	0.10	3
2	Sc		84,249.05	1.95	98.8	Pulse	0.30	3
2	Ge		48,419.39	1.68	98.4	Pulse	0.30	3
2	Ge		73,581.61	0.60	98.9	Pulse	0.30	3
2	Rh		1,303,944.53	0.83	94.3	Pulse	0.30	3
2	In		409,532.04	0.17	92.7	Pulse	0.30	3
2	Tb		1,580,276.50	0.84	95.5	Pulse	0.30	3
2	Ho		161,931.89	0.68	96.7	Pulse	0.30	3
2	Bi		1,015,234.06	0.53	92.9	Pulse	0.30	3
3	Sc		123,777.17	0.45	108.6	Pulse	0.30	3
3	Ge		78,729.57	0.68	104.1	Pulse	0.30	3
3	Ge		119,287.72	0.45	104.3	Pulse	0.30	3
3	Rh		1,221,648.11	0.26	98.8	Pulse	0.30	3
3	Tb		1,834,390.00	0.58	102.8	Pulse	0.30	3

Quantitation Report

File Name 066SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 19:39
Sample Name jc91206-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.061	ug/l	32.06	238.67	1.394E-04	Pulse	0.25	3
B			1	261.706	ug/l	0.78	645,500.13	3.771E-01	Pulse	0.15	3
Ca			1	97187.261	ug/l	0.38	41,838,423.54	1.672E+01	Analog	0.10	3
Sr			1	603.498	ug/l	0.50	11,962,803.99	3.983E+00	Analog	0.10	3
Mo			1	1.240	ug/l	4.33	4,980.94	1.658E-03	Pulse	0.10	3
Ag			1	0.090	ug/l	21.77	910.07	2.828E-04	Pulse	0.10	3
Sn			1	1.337	ug/l	4.27	10,987.59	3.418E-03	Pulse	0.10	3
Sb			1	0.434	ug/l	3.96	4,100.70	9.317E-04	Pulse	0.10	3
Ba			1	169.389	ug/l	0.61	505,082.25	1.147E-01	Pulse	0.10	3
Tl			1	0.086	ug/l	0.94	1,840.19	7.539E-04	Pulse	0.10	3
Pb			1	3.965	ug/l	0.63	22,133.88	9.069E-03	Pulse	0.10	3
Pb			1	3.786	ug/l	2.56	18,628.89	7.632E-03	Pulse	0.10	3
Pb			1	3.874	ug/l	2.38	87,200.74	3.573E-02	Pulse	0.10	3
Na			2	7113.117	ug/l	0.24	3,060,553.00	3.687E+01	Pulse	0.30	3
Mg			2	15799.670	ug/l	0.07	3,158,593.14	3.805E+01	Pulse	0.30	3
Al			2	614.648	ug/l	0.69	39,558.07	4.765E-01	Pulse	0.30	3
K			2	3691.648	ug/l	0.38	471,118.25	5.675E+00	Pulse	0.30	3
Ca			2	98928.323	ug/l	0.30	677,354.31	8.159E+00	Pulse	0.30	3
Ti			2	33.211	ug/l	7.24	1,829.04	2.203E-02	Pulse	0.30	3
V			2	3.008	ug/l	2.26	5,677.72	6.839E-02	Pulse	0.30	3
Cr			2	1.709	ug/l	3.36	4,446.21	5.356E-02	Pulse	0.30	3
Mn			2	788.547	ug/l	0.26	899,368.85	1.083E+01	Pulse	0.30	3
Fe			2	5665.391	ug/l	0.14	10,432,581.25	1.257E+02	Analog	0.30	3
Co			2	1.715	ug/l	1.56	6,873.35	8.279E-02	Pulse	0.30	3
Ni			2	63.529	ug/l	0.17	68,770.56	8.284E-01	Pulse	0.30	3
Cu			2	12.017	ug/l	0.91	36,503.87	4.397E-01	Pulse	0.30	3
Zn			2	290.681	ug/l	0.66	115,735.19	1.394E+00	Pulse	0.30	3
As			2	1.713	ug/l	8.07	377.67	4.550E-03	Pulse	1.00	3
Cd			2	0.587	ug/l	13.58	318.66	7.795E-04	Pulse	0.30	3
Sn			2	1.451	ug/l	3.80	1,917.92	4.690E-03	Pulse	0.30	3
Se			3	0.221	ug/l	14.35	20.87	1.757E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,711,739.67	0.47	96.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,502,107.62	0.77	96.9	Pulse	0.10	3
1	Ge		480,436.05	2.23	97.6	Pulse	0.10	3
1	Ge		662,258.32	1.51	97.7	Pulse	0.10	3
1	Rh		3,003,080.58	0.74	93.4	Pulse	0.10	3
1	In		3,214,506.97	0.90	98.5	Pulse	0.10	3
1	Tb		4,401,571.18	0.53	102.1	Pulse	0.10	3
1	Ho		434,439.40	0.99	102.5	Pulse	0.10	3
1	Bi		2,440,669.96	0.73	98.2	Pulse	0.10	3
2	Sc		83,018.66	0.13	97.3	Pulse	0.30	3
2	Ge		48,338.09	1.01	98.2	Pulse	0.30	3
2	Ge		72,662.97	1.65	97.7	Pulse	0.30	3
2	Rh		1,295,844.39	0.49	93.7	Pulse	0.30	3
2	In		408,959.03	0.52	92.5	Pulse	0.30	3
2	Tb		1,579,300.77	0.70	95.4	Pulse	0.30	3
2	Ho		160,724.16	0.38	96.0	Pulse	0.30	3
2	Bi		1,020,205.83	0.22	93.4	Pulse	0.30	3
3	Sc		122,196.75	0.34	107.2	Pulse	0.30	3
3	Ge		79,307.92	0.63	104.8	Pulse	0.30	3
3	Ge		118,716.81	1.13	103.8	Pulse	0.30	3
3	Rh		1,230,682.35	0.63	99.6	Pulse	0.30	3
3	Tb		1,833,223.33	0.59	102.8	Pulse	0.30	3

Quantitation Report

File Name	067SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 19:44
Sample Name	mp16333-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.071	ug/l	68.47	81.33	4.771E-05	Pulse	0.25	3
B			1	277.089	ug/l	0.57	136,594.98	8.017E-02	Pulse	0.15	3
Ca			1	95706.482	ug/l	0.39	8,166,820.50	3.297E+00	Analog	0.10	3
Sr			1	557.188	ug/l	0.55	2,286,795.23	7.356E-01	Pulse	0.10	3
Mo			1	1.084	ug/l	4.87	1,030.06	3.313E-04	Pulse	0.10	3
Ag			1	0.106	ug/l	7.85	240.01	7.365E-05	Pulse	0.10	3
Sn			1	-0.498	ug/l	-15.14	2,143.57	6.581E-04	Pulse	0.10	3
Sb			1	0.093	ug/l	17.69	1,096.75	2.513E-04	Pulse	0.10	3
Ba			1	165.926	ug/l	1.15	98,117.42	2.249E-02	Pulse	0.10	3
Tl			1	0.037	ug/l	19.22	586.70	2.320E-04	Pulse	0.10	3
Pb			1	3.560	ug/l	3.22	4,320.79	1.709E-03	Pulse	0.10	3
Pb			1	3.704	ug/l	2.49	3,914.02	1.548E-03	Pulse	0.10	3
Pb			1	3.623	ug/l	2.54	17,528.11	6.931E-03	Pulse	0.10	3
Na			2	6759.142	ug/l	1.74	588,676.56	7.061E+00	Pulse	0.30	3
Mg			2	15349.292	ug/l	1.03	616,838.55	7.399E+00	Pulse	0.30	3
Al			2	604.866	ug/l	6.23	8,296.43	9.952E-02	Pulse	0.30	3
K			2	3612.944	ug/l	2.40	98,410.92	1.180E+00	Pulse	0.30	3
Ca			2	96539.955	ug/l	1.99	132,829.79	1.593E+00	Pulse	0.30	3
Ti			2	27.506	ug/l	7.80	308.90	3.704E-03	Pulse	0.30	3
V			2	2.729	ug/l	5.58	1,130.06	1.355E-02	Pulse	0.30	3
Cr			2	1.026	ug/l	6.53	901.15	1.081E-02	Pulse	0.30	3
Mn			2	778.075	ug/l	1.99	178,269.75	2.138E+00	Pulse	0.30	3
Fe			2	5374.075	ug/l	1.43	1,995,112.63	2.393E+01	Pulse	0.30	3
Co			2	1.809	ug/l	5.80	1,500.26	1.799E-02	Pulse	0.30	3
Ni			2	62.255	ug/l	1.22	13,563.51	1.627E-01	Pulse	0.30	3
Cu			2	11.570	ug/l	2.69	7,464.00	8.953E-02	Pulse	0.30	3
Zn			2	341.996	ug/l	0.78	27,519.93	3.301E-01	Pulse	0.30	3
As			2	1.715	ug/l	9.36	84.33	1.011E-03	Pulse	1.00	3
Cd			2	0.682	ug/l	24.06	86.63	2.018E-04	Pulse	0.30	3
Sn			2	-0.077	ug/l	-99.80	382.23	8.897E-04	Pulse	0.30	3
Se			3	0.181	ug/l	11.93	9.33	8.236E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,703,731.89	0.32	96.5	Pulse	0.10	3
1	Sc		2,477,303.09	0.18	96.0	Pulse	0.10	3
1	Ge		477,338.94	0.86	97.0	Pulse	0.10	3

Quantitation Report

1	Ge		664,632.67	0.47	98.0	Pulse	0.10	3
1	Rh		3,108,606.72	0.69	96.7	Pulse	0.10	3
1	In		3,258,581.66	1.60	99.8	Pulse	0.10	3
1	Tb		4,363,390.35	0.87	101.2	Pulse	0.10	3
1	Ho		432,928.55	1.69	102.2	Pulse	0.10	3
1	Bi		2,529,133.24	0.69	101.8	Pulse	0.10	3
2	Sc		83,377.13	0.98	97.7	Pulse	0.30	3
2	Ge		49,006.66	0.90	99.5	Pulse	0.30	3
2	Ge		74,339.41	0.84	99.9	Pulse	0.30	3
2	Rh		1,345,363.00	0.79	97.3	Pulse	0.30	3
2	In		429,644.94	0.56	97.2	Pulse	0.30	3
2	Tb		1,624,368.65	1.19	98.2	Pulse	0.30	3
2	Ho		163,679.73	0.57	97.7	Pulse	0.30	3
2	Bi		1,077,755.82	0.63	98.7	Pulse	0.30	3
3	Sc		117,099.32	0.37	102.8	Pulse	0.30	3
3	Ge		74,554.52	0.56	98.6	Pulse	0.30	3
3	Ge		113,325.63	0.22	99.1	Pulse	0.30	3
3	Rh		1,223,312.80	0.57	99.0	Pulse	0.30	3
3	Tb		1,815,686.94	0.80	101.8	Pulse	0.30	3

Quantitation Report

File Name 068_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 19:49
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.711	ug/l	1.06	334,670.28	1.990E-01	Pulse	0.25	3
B			1	106.816	ug/l	2.26	517,697.29	3.079E-01	Pulse	0.15	3
Ca			1	5112.091	ug/l	0.04	4,361,276.81	1.763E+00	Pulse	0.10	3
Sr			1	53.333	ug/l	1.37	2,157,758.77	7.041E-01	Pulse	0.10	3
Mo			1	51.528	ug/l	0.56	409,897.62	1.338E-01	Pulse	0.10	3
Ag			1	50.032	ug/l	1.65	979,929.28	3.059E-01	Pulse	0.10	3
Sn			1	50.973	ug/l	0.89	630,449.03	1.968E-01	Pulse	0.10	3
Sb			1	53.146	ug/l	0.83	753,518.68	1.742E-01	Pulse	0.10	3
Ba			1	51.283	ug/l	0.84	300,479.25	6.948E-02	Pulse	0.10	3
Tl			1	52.293	ug/l	1.41	1,690,326.54	6.923E-01	Pulse	0.10	3
Pb			1	52.044	ug/l	1.11	575,171.01	2.356E-01	Pulse	0.10	3
Pb			1	51.563	ug/l	1.20	503,294.97	2.061E-01	Pulse	0.10	3
Pb			1	52.039	ug/l	0.73	2,324,688.07	9.521E-01	Pulse	0.10	3
Na			2	5003.993	ug/l	0.38	4,345,006.77	5.184E+01	Pulse	0.30	3
Mg			2	4990.310	ug/l	0.64	2,014,618.39	2.404E+01	Pulse	0.30	3
Al			2	4886.406	ug/l	0.75	626,069.96	7.470E+00	Pulse	0.30	3
K			2	5021.876	ug/l	0.91	1,281,518.08	1.529E+01	Pulse	0.30	3
Ca			2	5190.360	ug/l	0.75	71,841.49	8.572E-01	Pulse	0.30	3
Ti			2	48.336	ug/l	1.79	5,364.26	6.400E-02	Pulse	0.30	3
V			2	50.891	ug/l	0.67	190,119.34	2.268E+00	Pulse	0.30	3
Cr			2	50.277	ug/l	0.34	239,951.86	2.863E+00	Pulse	0.30	3
Mn			2	49.995	ug/l	1.14	115,177.96	1.374E+00	Pulse	0.30	3
Fe			2	5081.502	ug/l	0.78	18,886,683.14	2.253E+02	Analog	0.30	3
Co			2	49.408	ug/l	0.52	396,543.62	4.731E+00	Pulse	0.30	3
Ni			2	48.665	ug/l	1.02	106,353.47	1.269E+00	Pulse	0.30	3
Cu			2	48.105	ug/l	0.32	291,529.31	3.478E+00	Pulse	0.30	3
Zn			2	48.042	ug/l	1.21	38,771.39	4.626E-01	Pulse	0.30	3
As			2	49.299	ug/l	0.63	21,345.23	2.547E-01	Pulse	1.00	3
Cd			2	51.597	ug/l	0.27	55,601.35	1.323E-01	Pulse	0.30	3
Sn			2	50.999	ug/l	0.87	111,441.04	2.652E-01	Pulse	0.30	3
Se			3	203.367	ug/l	1.69	23,027.73	2.052E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,681,497.54	0.70	95.2	Pulse	0.10	3
1	Sc		2,474,047.52	0.62	95.8	Pulse	0.10	3
1	Ge		471,900.43	0.58	95.9	Pulse	0.10	3

Quantitation Report

1	Ge		661,093.06	0.11	97.5	Pulse	0.10	3
1	Rh		3,064,340.68	0.89	95.3	Pulse	0.10	3
1	In		3,204,123.24	1.77	98.1	Pulse	0.10	3
1	Tb		4,324,604.00	0.94	100.3	Pulse	0.10	3
1	Ho		430,119.46	1.10	101.5	Pulse	0.10	3
1	Bi		2,441,649.49	0.46	98.3	Pulse	0.10	3
2	Sc		83,813.39	0.23	98.3	Pulse	0.30	3
2	Ge		47,953.51	0.56	97.4	Pulse	0.30	3
2	Ge		72,141.76	1.32	97.0	Pulse	0.30	3
2	Rh		1,319,066.65	0.67	95.4	Pulse	0.30	3
2	In		420,280.28	0.92	95.1	Pulse	0.30	3
2	Tb		1,593,607.40	1.34	96.3	Pulse	0.30	3
2	Ho		162,056.34	1.26	96.8	Pulse	0.30	3
2	Bi		1,038,995.45	0.76	95.1	Pulse	0.30	3
3	Sc		117,625.58	0.69	103.2	Pulse	0.30	3
3	Ge		73,687.47	1.22	97.4	Pulse	0.30	3
3	Ge		112,244.90	1.39	98.2	Pulse	0.30	3
3	Rh		1,205,095.37	0.36	97.5	Pulse	0.30	3
3	Tb		1,792,290.21	0.22	100.5	Pulse	0.30	3

Quantitation Report

File Name	069_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 19:54
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.035	ug/l	13.68	269.34	1.582E-04	Pulse	0.25	3
B			1	7.209	ug/l	0.69	36,031.74	2.116E-02	Pulse	0.15	3
Ca			1	3.840	ug/l	3.19	13,185.77	5.442E-03	Pulse	0.10	3
Sr			1	0.044	ug/l	7.98	2,153.56	6.935E-04	Pulse	0.10	3
Mo			1	0.075	ug/l	16.08	763.38	2.458E-04	Pulse	0.10	3
Ag			1	0.047	ug/l	8.84	953.40	2.960E-04	Pulse	0.10	3
Sn			1	0.061	ug/l	12.74	3,493.84	1.084E-03	Pulse	0.10	3
Sb			1	0.120	ug/l	6.55	2,616.99	6.137E-04	Pulse	0.10	3
Ba			1	0.054	ug/l	18.91	350.02	8.204E-05	Pulse	0.10	3
Tl			1	0.048	ug/l	8.50	2,020.21	8.178E-04	Pulse	0.10	3
Pb			1	0.042	ug/l	15.50	706.71	2.861E-04	Pulse	0.10	3
Pb			1	0.047	ug/l	18.12	630.04	2.551E-04	Pulse	0.10	3
Pb			1	0.048	ug/l	4.56	2,920.23	1.183E-03	Pulse	0.10	3
Na			2	3.374	ug/l	3.88	8,477.77	1.028E-01	Pulse	0.30	3
Mg			2	2.534	ug/l	12.51	1,643.43	1.992E-02	Pulse	0.30	3
Al			2	-1.115	ug/l	-9.83	448.90	5.442E-03	Pulse	0.30	3
K			2	5.262	ug/l	22.47	8,464.45	1.026E-01	Pulse	0.30	3
Ca			2	1.274	ug/l	141.34	111.11	1.347E-03	Pulse	0.30	3
Ti			2	0.001	ug/l	2745.58	5.55	6.731E-05	Pulse	0.30	3
V			2	0.029	ug/l	14.90	222.22	2.694E-03	Pulse	0.30	3
Cr			2	0.021	ug/l	57.02	508.90	6.169E-03	Pulse	0.30	3
Mn			2	0.056	ug/l	9.54	176.67	2.142E-03	Pulse	0.30	3
Fe			2	2.283	ug/l	0.56	17,533.86	2.125E-01	Pulse	0.30	3
Co			2	0.038	ug/l	15.84	355.51	4.310E-03	Pulse	0.30	3
Ni			2	0.041	ug/l	13.16	121.11	1.468E-03	Pulse	0.30	3
Cu			2	0.037	ug/l	20.93	715.58	8.674E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.068	ug/l	111.73	273.34	3.313E-03	Pulse	0.30	3
As			2	0.038	ug/l	25.61	26.67	3.233E-04	Pulse	1.00	3
Cd			2	0.033	ug/l	85.76	47.73	1.118E-04	Pulse	0.30	3
Sn			2	0.143	ug/l	15.28	711.14	1.670E-03	Pulse	0.30	3
Se			3	0.170	ug/l	8.01	26.53	2.357E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,702,936.65	0.57	96.4	Pulse	0.10	3
1	Sc		2,422,801.58	0.26	93.9	Pulse	0.10	3
1	Ge		469,268.92	1.33	95.3	Pulse	0.10	3
1	Ge		650,538.02	0.40	96.0	Pulse	0.10	3
1	Rh		3,104,079.33	1.23	96.6	Pulse	0.10	3
1	In		3,223,240.71	1.23	98.7	Pulse	0.10	3
1	Tb		4,263,079.62	0.76	98.8	Pulse	0.10	3
1	Ho		419,316.50	0.56	99.0	Pulse	0.10	3
1	Bi		2,469,370.33	1.42	99.4	Pulse	0.10	3
2	Sc		82,494.76	0.08	96.7	Pulse	0.30	3
2	Ge		48,823.79	0.69	99.2	Pulse	0.30	3
2	Ge		72,059.58	0.41	96.9	Pulse	0.30	3
2	Rh		1,337,987.90	0.38	96.7	Pulse	0.30	3
2	In		425,726.95	0.98	96.3	Pulse	0.30	3
2	Tb		1,596,223.51	0.80	96.5	Pulse	0.30	3
2	Ho		160,996.13	1.17	96.1	Pulse	0.30	3
2	Bi		1,055,194.09	0.51	96.6	Pulse	0.30	3
3	Sc		117,253.05	1.36	102.9	Pulse	0.30	3
3	Ge		74,237.71	0.63	98.1	Pulse	0.30	3
3	Ge		112,549.20	0.31	98.4	Pulse	0.30	3
3	Rh		1,242,976.20	0.94	100.6	Pulse	0.30	3
3	Tb		1,791,373.05	0.24	100.4	Pulse	0.30	3

Quantitation Report

File Name	070SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 19:59
Sample Name	jc91206-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.060	ug/l	2.46	233.34	1.379E-04	Pulse	0.25	3
B			1	547.830	ug/l	1.27	1,335,294.91	7.890E-01	Pulse	0.15	3
Ca			1	55272.203	ug/l	1.39	23,284,606.32	9.512E+00	Analog	0.10	3
Sr			1	587.358	ug/l	0.95	11,392,150.25	3.877E+00	Analog	0.10	3
Mo			1	1.510	ug/l	5.94	5,901.29	2.009E-03	Pulse	0.10	3
Ag			1	0.027	ug/l	45.71	290.01	9.182E-05	Pulse	0.10	3
Sn			1	0.738	ug/l	11.59	7,158.59	2.268E-03	Pulse	0.10	3
Sb			1	0.143	ug/l	20.61	1,980.21	4.542E-04	Pulse	0.10	3
Ba			1	34.796	ug/l	1.43	102,772.21	2.358E-02	Pulse	0.10	3
Tl			1	0.015	ug/l	12.52	686.71	2.823E-04	Pulse	0.10	3
Pb			1	0.895	ug/l	2.10	5,161.09	2.122E-03	Pulse	0.10	3
Pb			1	0.846	ug/l	3.37	4,274.12	1.757E-03	Pulse	0.10	3
Pb			1	0.869	ug/l	2.87	20,059.41	8.247E-03	Pulse	0.10	3
Na			2	23115.689	ug/l	1.52	9,642,542.12	1.197E+02	Analog	0.30	3
Mg			2	14690.091	ug/l	0.88	2,850,373.08	3.538E+01	Pulse	0.30	3
Al			2	819.128	ug/l	1.11	50,974.40	6.326E-01	Pulse	0.30	3
K			2	1243.430	ug/l	1.08	158,643.34	1.969E+00	Pulse	0.30	3
Ca			2	57219.243	ug/l	0.74	380,300.40	4.720E+00	Pulse	0.30	3
Ti			2	33.441	ug/l	6.59	1,787.90	2.218E-02	Pulse	0.30	3
V			2	3.769	ug/l	1.99	6,878.19	8.535E-02	Pulse	0.30	3
Cr			2	1.539	ug/l	1.33	3,926.07	4.873E-02	Pulse	0.30	3
Mn			2	90.139	ug/l	0.67	99,826.60	1.239E+00	Pulse	0.30	3
Fe			2	1138.584	ug/l	1.00	2,042,095.48	2.534E+01	Pulse	0.30	3
Co			2	0.637	ug/l	3.65	2,512.48	3.118E-02	Pulse	0.30	3
Ni			2	1.318	ug/l	3.90	1,415.63	1.756E-02	Pulse	0.30	3
Cu			2	2.578	ug/l	3.75	7,979.81	9.905E-02	Pulse	0.30	3
Zn			2	28.851	ug/l	3.03	11,340.68	1.408E-01	Pulse	0.30	3
As			2	5.300	ug/l	2.14	1,112.71	1.381E-02	Pulse	1.00	3
Cd			2	0.015	ug/l	49.40	18.58	4.620E-05	Pulse	0.30	3
Sn			2	0.828	ug/l	7.40	1,236.73	3.075E-03	Pulse	0.30	3
Se			3	0.130	ug/l	27.72	15.07	1.295E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,692,441.29	0.54	95.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,447,927.41	0.51	94.8	Pulse	0.10	3
1	Ge		477,368.73	0.30	97.0	Pulse	0.10	3
1	Ge		660,387.67	0.46	97.4	Pulse	0.10	3
1	Rh		2,938,614.54	1.04	91.4	Pulse	0.10	3
1	In		3,155,028.40	1.01	96.6	Pulse	0.10	3
1	Tb		4,358,621.19	0.48	101.1	Pulse	0.10	3
1	Ho		434,864.45	1.76	102.6	Pulse	0.10	3
1	Bi		2,432,119.13	0.41	97.9	Pulse	0.10	3
2	Sc		80,580.06	1.10	94.5	Pulse	0.30	3
2	Ge		47,807.54	0.80	97.1	Pulse	0.30	3
2	Ge		72,164.17	0.14	97.0	Pulse	0.30	3
2	Rh		1,265,557.00	0.56	91.5	Pulse	0.30	3
2	In		402,265.30	0.29	91.0	Pulse	0.30	3
2	Tb		1,564,885.88	0.44	94.6	Pulse	0.30	3
2	Ho		160,080.56	1.89	95.6	Pulse	0.30	3
2	Bi		1,011,467.67	0.59	92.6	Pulse	0.30	3
3	Sc		120,497.73	0.76	105.7	Pulse	0.30	3
3	Ge		76,799.22	0.87	101.5	Pulse	0.30	3
3	Ge		116,274.87	0.48	101.7	Pulse	0.30	3
3	Rh		1,195,884.74	0.43	96.8	Pulse	0.30	3
3	Tb		1,817,505.76	0.55	101.9	Pulse	0.30	3

Quantitation Report

File Name 071SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 20:04
Sample Name jc91206-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.031	ug/l	38.70	134.67	8.068E-05	Pulse	0.25	3
B			1	608.770	ug/l	0.60	1,461,295.71	8.767E-01	Pulse	0.15	3
Ca			1	65712.093	ug/l	0.42	26,959,146.27	1.131E+01	Analog	0.10	3
Sr			1	527.904	ug/l	0.59	10,057,605.68	3.485E+00	Analog	0.10	3
Mo			1	0.768	ug/l	4.62	3,020.41	1.046E-03	Pulse	0.10	3
Ag			1	0.072	ug/l	10.97	706.71	2.282E-04	Pulse	0.10	3
Sn			1	0.510	ug/l	9.93	5,657.91	1.830E-03	Pulse	0.10	3
Sb			1	0.125	ug/l	10.98	1,833.51	4.251E-04	Pulse	0.10	3
Ba			1	26.622	ug/l	0.96	77,799.48	1.804E-02	Pulse	0.10	3
Tl			1	0.001	ug/l	670.81	463.36	1.927E-04	Pulse	0.10	3
Pb			1	1.155	ug/l	5.56	6,531.71	2.711E-03	Pulse	0.10	3
Pb			1	1.022	ug/l	2.75	5,081.08	2.109E-03	Pulse	0.10	3
Pb			1	1.088	ug/l	3.03	24,715.72	1.026E-02	Pulse	0.10	3
Na			2	28838.720	ug/l	2.11	11,650,042.04	1.493E+02	Analog	0.30	3
Mg			2	13142.490	ug/l	1.02	2,470,257.19	3.165E+01	Pulse	0.30	3
Al			2	238.940	ug/l	1.44	14,801.14	1.896E-01	Pulse	0.30	3
K			2	1555.166	ug/l	0.59	190,513.78	2.441E+00	Pulse	0.30	3
Ca			2	66827.707	ug/l	1.14	430,207.28	5.512E+00	Pulse	0.30	3
Ti			2	11.402	ug/l	9.18	593.36	7.607E-03	Pulse	0.30	3
V			2	3.064	ug/l	2.13	5,435.40	6.964E-02	Pulse	0.30	3
Cr			2	1.177	ug/l	10.29	3,000.30	3.842E-02	Pulse	0.30	3
Mn			2	508.884	ug/l	1.00	545,696.85	6.991E+00	Pulse	0.30	3
Fe			2	2341.592	ug/l	1.15	4,058,980.67	5.200E+01	Pulse	0.30	3
Co			2	0.419	ug/l	3.55	1,618.03	2.073E-02	Pulse	0.30	3
Ni			2	15.547	ug/l	4.43	15,841.10	2.030E-01	Pulse	0.30	3
Cu			2	4.857	ug/l	4.17	14,147.33	1.813E-01	Pulse	0.30	3
Zn			2	99.639	ug/l	2.32	37,430.43	4.796E-01	Pulse	0.30	3
As			2	0.858	ug/l	15.25	182.67	2.341E-03	Pulse	1.00	3
Cd			2	1.069	ug/l	7.11	546.50	1.397E-03	Pulse	0.30	3
Sn			2	0.608	ug/l	15.79	980.04	2.504E-03	Pulse	0.30	3
Se			3	0.058	ug/l	28.90	10.60	9.356E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,666,907.30	0.80	94.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,384,226.89	0.56	92.4	Pulse	0.10	3
1	Ge		465,776.87	1.12	94.6	Pulse	0.10	3
1	Ge		642,423.28	0.68	94.8	Pulse	0.10	3
1	Rh		2,886,433.08	1.15	89.8	Pulse	0.10	3
1	In		3,093,337.94	1.70	94.7	Pulse	0.10	3
1	Tb		4,311,836.81	1.15	100.0	Pulse	0.10	3
1	Ho		428,403.78	2.37	101.1	Pulse	0.10	3
1	Bi		2,410,076.94	1.73	97.0	Pulse	0.10	3
2	Sc		78,057.03	1.20	91.5	Pulse	0.30	3
2	Ge		46,226.38	1.33	93.9	Pulse	0.30	3
2	Ge		69,374.57	0.44	93.2	Pulse	0.30	3
2	Rh		1,244,229.85	1.03	90.0	Pulse	0.30	3
2	In		391,390.63	0.37	88.6	Pulse	0.30	3
2	Tb		1,539,663.93	0.20	93.0	Pulse	0.30	3
2	Ho		156,819.35	0.13	93.6	Pulse	0.30	3
2	Bi		993,060.83	0.70	90.9	Pulse	0.30	3
3	Sc		117,593.27	1.10	103.2	Pulse	0.30	3
3	Ge		74,779.96	0.20	98.9	Pulse	0.30	3
3	Ge		113,329.02	0.69	99.1	Pulse	0.30	3
3	Rh		1,188,103.08	0.17	96.1	Pulse	0.30	3
3	Tb		1,807,190.41	0.76	101.3	Pulse	0.30	3

Quantitation Report

File Name 072SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 20:09
Sample Name jc91206-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	232.26	38.67	2.397E-05	Pulse	0.25	3
B			1	219.786	ug/l	0.30	511,747.06	3.168E-01	Pulse	0.15	3
Ca			1	75864.667	ug/l	0.88	30,157,872.88	1.305E+01	Analog	0.10	3
Sr			1	381.067	ug/l	1.11	7,222,490.52	2.515E+00	Analog	0.10	3
Mo			1	0.903	ug/l	6.85	3,507.20	1.221E-03	Pulse	0.10	3
Ag			1	0.107	ug/l	23.17	1,026.74	3.353E-04	Pulse	0.10	3
Sn			1	0.387	ug/l	5.38	4,874.26	1.593E-03	Pulse	0.10	3
Sb			1	0.666	ug/l	6.78	5,607.90	1.311E-03	Pulse	0.10	3
Ba			1	140.681	ug/l	0.39	407,752.35	9.530E-02	Pulse	0.10	3
Tl			1	0.026	ug/l	2.80	843.39	3.528E-04	Pulse	0.10	3
Pb			1	0.124	ug/l	8.93	906.73	3.794E-04	Pulse	0.10	3
Pb			1	0.124	ug/l	11.33	753.38	3.154E-04	Pulse	0.10	3
Pb			1	0.135	ug/l	6.24	3,666.99	1.534E-03	Pulse	0.10	3
Na			2	27665.267	ug/l	1.72	11,144,370.39	1.432E+02	Analog	0.30	3
Mg			2	7541.351	ug/l	1.03	1,413,720.88	1.816E+01	Pulse	0.30	3
Al			2	-1.051	ug/l	-101.42	493.35	6.341E-03	Pulse	0.30	3
K			2	6341.529	ug/l	1.42	753,859.88	9.686E+00	Pulse	0.30	3
Ca			2	74763.274	ug/l	0.71	479,929.76	6.166E+00	Pulse	0.30	3
Ti			2	0.268	ug/l	91.74	18.89	2.429E-04	Pulse	0.30	3
V			2	0.267	ug/l	7.01	571.13	7.338E-03	Pulse	0.30	3
Cr			2	0.370	ug/l	8.83	1,206.73	1.551E-02	Pulse	0.30	3
Mn			2	331.915	ug/l	0.80	354,934.83	4.560E+00	Pulse	0.30	3
Fe			2	897.969	ug/l	0.74	1,557,535.91	2.001E+01	Pulse	0.30	3
Co			2	1.217	ug/l	1.23	4,587.60	5.894E-02	Pulse	0.30	3
Ni			2	8.458	ug/l	2.99	8,610.13	1.106E-01	Pulse	0.30	3
Cu			2	19.211	ug/l	1.11	54,430.95	6.994E-01	Pulse	0.30	3
Zn			2	348.054	ug/l	1.01	129,877.69	1.669E+00	Pulse	0.30	3
As			2	0.225	ug/l	12.66	55.00	7.068E-04	Pulse	1.00	3
Cd			2	0.548	ug/l	10.56	285.39	7.294E-04	Pulse	0.30	3
Sn			2	0.468	ug/l	12.04	837.81	2.141E-03	Pulse	0.30	3
Se			3	0.085	ug/l	16.88	12.20	1.068E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,615,529.41	0.76	91.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,310,300.80	0.30	89.5	Pulse	0.10	3
1	Ge		453,866.11	0.58	92.2	Pulse	0.10	3
1	Ge		627,198.00	0.43	92.5	Pulse	0.10	3
1	Rh		2,871,357.46	0.85	89.3	Pulse	0.10	3
1	In		3,059,958.99	0.54	93.7	Pulse	0.10	3
1	Tb		4,278,618.58	0.86	99.2	Pulse	0.10	3
1	Ho		422,161.20	0.30	99.6	Pulse	0.10	3
1	Bi		2,389,950.33	1.68	96.2	Pulse	0.10	3
2	Sc		77,832.51	0.47	91.2	Pulse	0.30	3
2	Ge		45,438.56	3.16	92.3	Pulse	0.30	3
2	Ge		68,436.01	1.03	92.0	Pulse	0.30	3
2	Rh		1,244,351.20	0.32	90.0	Pulse	0.30	3
2	In		391,368.78	0.45	88.6	Pulse	0.30	3
2	Tb		1,535,497.65	0.40	92.8	Pulse	0.30	3
2	Ho		154,586.18	0.70	92.3	Pulse	0.30	3
2	Bi		989,225.38	0.24	90.6	Pulse	0.30	3
3	Sc		116,974.58	0.66	102.6	Pulse	0.30	3
3	Ge		75,512.27	0.79	99.8	Pulse	0.30	3
3	Ge		114,200.87	0.52	99.9	Pulse	0.30	3
3	Rh		1,181,623.77	0.61	95.6	Pulse	0.30	3
3	Tb		1,800,108.12	0.19	100.9	Pulse	0.30	3

Quantitation Report

File Name	073SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 20:14
Sample Name	jc91206-5
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.100	ug/l	2.33	350.68	2.168E-04	Pulse	0.25	3
B			1	226.722	ug/l	1.24	528,579.03	3.268E-01	Pulse	0.15	3
Ca			1	70013.293	ug/l	0.30	28,021,940.41	1.205E+01	Analog	0.10	3
Sr			1	306.010	ug/l	0.75	5,766,589.08	2.020E+00	Analog	0.10	3
Mo			1	1.465	ug/l	5.78	5,571.16	1.951E-03	Pulse	0.10	3
Ag			1	0.101	ug/l	5.61	976.73	3.178E-04	Pulse	0.10	3
Sn			1	0.546	ug/l	12.24	5,831.31	1.899E-03	Pulse	0.10	3
Sb			1	0.156	ug/l	11.04	2,040.21	4.767E-04	Pulse	0.10	3
Ba			1	149.368	ug/l	0.58	433,177.60	1.012E-01	Pulse	0.10	3
Tl			1	-0.003	ug/l	-302.54	390.02	1.631E-04	Pulse	0.10	3
Pb			1	1.185	ug/l	1.43	6,631.74	2.778E-03	Pulse	0.10	3
Pb			1	1.174	ug/l	1.77	5,758.02	2.413E-03	Pulse	0.10	3
Pb			1	1.190	ug/l	0.71	26,703.87	1.119E-02	Pulse	0.10	3
Na			2	37571.445	ug/l	1.04	15,155,432.17	1.944E+02	Analog	0.30	3
Mg			2	9544.256	ug/l	0.56	1,791,697.43	2.299E+01	Pulse	0.30	3
Al			2	571.838	ug/l	1.89	34,593.18	4.438E-01	Pulse	0.30	3
K			2	6404.382	ug/l	0.47	762,411.48	9.781E+00	Pulse	0.30	3
Ca			2	69979.309	ug/l	0.27	449,893.64	5.772E+00	Pulse	0.30	3
Ti			2	10.419	ug/l	0.25	542.24	6.957E-03	Pulse	0.30	3
V			2	6.012	ug/l	1.84	10,546.79	1.353E-01	Pulse	0.30	3
Cr			2	2.187	ug/l	2.45	5,233.12	6.714E-02	Pulse	0.30	3
Mn			2	1267.782	ug/l	0.48	1,357,584.15	1.742E+01	Pulse	0.30	3
Fe			2	19806.852	ug/l	0.21	34,223,418.64	4.391E+02	Analog	0.30	3
Co			2	0.533	ug/l	6.84	2,042.21	2.620E-02	Pulse	0.30	3
Ni			2	1.797	ug/l	2.93	1,855.68	2.381E-02	Pulse	0.30	3
Cu			2	5.876	ug/l	0.25	16,997.81	2.181E-01	Pulse	0.30	3
Zn			2	17.110	ug/l	2.85	6,591.41	8.456E-02	Pulse	0.30	3
As			2	3.148	ug/l	1.89	643.35	8.254E-03	Pulse	1.00	3
Cd			2	0.003	ug/l	821.04	11.96	3.083E-05	Pulse	0.30	3
Sn			2	0.673	ug/l	4.83	1,036.71	2.674E-03	Pulse	0.30	3
Se			3	0.185	ug/l	7.95	18.00	1.572E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,617,723.60	0.38	91.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,326,023.09	0.72	90.1	Pulse	0.10	3
1	Ge		452,296.18	1.07	91.9	Pulse	0.10	3
1	Ge		627,690.80	1.43	92.6	Pulse	0.10	3
1	Rh		2,854,683.08	1.34	88.8	Pulse	0.10	3
1	In		3,071,923.28	1.35	94.1	Pulse	0.10	3
1	Tb		4,280,941.40	0.91	99.3	Pulse	0.10	3
1	Ho		423,136.18	1.30	99.9	Pulse	0.10	3
1	Bi		2,386,730.80	0.91	96.1	Pulse	0.10	3
2	Sc		77,946.54	0.11	91.4	Pulse	0.30	3
2	Ge		45,884.32	0.47	93.2	Pulse	0.30	3
2	Ge		68,369.19	0.95	91.9	Pulse	0.30	3
2	Rh		1,238,013.91	0.30	89.5	Pulse	0.30	3
2	In		387,724.10	0.33	87.7	Pulse	0.30	3
2	Tb		1,534,175.08	0.71	92.7	Pulse	0.30	3
2	Ho		156,138.07	0.93	93.2	Pulse	0.30	3
2	Bi		987,924.37	0.28	90.4	Pulse	0.30	3
3	Sc		117,405.08	0.78	103.0	Pulse	0.30	3
3	Ge		75,921.97	0.63	100.4	Pulse	0.30	3
3	Ge		114,515.73	0.47	100.2	Pulse	0.30	3
3	Rh		1,183,962.04	0.34	95.8	Pulse	0.30	3
3	Tb		1,796,190.00	0.16	100.7	Pulse	0.30	3

Quantitation Report

File Name 074SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 20:19
Sample Name jc91206-6
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.093	ug/l	13.65	333.34	2.021E-04	Pulse	0.25	3
B			1	282.612	ug/l	0.60	671,878.20	4.072E-01	Pulse	0.15	3
Ca			1	175232.753	ug/l	0.42	72,220,585.59	3.015E+01	Analog	0.10	3
Sr			1	1176.451	ug/l	0.32	21,784,784.68	7.765E+00	Analog	0.10	3
Mo			1	2.005	ug/l	2.87	7,438.61	2.652E-03	Pulse	0.10	3
Ag			1	0.058	ug/l	9.93	566.70	1.863E-04	Pulse	0.10	3
Sn			1	2.325	ug/l	2.08	16,182.07	5.318E-03	Pulse	0.10	3
Sb			1	0.318	ug/l	7.14	3,177.09	7.423E-04	Pulse	0.10	3
Ba			1	754.005	ug/l	0.92	2,186,253.98	5.107E-01	Pulse	0.10	3
Tl			1	0.039	ug/l	18.39	1,013.40	4.417E-04	Pulse	0.10	3
Pb			1	19.379	ug/l	0.93	100,827.07	4.394E-02	Pulse	0.10	3
Pb			1	18.439	ug/l	0.99	84,686.15	3.691E-02	Pulse	0.10	3
Pb			1	18.839	ug/l	0.09	396,012.07	1.726E-01	Pulse	0.10	3
Na			2	122077.884	ug/l	1.65	50,303,016.89	6.316E+02	Analog	0.30	3
Mg			2	28664.755	ug/l	0.76	5,497,364.09	6.902E+01	Analog	0.30	3
Al			2	1476.727	ug/l	1.16	90,381.25	1.135E+00	Pulse	0.30	3
K			2	5073.196	ug/l	0.59	618,563.06	7.766E+00	Pulse	0.30	3
Ca			2	178994.924	ug/l	1.22	1,175,694.12	1.476E+01	Pulse	0.30	3
Ti			2	80.384	ug/l	9.57	4,237.32	5.323E-02	Pulse	0.30	3
V			2	6.218	ug/l	1.13	11,143.85	1.399E-01	Pulse	0.30	3
Cr			2	4.877	ug/l	1.08	11,437.39	1.436E-01	Pulse	0.30	3
Mn			2	1864.552	ug/l	0.80	2,040,175.06	2.562E+01	Pulse	0.30	3
Fe			2	39046.845	ug/l	1.52	68,928,308.37	8.655E+02	Analog	0.30	3
Co			2	1.626	ug/l	4.19	6,255.22	7.852E-02	Pulse	0.30	3
Ni			2	9.182	ug/l	4.12	9,560.78	1.201E-01	Pulse	0.30	3
Cu			2	19.401	ug/l	0.97	56,247.94	7.062E-01	Pulse	0.30	3
Zn			2	63.208	ug/l	1.04	24,310.33	3.052E-01	Pulse	0.30	3
As			2	6.240	ug/l	1.49	1,293.05	1.624E-02	Pulse	1.00	3
Cd			2	0.525	ug/l	15.76	269.65	6.993E-04	Pulse	0.30	3
Sn			2	2.410	ug/l	3.16	2,763.61	7.172E-03	Pulse	0.30	3
Se			3	0.255	ug/l	18.73	21.87	1.925E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,649,965.12	0.42	93.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,395,609.44	0.83	92.8	Pulse	0.10	3
1	Ge		456,709.69	1.59	92.8	Pulse	0.10	3
1	Ge		629,007.50	0.93	92.8	Pulse	0.10	3
1	Rh		2,805,492.56	1.26	87.3	Pulse	0.10	3
1	In		3,042,760.30	1.09	93.2	Pulse	0.10	3
1	Tb		4,280,813.69	2.01	99.3	Pulse	0.10	3
1	Ho		422,571.03	1.98	99.7	Pulse	0.10	3
1	Bi		2,294,479.71	1.74	92.3	Pulse	0.10	3
2	Sc		79,651.55	1.01	93.4	Pulse	0.30	3
2	Ge		45,873.21	0.18	93.2	Pulse	0.30	3
2	Ge		69,208.25	1.38	93.0	Pulse	0.30	3
2	Rh		1,205,772.42	0.39	87.2	Pulse	0.30	3
2	In		385,356.28	0.61	87.2	Pulse	0.30	3
2	Tb		1,531,959.77	0.43	92.6	Pulse	0.30	3
2	Ho		156,197.66	0.20	93.3	Pulse	0.30	3
2	Bi		944,781.60	0.49	86.5	Pulse	0.30	3
3	Sc		119,215.24	0.38	104.6	Pulse	0.30	3
3	Ge		74,666.21	1.14	98.7	Pulse	0.30	3
3	Ge		113,622.77	0.34	99.4	Pulse	0.30	3
3	Rh		1,142,161.79	0.58	92.4	Pulse	0.30	3
3	Tb		1,783,382.64	0.76	100.0	Pulse	0.30	3

Quantitation Report

File Name 075SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 20:24
Sample Name jc91206-7
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.081	ug/l	18.76	298.68	1.787E-04	Pulse	0.25	3
B			1	443.391	ug/l	0.84	1,067,596.59	6.386E-01	Pulse	0.15	3
Ca			1	93628.217	ug/l	0.61	39,083,711.08	1.611E+01	Analog	0.10	3
Sr			1	333.814	ug/l	1.28	6,479,771.78	2.203E+00	Analog	0.10	3
Mo			1	1.112	ug/l	2.79	4,390.74	1.493E-03	Pulse	0.10	3
Ag			1	0.036	ug/l	19.11	376.69	1.204E-04	Pulse	0.10	3
Sn			1	0.596	ug/l	0.97	6,251.44	1.995E-03	Pulse	0.10	3
Sb			1	0.129	ug/l	13.63	1,880.17	4.323E-04	Pulse	0.10	3
Ba			1	71.797	ug/l	1.05	211,561.66	4.864E-02	Pulse	0.10	3
Tl			1	0.017	ug/l	43.36	716.72	2.945E-04	Pulse	0.10	3
Pb			1	1.476	ug/l	2.76	8,365.97	3.438E-03	Pulse	0.10	3
Pb			1	1.460	ug/l	4.82	7,262.07	2.984E-03	Pulse	0.10	3
Pb			1	1.456	ug/l	1.49	33,145.62	1.362E-02	Pulse	0.10	3
Na			2	7820.316	ug/l	1.84	3,196,360.57	4.052E+01	Pulse	0.30	3
Mg			2	14540.843	ug/l	1.65	2,761,958.99	3.502E+01	Pulse	0.30	3
Al			2	1983.157	ug/l	1.44	120,024.28	1.522E+00	Pulse	0.30	3
K			2	1910.535	ug/l	2.15	234,940.65	2.979E+00	Pulse	0.30	3
Ca			2	94103.913	ug/l	1.72	612,177.56	7.761E+00	Pulse	0.30	3
Ti			2	90.554	ug/l	2.79	4,728.52	5.996E-02	Pulse	0.30	3
V			2	7.836	ug/l	1.16	13,877.05	1.759E-01	Pulse	0.30	3
Cr			2	3.567	ug/l	3.01	8,388.90	1.064E-01	Pulse	0.30	3
Mn			2	519.904	ug/l	2.00	563,384.23	7.143E+00	Pulse	0.30	3
Fe			2	6823.355	ug/l	0.21	11,938,456.75	1.513E+02	Analog	0.30	3
Co			2	1.409	ug/l	1.24	5,376.50	6.814E-02	Pulse	0.30	3
Ni			2	2.643	ug/l	1.62	2,748.04	3.483E-02	Pulse	0.30	3
Cu			2	5.242	ug/l	1.62	15,398.44	1.952E-01	Pulse	0.30	3
Zn			2	12.177	ug/l	3.84	4,808.53	6.095E-02	Pulse	0.30	3
As			2	4.280	ug/l	2.83	881.70	1.118E-02	Pulse	1.00	3
Cd			2	0.003	ug/l	147.98	11.99	3.021E-05	Pulse	0.30	3
Sn			2	0.679	ug/l	2.07	1,066.71	2.687E-03	Pulse	0.30	3
Se			3	0.085	ug/l	29.78	12.53	1.072E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,671,702.10	0.44	94.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,426,155.90	0.45	94.0	Pulse	0.10	3
1	Ge		465,193.76	0.66	94.5	Pulse	0.10	3
1	Ge		645,663.18	1.10	95.2	Pulse	0.10	3
1	Rh		2,940,879.95	0.53	91.5	Pulse	0.10	3
1	In		3,134,111.08	1.57	96.0	Pulse	0.10	3
1	Tb		4,349,374.00	0.85	100.8	Pulse	0.10	3
1	Ho		430,226.26	1.57	101.5	Pulse	0.10	3
1	Bi		2,433,741.42	0.48	97.9	Pulse	0.10	3
2	Sc		78,891.09	1.65	92.5	Pulse	0.30	3
2	Ge		46,402.42	0.59	94.3	Pulse	0.30	3
2	Ge		69,885.55	1.54	93.9	Pulse	0.30	3
2	Rh		1,265,368.07	0.41	91.5	Pulse	0.30	3
2	In		396,935.96	0.74	89.8	Pulse	0.30	3
2	Tb		1,564,475.15	0.51	94.5	Pulse	0.30	3
2	Ho		159,260.45	0.48	95.1	Pulse	0.30	3
2	Bi		1,005,390.52	0.40	92.0	Pulse	0.30	3
3	Sc		120,892.80	0.87	106.1	Pulse	0.30	3
3	Ge		77,037.17	0.67	101.8	Pulse	0.30	3
3	Ge		116,932.76	0.65	102.3	Pulse	0.30	3
3	Rh		1,199,326.44	1.09	97.0	Pulse	0.30	3
3	Tb		1,821,579.51	0.55	102.1	Pulse	0.30	3

Quantitation Report

File Name 076SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 20:29
Sample Name jc91206-8
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	161.96	38.67	2.371E-05	Pulse	0.25	3
B			1	127.402	ug/l	0.54	299,820.56	1.838E-01	Pulse	0.15	3
Ca			1	61063.181	ug/l	1.26	24,931,305.46	1.051E+01	Analog	0.10	3
Sr			1	339.184	ug/l	0.99	6,549,696.99	2.239E+00	Analog	0.10	3
Mo			1	0.921	ug/l	1.68	3,643.89	1.246E-03	Pulse	0.10	3
Ag			1	0.026	ug/l	19.21	280.01	8.983E-05	Pulse	0.10	3
Sn			1	0.389	ug/l	8.09	4,984.29	1.597E-03	Pulse	0.10	3
Sb			1	1.878	ug/l	3.23	14,210.33	3.295E-03	Pulse	0.10	3
Ba			1	138.361	ug/l	0.15	404,244.52	9.373E-02	Pulse	0.10	3
Tl			1	0.028	ug/l	30.68	890.06	3.685E-04	Pulse	0.10	3
Pb			1	0.895	ug/l	4.51	5,127.73	2.122E-03	Pulse	0.10	3
Pb			1	0.878	ug/l	6.34	4,400.83	1.822E-03	Pulse	0.10	3
Pb			1	0.894	ug/l	2.01	20,486.33	8.479E-03	Pulse	0.10	3
Na			2	38831.328	ug/l	1.00	15,642,123.82	2.010E+02	Analog	0.30	3
Mg			2	4923.443	ug/l	1.90	923,179.75	1.186E+01	Pulse	0.30	3
Al			2	13.588	ug/l	9.59	1,364.52	1.752E-02	Pulse	0.30	3
K			2	4761.275	ug/l	1.35	567,728.12	7.294E+00	Pulse	0.30	3
Ca			2	60862.098	ug/l	0.91	390,744.12	5.020E+00	Pulse	0.30	3
Ti			2	1.820	ug/l	13.15	98.89	1.269E-03	Pulse	0.30	3
V			2	0.369	ug/l	6.82	747.80	9.610E-03	Pulse	0.30	3
Cr			2	0.513	ug/l	1.22	1,522.31	1.956E-02	Pulse	0.30	3
Mn			2	0.746	ug/l	6.55	845.59	1.086E-02	Pulse	0.30	3
Fe			2	36.737	ug/l	1.52	72,042.86	9.255E-01	Pulse	0.30	3
Co			2	0.117	ug/l	9.88	488.71	6.282E-03	Pulse	0.30	3
Ni			2	198.070	ug/l	1.81	200,954.29	2.582E+00	Pulse	0.30	3
Cu			2	13.193	ug/l	2.00	37,529.55	4.822E-01	Pulse	0.30	3
Zn			2	651.717	ug/l	1.52	243,025.16	3.122E+00	Pulse	0.30	3
As			2	0.195	ug/l	23.72	49.00	6.298E-04	Pulse	1.00	3
Cd			2	1.603	ug/l	5.87	816.51	2.081E-03	Pulse	0.30	3
Sn			2	0.528	ug/l	10.79	901.15	2.297E-03	Pulse	0.30	3
Se			3	1.262	ug/l	4.65	80.33	7.008E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,631,322.75	0.32	92.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,372,822.73	1.02	91.9	Pulse	0.10	3
1	Ge		458,306.62	1.42	93.1	Pulse	0.10	3
1	Ge		641,022.37	1.56	94.5	Pulse	0.10	3
1	Rh		2,925,453.60	0.88	91.0	Pulse	0.10	3
1	In		3,120,287.56	0.88	95.6	Pulse	0.10	3
1	Tb		4,312,787.75	1.01	100.0	Pulse	0.10	3
1	Ho		428,460.89	1.14	101.1	Pulse	0.10	3
1	Bi		2,416,132.72	0.40	97.2	Pulse	0.10	3
2	Sc		77,844.04	1.42	91.3	Pulse	0.30	3
2	Ge		45,817.45	1.26	93.1	Pulse	0.30	3
2	Ge		68,591.13	0.05	92.2	Pulse	0.30	3
2	Rh		1,250,964.01	0.14	90.4	Pulse	0.30	3
2	In		392,361.41	0.30	88.8	Pulse	0.30	3
2	Tb		1,540,497.54	0.91	93.1	Pulse	0.30	3
2	Ho		155,734.23	0.96	93.0	Pulse	0.30	3
2	Bi		992,149.65	0.89	90.8	Pulse	0.30	3
3	Sc		117,783.09	0.78	103.4	Pulse	0.30	3
3	Ge		75,848.28	0.31	100.3	Pulse	0.30	3
3	Ge		114,660.15	1.13	100.3	Pulse	0.30	3
3	Rh		1,188,219.85	0.24	96.1	Pulse	0.30	3
3	Tb		1,809,199.09	0.10	101.4	Pulse	0.30	3

Quantitation Report

File Name 077SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 20:34
Sample Name jc91206-9
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	49.09	60.00	3.764E-05	Pulse	0.25	3
B			1	205.907	ug/l	1.30	473,186.41	2.968E-01	Pulse	0.15	3
Ca			1	75275.396	ug/l	1.90	29,756,687.89	1.295E+01	Analog	0.10	3
Sr			1	357.106	ug/l	2.08	6,658,314.07	2.357E+00	Analog	0.10	3
Mo			1	1.565	ug/l	0.62	5,877.98	2.081E-03	Pulse	0.10	3
Ag			1	0.029	ug/l	10.64	296.68	9.751E-05	Pulse	0.10	3
Sn			1	1.122	ug/l	7.22	9,153.00	3.007E-03	Pulse	0.10	3
Sb			1	0.218	ug/l	14.76	2,450.27	5.771E-04	Pulse	0.10	3
Ba			1	113.959	ug/l	1.27	327,765.05	7.720E-02	Pulse	0.10	3
Tl			1	-0.001	ug/l	-343.28	420.03	1.754E-04	Pulse	0.10	3
Pb			1	4.184	ug/l	3.06	22,908.48	9.563E-03	Pulse	0.10	3
Pb			1	4.229	ug/l	1.18	20,401.25	8.517E-03	Pulse	0.10	3
Pb			1	4.158	ug/l	0.43	91,806.89	3.833E-02	Pulse	0.10	3
Na			2	27948.623	ug/l	1.87	11,021,641.51	1.447E+02	Analog	0.30	3
Mg			2	6450.459	ug/l	2.03	1,183,863.88	1.554E+01	Pulse	0.30	3
Al			2	64.289	ug/l	9.49	4,283.94	5.624E-02	Pulse	0.30	3
K			2	5846.471	ug/l	2.24	680,895.69	8.937E+00	Pulse	0.30	3
Ca			2	74875.908	ug/l	0.68	470,610.83	6.176E+00	Pulse	0.30	3
Ti			2	4.577	ug/l	60.41	234.50	3.093E-03	Pulse	0.30	3
V			2	0.448	ug/l	10.13	866.70	1.138E-02	Pulse	0.30	3
Cr			2	0.743	ug/l	7.31	1,986.82	2.608E-02	Pulse	0.30	3
Mn			2	484.762	ug/l	1.76	507,467.86	6.660E+00	Pulse	0.30	3
Fe			2	3028.113	ug/l	1.97	5,121,628.13	6.722E+01	Pulse	0.30	3
Co			2	1.320	ug/l	5.92	4,865.84	6.387E-02	Pulse	0.30	3
Ni			2	6.039	ug/l	3.64	6,025.62	7.909E-02	Pulse	0.30	3
Cu			2	4.322	ug/l	0.13	12,344.73	1.620E-01	Pulse	0.30	3
Zn			2	38.933	ug/l	2.52	14,401.99	1.890E-01	Pulse	0.30	3
As			2	0.507	ug/l	9.07	109.33	1.436E-03	Pulse	1.00	3
Cd			2	0.104	ug/l	18.86	61.92	1.600E-04	Pulse	0.30	3
Sn			2	1.189	ug/l	6.52	1,551.21	4.011E-03	Pulse	0.30	3
Se			3	0.078	ug/l	29.41	11.80	1.036E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,594,197.40	1.28	90.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,297,822.57	1.55	89.0	Pulse	0.10	3
1	Ge		449,317.25	1.14	91.3	Pulse	0.10	3
1	Ge		625,010.13	0.65	92.2	Pulse	0.10	3
1	Rh		2,824,790.90	0.58	87.9	Pulse	0.10	3
1	In		3,045,230.55	1.51	93.3	Pulse	0.10	3
1	Tb		4,245,661.19	0.92	98.4	Pulse	0.10	3
1	Ho		423,524.49	0.80	100.0	Pulse	0.10	3
1	Bi		2,395,411.06	1.04	96.4	Pulse	0.10	3
2	Sc		76,210.92	1.82	89.3	Pulse	0.30	3
2	Ge		44,833.65	0.18	91.1	Pulse	0.30	3
2	Ge		67,993.05	0.94	91.4	Pulse	0.30	3
2	Rh		1,228,414.92	0.82	88.8	Pulse	0.30	3
2	In		386,634.85	0.89	87.5	Pulse	0.30	3
2	Tb		1,520,871.01	0.80	91.9	Pulse	0.30	3
2	Ho		155,448.77	0.35	92.8	Pulse	0.30	3
2	Bi		986,738.54	0.34	90.3	Pulse	0.30	3
3	Sc		116,728.08	1.69	102.4	Pulse	0.30	3
3	Ge		75,707.69	0.37	100.1	Pulse	0.30	3
3	Ge		113,841.29	0.93	99.6	Pulse	0.30	3
3	Rh		1,179,182.52	0.23	95.4	Pulse	0.30	3
3	Tb		1,810,333.26	0.38	101.5	Pulse	0.30	3

Quantitation Report

File Name 078_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 20:39
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.437	ug/l	1.50	315,198.74	1.940E-01	Pulse	0.25	3
B			1	106.365	ug/l	1.83	498,056.26	3.066E-01	Pulse	0.15	3
Ca			1	5132.699	ug/l	0.51	4,116,051.61	1.770E+00	Pulse	0.10	3
Sr			1	53.804	ug/l	1.10	2,080,290.70	7.104E-01	Pulse	0.10	3
Mo			1	51.602	ug/l	0.92	392,295.70	1.340E-01	Pulse	0.10	3
Ag			1	49.905	ug/l	1.15	945,670.19	3.051E-01	Pulse	0.10	3
Sn			1	50.906	ug/l	1.21	609,044.25	1.965E-01	Pulse	0.10	3
Sb			1	51.883	ug/l	0.82	729,224.55	1.701E-01	Pulse	0.10	3
Ba			1	50.513	ug/l	1.45	293,393.74	6.844E-02	Pulse	0.10	3
Tl			1	51.644	ug/l	0.78	1,671,312.37	6.837E-01	Pulse	0.10	3
Pb			1	51.519	ug/l	1.24	570,035.36	2.332E-01	Pulse	0.10	3
Pb			1	51.168	ug/l	0.43	500,043.29	2.046E-01	Pulse	0.10	3
Pb			1	51.391	ug/l	0.47	2,298,431.86	9.403E-01	Pulse	0.10	3
Na			2	5082.604	ug/l	0.44	4,133,813.58	5.265E+01	Pulse	0.30	3
Mg			2	5031.716	ug/l	0.45	1,902,708.54	2.424E+01	Pulse	0.30	3
Al			2	4919.360	ug/l	0.89	590,372.41	7.520E+00	Pulse	0.30	3
K			2	5094.328	ug/l	1.34	1,217,557.35	1.551E+01	Pulse	0.30	3
Ca			2	5231.370	ug/l	0.38	67,823.92	8.639E-01	Pulse	0.30	3
Ti			2	48.271	ug/l	3.13	5,017.48	6.392E-02	Pulse	0.30	3
V			2	51.294	ug/l	0.74	179,487.79	2.286E+00	Pulse	0.30	3
Cr			2	50.800	ug/l	0.95	227,088.84	2.893E+00	Pulse	0.30	3
Mn			2	50.424	ug/l	0.59	108,813.28	1.386E+00	Pulse	0.30	3
Fe			2	5148.669	ug/l	0.64	17,924,375.40	2.283E+02	Analog	0.30	3
Co			2	50.307	ug/l	0.30	378,201.55	4.817E+00	Pulse	0.30	3
Ni			2	49.509	ug/l	0.85	101,343.35	1.291E+00	Pulse	0.30	3
Cu			2	48.656	ug/l	0.82	276,188.17	3.518E+00	Pulse	0.30	3
Zn			2	48.540	ug/l	0.91	36,692.25	4.674E-01	Pulse	0.30	3
As			2	50.526	ug/l	1.01	20,490.49	2.610E-01	Pulse	1.00	3
Cd			2	50.447	ug/l	1.36	52,346.26	1.293E-01	Pulse	0.30	3
Sn			2	50.806	ug/l	0.29	106,900.92	2.642E-01	Pulse	0.30	3
Se			3	199.639	ug/l	0.45	21,920.35	2.014E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,624,400.14	0.66	92.0	Pulse	0.10	3
1	Sc		2,325,678.25	1.96	90.1	Pulse	0.10	3
1	Ge		448,881.78	1.67	91.2	Pulse	0.10	3

Quantitation Report

1	Ge		626,228.69	1.16	92.4	Pulse	0.10	3
1	Rh		2,928,617.67	1.09	91.1	Pulse	0.10	3
1	In		3,099,600.30	1.05	94.9	Pulse	0.10	3
1	Tb		4,286,752.75	0.57	99.4	Pulse	0.10	3
1	Ho		423,885.10	1.49	100.0	Pulse	0.10	3
1	Bi		2,444,515.64	1.09	98.4	Pulse	0.10	3
2	Sc		78,507.86	0.63	92.0	Pulse	0.30	3
2	Ge		46,010.20	0.80	93.5	Pulse	0.30	3
2	Ge		68,847.57	0.25	92.5	Pulse	0.30	3
2	Rh		1,269,999.64	0.80	91.8	Pulse	0.30	3
2	In		404,682.38	0.71	91.6	Pulse	0.30	3
2	Tb		1,564,380.04	0.86	94.5	Pulse	0.30	3
2	Ho		158,203.56	0.78	94.5	Pulse	0.30	3
2	Bi		1,020,783.54	0.22	93.4	Pulse	0.30	3
3	Sc		112,617.71	1.13	98.8	Pulse	0.30	3
3	Ge		70,917.50	1.38	93.8	Pulse	0.30	3
3	Ge		108,826.18	0.59	95.2	Pulse	0.30	3
3	Rh		1,172,584.99	1.09	94.9	Pulse	0.30	3
3	Tb		1,766,414.79	0.95	99.0	Pulse	0.30	3

Quantitation Report

File Name 079_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 20:44
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.043	ug/l	14.73	305.34	1.878E-04	Pulse	0.25	3
B			1	10.588	ug/l	1.69	50,279.01	3.089E-02	Pulse	0.15	3
Ca			1	4.010	ug/l	7.47	12,712.01	5.501E-03	Pulse	0.10	3
Sr			1	0.047	ug/l	6.49	2,200.25	7.283E-04	Pulse	0.10	3
Mo			1	0.091	ug/l	17.81	866.73	2.869E-04	Pulse	0.10	3
Ag			1	0.041	ug/l	17.81	820.05	2.616E-04	Pulse	0.10	3
Sn			1	0.071	ug/l	7.79	3,520.55	1.124E-03	Pulse	0.10	3
Sb			1	0.094	ug/l	27.62	2,236.92	5.280E-04	Pulse	0.10	3
Ba			1	0.045	ug/l	6.23	296.68	7.005E-05	Pulse	0.10	3
Tl			1	0.041	ug/l	1.58	1,780.18	7.235E-04	Pulse	0.10	3
Pb			1	0.038	ug/l	13.71	663.37	2.694E-04	Pulse	0.10	3
Pb			1	0.045	ug/l	26.52	610.04	2.481E-04	Pulse	0.10	3
Pb			1	0.048	ug/l	3.04	2,903.57	1.180E-03	Pulse	0.10	3
Na			2	6.895	ug/l	43.03	9,602.52	1.392E-01	Pulse	0.30	3
Mg			2	2.889	ug/l	16.43	1,510.08	2.163E-02	Pulse	0.30	3
Al			2	2.773	ug/l	200.26	742.87	1.138E-02	Pulse	0.30	3
K			2	10.092	ug/l	49.99	8,162.06	1.172E-01	Pulse	0.30	3
Ca			2	1.380	ug/l	123.11	96.67	1.364E-03	Pulse	0.30	3
Ti			2	-0.006	ug/l	-801.74	4.44	5.748E-05	Pulse	0.30	3
V			2	0.040	ug/l	29.27	220.00	3.170E-03	Pulse	0.30	3
Cr			2	0.027	ug/l	14.99	458.90	6.494E-03	Pulse	0.30	3
Mn			2	0.062	ug/l	5.28	163.34	2.323E-03	Pulse	0.30	3
Fe			2	3.122	ug/l	31.70	17,326.18	2.497E-01	Pulse	0.30	3
Co			2	0.044	ug/l	31.19	334.41	4.864E-03	Pulse	0.30	3
Ni			2	0.044	ug/l	27.85	107.78	1.549E-03	Pulse	0.30	3
Cu			2	0.061	ug/l	42.64	720.03	1.039E-02	Pulse	0.30	3
Zn			2	0.138	ug/l	48.97	276.68	3.981E-03	Pulse	0.30	3
As			2	0.040	ug/l	44.75	24.00	3.328E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.029	ug/l	44.64	37.72	1.019E-04	Pulse	0.30	3
Sn			2	0.178	ug/l	42.27	674.47	1.851E-03	Pulse	0.30	3
Se			3	0.166	ug/l	9.28	25.13	2.314E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,628,025.91	1.27	92.2	Pulse	0.10	3
1	Sc		2,310,631.37	0.89	89.5	Pulse	0.10	3
1	Ge		451,679.36	0.41	91.8	Pulse	0.10	3
1	Ge		631,018.79	1.71	93.1	Pulse	0.10	3
1	Rh		3,020,016.21	0.86	94.0	Pulse	0.10	3
1	In		3,130,184.37	2.01	95.9	Pulse	0.10	3
1	Tb		4,235,814.10	0.81	98.2	Pulse	0.10	3
1	Ho		419,040.80	1.68	98.9	Pulse	0.10	3
1	Bi		2,460,718.71	1.19	99.0	Pulse	0.10	3
2	Sc		70,549.96	15.07	82.7	Pulse	0.30	3
2	Ge		41,798.48	10.09	84.9	Pulse	0.30	3
2	Ge		63,720.15	10.50	85.6	Pulse	0.30	3
2	Rh		1,180,584.36	13.77	85.4	Pulse	0.30	3
2	In		371,322.96	13.23	84.0	Pulse	0.30	3
2	Tb		1,419,778.62	13.64	85.8	Pulse	0.30	3
2	Ho		143,567.34	13.83	85.7	Pulse	0.30	3
2	Bi		949,052.52	11.67	86.9	Pulse	0.30	3
3	Sc		111,651.60	1.42	98.0	Pulse	0.30	3
3	Ge		71,272.15	0.80	94.2	Pulse	0.30	3
3	Ge		108,608.01	1.13	95.0	Pulse	0.30	3
3	Rh		1,193,881.96	0.67	96.6	Pulse	0.30	3
3	Tb		1,753,803.89	0.28	98.3	Pulse	0.30	3

Quantitation Report

File Name 080SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 20:49
Sample Name jc91206-10
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	39.90	82.67	5.031E-05	Pulse	0.25	3
B			1	19.412	ug/l	2.79	46,584.04	2.835E-02	Pulse	0.15	3
Ca			1	506.309	ug/l	0.92	211,845.43	9.121E-02	Pulse	0.10	3
Sr			1	2.109	ug/l	1.08	41,598.21	1.403E-02	Pulse	0.10	3
Mo			1	0.174	ug/l	10.06	816.72	2.754E-04	Pulse	0.10	3
Ag			1	0.026	ug/l	15.16	276.68	8.899E-05	Pulse	0.10	3
Sn			1	0.701	ug/l	5.33	6,828.40	2.196E-03	Pulse	0.10	3
Sb			1	0.134	ug/l	16.15	1,876.85	4.401E-04	Pulse	0.10	3
Ba			1	2.689	ug/l	5.56	7,808.96	1.831E-03	Pulse	0.10	3
Tl			1	0.015	ug/l	31.84	713.38	2.847E-04	Pulse	0.10	3
Pb			1	3.037	ug/l	2.95	17,447.52	6.968E-03	Pulse	0.10	3
Pb			1	2.769	ug/l	4.30	14,027.20	5.600E-03	Pulse	0.10	3
Pb			1	2.847	ug/l	0.78	65,975.88	2.634E-02	Pulse	0.10	3
Na			2	990.823	ug/l	0.72	400,583.46	5.194E+00	Pulse	0.30	3
Mg			2	126.970	ug/l	1.25	24,172.94	3.134E-01	Pulse	0.30	3
Al			2	77.854	ug/l	3.30	5,136.40	6.659E-02	Pulse	0.30	3
K			2	119.234	ug/l	1.65	20,606.17	2.672E-01	Pulse	0.30	3
Ca			2	488.694	ug/l	7.30	3,194.79	4.144E-02	Pulse	0.30	3
Ti			2	7.635	ug/l	9.79	394.46	5.115E-03	Pulse	0.30	3
V			2	0.857	ug/l	1.87	1,580.10	2.048E-02	Pulse	0.30	3
Cr			2	2.250	ug/l	1.99	5,316.48	6.892E-02	Pulse	0.30	3
Mn			2	4.130	ug/l	3.40	4,423.97	5.735E-02	Pulse	0.30	3
Fe			2	245.015	ug/l	0.81	427,396.10	5.541E+00	Pulse	0.30	3
Co			2	0.180	ug/l	7.77	718.87	9.316E-03	Pulse	0.30	3
Ni			2	1.199	ug/l	1.56	1,235.62	1.602E-02	Pulse	0.30	3
Cu			2	5.927	ug/l	1.56	16,962.20	2.199E-01	Pulse	0.30	3
Zn			2	9.215	ug/l	2.53	3,607.10	4.677E-02	Pulse	0.30	3
As			2	0.191	ug/l	35.31	47.67	6.190E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	542.65	12.16	3.081E-05	Pulse	0.30	3
Sn			2	0.802	ug/l	6.88	1,190.06	3.006E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.065	ug/l	72.12	11.20	9.699E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,643,844.12	1.75	93.1	Pulse	0.10	3
1	Sc		2,322,752.15	1.68	90.0	Pulse	0.10	3
1	Ge		457,224.84	0.70	92.9	Pulse	0.10	3
1	Ge		631,520.88	1.15	93.1	Pulse	0.10	3
1	Rh		2,964,307.04	0.86	92.2	Pulse	0.10	3
1	In		3,108,913.94	0.18	95.2	Pulse	0.10	3
1	Tb		4,265,973.90	0.79	98.9	Pulse	0.10	3
1	Ho		422,667.61	0.84	99.8	Pulse	0.10	3
1	Bi		2,504,337.57	0.95	100.8	Pulse	0.10	3
2	Sc		77,133.04	0.88	90.4	Pulse	0.30	3
2	Ge		45,495.47	1.11	92.4	Pulse	0.30	3
2	Ge		68,753.09	0.03	92.4	Pulse	0.30	3
2	Rh		1,274,989.91	0.46	92.2	Pulse	0.30	3
2	In		395,895.65	0.77	89.6	Pulse	0.30	3
2	Tb		1,543,834.35	0.74	93.3	Pulse	0.30	3
2	Ho		155,373.57	0.70	92.8	Pulse	0.30	3
2	Bi		1,027,857.70	0.63	94.1	Pulse	0.30	3
3	Sc		116,560.46	0.75	102.3	Pulse	0.30	3
3	Ge		76,222.28	0.92	100.8	Pulse	0.30	3
3	Ge		115,418.74	1.22	101.0	Pulse	0.30	3
3	Rh		1,225,759.08	0.64	99.2	Pulse	0.30	3
3	Tb		1,799,927.98	0.70	100.9	Pulse	0.30	3

Quantitation Report

File Name 081SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 20:54
Sample Name jc91293-1
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.040	ug/l	-103.17	21.33	1.364E-05	Pulse	0.25	3
B			1	153.741	ug/l	2.51	28,341.77	1.811E-02	Pulse	0.15	3
Ca			1	24193.825	ug/l	0.98	775,521.66	3.371E-01	Pulse	0.10	3
Sr			1	152.917	ug/l	0.69	226,628.54	8.086E-02	Pulse	0.10	3
Mo			1	22.689	ug/l	3.68	6,741.69	2.405E-03	Pulse	0.10	3
Ag			1	0.090	ug/l	57.96	93.33	3.110E-05	Pulse	0.10	3
Sn			1	-3.739	ug/l	-6.74	826.73	2.748E-04	Pulse	0.10	3
Sb			1	-0.080	ug/l	-219.61	873.40	2.104E-04	Pulse	0.10	3
Ba			1	25.443	ug/l	1.68	5,767.96	1.388E-03	Pulse	0.10	3
Tl			1	-0.134	ug/l	-31.71	256.68	1.122E-04	Pulse	0.10	3
Pb			1	0.384	ug/l	2.89	383.35	1.675E-04	Pulse	0.10	3
Pb			1	0.234	ug/l	13.02	240.01	1.049E-04	Pulse	0.10	3
Pb			1	0.281	ug/l	8.63	1,166.73	5.097E-04	Pulse	0.10	3
Na			2	3440597.232	ug/l	1.19	110,256,604.51	1.424E+03	Analog	0.30	3
Mg			2	12296.119	ug/l	0.43	183,982.90	2.376E+00	Pulse	0.30	3
Al			2	-26.520	ug/l	-40.46	427.80	5.524E-03	Pulse	0.30	3
K			2	10153.357	ug/l	1.46	101,911.84	1.316E+00	Pulse	0.30	3
Ca			2	24325.981	ug/l	1.67	12,513.71	1.616E-01	Pulse	0.30	3
Ti			2	1.751	ug/l	72.57	12.22	1.582E-04	Pulse	0.30	3
V			2	0.569	ug/l	31.36	186.67	2.412E-03	Pulse	0.30	3
Cr			2	59.459	ug/l	7.10	10,848.31	1.402E-01	Pulse	0.30	3
Mn			2	6.772	ug/l	8.18	623.35	8.055E-03	Pulse	0.30	3
Fe			2	118.069	ug/l	3.38	24,827.74	3.207E-01	Pulse	0.30	3
Co			2	0.448	ug/l	21.73	185.49	2.392E-03	Pulse	0.30	3
Ni			2	48.495	ug/l	2.15	3,944.97	5.095E-02	Pulse	0.30	3
Cu			2	2.922	ug/l	9.90	1,118.94	1.445E-02	Pulse	0.30	3
Zn			2	9.007	ug/l	7.37	473.35	6.111E-03	Pulse	0.30	3
As			2	0.120	ug/l	33.79	11.67	1.507E-04	Pulse	1.00	3
Cd			2	-0.161	ug/l	-29.74	4.16	1.035E-05	Pulse	0.30	3
Sn			2	-2.730	ug/l	-17.70	146.67	3.639E-04	Pulse	0.30	3
Se			3	0.306	ug/l	62.19	7.73	7.644E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,565,119.31	1.05	88.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,300,970.12	0.57	89.1	Pulse	0.10	3
1	Ge		442,603.35	0.45	89.9	Pulse	0.10	3
1	Ge		609,905.25	0.69	90.0	Pulse	0.10	3
1	Rh		2,802,926.21	0.46	87.2	Pulse	0.10	3
1	In		3,007,559.30	0.87	92.1	Pulse	0.10	3
1	Tb		4,154,987.96	1.73	96.3	Pulse	0.10	3
1	Ho		413,764.98	0.68	97.7	Pulse	0.10	3
1	Bi		2,289,135.28	0.49	92.1	Pulse	0.10	3
2	Sc		77,435.31	1.23	90.8	Pulse	0.30	3
2	Ge		45,534.36	1.30	92.5	Pulse	0.30	3
2	Ge		67,853.63	0.60	91.2	Pulse	0.30	3
2	Rh		1,209,549.15	0.32	87.4	Pulse	0.30	3
2	In		402,951.38	1.12	91.2	Pulse	0.30	3
2	Tb		1,552,464.97	0.53	93.8	Pulse	0.30	3
2	Ho		156,713.23	0.49	93.6	Pulse	0.30	3
2	Bi		984,436.94	0.59	90.1	Pulse	0.30	3
3	Sc		107,002.36	0.38	93.9	Pulse	0.30	3
3	Ge		67,007.96	0.70	88.6	Pulse	0.30	3
3	Ge		101,136.20	0.50	88.5	Pulse	0.30	3
3	Rh		1,081,444.16	0.76	87.5	Pulse	0.30	3
3	Tb		1,707,906.32	0.35	95.7	Pulse	0.30	3

Quantitation Report

File Name	082SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 20:59
Sample Name	jc91320-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	64.93	65.33	4.173E-05	Pulse	0.25	3
B			1	194.519	ug/l	1.82	439,248.65	2.804E-01	Pulse	0.15	3
Ca			1	226198.067	ug/l	0.96	88,746,808.68	3.891E+01	Analog	0.10	3
Sr			1	2500.959	ug/l	0.63	45,881,512.65	1.651E+01	Analog	0.10	3
Mo			1	61.668	ug/l	0.78	222,538.06	8.007E-02	Pulse	0.10	3
Ag			1	0.031	ug/l	6.27	310.01	1.027E-04	Pulse	0.10	3
Sn			1	0.617	ug/l	6.98	6,144.78	2.035E-03	Pulse	0.10	3
Sb			1	0.526	ug/l	12.12	4,584.19	1.083E-03	Pulse	0.10	3
Ba			1	128.785	ug/l	0.79	369,206.54	8.724E-02	Pulse	0.10	3
Tl			1	0.014	ug/l	54.23	643.37	2.741E-04	Pulse	0.10	3
Pb			1	0.205	ug/l	15.69	1,320.11	5.627E-04	Pulse	0.10	3
Pb			1	0.202	ug/l	7.82	1,106.75	4.720E-04	Pulse	0.10	3
Pb			1	0.217	ug/l	12.98	5,363.92	2.287E-03	Pulse	0.10	3
Na			2	36114.360	ug/l	1.35	14,375,547.76	1.869E+02	Analog	0.30	3
Mg			2	50.446	ug/l	3.14	9,939.66	1.292E-01	Pulse	0.30	3
Al			2	1154.857	ug/l	2.32	68,385.30	8.890E-01	Pulse	0.30	3
K			2	23427.059	ug/l	1.78	2,734,189.06	3.555E+01	Pulse	0.30	3
Ca			2	228887.126	ug/l	1.37	1,451,870.22	1.888E+01	Pulse	0.30	3
Ti			2	7.106	ug/l	97.79	362.58	4.765E-03	Pulse	0.30	3
V			2	7.545	ug/l	1.50	13,033.01	1.694E-01	Pulse	0.30	3
Cr			2	40.072	ug/l	1.73	87,981.59	1.144E+00	Pulse	0.30	3
Mn			2	3.293	ug/l	3.28	3,528.20	4.585E-02	Pulse	0.30	3
Fe			2	707.900	ug/l	1.76	1,215,200.71	1.580E+01	Pulse	0.30	3
Co			2	0.135	ug/l	15.71	548.96	7.126E-03	Pulse	0.30	3
Ni			2	2.486	ug/l	5.44	2,521.34	3.279E-02	Pulse	0.30	3
Cu			2	7.706	ug/l	2.74	21,852.47	2.841E-01	Pulse	0.30	3
Zn			2	319.786	ug/l	2.75	117,926.31	1.533E+00	Pulse	0.30	3
As			2	3.373	ug/l	6.91	679.02	8.834E-03	Pulse	1.00	3
Cd			2	-0.024	ug/l	-26.54	-1.54	-3.991E-06	Pulse	0.30	3
Sn			2	0.657	ug/l	3.57	1,020.05	2.631E-03	Pulse	0.30	3
Se			3	0.733	ug/l	10.33	48.07	4.336E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,566,552.59	0.44	88.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,280,669.18	0.83	88.3	Pulse	0.10	3
1	Ge		443,976.06	0.23	90.2	Pulse	0.10	3
1	Ge		619,835.73	1.38	91.4	Pulse	0.10	3
1	Rh		2,779,409.54	1.11	86.5	Pulse	0.10	3
1	In		3,019,110.80	1.02	92.5	Pulse	0.10	3
1	Tb		4,232,022.33	0.99	98.1	Pulse	0.10	3
1	Ho		420,801.31	0.40	99.3	Pulse	0.10	3
1	Bi		2,345,146.27	1.12	94.4	Pulse	0.10	3
2	Sc		76,929.60	1.80	90.2	Pulse	0.30	3
2	Ge		44,477.09	1.48	90.3	Pulse	0.30	3
2	Ge		67,619.42	1.86	90.9	Pulse	0.30	3
2	Rh		1,204,764.67	0.28	87.1	Pulse	0.30	3
2	In		387,722.41	0.70	87.7	Pulse	0.30	3
2	Tb		1,532,179.66	0.09	92.6	Pulse	0.30	3
2	Ho		155,756.06	0.74	93.0	Pulse	0.30	3
2	Bi		970,402.15	0.34	88.8	Pulse	0.30	3
3	Sc		116,521.89	0.34	102.3	Pulse	0.30	3
3	Ge		73,075.73	1.32	96.6	Pulse	0.30	3
3	Ge		110,841.93	0.45	96.9	Pulse	0.30	3
3	Rh		1,141,097.00	0.61	92.3	Pulse	0.30	3
3	Tb		1,798,927.77	0.62	100.8	Pulse	0.30	3

Quantitation Report

File Name 083SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 21:04
Sample Name mp16329-mb1 5
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/12/2019 7:25
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.005	ug/l	-112.82	16.00	9.840E-06	Pulse	0.25	3
B			1	14.145	ug/l	1.16	34,021.02	2.077E-02	Pulse	0.15	3
Ca			1	36.963	ug/l	12.44	24,562.40	1.048E-02	Pulse	0.10	3
Sr			1	0.382	ug/l	9.25	7,985.61	2.629E-03	Pulse	0.10	3
Mo			1	0.012	ug/l	40.61	200.01	6.585E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	86.09	60.00	1.906E-05	Pulse	0.10	3
Sn			1	-0.147	ug/l	-8.22	1,790.17	5.670E-04	Pulse	0.10	3
Sb			1	-0.064	ug/l	-5.86	496.69	1.159E-04	Pulse	0.10	3
Ba			1	0.033	ug/l	41.81	136.67	3.200E-05	Pulse	0.10	3
Tl			1	-0.005	ug/l	-41.40	370.02	1.495E-04	Pulse	0.10	3
Pb			1	-0.021	ug/l	-46.78	126.67	5.106E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-110.89	136.67	5.532E-05	Pulse	0.10	3
Pb			1	-0.007	ug/l	-66.03	586.70	2.369E-04	Pulse	0.10	3
Na			2	14.063	ug/l	9.87	10,990.73	1.406E-01	Pulse	0.30	3
Mg			2	-2.504	ug/l	-3.10	132.23	1.692E-03	Pulse	0.30	3
Al			2	-7.862	ug/l	-2.18	70.00	8.958E-04	Pulse	0.30	3
K			2	7.744	ug/l	19.02	7,690.74	9.840E-02	Pulse	0.30	3
Ca			2	22.254	ug/l	22.68	232.23	2.972E-03	Pulse	0.30	3
Ti			2	-0.078	ug/l	-47.49	1.11	1.412E-05	Pulse	0.30	3
V			2	0.004	ug/l	472.36	116.67	1.492E-03	Pulse	0.30	3
Cr			2	-0.044	ug/l	-44.31	292.23	3.739E-03	Pulse	0.30	3
Mn			2	0.036	ug/l	15.90	86.67	1.108E-03	Pulse	0.30	3
Fe			2	-2.912	ug/l	-1.62	3,659.33	4.682E-02	Pulse	0.30	3
Co			2	-0.003	ug/l	-69.21	43.32	5.541E-04	Pulse	0.30	3
Ni			2	0.016	ug/l	18.97	46.67	5.969E-04	Pulse	0.30	3
Cu			2	0.011	ug/l	82.84	501.12	6.412E-03	Pulse	0.30	3
Zn			2	0.002	ug/l	3307.76	208.89	2.673E-03	Pulse	0.30	3
As			2	-0.026	ug/l	-55.03	4.67	5.958E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.019	ug/l	-18.96	1.10	2.641E-06	Pulse	0.30	3
Sn			2	-0.077	ug/l	-9.26	302.23	7.308E-04	Pulse	0.30	3
Se			3	-0.058	ug/l	-47.19	3.80	3.475E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,638,375.85	0.98	92.8	Pulse	0.10	3
1	Sc		2,345,794.50	1.67	90.9	Pulse	0.10	3
1	Ge		451,019.87	1.62	91.6	Pulse	0.10	3
1	Ge		635,992.31	1.87	93.8	Pulse	0.10	3
1	Rh		3,039,962.46	1.61	94.6	Pulse	0.10	3
1	In		3,157,247.03	1.10	96.7	Pulse	0.10	3
1	Tb		4,285,604.31	1.75	99.4	Pulse	0.10	3
1	Ho		422,023.03	2.07	99.6	Pulse	0.10	3
1	Bi		2,474,563.82	1.33	99.6	Pulse	0.10	3
2	Sc		78,164.17	0.58	91.6	Pulse	0.30	3
2	Ge		46,035.90	1.52	93.5	Pulse	0.30	3
2	Ge		69,807.50	0.76	93.8	Pulse	0.30	3
2	Rh		1,304,429.32	0.25	94.3	Pulse	0.30	3
2	In		413,525.96	0.68	93.6	Pulse	0.30	3
2	Tb		1,578,412.40	0.77	95.4	Pulse	0.30	3
2	Ho		160,625.92	0.68	95.9	Pulse	0.30	3
2	Bi		1,055,042.28	0.52	96.6	Pulse	0.30	3
3	Sc		112,310.18	1.19	98.6	Pulse	0.30	3
3	Ge		72,029.11	0.19	95.2	Pulse	0.30	3
3	Ge		109,395.76	0.27	95.7	Pulse	0.30	3
3	Rh		1,212,925.99	0.17	98.1	Pulse	0.30	3
3	Tb		1,784,863.75	0.54	100.1	Pulse	0.30	3

Quantitation Report

File Name 084SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File
Method Path
Acq Time 7/11/2019 21:09
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/11/2019 16:07
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-98.10	22.67	1.405E-05	Pulse	0.25	3
B			1	5.167	ug/l	3.04	24,651.63	1.528E-02	Pulse	0.15	3
Ca			1	0.935	ug/l	21.25	10,250.24	4.443E-03	Pulse	0.10	3
Sr			1	0.026	ug/l	13.38	1,373.45	4.571E-04	Pulse	0.10	3
Mo			1	0.000	ug/l	956.51	153.34	5.101E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	73.73	56.67	1.809E-05	Pulse	0.10	3
Sn			1	-0.079	ug/l	-4.07	1,716.82	5.479E-04	Pulse	0.10	3
Sb			1	-0.045	ug/l	-3.00	310.01	7.306E-05	Pulse	0.10	3
Ba			1	0.005	ug/l	138.84	66.67	1.569E-05	Pulse	0.10	3
Tl			1	-0.005	ug/l	-24.57	296.68	1.202E-04	Pulse	0.10	3
Pb			1	-0.012	ug/l	-18.37	103.33	4.192E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-281.67	156.68	6.358E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-20.87	526.69	2.136E-04	Pulse	0.10	3
Na			2	2.878	ug/l	10.87	7,622.91	9.763E-02	Pulse	0.30	3
Mg			2	-1.281	ug/l	-2.53	121.11	1.551E-03	Pulse	0.30	3
Al			2	-4.296	ug/l	-3.17	45.56	5.826E-04	Pulse	0.30	3
K			2	2.260	ug/l	29.21	7,301.65	9.352E-02	Pulse	0.30	3
Ca			2	-0.930	ug/l	-298.84	76.67	9.833E-04	Pulse	0.30	3
Ti			2	-0.039	ug/l	-48.30	1.11	1.431E-05	Pulse	0.30	3
V			2	0.001	ug/l	146.02	112.22	1.437E-03	Pulse	0.30	3
Cr			2	-0.021	ug/l	-75.22	296.67	3.799E-03	Pulse	0.30	3
Mn			2	0.007	ug/l	222.48	62.22	7.963E-04	Pulse	0.30	3
Fe			2	-1.508	ug/l	-1.11	3,474.85	4.450E-02	Pulse	0.30	3
Co			2	0.001	ug/l	280.08	59.99	7.681E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	434.77	35.56	4.562E-04	Pulse	0.30	3
Cu			2	-0.003	ug/l	-42.93	451.12	5.778E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.042	ug/l	-63.35	176.67	2.264E-03	Pulse	0.30	3
As			2	-0.003	ug/l	-49.46	8.67	1.110E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	10316.16	11.10	2.713E-05	Pulse	0.30	3
Sn			2	-0.034	ug/l	-58.33	307.78	7.518E-04	Pulse	0.30	3
Se			3	-0.040	ug/l	-19.43	2.60	2.382E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,613,378.93	0.55	91.3	Pulse	0.10	3
1	Sc		2,306,976.74	0.80	89.4	Pulse	0.10	3
1	Ge		446,800.78	1.07	90.8	Pulse	0.10	3
1	Ge		620,063.60	0.32	91.5	Pulse	0.10	3
1	Rh		3,003,979.65	0.56	93.5	Pulse	0.10	3
1	In		3,133,457.91	0.46	96.0	Pulse	0.10	3
1	Tb		4,244,219.10	0.96	98.4	Pulse	0.10	3
1	Ho		417,837.05	1.06	98.6	Pulse	0.10	3
1	Bi		2,466,792.46	1.49	99.3	Pulse	0.10	3
2	Sc		78,087.06	0.67	91.5	Pulse	0.30	3
2	Ge		45,206.87	0.60	91.8	Pulse	0.30	3
2	Ge		68,823.20	0.48	92.5	Pulse	0.30	3
2	Rh		1,282,765.26	0.65	92.7	Pulse	0.30	3
2	In		409,034.81	0.98	92.6	Pulse	0.30	3
2	Tb		1,560,650.88	0.60	94.3	Pulse	0.30	3
2	Ho		157,889.92	0.95	94.3	Pulse	0.30	3
2	Bi		1,046,580.31	0.30	95.8	Pulse	0.30	3
3	Sc		111,818.59	0.69	98.1	Pulse	0.30	3
3	Ge		70,988.82	0.77	93.8	Pulse	0.30	3
3	Ge		108,950.53	0.95	95.3	Pulse	0.30	3
3	Rh		1,210,539.43	0.80	97.9	Pulse	0.30	3
3	Tb		1,773,702.15	0.60	99.4	Pulse	0.30	3

Quantitation Report

File Name	085SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 21:14
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.003	ug/l	-65.38	16.00	9.908E-06	Pulse	0.25	3
B			1	4.457	ug/l	1.43	21,333.69	1.324E-02	Pulse	0.15	3
Ca			1	-0.327	ug/l	-66.11	9,232.88	4.009E-03	Pulse	0.10	3
Sr			1	0.011	ug/l	15.09	763.38	2.565E-04	Pulse	0.10	3
Mo			1	0.002	ug/l	603.42	163.34	5.471E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	79.38	50.00	1.623E-05	Pulse	0.10	3
Sn			1	-0.078	ug/l	-17.42	1,693.49	5.488E-04	Pulse	0.10	3
Sb			1	-0.042	ug/l	-13.38	350.02	8.418E-05	Pulse	0.10	3
Ba			1	0.006	ug/l	30.27	70.00	1.683E-05	Pulse	0.10	3
Tl			1	-0.007	ug/l	-16.36	220.01	8.982E-05	Pulse	0.10	3
Pb			1	-0.011	ug/l	-29.75	123.34	5.028E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-173.69	140.01	5.712E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-31.85	546.69	2.231E-04	Pulse	0.10	3
Na			2	2.056	ug/l	5.87	6,899.26	8.912E-02	Pulse	0.30	3
Mg			2	-1.368	ug/l	-4.87	87.78	1.133E-03	Pulse	0.30	3
Al			2	-4.255	ug/l	-4.09	50.00	6.450E-04	Pulse	0.30	3
K			2	2.897	ug/l	10.53	7,388.37	9.545E-02	Pulse	0.30	3
Ca			2	-2.628	ug/l	-14.87	54.44	7.032E-04	Pulse	0.30	3
Ti			2	-0.050	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	-0.003	ug/l	-56.02	96.67	1.249E-03	Pulse	0.30	3
Cr			2	-0.015	ug/l	-43.65	317.78	4.105E-03	Pulse	0.30	3
Mn			2	0.005	ug/l	115.05	57.78	7.469E-04	Pulse	0.30	3
Fe			2	-1.596	ug/l	-1.21	3,143.68	4.061E-02	Pulse	0.30	3
Co			2	0.003	ug/l	107.97	76.66	9.894E-04	Pulse	0.30	3
Ni			2	0.008	ug/l	59.42	46.67	6.025E-04	Pulse	0.30	3
Cu			2	0.003	ug/l	171.71	482.23	6.228E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.031	ug/l	-129.47	183.34	2.368E-03	Pulse	0.30	3
As			2	-0.015	ug/l	-41.72	3.67	4.747E-05	Pulse	1.00	3
Cd			2	-0.006	ug/l	-77.22	4.44	1.083E-05	Pulse	0.30	3
Sn			2	-0.052	ug/l	-24.21	270.00	6.621E-04	Pulse	0.30	3
Se			3	-0.031	ug/l	-27.79	3.53	3.284E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,611,583.59	0.70	91.2	Pulse	0.10	3
1	Sc		2,303,325.07	1.25	89.2	Pulse	0.10	3
1	Ge		447,291.63	1.10	90.9	Pulse	0.10	3
1	Ge		617,035.37	1.55	91.0	Pulse	0.10	3
1	Rh		2,974,374.95	1.30	92.5	Pulse	0.10	3
1	In		3,085,590.87	0.89	94.5	Pulse	0.10	3
1	Tb		4,154,967.85	1.03	96.3	Pulse	0.10	3
1	Ho		413,235.53	0.99	97.5	Pulse	0.10	3
1	Bi		2,451,500.59	0.97	98.7	Pulse	0.10	3
2	Sc		77,410.97	0.50	90.7	Pulse	0.30	3
2	Ge		45,302.72	0.69	92.0	Pulse	0.30	3
2	Ge		67,871.46	1.45	91.2	Pulse	0.30	3
2	Rh		1,287,767.27	0.66	93.1	Pulse	0.30	3
2	In		407,750.36	0.76	92.3	Pulse	0.30	3
2	Tb		1,549,447.44	0.56	93.6	Pulse	0.30	3
2	Ho		155,880.00	0.39	93.1	Pulse	0.30	3
2	Bi		1,036,071.90	0.50	94.8	Pulse	0.30	3
3	Sc		112,203.87	0.72	98.5	Pulse	0.30	3
3	Ge		71,199.83	1.11	94.1	Pulse	0.30	3
3	Ge		107,553.51	0.26	94.1	Pulse	0.30	3
3	Rh		1,213,902.49	0.69	98.2	Pulse	0.30	3
3	Tb		1,773,370.07	0.70	99.4	Pulse	0.30	3

Quantitation Report

File Name	086_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 21:19
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.871	ug/l	0.26	313,431.05	1.957E-01	Pulse	0.25	3
B			1	102.061	ug/l	0.96	471,108.87	2.942E-01	Pulse	0.15	3
Ca			1	5102.182	ug/l	0.22	4,052,423.69	1.759E+00	Pulse	0.10	3
Sr			1	53.355	ug/l	1.37	2,038,431.48	7.044E-01	Pulse	0.10	3
Mo			1	52.016	ug/l	1.07	390,755.71	1.350E-01	Pulse	0.10	3
Ag			1	49.692	ug/l	0.82	928,009.88	3.038E-01	Pulse	0.10	3
Sn			1	51.322	ug/l	1.10	605,079.99	1.981E-01	Pulse	0.10	3
Sb			1	52.813	ug/l	1.41	726,579.50	1.732E-01	Pulse	0.10	3
Ba			1	50.844	ug/l	2.10	289,053.94	6.889E-02	Pulse	0.10	3
Tl			1	51.999	ug/l	1.56	1,646,623.31	6.884E-01	Pulse	0.10	3
Pb			1	52.288	ug/l	1.10	566,118.61	2.367E-01	Pulse	0.10	3
Pb			1	51.899	ug/l	1.29	496,242.29	2.075E-01	Pulse	0.10	3
Pb			1	51.971	ug/l	0.86	2,274,421.82	9.509E-01	Pulse	0.10	3
Na			2	5057.054	ug/l	0.84	4,059,138.45	5.239E+01	Pulse	0.30	3
Mg			2	5041.390	ug/l	0.88	1,881,390.34	2.428E+01	Pulse	0.30	3
Al			2	4939.147	ug/l	1.06	585,000.03	7.550E+00	Pulse	0.30	3
K			2	5075.003	ug/l	0.62	1,197,147.73	1.545E+01	Pulse	0.30	3
Ca			2	5233.429	ug/l	0.91	66,961.30	8.643E-01	Pulse	0.30	3
Ti			2	49.124	ug/l	3.61	5,039.70	6.504E-02	Pulse	0.30	3
V			2	51.576	ug/l	0.87	178,117.52	2.299E+00	Pulse	0.30	3
Cr			2	50.936	ug/l	0.13	224,725.75	2.900E+00	Pulse	0.30	3
Mn			2	51.079	ug/l	0.57	108,781.38	1.404E+00	Pulse	0.30	3
Fe			2	5166.507	ug/l	0.42	17,751,399.85	2.291E+02	Analog	0.30	3
Co			2	50.238	ug/l	0.96	372,727.37	4.811E+00	Pulse	0.30	3
Ni			2	49.071	ug/l	0.91	99,132.10	1.279E+00	Pulse	0.30	3
Cu			2	48.796	ug/l	0.55	273,359.27	3.528E+00	Pulse	0.30	3
Zn			2	48.589	ug/l	1.55	36,246.74	4.678E-01	Pulse	0.30	3
As			2	50.225	ug/l	0.44	20,102.67	2.595E-01	Pulse	1.00	3
Cd			2	50.952	ug/l	1.16	52,013.09	1.306E-01	Pulse	0.30	3
Sn			2	51.424	ug/l	0.37	106,440.37	2.674E-01	Pulse	0.30	3
Se			3	203.339	ug/l	1.52	21,707.87	2.052E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,601,192.88	0.74	90.7	Pulse	0.10	3
1	Sc		2,303,273.92	0.60	89.2	Pulse	0.10	3
1	Ge		443,167.94	0.86	90.0	Pulse	0.10	3

Quantitation Report

1	Ge		617,456.56	1.14	91.1	Pulse	0.10	3
1	Rh		2,894,086.52	1.58	90.0	Pulse	0.10	3
1	In		3,054,436.76	0.69	93.5	Pulse	0.10	3
1	Tb		4,196,631.92	1.29	97.3	Pulse	0.10	3
1	Ho		415,096.36	0.16	98.0	Pulse	0.10	3
1	Bi		2,392,146.99	1.61	96.3	Pulse	0.10	3
2	Sc		77,481.05	0.66	90.8	Pulse	0.30	3
2	Ge		45,571.24	1.40	92.6	Pulse	0.30	3
2	Ge		67,655.19	0.22	90.9	Pulse	0.30	3
2	Rh		1,247,678.60	0.35	90.2	Pulse	0.30	3
2	In		398,122.59	0.81	90.1	Pulse	0.30	3
2	Tb		1,549,038.23	0.44	93.6	Pulse	0.30	3
2	Ho		156,508.66	0.62	93.5	Pulse	0.30	3
2	Bi		1,007,719.47	1.09	92.2	Pulse	0.30	3
3	Sc		111,206.26	0.61	97.6	Pulse	0.30	3
3	Ge		69,586.27	0.27	92.0	Pulse	0.30	3
3	Ge		105,821.18	1.07	92.6	Pulse	0.30	3
3	Rh		1,153,085.96	0.39	93.3	Pulse	0.30	3
3	Tb		1,745,412.12	0.79	97.8	Pulse	0.30	3

Quantitation Report

File Name	087_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 21:24
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.038	ug/l	21.08	269.34	1.688E-04	Pulse	0.25	3
B			1	7.251	ug/l	19.29	33,800.68	2.128E-02	Pulse	0.15	3
Ca			1	3.510	ug/l	108.28	11,984.76	5.329E-03	Pulse	0.10	3
Sr			1	0.044	ug/l	30.98	2,006.87	6.875E-04	Pulse	0.10	3
Mo			1	0.090	ug/l	40.26	813.38	2.833E-04	Pulse	0.10	3
Ag			1	0.042	ug/l	28.71	816.72	2.687E-04	Pulse	0.10	3
Sn			1	0.082	ug/l	83.89	3,563.90	1.166E-03	Pulse	0.10	3
Sb			1	0.123	ug/l	35.61	2,580.31	6.222E-04	Pulse	0.10	3
Ba			1	0.041	ug/l	44.99	266.68	6.547E-05	Pulse	0.10	3
Tl			1	0.045	ug/l	15.32	1,883.52	7.768E-04	Pulse	0.10	3
Pb			1	0.044	ug/l	14.94	720.05	2.963E-04	Pulse	0.10	3
Pb			1	0.054	ug/l	48.42	660.04	2.829E-04	Pulse	0.10	3
Pb			1	0.048	ug/l	28.35	2,833.55	1.184E-03	Pulse	0.10	3
Na			2	5.014	ug/l	9.13	9,132.56	1.197E-01	Pulse	0.30	3
Mg			2	2.154	ug/l	4.57	1,380.07	1.809E-02	Pulse	0.30	3
Al			2	-1.120	ug/l	-13.44	414.45	5.433E-03	Pulse	0.30	3
K			2	6.669	ug/l	17.10	8,149.85	1.069E-01	Pulse	0.30	3
Ca			2	1.505	ug/l	114.84	105.55	1.385E-03	Pulse	0.30	3
Ti			2	0.027	ug/l	138.55	7.78	1.018E-04	Pulse	0.30	3
V			2	0.036	ug/l	12.75	227.78	2.986E-03	Pulse	0.30	3
Cr			2	0.019	ug/l	44.75	462.23	6.061E-03	Pulse	0.30	3
Mn			2	0.038	ug/l	17.33	125.56	1.646E-03	Pulse	0.30	3
Fe			2	2.345	ug/l	1.32	16,420.46	2.153E-01	Pulse	0.30	3
Co			2	0.038	ug/l	10.26	327.74	4.296E-03	Pulse	0.30	3
Ni			2	0.059	ug/l	35.15	146.67	1.925E-03	Pulse	0.30	3
Cu			2	0.053	ug/l	20.56	748.91	9.819E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.067	ug/l	33.74	252.23	3.307E-03	Pulse	0.30	3
As			2	0.021	ug/l	72.49	18.00	2.363E-04	Pulse	1.00	3
Cd			2	0.029	ug/l	16.80	41.06	1.014E-04	Pulse	0.30	3
Sn			2	0.156	ug/l	11.58	703.36	1.736E-03	Pulse	0.30	3
Se			3	0.170	ug/l	15.08	25.20	2.359E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,628,894.98	19.95	92.2	Pulse	0.10	3
1	Sc		2,349,810.54	26.74	91.0	Pulse	0.10	3
1	Ge		448,451.70	19.24	91.1	Pulse	0.10	3
1	Ge		625,235.50	19.68	92.2	Pulse	0.10	3
1	Rh		3,046,720.63	27.25	94.8	Mix	0.10	3
1	In		3,180,534.71	26.21	97.4	Mix	0.10	3
1	Tb		4,332,985.25	28.14	100.5	Mix	0.10	3
1	Ho		419,861.52	26.48	99.1	Pulse	0.10	3
1	Bi		2,465,325.22	21.92	99.2	Pulse	0.10	3
2	Sc		76,273.30	0.57	89.4	Pulse	0.30	3
2	Ge		45,133.37	0.58	91.7	Pulse	0.30	3
2	Ge		68,475.09	0.40	92.0	Pulse	0.30	3
2	Rh		1,287,371.06	0.87	93.1	Pulse	0.30	3
2	In		405,107.47	0.39	91.7	Pulse	0.30	3
2	Tb		1,554,503.06	0.80	93.9	Pulse	0.30	3
2	Ho		156,574.00	0.71	93.5	Pulse	0.30	3
2	Bi		1,033,683.64	0.37	94.6	Pulse	0.30	3
3	Sc		111,128.21	1.03	97.5	Pulse	0.30	3
3	Ge		70,038.11	0.54	92.6	Pulse	0.30	3
3	Ge		106,891.23	0.72	93.5	Pulse	0.30	3
3	Rh		1,190,992.24	0.58	96.4	Pulse	0.30	3
3	Tb		1,749,629.23	0.33	98.1	Pulse	0.30	3

Quantitation Report

File Name	088SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071119m2.b
Method File	
Method Path	
Acq Time	7/11/2019 21:29
Sample Name	mp16335a-mb1 3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/11/2019 16:07
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

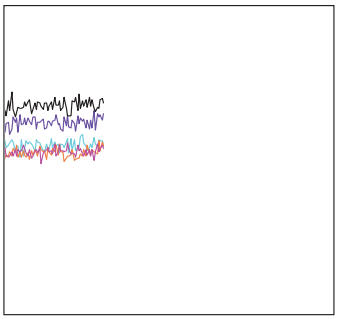
Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.088	ug/l	14.47	312.01	1.928E-04	Pulse	0.25	3
B			1	12.536	ug/l	1.82	29,830.90	1.845E-02	Pulse	0.15	3
Ca			1	60.294	ug/l	1.62	32,950.13	1.449E-02	Pulse	0.10	3
Sr			1	8.244	ug/l	0.26	160,204.78	5.452E-02	Pulse	0.10	3
Mo			1	0.099	ug/l	39.87	523.37	1.781E-04	Pulse	0.10	3
Ag			1	0.025	ug/l	20.36	260.01	8.448E-05	Pulse	0.10	3
Sn			1	0.649	ug/l	13.14	6,461.58	2.097E-03	Pulse	0.10	3
Sb			1	0.112	ug/l	8.90	1,710.17	4.037E-04	Pulse	0.10	3
Ba			1	5.641	ug/l	2.87	16,225.70	3.830E-03	Pulse	0.10	3
Tl			1	0.007	ug/l	122.81	570.03	2.271E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	72.71	390.02	1.554E-04	Pulse	0.10	3
Pb			1	0.033	ug/l	4.81	333.35	1.329E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	17.45	1,480.09	5.897E-04	Pulse	0.10	3
Na			2	32.154	ug/l	4.51	17,682.70	2.342E-01	Pulse	0.30	3
Mg			2	2.508	ug/l	12.90	1,038.93	1.376E-02	Pulse	0.30	3
Al			2	19.467	ug/l	4.90	1,662.33	2.201E-02	Pulse	0.30	3
K			2	15.506	ug/l	16.46	8,317.72	1.101E-01	Pulse	0.30	3
Ca			2	89.744	ug/l	7.93	644.46	8.537E-03	Pulse	0.30	3
Ti			2	0.146	ug/l	70.02	12.22	1.620E-04	Pulse	0.30	3
V			2	0.137	ug/l	10.42	335.56	4.445E-03	Pulse	0.30	3
Cr			2	0.198	ug/l	17.64	800.03	1.060E-02	Pulse	0.30	3
Mn			2	0.380	ug/l	12.37	441.12	5.837E-03	Pulse	0.30	3
Fe			2	0.439	ug/l	24.15	9,143.74	1.211E-01	Pulse	0.30	3
Co			2	0.131	ug/l	12.50	524.44	6.940E-03	Pulse	0.30	3
Ni			2	0.633	ug/l	12.40	652.24	8.644E-03	Pulse	0.30	3
Cu			2	12.928	ug/l	1.49	35,686.58	4.726E-01	Pulse	0.30	3
Zn			2	8.110	ug/l	4.35	3,133.68	4.149E-02	Pulse	0.30	3
As			2	0.074	ug/l	24.52	24.00	3.178E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-671.35	9.97	2.559E-05	Pulse	0.30	3
Sn			2	0.738	ug/l	16.99	1,107.83	2.841E-03	Pulse	0.30	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	2726	2739.6	2.79
59	5000	3252	3109.3	2.84
89	10000	5459	5233.0	2.92
140	10000	5364	5268.8	2.56
205	5000	3426	3382.9	2.73
156/140	1	0.727 %	0.566 %	21.69
70/140	5	2.759 %	3.061 %	9.11
9	20	1	0.7	130.39
11	1000	466	490.3	4.52
88	100	47	41.4	17.85
95	20	2	2.8	63.46
107	20	1	1.0	114.29
121	50	18	18.6	23.43
137	50	6	8.9	40.32
208	50	16	20.0	24.32
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-38	V
Extract 2	-180.0	V	Cell Exit	-60	V
Omega Bias	-90	V	Deflect	15.2	V
Omega Lens	7.0	V	Plate Bias	-40	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.57E+2	Pa	S/C Temp (L)	1.9	℃
Water Temp	30.6	℃	Carrier Gas(BP)	1.69E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

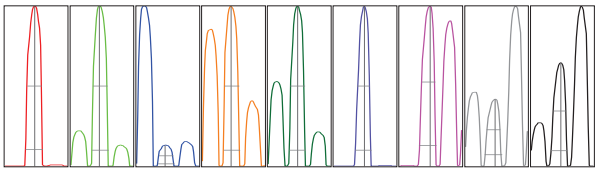
Batch Folder C:\Agilent\ICPMH\1\DATA\xa071119m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	81860	0.46	5.00	
24	306575	0.47	5.00	
25	40713	0.68	5.00	
26	46284	0.73	5.00	
59	378134	0.36	5.00	
115	536280	0.33	5.00	
206	132091	0.48	5.00	
207	121364	0.34	5.00	
208	285324	0.28	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	81762	81831	81560	81640	82508
24	304964	306391	305746	306978	308797
25	40278	40714	40713	40816	41045
26	46392	45794	46578	46085	46568
59	377201	376808	380031	377623	379007
115	537715	534133	534677	536811	538065
206	131649	131956	131438	132373	133041
207	121217	121698	120860	121882	121165
208	285899	284174	284865	285550	286133

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	12572	8.95	8.9 - 9.1		0.810	0.900	
24	49064	23.90	23.9 - 24.1		0.773	0.900	
25	6371	24.90	24.9 - 25.1		0.779	0.900	
26	7471	25.90	25.9 - 26.1		0.769	0.900	
59	63583	58.95	58.9 - 59.1		0.758	0.900	
115	96083	115.00	114.9 - 115.1		0.739	0.900	
206	21944	206.00	205.9 - 206.1		0.772	0.900	
207	19909	206.95	206.9 - 207.1		0.762	0.900	
208	47436	207.95	207.9 - 208.1		0.765	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

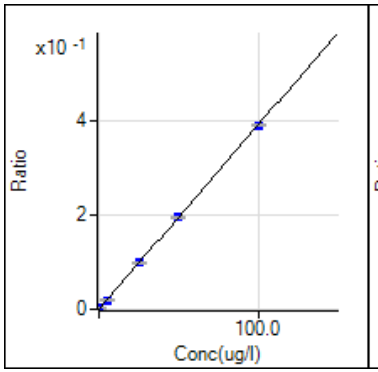
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.0	V			
Extract 2	-180.0	V	Cell Entrance	-38	V			
Omega Bias	-90	V	Cell Exit	-60	V			
Deflect	15.2	V						

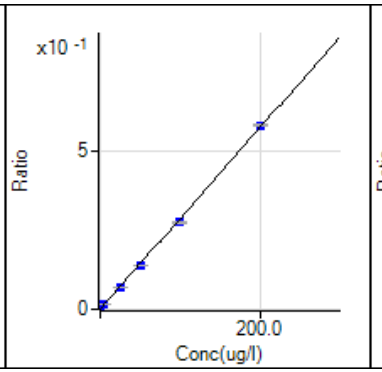
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

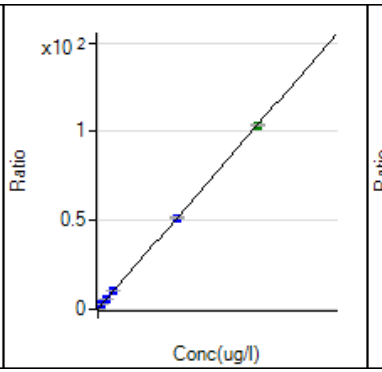
Calibration for C:\Agilent\ICPMH\1\DATA\xa071119m2.b\099_CCB.d



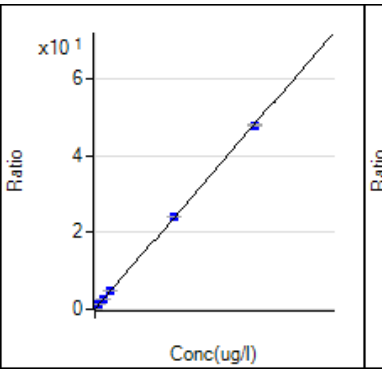
9 Be [1] / ISTD: 6 Li
y = 3.925E-3 x + 1.987E-5
R 1.0000
DL 0.002694
BEC 0.005063



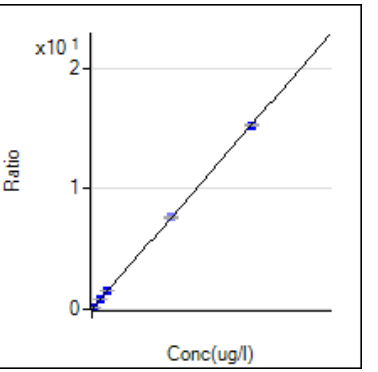
11 B [1] / ISTD: 6 Li
y = 2.879E-3 x + 4.059E-4
R 0.9993
DL 0.1037
BEC 0.141



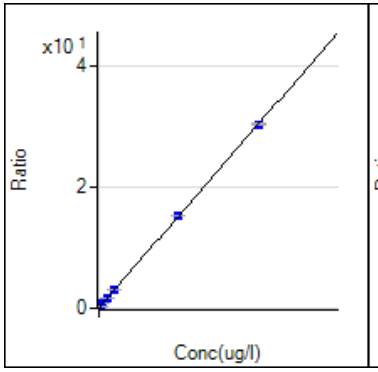
23 Na [2] / ISTD: 45 Sc
y = 1.035E-2 x + 6.785E-2
R 1.0000
DL 0.4801
BEC 6.558



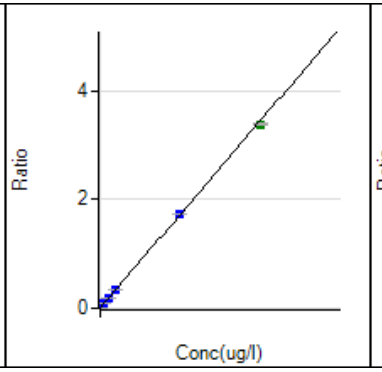
24 Mg [2] / ISTD: 45 Sc
y = 4.815E-3 x + 7.721E-3
R 1.0000
DL 0.4368
BEC 1.603



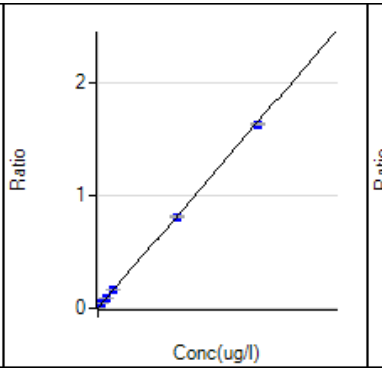
27 Al [2] / ISTD: 45 Sc
y = 1.528E-3 x + 6.901E-3
R 1.0000
DL 0.2586
BEC 4.517



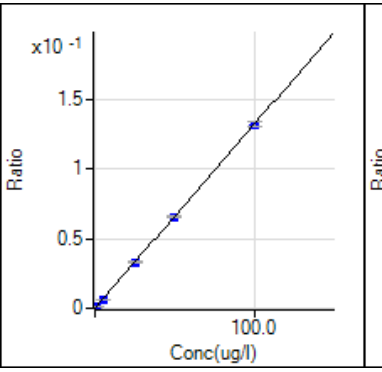
39 K [2] / ISTD: 45 Sc
y = 3.027E-3 x + 8.667E-2
R 1.0000
DL 1.39
BEC 28.63



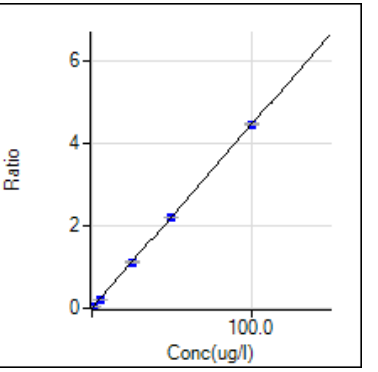
44 Ca [1] / ISTD: 45 Sc
y = 3.440E-4 x + 4.121E-3
R 1.0000
DL 1.052
BEC 11.98



44 Ca [2] / ISTD: 45 Sc
y = 1.649E-4 x + 1.137E-3
R 1.0000
DL 1.478
BEC 6.892

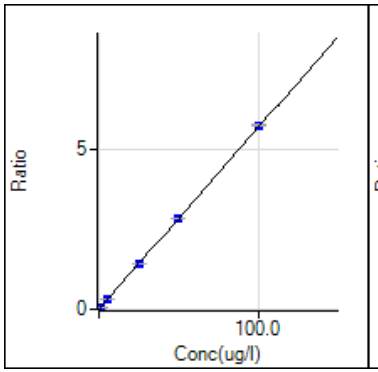


47 Ti [2] / ISTD: 45 Sc
y = 1.323E-3 x + 6.561E-5
R 1.0000
DL 0.1371
BEC 0.0496

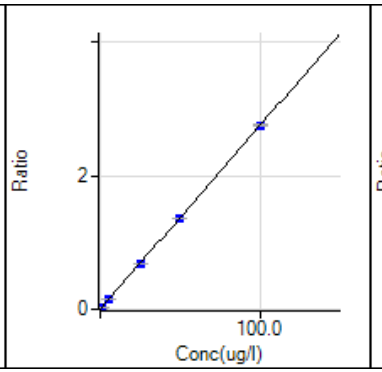


51 V [2] / ISTD: 45 Sc
y = 4.455E-2 x + 1.398E-3
R 1.0000
DL 0.04367
BEC 0.03138

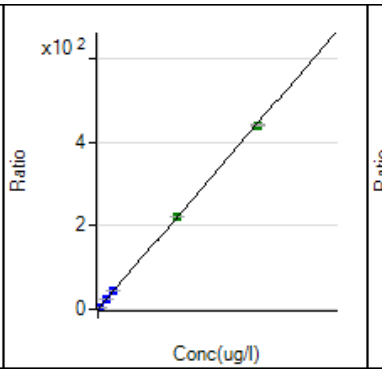
Calibration for C:\Agilent\ICPMH\1\DATA\xa071119m2.b\099_CCB.d



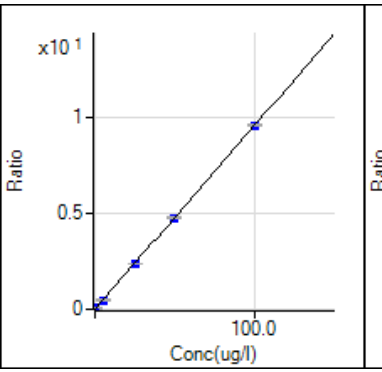
52 Cr [2] / ISTD: 45 Sc
y = 5.684E-2 x + 4.977E-3
R 1.0000
DL 0.02767
BEC 0.08755



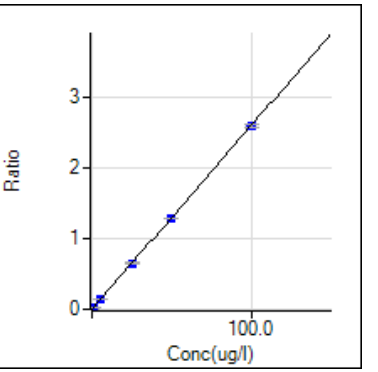
55 Mn [2] / ISTD: 45 Sc
y = 2.748E-2 x + 6.121E-4
R 1.0000
DL 0.004678
BEC 0.02228



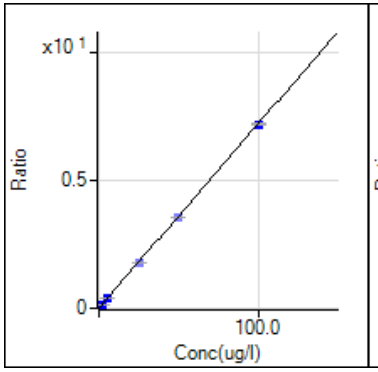
56 Fe [2] / ISTD: 45 Sc
y = 4.432E-2 x + 1.114E-1
R 1.0000
DL 0.121
BEC 2.512



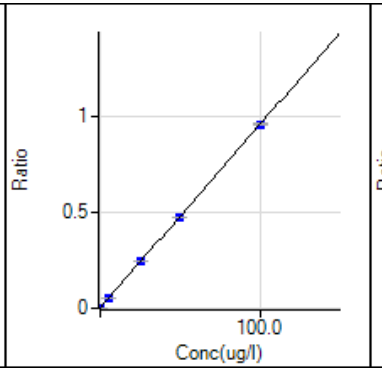
59 Co [2] / ISTD: 45 Sc
y = 9.575E-2 x + 6.757E-4
R 1.0000
DL 0.007572
BEC 0.007057



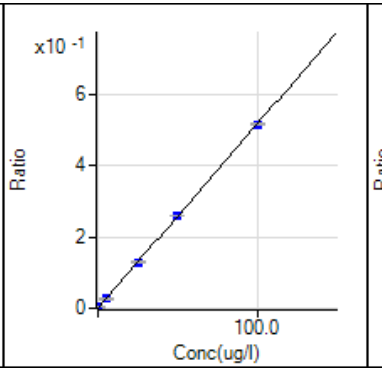
60 Ni [2] / ISTD: 45 Sc
y = 2.607E-2 x + 3.901E-4
R 1.0000
DL 0.009563
BEC 0.01497



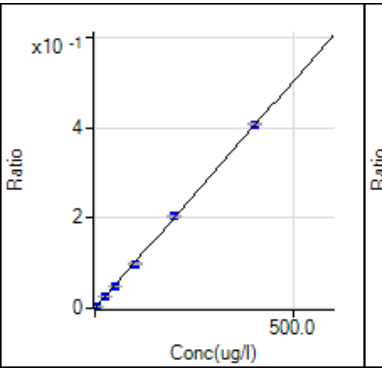
63 Cu [2] / ISTD: 45 Sc
y = 7.218E-2 x + 6.018E-3
R 1.0000
DL 0.008467
BEC 0.08337



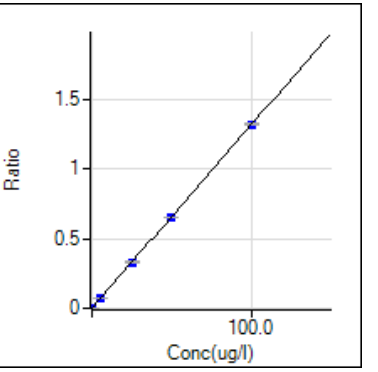
66 Zn [2] / ISTD: 45 Sc
y = 9.574E-3 x + 2.662E-3
R 1.0000
DL 0.1163
BEC 0.2781



75 As [2] / ISTD: 45 Sc
y = 5.163E-3 x + 1.259E-4
R 1.0000
DL 0.02328
BEC 0.02439

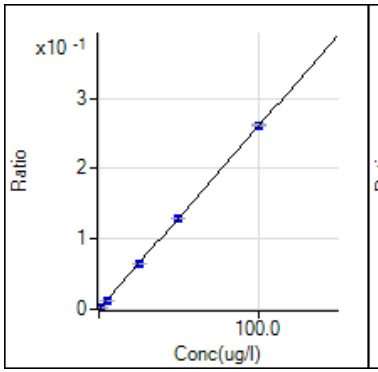


78 Se [3] / ISTD: 74 Ge
y = 1.009E-3 x + 6.412E-5
R 1.0000
DL 0.005817
BEC 0.06357

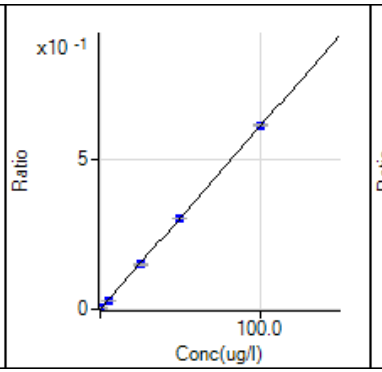


88 Sr [1] / ISTD: 103 Rh
y = 1.320E-2 x + 1.100E-4
R 1.0000
DL 0.006843
BEC 0.008332

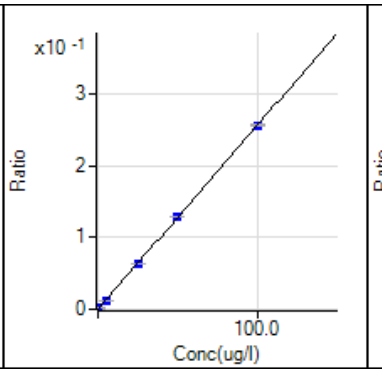
Calibration for C:\Agilent\ICPMH\1\DATA\xa071119m2.b\099_CCB.d



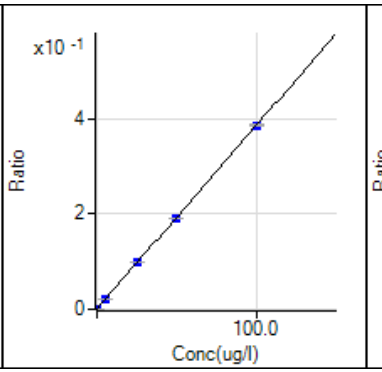
95 Mo [1] / ISTD: 103 Rh
y = 2.595E-3 x + 4.997E-5
R 1.0000
DL 0.01405
BEC 0.01926



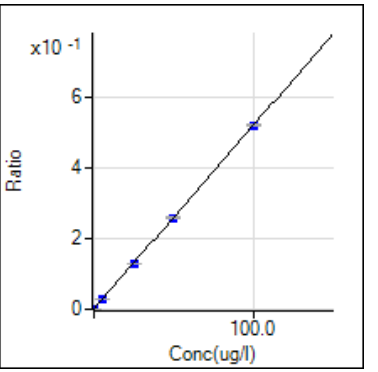
107 Ag [1] / ISTD: 115 In
y = 6.114E-3 x + 9.036E-6
R 1.0000
DL 0.002655
BEC 0.001478



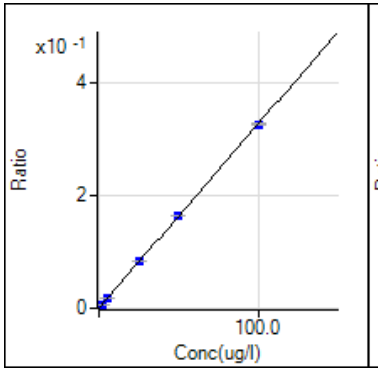
111 Cd [2] / ISTD: 115 In
y = 2.564E-3 x + 2.687E-5
R 1.0000
DL 0.005172
BEC 0.01048



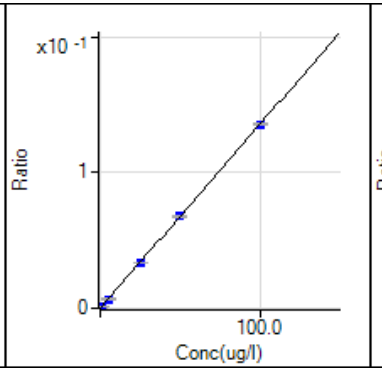
118 Sn [1] / ISTD: 115 In
y = 3.844E-3 x + 8.496E-4
R 1.0000
DL 0.02699
BEC 0.2211



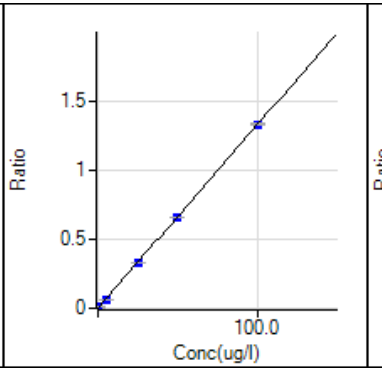
118 Sn [2] / ISTD: 115 In
y = 5.181E-3 x + 9.297E-4
R 1.0000
DL 0.1085
BEC 0.1794



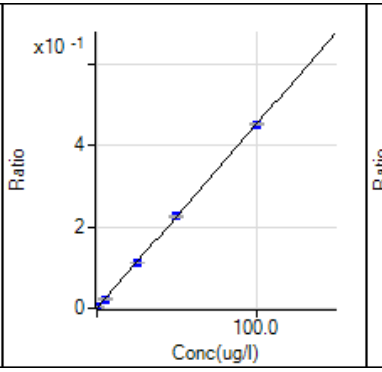
121 Sb [1] / ISTD: 159 Tb
y = 3.274E-3 x + 2.208E-4
R 1.0000
DL 0.0161
BEC 0.06744



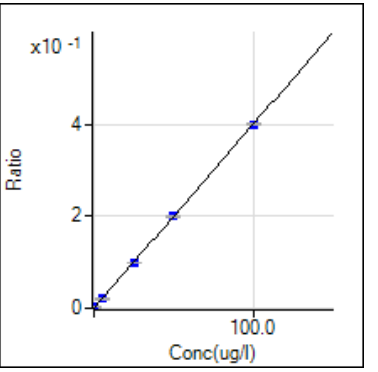
137 Ba [1] / ISTD: 159 Tb
y = 1.355E-3 x + 9.322E-6
R 1.0000
DL 0.01789
BEC 0.006881



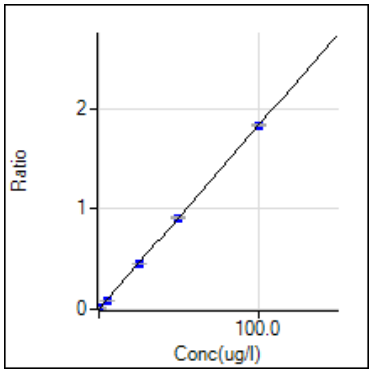
205 Tl [1] / ISTD: 209 Bi
y = 1.324E-2 x + 1.831E-4
R 1.0000
DL 0.002503
BEC 0.01383



206 Pb [1] / ISTD: 209 Bi
y = 4.525E-3 x + 9.800E-5
R 1.0000
DL 0.01475
BEC 0.02166



207 Pb [1] / ISTD: 209 Bi
y = 3.996E-3 x + 6.741E-5
R 1.0000
DL 0.009836
BEC 0.01687



208 Pb [1] / ISTD: 209 Bi

y = 1.829E-2 x + 3.040E-4

R	1.0000
DL	0.004727
BEC	0.01662

Quantitation Report

File Name 001CALB.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 10:19
Sample Name STDA 4
Sample Type CalBlk
Comment 0
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	41.87	72.00	3.918E-05	Pulse	0.25	3
B			1	0.930	ug/l	2.53	2,191.31	1.191E-03	Pulse	0.15	3
Ca			1	-0.104	ug/l	-356.37	8,512.51	3.121E-03	Pulse	0.10	3
Sr			1	0.001	ug/l	74.77	410.02	1.118E-04	Pulse	0.10	3
Mo			1	-0.001	ug/l	-596.64	106.67	2.909E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	-386.83	6.67	1.749E-06	Pulse	0.10	3
Sn			1	-0.230	ug/l	-4.78	2,163.57	5.700E-04	Pulse	0.10	3
Sb			1	-0.005	ug/l	-34.54	320.01	6.106E-05	Pulse	0.10	3
Ba			1	-0.005	ug/l	-66.75	40.00	7.645E-06	Pulse	0.10	3
Tl			1	-0.004	ug/l	-57.79	490.03	1.626E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	11.65	666.71	2.212E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	451.93	600.04	1.993E-04	Pulse	0.10	3
Pb			1	-0.096	ug/l	-4.94	2,693.54	8.939E-04	Pulse	0.10	3
Na			2	0.011	ug/l	937.32	3,960.51	5.120E-02	Pulse	0.30	3
Mg			2	-0.041	ug/l	-61.21	48.89	6.319E-04	Pulse	0.30	3
Al			2	-0.063	ug/l	-1.57	43.33	5.601E-04	Pulse	0.30	3
K			2	-0.171	ug/l	-251.54	5,096.39	6.588E-02	Pulse	0.30	3
Ca			2	-5.800	ug/l	-9.63	36.67	4.741E-04	Pulse	0.30	3
Ti			2	-0.026	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.002	ug/l	109.24	58.89	7.611E-04	Pulse	0.30	3
Cr			2	0.008	ug/l	92.88	330.01	4.266E-03	Pulse	0.30	3
Mn			2	-0.005	ug/l	-79.63	45.55	5.887E-04	Pulse	0.30	3
Fe			2	-0.011	ug/l	-128.85	2,624.69	3.393E-02	Pulse	0.30	3
Co			2	-0.002	ug/l	-17.26	37.77	4.883E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	110.79	98.89	1.278E-03	Pulse	0.30	3
Cu			2	-0.014	ug/l	-60.39	591.13	7.641E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.012	ug/l	480.52	475.57	6.148E-03	Pulse	0.30	3
As			2	0.005	ug/l	123.95	7.00	9.052E-05	Pulse	1.00	3
Cd			2	-0.004	ug/l	-117.63	4.44	9.834E-06	Pulse	0.30	3
Sn			2	0.016	ug/l	76.52	355.56	7.865E-04	Pulse	0.30	3
Se			3	-0.005	ug/l	-154.11	1.27	1.029E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,840,159.90	1.72	100.0	Pulse	0.10	3
1	Sc		2,728,405.79	1.79	100.0	Pulse	0.10	3
1	Ge		541,265.48	0.54	100.0	Pulse	0.10	3
1	Ge		747,398.29	1.61	100.0	Pulse	0.10	3
1	Rh		3,664,112.76	1.20	100.0	Pulse	0.10	3
1	In		3,795,214.58	0.90	100.0	Pulse	0.10	3
1	Tb		5,239,465.86	0.90	100.0	Pulse	0.10	3
1	Ho		518,607.14	0.83	100.0	Pulse	0.10	3
1	Bi		3,013,776.72	0.78	100.0	Pulse	0.10	3
2	Sc		77,359.22	0.22	100.0	Pulse	0.30	3
2	Ge		48,103.96	1.06	100.0	Pulse	0.30	3
2	Ge		72,637.40	1.02	100.0	Pulse	0.30	3
2	Rh		1,501,736.16	0.34	100.0	Pulse	0.30	3
2	In		451,975.50	0.52	100.0	Pulse	0.30	3
2	Tb		1,862,487.08	0.51	100.0	Pulse	0.30	3
2	Ho		188,499.70	0.56	100.0	Pulse	0.30	3
2	Bi		1,249,147.80	0.64	100.0	Pulse	0.30	3
3	Sc		123,037.91	0.40	100.0	Pulse	0.30	3
3	Ge		80,540.47	1.03	100.0	Pulse	0.30	3
3	Ge		123,141.25	0.39	100.0	Pulse	0.30	3
3	Rh		1,403,454.25	0.56	100.0	Pulse	0.30	3
3	Tb		2,113,022.35	0.82	100.0	Pulse	0.30	3

Quantitation Report

File Name 002CALB.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 10:24
Sample Name STDAconf
Sample Type CalBlk
Comment 0
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	1.899	ug/l	23.95	5.33	5.955E-03	Pulse	0.25	3
B			1	139.595	ug/l	17.73	268.90	3.149E-01	Pulse	0.15	3
Ca			1	118891.313	ug/l	7.29	5,194.43	3.565E+01	Pulse	0.10	3
Sr			1	1.410	ug/l	104.79	10.00	1.528E-02	Pulse	0.10	3
Mo			1	4.501	ug/l	173.76	6.67	9.523E-03	Pulse	0.10	3
Ag			1	2.548	ug/l	173.24	3.33	1.265E-02	Pulse	0.10	3
Sn			1	446.518	ug/l	22.51	420.02	1.403E+00	Pulse	0.10	3
Sb			1		ug/l	---	43.33		Pulse	0.10	3
Ba			1		ug/l	---	6.67		Pulse	0.10	3
Tl			1	2.412	ug/l	19.03	160.01	2.651E-02	Pulse	0.10	3
Pb			1	3.948	ug/l	9.75	90.00	1.486E-02	Pulse	0.10	3
Pb			1	4.435	ug/l	28.45	90.00	1.485E-02	Pulse	0.10	3
Pb			1	3.705	ug/l	9.87	350.01	5.782E-02	Pulse	0.10	3
Na			2	-1.676	ug/l	-319.77	4,261.72	3.702E-02	Pulse	0.30	3
Mg			2	-0.025	ug/l	-517.28	174.47	6.971E-04	Pulse	0.30	3
Al			2	0.943	ug/l	86.81	403.40	1.810E-03	Pulse	0.30	3
K			2	-18.552	ug/l	-39.50	3,558.25	2.163E-02	Pulse	0.30	3
Ca			2	-7.951	ug/l	-6.75	52.22	1.830E-04	Pulse	0.30	3
Ti			2	0.036	ug/l	161.37	12.22	6.653E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-913.94	84.45	6.049E-04	Pulse	0.30	3
Cr			2	-0.021	ug/l	-298.68	401.12	2.852E-03	Pulse	0.30	3
Mn			2	0.008	ug/l	434.83	151.11	8.848E-04	Pulse	0.30	3
Fe			2	-0.515	ug/l	-26.60	3,873.14	1.432E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-3239.63	93.32	6.181E-04	Pulse	0.30	3
Ni			2	-0.032	ug/l	-19.00	138.89	4.875E-04	Pulse	0.30	3
Cu			2	-0.085	ug/l	-21.13	808.93	3.058E-03	Pulse	0.30	3
Zn			2	-0.475	ug/l	-17.91	587.80	2.090E-03	Pulse	0.30	3
As			2	0.003	ug/l	316.64	18.33	8.388E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	-1883.03	29.99	1.895E-05	Pulse	0.30	3
Sn			2	-0.081	ug/l	-60.42	454.46	3.660E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.000	ug/l	382.49	2.33	1.512E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		870.50	18.23	100.0	Pulse	0.10	3
1	Sc		146.68	14.19	100.0	Pulse	0.10	3
1	Ge		303.35	23.85	100.0	Pulse	0.10	3
1	Ge		223.34	6.84	100.0	Pulse	0.10	3
1	Rh		680.04	6.41	100.0	Pulse	0.10	3
1	In		307.09	16.86	100.0	Pulse	0.10	3
1	Tb		0.00	---		Pulse	0.10	3
1	Ho		0.00	---		Pulse	0.10	3
1	Bi		6,051.47	2.19	100.0	Pulse	0.10	3
2	Sc		358,010.79	107.82	100.0	Pulse	0.30	3
2	Ge		224,094.32	107.34	100.0	Pulse	0.30	3
2	Ge		339,095.71	107.28	100.0	Pulse	0.30	3
2	Rh		6,858,378.20	106.53	100.0	Analog	0.30	3
2	In		2,110,154.09	106.75	100.0	Pulse	0.30	3
2	Tb		8,797,427.32	106.10	100.0	Analog	0.30	3
2	Ho		880,564.65	106.73	100.0	Pulse	0.30	3
2	Bi		6,069,273.09	106.65	100.0	Analog	0.30	3
3	Sc		156,491.87	9.26	100.0	Pulse	0.30	3
3	Ge		101,572.19	8.35	100.0	Pulse	0.30	3
3	Ge		154,284.63	8.25	100.0	Pulse	0.30	3
3	Rh		1,777,619.79	8.99	100.0	Pulse	0.30	3
3	Tb		2,681,351.56	8.84	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 10:29
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-565.42	48.00	2.618E-05	Pulse	0.25	3
B			1	0.924	ug/l	2.12	2,162.41	1.178E-03	Pulse	0.15	3
Ca			1	-0.342	ug/l	-70.13	8,325.71	3.050E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-467.97	343.35	9.376E-05	Pulse	0.10	3
Mo			1	-0.001	ug/l	-714.07	106.67	2.923E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	31.98	10.00	2.622E-06	Pulse	0.10	3
Sn			1	-0.241	ug/l	-3.18	2,046.88	5.368E-04	Pulse	0.10	3
Sb			1	0.000	ug/l	---	390.02	7.453E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	---	70.00	1.338E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-136.58	586.70	1.951E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	-4153.68	573.37	1.907E-04	Pulse	0.10	3
Pb			1	-0.004	ug/l	-158.23	540.03	1.796E-04	Pulse	0.10	3
Pb			1	-0.099	ug/l	-3.85	2,543.51	8.460E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	4,060.54	5.110E-02	Pulse	0.30	3
Mg			2	-0.020	ug/l	-503.90	56.67	7.140E-04	Pulse	0.30	3
Al			2	-0.109	ug/l	-90.79	40.00	5.028E-04	Pulse	0.30	3
K			2	-0.626	ug/l	-118.35	5,149.74	6.479E-02	Pulse	0.30	3
Ca			2	-4.746	ug/l	-39.08	48.89	6.168E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	2.22	2.795E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-467.06	48.89	6.160E-04	Pulse	0.30	3
Cr			2	-0.003	ug/l	-364.15	294.45	3.702E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	55.56	6.997E-04	Pulse	0.30	3
Fe			2	-0.021	ug/l	-117.58	2,668.03	3.356E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-332.28	46.66	5.864E-04	Pulse	0.30	3
Ni			2	-0.002	ug/l	-373.35	92.22	1.160E-03	Pulse	0.30	3
Cu			2	-0.007	ug/l	-95.02	643.35	8.097E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.020	ug/l	-323.89	467.79	5.885E-03	Pulse	0.30	3
As			2	-0.002	ug/l	-360.07	5.00	6.273E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	-3774.21	8.88	1.912E-05	Pulse	0.30	3
Sn			2	-0.004	ug/l	-753.58	325.57	7.010E-04	Pulse	0.30	3
Se			3	0.001	ug/l	290.70	1.87	1.536E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,835,295.80	0.70	100.0	Pulse	0.10	3
1	Sc		2,730,199.33	0.90	100.0	Pulse	0.10	3
1	Ge		537,137.52	1.03	100.0	Pulse	0.10	3
1	Ge		746,323.79	0.90	100.0	Pulse	0.10	3
1	Rh		3,659,977.76	1.47	100.0	Pulse	0.10	3
1	In		3,813,774.86	1.10	100.0	Pulse	0.10	3
1	Tb		5,233,906.28	0.63	100.0	Pulse	0.10	3
1	Ho		515,127.07	0.20	100.0	Pulse	0.10	3
1	Bi		3,006,143.18	0.34	100.0	Pulse	0.10	3
2	Sc		79,483.78	1.10	100.0	Pulse	0.30	3
2	Ge		49,056.86	1.37	100.0	Pulse	0.30	3
2	Ge		73,973.26	0.95	100.0	Pulse	0.30	3
2	Rh		1,516,726.33	0.57	100.0	Pulse	0.30	3
2	In		464,484.02	0.18	100.0	Pulse	0.30	3
2	Tb		1,889,221.87	1.39	100.0	Pulse	0.30	3
2	Ho		190,950.04	1.27	100.0	Pulse	0.30	3
2	Bi		1,265,625.23	0.43	100.0	Pulse	0.30	3
3	Sc		122,037.58	0.90	100.0	Pulse	0.30	3
3	Ge		79,730.21	0.57	100.0	Pulse	0.30	3
3	Ge		121,522.81	0.21	100.0	Pulse	0.30	3
3	Rh		1,391,260.99	0.46	100.0	Pulse	0.30	3
3	Tb		2,106,584.01	0.10	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 10:34
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.506	ug/l	4.60	2,938.96	1.606E-03	Pulse	0.25	3
B			1	25.164	ug/l	0.56	102,475.13	5.601E-02	Pulse	0.15	3
Ca			1	252.039	ug/l	0.21	212,977.82	7.871E-02	Pulse	0.10	3
Sr			1	5.156	ug/l	1.10	201,503.24	5.561E-02	Pulse	0.10	3
Mo			1	1.011	ug/l	3.59	7,838.83	2.163E-03	Pulse	0.10	3
Ag			1	0.490	ug/l	0.99	9,226.32	2.432E-03	Pulse	0.10	3
Sn			1	4.903	ug/l	1.82	63,281.29	1.668E-02	Pulse	0.10	3
Sb			1	2.039	ug/l	1.55	28,032.40	5.451E-03	Pulse	0.10	3
Ba			1	1.076	ug/l	6.96	6,041.40	1.175E-03	Pulse	0.10	3
Tl			1	0.524	ug/l	2.64	17,607.72	5.921E-03	Pulse	0.10	3
Pb			1	0.519	ug/l	7.30	6,298.26	2.118E-03	Pulse	0.10	3
Pb			1	0.514	ug/l	2.18	5,617.96	1.889E-03	Pulse	0.10	3
Pb			1	0.412	ug/l	2.69	25,262.68	8.495E-03	Pulse	0.10	3
Na			2	263.960	ug/l	0.40	178,309.55	2.269E+00	Pulse	0.30	3
Mg			2	270.178	ug/l	1.21	82,986.05	1.056E+00	Pulse	0.30	3
Al			2	26.836	ug/l	7.45	2,671.36	3.399E-02	Pulse	0.30	3
K			2	258.451	ug/l	1.00	54,102.69	6.884E-01	Pulse	0.30	3
Ca			2	284.169	ug/l	1.68	3,121.44	3.972E-02	Pulse	0.30	3
Ti			2	0.939	ug/l	17.11	82.22	1.046E-03	Pulse	0.30	3
V			2	1.095	ug/l	2.12	3,290.38	4.187E-02	Pulse	0.30	3
Cr			2	1.044	ug/l	4.67	4,320.62	5.499E-02	Pulse	0.30	3
Mn			2	1.043	ug/l	7.82	1,936.81	2.464E-02	Pulse	0.30	3
Fe			2	26.209	ug/l	0.83	82,915.23	1.055E+00	Pulse	0.30	3
Co			2	0.534	ug/l	2.86	3,565.77	4.537E-02	Pulse	0.30	3
Ni			2	1.029	ug/l	5.67	1,940.14	2.468E-02	Pulse	0.30	3
Cu			2	2.014	ug/l	2.06	10,784.77	1.372E-01	Pulse	0.30	3
Zn			2	5.162	ug/l	7.93	3,852.73	4.903E-02	Pulse	0.30	3
As			2	0.537	ug/l	6.50	194.67	2.477E-03	Pulse	1.00	3
Cd			2	0.494	ug/l	1.76	501.86	1.081E-03	Pulse	0.30	3
Sn			2	5.044	ug/l	1.23	10,436.90	2.249E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.497	ug/l	9.88	53.33	4.338E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,829,450.73	0.82	99.7	Pulse	0.10	3
1	Sc		2,705,714.54	0.75	99.1	Pulse	0.10	3
1	Ge		535,420.64	1.05	99.7	Pulse	0.10	3
1	Ge		744,963.45	0.51	99.8	Pulse	0.10	3
1	Rh		3,623,612.97	0.96	99.0	Pulse	0.10	3
1	In		3,793,203.09	0.96	99.5	Pulse	0.10	3
1	Tb		5,142,803.05	0.44	98.3	Pulse	0.10	3
1	Ho		507,022.62	1.42	98.4	Pulse	0.10	3
1	Bi		2,973,817.87	0.21	98.9	Pulse	0.10	3
2	Sc		78,589.48	0.58	98.9	Pulse	0.30	3
2	Ge		48,849.68	0.41	99.6	Pulse	0.30	3
2	Ge		73,395.14	1.06	99.2	Pulse	0.30	3
2	Rh		1,500,186.68	0.67	98.9	Pulse	0.30	3
2	In		464,118.17	0.35	99.9	Pulse	0.30	3
2	Tb		1,892,710.14	0.40	100.2	Pulse	0.30	3
2	Ho		191,194.90	0.83	100.1	Pulse	0.30	3
2	Bi		1,258,054.29	0.38	99.4	Pulse	0.30	3
3	Sc		121,129.22	1.41	99.3	Pulse	0.30	3
3	Ge		79,989.05	0.70	100.3	Pulse	0.30	3
3	Ge		122,884.90	0.75	101.1	Pulse	0.30	3
3	Rh		1,390,685.01	0.78	100.0	Pulse	0.30	3
3	Tb		2,118,016.51	0.15	100.5	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 10:39
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.100	ug/l	1.60	28,964.65	1.595E-02	Pulse	0.25	3
B			1	6.218	ug/l	1.74	23,890.52	1.315E-02	Pulse	0.15	3
Ca			1	15.826	ug/l	7.91	21,477.90	7.897E-03	Pulse	0.10	3
Sr			1	5.097	ug/l	0.95	198,955.37	5.497E-02	Pulse	0.10	3
Mo			1	5.081	ug/l	0.83	38,898.36	1.075E-02	Pulse	0.10	3
Ag			1	5.005	ug/l	0.61	93,166.58	2.484E-02	Pulse	0.10	3
Sn			1	4.902	ug/l	1.19	62,562.08	1.668E-02	Pulse	0.10	3
Sb			1	5.111	ug/l	1.85	69,474.91	1.355E-02	Pulse	0.10	3
Ba			1	5.012	ug/l	1.70	27,809.09	5.424E-03	Pulse	0.10	3
Tl			1	4.977	ug/l	0.17	162,716.07	5.449E-02	Pulse	0.10	3
Pb			1	5.069	ug/l	2.22	56,816.78	1.903E-02	Pulse	0.10	3
Pb			1	5.010	ug/l	0.98	50,002.41	1.675E-02	Pulse	0.10	3
Pb			1	4.927	ug/l	1.10	227,319.32	7.613E-02	Pulse	0.10	3
Na			2	7.347	ug/l	2.38	8,925.77	1.128E-01	Pulse	0.30	3
Mg			2	6.045	ug/l	4.56	1,930.14	2.440E-02	Pulse	0.30	3
Al			2	7.011	ug/l	6.21	740.03	9.352E-03	Pulse	0.30	3
K			2	5.594	ug/l	24.88	6,307.92	7.976E-02	Pulse	0.30	3
Ca			2	32.283	ug/l	15.36	445.57	5.628E-03	Pulse	0.30	3
Ti			2	5.056	ug/l	11.01	435.57	5.508E-03	Pulse	0.30	3
V			2	5.043	ug/l	0.85	15,055.84	1.903E-01	Pulse	0.30	3
Cr			2	5.037	ug/l	3.18	19,821.98	2.506E-01	Pulse	0.30	3
Mn			2	5.016	ug/l	1.46	9,165.97	1.159E-01	Pulse	0.30	3
Fe			2	6.107	ug/l	0.99	21,531.95	2.722E-01	Pulse	0.30	3
Co			2	5.061	ug/l	1.03	33,559.67	4.242E-01	Pulse	0.30	3
Ni			2	5.063	ug/l	2.76	9,228.22	1.166E-01	Pulse	0.30	3
Cu			2	5.028	ug/l	0.25	26,098.63	3.299E-01	Pulse	0.30	3
Zn			2	5.474	ug/l	3.13	4,085.00	5.164E-02	Pulse	0.30	3
As			2	5.141	ug/l	1.39	1,827.44	2.310E-02	Pulse	1.00	3
Cd			2	5.142	ug/l	0.75	5,086.91	1.108E-02	Pulse	0.30	3
Sn			2	5.226	ug/l	2.24	10,689.28	2.328E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	4.968	ug/l	1.19	514.81	4.201E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,816,268.22	0.51	99.0	Pulse	0.10	3
1	Sc		2,720,101.52	1.48	99.6	Pulse	0.10	3
1	Ge		533,030.48	1.62	99.2	Pulse	0.10	3
1	Ge		742,372.41	1.27	99.5	Pulse	0.10	3
1	Rh		3,619,436.20	0.57	98.9	Pulse	0.10	3
1	In		3,750,760.69	0.36	98.3	Pulse	0.10	3
1	Tb		5,127,724.61	1.01	98.0	Pulse	0.10	3
1	Ho		505,562.59	1.14	98.1	Pulse	0.10	3
1	Bi		2,986,187.04	0.54	99.3	Pulse	0.10	3
2	Sc		79,108.74	0.94	99.5	Pulse	0.30	3
2	Ge		48,671.25	1.60	99.2	Pulse	0.30	3
2	Ge		73,577.12	0.56	99.5	Pulse	0.30	3
2	Rh		1,506,063.93	0.28	99.3	Pulse	0.30	3
2	In		459,272.20	0.85	98.9	Pulse	0.30	3
2	Tb		1,870,890.00	0.28	99.0	Pulse	0.30	3
2	Ho		190,014.91	0.66	99.5	Pulse	0.30	3
2	Bi		1,262,678.35	0.39	99.8	Pulse	0.30	3
3	Sc		122,280.46	1.04	100.2	Pulse	0.30	3
3	Ge		80,881.02	0.99	101.4	Pulse	0.30	3
3	Ge		122,547.44	1.08	100.8	Pulse	0.30	3
3	Rh		1,399,476.47	0.51	100.6	Pulse	0.30	3
3	Tb		2,109,897.21	0.10	100.2	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 10:44
Sample Name	STDD
Sample Type	CalStd
Comment	25
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	25.369	ug/l	0.19	143,772.58	7.922E-02	Pulse	0.25	3
B			1	24.708	ug/l	1.60	99,791.01	5.498E-02	Pulse	0.15	3
Ca			1	38.583	ug/l	3.21	39,648.17	1.472E-02	Pulse	0.10	3
Sr			1	25.258	ug/l	1.00	990,053.50	2.720E-01	Pulse	0.10	3
Mo			1	25.545	ug/l	1.06	196,194.69	5.390E-02	Pulse	0.10	3
Ag			1	24.659	ug/l	0.72	461,686.67	1.224E-01	Pulse	0.10	3
Sn			1	25.375	ug/l	1.12	305,388.80	8.094E-02	Pulse	0.10	3
Sb			1	25.483	ug/l	2.10	346,652.49	6.726E-02	Pulse	0.10	3
Ba			1	25.471	ug/l	1.21	141,813.06	2.751E-02	Pulse	0.10	3
Tl			1	25.026	ug/l	1.25	815,679.54	2.732E-01	Pulse	0.10	3
Pb			1	25.327	ug/l	0.67	281,566.27	9.429E-02	Pulse	0.10	3
Pb			1	25.007	ug/l	1.98	247,288.14	8.282E-02	Pulse	0.10	3
Pb			1	25.168	ug/l	1.17	1,132,526.46	3.793E-01	Pulse	0.10	3
Na			2	29.036	ug/l	1.50	23,470.83	2.951E-01	Pulse	0.30	3
Mg			2	26.802	ug/l	0.69	8,389.94	1.055E-01	Pulse	0.30	3
Al			2	27.169	ug/l	1.89	2,736.92	3.440E-02	Pulse	0.30	3
K			2	26.444	ug/l	6.90	10,335.50	1.299E-01	Pulse	0.30	3
Ca			2	149.862	ug/l	2.75	1,713.45	2.154E-02	Pulse	0.30	3
Ti			2	25.830	ug/l	2.67	2,229.07	2.802E-02	Pulse	0.30	3
V			2	25.405	ug/l	0.16	76,047.57	9.560E-01	Pulse	0.30	3
Cr			2	25.057	ug/l	0.40	97,942.45	1.231E+00	Pulse	0.30	3
Mn			2	25.520	ug/l	0.13	46,671.35	5.867E-01	Pulse	0.30	3
Fe			2	25.997	ug/l	0.38	83,271.38	1.047E+00	Pulse	0.30	3
Co			2	25.244	ug/l	0.66	168,143.39	2.114E+00	Pulse	0.30	3
Ni			2	25.284	ug/l	1.66	45,943.98	5.776E-01	Pulse	0.30	3
Cu			2	25.080	ug/l	1.60	128,186.66	1.612E+00	Pulse	0.30	3
Zn			2	25.613	ug/l	1.36	17,449.42	2.194E-01	Pulse	0.30	3
As			2	25.266	ug/l	1.09	9,008.17	1.132E-01	Pulse	1.00	3
Cd			2	24.940	ug/l	0.46	24,856.89	5.365E-02	Pulse	0.30	3
Sn			2	25.462	ug/l	0.62	51,252.92	1.106E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	24.636	ug/l	0.96	2,550.33	2.077E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,814,896.14	0.38	98.9	Pulse	0.10	3
1	Sc		2,693,379.33	0.54	98.7	Pulse	0.10	3
1	Ge		534,663.36	0.63	99.5	Pulse	0.10	3
1	Ge		738,947.75	0.14	99.0	Pulse	0.10	3
1	Rh		3,639,922.97	1.03	99.5	Pulse	0.10	3
1	In		3,772,927.36	0.50	98.9	Pulse	0.10	3
1	Tb		5,155,014.09	1.28	98.5	Pulse	0.10	3
1	Ho		510,073.70	1.53	99.0	Pulse	0.10	3
1	Bi		2,986,102.35	0.70	99.3	Pulse	0.10	3
2	Sc		79,547.44	0.72	100.1	Pulse	0.30	3
2	Ge		49,219.40	0.75	100.3	Pulse	0.30	3
2	Ge		74,128.48	1.17	100.2	Pulse	0.30	3
2	Rh		1,504,980.50	1.00	99.2	Pulse	0.30	3
2	In		463,330.79	0.57	99.8	Pulse	0.30	3
2	Tb		1,891,255.55	0.56	100.1	Pulse	0.30	3
2	Ho		191,059.97	0.14	100.1	Pulse	0.30	3
2	Bi		1,264,532.13	0.34	99.9	Pulse	0.30	3
3	Sc		123,647.03	0.77	101.3	Pulse	0.30	3
3	Ge		80,896.76	0.54	101.5	Pulse	0.30	3
3	Ge		122,777.43	1.05	101.0	Pulse	0.30	3
3	Rh		1,392,595.26	0.64	100.1	Pulse	0.30	3
3	Tb		2,112,570.82	0.34	100.3	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 10:49
Sample Name	STDE
Sample Type	CalStd
Comment	50
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.904	ug/l	0.47	281,578.86	1.558E-01	Pulse	0.25	3
B			1	49.037	ug/l	2.31	198,859.79	1.100E-01	Pulse	0.15	3
Ca			1	73.195	ug/l	0.94	67,548.00	2.510E-02	Pulse	0.10	3
Sr			1	50.389	ug/l	1.48	1,967,860.65	5.426E-01	Pulse	0.10	3
Mo			1	50.035	ug/l	1.63	382,822.93	1.056E-01	Pulse	0.10	3
Ag			1	49.603	ug/l	1.49	929,354.73	2.461E-01	Pulse	0.10	3
Sn			1	50.105	ug/l	0.75	598,653.35	1.586E-01	Pulse	0.10	3
Sb			1	50.113	ug/l	0.64	686,120.22	1.322E-01	Pulse	0.10	3
Ba			1	49.997	ug/l	0.96	280,248.28	5.399E-02	Pulse	0.10	3
Tl			1	50.045	ug/l	0.10	1,634,234.66	5.460E-01	Pulse	0.10	3
Pb			1	50.409	ug/l	1.00	561,157.67	1.875E-01	Pulse	0.10	3
Pb			1	49.994	ug/l	0.31	494,960.21	1.654E-01	Pulse	0.10	3
Pb			1	50.260	ug/l	0.05	2,259,943.91	7.551E-01	Pulse	0.10	3
Na			2	53.903	ug/l	1.91	39,737.72	5.040E-01	Pulse	0.30	3
Mg			2	53.266	ug/l	2.82	16,463.66	2.088E-01	Pulse	0.30	3
Al			2	55.978	ug/l	1.34	5,536.52	7.021E-02	Pulse	0.30	3
K			2	51.158	ug/l	2.49	14,936.80	1.894E-01	Pulse	0.30	3
Ca			2	278.319	ug/l	1.94	3,069.22	3.893E-02	Pulse	0.30	3
Ti			2	49.459	ug/l	4.85	4,229.49	5.363E-02	Pulse	0.30	3
V			2	49.993	ug/l	1.93	148,277.19	1.881E+00	Pulse	0.30	3
Cr			2	49.850	ug/l	1.24	192,839.83	2.446E+00	Pulse	0.30	3
Mn			2	50.300	ug/l	1.03	91,130.15	1.156E+00	Pulse	0.30	3
Fe			2	51.147	ug/l	0.69	159,776.56	2.026E+00	Pulse	0.30	3
Co			2	50.293	ug/l	0.79	332,007.77	4.211E+00	Pulse	0.30	3
Ni			2	50.199	ug/l	1.08	90,326.83	1.146E+00	Pulse	0.30	3
Cu			2	49.459	ug/l	0.52	249,947.04	3.170E+00	Pulse	0.30	3
Zn			2	50.451	ug/l	2.48	33,602.25	4.262E-01	Pulse	0.30	3
As			2	50.728	ug/l	0.90	17,922.83	2.273E-01	Pulse	1.00	3
Cd			2	50.302	ug/l	0.15	49,282.73	1.082E-01	Pulse	0.30	3
Sn			2	50.058	ug/l	0.12	98,757.75	2.168E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	49.542	ug/l	0.42	5,039.64	4.176E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,807,241.62	1.10	98.5	Pulse	0.10	3
1	Sc		2,691,641.32	1.38	98.6	Pulse	0.10	3
1	Ge		531,353.78	1.36	98.9	Pulse	0.10	3
1	Ge		734,030.28	2.20	98.4	Pulse	0.10	3
1	Rh		3,627,016.09	1.14	99.1	Pulse	0.10	3
1	In		3,775,483.97	0.87	99.0	Pulse	0.10	3
1	Tb		5,190,502.42	0.75	99.2	Pulse	0.10	3
1	Ho		508,384.86	1.52	98.7	Pulse	0.10	3
1	Bi		2,992,910.68	1.06	99.6	Pulse	0.10	3
2	Sc		78,854.17	0.99	99.2	Pulse	0.30	3
2	Ge		48,243.34	0.93	98.3	Pulse	0.30	3
2	Ge		73,735.50	0.15	99.7	Pulse	0.30	3
2	Rh		1,496,443.90	0.42	98.7	Pulse	0.30	3
2	In		455,542.47	0.71	98.1	Pulse	0.30	3
2	Tb		1,869,826.04	0.65	99.0	Pulse	0.30	3
2	Ho		188,225.96	0.66	98.6	Pulse	0.30	3
2	Bi		1,256,919.71	0.46	99.3	Pulse	0.30	3
3	Sc		122,406.13	1.05	100.3	Pulse	0.30	3
3	Ge		79,867.38	0.88	100.2	Pulse	0.30	3
3	Ge		120,685.31	0.54	99.3	Pulse	0.30	3
3	Rh		1,390,749.32	0.67	100.0	Pulse	0.30	3
3	Tb		2,104,505.13	1.15	99.9	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 10:54
Sample Name	STDF
Sample Type	CalStd
Comment	100
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	99.630	ug/l	1.06	560,071.13	3.110E-01	Pulse	0.25	3
B			1	97.444	ug/l	0.32	395,326.65	2.195E-01	Pulse	0.15	3
Ca			1	127.866	ug/l	1.72	110,704.63	4.149E-02	Pulse	0.10	3
Sr			1	99.214	ug/l	0.86	3,871,301.92	1.068E+00	Pulse	0.10	3
Mo			1	99.345	ug/l	1.92	759,423.09	2.095E-01	Pulse	0.10	3
Ag			1	100.757	ug/l	0.27	1,890,726.22	5.000E-01	Pulse	0.10	3
Sn			1	99.859	ug/l	0.09	1,190,257.17	3.147E-01	Pulse	0.10	3
Sb			1	99.816	ug/l	0.38	1,354,418.73	2.632E-01	Pulse	0.10	3
Ba			1	99.883	ug/l	0.21	554,947.97	1.078E-01	Pulse	0.10	3
Tl			1	99.930	ug/l	0.65	3,267,683.91	1.090E+00	Pulse	0.10	3
Pb			1	99.579	ug/l	0.33	1,109,607.38	3.702E-01	Pulse	0.10	3
Pb			1	99.122	ug/l	1.17	982,320.69	3.277E-01	Pulse	0.10	3
Pb			1	99.832	ug/l	0.73	4,489,104.85	1.498E+00	Pulse	0.10	3
Na			2	102.683	ug/l	1.45	72,260.77	9.138E-01	Pulse	0.30	3
Mg			2	101.964	ug/l	2.36	31,549.49	3.990E-01	Pulse	0.30	3
Al			2	101.913	ug/l	3.42	10,064.21	1.273E-01	Pulse	0.30	3
K			2	98.984	ug/l	1.19	24,085.20	3.046E-01	Pulse	0.30	3
Ca			2	542.850	ug/l	4.89	5,907.80	7.473E-02	Pulse	0.30	3
Ti			2	100.061	ug/l	4.23	8,576.77	1.085E-01	Pulse	0.30	3
V			2	99.483	ug/l	0.49	295,865.73	3.742E+00	Pulse	0.30	3
Cr			2	98.673	ug/l	0.95	382,501.84	4.837E+00	Pulse	0.30	3
Mn			2	99.719	ug/l	1.55	181,118.50	2.291E+00	Pulse	0.30	3
Fe			2	100.719	ug/l	1.75	312,871.93	3.957E+00	Pulse	0.30	3
Co			2	99.379	ug/l	1.15	657,848.08	8.319E+00	Pulse	0.30	3
Ni			2	99.435	ug/l	1.10	179,335.33	2.268E+00	Pulse	0.30	3
Cu			2	98.145	ug/l	0.63	496,729.64	6.282E+00	Pulse	0.30	3
Zn			2	99.174	ug/l	0.76	65,787.77	8.320E-01	Pulse	0.30	3
As			2	98.862	ug/l	0.65	35,024.33	4.429E-01	Pulse	1.00	3
Cd			2	99.630	ug/l	1.07	98,326.50	2.143E-01	Pulse	0.30	3
Sn			2	99.452	ug/l	0.59	197,338.34	4.300E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	98.148	ug/l	1.58	10,015.52	8.271E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,800,739.81	0.55	98.1	Pulse	0.10	3
1	Sc		2,668,381.11	0.73	97.7	Pulse	0.10	3
1	Ge		527,369.29	0.61	98.2	Pulse	0.10	3
1	Ge		739,206.34	1.06	99.0	Pulse	0.10	3
1	Rh		3,624,192.34	1.25	99.0	Pulse	0.10	3
1	In		3,781,692.72	0.98	99.2	Pulse	0.10	3
1	Tb		5,145,607.22	1.35	98.3	Pulse	0.10	3
1	Ho		510,956.88	0.77	99.2	Pulse	0.10	3
1	Bi		2,997,551.93	0.23	99.7	Pulse	0.10	3
2	Sc		79,077.56	0.77	99.5	Pulse	0.30	3
2	Ge		48,196.46	0.76	98.2	Pulse	0.30	3
2	Ge		72,971.13	1.41	98.6	Pulse	0.30	3
2	Rh		1,495,206.96	0.65	98.6	Pulse	0.30	3
2	In		458,947.30	1.03	98.8	Pulse	0.30	3
2	Tb		1,885,136.66	0.65	99.8	Pulse	0.30	3
2	Ho		190,197.00	1.59	99.6	Pulse	0.30	3
2	Bi		1,270,207.55	0.83	100.4	Pulse	0.30	3
3	Sc		122,399.57	0.78	100.3	Pulse	0.30	3
3	Ge		79,364.65	0.60	99.5	Pulse	0.30	3
3	Ge		121,096.35	0.90	99.6	Pulse	0.30	3
3	Rh		1,393,896.54	0.98	100.2	Pulse	0.30	3
3	Tb		2,104,599.78	0.69	99.9	Pulse	0.30	3

Quantitation Report

File Name 009CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 10:59
Sample Name STDG
Sample Type CalStd
Comment 500MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.018	ug/l	46.06	149.33	8.295E-05	Pulse	0.25	3
B			1	201.504	ug/l	0.53	819,944.97	4.549E-01	Pulse	0.15	3
Ca			1	475.259	ug/l	1.77	388,469.93	1.456E-01	Pulse	0.10	3
Sr			1	0.031	ug/l	10.15	1,546.80	4.298E-04	Pulse	0.10	3
Mo			1	0.106	ug/l	10.59	910.07	2.530E-04	Pulse	0.10	3
Ag			1	0.022	ug/l	20.21	423.36	1.125E-04	Pulse	0.10	3
Sn			1	0.477	ug/l	8.25	10,500.57	2.789E-03	Pulse	0.10	3
Sb			1	0.892	ug/l	4.64	12,582.17	2.427E-03	Pulse	0.10	3
Ba			1	0.013	ug/l	27.88	140.01	2.700E-05	Pulse	0.10	3
Tl			1	0.038	ug/l	7.96	1,853.53	6.193E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	23.38	716.71	2.395E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	108.55	606.70	2.028E-04	Pulse	0.10	3
Pb			1	-0.093	ug/l	-2.16	2,790.21	9.325E-04	Pulse	0.10	3
Na			2	507.081	ug/l	0.97	338,491.79	4.312E+00	Pulse	0.30	3
Mg			2	510.105	ug/l	0.93	156,477.14	1.993E+00	Pulse	0.30	3
Al			2	504.545	ug/l	1.32	49,274.96	6.277E-01	Pulse	0.30	3
K			2	500.353	ug/l	0.77	99,767.84	1.271E+00	Pulse	0.30	3
Ca			2	488.763	ug/l	2.74	5,292.03	6.741E-02	Pulse	0.30	3
Ti			2	0.026	ug/l	85.17	4.44	5.655E-05	Pulse	0.30	3
V			2	0.017	ug/l	4.77	102.22	1.302E-03	Pulse	0.30	3
Cr			2	0.005	ug/l	211.02	323.34	4.117E-03	Pulse	0.30	3
Mn			2	0.035	ug/l	9.13	118.89	1.515E-03	Pulse	0.30	3
Fe			2	495.572	ug/l	0.82	1,517,901.61	1.933E+01	Pulse	0.30	3
Co			2	0.029	ug/l	7.76	240.35	3.061E-03	Pulse	0.30	3
Ni			2	0.004	ug/l	573.99	103.33	1.319E-03	Pulse	0.30	3
Cu			2	0.024	ug/l	6.21	786.70	1.002E-02	Pulse	0.30	3
Zn			2	0.035	ug/l	157.44	497.80	6.342E-03	Pulse	0.30	3
As			2	0.027	ug/l	45.01	15.00	1.909E-04	Pulse	1.00	3
Cd			2	0.010	ug/l	119.72	18.84	4.080E-05	Pulse	0.30	3
Sn			2	0.854	ug/l	5.88	2,036.83	4.401E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	201.849	ug/l	0.74	20,996.01	1.701E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,802,250.51	0.63	98.2	Pulse	0.10	3
1	Sc		2,667,885.58	1.60	97.7	Pulse	0.10	3
1	Ge		526,793.83	1.64	98.1	Pulse	0.10	3
1	Ge		737,004.60	0.63	98.8	Pulse	0.10	3
1	Rh		3,599,465.68	1.35	98.3	Pulse	0.10	3
1	In		3,764,685.25	0.11	98.7	Pulse	0.10	3
1	Tb		5,184,887.32	0.89	99.1	Pulse	0.10	3
1	Ho		511,828.61	0.47	99.4	Pulse	0.10	3
1	Bi		2,992,288.50	0.60	99.5	Pulse	0.10	3
2	Sc		78,510.32	0.73	98.8	Pulse	0.30	3
2	Ge		48,837.24	0.52	99.6	Pulse	0.30	3
2	Ge		73,344.90	0.57	99.2	Pulse	0.30	3
2	Rh		1,499,093.90	0.44	98.8	Pulse	0.30	3
2	In		462,778.03	0.83	99.6	Pulse	0.30	3
2	Tb		1,889,457.01	0.78	100.0	Pulse	0.30	3
2	Ho		191,999.43	0.58	100.5	Pulse	0.30	3
2	Bi		1,264,225.68	0.43	99.9	Pulse	0.30	3
3	Sc		122,643.39	0.66	100.5	Pulse	0.30	3
3	Ge		80,385.15	0.76	100.8	Pulse	0.30	3
3	Ge		123,439.14	0.17	101.6	Pulse	0.30	3
3	Rh		1,396,978.35	0.07	100.4	Pulse	0.30	3
3	Tb		2,124,330.75	0.04	100.8	Pulse	0.30	3

Quantitation Report

File Name 010CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 11:04
Sample Name STDH
Sample Type CalStd
Comment 1000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	95.04	77.33	4.159E-05	Pulse	0.25	3
B			1	8.961	ug/l	2.63	35,933.92	1.936E-02	Pulse	0.15	3
Ca			1	945.717	ug/l	0.97	791,161.91	2.867E-01	Pulse	0.10	3
Sr			1	0.015	ug/l	18.88	963.40	2.642E-04	Pulse	0.10	3
Mo			1	0.031	ug/l	48.14	350.02	9.603E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	35.51	76.67	1.996E-05	Pulse	0.10	3
Sn			1	0.110	ug/l	28.02	6,311.50	1.639E-03	Pulse	0.10	3
Sb			1	0.283	ug/l	2.46	4,330.75	8.210E-04	Pulse	0.10	3
Ba			1	0.010	ug/l	27.54	130.01	2.463E-05	Pulse	0.10	3
Tl			1	0.003	ug/l	116.38	706.71	2.328E-04	Pulse	0.10	3
Pb			1	-0.011	ug/l	-10.32	460.02	1.517E-04	Pulse	0.10	3
Pb			1	-0.017	ug/l	-61.86	406.69	1.341E-04	Pulse	0.10	3
Pb			1	-0.114	ug/l	-4.78	1,893.46	6.246E-04	Pulse	0.10	3
Na			2	1010.144	ug/l	0.54	701,453.53	8.538E+00	Pulse	0.30	3
Mg			2	1014.479	ug/l	0.44	325,554.71	3.963E+00	Pulse	0.30	3
Al			2	984.969	ug/l	1.08	100,610.08	1.225E+00	Pulse	0.30	3
K			2	999.491	ug/l	0.64	203,097.78	2.472E+00	Pulse	0.30	3
Ca			2	1000.087	ug/l	3.15	11,221.66	1.366E-01	Pulse	0.30	3
Ti			2	-0.001	ug/l	-2712.71	2.22	2.708E-05	Pulse	0.30	3
V			2	0.011	ug/l	51.34	88.89	1.082E-03	Pulse	0.30	3
Cr			2	0.010	ug/l	53.93	357.79	4.354E-03	Pulse	0.30	3
Mn			2	0.054	ug/l	32.79	160.00	1.948E-03	Pulse	0.30	3
Fe			2	984.045	ug/l	0.66	3,151,147.10	3.836E+01	Pulse	0.30	3
Co			2	0.043	ug/l	15.77	347.05	4.226E-03	Pulse	0.30	3
Ni			2	0.024	ug/l	61.83	144.45	1.758E-03	Pulse	0.30	3
Cu			2	-0.012	ug/l	-168.33	638.91	7.776E-03	Pulse	0.30	3
Zn			2	-0.262	ug/l	-22.26	317.78	3.870E-03	Pulse	0.30	3
As			2	0.032	ug/l	41.60	17.67	2.149E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	1020.95	9.98	2.076E-05	Pulse	0.30	3
Sn			2	0.467	ug/l	29.64	1,310.27	2.732E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	400.922	ug/l	0.34	42,566.11	3.378E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,856,287.17	0.87	101.1	Pulse	0.10	3
1	Sc		2,759,905.06	0.87	101.1	Pulse	0.10	3
1	Ge		549,633.55	0.91	102.3	Pulse	0.10	3
1	Ge		765,987.96	0.75	102.6	Pulse	0.10	3
1	Rh		3,642,770.26	1.25	99.5	Pulse	0.10	3
1	In		3,850,787.47	1.19	101.0	Pulse	0.10	3
1	Tb		5,275,251.69	1.14	100.8	Pulse	0.10	3
1	Ho		517,147.88	0.68	100.4	Pulse	0.10	3
1	Bi		3,033,032.87	0.79	100.9	Pulse	0.10	3
2	Sc		82,152.22	0.42	103.4	Pulse	0.30	3
2	Ge		50,840.05	0.40	103.6	Pulse	0.30	3
2	Ge		76,561.77	0.62	103.5	Pulse	0.30	3
2	Rh		1,537,048.17	0.09	101.3	Pulse	0.30	3
2	In		480,057.24	0.72	103.4	Pulse	0.30	3
2	Tb		1,928,692.84	0.18	102.1	Pulse	0.30	3
2	Ho		194,466.14	0.46	101.8	Pulse	0.30	3
2	Bi		1,291,639.67	0.31	102.1	Pulse	0.30	3
3	Sc		124,879.66	0.46	102.3	Pulse	0.30	3
3	Ge		82,229.07	1.28	103.1	Pulse	0.30	3
3	Ge		125,998.50	0.54	103.7	Pulse	0.30	3
3	Rh		1,412,760.05	0.95	101.5	Pulse	0.30	3
3	Tb		2,142,922.06	0.32	101.7	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 11:09
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	194.42	64.00	3.391E-05	Pulse	0.25	3
B			1	5.817	ug/l	0.96	23,142.77	1.225E-02	Pulse	0.15	3
Ca			1	4780.862	ug/l	0.76	4,027,270.15	1.436E+00	Pulse	0.10	3
Sr			1	0.043	ug/l	13.63	2,056.87	5.568E-04	Pulse	0.10	3
Mo			1	0.015	ug/l	109.99	230.01	6.218E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	14.22	86.67	2.235E-05	Pulse	0.10	3
Sn			1	0.097	ug/l	15.97	6,191.46	1.598E-03	Pulse	0.10	3
Sb			1	0.165	ug/l	5.97	2,702.01	5.092E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	164.78	86.67	1.639E-05	Pulse	0.10	3
Tl			1	-0.002	ug/l	-135.59	543.37	1.819E-04	Pulse	0.10	3
Pb			1	-0.014	ug/l	-29.94	410.02	1.374E-04	Pulse	0.10	3
Pb			1	-0.013	ug/l	-98.21	443.36	1.485E-04	Pulse	0.10	3
Pb			1	-0.117	ug/l	-1.11	1,703.43	5.708E-04	Pulse	0.10	3
Na			2	5046.278	ug/l	0.71	3,594,970.83	4.245E+01	Pulse	0.30	3
Mg			2	5070.902	ug/l	0.37	1,677,307.08	1.981E+01	Pulse	0.30	3
Al			2	4926.396	ug/l	0.76	518,546.37	6.123E+00	Pulse	0.30	3
K			2	5022.307	ug/l	0.79	1,029,440.20	1.216E+01	Pulse	0.30	3
Ca			2	4935.971	ug/l	0.85	56,679.27	6.693E-01	Pulse	0.30	3
Ti			2	-0.014	ug/l	-152.54	1.11	1.309E-05	Pulse	0.30	3
V			2	0.012	ug/l	63.51	96.67	1.141E-03	Pulse	0.30	3
Cr			2	0.014	ug/l	41.26	384.45	4.540E-03	Pulse	0.30	3
Mn			2	0.068	ug/l	5.63	192.23	2.270E-03	Pulse	0.30	3
Fe			2	4948.403	ug/l	1.12	16,323,238.24	1.927E+02	Analog	0.30	3
Co			2	0.241	ug/l	5.37	1,759.38	2.077E-02	Pulse	0.30	3
Ni			2	0.176	ug/l	6.45	443.35	5.234E-03	Pulse	0.30	3
Cu			2	0.005	ug/l	399.30	745.58	8.807E-03	Pulse	0.30	3
Zn			2	-0.181	ug/l	-23.83	384.45	4.539E-03	Pulse	0.30	3
As			2	0.020	ug/l	16.09	13.33	1.575E-04	Pulse	1.00	3
Cd			2	-0.004	ug/l	-131.90	5.54	1.144E-05	Pulse	0.30	3
Sn			2	0.359	ug/l	3.75	1,095.05	2.264E-03	Pulse	0.30	3
Se			3	0.185	ug/l	2.11	21.67	1.704E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,889,610.43	0.51	103.0	Pulse	0.10	3
1	Sc		2,803,674.34	0.99	102.7	Pulse	0.10	3
1	Ge		553,078.09	0.69	103.0	Pulse	0.10	3

Quantitation Report

1	Ge		768,495.61	0.50	103.0	Pulse	0.10	3
1	Rh		3,693,915.26	0.61	100.9	Pulse	0.10	3
1	In		3,874,801.34	0.78	101.6	Pulse	0.10	3
1	Tb		5,304,210.65	1.79	101.3	Mix	0.10	3
1	Ho		514,748.77	1.85	99.9	Pulse	0.10	3
1	Bi		2,984,847.25	0.99	99.3	Pulse	0.10	3
2	Sc		84,688.83	0.48	106.5	Pulse	0.30	3
2	Ge		51,870.97	0.94	105.7	Pulse	0.30	3
2	Ge		78,831.52	0.59	106.6	Pulse	0.30	3
2	Rh		1,553,496.78	0.53	102.4	Pulse	0.30	3
2	In		483,693.81	0.21	104.1	Pulse	0.30	3
2	Tb		1,947,261.03	0.60	103.1	Pulse	0.30	3
2	Ho		197,991.82	0.39	103.7	Pulse	0.30	3
2	Bi		1,289,937.73	0.61	101.9	Pulse	0.30	3
3	Sc		127,539.13	0.61	104.5	Pulse	0.30	3
3	Ge		83,677.13	0.63	105.0	Pulse	0.30	3
3	Ge		127,139.46	1.17	104.6	Pulse	0.30	3
3	Rh		1,410,801.54	0.31	101.4	Pulse	0.30	3
3	Tb		2,143,826.86	0.58	101.8	Pulse	0.30	3

Quantitation Report

File Name 012CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 11:14
Sample Name STDJ
Sample Type CalStd
Comment 10000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-350.70	46.67	2.427E-05	Pulse	0.25	3
B			1	4.569	ug/l	2.01	18,087.75	9.422E-03	Pulse	0.15	3
Ca			1	9385.308	ug/l	2.26	8,109,221.13	2.817E+00	Analog	0.10	3
Sr			1	0.085	ug/l	5.04	3,760.59	1.012E-03	Pulse	0.10	3
Mo			1	0.011	ug/l	70.59	203.34	5.464E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	44.04	63.33	1.643E-05	Pulse	0.10	3
Sn			1	-0.051	ug/l	-75.36	4,374.13	1.133E-03	Pulse	0.10	3
Sb			1	0.138	ug/l	13.96	2,356.96	4.389E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	529.07	76.67	1.426E-05	Pulse	0.10	3
Tl			1	-0.005	ug/l	-17.45	453.36	1.534E-04	Pulse	0.10	3
Pb			1	0.033	ug/l	24.17	923.40	3.121E-04	Pulse	0.10	3
Pb			1	0.036	ug/l	14.79	920.07	3.110E-04	Pulse	0.10	3
Pb			1	-0.064	ug/l	-7.51	4,033.71	1.364E-03	Pulse	0.10	3
Na			2	9975.143	ug/l	1.18	7,213,231.10	8.386E+01	Analog	0.30	3
Mg			2	9888.519	ug/l	1.10	3,321,701.54	3.862E+01	Pulse	0.30	3
Al			2	9704.181	ug/l	1.23	1,037,298.26	1.206E+01	Pulse	0.30	3
K			2	9971.492	ug/l	0.89	2,070,187.49	2.407E+01	Pulse	0.30	3
Ca			2	9707.757	ug/l	1.39	113,105.45	1.315E+00	Pulse	0.30	3
Ti			2	-0.026	ug/l	0.00	0.00		Pulse	0.30	3
V			2	0.005	ug/l	146.72	75.56	8.798E-04	Pulse	0.30	3
Cr			2	0.054	ug/l	25.77	558.91	6.494E-03	Pulse	0.30	3
Mn			2	0.162	ug/l	3.91	380.01	4.417E-03	Pulse	0.30	3
Fe			2	9704.906	ug/l	0.76	32,510,980.93	3.780E+02	Analog	0.30	3
Co			2	0.435	ug/l	3.68	3,188.14	3.707E-02	Pulse	0.30	3
Ni			2	0.359	ug/l	1.93	807.81	9.391E-03	Pulse	0.30	3
Cu			2	1.087	ug/l	3.66	6,708.10	7.800E-02	Pulse	0.30	3
Zn			2	0.744	ug/l	5.22	1,053.38	1.225E-02	Pulse	0.30	3
As			2	0.049	ug/l	24.89	24.67	2.870E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-1436.62	8.88	1.830E-05	Pulse	0.30	3
Sn			2	0.230	ug/l	10.05	827.81	1.708E-03	Pulse	0.30	3
Se			3	0.061	ug/l	39.39	8.33	6.632E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,919,477.46	0.59	104.6	Pulse	0.10	3
1	Sc		2,879,617.35	1.86	105.5	Pulse	0.10	3
1	Ge		562,688.82	0.77	104.8	Pulse	0.10	3

Quantitation Report

1	Ge		769,499.55	0.99	103.1	Pulse	0.10	3
1	Rh		3,716,531.19	1.10	101.5	Pulse	0.10	3
1	In		3,860,533.93	1.00	101.2	Pulse	0.10	3
1	Tb		5,371,525.75	0.41	102.6	Mix	0.10	3
1	Ho		523,612.23	0.44	101.6	Pulse	0.10	3
1	Bi		2,956,988.39	0.90	98.4	Pulse	0.10	3
2	Sc		86,013.44	0.86	108.2	Pulse	0.30	3
2	Ge		51,853.23	1.22	105.7	Pulse	0.30	3
2	Ge		79,070.43	0.61	106.9	Pulse	0.30	3
2	Rh		1,544,678.06	0.25	101.8	Pulse	0.30	3
2	In		484,889.91	0.76	104.4	Pulse	0.30	3
2	Tb		1,974,937.42	0.29	104.5	Pulse	0.30	3
2	Ho		200,142.04	0.98	104.8	Pulse	0.30	3
2	Bi		1,262,376.41	1.01	99.7	Pulse	0.30	3
3	Sc		128,998.47	1.00	105.7	Pulse	0.30	3
3	Ge		83,352.24	0.34	104.5	Pulse	0.30	3
3	Ge		125,801.53	0.59	103.5	Pulse	0.30	3
3	Rh		1,388,242.10	1.04	99.8	Pulse	0.30	3
3	Tb		2,141,955.54	0.45	101.7	Pulse	0.30	3

Quantitation Report

File Name 013SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 11:19
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-158.58	42.67	2.187E-05	Pulse	0.25	3
B			1	3.657	ug/l	0.11	14,350.78	7.359E-03	Pulse	0.15	3
Ca			1	1.056	ug/l	47.71	10,186.84	3.469E-03	Pulse	0.10	3
Sr			1	-0.001	ug/l	-62.66	343.35	8.893E-05	Pulse	0.10	3
Mo			1	0.011	ug/l	33.38	210.01	5.442E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	70.74	26.67	6.680E-06	Pulse	0.10	3
Sn			1	-0.234	ug/l	-6.57	2,226.90	5.567E-04	Pulse	0.10	3
Sb			1	0.050	ug/l	13.60	1,110.08	2.070E-04	Pulse	0.10	3
Ba			1	-0.005	ug/l	-32.27	40.00	7.470E-06	Pulse	0.10	3
Tl			1	-0.005	ug/l	-40.36	473.36	1.528E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-258.54	580.03	1.872E-04	Pulse	0.10	3
Pb			1	-0.007	ug/l	-52.00	520.03	1.679E-04	Pulse	0.10	3
Pb			1	-0.103	ug/l	-3.50	2,406.83	7.771E-04	Pulse	0.10	3
Na			2	0.676	ug/l	40.07	4,973.01	5.679E-02	Pulse	0.30	3
Mg			2	0.894	ug/l	13.93	375.56	4.287E-03	Pulse	0.30	3
Al			2	0.781	ug/l	47.76	141.11	1.609E-03	Pulse	0.30	3
K			2	-0.336	ug/l	-304.28	5,734.40	6.548E-02	Pulse	0.30	3
Ca			2	-5.358	ug/l	-29.84	46.67	5.340E-04	Pulse	0.30	3
Ti			2	-0.014	ug/l	-143.70	1.11	1.267E-05	Pulse	0.30	3
V			2	0.005	ug/l	79.45	76.67	8.758E-04	Pulse	0.30	3
Cr			2	0.006	ug/l	31.05	365.56	4.174E-03	Pulse	0.30	3
Mn			2	-0.007	ug/l	-203.86	46.67	5.345E-04	Pulse	0.30	3
Fe			2	1.221	ug/l	11.68	7,177.20	8.192E-02	Pulse	0.30	3
Co			2	-0.003	ug/l	-30.53	33.31	3.806E-04	Pulse	0.30	3
Ni			2	-0.010	ug/l	-75.49	86.67	9.894E-04	Pulse	0.30	3
Cu			2	-0.029	ug/l	-11.22	584.46	6.673E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.035	ug/l	-136.85	504.46	5.760E-03	Pulse	0.30	3
As			2	0.000	ug/l	-4047.67	6.00	6.825E-05	Pulse	1.00	3
Cd			2	-0.006	ug/l	-90.32	3.33	6.639E-06	Pulse	0.30	3
Sn			2	0.022	ug/l	155.60	408.90	8.133E-04	Pulse	0.30	3
Se			3	0.038	ug/l	38.21	6.07	4.669E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,949,970.74	0.34	106.2	Pulse	0.10	3
1	Sc		2,937,252.77	0.74	107.6	Pulse	0.10	3
1	Ge		578,247.13	0.57	107.7	Pulse	0.10	3
1	Ge		801,631.97	0.81	107.4	Pulse	0.10	3
1	Rh		3,860,976.29	1.28	105.5	Pulse	0.10	3
1	In		3,998,606.76	0.76	104.8	Pulse	0.10	3
1	Tb		5,360,014.30	0.68	102.4	Mix	0.10	3
1	Ho		528,696.74	2.06	102.6	Pulse	0.10	3
1	Bi		3,097,529.54	0.28	103.0	Pulse	0.10	3
2	Sc		87,577.04	0.78	110.2	Pulse	0.30	3
2	Ge		54,157.13	0.82	110.4	Pulse	0.30	3
2	Ge		81,055.44	1.65	109.6	Pulse	0.30	3
2	Rh		1,627,691.18	0.46	107.3	Pulse	0.30	3
2	In		502,992.85	0.33	108.3	Pulse	0.30	3
2	Tb		1,999,652.84	0.47	105.8	Pulse	0.30	3
2	Ho		202,063.21	1.51	105.8	Pulse	0.30	3
2	Bi		1,326,034.15	0.95	104.8	Pulse	0.30	3
3	Sc		130,119.20	0.89	106.6	Pulse	0.30	3
3	Ge		84,685.65	0.48	106.2	Pulse	0.30	3
3	Ge		129,837.41	0.47	106.8	Pulse	0.30	3
3	Rh		1,469,028.79	0.33	105.6	Pulse	0.30	3
3	Tb		2,172,526.58	0.41	103.1	Pulse	0.30	3

Quantitation Report

File Name 014_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 11:32
Sample Name ICVA 5
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	60.255	ug/l	0.40	363,570.40	1.881E-01	Pulse	0.25	3
B			1	119.368	ug/l	1.95	520,155.76	2.691E-01	Pulse	0.15	3
Ca			1	5162.100	ug/l	1.25	4,520,251.81	1.551E+00	Pulse	0.10	3
Sr			1	62.694	ug/l	1.42	2,538,310.54	6.750E-01	Pulse	0.10	3
Mo			1	59.620	ug/l	0.61	472,940.72	1.258E-01	Pulse	0.10	3
Ag			1	58.772	ug/l	0.09	1,143,242.93	2.916E-01	Pulse	0.10	3
Sn			1	59.693	ug/l	0.55	739,588.92	1.887E-01	Pulse	0.10	3
Sb			1	63.370	ug/l	1.30	898,864.26	1.671E-01	Pulse	0.10	3
Ba			1	63.042	ug/l	0.53	366,075.33	6.807E-02	Pulse	0.10	3
Tl			1	63.953	ug/l	0.90	2,120,047.63	6.977E-01	Pulse	0.10	3
Pb			1	62.980	ug/l	0.44	711,566.97	2.342E-01	Pulse	0.10	3
Pb			1	59.238	ug/l	0.66	595,284.87	1.959E-01	Pulse	0.10	3
Pb			1	61.328	ug/l	0.51	2,797,991.40	9.209E-01	Pulse	0.10	3
Na			2	5440.595	ug/l	0.72	3,955,432.90	4.576E+01	Pulse	0.30	3
Mg			2	5478.226	ug/l	0.71	1,849,336.04	2.140E+01	Pulse	0.30	3
Al			2	5460.566	ug/l	0.61	586,602.03	6.787E+00	Pulse	0.30	3
K			2	5506.080	ug/l	0.62	1,151,322.25	1.332E+01	Pulse	0.30	3
Ca			2	5743.699	ug/l	1.10	67,298.35	7.786E-01	Pulse	0.30	3
Ti			2	58.055	ug/l	1.90	5,440.96	6.295E-02	Pulse	0.30	3
V			2	61.332	ug/l	0.11	199,403.38	2.307E+00	Pulse	0.30	3
Cr			2	59.403	ug/l	0.24	251,841.11	2.914E+00	Pulse	0.30	3
Mn			2	61.037	ug/l	0.97	121,209.67	1.402E+00	Pulse	0.30	3
Fe			2	5347.439	ug/l	0.49	18,003,574.28	2.083E+02	Analog	0.30	3
Co			2	58.879	ug/l	1.33	426,039.87	4.929E+00	Pulse	0.30	3
Ni			2	58.904	ug/l	2.05	116,159.73	1.344E+00	Pulse	0.30	3
Cu			2	57.623	ug/l	1.09	319,068.76	3.692E+00	Pulse	0.30	3
Zn			2	57.422	ug/l	1.38	41,853.36	4.842E-01	Pulse	0.30	3
As			2	60.506	ug/l	0.98	23,433.10	2.711E-01	Pulse	1.00	3
Cd			2	59.456	ug/l	1.00	63,116.70	1.279E-01	Pulse	0.30	3
Sn			2	59.090	ug/l	0.38	126,252.65	2.558E-01	Pulse	0.30	3
Se			3	257.212	ug/l	1.66	27,703.74	2.167E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,932,712.51	0.83	105.3	Pulse	0.10	3
1	Sc		2,915,454.64	2.37	106.8	Pulse	0.10	3
1	Ge		570,057.04	1.44	106.1	Pulse	0.10	3

Quantitation Report

1	Ge		794,405.85	1.61	106.4	Pulse	0.10	3
1	Rh		3,760,808.59	2.10	102.8	Pulse	0.10	3
1	In		3,920,106.00	1.56	102.8	Pulse	0.10	3
1	Tb		5,377,462.00	1.05	102.7	Mix	0.10	3
1	Ho		531,510.18	1.01	103.2	Pulse	0.10	3
1	Bi		3,038,502.77	1.04	101.1	Pulse	0.10	3
2	Sc		86,435.76	0.81	108.7	Pulse	0.30	3
2	Ge		53,391.44	1.35	108.8	Pulse	0.30	3
2	Ge		79,536.02	1.86	107.5	Pulse	0.30	3
2	Rh		1,558,795.22	0.87	102.8	Pulse	0.30	3
2	In		493,598.17	0.39	106.3	Pulse	0.30	3
2	Tb		1,991,230.83	0.52	105.4	Pulse	0.30	3
2	Ho		201,030.50	0.54	105.3	Pulse	0.30	3
2	Bi		1,293,900.40	0.53	102.2	Pulse	0.30	3
3	Sc		127,806.08	0.54	104.7	Pulse	0.30	3
3	Ge		82,983.78	1.13	104.1	Pulse	0.30	3
3	Ge		127,840.26	1.53	105.2	Pulse	0.30	3
3	Rh		1,393,095.19	0.64	100.1	Pulse	0.30	3
3	Tb		2,145,147.07	0.57	101.8	Pulse	0.30	3

Quantitation Report

File Name 015_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 11:37
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	26.61	106.67	5.511E-05	Pulse	0.25	3
B			1	5.665	ug/l	2.59	23,022.73	1.190E-02	Pulse	0.15	3
Ca			1	7.811	ug/l	1.99	15,737.96	5.494E-03	Pulse	0.10	3
Sr			1	0.017	ug/l	25.94	1,090.07	2.854E-04	Pulse	0.10	3
Mo			1	0.067	ug/l	40.00	656.71	1.718E-04	Pulse	0.10	3
Ag			1	0.019	ug/l	7.20	380.02	9.588E-05	Pulse	0.10	3
Sn			1	-0.027	ug/l	-27.53	4,787.57	1.209E-03	Pulse	0.10	3
Sb			1	0.052	ug/l	19.35	1,136.75	2.114E-04	Pulse	0.10	3
Ba			1	0.019	ug/l	68.63	183.34	3.418E-05	Pulse	0.10	3
Tl			1	0.013	ug/l	10.24	1,070.07	3.451E-04	Pulse	0.10	3
Pb			1	-0.007	ug/l	-184.25	510.03	1.646E-04	Pulse	0.10	3
Pb			1	-0.005	ug/l	-174.43	540.03	1.743E-04	Pulse	0.10	3
Pb			1	-0.110	ug/l	-5.54	2,120.15	6.840E-04	Pulse	0.10	3
Na			2	1.809	ug/l	14.86	5,719.94	6.631E-02	Pulse	0.30	3
Mg			2	1.099	ug/l	13.87	438.90	5.085E-03	Pulse	0.30	3
Al			2	64.463	ug/l	1.46	6,967.07	8.075E-02	Pulse	0.30	3
K			2	0.510	ug/l	240.46	5,824.42	6.752E-02	Pulse	0.30	3
Ca			2	3.545	ug/l	37.41	150.00	1.739E-03	Pulse	0.30	3
Ti			2	-0.002	ug/l	-2137.87	2.22	2.585E-05	Pulse	0.30	3
V			2	0.010	ug/l	100.10	92.22	1.068E-03	Pulse	0.30	3
Cr			2	0.021	ug/l	66.19	423.35	4.910E-03	Pulse	0.30	3
Mn			2	0.020	ug/l	38.48	100.00	1.159E-03	Pulse	0.30	3
Fe			2	1.480	ug/l	4.33	7,939.77	9.202E-02	Pulse	0.30	3
Co			2	0.002	ug/l	65.63	67.76	7.855E-04	Pulse	0.30	3
Ni			2	-0.016	ug/l	-86.95	73.34	8.504E-04	Pulse	0.30	3
Cu			2	0.000	ug/l	15725.54	735.58	8.523E-03	Pulse	0.30	3
Zn			2	0.004	ug/l	684.83	524.46	6.080E-03	Pulse	0.30	3
As			2	0.028	ug/l	32.14	16.67	1.931E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.005	ug/l	-97.04	4.41	8.834E-06	Pulse	0.30	3
Sn			2	0.233	ug/l	7.93	860.03	1.722E-03	Pulse	0.30	3
Se			3	0.109	ug/l	19.03	13.60	1.066E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,934,416.19	0.71	105.4	Pulse	0.10	3
1	Sc		2,864,694.33	1.36	104.9	Pulse	0.10	3
1	Ge		566,103.38	1.40	105.4	Pulse	0.10	3
1	Ge		787,270.46	2.07	105.5	Pulse	0.10	3
1	Rh		3,817,513.17	1.40	104.3	Pulse	0.10	3
1	In		3,962,069.96	1.62	103.9	Pulse	0.10	3
1	Tb		5,376,655.34	0.86	102.7	Mix	0.10	3
1	Ho		524,503.69	1.23	101.8	Pulse	0.10	3
1	Bi		3,100,772.66	0.90	103.1	Pulse	0.10	3
2	Sc		86,273.60	0.60	108.5	Pulse	0.30	3
2	Ge		53,118.21	1.10	108.3	Pulse	0.30	3
2	Ge		80,717.11	1.28	109.1	Pulse	0.30	3
2	Rh		1,611,515.91	1.02	106.2	Pulse	0.30	3
2	In		499,386.33	0.62	107.5	Pulse	0.30	3
2	Tb		1,996,066.93	0.78	105.7	Pulse	0.30	3
2	Ho		200,924.63	1.41	105.2	Pulse	0.30	3
2	Bi		1,332,312.62	0.30	105.3	Pulse	0.30	3
3	Sc		129,045.37	0.94	105.7	Pulse	0.30	3
3	Ge		84,462.22	0.82	105.9	Pulse	0.30	3
3	Ge		127,540.28	0.40	105.0	Pulse	0.30	3
3	Rh		1,459,857.69	0.54	104.9	Pulse	0.30	3
3	Tb		2,175,236.09	0.59	103.3	Pulse	0.30	3

Quantitation Report

File Name	016_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 11:43
Sample Name	sampleconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	238.66	62.67	3.194E-05	Pulse	0.25	3
B			1	3.665	ug/l	1.46	14,477.54	7.379E-03	Pulse	0.15	3
Ca			1	6.420	ug/l	6.79	14,653.61	5.077E-03	Pulse	0.10	3
Sr			1	0.008	ug/l	10.37	723.38	1.871E-04	Pulse	0.10	3
Mo			1	0.000	ug/l	-3245.42	116.67	3.010E-05	Pulse	0.10	3
Ag			1	0.008	ug/l	41.67	160.01	4.022E-05	Pulse	0.10	3
Sn			1	-0.128	ug/l	-8.65	3,537.18	8.893E-04	Pulse	0.10	3
Sb			1	0.029	ug/l	49.97	816.72	1.520E-04	Pulse	0.10	3
Ba			1	0.008	ug/l	126.62	120.00	2.240E-05	Pulse	0.10	3
Tl			1	-0.004	ug/l	-57.83	506.70	1.616E-04	Pulse	0.10	3
Pb			1	-0.021	ug/l	-26.73	356.68	1.138E-04	Pulse	0.10	3
Pb			1	-0.031	ug/l	-12.70	280.01	8.932E-05	Pulse	0.10	3
Pb			1	-0.126	ug/l	-0.95	1,373.41	4.384E-04	Pulse	0.10	3
Na			2	1.496	ug/l	21.54	5,485.40	6.367E-02	Pulse	0.30	3
Mg			2	0.636	ug/l	12.08	282.23	3.276E-03	Pulse	0.30	3
Al			2	62.235	ug/l	4.75	6,718.09	7.798E-02	Pulse	0.30	3
K			2	1.666	ug/l	33.62	6,060.06	7.030E-02	Pulse	0.30	3
Ca			2	2.798	ug/l	63.70	141.12	1.638E-03	Pulse	0.30	3
Ti			2	-0.014	ug/l	-150.50	1.11	1.299E-05	Pulse	0.30	3
V			2	0.005	ug/l	158.98	74.45	8.613E-04	Pulse	0.30	3
Cr			2	0.017	ug/l	37.75	405.57	4.707E-03	Pulse	0.30	3
Mn			2	0.020	ug/l	12.29	98.89	1.148E-03	Pulse	0.30	3
Fe			2	0.720	ug/l	4.12	5,377.61	6.241E-02	Pulse	0.30	3
Co			2	0.002	ug/l	100.44	67.77	7.850E-04	Pulse	0.30	3
Ni			2	-0.016	ug/l	-7.84	73.33	8.507E-04	Pulse	0.30	3
Cu			2	0.000	ug/l	-3413.46	732.25	8.497E-03	Pulse	0.30	3
Zn			2	0.524	ug/l	10.02	897.81	1.041E-02	Pulse	0.30	3
As			2	-0.002	ug/l	-93.39	5.33	6.191E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-459.33	8.88	1.774E-05	Pulse	0.30	3
Sn			2	0.119	ug/l	6.71	614.46	1.228E-03	Pulse	0.30	3
Se			3	0.046	ug/l	16.76	6.87	5.361E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,962,268.31	1.14	106.9	Pulse	0.10	3
1	Sc		2,886,284.75	0.89	105.7	Pulse	0.10	3
1	Ge		567,834.42	0.37	105.7	Pulse	0.10	3
1	Ge		796,026.71	0.86	106.7	Pulse	0.10	3
1	Rh		3,867,990.46	1.50	105.7	Pulse	0.10	3
1	In		3,977,219.01	0.55	104.3	Pulse	0.10	3
1	Tb		5,364,559.71	1.32	102.5	Mix	0.10	3
1	Ho		530,086.49	1.56	102.9	Pulse	0.10	3
1	Bi		3,131,877.87	1.01	104.2	Pulse	0.10	3
2	Sc		86,185.49	1.35	108.4	Pulse	0.30	3
2	Ge		53,889.64	1.62	109.9	Pulse	0.30	3
2	Ge		80,995.12	0.36	109.5	Pulse	0.30	3
2	Rh		1,611,438.48	0.72	106.2	Pulse	0.30	3
2	In		500,215.16	0.31	107.7	Pulse	0.30	3
2	Tb		1,995,635.62	0.15	105.6	Pulse	0.30	3
2	Ho		202,296.41	0.29	105.9	Pulse	0.30	3
2	Bi		1,331,398.80	0.60	105.2	Pulse	0.30	3
3	Sc		128,833.11	1.17	105.6	Pulse	0.30	3
3	Ge		84,575.14	1.73	106.1	Pulse	0.30	3
3	Ge		128,135.03	0.51	105.4	Pulse	0.30	3
3	Rh		1,467,182.93	0.70	105.5	Pulse	0.30	3
3	Tb		2,171,098.38	0.14	103.1	Pulse	0.30	3

Quantitation Report

File Name 017_ICB.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 11:48
Sample Name ICB
Sample Type ICB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.003	ug/l	-53.31	34.67	1.766E-05	Pulse	0.25	3
B			1	3.110	ug/l	1.64	12,013.37	6.124E-03	Pulse	0.15	3
Ca			1	-0.157	ug/l	-153.83	8,989.39	3.105E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	241.49	386.69	1.004E-04	Pulse	0.10	3
Mo			1	0.002	ug/l	433.73	130.01	3.374E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	70.53	53.33	1.351E-05	Pulse	0.10	3
Sn			1	-0.230	ug/l	-7.62	2,256.93	5.720E-04	Pulse	0.10	3
Sb			1	0.002	ug/l	169.96	426.69	7.955E-05	Pulse	0.10	3
Ba			1	0.010	ug/l	44.89	130.01	2.423E-05	Pulse	0.10	3
Tl			1	-0.007	ug/l	-11.01	410.02	1.315E-04	Pulse	0.10	3
Pb			1	-0.005	ug/l	-127.68	536.70	1.720E-04	Pulse	0.10	3
Pb			1	-0.010	ug/l	-41.52	493.36	1.583E-04	Pulse	0.10	3
Pb			1	-0.108	ug/l	-2.97	2,233.49	7.162E-04	Pulse	0.10	3
Na			2	-0.183	ug/l	-134.25	4,339.50	4.957E-02	Pulse	0.30	3
Mg			2	-0.032	ug/l	-157.78	58.89	6.699E-04	Pulse	0.30	3
Al			2	-0.064	ug/l	-122.96	48.89	5.593E-04	Pulse	0.30	3
K			2	-0.671	ug/l	-86.77	5,664.36	6.468E-02	Pulse	0.30	3
Ca			2	-6.316	ug/l	-17.38	35.55	4.042E-04	Pulse	0.30	3
Ti			2	-0.003	ug/l	-1379.65	2.22	2.483E-05	Pulse	0.30	3
V			2	0.008	ug/l	84.74	84.45	9.671E-04	Pulse	0.30	3
Cr			2	0.002	ug/l	341.03	348.90	3.980E-03	Pulse	0.30	3
Mn			2	-0.003	ug/l	-82.60	54.44	6.220E-04	Pulse	0.30	3
Fe			2	0.065	ug/l	73.14	3,233.69	3.690E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-212.09	52.21	5.966E-04	Pulse	0.30	3
Ni			2	-0.005	ug/l	-176.26	96.67	1.103E-03	Pulse	0.30	3
Cu			2	-0.031	ug/l	-19.49	572.24	6.530E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.297	ug/l	51.76	745.58	8.522E-03	Pulse	0.30	3
As			2	0.008	ug/l	113.98	9.33	1.060E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	160.82	13.32	2.659E-05	Pulse	0.30	3
Sn			2	0.002	ug/l	893.04	363.34	7.248E-04	Pulse	0.30	3
Se			3	0.015	ug/l	26.81	3.47	2.697E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,961,915.70	0.48	106.9	Pulse	0.10	3
1	Sc		2,895,118.39	0.98	106.0	Pulse	0.10	3
1	Ge		571,199.03	2.21	106.3	Pulse	0.10	3
1	Ge		793,968.66	0.52	106.4	Pulse	0.10	3
1	Rh		3,848,992.13	1.59	105.2	Pulse	0.10	3
1	In		3,945,444.64	0.36	103.5	Pulse	0.10	3
1	Tb		5,364,355.34	0.25	102.5	Mix	0.10	3
1	Ho		527,603.35	0.69	102.4	Pulse	0.10	3
1	Bi		3,117,471.83	1.00	103.7	Pulse	0.10	3
2	Sc		87,599.58	2.09	110.2	Pulse	0.30	3
2	Ge		54,031.10	1.06	110.1	Pulse	0.30	3
2	Ge		81,228.52	0.92	109.8	Pulse	0.30	3
2	Rh		1,617,638.68	0.79	106.7	Pulse	0.30	3
2	In		501,229.74	0.32	107.9	Pulse	0.30	3
2	Tb		2,004,086.80	1.74	106.1	Pulse	0.30	3
2	Ho		202,510.88	0.61	106.1	Pulse	0.30	3
2	Bi		1,329,219.53	0.99	105.0	Pulse	0.30	3
3	Sc		129,255.96	0.78	105.9	Pulse	0.30	3
3	Ge		85,291.17	0.27	107.0	Pulse	0.30	3
3	Ge		128,546.78	0.56	105.8	Pulse	0.30	3
3	Rh		1,459,811.99	0.30	104.9	Pulse	0.30	3
3	Tb		2,180,731.23	1.05	103.5	Pulse	0.30	3

Quantitation Report

File Name 018_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 11:53
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	51.818	ug/l	0.80	311,058.16	1.618E-01	Pulse	0.25	3
B			1	101.905	ug/l	0.75	441,515.22	2.296E-01	Pulse	0.15	3
Ca			1	4792.830	ug/l	0.85	4,141,256.61	1.440E+00	Pulse	0.10	3
Sr			1	52.868	ug/l	0.12	2,128,853.61	5.692E-01	Pulse	0.10	3
Mo			1	52.078	ug/l	0.40	410,851.84	1.099E-01	Pulse	0.10	3
Ag			1	50.411	ug/l	0.71	978,111.73	2.501E-01	Pulse	0.10	3
Sn			1	51.050	ug/l	0.59	631,627.90	1.615E-01	Pulse	0.10	3
Sb			1	53.260	ug/l	2.06	746,707.57	1.405E-01	Pulse	0.10	3
Ba			1	52.438	ug/l	1.48	300,969.37	5.663E-02	Pulse	0.10	3
Tl			1	51.283	ug/l	0.65	1,692,978.51	5.595E-01	Pulse	0.10	3
Pb			1	51.097	ug/l	1.21	575,005.08	1.900E-01	Pulse	0.10	3
Pb			1	51.455	ug/l	0.38	514,995.03	1.702E-01	Pulse	0.10	3
Pb			1	51.610	ug/l	0.89	2,345,936.68	7.753E-01	Pulse	0.10	3
Na			2	5025.863	ug/l	0.93	3,625,851.24	4.228E+01	Pulse	0.30	3
Mg			2	5059.402	ug/l	1.34	1,694,689.93	1.976E+01	Pulse	0.30	3
Al			2	4946.051	ug/l	0.33	527,225.26	6.147E+00	Pulse	0.30	3
K			2	5053.980	ug/l	0.63	1,049,092.22	1.223E+01	Pulse	0.30	3
Ca			2	5212.975	ug/l	0.69	60,613.02	7.068E-01	Pulse	0.30	3
Ti			2	51.929	ug/l	1.88	4,829.65	5.631E-02	Pulse	0.30	3
V			2	51.018	ug/l	1.03	164,586.08	1.919E+00	Pulse	0.30	3
Cr			2	50.385	ug/l	0.59	211,997.52	2.472E+00	Pulse	0.30	3
Mn			2	51.267	ug/l	1.20	101,020.11	1.178E+00	Pulse	0.30	3
Fe			2	5002.242	ug/l	0.94	16,710,011.00	1.948E+02	Analog	0.30	3
Co			2	50.388	ug/l	0.74	361,784.53	4.219E+00	Pulse	0.30	3
Ni			2	50.264	ug/l	2.04	98,365.60	1.147E+00	Pulse	0.30	3
Cu			2	49.231	ug/l	1.17	270,594.90	3.155E+00	Pulse	0.30	3
Zn			2	49.580	ug/l	0.57	35,929.34	4.189E-01	Pulse	0.30	3
As			2	49.659	ug/l	1.15	19,083.13	2.225E-01	Pulse	1.00	3
Cd			2	50.338	ug/l	0.19	52,771.46	1.083E-01	Pulse	0.30	3
Sn			2	50.553	ug/l	1.14	106,705.31	2.189E-01	Pulse	0.30	3
Se			3	196.144	ug/l	0.85	21,027.65	1.653E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,922,752.87	0.32	104.8	Pulse	0.10	3
1	Sc		2,876,098.19	2.03	105.3	Pulse	0.10	3
1	Ge		563,227.35	1.86	104.9	Pulse	0.10	3

Quantitation Report

1	Ge		786,884.94	1.17	105.4	Pulse	0.10	3
1	Rh		3,739,764.11	0.71	102.2	Pulse	0.10	3
1	In		3,910,027.34	0.82	102.5	Pulse	0.10	3
1	Tb		5,315,317.63	0.43	101.6	Mix	0.10	3
1	Ho		526,864.17	1.09	102.3	Pulse	0.10	3
1	Bi		3,025,716.10	0.26	100.7	Pulse	0.10	3
2	Sc		85,764.61	0.90	107.9	Pulse	0.30	3
2	Ge		51,905.48	1.14	105.8	Pulse	0.30	3
2	Ge		79,221.07	2.97	107.1	Pulse	0.30	3
2	Rh		1,552,397.79	0.94	102.4	Pulse	0.30	3
2	In		487,431.43	1.18	104.9	Pulse	0.30	3
2	Tb		1,974,270.13	0.30	104.5	Pulse	0.30	3
2	Ho		198,576.91	1.51	104.0	Pulse	0.30	3
2	Bi		1,286,433.46	0.82	101.6	Pulse	0.30	3
3	Sc		128,437.53	1.16	105.2	Pulse	0.30	3
3	Ge		82,605.11	0.99	103.6	Pulse	0.30	3
3	Ge		127,224.81	0.79	104.7	Pulse	0.30	3
3	Rh		1,408,508.07	0.48	101.2	Pulse	0.30	3
3	Tb		2,140,937.76	0.59	101.6	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 11:58
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	37.38	106.67	5.579E-05	Pulse	0.25	3
B			1	5.009	ug/l	0.58	19,940.92	1.042E-02	Pulse	0.15	3
Ca			1	0.419	ug/l	161.68	9,349.65	3.278E-03	Pulse	0.10	3
Sr			1	0.009	ug/l	40.81	740.04	1.945E-04	Pulse	0.10	3
Mo			1	0.055	ug/l	17.17	560.04	1.471E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	25.75	240.01	6.102E-05	Pulse	0.10	3
Sn			1	-0.172	ug/l	-4.18	2,953.71	7.516E-04	Pulse	0.10	3
Sb			1	0.076	ug/l	1.57	1,463.46	2.745E-04	Pulse	0.10	3
Ba			1	0.025	ug/l	31.78	213.34	3.996E-05	Pulse	0.10	3
Tl			1	0.016	ug/l	22.97	1,166.76	3.769E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	43.33	783.39	2.530E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-1195.79	586.70	1.895E-04	Pulse	0.10	3
Pb			1	-0.092	ug/l	-7.74	2,946.91	9.516E-04	Pulse	0.10	3
Na			2	0.342	ug/l	105.23	4,648.47	5.398E-02	Pulse	0.30	3
Mg			2	0.436	ug/l	35.63	215.56	2.498E-03	Pulse	0.30	3
Al			2	0.274	ug/l	108.02	84.44	9.794E-04	Pulse	0.30	3
K			2	-0.168	ug/l	-777.73	5,674.36	6.589E-02	Pulse	0.30	3
Ca			2	-3.864	ug/l	-57.13	63.33	7.362E-04	Pulse	0.30	3
Ti			2	0.022	ug/l	247.75	4.44	5.211E-05	Pulse	0.30	3
V			2	0.005	ug/l	147.31	74.45	8.655E-04	Pulse	0.30	3
Cr			2	0.007	ug/l	84.39	362.23	4.204E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	660.26	63.33	7.367E-04	Pulse	0.30	3
Fe			2	0.660	ug/l	5.50	5,177.57	6.008E-02	Pulse	0.30	3
Co			2	0.004	ug/l	108.98	83.32	9.702E-04	Pulse	0.30	3
Ni			2	-0.002	ug/l	-31.37	100.00	1.161E-03	Pulse	0.30	3
Cu			2	-0.032	ug/l	-9.67	556.68	6.462E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.046	ug/l	-126.69	487.79	5.665E-03	Pulse	0.30	3
As			2	0.006	ug/l	109.63	8.33	9.692E-05	Pulse	1.00	3
Cd			2	0.003	ug/l	244.05	13.29	2.664E-05	Pulse	0.30	3
Sn			2	0.109	ug/l	21.08	593.35	1.189E-03	Pulse	0.30	3
Se			3	0.092	ug/l	20.10	11.80	9.223E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,913,905.75	0.78	104.3	Pulse	0.10	3
1	Sc		2,853,571.00	1.15	104.5	Pulse	0.10	3
1	Ge		560,077.37	2.21	104.3	Pulse	0.10	3
1	Ge		787,028.22	1.43	105.5	Pulse	0.10	3
1	Rh		3,804,919.00	0.90	104.0	Pulse	0.10	3
1	In		3,929,762.28	0.68	103.0	Pulse	0.10	3
1	Tb		5,330,671.17	1.21	101.8	Mix	0.10	3
1	Ho		522,006.04	0.23	101.3	Pulse	0.10	3
1	Bi		3,096,466.93	0.57	103.0	Pulse	0.10	3
2	Sc		86,160.93	1.52	108.4	Pulse	0.30	3
2	Ge		52,801.60	1.20	107.6	Pulse	0.30	3
2	Ge		79,600.66	0.31	107.6	Pulse	0.30	3
2	Rh		1,594,393.72	0.63	105.1	Pulse	0.30	3
2	In		499,380.03	1.05	107.5	Pulse	0.30	3
2	Tb		1,990,161.93	0.13	105.3	Pulse	0.30	3
2	Ho		199,746.66	0.22	104.6	Pulse	0.30	3
2	Bi		1,321,688.53	0.37	104.4	Pulse	0.30	3
3	Sc		128,055.81	0.68	104.9	Pulse	0.30	3
3	Ge		84,170.84	1.05	105.6	Pulse	0.30	3
3	Ge		128,035.27	0.84	105.4	Pulse	0.30	3
3	Rh		1,458,242.86	0.90	104.8	Pulse	0.30	3
3	Tb		2,174,569.22	0.66	103.2	Pulse	0.30	3

Quantitation Report

File Name	020LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 12:03
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.512	ug/l	5.77	3,156.33	1.627E-03	Pulse	0.25	3
B			1	28.559	ug/l	2.08	123,608.68	6.369E-02	Pulse	0.15	3
Ca			1	245.360	ug/l	0.76	223,527.12	7.671E-02	Pulse	0.10	3
Sr			1	5.080	ug/l	0.28	208,731.48	5.479E-02	Pulse	0.10	3
Mo			1	1.032	ug/l	4.30	8,405.83	2.207E-03	Pulse	0.10	3
Ag			1	0.461	ug/l	3.64	9,152.99	2.293E-03	Pulse	0.10	3
Sn			1	4.670	ug/l	1.53	63,686.11	1.595E-02	Pulse	0.10	3
Sb			1	1.924	ug/l	3.26	27,665.03	5.146E-03	Pulse	0.10	3
Ba			1	1.042	ug/l	3.40	6,121.42	1.139E-03	Pulse	0.10	3
Tl			1	0.515	ug/l	2.47	17,878.00	5.825E-03	Pulse	0.10	3
Pb			1	0.500	ug/l	4.88	6,291.55	2.050E-03	Pulse	0.10	3
Pb			1	0.520	ug/l	3.50	5,864.72	1.911E-03	Pulse	0.10	3
Pb			1	0.406	ug/l	5.23	25,813.14	8.411E-03	Pulse	0.10	3
Na			2	254.638	ug/l	1.20	190,954.70	2.191E+00	Pulse	0.30	3
Mg			2	258.505	ug/l	1.67	88,074.89	1.010E+00	Pulse	0.30	3
Al			2	25.351	ug/l	6.86	2,801.38	3.214E-02	Pulse	0.30	3
K			2	258.460	ug/l	1.01	60,014.85	6.885E-01	Pulse	0.30	3
Ca			2	269.978	ug/l	1.69	3,294.81	3.780E-02	Pulse	0.30	3
Ti			2	1.010	ug/l	20.90	97.78	1.122E-03	Pulse	0.30	3
V			2	1.006	ug/l	4.36	3,355.93	3.849E-02	Pulse	0.30	3
Cr			2	1.007	ug/l	1.39	4,637.37	5.319E-02	Pulse	0.30	3
Mn			2	1.023	ug/l	1.22	2,109.05	2.419E-02	Pulse	0.30	3
Fe			2	25.229	ug/l	1.22	88,649.01	1.017E+00	Pulse	0.30	3
Co			2	0.502	ug/l	0.40	3,716.89	4.264E-02	Pulse	0.30	3
Ni			2	1.039	ug/l	7.10	2,171.28	2.491E-02	Pulse	0.30	3
Cu			2	1.969	ug/l	1.34	11,712.07	1.343E-01	Pulse	0.30	3
Zn			2	5.568	ug/l	0.49	4,569.57	5.242E-02	Pulse	0.30	3
As			2	0.484	ug/l	5.72	195.00	2.237E-03	Pulse	1.00	3
Cd			2	0.480	ug/l	7.81	529.64	1.052E-03	Pulse	0.30	3
Sn			2	4.820	ug/l	2.06	10,834.92	2.152E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.533	ug/l	2.52	60.00	4.641E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,940,373.11	1.00	105.7	Pulse	0.10	3
1	Sc		2,913,855.69	0.27	106.7	Pulse	0.10	3
1	Ge		572,647.04	0.78	106.6	Pulse	0.10	3
1	Ge		796,366.05	0.34	106.7	Pulse	0.10	3
1	Rh		3,809,517.96	0.49	104.1	Pulse	0.10	3
1	In		3,992,592.47	0.17	104.7	Pulse	0.10	3
1	Tb		5,376,752.21	0.51	102.7	Mix	0.10	3
1	Ho		527,801.05	1.27	102.5	Pulse	0.10	3
1	Bi		3,069,273.08	0.51	102.1	Pulse	0.10	3
2	Sc		87,175.09	0.62	109.7	Pulse	0.30	3
2	Ge		53,516.34	1.81	109.1	Pulse	0.30	3
2	Ge		80,564.36	0.51	108.9	Pulse	0.30	3
2	Rh		1,609,613.48	0.40	106.1	Pulse	0.30	3
2	In		503,387.57	0.44	108.4	Pulse	0.30	3
2	Tb		2,006,283.95	0.65	106.2	Pulse	0.30	3
2	Ho		201,594.39	0.52	105.6	Pulse	0.30	3
2	Bi		1,325,029.81	0.30	104.7	Pulse	0.30	3
3	Sc		129,777.88	0.33	106.3	Pulse	0.30	3
3	Ge		83,904.83	0.69	105.2	Pulse	0.30	3
3	Ge		129,288.42	0.94	106.4	Pulse	0.30	3
3	Rh		1,462,213.90	0.57	105.1	Pulse	0.30	3
3	Tb		2,184,427.62	0.79	103.7	Pulse	0.30	3

Quantitation Report

File Name	021ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 12:08
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	117.57	62.67	3.688E-05	Pulse	0.25	3
B			1	4.187	ug/l	4.39	14,559.91	8.559E-03	Pulse	0.15	3
Ca			1	92076.637	ug/l	0.50	71,666,673.93	2.761E+01	Analog	0.10	3
Sr			1	2045.297	ug/l	1.53	70,222,155.62	2.202E+01	Analog	0.10	3
Mo			1	2125.050	ug/l	1.95	14,292,382.29	4.482E+00	Analog	0.10	3
Ag			1	0.016	ug/l	14.07	280.01	8.086E-05	Pulse	0.10	3
Sn			1	1838.570	ug/l	1.45	19,974,932.20	5.772E+00	Analog	0.10	3
Sb			1	0.208	ug/l	0.65	3,050.41	6.238E-04	Pulse	0.10	3
Ba			1	0.265	ug/l	5.18	1,463.46	2.992E-04	Pulse	0.10	3
Tl			1	-0.006	ug/l	-27.13	370.02	1.403E-04	Pulse	0.10	3
Pb			1	0.079	ug/l	3.58	1,280.10	4.855E-04	Pulse	0.10	3
Pb			1	0.086	ug/l	16.42	1,250.10	4.741E-04	Pulse	0.10	3
Pb			1	-0.017	ug/l	-62.92	5,470.62	2.074E-03	Pulse	0.10	3
Na			2	96041.041	ug/l	1.33	61,803,790.88	8.070E+02	Analog	0.30	3
Mg			2	96961.219	ug/l	0.59	29,005,158.85	3.787E+02	Analog	0.30	3
Al			2	96168.698	ug/l	1.50	9,152,615.47	1.195E+02	Analog	0.30	3
K			2	101264.936	ug/l	0.96	18,675,233.15	2.438E+02	Analog	0.30	3
Ca			2	104774.111	ug/l	1.60	1,085,989.40	1.418E+01	Pulse	0.30	3
Ti			2	1872.762	ug/l	2.55	155,423.75	2.030E+00	Pulse	0.30	3
V			2	0.008	ug/l	42.42	75.56	9.883E-04	Pulse	0.30	3
Cr			2	0.275	ug/l	8.04	1,327.85	1.734E-02	Pulse	0.30	3
Mn			2	0.375	ug/l	7.10	713.36	9.312E-03	Pulse	0.30	3
Fe			2	92884.597	ug/l	1.03	277,051,144.55	3.617E+03	Analog	0.30	3
Co			2	0.214	ug/l	8.46	1,418.80	1.854E-02	Pulse	0.30	3
Ni			2	0.537	ug/l	3.47	1,031.15	1.346E-02	Pulse	0.30	3
Cu			2	0.152	ug/l	20.47	1,394.52	1.823E-02	Pulse	0.30	3
Zn			2	-0.082	ug/l	-85.60	411.12	5.367E-03	Pulse	0.30	3
As			2	0.054	ug/l	40.24	24.00	3.119E-04	Pulse	1.00	3
Cd			2	-0.475	ug/l	-6.08	-431.05	-1.002E-03	Pulse	0.30	3
Sn			2	1828.665	ug/l	0.57	3,396,826.53	7.894E+00	Pulse	0.30	3
Se			3	0.135	ug/l	9.16	13.93	1.283E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,701,430.11	0.71	92.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,595,875.74	0.42	95.1	Pulse	0.10	3
1	Ge		513,227.87	0.96	95.5	Pulse	0.10	3
1	Ge		695,734.36	1.20	93.2	Pulse	0.10	3
1	Rh		3,189,532.97	1.14	87.1	Pulse	0.10	3
1	In		3,460,687.00	0.93	90.7	Pulse	0.10	3
1	Tb		4,890,118.99	1.55	93.4	Pulse	0.10	3
1	Ho		484,179.43	1.96	94.0	Pulse	0.10	3
1	Bi		2,636,996.00	0.93	87.7	Pulse	0.10	3
2	Sc		76,598.15	2.19	96.4	Pulse	0.30	3
2	Ge		47,152.35	2.00	96.1	Pulse	0.30	3
2	Ge		69,979.24	1.08	94.6	Pulse	0.30	3
2	Rh		1,330,769.74	0.59	87.7	Pulse	0.30	3
2	In		430,295.86	0.38	92.6	Pulse	0.30	3
2	Tb		1,784,970.90	0.23	94.5	Pulse	0.30	3
2	Ho		180,623.50	0.33	94.6	Pulse	0.30	3
2	Bi		1,117,133.39	0.32	88.3	Pulse	0.30	3
3	Sc		117,196.96	0.37	96.0	Pulse	0.30	3
3	Ge		72,990.89	0.73	91.5	Pulse	0.30	3
3	Ge		108,550.16	0.22	89.3	Pulse	0.30	3
3	Rh		1,184,365.82	0.24	85.1	Pulse	0.30	3
3	Tb		1,947,148.47	0.07	92.4	Pulse	0.30	3

Quantitation Report

File Name 022ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 12:13
Sample Name ICSAB
Sample Type ICSB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-43.36	37.33	2.367E-05	Pulse	0.25	3
B			1	54.474	ug/l	0.97	192,974.06	1.223E-01	Pulse	0.15	3
Ca			1	90994.976	ug/l	1.62	67,316,054.00	2.728E+01	Analog	0.10	3
Sr			1	2009.683	ug/l	0.94	67,848,815.65	2.164E+01	Analog	0.10	3
Mo			1	2093.220	ug/l	1.59	13,842,321.04	4.415E+00	Analog	0.10	3
Ag			1	19.777	ug/l	0.99	335,151.21	9.814E-02	Pulse	0.10	3
Sn			1	1820.893	ug/l	0.24	19,524,807.21	5.717E+00	Analog	0.10	3
Sb			1	0.174	ug/l	18.74	2,605.31	5.343E-04	Pulse	0.10	3
Ba			1	0.240	ug/l	8.52	1,333.44	2.728E-04	Pulse	0.10	3
Tl			1	-0.003	ug/l	-45.84	460.02	1.732E-04	Pulse	0.10	3
Pb			1	0.488	ug/l	11.42	5,324.53	2.006E-03	Pulse	0.10	3
Pb			1	0.461	ug/l	0.51	4,554.21	1.715E-03	Pulse	0.10	3
Pb			1	0.387	ug/l	2.19	21,557.09	8.117E-03	Pulse	0.10	3
Na			2	93538.222	ug/l	1.35	58,240,915.46	7.860E+02	Analog	0.30	3
Mg			2	93834.186	ug/l	0.85	27,157,274.48	3.665E+02	Analog	0.30	3
Al			2	93177.774	ug/l	0.95	8,581,771.61	1.158E+02	Analog	0.30	3
K			2	97332.951	ug/l	1.32	17,366,706.53	2.344E+02	Analog	0.30	3
Ca			2	102253.914	ug/l	1.41	1,025,559.89	1.384E+01	Pulse	0.30	3
Ti			2	1832.008	ug/l	0.90	147,143.99	1.986E+00	Pulse	0.30	3
V			2	21.117	ug/l	1.53	58,892.97	7.948E-01	Pulse	0.30	3
Cr			2	19.977	ug/l	0.74	72,802.27	9.824E-01	Pulse	0.30	3
Mn			2	20.374	ug/l	2.04	34,718.72	4.685E-01	Pulse	0.30	3
Fe			2	91786.055	ug/l	1.43	264,885,385.03	3.575E+03	Analog	0.30	3
Co			2	19.564	ug/l	0.54	121,405.12	1.638E+00	Pulse	0.30	3
Ni			2	21.047	ug/l	1.33	35,643.05	4.810E-01	Pulse	0.30	3
Cu			2	23.983	ug/l	1.48	114,223.92	1.541E+00	Pulse	0.30	3
Zn			2	19.448	ug/l	3.25	12,449.29	1.680E-01	Pulse	0.30	3
As			2	19.848	ug/l	0.77	6,594.02	8.898E-02	Pulse	1.00	3
Cd			2	18.093	ug/l	2.31	16,457.33	3.892E-02	Pulse	0.30	3
Sn			2	1832.950	ug/l	0.45	3,345,543.89	7.913E+00	Pulse	0.30	3
Se			3	19.725	ug/l	0.26	1,804.83	1.664E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,577,551.44	0.51	86.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,467,441.73	0.78	90.4	Pulse	0.10	3
1	Ge		499,600.42	0.81	93.0	Pulse	0.10	3
1	Ge		674,093.81	0.61	90.3	Pulse	0.10	3
1	Rh		3,136,086.62	1.41	85.7	Pulse	0.10	3
1	In		3,415,321.98	1.39	89.6	Pulse	0.10	3
1	Tb		4,884,047.74	1.43	93.3	Pulse	0.10	3
1	Ho		480,982.17	0.63	93.4	Pulse	0.10	3
1	Bi		2,656,083.09	0.94	88.4	Pulse	0.10	3
2	Sc		74,106.77	0.79	93.2	Pulse	0.30	3
2	Ge		45,714.95	2.69	93.2	Pulse	0.30	3
2	Ge		68,479.45	0.81	92.6	Pulse	0.30	3
2	Rh		1,313,897.20	0.46	86.6	Pulse	0.30	3
2	In		422,818.30	0.52	91.0	Pulse	0.30	3
2	Tb		1,783,327.64	0.13	94.4	Pulse	0.30	3
2	Ho		180,951.69	0.68	94.8	Pulse	0.30	3
2	Bi		1,114,195.54	0.60	88.0	Pulse	0.30	3
3	Sc		116,164.51	0.62	95.2	Pulse	0.30	3
3	Ge		73,101.60	1.14	91.7	Pulse	0.30	3
3	Ge		108,491.88	1.61	89.3	Pulse	0.30	3
3	Rh		1,188,621.55	0.43	85.4	Pulse	0.30	3
3	Tb		1,957,933.26	0.69	92.9	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 12:18
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.004	ug/l	-23.60	22.67	1.463E-05	Pulse	0.25	3
B			1	3.008	ug/l	2.31	9,127.10	5.892E-03	Pulse	0.15	3
Ca			1	19.039	ug/l	11.99	21,908.54	8.860E-03	Pulse	0.10	3
Sr			1	0.399	ug/l	8.47	15,454.67	4.388E-03	Pulse	0.10	3
Mo			1	0.969	ug/l	4.18	7,308.65	2.074E-03	Pulse	0.10	3
Ag			1	0.012	ug/l	32.03	233.34	6.296E-05	Pulse	0.10	3
Sn			1	0.345	ug/l	6.58	8,799.43	2.376E-03	Pulse	0.10	3
Sb			1	0.004	ug/l	42.79	443.35	8.592E-05	Pulse	0.10	3
Ba			1	-0.009	ug/l	-41.20	20.00	3.880E-06	Pulse	0.10	3
Tl			1	-0.009	ug/l	-16.35	326.68	1.075E-04	Pulse	0.10	3
Pb			1	-0.003	ug/l	-62.34	543.36	1.789E-04	Pulse	0.10	3
Pb			1	-0.020	ug/l	-21.11	376.69	1.241E-04	Pulse	0.10	3
Pb			1	-0.111	ug/l	-1.86	2,023.47	6.662E-04	Pulse	0.10	3
Na			2	16.409	ug/l	10.98	13,899.22	1.890E-01	Pulse	0.30	3
Mg			2	13.973	ug/l	11.68	4,073.88	5.536E-02	Pulse	0.30	3
Al			2	13.486	ug/l	12.94	1,280.07	1.740E-02	Pulse	0.30	3
K			2	11.069	ug/l	11.60	6,832.58	9.294E-02	Pulse	0.30	3
Ca			2	9.325	ug/l	27.64	185.56	2.521E-03	Pulse	0.30	3
Ti			2	0.588	ug/l	10.17	48.89	6.650E-04	Pulse	0.30	3
V			2	0.001	ug/l	490.71	52.22	7.121E-04	Pulse	0.30	3
Cr			2	-0.007	ug/l	-43.02	257.78	3.509E-03	Pulse	0.30	3
Mn			2	0.004	ug/l	170.00	58.89	8.014E-04	Pulse	0.30	3
Fe			2	16.594	ug/l	10.79	50,074.33	6.806E-01	Pulse	0.30	3
Co			2	-0.001	ug/l	-570.93	43.20	5.856E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-695.83	87.78	1.193E-03	Pulse	0.30	3
Cu			2	0.060	ug/l	10.87	906.70	1.234E-02	Pulse	0.30	3
Zn			2	-0.023	ug/l	-153.95	430.01	5.854E-03	Pulse	0.30	3
As			2	-0.001	ug/l	-147.34	4.67	6.359E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.007	ug/l	-54.32	1.84	4.008E-06	Pulse	0.30	3
Sn			2	0.479	ug/l	14.44	1,271.18	2.782E-03	Pulse	0.30	3
Se			3	0.026	ug/l	30.09	4.40	3.622E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,549,094.78	0.58	84.4	Pulse	0.10	3
1	Sc		2,474,037.31	1.14	90.6	Pulse	0.10	3
1	Ge		507,574.50	0.69	94.5	Pulse	0.10	3
1	Ge		709,329.78	0.84	95.0	Pulse	0.10	3
1	Rh		3,522,659.53	0.62	96.2	Pulse	0.10	3
1	In		3,703,348.94	0.38	97.1	Pulse	0.10	3
1	Tb		5,156,822.11	1.56	98.5	Mix	0.10	3
1	Ho		505,516.96	0.30	98.1	Pulse	0.10	3
1	Bi		3,037,689.64	0.68	101.0	Pulse	0.10	3
2	Sc		73,492.09	1.62	92.5	Pulse	0.30	3
2	Ge		47,725.00	0.07	97.3	Pulse	0.30	3
2	Ge		72,435.41	1.64	97.9	Pulse	0.30	3
2	Rh		1,495,234.31	0.37	98.6	Pulse	0.30	3
2	In		456,989.68	0.33	98.4	Pulse	0.30	3
2	Tb		1,900,085.69	0.44	100.6	Pulse	0.30	3
2	Ho		192,400.49	0.59	100.8	Pulse	0.30	3
2	Bi		1,289,293.18	0.56	101.9	Pulse	0.30	3
3	Sc		121,874.36	0.87	99.9	Pulse	0.30	3
3	Ge		80,856.46	0.89	101.4	Pulse	0.30	3
3	Ge		121,442.15	0.43	99.9	Pulse	0.30	3
3	Rh		1,434,966.23	0.43	103.1	Pulse	0.30	3
3	Tb		2,164,800.82	0.61	102.8	Pulse	0.30	3

Quantitation Report

File Name	024ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 12:36
Sample Name	sampleconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	277.77	50.67	3.157E-05	Pulse	0.25	3
B			1	52.889	ug/l	1.94	190,922.34	1.187E-01	Pulse	0.15	3
Ca			1	88820.607	ug/l	0.58	66,927,499.00	2.663E+01	Analog	0.10	3
Sr			1	1998.064	ug/l	0.98	68,977,583.97	2.151E+01	Analog	0.10	3
Mo			1	2022.226	ug/l	1.22	13,675,824.80	4.265E+00	Analog	0.10	3
Ag			1	17.652	ug/l	1.78	306,439.99	8.760E-02	Pulse	0.10	3
Sn			1	1779.260	ug/l	1.12	19,545,110.12	5.586E+00	Analog	0.10	3
Sb			1	0.155	ug/l	6.49	2,416.94	4.838E-04	Pulse	0.10	3
Ba			1	0.223	ug/l	11.31	1,270.11	2.545E-04	Pulse	0.10	3
Tl			1	-0.008	ug/l	-5.91	313.35	1.142E-04	Pulse	0.10	3
Pb			1	0.056	ug/l	10.96	1,100.08	4.007E-04	Pulse	0.10	3
Pb			1	0.049	ug/l	12.25	973.40	3.545E-04	Pulse	0.10	3
Pb			1	-0.052	ug/l	-4.07	4,257.06	1.550E-03	Pulse	0.10	3
Na			2	92727.466	ug/l	1.18	58,802,302.11	7.791E+02	Analog	0.30	3
Mg			2	92127.611	ug/l	1.34	27,155,459.48	3.598E+02	Analog	0.30	3
Al			2	92506.658	ug/l	1.35	8,676,806.60	1.150E+02	Analog	0.30	3
K			2	97015.626	ug/l	1.10	17,629,714.30	2.336E+02	Analog	0.30	3
Ca			2	100657.214	ug/l	0.64	1,028,218.05	1.362E+01	Pulse	0.30	3
Ti			2	1820.654	ug/l	0.73	148,936.34	1.973E+00	Pulse	0.30	3
V			2	20.978	ug/l	0.46	59,588.71	7.895E-01	Pulse	0.30	3
Cr			2	19.013	ug/l	0.60	70,582.62	9.352E-01	Pulse	0.30	3
Mn			2	19.290	ug/l	0.39	33,486.28	4.437E-01	Pulse	0.30	3
Fe			2	89928.058	ug/l	0.48	264,326,531.72	3.502E+03	Analog	0.30	3
Co			2	18.624	ug/l	1.10	117,706.07	1.560E+00	Pulse	0.30	3
Ni			2	18.577	ug/l	0.95	32,053.47	4.247E-01	Pulse	0.30	3
Cu			2	17.082	ug/l	0.94	83,047.90	1.100E+00	Pulse	0.30	3
Zn			2	15.574	ug/l	2.19	10,244.41	1.357E-01	Pulse	0.30	3
As			2	18.736	ug/l	0.99	6,339.24	8.400E-02	Pulse	1.00	3
Cd			2	17.179	ug/l	3.40	16,200.07	3.696E-02	Pulse	0.30	3
Sn			2	1769.738	ug/l	0.37	3,348,544.24	7.640E+00	Pulse	0.30	3
Se			3	19.687	ug/l	1.18	1,860.91	1.660E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,608,158.19	1.07	87.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,513,218.19	1.31	92.1	Pulse	0.10	3
1	Ge		509,360.15	0.91	94.8	Pulse	0.10	3
1	Ge		687,384.26	1.32	92.1	Pulse	0.10	3
1	Rh		3,206,969.33	1.32	87.6	Pulse	0.10	3
1	In		3,499,109.89	2.02	91.7	Pulse	0.10	3
1	Tb		4,994,584.40	1.21	95.4	Pulse	0.10	3
1	Ho		494,809.19	1.35	96.1	Pulse	0.10	3
1	Bi		2,746,036.94	1.59	91.3	Pulse	0.10	3
2	Sc		75,475.17	1.09	95.0	Pulse	0.30	3
2	Ge		47,399.69	1.38	96.6	Pulse	0.30	3
2	Ge		70,459.14	0.52	95.2	Pulse	0.30	3
2	Rh		1,347,352.03	0.33	88.8	Pulse	0.30	3
2	In		438,306.71	0.10	94.4	Pulse	0.30	3
2	Tb		1,835,310.90	0.17	97.1	Pulse	0.30	3
2	Ho		186,873.14	0.94	97.9	Pulse	0.30	3
2	Bi		1,158,628.57	0.77	91.5	Pulse	0.30	3
3	Sc		119,770.23	0.42	98.1	Pulse	0.30	3
3	Ge		74,904.14	0.26	93.9	Pulse	0.30	3
3	Ge		112,089.08	0.76	92.2	Pulse	0.30	3
3	Rh		1,223,519.95	0.42	87.9	Pulse	0.30	3
3	Tb		1,995,088.88	0.20	94.7	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 12:41
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-96.58	34.67	2.161E-05	Pulse	0.25	3
B			1	2.697	ug/l	2.31	8,335.58	5.188E-03	Pulse	0.15	3
Ca			1	18.735	ug/l	5.00	22,212.26	8.769E-03	Pulse	0.10	3
Sr			1	0.372	ug/l	6.78	15,004.19	4.104E-03	Pulse	0.10	3
Mo			1	0.919	ug/l	5.12	7,201.88	1.968E-03	Pulse	0.10	3
Ag			1	0.009	ug/l	45.30	176.67	4.586E-05	Pulse	0.10	3
Sn			1	0.337	ug/l	5.72	9,079.59	2.350E-03	Pulse	0.10	3
Sb			1	0.019	ug/l	63.35	670.04	1.254E-04	Pulse	0.10	3
Ba			1	-0.007	ug/l	-66.10	33.33	6.238E-06	Pulse	0.10	3
Tl			1	-0.007	ug/l	-34.34	380.02	1.215E-04	Pulse	0.10	3
Pb			1	-0.012	ug/l	-68.35	463.36	1.479E-04	Pulse	0.10	3
Pb			1	-0.023	ug/l	-37.37	360.02	1.149E-04	Pulse	0.10	3
Pb			1	-0.117	ug/l	-4.73	1,780.12	5.689E-04	Pulse	0.10	3
Na			2	14.498	ug/l	11.37	13,032.95	1.729E-01	Pulse	0.30	3
Mg			2	12.819	ug/l	17.19	3,833.83	5.086E-02	Pulse	0.30	3
Al			2	12.629	ug/l	17.88	1,231.17	1.633E-02	Pulse	0.30	3
K			2	10.770	ug/l	11.78	6,949.29	9.222E-02	Pulse	0.30	3
Ca			2	5.406	ug/l	47.26	150.00	1.991E-03	Pulse	0.30	3
Ti			2	0.587	ug/l	37.09	50.00	6.642E-04	Pulse	0.30	3
V			2	0.002	ug/l	519.23	55.56	7.381E-04	Pulse	0.30	3
Cr			2	0.011	ug/l	130.48	330.01	4.381E-03	Pulse	0.30	3
Mn			2	0.009	ug/l	34.46	67.78	8.995E-04	Pulse	0.30	3
Fe			2	14.891	ug/l	12.05	46,297.65	6.143E-01	Pulse	0.30	3
Co			2	0.000	ug/l	851.73	49.87	6.623E-04	Pulse	0.30	3
Ni			2	-0.005	ug/l	-253.64	83.33	1.107E-03	Pulse	0.30	3
Cu			2	0.020	ug/l	31.46	737.81	9.791E-03	Pulse	0.30	3
Zn			2	-0.070	ug/l	-101.80	412.23	5.468E-03	Pulse	0.30	3
As			2	0.008	ug/l	165.08	8.00	1.060E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.003	ug/l	-117.65	6.30	1.335E-05	Pulse	0.30	3
Sn			2	0.464	ug/l	13.81	1,283.40	2.719E-03	Pulse	0.30	3
Se			3	0.020	ug/l	48.25	3.93	3.145E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,607,037.53	1.11	87.6	Pulse	0.10	3
1	Sc		2,533,449.18	1.27	92.8	Pulse	0.10	3
1	Ge		520,918.99	1.11	97.0	Pulse	0.10	3
1	Ge		728,398.45	1.87	97.6	Pulse	0.10	3
1	Rh		3,657,398.91	1.23	99.9	Pulse	0.10	3
1	In		3,863,626.22	0.98	101.3	Pulse	0.10	3
1	Tb		5,342,683.46	0.63	102.1	Mix	0.10	3
1	Ho		527,792.00	0.49	102.5	Pulse	0.10	3
1	Bi		3,129,553.81	1.28	104.1	Pulse	0.10	3
2	Sc		75,355.77	0.57	94.8	Pulse	0.30	3
2	Ge		49,276.41	1.32	100.4	Pulse	0.30	3
2	Ge		73,989.92	0.78	100.0	Pulse	0.30	3
2	Rh		1,527,727.79	0.43	100.7	Pulse	0.30	3
2	In		472,122.47	0.46	101.6	Pulse	0.30	3
2	Tb		1,946,498.81	0.76	103.0	Pulse	0.30	3
2	Ho		197,114.08	0.66	103.2	Pulse	0.30	3
2	Bi		1,327,368.91	0.73	104.9	Pulse	0.30	3
3	Sc		126,025.58	0.42	103.3	Pulse	0.30	3
3	Ge		82,428.56	0.73	103.4	Pulse	0.30	3
3	Ge		124,972.78	0.48	102.8	Pulse	0.30	3
3	Rh		1,468,516.92	0.86	105.6	Pulse	0.30	3
3	Tb		2,210,330.81	0.40	104.9	Pulse	0.30	3

Quantitation Report

File Name 026_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 12:48
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.663	ug/l	0.93	270,268.70	1.582E-01	Pulse	0.25	3
B			1	101.217	ug/l	0.17	389,705.98	2.281E-01	Pulse	0.15	3
Ca			1	4781.814	ug/l	0.69	3,837,200.46	1.437E+00	Pulse	0.10	3
Sr			1	51.877	ug/l	0.78	2,073,396.89	5.586E-01	Pulse	0.10	3
Mo			1	51.263	ug/l	1.53	401,377.43	1.081E-01	Pulse	0.10	3
Ag			1	50.066	ug/l	0.78	978,642.93	2.484E-01	Pulse	0.10	3
Sn			1	50.953	ug/l	0.27	635,073.25	1.612E-01	Pulse	0.10	3
Sb			1	52.432	ug/l	0.61	756,619.88	1.383E-01	Pulse	0.10	3
Ba			1	51.387	ug/l	1.27	303,581.74	5.549E-02	Pulse	0.10	3
Tl			1	51.687	ug/l	1.06	1,767,337.32	5.639E-01	Pulse	0.10	3
Pb			1	51.516	ug/l	0.90	600,456.39	1.916E-01	Pulse	0.10	3
Pb			1	50.979	ug/l	0.73	528,486.62	1.686E-01	Pulse	0.10	3
Pb			1	51.549	ug/l	0.41	2,427,023.92	7.744E-01	Pulse	0.10	3
Na			2	4917.186	ug/l	0.32	3,298,555.91	4.137E+01	Pulse	0.30	3
Mg			2	4917.294	ug/l	0.27	1,531,474.14	1.921E+01	Pulse	0.30	3
Al			2	4741.760	ug/l	0.73	469,957.59	5.893E+00	Pulse	0.30	3
K			2	4956.700	ug/l	0.59	956,738.09	1.200E+01	Pulse	0.30	3
Ca			2	5121.585	ug/l	1.11	55,372.68	6.944E-01	Pulse	0.30	3
Ti			2	50.518	ug/l	2.30	4,368.40	5.478E-02	Pulse	0.30	3
V			2	51.935	ug/l	1.24	155,785.56	1.954E+00	Pulse	0.30	3
Cr			2	51.342	ug/l	0.12	200,853.82	2.519E+00	Pulse	0.30	3
Mn			2	51.651	ug/l	0.41	94,634.03	1.187E+00	Pulse	0.30	3
Fe			2	5060.667	ug/l	1.15	15,718,943.26	1.971E+02	Analog	0.30	3
Co			2	51.340	ug/l	1.08	342,747.55	4.298E+00	Pulse	0.30	3
Ni			2	51.466	ug/l	0.89	93,651.61	1.174E+00	Pulse	0.30	3
Cu			2	51.013	ug/l	0.85	260,686.40	3.269E+00	Pulse	0.30	3
Zn			2	50.071	ug/l	1.48	33,733.70	4.230E-01	Pulse	0.30	3
As			2	51.379	ug/l	0.29	18,358.30	2.302E-01	Pulse	1.00	3
Cd			2	50.654	ug/l	0.72	52,031.53	1.089E-01	Pulse	0.30	3
Sn			2	50.844	ug/l	0.82	105,157.48	2.202E-01	Pulse	0.30	3
Se			3	198.653	ug/l	0.74	21,294.26	1.674E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,708,725.32	0.07	93.1	Pulse	0.10	3
1	Sc		2,670,861.21	0.74	97.8	Pulse	0.10	3
1	Ge		543,230.46	0.28	101.1	Pulse	0.10	3

Quantitation Report

1	Ge		757,024.70	1.03	101.4	Pulse	0.10	3
1	Rh		3,711,919.84	0.80	101.4	Pulse	0.10	3
1	In		3,938,979.85	0.84	103.3	Pulse	0.10	3
1	Tb		5,470,687.62	0.53	104.5	Analog	0.10	3
1	Ho		532,538.25	1.05	103.4	Pulse	0.10	3
1	Bi		3,134,084.33	0.79	104.3	Pulse	0.10	3
2	Sc		79,741.71	0.09	100.3	Pulse	0.30	3
2	Ge		50,444.30	0.98	102.8	Pulse	0.30	3
2	Ge		76,303.11	0.91	103.1	Pulse	0.30	3
2	Rh		1,542,497.16	0.38	101.7	Pulse	0.30	3
2	In		477,591.71	0.60	102.8	Pulse	0.30	3
2	Tb		1,974,673.46	1.05	104.5	Pulse	0.30	3
2	Ho		199,019.94	0.97	104.2	Pulse	0.30	3
2	Bi		1,320,898.39	1.31	104.4	Pulse	0.30	3
3	Sc		129,209.93	1.15	105.9	Pulse	0.30	3
3	Ge		83,062.91	0.67	104.2	Pulse	0.30	3
3	Ge		127,207.55	0.78	104.7	Pulse	0.30	3
3	Rh		1,438,105.95	0.93	103.4	Pulse	0.30	3
3	Tb		2,193,463.73	0.17	104.1	Pulse	0.30	3

Quantitation Report

File Name 027_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 12:53
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	30.35	76.00	4.360E-05	Pulse	0.25	3
B			1	4.663	ug/l	1.13	16,808.57	9.636E-03	Pulse	0.15	3
Ca			1	1.091	ug/l	44.80	9,453.08	3.479E-03	Pulse	0.10	3
Sr			1	0.018	ug/l	9.51	1,106.74	2.881E-04	Pulse	0.10	3
Mo			1	0.110	ug/l	25.47	1,010.07	2.625E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	29.50	260.01	6.514E-05	Pulse	0.10	3
Sn			1	-0.096	ug/l	-27.49	3,963.97	9.924E-04	Pulse	0.10	3
Sb			1	0.094	ug/l	10.33	1,783.52	3.220E-04	Pulse	0.10	3
Ba			1	0.022	ug/l	18.69	206.68	3.730E-05	Pulse	0.10	3
Tl			1	0.011	ug/l	30.18	1,023.41	3.202E-04	Pulse	0.10	3
Pb			1	0.001	ug/l	616.84	620.03	1.940E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-436.89	596.70	1.866E-04	Pulse	0.10	3
Pb			1	-0.103	ug/l	-2.01	2,500.17	7.820E-04	Pulse	0.10	3
Na			2	2.803	ug/l	9.86	6,097.83	7.465E-02	Pulse	0.30	3
Mg			2	0.995	ug/l	10.64	382.23	4.680E-03	Pulse	0.30	3
Al			2	0.592	ug/l	17.29	112.22	1.374E-03	Pulse	0.30	3
K			2	2.918	ug/l	7.60	5,987.80	7.332E-02	Pulse	0.30	3
Ca			2	-4.875	ug/l	-29.61	48.89	5.993E-04	Pulse	0.30	3
Ti			2	0.012	ug/l	317.86	3.33	4.096E-05	Pulse	0.30	3
V			2	0.003	ug/l	300.38	65.55	7.999E-04	Pulse	0.30	3
Cr			2	0.012	ug/l	91.85	364.45	4.459E-03	Pulse	0.30	3
Mn			2	-0.008	ug/l	-57.84	42.22	5.172E-04	Pulse	0.30	3
Fe			2	1.389	ug/l	3.00	7,227.30	8.848E-02	Pulse	0.30	3
Co			2	0.002	ug/l	77.76	63.31	7.752E-04	Pulse	0.30	3
Ni			2	0.021	ug/l	53.28	137.78	1.686E-03	Pulse	0.30	3
Cu			2	-0.007	ug/l	-234.34	658.91	8.077E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.055	ug/l	-149.07	456.68	5.587E-03	Pulse	0.30	3
As			2	0.001	ug/l	629.41	6.00	7.339E-05	Pulse	1.00	3
Cd			2	0.003	ug/l	328.65	13.26	2.676E-05	Pulse	0.30	3
Sn			2	0.134	ug/l	21.48	638.91	1.294E-03	Pulse	0.30	3
Se			3	0.090	ug/l	35.67	12.00	9.095E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,744,291.71	0.88	95.0	Pulse	0.10	3
1	Sc		2,716,961.21	0.32	99.5	Pulse	0.10	3
1	Ge		553,183.10	0.63	103.0	Pulse	0.10	3
1	Ge		768,233.55	0.81	102.9	Pulse	0.10	3
1	Rh		3,842,290.36	0.91	105.0	Pulse	0.10	3
1	In		3,995,417.13	0.84	104.8	Pulse	0.10	3
1	Tb		5,539,373.67	0.22	105.8	Analog	0.10	3
1	Ho		542,337.04	1.12	105.3	Pulse	0.10	3
1	Bi		3,197,272.76	0.48	106.4	Pulse	0.10	3
2	Sc		81,673.23	1.35	102.8	Pulse	0.30	3
2	Ge		51,476.38	0.50	104.9	Pulse	0.30	3
2	Ge		78,520.94	0.37	106.1	Pulse	0.30	3
2	Rh		1,607,479.45	0.28	106.0	Pulse	0.30	3
2	In		493,862.72	0.60	106.3	Pulse	0.30	3
2	Tb		2,011,087.77	0.42	106.5	Pulse	0.30	3
2	Ho		201,672.19	0.63	105.6	Pulse	0.30	3
2	Bi		1,355,897.83	0.76	107.1	Pulse	0.30	3
3	Sc		132,460.47	1.07	108.5	Pulse	0.30	3
3	Ge		86,558.59	0.28	108.6	Pulse	0.30	3
3	Ge		132,005.28	0.70	108.6	Pulse	0.30	3
3	Rh		1,517,763.76	0.93	109.1	Pulse	0.30	3
3	Tb		2,245,880.12	0.43	106.6	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 12:59
Sample Name mp16329-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	850.61	53.33	2.920E-05	Pulse	0.25	3
B			1	7.914	ug/l	0.84	14,724.49	8.039E-03	Pulse	0.15	3
Ca			1	24.874	ug/l	8.56	19,198.40	6.881E-03	Pulse	0.10	3
Sr			1	0.117	ug/l	7.03	2,837.02	7.287E-04	Pulse	0.10	3
Mo			1	0.203	ug/l	20.61	950.06	2.442E-04	Pulse	0.10	3
Ag			1	0.027	ug/l	25.94	286.68	7.075E-05	Pulse	0.10	3
Sn			1	0.733	ug/l	12.83	9,893.47	2.442E-03	Pulse	0.10	3
Sb			1	0.186	ug/l	9.01	1,803.51	3.201E-04	Pulse	0.10	3
Ba			1	0.034	ug/l	42.27	180.01	3.200E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	97.23	790.05	2.316E-04	Pulse	0.10	3
Pb			1	-0.003	ug/l	-756.23	630.04	1.845E-04	Pulse	0.10	3
Pb			1	-0.027	ug/l	-66.60	500.03	1.467E-04	Pulse	0.10	3
Pb			1	-0.212	ug/l	-8.04	2,523.52	7.394E-04	Pulse	0.10	3
Na			2	18.871	ug/l	2.00	10,882.50	1.304E-01	Pulse	0.30	3
Mg			2	5.969	ug/l	8.18	1,038.94	1.245E-02	Pulse	0.30	3
Al			2	6.191	ug/l	7.59	374.45	4.486E-03	Pulse	0.30	3
K			2	8.173	ug/l	7.03	6,354.60	7.613E-02	Pulse	0.30	3
Ca			2	17.590	ug/l	31.62	204.45	2.449E-03	Pulse	0.30	3
Ti			2	1.251	ug/l	19.50	58.89	7.061E-04	Pulse	0.30	3
V			2	0.119	ug/l	23.71	244.45	2.926E-03	Pulse	0.30	3
Cr			2	0.228	ug/l	11.15	788.92	9.452E-03	Pulse	0.30	3
Mn			2	0.255	ug/l	21.03	302.23	3.623E-03	Pulse	0.30	3
Fe			2	10.978	ug/l	1.23	20,712.10	2.481E-01	Pulse	0.30	3
Co			2	0.014	ug/l	80.84	103.28	1.238E-03	Pulse	0.30	3
Ni			2	0.150	ug/l	43.93	244.45	2.930E-03	Pulse	0.30	3
Cu			2	0.345	ug/l	1.36	1,632.32	1.955E-02	Pulse	0.30	3
Zn			2	4.698	ug/l	8.17	2,136.83	2.561E-02	Pulse	0.30	3
As			2	0.071	ug/l	32.58	19.00	2.275E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.006	ug/l	-192.91	6.60	1.335E-05	Pulse	0.30	3
Sn			2	1.218	ug/l	11.48	1,647.89	3.345E-03	Pulse	0.30	3
Se			3	0.138	ug/l	32.84	10.00	7.296E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,831,798.09	0.75	99.8	Pulse	0.10	3
1	Sc		2,790,166.21	0.12	102.2	Pulse	0.10	3
1	Ge		568,268.01	0.13	105.8	Pulse	0.10	3
1	Ge		784,528.97	1.13	105.1	Pulse	0.10	3
1	Rh		3,892,032.96	0.80	106.3	Pulse	0.10	3
1	In		4,054,065.03	1.78	106.3	Pulse	0.10	3
1	Tb		5,629,567.83	1.70	107.6	Analog	0.10	3
1	Ho		547,498.21	1.25	106.3	Pulse	0.10	3
1	Bi		3,413,439.01	0.94	113.5	Pulse	0.10	3
2	Sc		83,472.97	1.02	105.0	Pulse	0.30	3
2	Ge		52,518.64	1.41	107.1	Pulse	0.30	3
2	Ge		79,586.93	0.70	107.6	Pulse	0.30	3
2	Rh		1,622,396.12	0.35	107.0	Pulse	0.30	3
2	In		492,540.17	0.57	106.0	Pulse	0.30	3
2	Tb		2,022,187.56	0.53	107.0	Pulse	0.30	3
2	Ho		204,900.21	0.73	107.3	Pulse	0.30	3
2	Bi		1,401,128.07	0.96	110.7	Pulse	0.30	3
3	Sc		136,562.41	1.45	111.9	Pulse	0.30	3
3	Ge		90,335.76	0.53	113.3	Pulse	0.30	3
3	Ge		137,017.18	0.54	112.8	Pulse	0.30	3
3	Rh		1,538,188.38	0.79	110.6	Pulse	0.30	3
3	Tb		2,298,046.92	0.18	109.1	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 13:03
Sample Name	mp16329-b2conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.868	ug/l	0.90	215,364.52	1.153E-01	Pulse	0.25	3
B			1	85.383	ug/l	0.91	178,662.60	9.567E-02	Pulse	0.15	3
Ca			1	3727.320	ug/l	0.10	1,599,214.82	5.619E-01	Pulse	0.10	3
Sr			1	78.639	ug/l	0.63	1,643,759.92	4.234E-01	Pulse	0.10	3
Mo			1	75.571	ug/l	0.23	309,504.19	7.972E-02	Pulse	0.10	3
Ag			1	76.593	ug/l	0.71	775,110.43	1.900E-01	Pulse	0.10	3
Sn			1	76.444	ug/l	0.42	494,657.27	1.213E-01	Pulse	0.10	3
Sb			1	77.631	ug/l	0.28	579,068.39	1.024E-01	Pulse	0.10	3
Ba			1	78.620	ug/l	1.09	240,048.65	4.245E-02	Pulse	0.10	3
Tl			1	76.454	ug/l	1.62	1,370,143.00	4.171E-01	Pulse	0.10	3
Pb			1	80.317	ug/l	1.10	490,730.58	1.494E-01	Pulse	0.10	3
Pb			1	79.279	ug/l	0.87	430,845.93	1.312E-01	Pulse	0.10	3
Pb			1	79.997	ug/l	0.80	1,975,493.75	6.014E-01	Pulse	0.10	3
Na			2	3855.295	ug/l	1.10	1,368,234.11	1.625E+01	Pulse	0.30	3
Mg			2	3822.181	ug/l	1.16	628,607.27	7.465E+00	Pulse	0.30	3
Al			2	3616.960	ug/l	2.13	189,304.97	2.248E+00	Pulse	0.30	3
K			2	3818.003	ug/l	1.35	392,553.83	4.662E+00	Pulse	0.30	3
Ca			2	4084.939	ug/l	0.88	23,384.36	2.777E-01	Pulse	0.30	3
Ti			2	75.804	ug/l	5.60	3,461.51	4.111E-02	Pulse	0.30	3
V			2	79.149	ug/l	1.03	125,376.38	1.489E+00	Pulse	0.30	3
Cr			2	77.956	ug/l	1.26	161,110.95	1.913E+00	Pulse	0.30	3
Mn			2	77.783	ug/l	1.02	75,267.93	8.938E-01	Pulse	0.30	3
Fe			2	3956.638	ug/l	1.59	6,491,101.83	7.708E+01	Analog	0.30	3
Co			2	78.158	ug/l	0.98	275,534.57	3.272E+00	Pulse	0.30	3
Ni			2	77.746	ug/l	1.53	74,727.38	8.874E-01	Pulse	0.30	3
Cu			2	78.145	ug/l	0.72	211,035.74	2.506E+00	Pulse	0.30	3
Zn			2	73.134	ug/l	1.59	26,153.23	3.106E-01	Pulse	0.30	3
As			2	71.915	ug/l	1.50	13,569.64	1.611E-01	Pulse	1.00	3
Cd			2	73.574	ug/l	1.69	38,917.27	7.912E-02	Pulse	0.30	3
Sn			2	76.183	ug/l	1.02	81,220.70	1.651E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	335.288	ug/l	0.59	19,528.07	1.413E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,867,600.94	0.63	101.8	Pulse	0.10	3
1	Sc		2,846,199.54	0.29	104.2	Pulse	0.10	3
1	Ge		571,857.25	0.60	106.5	Pulse	0.10	3
1	Ge		799,935.64	1.11	107.2	Pulse	0.10	3
1	Rh		3,882,481.19	1.11	106.1	Pulse	0.10	3
1	In		4,078,924.65	0.77	107.0	Pulse	0.10	3
1	Tb		5,654,727.62	1.22	108.0	Analog	0.10	3
1	Ho		558,813.29	1.54	108.5	Pulse	0.10	3
1	Bi		3,284,972.97	1.14	109.3	Pulse	0.10	3
2	Sc		84,218.80	1.14	106.0	Pulse	0.30	3
2	Ge		52,137.47	0.40	106.3	Pulse	0.30	3
2	Ge		79,955.72	0.54	108.1	Pulse	0.30	3
2	Rh		1,622,439.62	0.22	107.0	Pulse	0.30	3
2	In		491,822.88	0.51	105.9	Pulse	0.30	3
2	Tb		2,034,943.39	0.30	107.7	Pulse	0.30	3
2	Ho		204,667.42	0.44	107.2	Pulse	0.30	3
2	Bi		1,356,775.64	0.62	107.2	Pulse	0.30	3
3	Sc		139,580.16	0.12	114.4	Pulse	0.30	3
3	Ge		92,025.00	0.61	115.4	Pulse	0.30	3
3	Ge		138,230.60	0.28	113.7	Pulse	0.30	3
3	Rh		1,539,742.06	0.99	110.7	Pulse	0.30	3
3	Tb		2,308,881.85	0.55	109.6	Pulse	0.30	3

Quantitation Report

File Name	030SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 13:09
Sample Name	mp16329-s3 5
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	76.047	ug/l	0.89	43,735.80	2.377E-02	Pulse	0.25	3
B			1	124.565	ug/l	0.93	50,182.91	2.727E-02	Pulse	0.15	3
Ca			1	47664.052	ug/l	0.41	4,054,489.94	1.432E+00	Pulse	0.10	3
Sr			1	319.984	ug/l	1.11	1,322,285.21	3.446E-01	Pulse	0.10	3
Mo			1	76.153	ug/l	1.69	61,746.32	1.609E-02	Pulse	0.10	3
Ag			1	77.357	ug/l	0.84	154,882.67	3.839E-02	Pulse	0.10	3
Sn			1	74.974	ug/l	0.88	100,164.94	2.483E-02	Pulse	0.10	3
Sb			1	79.246	ug/l	2.08	117,695.94	2.097E-02	Pulse	0.10	3
Ba			1	145.899	ug/l	2.47	88,492.29	1.576E-02	Pulse	0.10	3
Tl			1	77.163	ug/l	1.11	275,666.57	8.436E-02	Pulse	0.10	3
Pb			1	80.855	ug/l	1.88	98,778.72	3.023E-02	Pulse	0.10	3
Pb			1	81.120	ug/l	0.58	88,209.80	2.699E-02	Pulse	0.10	3
Pb			1	80.111	ug/l	1.47	399,643.28	1.223E-01	Pulse	0.10	3
Na			2	12634.975	ug/l	0.93	884,129.62	1.067E+01	Pulse	0.30	3
Mg			2	22688.650	ug/l	1.80	734,468.22	8.862E+00	Pulse	0.30	3
Al			2	3695.194	ug/l	1.26	38,117.41	4.599E-01	Pulse	0.30	3
K			2	5124.881	ug/l	0.69	107,746.83	1.300E+00	Pulse	0.30	3
Ca			2	50380.730	ug/l	1.49	56,615.71	6.831E-01	Pulse	0.30	3
Ti			2	75.467	ug/l	6.96	680.02	8.207E-03	Pulse	0.30	3
V			2	81.346	ug/l	1.93	25,408.46	3.066E-01	Pulse	0.30	3
Cr			2	78.282	ug/l	0.76	32,102.31	3.873E-01	Pulse	0.30	3
Mn			2	564.092	ug/l	1.55	107,419.21	1.296E+00	Pulse	0.30	3
Fe			2	6487.338	ug/l	1.88	2,096,789.92	2.530E+01	Pulse	0.30	3
Co			2	79.562	ug/l	2.29	55,248.79	6.666E-01	Pulse	0.30	3
Ni			2	79.516	ug/l	2.31	15,124.83	1.825E-01	Pulse	0.30	3
Cu			2	79.375	ug/l	1.69	42,760.04	5.159E-01	Pulse	0.30	3
Zn			2	82.257	ug/l	3.08	6,179.01	7.455E-02	Pulse	0.30	3
As			2	75.962	ug/l	2.50	2,826.59	3.410E-02	Pulse	1.00	3
Cd			2	74.813	ug/l	0.35	7,891.30	1.611E-02	Pulse	0.30	3
Sn			2	77.404	ug/l	1.89	16,721.26	3.413E-02	Pulse	0.30	3
Se			3	372.671	ug/l	0.45	4,195.40	3.142E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,840,331.12	0.69	100.3	Pulse	0.10	3
1	Sc		2,831,176.00	0.97	103.7	Pulse	0.10	3
1	Ge		570,043.20	1.19	106.1	Pulse	0.10	3

Quantitation Report

1	Ge		793,687.23	1.47	106.3	Pulse	0.10	3
1	Rh		3,837,648.28	1.22	104.9	Pulse	0.10	3
1	In		4,034,925.29	1.47	105.8	Pulse	0.10	3
1	Tb		5,614,376.79	1.17	107.3	Analog	0.10	3
1	Ho		549,149.99	0.51	106.6	Pulse	0.10	3
1	Bi		3,267,775.26	1.41	108.7	Pulse	0.10	3
2	Sc		82,888.08	0.88	104.3	Pulse	0.30	3
2	Ge		52,791.71	0.79	107.6	Pulse	0.30	3
2	Ge		78,951.79	0.34	106.7	Pulse	0.30	3
2	Rh		1,590,055.77	0.51	104.8	Pulse	0.30	3
2	In		489,929.72	0.66	105.5	Pulse	0.30	3
2	Tb		1,989,520.34	0.71	105.3	Pulse	0.30	3
2	Ho		200,642.10	0.44	105.1	Pulse	0.30	3
2	Bi		1,343,573.45	0.57	106.2	Pulse	0.30	3
3	Sc		135,011.55	1.06	110.6	Pulse	0.30	3
3	Ge		87,586.46	0.18	109.9	Pulse	0.30	3
3	Ge		133,546.52	1.26	109.9	Pulse	0.30	3
3	Rh		1,515,076.54	0.12	108.9	Pulse	0.30	3
3	Tb		2,272,001.99	0.21	107.9	Pulse	0.30	3

Quantitation Report

File Name 031SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 13:14
Sample Name mp16329-s4
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	76.842	ug/l	1.11	43,532.71	2.401E-02	Pulse	0.25	3
B			1	125.269	ug/l	1.64	49,719.77	2.743E-02	Pulse	0.15	3
Ca			1	48651.471	ug/l	1.05	4,103,885.25	1.462E+00	Pulse	0.10	3
Sr			1	321.820	ug/l	0.41	1,321,432.56	3.466E-01	Pulse	0.10	3
Mo			1	76.021	ug/l	0.75	61,244.81	1.606E-02	Pulse	0.10	3
Ag			1	77.549	ug/l	0.69	153,873.56	3.848E-02	Pulse	0.10	3
Sn			1	76.198	ug/l	2.03	100,791.67	2.521E-02	Pulse	0.10	3
Sb			1	79.304	ug/l	1.45	116,923.31	2.098E-02	Pulse	0.10	3
Ba			1	148.840	ug/l	0.68	89,611.92	1.608E-02	Pulse	0.10	3
Tl			1	78.750	ug/l	0.69	276,129.19	8.609E-02	Pulse	0.10	3
Pb			1	81.978	ug/l	1.67	98,306.09	3.065E-02	Pulse	0.10	3
Pb			1	82.173	ug/l	1.20	87,696.90	2.734E-02	Pulse	0.10	3
Pb			1	81.134	ug/l	0.39	397,228.39	1.238E-01	Pulse	0.10	3
Na			2	12963.642	ug/l	1.22	902,341.67	1.094E+01	Pulse	0.30	3
Mg			2	23138.859	ug/l	1.12	745,238.22	9.038E+00	Pulse	0.30	3
Al			2	3758.972	ug/l	1.27	38,571.77	4.678E-01	Pulse	0.30	3
K			2	5223.339	ug/l	0.54	109,149.96	1.324E+00	Pulse	0.30	3
Ca			2	51746.649	ug/l	1.33	57,851.03	7.016E-01	Pulse	0.30	3
Ti			2	73.757	ug/l	8.49	661.14	8.022E-03	Pulse	0.30	3
V			2	81.378	ug/l	2.69	25,286.07	3.067E-01	Pulse	0.30	3
Cr			2	79.003	ug/l	1.96	32,227.01	3.908E-01	Pulse	0.30	3
Mn			2	569.476	ug/l	1.56	107,881.88	1.308E+00	Pulse	0.30	3
Fe			2	6528.894	ug/l	1.34	2,099,420.89	2.546E+01	Pulse	0.30	3
Co			2	79.568	ug/l	1.92	54,968.88	6.667E-01	Pulse	0.30	3
Ni			2	81.059	ug/l	1.11	15,338.37	1.860E-01	Pulse	0.30	3
Cu			2	79.414	ug/l	1.40	42,556.09	5.161E-01	Pulse	0.30	3
Zn			2	79.010	ug/l	2.98	5,923.35	7.185E-02	Pulse	0.30	3
As			2	76.590	ug/l	1.43	2,835.25	3.438E-02	Pulse	1.00	3
Cd			2	78.362	ug/l	1.53	8,087.01	1.687E-02	Pulse	0.30	3
Sn			2	77.692	ug/l	3.32	16,418.66	3.425E-02	Pulse	0.30	3
Se			3	383.969	ug/l	1.31	4,309.77	3.237E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,812,822.37	0.18	98.8	Pulse	0.10	3
1	Sc		2,807,540.48	1.38	102.8	Pulse	0.10	3
1	Ge		563,584.67	1.70	104.9	Pulse	0.10	3

Quantitation Report

1	Ge		783,927.78	0.89	105.0	Pulse	0.10	3
1	Rh		3,812,984.11	0.96	104.2	Pulse	0.10	3
1	In		3,998,736.16	1.66	104.8	Pulse	0.10	3
1	Tb		5,571,926.58	1.21	106.5	Analog	0.10	3
1	Ho		545,399.86	1.22	105.9	Pulse	0.10	3
1	Bi		3,207,497.87	1.43	106.7	Pulse	0.10	3
2	Sc		82,465.77	1.42	103.8	Pulse	0.30	3
2	Ge		51,671.49	1.87	105.3	Pulse	0.30	3
2	Ge		79,455.44	1.34	107.4	Pulse	0.30	3
2	Rh		1,580,590.98	0.39	104.2	Pulse	0.30	3
2	In		479,390.65	0.46	103.2	Pulse	0.30	3
2	Tb		1,982,286.66	0.81	104.9	Pulse	0.30	3
2	Ho		200,029.22	0.69	104.8	Pulse	0.30	3
2	Bi		1,326,328.42	0.74	104.8	Pulse	0.30	3
3	Sc		135,518.38	0.87	111.0	Pulse	0.30	3
3	Ge		87,817.51	0.60	110.1	Pulse	0.30	3
3	Ge		133,146.42	0.35	109.6	Pulse	0.30	3
3	Rh		1,504,543.83	0.86	108.1	Pulse	0.30	3
3	Tb		2,261,009.84	0.45	107.3	Pulse	0.30	3

Quantitation Report

File Name 032SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 13:19
Sample Name jc91111-1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	377.06	57.33	3.108E-05	Pulse	0.25	3
B			1	44.843	ug/l	3.56	16,995.43	9.232E-03	Pulse	0.15	3
Ca			1	44130.661	ug/l	0.60	3,752,393.80	1.326E+00	Pulse	0.10	3
Sr			1	238.836	ug/l	1.52	990,305.72	2.572E-01	Pulse	0.10	3
Mo			1	0.963	ug/l	4.93	900.06	2.336E-04	Pulse	0.10	3
Ag			1	0.096	ug/l	41.45	203.34	5.036E-05	Pulse	0.10	3
Sn			1	-1.319	ug/l	-7.41	3,557.21	8.786E-04	Pulse	0.10	3
Sb			1	1.101	ug/l	10.73	2,046.88	3.648E-04	Pulse	0.10	3
Ba			1	68.648	ug/l	2.31	41,650.01	7.425E-03	Pulse	0.10	3
Tl			1	0.097	ug/l	35.59	1,000.07	3.090E-04	Pulse	0.10	3
Pb			1	0.241	ug/l	10.59	906.73	2.802E-04	Pulse	0.10	3
Pb			1	0.048	ug/l	163.33	670.04	2.070E-04	Pulse	0.10	3
Pb			1	-0.856	ug/l	-1.89	3,380.29	1.044E-03	Pulse	0.10	3
Na			2	8849.990	ug/l	0.37	618,416.22	7.487E+00	Pulse	0.30	3
Mg			2	18800.155	ug/l	0.65	606,554.82	7.343E+00	Pulse	0.30	3
Al			2	26.023	ug/l	11.59	320.01	3.873E-03	Pulse	0.30	3
K			2	1243.293	ug/l	1.67	30,197.40	3.656E-01	Pulse	0.30	3
Ca			2	46477.912	ug/l	0.85	52,062.25	6.303E-01	Pulse	0.30	3
Ti			2	0.737	ug/l	154.36	8.89	1.078E-04	Pulse	0.30	3
V			2	0.219	ug/l	75.21	124.45	1.504E-03	Pulse	0.30	3
Cr			2	0.437	ug/l	3.09	495.57	5.999E-03	Pulse	0.30	3
Mn			2	488.676	ug/l	0.70	92,746.75	1.123E+00	Pulse	0.30	3
Fe			2	2602.253	ug/l	0.29	839,947.71	1.017E+01	Pulse	0.30	3
Co			2	0.088	ug/l	11.25	113.29	1.372E-03	Pulse	0.30	3
Ni			2	0.192	ug/l	26.42	136.67	1.655E-03	Pulse	0.30	3
Cu			2	0.812	ug/l	4.55	1,132.28	1.371E-02	Pulse	0.30	3
Zn			2	5.452	ug/l	9.42	874.48	1.059E-02	Pulse	0.30	3
As			2	0.854	ug/l	9.61	37.33	4.519E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	1218.47	9.95	2.053E-05	Pulse	0.30	3
Sn			2	1.096	ug/l	43.29	576.69	1.189E-03	Pulse	0.30	3
Se			3	0.968	ug/l	25.20	12.87	9.624E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,840,934.38	0.67	100.3	Pulse	0.10	3
1	Sc		2,829,395.58	0.57	103.6	Pulse	0.10	3
1	Ge		568,250.43	0.91	105.8	Pulse	0.10	3

Quantitation Report

1	Ge		786,653.84	0.62	105.4	Pulse	0.10	3
1	Rh		3,850,892.86	2.19	105.2	Pulse	0.10	3
1	In		4,048,382.98	1.28	106.2	Pulse	0.10	3
1	Tb		5,609,808.67	0.24	107.2	Analog	0.10	3
1	Ho		550,290.63	1.86	106.8	Pulse	0.10	3
1	Bi		3,236,571.83	0.61	107.7	Pulse	0.10	3
2	Sc		82,600.82	0.58	103.9	Pulse	0.30	3
2	Ge		52,728.20	1.25	107.5	Pulse	0.30	3
2	Ge		78,919.63	0.99	106.7	Pulse	0.30	3
2	Rh		1,580,102.61	0.18	104.2	Pulse	0.30	3
2	In		484,669.65	0.37	104.3	Pulse	0.30	3
2	Tb		1,989,205.27	0.35	105.3	Pulse	0.30	3
2	Ho		201,369.94	0.97	105.5	Pulse	0.30	3
2	Bi		1,338,941.20	0.35	105.8	Pulse	0.30	3
3	Sc		134,748.63	0.72	110.4	Pulse	0.30	3
3	Ge		87,896.96	0.64	110.2	Pulse	0.30	3
3	Ge		133,842.25	0.78	110.1	Pulse	0.30	3
3	Rh		1,509,553.31	0.56	108.5	Pulse	0.30	3
3	Tb		2,263,500.53	0.45	107.4	Pulse	0.30	3

Quantitation Report

File Name 033SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 13:24
Sample Name mp16329-sd1
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.181	ug/l	-21.09	29.33	1.593E-05	Pulse	0.25	3
B			1	135.737	ug/l	1.70	9,616.27	5.229E-03	Pulse	0.15	3
Ca			1	43418.590	ug/l	1.40	736,791.06	2.635E-01	Pulse	0.10	3
Sr			1	234.758	ug/l	1.21	193,545.90	5.064E-02	Pulse	0.10	3
Mo			1	1.263	ug/l	5.61	320.01	8.375E-05	Pulse	0.10	3
Ag			1	0.123	ug/l	19.83	60.00	1.477E-05	Pulse	0.10	3
Sn			1	-10.560	ug/l	-12.69	2,556.97	6.295E-04	Pulse	0.10	3
Sb			1	3.375	ug/l	17.15	1,403.45	2.525E-04	Pulse	0.10	3
Ba			1	69.171	ug/l	2.49	8,365.91	1.507E-03	Pulse	0.10	3
Tl			1	-0.088	ug/l	-107.14	593.37	1.840E-04	Pulse	0.10	3
Pb			1	0.668	ug/l	39.84	776.72	2.404E-04	Pulse	0.10	3
Pb			1	0.060	ug/l	762.31	630.04	1.952E-04	Pulse	0.10	3
Pb			1	-4.829	ug/l	-4.51	2,843.55	8.808E-04	Pulse	0.10	3
Na			2	8711.323	ug/l	1.20	126,931.89	1.515E+00	Pulse	0.30	3
Mg			2	18359.809	ug/l	0.80	120,224.27	1.435E+00	Pulse	0.30	3
Al			2	64.468	ug/l	5.02	187.78	2.241E-03	Pulse	0.30	3
K			2	1306.633	ug/l	4.45	10,825.82	1.292E-01	Pulse	0.30	3
Ca			2	44894.199	ug/l	2.49	10,287.71	1.228E-01	Pulse	0.30	3
Ti			2	5.449	ug/l	85.05	12.22	1.461E-04	Pulse	0.30	3
V			2	0.487	ug/l	100.12	87.78	1.047E-03	Pulse	0.30	3
Cr			2	0.759	ug/l	123.59	385.57	4.602E-03	Pulse	0.30	3
Mn			2	479.498	ug/l	1.11	18,510.48	2.209E-01	Pulse	0.30	3
Fe			2	2612.901	ug/l	1.36	173,400.10	2.070E+00	Pulse	0.30	3
Co			2	-0.035	ug/l	-477.63	48.42	5.773E-04	Pulse	0.30	3
Ni			2	0.764	ug/l	57.00	131.11	1.565E-03	Pulse	0.30	3
Cu			2	0.953	ug/l	49.50	815.59	9.735E-03	Pulse	0.30	3
Zn			2	19.992	ug/l	26.50	785.59	9.378E-03	Pulse	0.30	3
As			2	1.445	ug/l	70.71	16.67	1.990E-04	Pulse	1.00	3
Cd			2	-0.081	ug/l	-303.38	7.76	1.593E-05	Pulse	0.30	3
Sn			2	1.526	ug/l	58.59	414.45	8.481E-04	Pulse	0.30	3
Se			3	1.437	ug/l	27.66	5.20	3.891E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,839,218.27	0.98	100.2	Pulse	0.10	3
1	Sc		2,796,552.88	1.12	102.4	Pulse	0.10	3
1	Ge		565,949.69	0.56	105.4	Pulse	0.10	3

Quantitation Report

1	Ge		787,301.99	1.31	105.5	Pulse	0.10	3
1	Rh		3,821,625.88	0.47	104.4	Pulse	0.10	3
1	In		4,062,229.55	0.63	106.5	Pulse	0.10	3
1	Tb		5,552,582.83	1.53	106.1	Analog	0.10	3
1	Ho		541,475.24	0.94	105.1	Pulse	0.10	3
1	Bi		3,227,536.20	2.01	107.4	Pulse	0.10	3
2	Sc		83,788.04	0.37	105.4	Pulse	0.30	3
2	Ge		53,070.31	0.88	108.2	Pulse	0.30	3
2	Ge		80,669.23	1.22	109.1	Pulse	0.30	3
2	Rh		1,607,971.19	0.19	106.0	Pulse	0.30	3
2	In		488,485.20	0.63	105.2	Pulse	0.30	3
2	Tb		1,973,243.67	0.39	104.4	Pulse	0.30	3
2	Ho		200,505.23	0.38	105.0	Pulse	0.30	3
2	Bi		1,328,290.75	0.36	105.0	Pulse	0.30	3
3	Sc		136,589.01	1.21	111.9	Pulse	0.30	3
3	Ge		88,911.25	0.68	111.5	Pulse	0.30	3
3	Ge		133,550.91	0.96	109.9	Pulse	0.30	3
3	Rh		1,521,458.38	0.25	109.4	Pulse	0.30	3
3	Tb		2,251,179.01	0.62	106.9	Pulse	0.30	3

Quantitation Report

File Name 034SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 13:29
Sample Name mp16329-ps1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	81.491	ug/l	0.60	47,493.84	2.546E-02	Pulse	0.25	3
B			1	123.055	ug/l	1.09	50,221.36	2.693E-02	Pulse	0.15	3
Ca			1	43691.497	ug/l	0.38	3,748,683.49	1.313E+00	Pulse	0.10	3
Sr			1	301.817	ug/l	0.33	1,251,495.97	3.250E-01	Pulse	0.10	3
Mo			1	82.526	ug/l	1.24	67,134.65	1.743E-02	Pulse	0.10	3
Ag			1	80.183	ug/l	1.55	161,107.20	3.979E-02	Pulse	0.10	3
Sn			1	81.447	ug/l	0.79	108,738.12	2.686E-02	Pulse	0.10	3
Sb			1	82.867	ug/l	0.94	122,898.27	2.192E-02	Pulse	0.10	3
Ba			1	143.046	ug/l	0.55	86,658.99	1.546E-02	Pulse	0.10	3
Tl			1	81.916	ug/l	1.33	290,067.10	8.955E-02	Pulse	0.10	3
Pb			1	82.201	ug/l	0.77	99,552.06	3.073E-02	Pulse	0.10	3
Pb			1	81.878	ug/l	1.06	88,252.81	2.724E-02	Pulse	0.10	3
Pb			1	81.720	ug/l	0.33	404,033.08	1.247E-01	Pulse	0.10	3
Na			2	12133.245	ug/l	0.98	862,192.52	1.025E+01	Pulse	0.30	3
Mg			2	21086.703	ug/l	0.74	693,125.88	8.236E+00	Pulse	0.30	3
Al			2	3991.944	ug/l	1.09	41,802.82	4.967E-01	Pulse	0.30	3
K			2	5297.728	ug/l	0.71	112,900.22	1.342E+00	Pulse	0.30	3
Ca			2	46255.760	ug/l	0.95	52,791.10	6.273E-01	Pulse	0.30	3
Ti			2	77.811	ug/l	4.96	712.24	8.461E-03	Pulse	0.30	3
V			2	85.208	ug/l	1.91	27,022.09	3.211E-01	Pulse	0.30	3
Cr			2	84.127	ug/l	1.10	35,008.14	4.159E-01	Pulse	0.30	3
Mn			2	518.717	ug/l	0.69	100,301.44	1.192E+00	Pulse	0.30	3
Fe			2	6451.194	ug/l	0.79	2,117,226.31	2.516E+01	Pulse	0.30	3
Co			2	84.166	ug/l	1.53	59,342.59	7.052E-01	Pulse	0.30	3
Ni			2	82.954	ug/l	1.70	16,016.79	1.903E-01	Pulse	0.30	3
Cu			2	83.987	ug/l	0.80	45,896.20	5.453E-01	Pulse	0.30	3
Zn			2	87.272	ug/l	2.20	6,624.74	7.873E-02	Pulse	0.30	3
As			2	81.332	ug/l	3.90	3,071.30	3.650E-02	Pulse	1.00	3
Cd			2	81.374	ug/l	1.32	8,523.64	1.752E-02	Pulse	0.30	3
Sn			2	84.297	ug/l	1.80	18,050.45	3.710E-02	Pulse	0.30	3
Se			3	395.672	ug/l	1.73	4,466.68	3.335E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,865,151.50	0.74	101.6	Pulse	0.10	3
1	Sc		2,855,035.58	0.75	104.6	Pulse	0.10	3
1	Ge		573,087.06	1.01	106.7	Pulse	0.10	3

Quantitation Report

1	Ge		801,278.79	1.23	107.4	Pulse	0.10	3
1	Rh		3,850,403.17	0.99	105.2	Pulse	0.10	3
1	In		4,048,677.55	0.43	106.2	Pulse	0.10	3
1	Tb		5,606,455.12	1.02	107.1	Analog	0.10	3
1	Ho		544,787.42	1.16	105.8	Pulse	0.10	3
1	Bi		3,239,416.82	0.97	107.8	Pulse	0.10	3
2	Sc		84,158.49	0.98	105.9	Pulse	0.30	3
2	Ge		52,753.68	0.39	107.5	Pulse	0.30	3
2	Ge		79,840.59	0.51	107.9	Pulse	0.30	3
2	Rh		1,593,851.57	0.45	105.1	Pulse	0.30	3
2	In		486,567.65	1.27	104.8	Pulse	0.30	3
2	Tb		1,979,656.10	0.59	104.8	Pulse	0.30	3
2	Ho		199,507.95	0.50	104.5	Pulse	0.30	3
2	Bi		1,328,594.74	0.69	105.0	Pulse	0.30	3
3	Sc		137,688.13	1.27	112.8	Pulse	0.30	3
3	Ge		88,578.29	0.77	111.1	Pulse	0.30	3
3	Ge		133,921.59	0.42	110.2	Pulse	0.30	3
3	Rh		1,515,188.79	0.21	108.9	Pulse	0.30	3
3	Tb		2,269,889.49	0.39	107.8	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 13:34
Sample Name	jc91111-2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	204.02	57.33	2.969E-05	Pulse	0.25	3
B			1	31.435	ug/l	2.89	25,686.40	1.331E-02	Pulse	0.15	3
Ca			1	66829.172	ug/l	0.40	11,745,756.08	4.010E+00	Analog	0.10	3
Sr			1	401.708	ug/l	0.42	3,348,919.22	8.650E-01	Pulse	0.10	3
Mo			1	0.789	ug/l	8.83	1,406.78	3.632E-04	Pulse	0.10	3
Ag			1	0.051	ug/l	9.84	216.68	5.276E-05	Pulse	0.10	3
Sn			1	-0.456	ug/l	-8.56	4,130.72	1.006E-03	Pulse	0.10	3
Sb			1	0.761	ug/l	2.75	2,710.33	4.757E-04	Pulse	0.10	3
Ba			1	19.045	ug/l	1.90	23,498.53	4.126E-03	Pulse	0.10	3
Tl			1	-0.009	ug/l	-127.54	590.04	1.826E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	21.72	663.37	2.052E-04	Pulse	0.10	3
Pb			1	-0.023	ug/l	-293.59	570.03	1.763E-04	Pulse	0.10	3
Pb			1	-0.515	ug/l	-3.28	2,540.18	7.855E-04	Pulse	0.10	3
Na			2	11393.258	ug/l	0.95	1,671,235.70	1.920E+01	Pulse	0.30	3
Mg			2	25298.880	ug/l	0.75	1,720,488.57	1.976E+01	Pulse	0.30	3
Al			2	4.926	ug/l	7.00	162.23	1.863E-03	Pulse	0.30	3
K			2	1776.286	ug/l	1.11	80,221.90	9.215E-01	Pulse	0.30	3
Ca			2	69652.878	ug/l	0.97	164,245.14	1.887E+00	Pulse	0.30	3
Ti			2	0.401	ug/l	0.91	10.00	1.149E-04	Pulse	0.30	3
V			2	0.205	ug/l	29.49	193.34	2.223E-03	Pulse	0.30	3
Cr			2	0.349	ug/l	23.18	633.35	7.275E-03	Pulse	0.30	3
Mn			2	399.443	ug/l	1.75	159,767.18	1.835E+00	Pulse	0.30	3
Fe			2	20.531	ug/l	2.14	16,915.43	1.943E-01	Pulse	0.30	3
Co			2	0.439	ug/l	12.88	695.53	7.985E-03	Pulse	0.30	3
Ni			2	1.914	ug/l	5.64	865.59	9.941E-03	Pulse	0.30	3
Cu			2	0.324	ug/l	20.45	1,102.27	1.266E-02	Pulse	0.30	3
Zn			2	6.313	ug/l	7.91	1,442.30	1.656E-02	Pulse	0.30	3
As			2	0.226	ug/l	26.66	23.67	2.719E-04	Pulse	1.00	3
Cd			2	-0.009	ug/l	-207.77	7.71	1.566E-05	Pulse	0.30	3
Sn			2	0.830	ug/l	23.87	705.58	1.433E-03	Pulse	0.30	3
Se			3	0.164	ug/l	17.43	5.80	4.227E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,929,645.50	0.58	105.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,928,998.39	0.82	107.3	Pulse	0.10	3
1	Ge		583,885.93	2.16	108.7	Pulse	0.10	3
1	Ge		810,853.37	0.51	108.6	Pulse	0.10	3
1	Rh		3,871,495.57	1.04	105.8	Pulse	0.10	3
1	In		4,106,985.58	1.34	107.7	Pulse	0.10	3
1	Tb		5,696,594.29	1.10	108.8	Analog	0.10	3
1	Ho		553,506.39	2.05	107.5	Pulse	0.10	3
1	Bi		3,232,487.97	1.27	107.5	Pulse	0.10	3
2	Sc		87,063.65	0.69	109.5	Pulse	0.30	3
2	Ge		53,837.27	0.75	109.7	Pulse	0.30	3
2	Ge		81,495.41	0.76	110.2	Pulse	0.30	3
2	Rh		1,614,718.89	0.67	106.5	Pulse	0.30	3
2	In		492,520.56	0.10	106.0	Pulse	0.30	3
2	Tb		2,015,705.40	0.15	106.7	Pulse	0.30	3
2	Ho		203,489.10	0.62	106.6	Pulse	0.30	3
2	Bi		1,339,319.67	0.49	105.8	Pulse	0.30	3
3	Sc		141,519.98	0.31	116.0	Pulse	0.30	3
3	Ge		90,322.14	0.66	113.3	Pulse	0.30	3
3	Ge		137,144.77	0.77	112.9	Pulse	0.30	3
3	Rh		1,509,434.91	0.63	108.5	Pulse	0.30	3
3	Tb		2,288,128.66	0.44	108.6	Pulse	0.30	3

Quantitation Report

File Name 036_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 13:39
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.301	ug/l	1.33	297,809.29	1.570E-01	Pulse	0.25	3
B			1	102.135	ug/l	1.96	436,430.90	2.301E-01	Pulse	0.15	3
Ca			1	4781.891	ug/l	0.42	4,174,129.31	1.437E+00	Pulse	0.10	3
Sr			1	52.582	ug/l	0.70	2,189,650.90	5.662E-01	Pulse	0.10	3
Mo			1	51.465	ug/l	0.59	419,870.28	1.086E-01	Pulse	0.10	3
Ag			1	50.057	ug/l	0.65	1,012,357.95	2.484E-01	Pulse	0.10	3
Sn			1	50.355	ug/l	1.05	649,454.34	1.594E-01	Pulse	0.10	3
Sb			1	53.219	ug/l	1.14	791,177.54	1.404E-01	Pulse	0.10	3
Ba			1	51.863	ug/l	0.97	315,646.58	5.600E-02	Pulse	0.10	3
Tl			1	52.107	ug/l	0.35	1,794,917.53	5.685E-01	Pulse	0.10	3
Pb			1	51.651	ug/l	0.51	606,486.40	1.921E-01	Pulse	0.10	3
Pb			1	51.280	ug/l	0.82	535,547.49	1.696E-01	Pulse	0.10	3
Pb			1	51.663	ug/l	0.29	2,450,321.81	7.761E-01	Pulse	0.10	3
Na			2	4992.617	ug/l	0.31	3,597,180.13	4.200E+01	Pulse	0.30	3
Mg			2	4929.543	ug/l	0.45	1,649,029.86	1.925E+01	Pulse	0.30	3
Al			2	4698.045	ug/l	1.32	500,106.78	5.839E+00	Pulse	0.30	3
K			2	4981.980	ug/l	0.89	1,032,782.70	1.206E+01	Pulse	0.30	3
Ca			2	5077.520	ug/l	0.26	58,962.72	6.884E-01	Pulse	0.30	3
Ti			2	51.172	ug/l	1.59	4,752.95	5.549E-02	Pulse	0.30	3
V			2	51.628	ug/l	0.36	166,332.15	1.942E+00	Pulse	0.30	3
Cr			2	50.865	ug/l	0.48	213,733.66	2.495E+00	Pulse	0.30	3
Mn			2	50.627	ug/l	0.59	99,631.92	1.163E+00	Pulse	0.30	3
Fe			2	4982.177	ug/l	0.72	16,620,968.78	1.941E+02	Analog	0.30	3
Co			2	50.832	ug/l	1.06	364,490.50	4.256E+00	Pulse	0.30	3
Ni			2	50.590	ug/l	1.91	98,872.55	1.154E+00	Pulse	0.30	3
Cu			2	49.928	ug/l	0.78	274,046.20	3.200E+00	Pulse	0.30	3
Zn			2	49.829	ug/l	1.67	36,057.46	4.210E-01	Pulse	0.30	3
As			2	50.361	ug/l	2.05	19,328.42	2.257E-01	Pulse	1.00	3
Cd			2	50.118	ug/l	1.49	53,022.89	1.078E-01	Pulse	0.30	3
Sn			2	49.643	ug/l	0.62	105,758.92	2.150E-01	Pulse	0.30	3
Se			3	198.880	ug/l	1.21	22,042.51	1.676E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,896,522.78	0.83	103.3	Pulse	0.10	3
1	Sc		2,905,292.04	0.96	106.4	Pulse	0.10	3
1	Ge		577,529.94	1.59	107.5	Pulse	0.10	3

Quantitation Report

1	Ge		809,337.57	0.51	108.4	Pulse	0.10	3
1	Rh		3,867,398.69	0.52	105.7	Pulse	0.10	3
1	In		4,075,536.09	0.52	106.9	Pulse	0.10	3
1	Tb		5,636,593.04	1.88	107.7	Analog	0.10	3
1	Ho		555,992.43	1.96	107.9	Pulse	0.10	3
1	Bi		3,157,173.29	0.10	105.0	Pulse	0.10	3
2	Sc		85,648.19	0.52	107.8	Pulse	0.30	3
2	Ge		53,663.35	0.77	109.4	Pulse	0.30	3
2	Ge		80,618.84	1.20	109.0	Pulse	0.30	3
2	Rh		1,596,430.63	0.29	105.3	Pulse	0.30	3
2	In		491,910.15	0.39	105.9	Pulse	0.30	3
2	Tb		1,984,407.77	0.38	105.0	Pulse	0.30	3
2	Ho		201,633.55	0.85	105.6	Pulse	0.30	3
2	Bi		1,321,058.00	0.16	104.4	Pulse	0.30	3
3	Sc		135,316.85	0.80	110.9	Pulse	0.30	3
3	Ge		87,641.27	1.07	109.9	Pulse	0.30	3
3	Ge		131,545.14	1.90	108.2	Pulse	0.30	3
3	Rh		1,479,116.75	0.48	106.3	Pulse	0.30	3
3	Tb		2,238,147.34	0.54	106.2	Pulse	0.30	3

Quantitation Report

File Name 037_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 13:44
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	67.40	72.00	3.832E-05	Pulse	0.25	3
B			1	4.621	ug/l	3.33	17,929.82	9.541E-03	Pulse	0.15	3
Ca			1	1.560	ug/l	36.22	10,233.62	3.620E-03	Pulse	0.10	3
Sr			1	0.011	ug/l	47.17	823.40	2.153E-04	Pulse	0.10	3
Mo			1	0.065	ug/l	6.29	643.37	1.680E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	21.93	260.01	6.453E-05	Pulse	0.10	3
Sn			1	-0.162	ug/l	-10.59	3,153.78	7.829E-04	Pulse	0.10	3
Sb			1	0.127	ug/l	10.87	2,286.91	4.082E-04	Pulse	0.10	3
Ba			1	0.018	ug/l	54.77	186.68	3.330E-05	Pulse	0.10	3
Tl			1	0.015	ug/l	34.08	1,180.09	3.681E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	167.53	653.37	2.034E-04	Pulse	0.10	3
Pb			1	-0.006	ug/l	-139.12	553.37	1.727E-04	Pulse	0.10	3
Pb			1	-0.100	ug/l	-5.54	2,676.88	8.342E-04	Pulse	0.10	3
Na			2	1.263	ug/l	52.62	5,175.30	6.171E-02	Pulse	0.30	3
Mg			2	0.607	ug/l	28.21	265.56	3.166E-03	Pulse	0.30	3
Al			2	0.488	ug/l	47.81	104.45	1.245E-03	Pulse	0.30	3
K			2	1.790	ug/l	5.80	5,920.00	7.060E-02	Pulse	0.30	3
Ca			2	-4.405	ug/l	-43.14	55.56	6.629E-04	Pulse	0.30	3
Ti			2	-0.014	ug/l	-156.62	1.11	1.327E-05	Pulse	0.30	3
V			2	0.001	ug/l	202.61	60.00	7.157E-04	Pulse	0.30	3
Cr			2	0.016	ug/l	43.27	390.01	4.650E-03	Pulse	0.30	3
Mn			2	0.001	ug/l	1486.00	60.00	7.161E-04	Pulse	0.30	3
Fe			2	0.820	ug/l	9.61	5,559.89	6.630E-02	Pulse	0.30	3
Co			2	0.005	ug/l	39.19	86.65	1.033E-03	Pulse	0.30	3
Ni			2	0.011	ug/l	110.83	122.23	1.458E-03	Pulse	0.30	3
Cu			2	-0.003	ug/l	-356.09	695.58	8.295E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.080	ug/l	-80.89	451.12	5.379E-03	Pulse	0.30	3
As			2	0.006	ug/l	138.93	8.00	9.548E-05	Pulse	1.00	3
Cd			2	0.003	ug/l	385.46	12.18	2.479E-05	Pulse	0.30	3
Sn			2	0.140	ug/l	8.03	648.91	1.322E-03	Pulse	0.30	3
Se			3	0.092	ug/l	20.53	12.20	9.234E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,879,597.68	1.03	102.4	Pulse	0.10	3
1	Sc		2,827,774.96	1.11	103.6	Pulse	0.10	3
1	Ge		567,620.55	0.64	105.7	Pulse	0.10	3
1	Ge		790,124.13	1.70	105.9	Pulse	0.10	3
1	Rh		3,829,286.92	1.13	104.6	Pulse	0.10	3
1	In		4,028,407.74	0.97	105.6	Pulse	0.10	3
1	Tb		5,604,345.75	0.64	107.1	Analog	0.10	3
1	Ho		543,943.27	1.95	105.6	Pulse	0.10	3
1	Bi		3,209,020.16	1.47	106.7	Pulse	0.10	3
2	Sc		83,851.53	0.33	105.5	Pulse	0.30	3
2	Ge		53,227.52	0.57	108.5	Pulse	0.30	3
2	Ge		79,530.44	0.21	107.5	Pulse	0.30	3
2	Rh		1,611,003.79	0.55	106.2	Pulse	0.30	3
2	In		490,783.61	0.40	105.7	Pulse	0.30	3
2	Tb		1,979,357.35	0.79	104.8	Pulse	0.30	3
2	Ho		199,669.53	0.14	104.6	Pulse	0.30	3
2	Bi		1,334,012.48	0.54	105.4	Pulse	0.30	3
3	Sc		134,479.52	0.43	110.2	Pulse	0.30	3
3	Ge		87,436.83	0.15	109.7	Pulse	0.30	3
3	Ge		132,134.65	0.80	108.7	Pulse	0.30	3
3	Rh		1,523,681.99	0.30	109.5	Pulse	0.30	3
3	Tb		2,244,715.33	0.06	106.6	Pulse	0.30	3

Quantitation Report

File Name 038SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 13:49
Sample Name jc91111-3
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.026	ug/l	-11.86	37.33	1.921E-05	Pulse	0.25	3
B			1	52.470	ug/l	1.22	21,289.32	1.096E-02	Pulse	0.15	3
Ca			1	65150.063	ug/l	0.69	5,751,037.00	1.956E+00	Analog	0.10	3
Sr			1	382.012	ug/l	1.38	1,624,655.13	4.114E-01	Pulse	0.10	3
Mo			1	0.840	ug/l	1.37	820.05	2.076E-04	Pulse	0.10	3
Ag			1	0.516	ug/l	6.23	1,070.07	2.587E-04	Pulse	0.10	3
Sn			1	-1.253	ug/l	-11.45	3,720.57	8.990E-04	Pulse	0.10	3
Sb			1	0.969	ug/l	14.03	1,866.84	3.301E-04	Pulse	0.10	3
Ba			1	18.824	ug/l	2.49	11,571.33	2.046E-03	Pulse	0.10	3
Tl			1	-0.032	ug/l	-61.36	546.70	1.687E-04	Pulse	0.10	3
Pb			1	0.079	ug/l	34.79	713.38	2.200E-04	Pulse	0.10	3
Pb			1	-0.016	ug/l	-844.48	603.37	1.860E-04	Pulse	0.10	3
Pb			1	-0.982	ug/l	-5.69	2,776.88	8.561E-04	Pulse	0.10	3
Na			2	11016.124	ug/l	0.93	821,980.76	9.307E+00	Pulse	0.30	3
Mg			2	24476.841	ug/l	0.26	844,369.08	9.560E+00	Pulse	0.30	3
Al			2	3.463	ug/l	44.49	94.44	1.069E-03	Pulse	0.30	3
K			2	1718.630	ug/l	0.87	42,393.56	4.800E-01	Pulse	0.30	3
Ca			2	67652.518	ug/l	0.52	80,976.36	9.168E-01	Pulse	0.30	3
Ti			2	0.323	ug/l	164.62	5.56	6.298E-05	Pulse	0.30	3
V			2	0.160	ug/l	5.66	113.33	1.283E-03	Pulse	0.30	3
Cr			2	0.330	ug/l	21.06	483.35	5.472E-03	Pulse	0.30	3
Mn			2	412.629	ug/l	0.92	83,748.18	9.482E-01	Pulse	0.30	3
Fe			2	31.586	ug/l	2.58	13,900.40	1.574E-01	Pulse	0.30	3
Co			2	0.462	ug/l	1.60	397.75	4.503E-03	Pulse	0.30	3
Ni			2	1.889	ug/l	3.89	487.79	5.523E-03	Pulse	0.30	3
Cu			2	0.409	ug/l	6.37	983.37	1.113E-02	Pulse	0.30	3
Zn			2	6.560	ug/l	10.44	1,016.71	1.151E-02	Pulse	0.30	3
As			2	0.392	ug/l	42.88	21.67	2.453E-04	Pulse	1.00	3
Cd			2	-0.029	ug/l	-106.45	6.61	1.317E-05	Pulse	0.30	3
Sn			2	1.298	ug/l	16.43	641.13	1.277E-03	Pulse	0.30	3
Se			3	0.399	ug/l	22.43	6.60	4.829E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,943,000.31	1.24	105.9	Pulse	0.10	3
1	Sc		2,939,867.15	1.39	107.7	Pulse	0.10	3
1	Ge		588,307.71	0.95	109.5	Pulse	0.10	3

Quantitation Report

1	Ge		816,783.84	1.25	109.4	Pulse	0.10	3
1	Rh		3,949,546.19	0.99	107.9	Pulse	0.10	3
1	In		4,137,312.73	0.95	108.5	Pulse	0.10	3
1	Tb		5,657,458.67	0.85	108.1	Analog	0.10	3
1	Ho		552,059.69	2.23	107.2	Pulse	0.10	3
1	Bi		3,242,450.26	1.03	107.9	Pulse	0.10	3
2	Sc		88,320.86	0.29	111.1	Pulse	0.30	3
2	Ge		54,655.47	1.52	111.4	Pulse	0.30	3
2	Ge		83,341.35	0.41	112.7	Pulse	0.30	3
2	Rh		1,637,477.96	0.44	108.0	Pulse	0.30	3
2	In		502,118.85	0.09	108.1	Pulse	0.30	3
2	Tb		2,006,538.88	0.50	106.2	Pulse	0.30	3
2	Ho		203,826.61	0.88	106.7	Pulse	0.30	3
2	Bi		1,351,577.90	0.93	106.8	Pulse	0.30	3
3	Sc		141,151.91	0.86	115.7	Pulse	0.30	3
3	Ge		90,492.06	1.54	113.5	Pulse	0.30	3
3	Ge		136,903.51	1.71	112.7	Pulse	0.30	3
3	Rh		1,536,865.46	0.37	110.5	Pulse	0.30	3
3	Tb		2,278,254.00	0.65	108.1	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 13:54
Sample Name jc91111-4
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.017	ug/l	-169.04	42.67	2.176E-05	Pulse	0.25	3
B			1	48.137	ug/l	1.83	19,515.98	9.977E-03	Pulse	0.15	3
Ca			1	53380.245	ug/l	0.46	4,772,802.22	1.603E+00	Pulse	0.10	3
Sr			1	257.127	ug/l	0.39	1,095,775.30	2.769E-01	Pulse	0.10	3
Mo			1	0.359	ug/l	27.00	420.02	1.062E-04	Pulse	0.10	3
Ag			1	0.047	ug/l	6.18	106.67	2.561E-05	Pulse	0.10	3
Sn			1	-1.683	ug/l	-7.34	3,183.79	7.642E-04	Pulse	0.10	3
Sb			1	0.574	ug/l	36.34	1,280.10	2.259E-04	Pulse	0.10	3
Ba			1	178.900	ug/l	0.98	109,347.03	1.933E-02	Pulse	0.10	3
Tl			1	-0.044	ug/l	-47.74	503.36	1.548E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	376.74	636.70	1.959E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	517.24	640.04	1.971E-04	Pulse	0.10	3
Pb			1	-1.003	ug/l	-2.70	2,680.20	8.246E-04	Pulse	0.10	3
Na			2	8586.440	ug/l	1.36	643,117.56	7.265E+00	Pulse	0.30	3
Mg			2	20623.405	ug/l	1.53	713,049.78	8.055E+00	Pulse	0.30	3
Al			2	11.918	ug/l	12.44	187.78	2.120E-03	Pulse	0.30	3
K			2	1781.281	ug/l	3.47	43,817.26	4.951E-01	Pulse	0.30	3
Ca			2	56475.852	ug/l	1.35	67,766.87	7.656E-01	Pulse	0.30	3
Ti			2	0.666	ug/l	159.63	8.89	1.002E-04	Pulse	0.30	3
V			2	0.234	ug/l	46.11	137.78	1.560E-03	Pulse	0.30	3
Cr			2	0.318	ug/l	39.14	480.01	5.418E-03	Pulse	0.30	3
Mn			2	672.442	ug/l	2.07	136,734.38	1.545E+00	Pulse	0.30	3
Fe			2	12.388	ug/l	5.79	7,311.68	8.262E-02	Pulse	0.30	3
Co			2	0.059	ug/l	28.47	99.98	1.130E-03	Pulse	0.30	3
Ni			2	0.237	ug/l	72.83	155.56	1.756E-03	Pulse	0.30	3
Cu			2	0.900	ug/l	6.18	1,263.40	1.427E-02	Pulse	0.30	3
Zn			2	7.586	ug/l	3.66	1,094.50	1.237E-02	Pulse	0.30	3
As			2	0.249	ug/l	41.50	16.00	1.810E-04	Pulse	1.00	3
Cd			2	-0.039	ug/l	-121.98	5.54	1.103E-05	Pulse	0.30	3
Sn			2	1.092	ug/l	12.36	596.68	1.188E-03	Pulse	0.30	3
Se			3	0.474	ug/l	19.94	7.53	5.463E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,956,146.59	0.81	106.6	Pulse	0.10	3
1	Sc		2,976,640.27	1.48	109.0	Pulse	0.10	3
1	Ge		593,214.95	1.43	110.4	Pulse	0.10	3

Quantitation Report

1	Ge		824,696.78	0.78	110.5	Pulse	0.10	3
1	Rh		3,957,230.05	1.21	108.1	Pulse	0.10	3
1	In		4,165,404.27	0.51	109.2	Pulse	0.10	3
1	Tb		5,657,143.04	1.21	108.1	Analog	0.10	3
1	Ho		554,394.51	1.07	107.6	Pulse	0.10	3
1	Bi		3,251,211.20	0.99	108.2	Pulse	0.10	3
2	Sc		88,526.63	1.33	111.4	Pulse	0.30	3
2	Ge		55,244.14	1.18	112.6	Pulse	0.30	3
2	Ge		83,256.55	0.71	112.5	Pulse	0.30	3
2	Rh		1,649,693.86	0.45	108.8	Pulse	0.30	3
2	In		502,181.87	0.97	108.1	Pulse	0.30	3
2	Tb		2,020,972.14	0.33	107.0	Pulse	0.30	3
2	Ho		204,103.17	0.67	106.9	Pulse	0.30	3
2	Bi		1,348,125.40	0.48	106.5	Pulse	0.30	3
3	Sc		140,235.95	0.49	114.9	Pulse	0.30	3
3	Ge		90,347.88	0.65	113.3	Pulse	0.30	3
3	Ge		137,891.31	0.68	113.5	Pulse	0.30	3
3	Rh		1,537,944.87	0.60	110.5	Pulse	0.30	3
3	Tb		2,283,559.08	0.48	108.4	Pulse	0.30	3

Quantitation Report

File Name 040SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 13:59
Sample Name jc91111-1f
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.015	ug/l	-71.19	44.00	2.253E-05	Pulse	0.25	3
B			1	41.720	ug/l	0.22	16,630.75	8.525E-03	Pulse	0.15	3
Ca			1	44242.572	ug/l	0.33	3,934,764.00	1.330E+00	Pulse	0.10	3
Sr			1	238.715	ug/l	1.53	1,011,615.09	2.571E-01	Pulse	0.10	3
Mo			1	1.017	ug/l	10.80	963.40	2.449E-04	Pulse	0.10	3
Ag			1	0.055	ug/l	45.16	123.34	2.980E-05	Pulse	0.10	3
Sn			1	-0.223	ug/l	-46.84	5,050.98	1.222E-03	Pulse	0.10	3
Sb			1	0.977	ug/l	21.57	1,896.85	3.320E-04	Pulse	0.10	3
Ba			1	62.834	ug/l	2.06	38,846.22	6.797E-03	Pulse	0.10	3
Tl			1	0.008	ug/l	420.08	683.38	2.115E-04	Pulse	0.10	3
Pb			1	0.231	ug/l	29.51	893.40	2.766E-04	Pulse	0.10	3
Pb			1	-0.029	ug/l	-90.14	586.70	1.816E-04	Pulse	0.10	3
Pb			1	-0.879	ug/l	-3.87	3,266.95	1.011E-03	Pulse	0.10	3
Na			2	8889.859	ug/l	0.44	656,640.11	7.520E+00	Pulse	0.30	3
Mg			2	18916.971	ug/l	0.49	645,153.59	7.389E+00	Pulse	0.30	3
Al			2	11.646	ug/l	11.25	182.22	2.086E-03	Pulse	0.30	3
K			2	1262.112	ug/l	1.48	32,314.55	3.701E-01	Pulse	0.30	3
Ca			2	47211.368	ug/l	0.82	55,897.84	6.402E-01	Pulse	0.30	3
Ti			2	1.032	ug/l	18.73	12.22	1.398E-04	Pulse	0.30	3
V			2	0.330	ug/l	19.31	167.78	1.923E-03	Pulse	0.30	3
Cr			2	0.396	ug/l	31.83	506.68	5.799E-03	Pulse	0.30	3
Mn			2	479.167	ug/l	1.01	96,131.67	1.101E+00	Pulse	0.30	3
Fe			2	913.838	ug/l	0.63	313,745.18	3.593E+00	Pulse	0.30	3
Co			2	0.057	ug/l	88.38	96.93	1.110E-03	Pulse	0.30	3
Ni			2	0.153	ug/l	70.38	136.67	1.567E-03	Pulse	0.30	3
Cu			2	0.258	ug/l	8.72	887.81	1.017E-02	Pulse	0.30	3
Zn			2	13.184	ug/l	7.40	1,486.75	1.703E-02	Pulse	0.30	3
As			2	1.142	ug/l	27.22	50.67	5.809E-04	Pulse	1.00	3
Cd			2	-0.019	ug/l	-98.11	7.72	1.543E-05	Pulse	0.30	3
Sn			2	1.988	ug/l	12.39	788.92	1.575E-03	Pulse	0.30	3
Se			3	0.510	ug/l	28.34	7.87	5.770E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,950,737.75	1.15	106.3	Pulse	0.10	3
1	Sc		2,959,509.02	0.72	108.4	Pulse	0.10	3
1	Ge		591,368.34	0.55	110.1	Pulse	0.10	3

Quantitation Report

1	Ge		817,569.94	0.21	109.5	Pulse	0.10	3
1	Rh		3,935,159.94	0.98	107.5	Pulse	0.10	3
1	In		4,132,412.81	1.74	108.4	Pulse	0.10	3
1	Tb		5,716,787.83	2.12	109.2	Analog	0.10	3
1	Ho		556,689.97	1.56	108.1	Pulse	0.10	3
1	Bi		3,232,829.54	1.31	107.5	Pulse	0.10	3
2	Sc		87,316.86	0.91	109.9	Pulse	0.30	3
2	Ge		54,899.69	0.22	111.9	Pulse	0.30	3
2	Ge		81,832.49	0.56	110.6	Pulse	0.30	3
2	Rh		1,630,829.03	0.67	107.5	Pulse	0.30	3
2	In		501,004.94	0.42	107.9	Pulse	0.30	3
2	Tb		2,001,098.88	0.36	105.9	Pulse	0.30	3
2	Ho		202,926.86	0.70	106.3	Pulse	0.30	3
2	Bi		1,348,314.74	0.77	106.5	Pulse	0.30	3
3	Sc		140,781.81	0.32	115.4	Pulse	0.30	3
3	Ge		89,349.06	1.02	112.1	Pulse	0.30	3
3	Ge		136,150.16	1.32	112.0	Pulse	0.30	3
3	Rh		1,524,358.38	0.82	109.6	Pulse	0.30	3
3	Tb		2,271,797.34	0.65	107.8	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 14:04
Sample Name jc91111-2f
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.005	ug/l	-285.33	48.00	2.412E-05	Pulse	0.25	3
B			1	31.699	ug/l	1.65	26,739.32	1.343E-02	Pulse	0.15	3
Ca			1	67164.916	ug/l	0.62	12,199,844.40	4.030E+00	Analog	0.10	3
Sr			1	401.870	ug/l	0.72	3,465,918.70	8.654E-01	Pulse	0.10	3
Mo			1	0.634	ug/l	6.77	1,193.42	2.981E-04	Pulse	0.10	3
Ag			1	0.034	ug/l	3.37	153.34	3.661E-05	Pulse	0.10	3
Sn			1	-0.427	ug/l	-15.83	4,290.77	1.024E-03	Pulse	0.10	3
Sb			1	0.396	ug/l	13.83	1,633.48	2.831E-04	Pulse	0.10	3
Ba			1	17.881	ug/l	1.12	22,383.67	3.874E-03	Pulse	0.10	3
Tl			1	-0.028	ug/l	-29.04	460.02	1.412E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-8649.23	620.04	1.904E-04	Pulse	0.10	3
Pb			1	-0.074	ug/l	-62.67	463.36	1.421E-04	Pulse	0.10	3
Pb			1	-0.543	ug/l	-4.17	2,286.83	7.020E-04	Pulse	0.10	3
Na			2	11463.476	ug/l	0.80	1,744,895.87	1.931E+01	Pulse	0.30	3
Mg			2	25335.856	ug/l	0.87	1,787,933.12	1.979E+01	Pulse	0.30	3
Al			2	2.376	ug/l	95.53	111.11	1.229E-03	Pulse	0.30	3
K			2	1777.431	ug/l	1.33	83,296.73	9.220E-01	Pulse	0.30	3
Ca			2	70633.470	ug/l	0.59	172,838.42	1.913E+00	Pulse	0.30	3
Ti			2	0.211	ug/l	80.24	6.67	7.378E-05	Pulse	0.30	3
V			2	0.238	ug/l	14.03	223.34	2.472E-03	Pulse	0.30	3
Cr			2	0.302	ug/l	4.50	615.58	6.814E-03	Pulse	0.30	3
Mn			2	300.365	ug/l	0.88	124,692.87	1.380E+00	Pulse	0.30	3
Fe			2	18.747	ug/l	3.84	16,295.95	1.804E-01	Pulse	0.30	3
Co			2	0.279	ug/l	26.61	479.97	5.313E-03	Pulse	0.30	3
Ni			2	1.314	ug/l	11.32	651.13	7.207E-03	Pulse	0.30	3
Cu			2	0.157	ug/l	48.91	951.15	1.053E-02	Pulse	0.30	3
Zn			2	4.019	ug/l	8.31	1,151.17	1.274E-02	Pulse	0.30	3
As			2	0.305	ug/l	31.85	31.00	3.429E-04	Pulse	1.00	3
Cd			2	-0.020	ug/l	-118.88	5.50	1.090E-05	Pulse	0.30	3
Sn			2	0.858	ug/l	2.07	737.80	1.457E-03	Pulse	0.30	3
Se			3	0.119	ug/l	70.96	4.87	3.481E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,991,299.37	0.87	108.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,026,985.16	0.06	110.9	Pulse	0.10	3
1	Ge		602,596.35	0.63	112.2	Pulse	0.10	3
1	Ge		834,188.79	0.69	111.8	Pulse	0.10	3
1	Rh		4,005,001.09	0.97	109.4	Pulse	0.10	3
1	In		4,187,936.21	1.41	109.8	Pulse	0.10	3
1	Tb		5,777,643.66	2.18	110.4	Analog	0.10	3
1	Ho		559,222.33	1.35	108.6	Pulse	0.10	3
1	Bi		3,258,227.04	0.55	108.4	Pulse	0.10	3
2	Sc		90,344.19	0.51	113.7	Pulse	0.30	3
2	Ge		55,887.44	0.69	113.9	Pulse	0.30	3
2	Ge		83,607.17	0.84	113.0	Pulse	0.30	3
2	Rh		1,646,587.64	0.32	108.6	Pulse	0.30	3
2	In		506,303.15	0.62	109.0	Pulse	0.30	3
2	Tb		2,044,304.22	0.45	108.2	Pulse	0.30	3
2	Ho		206,188.20	0.67	108.0	Pulse	0.30	3
2	Bi		1,340,243.59	0.62	105.9	Pulse	0.30	3
3	Sc		144,055.51	0.60	118.0	Pulse	0.30	3
3	Ge		92,362.54	0.81	115.8	Pulse	0.30	3
3	Ge		139,707.44	0.21	115.0	Pulse	0.30	3
3	Rh		1,534,775.46	0.60	110.3	Pulse	0.30	3
3	Tb		2,303,145.40	1.07	109.3	Pulse	0.30	3

Quantitation Report

File Name	042SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 14:09
Sample Name	jc91111-3f
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.015	ug/l	-93.84	36.00	1.801E-05	Pulse	0.25	3
B			1	30.461	ug/l	1.99	25,653.17	1.287E-02	Pulse	0.15	3
Ca			1	65697.714	ug/l	0.61	11,941,763.15	3.942E+00	Analog	0.10	3
Sr			1	397.334	ug/l	0.53	3,389,220.36	8.556E-01	Pulse	0.10	3
Mo			1	0.570	ug/l	13.55	1,073.41	2.711E-04	Pulse	0.10	3
Ag			1	0.026	ug/l	33.09	120.00	2.883E-05	Pulse	0.10	3
Sn			1	-0.571	ug/l	-15.17	3,887.31	9.337E-04	Pulse	0.10	3
Sb			1	0.337	ug/l	9.78	1,450.11	2.525E-04	Pulse	0.10	3
Ba			1	17.547	ug/l	2.30	21,836.18	3.802E-03	Pulse	0.10	3
Tl			1	-0.031	ug/l	-32.85	443.36	1.363E-04	Pulse	0.10	3
Pb			1	-0.031	ug/l	-66.28	546.70	1.678E-04	Pulse	0.10	3
Pb			1	-0.119	ug/l	-28.00	366.68	1.125E-04	Pulse	0.10	3
Pb			1	-0.566	ug/l	-2.71	2,060.14	6.324E-04	Pulse	0.10	3
Na			2	11273.402	ug/l	0.32	1,718,319.24	1.899E+01	Pulse	0.30	3
Mg			2	24899.021	ug/l	0.52	1,759,406.46	1.945E+01	Pulse	0.30	3
Al			2	1.390	ug/l	88.15	88.89	9.842E-04	Pulse	0.30	3
K			2	1751.719	ug/l	0.33	82,285.09	9.096E-01	Pulse	0.30	3
Ca			2	69435.715	ug/l	0.87	170,131.20	1.881E+00	Pulse	0.30	3
Ti			2	0.266	ug/l	132.16	7.78	8.564E-05	Pulse	0.30	3
V			2	0.253	ug/l	15.83	233.34	2.580E-03	Pulse	0.30	3
Cr			2	0.355	ug/l	10.56	663.36	7.334E-03	Pulse	0.30	3
Mn			2	297.870	ug/l	1.79	123,807.52	1.369E+00	Pulse	0.30	3
Fe			2	21.020	ug/l	3.81	17,917.63	1.981E-01	Pulse	0.30	3
Co			2	0.282	ug/l	3.71	484.41	5.355E-03	Pulse	0.30	3
Ni			2	1.420	ug/l	13.38	695.58	7.692E-03	Pulse	0.30	3
Cu			2	0.157	ug/l	9.43	952.26	1.053E-02	Pulse	0.30	3
Zn			2	3.523	ug/l	7.69	1,077.83	1.192E-02	Pulse	0.30	3
As			2	0.198	ug/l	12.51	22.33	2.468E-04	Pulse	1.00	3
Cd			2	-0.020	ug/l	-43.96	5.49	1.087E-05	Pulse	0.30	3
Sn			2	0.683	ug/l	19.47	658.91	1.306E-03	Pulse	0.30	3
Se			3	0.043	ug/l	49.37	3.07	2.200E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,993,189.51	1.00	108.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,029,047.87	0.25	110.9	Pulse	0.10	3
1	Ge		601,282.65	0.92	111.9	Pulse	0.10	3
1	Ge		836,111.53	0.87	112.0	Pulse	0.10	3
1	Rh		3,961,183.38	0.44	108.2	Pulse	0.10	3
1	In		4,163,551.29	0.19	109.2	Pulse	0.10	3
1	Tb		5,744,185.96	1.44	109.7	Analog	0.10	3
1	Ho		558,813.04	0.50	108.5	Pulse	0.10	3
1	Bi		3,255,364.43	1.30	108.3	Pulse	0.10	3
2	Sc		90,461.30	0.74	113.8	Pulse	0.30	3
2	Ge		55,273.05	0.36	112.7	Pulse	0.30	3
2	Ge		84,548.55	0.47	114.3	Pulse	0.30	3
2	Rh		1,652,414.24	0.87	108.9	Pulse	0.30	3
2	In		504,567.75	0.75	108.6	Pulse	0.30	3
2	Tb		2,042,963.18	0.66	108.1	Pulse	0.30	3
2	Ho		206,120.19	0.81	107.9	Pulse	0.30	3
2	Bi		1,352,997.90	0.53	106.9	Pulse	0.30	3
3	Sc		143,213.69	0.18	117.4	Pulse	0.30	3
3	Ge		91,294.20	0.81	114.5	Pulse	0.30	3
3	Ge		139,383.31	0.10	114.7	Pulse	0.30	3
3	Rh		1,535,217.16	0.46	110.3	Pulse	0.30	3
3	Tb		2,303,363.45	0.55	109.3	Pulse	0.30	3

Quantitation Report

File Name	043SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 14:14
Sample Name	jc91111-4f
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.036	ug/l	-92.91	32.00	1.592E-05	Pulse	0.25	3
B			1	40.295	ug/l	3.75	16,461.64	8.203E-03	Pulse	0.15	3
Ca			1	53161.425	ug/l	0.93	4,804,220.14	1.597E+00	Pulse	0.10	3
Sr			1	259.448	ug/l	0.26	1,117,766.99	2.794E-01	Pulse	0.10	3
Mo			1	0.504	ug/l	24.36	546.70	1.368E-04	Pulse	0.10	3
Ag			1	0.044	ug/l	34.60	103.33	2.460E-05	Pulse	0.10	3
Sn			1	-1.865	ug/l	-4.61	2,970.38	7.072E-04	Pulse	0.10	3
Sb			1	0.731	ug/l	3.87	1,523.46	2.673E-04	Pulse	0.10	3
Ba			1	173.994	ug/l	0.33	107,138.14	1.880E-02	Pulse	0.10	3
Tl			1	0.001	ug/l	2453.40	670.04	2.042E-04	Pulse	0.10	3
Pb			1	-0.054	ug/l	-127.90	560.03	1.707E-04	Pulse	0.10	3
Pb			1	-0.105	ug/l	-61.12	513.36	1.564E-04	Pulse	0.10	3
Pb			1	-1.080	ug/l	-3.48	2,326.83	7.089E-04	Pulse	0.10	3
Na			2	8736.494	ug/l	0.56	659,917.65	7.392E+00	Pulse	0.30	3
Mg			2	20695.813	ug/l	1.24	721,676.67	8.084E+00	Pulse	0.30	3
Al			2	-0.236	ug/l	-620.76	54.44	6.094E-04	Pulse	0.30	3
K			2	1747.898	ug/l	1.58	43,480.77	4.870E-01	Pulse	0.30	3
Ca			2	56360.232	ug/l	2.10	68,205.37	7.640E-01	Pulse	0.30	3
Ti			2	0.198	ug/l	263.57	4.44	4.936E-05	Pulse	0.30	3
V			2	0.355	ug/l	10.16	180.00	2.015E-03	Pulse	0.30	3
Cr			2	0.270	ug/l	59.49	462.23	5.179E-03	Pulse	0.30	3
Mn			2	657.622	ug/l	1.21	134,880.56	1.511E+00	Pulse	0.30	3
Fe			2	11.200	ug/l	4.44	6,962.66	7.799E-02	Pulse	0.30	3
Co			2	0.048	ug/l	72.69	92.20	1.034E-03	Pulse	0.30	3
Ni			2	0.116	ug/l	41.74	132.23	1.482E-03	Pulse	0.30	3
Cu			2	0.614	ug/l	22.81	1,110.05	1.244E-02	Pulse	0.30	3
Zn			2	7.549	ug/l	10.92	1,101.16	1.233E-02	Pulse	0.30	3
As			2	0.221	ug/l	53.87	15.00	1.683E-04	Pulse	1.00	3
Cd			2	-0.050	ug/l	-34.78	4.41	8.669E-06	Pulse	0.30	3
Sn			2	0.685	ug/l	10.31	514.46	1.012E-03	Pulse	0.30	3
Se			3	0.313	ug/l	8.17	5.67	4.111E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,006,922.11	0.71	109.4	Pulse	0.10	3
1	Sc		3,008,371.83	1.05	110.2	Pulse	0.10	3
1	Ge		599,154.43	0.58	111.5	Pulse	0.10	3

Quantitation Report

1	Ge		836,739.62	0.24	112.1	Pulse	0.10	3
1	Rh		4,000,514.21	0.84	109.3	Pulse	0.10	3
1	In		4,200,516.41	0.31	110.1	Pulse	0.10	3
1	Tb		5,699,603.87	0.99	108.9	Analog	0.10	3
1	Ho		556,290.82	0.20	108.0	Pulse	0.10	3
1	Bi		3,283,642.97	0.83	109.2	Pulse	0.10	3
2	Sc		89,283.77	1.17	112.3	Pulse	0.30	3
2	Ge		55,862.93	0.27	113.9	Pulse	0.30	3
2	Ge		84,595.78	0.82	114.4	Pulse	0.30	3
2	Rh		1,665,683.86	0.71	109.8	Pulse	0.30	3
2	In		508,116.19	1.23	109.4	Pulse	0.30	3
2	Tb		2,027,671.79	0.85	107.3	Pulse	0.30	3
2	Ho		204,944.50	0.33	107.3	Pulse	0.30	3
2	Bi		1,361,384.60	0.83	107.6	Pulse	0.30	3
3	Sc		142,857.30	0.23	117.1	Pulse	0.30	3
3	Ge		91,854.28	1.13	115.2	Pulse	0.30	3
3	Ge		137,830.93	1.02	113.4	Pulse	0.30	3
3	Rh		1,540,546.95	0.74	110.7	Pulse	0.30	3
3	Tb		2,283,761.99	0.32	108.4	Pulse	0.30	3

Quantitation Report

File Name	044SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 14:19
Sample Name	jc91275-2
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.122	ug/l	-34.86	24.00	1.197E-05	Pulse	0.25	3
B			1	187.881	ug/l	2.67	32,304.57	1.609E-02	Pulse	0.15	3
Ca			1	47083.148	ug/l	0.46	1,725,628.10	5.678E-01	Pulse	0.10	3
Sr			1	388.512	ug/l	0.67	672,262.67	1.674E-01	Pulse	0.10	3
Mo			1	1.754	ug/l	12.54	716.71	1.784E-04	Pulse	0.10	3
Ag			1	0.047	ug/l	44.58	50.00	1.186E-05	Pulse	0.10	3
Sn			1	-2.590	ug/l	-5.00	4,084.03	9.672E-04	Pulse	0.10	3
Sb			1	1.066	ug/l	14.67	1,076.74	1.869E-04	Pulse	0.10	3
Ba			1	51.613	ug/l	3.04	12,912.48	2.242E-03	Pulse	0.10	3
Tl			1	-0.169	ug/l	-8.02	423.35	1.297E-04	Pulse	0.10	3
Pb			1	0.227	ug/l	50.14	733.38	2.245E-04	Pulse	0.10	3
Pb			1	0.028	ug/l	987.69	636.71	1.949E-04	Pulse	0.10	3
Pb			1	-2.416	ug/l	-2.49	2,873.55	8.800E-04	Pulse	0.10	3
Na			2	12668.125	ug/l	0.76	394,866.56	4.309E+00	Pulse	0.30	3
Mg			2	7145.945	ug/l	1.70	102,379.57	1.117E+00	Pulse	0.30	3
Al			2	70.046	ug/l	11.36	377.79	4.121E-03	Pulse	0.30	3
K			2	8866.105	ug/l	2.14	84,307.24	9.200E-01	Pulse	0.30	3
Ca			2	49706.192	ug/l	1.99	24,776.32	2.703E-01	Pulse	0.30	3
Ti			2	2.429	ug/l	71.34	12.22	1.332E-04	Pulse	0.30	3
V			2	0.638	ug/l	93.58	150.00	1.640E-03	Pulse	0.30	3
Cr			2	0.519	ug/l	32.77	446.68	4.875E-03	Pulse	0.30	3
Mn			2	2172.124	ug/l	1.18	182,903.97	1.996E+00	Pulse	0.30	3
Fe			2	67847.100	ug/l	0.66	9,689,310.45	1.057E+02	Analog	0.30	3
Co			2	19.064	ug/l	1.27	5,908.30	6.447E-02	Pulse	0.30	3
Ni			2	6.616	ug/l	9.73	664.47	7.249E-03	Pulse	0.30	3
Cu			2	2.523	ug/l	19.00	1,372.30	1.497E-02	Pulse	0.30	3
Zn			2	11.429	ug/l	30.33	903.37	9.856E-03	Pulse	0.30	3
As			2	1624.290	ug/l	1.39	26,677.71	2.911E-01	Pulse	1.00	3
Cd			2	-0.078	ug/l	-95.68	6.63	1.272E-05	Pulse	0.30	3
Sn			2	3.534	ug/l	35.37	692.25	1.327E-03	Pulse	0.30	3
Se			3	0.322	ug/l	82.05	3.53	2.554E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,007,803.40	0.65	109.4	Pulse	0.10	3
1	Sc		3,039,359.43	1.86	111.3	Pulse	0.10	3
1	Ge		600,150.00	1.70	111.7	Pulse	0.10	3

Quantitation Report

1	Ge		837,605.33	1.67	112.2	Pulse	0.10	3
1	Rh		4,016,128.80	1.32	109.7	Pulse	0.10	3
1	In		4,221,997.52	1.04	110.7	Pulse	0.10	3
1	Tb		5,760,262.62	1.33	110.1	Analog	0.10	3
1	Ho		559,364.13	0.50	108.6	Pulse	0.10	3
1	Bi		3,264,292.45	1.54	108.6	Pulse	0.10	3
2	Sc		91,646.60	0.62	115.3	Pulse	0.30	3
2	Ge		56,887.53	0.94	116.0	Pulse	0.30	3
2	Ge		85,479.04	0.61	115.6	Pulse	0.30	3
2	Rh		1,684,843.37	0.42	111.1	Pulse	0.30	3
2	In		521,721.21	0.12	112.3	Pulse	0.30	3
2	Tb		2,063,668.81	0.81	109.2	Pulse	0.30	3
2	Ho		209,007.54	0.74	109.5	Pulse	0.30	3
2	Bi		1,379,313.03	0.61	109.0	Pulse	0.30	3
3	Sc		145,049.41	0.67	118.9	Pulse	0.30	3
3	Ge		92,347.79	0.51	115.8	Pulse	0.30	3
3	Ge		138,410.69	0.39	113.9	Pulse	0.30	3
3	Rh		1,554,727.72	0.47	111.7	Pulse	0.30	3
3	Tb		2,291,571.51	0.21	108.8	Pulse	0.30	3

Quantitation Report

File Name 045SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 14:24
Sample Name jc91275-3
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.078	ug/l	265.31	65.33	3.210E-05	Pulse	0.25	3
B			1	150.692	ug/l	1.49	12,002.31	5.905E-03	Pulse	0.15	3
Ca			1	28934.257	ug/l	0.23	550,158.76	1.766E-01	Pulse	0.10	3
Sr			1	212.045	ug/l	0.62	188,084.89	4.575E-02	Pulse	0.10	3
Mo			1	2.702	ug/l	12.00	593.37	1.445E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	197.03	16.67	3.927E-06	Pulse	0.10	3
Sn			1	-11.659	ug/l	-8.63	2,387.01	5.605E-04	Pulse	0.10	3
Sb			1	2.276	ug/l	7.59	1,133.42	1.946E-04	Pulse	0.10	3
Ba			1	17.241	ug/l	4.68	2,246.91	3.856E-04	Pulse	0.10	3
Tl			1	-0.129	ug/l	-126.95	576.70	1.751E-04	Pulse	0.10	3
Pb			1	1.130	ug/l	26.36	903.40	2.748E-04	Pulse	0.10	3
Pb			1	0.741	ug/l	24.71	790.06	2.402E-04	Pulse	0.10	3
Pb			1	-4.158	ug/l	-2.35	3,556.97	1.082E-03	Pulse	0.10	3
Na			2	6993.114	ug/l	0.85	113,739.82	1.226E+00	Pulse	0.30	3
Mg			2	3510.682	ug/l	0.44	25,509.25	2.750E-01	Pulse	0.30	3
Al			2	597.956	ug/l	6.60	1,437.86	1.550E-02	Pulse	0.30	3
K			2	4169.216	ug/l	2.52	24,763.99	2.670E-01	Pulse	0.30	3
Ca			2	30333.261	ug/l	1.55	7,731.87	8.336E-02	Pulse	0.30	3
Ti			2	-0.189	ug/l	-505.32	2.22	2.386E-05	Pulse	0.30	3
V			2	0.225	ug/l	158.43	78.89	8.494E-04	Pulse	0.30	3
Cr			2	0.206	ug/l	114.98	376.68	4.060E-03	Pulse	0.30	3
Mn			2	2672.345	ug/l	0.30	113,901.81	1.228E+00	Pulse	0.30	3
Fe			2	47615.879	ug/l	0.46	3,443,158.54	3.712E+01	Pulse	0.30	3
Co			2	16.911	ug/l	2.49	2,685.40	2.895E-02	Pulse	0.30	3
Ni			2	15.637	ug/l	9.98	774.47	8.346E-03	Pulse	0.30	3
Cu			2	10.282	ug/l	14.27	2,010.15	2.166E-02	Pulse	0.30	3
Zn			2	148.348	ug/l	6.83	2,853.62	3.076E-02	Pulse	0.30	3
As			2	3521.805	ug/l	1.29	29,273.11	3.156E-01	Pulse	1.00	3
Cd			2	-0.258	ug/l	-86.35	4.42	8.325E-06	Pulse	0.30	3
Sn			2	0.262	ug/l	436.00	391.12	7.391E-04	Pulse	0.30	3
Se			3	0.776	ug/l	54.39	3.87	2.777E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,032,380.59	0.62	110.7	Pulse	0.10	3
1	Sc		3,114,510.37	0.70	114.1	Pulse	0.10	3
1	Ge		612,079.17	1.41	114.0	Pulse	0.10	3

Quantitation Report

1	Ge		858,476.86	1.16	115.0	Pulse	0.10	3
1	Rh		4,110,618.59	1.30	112.3	Pulse	0.10	3
1	In		4,257,265.52	0.79	111.6	Pulse	0.10	3
1	Tb		5,825,995.95	0.25	111.3	Analog	0.10	3
1	Ho		559,107.58	1.33	108.5	Pulse	0.10	3
1	Bi		3,289,091.10	1.31	109.4	Pulse	0.10	3
2	Sc		92,753.78	0.81	116.7	Pulse	0.30	3
2	Ge		57,725.98	0.18	117.7	Pulse	0.30	3
2	Ge		87,136.44	0.97	117.8	Pulse	0.30	3
2	Rh		1,718,164.62	0.78	113.3	Pulse	0.30	3
2	In		529,115.59	0.37	113.9	Pulse	0.30	3
2	Tb		2,076,076.03	0.26	109.9	Pulse	0.30	3
2	Ho		209,097.78	1.34	109.5	Pulse	0.30	3
2	Bi		1,386,093.21	0.63	109.5	Pulse	0.30	3
3	Sc		144,968.43	0.98	118.8	Pulse	0.30	3
3	Ge		92,963.37	0.66	116.6	Pulse	0.30	3
3	Ge		139,113.73	0.48	114.5	Pulse	0.30	3
3	Rh		1,570,368.97	0.38	112.9	Pulse	0.30	3
3	Tb		2,293,989.01	0.33	108.9	Pulse	0.30	3

Quantitation Report

File Name 046_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File
Method Path
Acq Time 7/12/2019 14:29
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 7/15/2019 7:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.356	ug/l	0.53	315,996.09	1.572E-01	Pulse	0.25	3
B			1	103.716	ug/l	0.65	469,773.90	2.337E-01	Pulse	0.15	3
Ca			1	4733.288	ug/l	0.31	4,383,799.83	1.422E+00	Pulse	0.10	3
Sr			1	52.527	ug/l	1.20	2,260,040.85	5.656E-01	Pulse	0.10	3
Mo			1	51.411	ug/l	0.37	433,379.97	1.085E-01	Pulse	0.10	3
Ag			1	49.996	ug/l	0.81	1,041,741.70	2.481E-01	Pulse	0.10	3
Sn			1	49.982	ug/l	0.59	664,215.98	1.582E-01	Pulse	0.10	3
Sb			1	52.956	ug/l	0.44	801,520.35	1.397E-01	Pulse	0.10	3
Ba			1	51.642	ug/l	1.29	319,998.15	5.577E-02	Pulse	0.10	3
Tl			1	51.056	ug/l	0.34	1,785,907.37	5.571E-01	Pulse	0.10	3
Pb			1	51.289	ug/l	0.50	611,541.54	1.908E-01	Pulse	0.10	3
Pb			1	51.308	ug/l	0.25	544,116.97	1.697E-01	Pulse	0.10	3
Pb			1	51.349	ug/l	0.10	2,473,128.38	7.714E-01	Pulse	0.10	3
Na			2	4993.924	ug/l	0.72	3,828,270.68	4.201E+01	Pulse	0.30	3
Mg			2	4978.961	ug/l	0.35	1,772,158.33	1.945E+01	Pulse	0.30	3
Al			2	4756.468	ug/l	0.89	538,745.13	5.912E+00	Pulse	0.30	3
K			2	5016.850	ug/l	0.31	1,106,568.01	1.214E+01	Pulse	0.30	3
Ca			2	5038.888	ug/l	0.82	62,258.98	6.832E-01	Pulse	0.30	3
Ti			2	50.691	ug/l	1.13	5,009.70	5.497E-02	Pulse	0.30	3
V			2	51.529	ug/l	0.12	176,642.73	1.938E+00	Pulse	0.30	3
Cr			2	50.297	ug/l	0.78	224,862.97	2.468E+00	Pulse	0.30	3
Mn			2	49.452	ug/l	1.21	103,542.25	1.136E+00	Pulse	0.30	3
Fe			2	4875.363	ug/l	1.84	17,304,420.42	1.899E+02	Analog	0.30	3
Co			2	50.202	ug/l	1.04	382,999.52	4.203E+00	Pulse	0.30	3
Ni			2	49.927	ug/l	1.49	103,821.64	1.139E+00	Pulse	0.30	3
Cu			2	49.422	ug/l	0.22	288,651.42	3.167E+00	Pulse	0.30	3
Zn			2	48.725	ug/l	0.52	37,529.65	4.118E-01	Pulse	0.30	3
As			2	49.910	ug/l	0.68	20,380.69	2.236E-01	Pulse	1.00	3
Cd			2	50.419	ug/l	1.24	55,409.56	1.084E-01	Pulse	0.30	3
Sn			2	50.307	ug/l	0.70	111,330.27	2.179E-01	Pulse	0.30	3
Se			3	198.148	ug/l	0.25	22,627.17	1.670E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,010,002.59	0.78	109.5	Pulse	0.10	3
1	Sc		3,082,464.33	0.58	112.9	Pulse	0.10	3
1	Ge		605,566.15	1.24	112.7	Pulse	0.10	3

Quantitation Report

1	Ge		844,788.92	0.84	113.2	Pulse	0.10	3
1	Rh		3,995,920.57	0.88	109.2	Pulse	0.10	3
1	In		4,199,046.45	0.16	110.1	Pulse	0.10	3
1	Tb		5,737,956.37	0.79	109.6	Analog	0.10	3
1	Ho		557,448.65	1.62	108.2	Pulse	0.10	3
1	Bi		3,205,954.64	0.32	106.6	Pulse	0.10	3
2	Sc		91,131.38	1.06	114.7	Pulse	0.30	3
2	Ge		55,274.32	1.45	112.7	Pulse	0.30	3
2	Ge		84,265.17	0.53	113.9	Pulse	0.30	3
2	Rh		1,650,802.02	0.54	108.8	Pulse	0.30	3
2	In		510,997.11	0.46	110.0	Pulse	0.30	3
2	Tb		2,038,436.59	0.83	107.9	Pulse	0.30	3
2	Ho		204,735.59	0.39	107.2	Pulse	0.30	3
2	Bi		1,323,276.51	0.33	104.6	Pulse	0.30	3
3	Sc		141,285.24	1.36	115.8	Pulse	0.30	3
3	Ge		89,236.30	1.55	111.9	Pulse	0.30	3
3	Ge		135,513.68	0.64	111.5	Pulse	0.30	3
3	Rh		1,500,651.78	0.47	107.9	Pulse	0.30	3
3	Tb		2,243,084.01	0.36	106.5	Pulse	0.30	3

Quantitation Report

File Name	047_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 14:34
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	32.46	105.33	5.370E-05	Pulse	0.25	3
B			1	4.176	ug/l	2.98	16,757.54	8.535E-03	Pulse	0.15	3
Ca			1	1.144	ug/l	24.86	10,456.97	3.495E-03	Pulse	0.10	3
Sr			1	0.009	ug/l	50.23	780.05	1.957E-04	Pulse	0.10	3
Mo			1	0.067	ug/l	2.63	686.71	1.722E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	16.41	286.68	6.897E-05	Pulse	0.10	3
Sn			1	-0.175	ug/l	-4.83	3,083.75	7.421E-04	Pulse	0.10	3
Sb			1	0.100	ug/l	10.63	1,930.19	3.388E-04	Pulse	0.10	3
Ba			1	0.020	ug/l	38.79	196.68	3.454E-05	Pulse	0.10	3
Tl			1	0.010	ug/l	39.37	1,016.74	3.149E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	263.62	650.03	2.013E-04	Pulse	0.10	3
Pb			1	-0.004	ug/l	-75.93	570.04	1.765E-04	Pulse	0.10	3
Pb			1	-0.104	ug/l	-2.38	2,510.17	7.770E-04	Pulse	0.10	3
Na			2	0.907	ug/l	15.31	5,236.44	5.873E-02	Pulse	0.30	3
Mg			2	0.471	ug/l	46.13	234.45	2.632E-03	Pulse	0.30	3
Al			2	0.278	ug/l	52.76	87.78	9.837E-04	Pulse	0.30	3
K			2	2.287	ug/l	29.72	6,401.29	7.180E-02	Pulse	0.30	3
Ca			2	-3.959	ug/l	-25.26	64.44	7.233E-04	Pulse	0.30	3
Ti			2	-0.014	ug/l	-136.38	1.11	1.231E-05	Pulse	0.30	3
V			2	0.008	ug/l	56.04	86.67	9.709E-04	Pulse	0.30	3
Cr			2	-0.004	ug/l	-242.41	325.56	3.651E-03	Pulse	0.30	3
Mn			2	-0.003	ug/l	-234.77	55.56	6.239E-04	Pulse	0.30	3
Fe			2	0.711	ug/l	12.67	5,533.25	6.205E-02	Pulse	0.30	3
Co			2	0.001	ug/l	414.63	62.21	6.976E-04	Pulse	0.30	3
Ni			2	0.017	ug/l	116.39	142.23	1.595E-03	Pulse	0.30	3
Cu			2	-0.030	ug/l	-11.24	590.02	6.616E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.069	ug/l	-81.45	487.79	5.470E-03	Pulse	0.30	3
As			2	0.004	ug/l	146.01	8.00	8.960E-05	Pulse	1.00	3
Cd			2	-0.003	ug/l	-101.01	6.63	1.297E-05	Pulse	0.30	3
Sn			2	0.120	ug/l	28.41	631.15	1.234E-03	Pulse	0.30	3
Se			3	0.092	ug/l	21.90	12.73	9.252E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,963,201.54	0.86	107.0	Pulse	0.10	3
1	Sc		2,992,009.02	0.90	109.6	Pulse	0.10	3
1	Ge		591,234.46	0.94	110.1	Pulse	0.10	3
1	Ge		819,550.22	0.84	109.8	Pulse	0.10	3
1	Rh		3,986,856.82	0.90	108.9	Pulse	0.10	3
1	In		4,155,515.14	0.35	109.0	Pulse	0.10	3
1	Tb		5,696,943.25	0.47	108.8	Analog	0.10	3
1	Ho		551,453.81	1.08	107.1	Pulse	0.10	3
1	Bi		3,230,509.43	0.68	107.5	Pulse	0.10	3
2	Sc		89,172.29	0.99	112.2	Pulse	0.30	3
2	Ge		55,338.91	1.18	112.8	Pulse	0.30	3
2	Ge		83,100.17	0.81	112.3	Pulse	0.30	3
2	Rh		1,675,783.23	0.24	110.5	Pulse	0.30	3
2	In		511,211.22	0.54	110.1	Pulse	0.30	3
2	Tb		2,020,007.77	0.90	106.9	Pulse	0.30	3
2	Ho		202,753.71	0.35	106.2	Pulse	0.30	3
2	Bi		1,350,109.77	0.87	106.7	Pulse	0.30	3
3	Sc		140,644.86	0.67	115.2	Pulse	0.30	3
3	Ge		89,775.99	0.87	112.6	Pulse	0.30	3
3	Ge		137,631.14	0.26	113.3	Pulse	0.30	3
3	Rh		1,541,493.20	0.08	110.8	Pulse	0.30	3
3	Tb		2,261,908.38	0.78	107.4	Pulse	0.30	3

Quantitation Report

File Name	048SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Method File	
Method Path	
Acq Time	7/12/2019 14:39
Sample Name	mp16333-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	7/15/2019 7:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

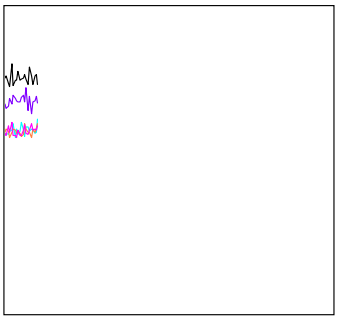
Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.007	ug/l	-90.21	30.67	1.559E-05	Pulse	0.25	3
B			1	5.559	ug/l	1.90	10,590.23	5.376E-03	Pulse	0.15	3
Ca			1	0.431	ug/l	189.78	9,679.84	3.217E-03	Pulse	0.10	3
Sr			1	0.003	ug/l	54.20	460.03	1.145E-04	Pulse	0.10	3
Mo			1	0.032	ug/l	24.82	260.01	6.464E-05	Pulse	0.10	3
Ag			1	0.010	ug/l	92.14	113.34	2.707E-05	Pulse	0.10	3
Sn			1	-0.594	ug/l	-6.38	1,506.80	3.595E-04	Pulse	0.10	3
Sb			1	0.041	ug/l	30.11	723.38	1.286E-04	Pulse	0.10	3
Ba			1	-0.020	ug/l	-18.82	13.33	2.389E-06	Pulse	0.10	3
Tl			1	-0.014	ug/l	-31.25	403.35	1.253E-04	Pulse	0.10	3
Pb			1	-0.037	ug/l	-34.96	390.02	1.212E-04	Pulse	0.10	3
Pb			1	-0.052	ug/l	-6.59	336.69	1.046E-04	Pulse	0.10	3
Pb			1	-0.248	ug/l	-3.24	1,503.43	4.672E-04	Pulse	0.10	3
Na			2	-0.165	ug/l	-117.05	4,586.23	5.041E-02	Pulse	0.30	3
Mg			2	0.538	ug/l	10.69	167.78	1.844E-03	Pulse	0.30	3
Al			2	0.583	ug/l	49.10	91.11	1.001E-03	Pulse	0.30	3
K			2	2.739	ug/l	43.18	6,330.16	6.959E-02	Pulse	0.30	3
Ca			2	-11.202	ug/l	-41.05	45.56	5.011E-04	Pulse	0.30	3
Ti			2	0.084	ug/l	139.89	6.67	7.338E-05	Pulse	0.30	3
V			2	-0.009	ug/l	-97.95	46.67	5.137E-04	Pulse	0.30	3
Cr			2	-0.063	ug/l	-19.89	211.11	2.322E-03	Pulse	0.30	3
Mn			2	-0.025	ug/l	-32.02	37.78	4.152E-04	Pulse	0.30	3
Fe			2	1.459	ug/l	5.01	5,711.08	6.278E-02	Pulse	0.30	3
Co			2	-0.006	ug/l	-46.29	33.32	3.659E-04	Pulse	0.30	3
Ni			2	-0.025	ug/l	-48.47	84.44	9.284E-04	Pulse	0.30	3
Cu			2	-0.073	ug/l	-17.72	562.24	6.182E-03	Pulse	0.30	3
Zn			2	-0.446	ug/l	-6.69	381.12	4.190E-03	Pulse	0.30	3
As			2	0.010	ug/l	74.63	8.33	9.156E-05	Pulse	1.00	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	3167	2979.7	2.50
59	5000	3431	3456.4	2.79
89	10000	6178	5930.3	2.08
140	10000	6121	5943.1	2.47
205	5000	3722	3829.7	2.54
156/140	1	0.474 %	0.708 %	16.29
70/140	5	1.977 %	2.104 %	12.66
9	20	0	0.9	120.59
11	500	342	334.2	6.71
88	50	31	34.4	18.20
95	20	1	2.1	76.82
107	20	1	1.1	107.66
121	50	18	27.7	25.21
137	20	4	7.0	46.93
208	50	18	16.9	27.80
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-38	V
Extract 2	-185.0	V	Cell Exit	-60	V
Omega Bias	-85	V	Deflect	15.2	V
Omega Lens	7.9	V	Plate Bias	-40	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.55E+2	Pa	S/C Temp (L)	2.0	℃
Water Temp	31.5	℃	Carrier Gas(BP)	1.39E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

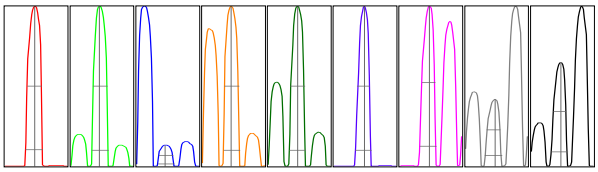
Batch Folder C:\Agilent\ICPMH\1\DATA\xa071219m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	87697	0.37	5.00	
24	321538	0.22	5.00	
25	43186	0.36	5.00	
26	48889	0.24	5.00	
59	414967	0.57	5.00	
115	597608	0.45	5.00	
206	146838	0.22	5.00	
207	134543	0.28	5.00	
208	317515	0.29	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	87288	87822	87902	87422	88052
24	321013	320692	321926	321628	322432
25	43197	43159	43374	43250	42952
26	48971	48767	49051	48839	48815
59	412093	415056	416056	413416	418216
115	596189	602362	596353	595978	597156
206	146285	147072	146902	147011	146920
207	134602	134674	135063	134251	134128
208	318137	318032	318315	316245	316848

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	13527	8.95	8.9 - 9.1		0.805	0.900	
24	51817	23.90	23.9 - 24.1		0.771	0.900	
25	6817	24.90	24.9 - 25.1		0.776	0.900	
26	7957	25.90	25.9 - 26.1		0.766	0.900	
59	70333	58.95	58.9 - 59.1		0.753	0.900	
115	108248	115.00	114.9 - 115.1		0.730	0.900	
206	24724	205.95	205.9 - 206.1		0.769	0.900	
207	22346	206.95	206.9 - 207.1		0.760	0.900	
208	53401	207.95	207.9 - 208.1		0.762	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

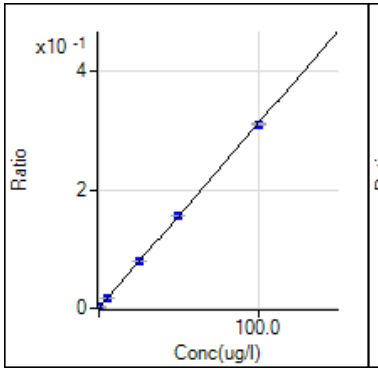
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.9	V			
Extract 2	-185.0	V	Cell Entrance	-38	V			
Omega Bias	-85	V	Cell Exit	-60	V			
Deflect	15.2	V						

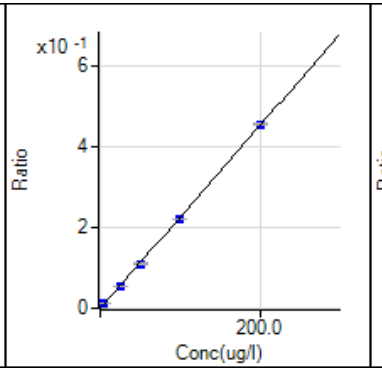
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

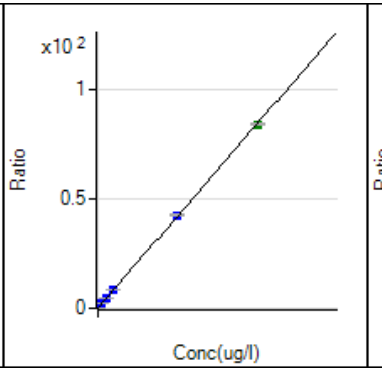
Calibration for C:\Agilent\ICPMH\1\DATA\xa071219m1.b\002CALB.d



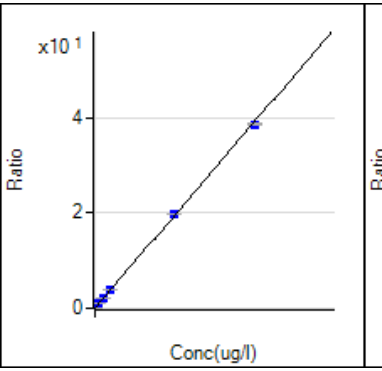
9 Be [1] / ISTD: 6 Li
y = 3.121E-3 x + 2.722E-5
R 1.0000
DL 0.005684
BEC 0.008721



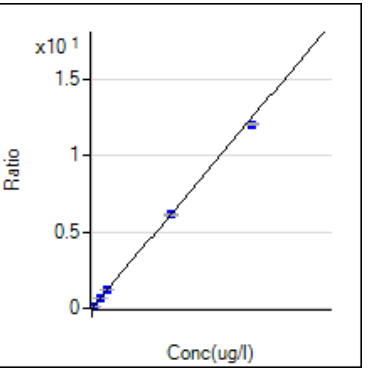
11 B [1] / ISTD: 6 Li
y = 2.262E-3 x - 9.129E-4
R 0.9998
DL 0.0588
BEC -0.4035



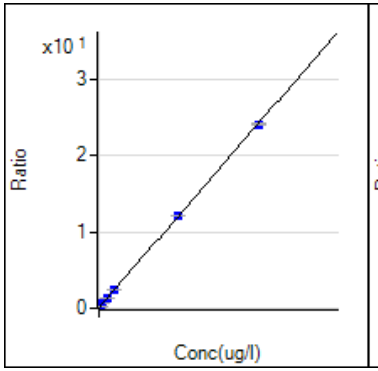
23 Na [2] / ISTD: 45 Sc
y = 8.402E-3 x + 5.110E-2
R 1.0000
DL 0.8251
BEC 6.082



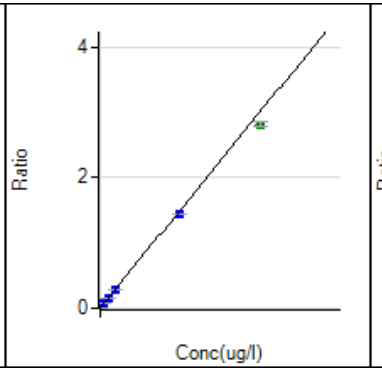
24 Mg [2] / ISTD: 45 Sc
y = 3.906E-3 x + 7.936E-4
R 0.9999
DL 0.3079
BEC 0.2032



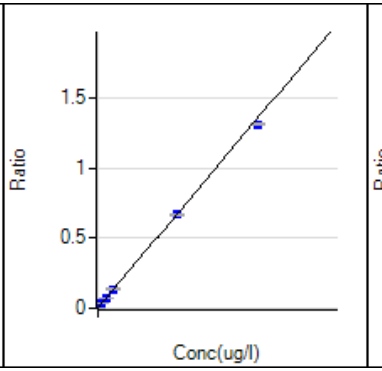
27 Al [2] / ISTD: 45 Sc
y = 1.243E-3 x + 6.388E-4
R 1.0000
DL 0.298
BEC 0.514



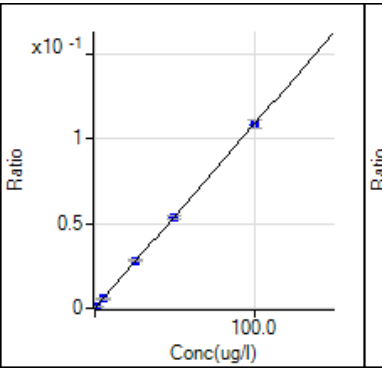
39 K [2] / ISTD: 45 Sc
y = 2.407E-3 x + 6.629E-2
R 1.0000
DL 2.223
BEC 27.54



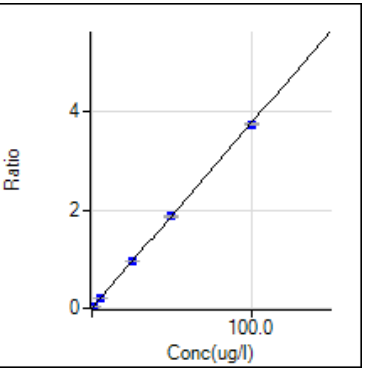
44 Ca [1] / ISTD: 45 Sc
y = 2.998E-4 x + 3.152E-3
R 1.0000
DL 0.7201
BEC 10.51



44 Ca [2] / ISTD: 45 Sc
y = 1.353E-4 x + 1.259E-3
R 1.0000
DL 5.564
BEC 9.303

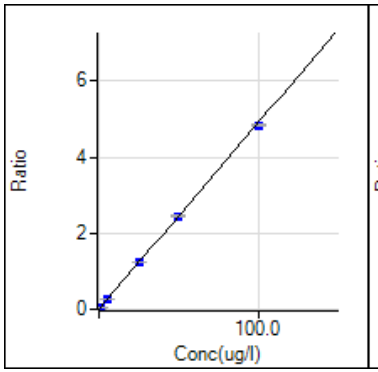


47 Ti [2] / ISTD: 45 Sc
y = 1.084E-3 x + 2.795E-5
R 0.9999
DL 0.134
BEC 0.02579

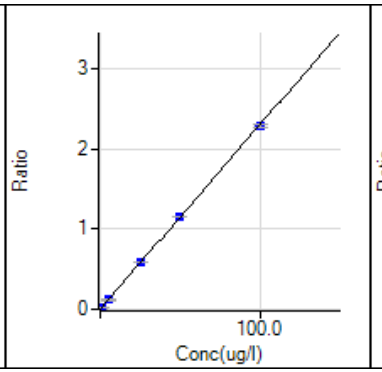


51 V [2] / ISTD: 45 Sc
y = 3.760E-2 x + 6.806E-4
R 1.0000
DL 0.02406
BEC 0.0181

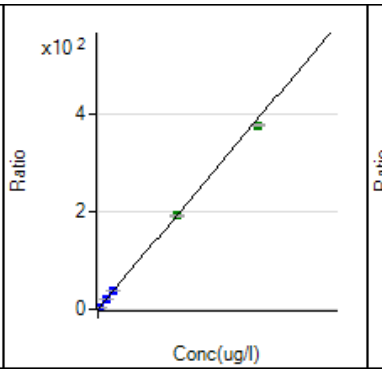
Calibration for C:\Agilent\ICPMH\1\DATA\xa071219m1.b\002CALB.d



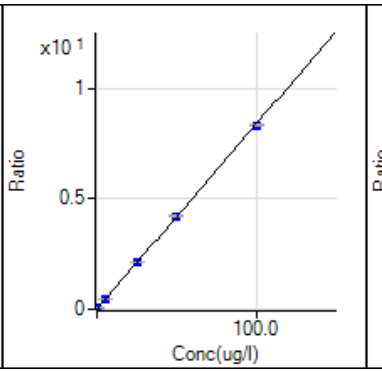
52 Cr [2] / ISTD: 45 Sc
y = 4.898E-2 x + 3.858E-3
R 1.0000
DL 0.03476
BEC 0.07876



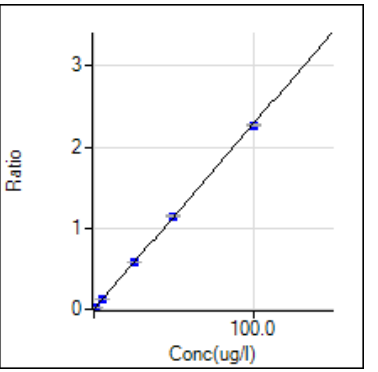
55 Mn [2] / ISTD: 45 Sc
y = 2.296E-2 x + 6.997E-4
R 1.0000
DL 0.01757
BEC 0.03047



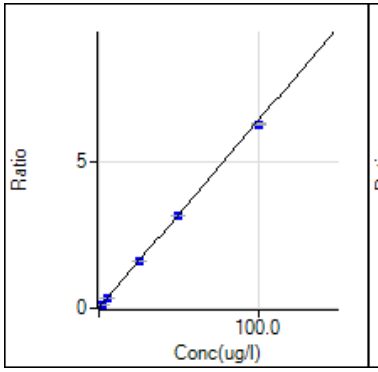
56 Fe [2] / ISTD: 45 Sc
y = 3.895E-2 x + 3.437E-2
R 1.0000
DL 0.07359
BEC 0.8826



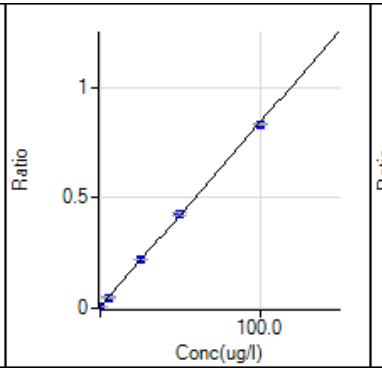
59 Co [2] / ISTD: 45 Sc
y = 8.371E-2 x + 6.360E-4
R 1.0000
DL 0.005918
BEC 0.007598



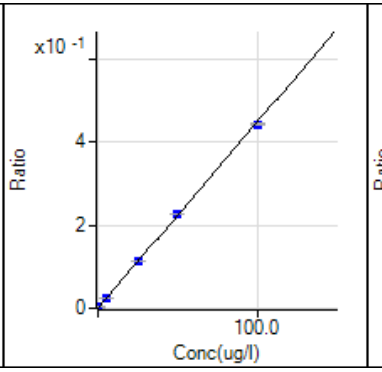
60 Ni [2] / ISTD: 45 Sc
y = 2.280E-2 x + 1.217E-3
R 1.0000
DL 0.0279
BEC 0.05338



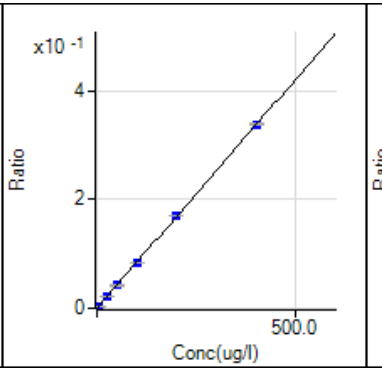
63 Cu [2] / ISTD: 45 Sc
y = 6.392E-2 x + 8.518E-3
R 1.0000
DL 0.01877
BEC 0.1333



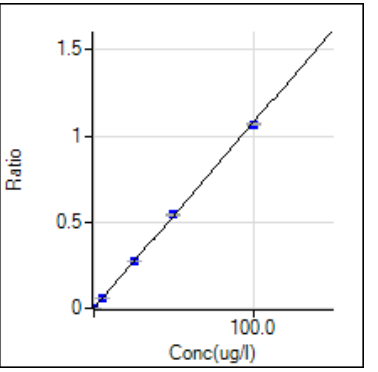
66 Zn [2] / ISTD: 45 Sc
y = 8.328E-3 x + 6.048E-3
R 0.9999
DL 0.1905
BEC 0.7263



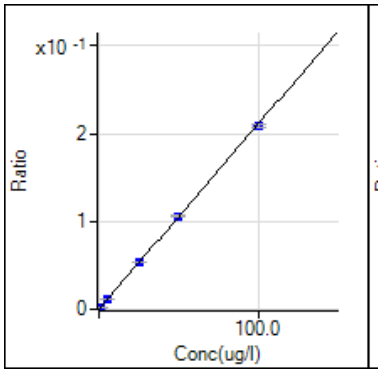
75 As [2] / ISTD: 45 Sc
y = 4.480E-3 x + 6.953E-5
R 0.9999
DL 0.0164
BEC 0.01552



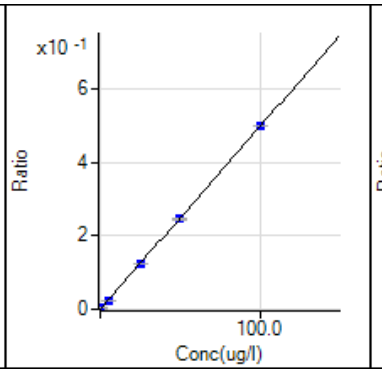
78 Se [3] / ISTD: 74 Ge
y = 8.426E-4 x + 1.470E-5
R 1.0000
DL 0.006822
BEC 0.01745



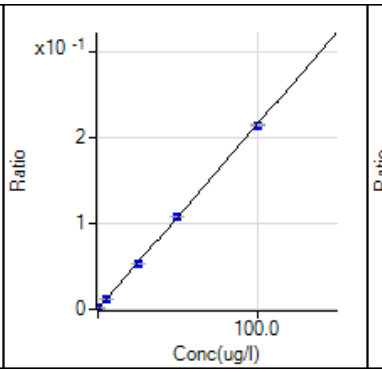
88 Sr [1] / ISTD: 103 Rh
y = 1.077E-2 x + 9.754E-5
R 1.0000
DL 0.004927
BEC 0.00906



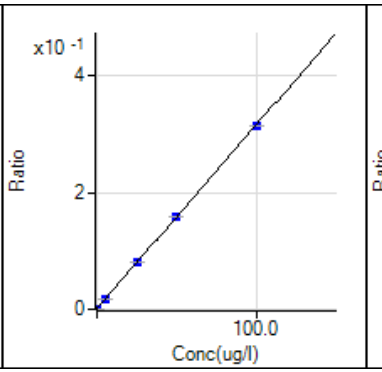
95 Mo [1] / ISTD: 103 Rh
y = 2.109E-3 x + 3.047E-5
R 1.0000
DL 0.01255
BEC 0.01445



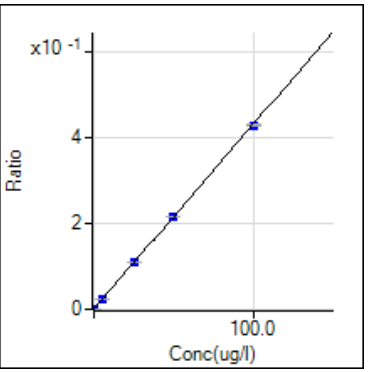
107 Ag [1] / ISTD: 115 In
y = 4.962E-3 x + 2.532E-6
R 1.0000
DL 1.745E-05
BEC 0.0005103



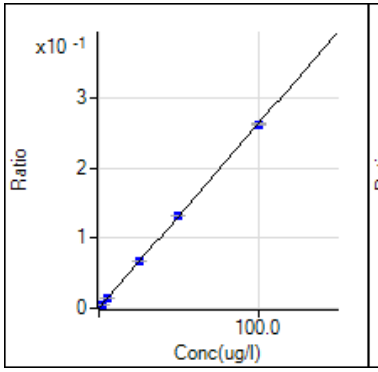
111 Cd [2] / ISTD: 115 In
y = 2.150E-3 x + 1.941E-5
R 1.0000
DL 0.01529
BEC 0.009026



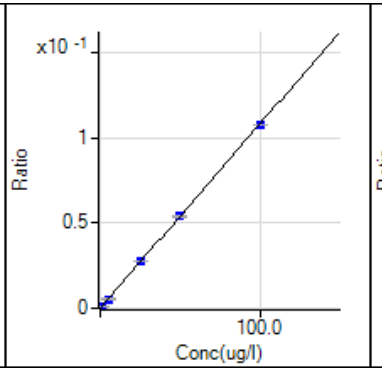
118 Sn [1] / ISTD: 115 In
y = 3.139E-3 x + 1.292E-3
R 1.0000
DL 0.02297
BEC 0.4117



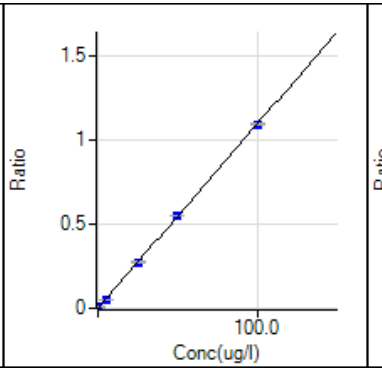
118 Sn [2] / ISTD: 115 In
y = 4.316E-3 x + 7.164E-4
R 1.0000
DL 0.08093
BEC 0.166



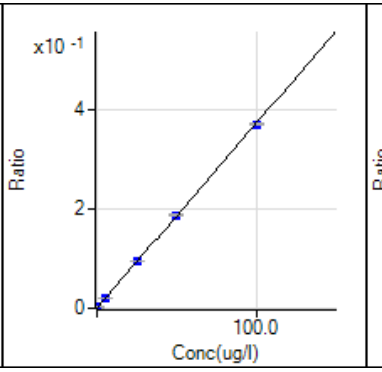
121 Sb [1] / ISTD: 159 Tb
y =
R
DL
BEC



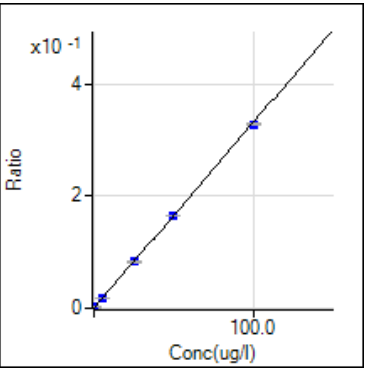
137 Ba [1] / ISTD: 159 Tb
y =
R
DL
BEC



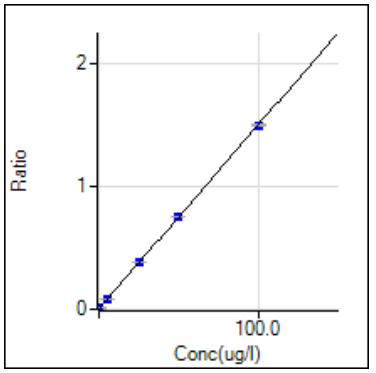
205 Tl [1] / ISTD: 209 Bi
y = 1.091E-2 x + 2.032E-4
R 1.0000
DL 0.003032
BEC 0.01863



206 Pb [1] / ISTD: 209 Bi
y = 3.715E-3 x + 1.908E-4
R 1.0000
DL 0.002642
BEC 0.05135



207 Pb [1] / ISTD: 209 Bi
y = 3.304E-3 x + 1.912E-4
R 1.0000
DL 0.01665
BEC 0.05787



208 Pb [1] / ISTD: 209 Bi

y = 1.498E-2 x + 2.327E-3

R	1.0000
DL	0.01142
BEC	0.1554

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 7/18/2019 13:41:42 Type: Cal
Method: SGS 3 NO Valve(v48) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0119**	**.0002**	**.0002**	**.0000**	**-.0002**	**.0057**	**-.0002**	**.0003**	**.0009**
Stddev	.0004	.0001	.0001	.0001	.0000	.0001	.0000	.0000	.0000
%RSD	3.046	51.54	45.34	358.7	1.427	1.899	5.226	17.31	4.781
#1	.0117	.0003	.0001	-.0000	-.0003	.0058	-.0002	.0002	.0009
#2	.0124	.0002	.0002	-.0000	-.0002	.0057	-.0002	.0002	.0009
#3	.0117	.0001	.0002	.0002	-.0002	.0056	-.0002	.0003	.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0003**	**.0014**	**-.0001**	**-.0003**	**-.0000**	**.0001**	**.0002**	**-.0087**	**.0125**
Stddev	.0000	.0001	.0000	.0000	.0002	.0000	.0001	.0003	.0001
%RSD	14.34	9.649	11.43	12.77	3565.	45.74	39.10	3.268	.7899
#1	.0003	.0013	-.0001	-.0004	-.0002	.0001	.0003	-.0084	.0125
#2	.0003	.0015	-.0001	-.0003	.0000	.0001	.0001	-.0089	.0126
#3	.0003	.0014	-.0001	-.0003	.0002	.0001	.0002	-.0089	.0124

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0005**	**-.0013**	**.0008**	**.0019**	**.0004**	**-.0005**	**.0009**	**.0004**	**-.0012**
Stddev	.0000	.0000	.0006	.0001	.0000	.0001	.0000	.0001	.0002
%RSD	3.943	1.648	68.54	6.509	12.87	24.50	3.595	14.58	16.98
#1	-.0005	-.0013	.0008	.0020	.0004	-.0004	.0008	.0004	-.0010
#2	-.0006	-.0013	.0014	.0020	.0003	-.0005	.0009	.0004	-.0012
#3	-.0006	-.0013	.0002	.0017	.0004	-.0007	.0009	.0005	-.0014

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**-.0056**	**-.0000**	**-.0008**	**-.0001**	**-.0022**	**-.0079**
Stddev	.0000	.0000	.0000	.0001	.0003	.0006	.0001
%RSD	49.91	.4824	27.41	10.91	408.6	26.14	1.227
#1	.0001	-.0057	-.0001	-.0007	-.0003	-.0024	-.0079
#2	.0001	-.0056	-.0000	-.0008	-.0001	-.0026	-.0080
#3	.0000	-.0056	-.0000	-.0009	.0002	-.0015	-.0078

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 7/18/2019 13:41:42 Type: Cal
Method: SGS 3 NO Valve(v48) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**230140.**	**36324.**	**10063.**	**13641.**
Stddev	2504.	403.	25.	24.
%RSD	1.0882	1.1086	.25155	.17622
#1	227260.	36408.	10077.	13653.
#2	231420.	35886.	10080.	13657.
#3	231750.	36678.	10034.	13613.

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 7/18/2019 13:46:41 Type: Cal
Method: SGS 3 NO Valve(v48) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.480**	**11.93**	**3.555**	**2.535**	**.4391**	**.7722**	**2.178**	**2.066**	**.0612**
Stddev	.020	.27	.029	.019	.0029	.0052	.024	.016	.0004
%RSD	.3124	2.259	.8122	.7529	.6581	.6785	1.106	.7783	.6597
#1	6.460	11.69	3.529	2.518	.4425	.7781	2.195	2.052	.0617
#2	6.500	12.22	3.549	2.530	.4376	.7679	2.190	2.062	.0609
#3	6.479	11.88	3.586	2.556	.4374	.7708	2.151	2.083	.0611

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.5896**	**5.191**	**.3436**	**.2631**	**.8565**	**.2746**	**.4209**	**2.671**	**7.304**
Stddev	.0039	.043	.0027	.0020	.0065	.0022	.0031	.009	.081
%RSD	.6674	.8241	.7828	.7791	.7640	.8130	.7416	.3518	1.111
#1	.5942	5.153	.3412	.2614	.8505	.2728	.4182	2.660	7.224
#2	.5869	5.183	.3430	.2625	.8555	.2739	.4202	2.679	7.387
#3	.5878	5.237	.3465	.2654	.8635	.2771	.4243	2.673	7.301

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.493**	**.8239**	**1.580**	**6.000**	**.7949**	**2.249**	**1.673**	**.8487**	**12.65**
Stddev	.017	.0040	.007	.049	.0066	.018	.014	.0073	.11
%RSD	.3710	.4893	.4649	.8133	.8300	.7901	.8212	.8607	.8479
#1	4.474	.8196	1.572	5.978	.7889	2.234	1.660	.8423	12.68
#2	4.506	.8276	1.586	6.056	.7937	2.245	1.670	.8470	12.73
#3	4.499	.8244	1.582	5.967	.8020	2.269	1.688	.8567	12.53

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.5756**	**1.073**	**1.181**	**.1676**	**.5707**	**1.887**	**.3990**
Stddev	.0038	.009	.007	.0014	.0050	.007	.0031
%RSD	.6542	.8185	.5827	.8634	.8715	.3502	.7769
#1	.5799	1.065	1.174	.1665	.5664	1.880	.3964
#2	.5732	1.072	1.182	.1671	.5697	1.892	.3983
#3	.5737	1.082	1.188	.1693	.5762	1.890	.4024

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 7/18/2019 13:46:41 Type: Cal
Method: SGS 3 NO Valve(v48) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**215790.**	**36463.**	**9559.8**	**12450.**
Stddev	1882.	299.	64.2	78.
%RSD	.87224	.81864	.67110	.62410
#1	213740.	36637.	9615.9	12517.
#2	216190.	36118.	9573.6	12470.
#3	217440.	36633.	9489.8	12365.

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 7/18/2019 13:52:29 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.057**	**2.074**	**1.987**	**2.014**	**2.002**	**1.983**	**2.025**	**2.022**	**.2443**
Stddev	.002	.007	.001	.001	.012	.013	.026	.001	.0013
%RSD	.0764	.3588	.0625	.0536	.5824	.6694	1.306	.0646	.5479
#1	2.058	2.081	1.986	2.013	1.989	1.968	2.002	2.024	.2429
#2	2.056	2.075	1.988	2.013	2.005	1.988	2.018	2.021	.2444
#3	2.056	2.066	1.988	2.015	2.012	1.993	2.054	2.021	.2456
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.993**	**2.021**	**2.000**	**2.052**	**2.037**	**1.992**	**2.000**	**39.73**	**40.54**
Stddev	.016	.002	.001	.003	.002	.003	.003	.14	.15
%RSD	.7770	.0950	.0394	.1498	.1009	.1719	.1705	.3624	.3787
#1	1.976	2.019	1.999	2.050	2.035	1.988	2.000	39.88	40.68
#2	1.997	2.023	1.999	2.056	2.036	1.994	2.003	39.73	40.56
#3	2.006	2.022	2.001	2.052	2.039	1.994	1.997	39.59	40.38
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.38**	**40.26**	**39.85**	**40.02**	**2.011**	**2.017**	**4.881**	**2.043**	**2.006**
Stddev	.10	.14	.11	.07	.002	.001	.003	.003	.010
%RSD	.2387	.3401	.2637	.1848	.0869	.0649	.0585	.1382	.4940
#1	40.47	40.40	39.97	40.10	2.012	2.018	4.881	2.041	1.996
#2	40.39	40.26	39.83	40.00	2.012	2.017	4.884	2.042	2.004
#3	40.27	40.13	39.76	39.96	2.009	2.015	4.878	2.046	2.016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 7/18/2019 13:52:29 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.015**	**1.976**	**2.040**	**1.963**	**2.002**	**2.013**	**1.986**
Stddev	.015	.003	.016	.002	.006	.007	.008
%RSD	.7437	.1344	.7618	.1148	.3020	.3589	.3902
#1	1.998	1.975	2.022	1.965	2.000	2.020	1.978
#2	2.021	1.979	2.046	1.961	2.009	2.012	1.993
#3	2.026	1.974	2.052	1.963	1.997	2.006	1.987
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**222650.**	**36611.**	**9836.6**	**12830.**
Stddev	1884.	132.	19.6	19.
%RSD	.84629	.36138	.19907	.14992
#1	224650.	36465.	9859.0	12852.
#2	222400.	36723.	9823.2	12823.
#3	220900.	36645.	9827.5	12816.

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 7/18/2019 13:57:34 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0000**	**.0002**	**.0000**	**.0004**	**-.0010**	**.0000**	**.0001**	**-.0006**
Stddev	.0000	.0000	.0001	.0002	.0003	.0026	.0000	.0002	.0007
%RSD	14.25	96.72	60.98	889.8	89.17	259.8	46.01	162.2	124.8
#1	-.0003	-.0000	.0001	-.0001	.0007	-.0040	.0001	.0002	-.0012
#2	-.0004	-.0000	.0002	.0002	.0003	.0005	.0000	.0003	-.0006
#3	-.0003	-.0000	.0004	-.0001	.0001	.0005	.0001	-.0001	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**-.0001**	**-.0005**	**.0004**	**-.0002**	**.0006**	**.0001**	**-.0013**	**-.0031**
Stddev	.0002	.0000	.0007	.0004	.0008	.0011	.0008	.0048	.0022
%RSD	39.34	31.05	127.9	90.43	480.2	198.1	634.0	355.2	71.55
#1	-.0007	-.0001	-.0005	.0009	-.0007	.0011	-.0006	-.0046	-.0030
#2	-.0003	-.0001	-.0012	.0002	-.0005	.0013	.0001	.0042	-.0053
#3	-.0005	-.0001	.0001	.0002	.0007	-.0007	.0009	-.0036	-.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0088**	**.0857**	**.0625**	**.0032**	**.0003**	**.0001**	**.0003**	**.0001**
Stddev	.0025	.0091	.0322	.0114	.0001	.0003	.0007	.0001	.0001
%RSD	233.5	103.0	37.60	18.21	4.430	90.70	1205.	37.31	96.74
#1	.0025	.0136	.1081	.0749	.0034	.0007	-.0006	.0002	.0002
#2	-.0018	.0144	.1002	.0527	.0031	.0001	.0007	.0004	.0001
#3	.0024	-.0017	.0487	.0598	.0031	.0002	.0000	.0004	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 7/18/2019 13:57:34 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0022**	**.0001**	**-.0053**	**.0005**	**.0012**	**.0005**
Stddev	.0002	.0007	.0002	.0008	.0015	.0031	.0001
%RSD	64.97	31.81	125.8	15.73	297.2	257.5	24.52
#1	.0001	.0028	.0003	-.0060	.0013	.0026	.0004
#2	.0006	.0014	.0000	-.0055	-.0013	.0034	.0006
#3	.0004	.0024	.0001	-.0044	.0015	-.0024	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**243640.**	**36766.**	**10094.**	**13681.**
Stddev	19503.	487.	52.	56.
%RSD	8.0047	1.3251	.51656	.41028
#1	266140.	36324.	10124.	13707.
#2	233240.	37288.	10034.	13617.
#3	231540.	36685.	10125.	13720.

Zoom In Zoom Out

Sample Name: ICV 5 Acquired: 7/18/2019 14:02:39 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.057**	**2.054**	**1.980**	**1.998**	**1.969**	**1.954**	**1.998**	**2.011**	**.2457**
Stddev	.001	.004	.002	.002	.015	.017	.016	.003	.0020
%RSD	.0257	.1766	.1011	.0754	.7361	.8583	.8207	.1285	.8263
#1	2.058	2.053	1.979	1.996	1.959	1.943	1.979	2.009	.2445
#2	2.057	2.051	1.978	1.998	1.985	1.974	2.010	2.012	.2480
#3	2.057	2.058	1.982	1.999	1.961	1.946	2.004	2.014	.2445
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.970**	**2.034**	**1.997**	**2.046**	**1.966**	**1.986**	**1.998**	**39.91**	**40.63**
Stddev	.018	.004	.002	.002	.002	.003	.001	.06	.05
%RSD	.9210	.1779	.1042	.1009	.1205	.1639	.0254	.1545	.1295
#1	1.961	2.035	1.996	2.044	1.964	1.982	1.998	39.87	40.59
#2	1.991	2.031	1.999	2.048	1.967	1.986	1.998	39.88	40.61
#3	1.958	2.038	1.995	2.046	1.968	1.989	1.997	39.98	40.69
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.61**	**40.61**	**39.89**	**40.41**	**2.000**	**2.013**	**5.004**	**2.040**	**1.990**
Stddev	.04	.05	.04	.01	.002	.002	.003	.003	.019
%RSD	.0982	.1125	.0933	.0324	.1094	.1133	.0587	.1434	.9587
#1	40.61	40.58	39.87	40.40	1.999	2.013	5.002	2.040	1.993
#2	40.57	40.59	39.87	40.43	1.999	2.011	5.003	2.038	1.970
#3	40.65	40.67	39.93	40.41	2.003	2.016	5.007	2.043	2.008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV 5 Acquired: 7/18/2019 14:02:39 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.997**	**1.967**	**2.017**	**2.002**	**1.924**	**1.949**	**1.974**
Stddev	.020	.004	.018	.006	.004	.002	.001
%RSD	.9855	.1959	.9171	.2975	.2027	.0915	.0646
#1	1.987	1.964	2.007	1.999	1.921	1.950	1.973
#2	2.019	1.966	2.039	1.999	1.929	1.947	1.975
#3	1.984	1.972	2.006	2.009	1.924	1.950	1.975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**225110.**	**36651.**	**9852.3**	**12857.**
Stddev	1825.	82.	28.7	29.
%RSD	.81078	.22313	.29127	.22645
#1	225540.	36660.	9856.3	12872.
#2	223110.	36565.	9878.7	12876.
#3	226690.	36728.	9821.8	12824.

Zoom In Zoom Out

Sample Name: ICB Acquired: 7/18/2019 14:07:42 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0000**	**.0000**	**.0000**	**.0001**	**.0005**	**.0000**	**-.0002**	**-.0002**
Stddev	.0002	.0000	.0001	.0001	.0003	.0004	.0000	.0001	.0002
%RSD	44.45	116.1	215.6	470.3	240.3	72.40	174.9	50.89	133.4
#1	-.0006	-.0000	.0000	.0001	.0002	.0005	.0000	-.0002	-.0002
#2	-.0002	.0000	.0001	-.0001	.0003	.0002	-.0000	-.0001	.0001
#3	-.0006	.0000	-.0000	-.0000	-.0002	.0009	.0000	-.0002	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**-.0000**	**-.0009**	**.0001**	**-.0005**	**.0015**	**-.0010**	**-.0075**	**-.0028**
Stddev	.0004	.0001	.0003	.0008	.0006	.0022	.0014	.0041	.0011
%RSD	70.24	215.5	31.08	733.0	126.8	140.1	137.2	54.21	37.78
#1	-.0008	-.0001	-.0009	.0006	-.0002	.0039	-.0023	-.0116	-.0040
#2	-.0001	-.0000	-.0006	.0006	-.0011	-.0004	-.0012	-.0035	-.0019
#3	-.0006	.0000	-.0011	-.0009	-.0000	.0012	.0005	-.0075	-.0026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0037**	**.0080**	**.0647**	**.0573**	**.0028**	**.0003**	**.0001**	**.0003**	**.0001**
Stddev	.0005	.0046	.0227	.0017	.0001	.0002	.0012	.0005	.0001
%RSD	13.64	57.11	35.04	3.001	4.969	59.03	1401.	197.9	87.42
#1	.0034	.0082	.0830	.0584	.0028	.0001	.0005	.0008	.0000
#2	.0034	.0126	.0393	.0553	.0029	.0004	.0010	-.0002	.0000
#3	.0043	.0034	.0716	.0583	.0026	.0003	-.0013	.0002	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICB Acquired: 7/18/2019 14:07:42 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0028**	**.0002**	**-.0069**	**.0007**	**.0013**	**.0001**
Stddev	.0003	.0010	.0000	.0018	.0005	.0001	.0002
%RSD	214.1	36.85	17.07	26.08	74.41	11.88	295.4
#1	.0005	.0033	.0002	-.0089	.0006	.0013	-.0002
#2	.0002	.0035	.0002	-.0054	.0012	.0011	.0001
#3	-.0002	.0016	.0001	-.0063	.0002	.0014	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**236930.**	**37198.**	**10154.**	**13771.**
Stddev	1959.	57.	86.	108.
%RSD	.82659	.15280	.84649	.78524
#1	235860.	37263.	10217.	13855.
#2	239190.	37159.	10190.	13809.
#3	235750.	37172.	10056.	13649.

Zoom In Zoom Out

Sample Name: ccv Acquired: 7/18/2019 14:12:47 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.059**	**2.044**	**1.985**	**1.994**	**1.971**	**1.951**	**1.997**	**2.021**	**.2414**
Stddev	.002	.003	.018	.019	.040	.041	.025	.020	.0047
%RSD	.0985	.1569	.9160	.9536	2.003	2.084	1.277	.9643	1.955
#1	2.060	2.043	1.975	1.981	2.016	1.998	2.027	2.008	.2468
#2	2.057	2.048	2.006	2.016	1.947	1.927	1.980	2.043	.2384
#3	2.059	2.041	1.975	1.986	1.949	1.929	1.986	2.011	.2389
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.966**	**2.020**	**1.992**	**2.044**	**2.010**	**1.978**	**1.996**	**39.42**	**40.00**
Stddev	.039	.019	.021	.021	.018	.020	.022	.08	.09
%RSD	1.964	.9528	1.043	1.012	.8937	1.002	1.119	.1973	.2278
#1	2.011	2.010	1.978	2.032	2.002	1.965	1.982	39.41	39.96
#2	1.943	2.043	2.016	2.068	2.031	2.001	2.022	39.50	40.10
#3	1.946	2.009	1.982	2.033	1.998	1.969	1.985	39.35	39.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.08**	**39.94**	**39.42**	**39.89**	**2.003**	**2.010**	**4.885**	**2.026**	**1.980**
Stddev	.03	.03	.13	.04	.018	.019	.046	.018	.028
%RSD	.0721	.0705	.3231	.0895	.9195	.9389	.9462	.8859	1.408
#1	40.08	39.91	39.40	39.90	1.991	1.997	4.853	2.013	1.955
#2	40.10	39.93	39.55	39.85	2.024	2.031	4.938	2.046	1.974
#3	40.05	39.97	39.30	39.92	1.994	2.001	4.864	2.018	2.010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 7/18/2019 14:12:47 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.996**	**1.964**	**2.005**	**1.939**	**1.997**	**1.982**	**1.977**
Stddev	.039	.019	.040	.021	.015	.006	.017
%RSD	1.955	.9563	1.981	1.087	.7481	.3037	.8566
#1	2.041	1.953	2.051	1.923	1.989	1.980	1.971
#2	1.973	1.986	1.982	1.963	2.014	1.989	1.996
#3	1.974	1.953	1.982	1.932	1.988	1.977	1.964
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**225720.**	**36980.**	**9852.4**	**12888.**
Stddev	4440.	61.	86.1	112.
%RSD	1.9670	.16370	.87358	.86597
#1	220620.	37025.	9903.9	12958.
#2	228680.	37004.	9753.0	12760.
#3	227870.	36911.	9900.2	12947.

Zoom In Zoom Out

Sample Name: ccb Acquired: 7/18/2019 14:17:49 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0000**	**.0002**	**.0001**	**.0002**	**.0011**	**.0000**	**.0000**	**-.0000**
Stddev	.0001	.0001	.0001	.0000	.0000	.0002	.0000	.0000	.0002
%RSD	16.78	793.9	37.86	37.99	1.673	16.64	178.9	136.9	1892.
#1	-.0006	-.0001	.0002	.0002	.0002	.0013	-.0000	.0001	.0002
#2	-.0006	-.0000	.0001	.0002	.0002	.0010	.0000	.0000	-.0001
#3	-.0004	.0001	.0003	.0001	.0002	.0011	.0001	-.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0000**	**-.0011**	**.0001**	**-.0002**	**.0008**	**.0008**	**-.0045**	**-.0028**
Stddev	.0001	.0000	.0005	.0010	.0007	.0008	.0023	.0048	.0013
%RSD	52.93	152.4	47.57	1271.	461.2	103.0	293.7	106.1	45.29
#1	-.0002	.0000	-.0017	-.0008	.0003	.0001	-.0017	-.0027	-.0042
#2	-.0004	-.0000	-.0007	.0012	.0002	.0017	.0029	-.0099	-.0018
#3	-.0001	-.0000	-.0009	-.0001	-.0010	.0006	.0012	-.0008	-.0024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0023**	**.0149**	**.0476**	**.0431**	**.0030**	**.0002**	**.0011**	**.0001**	**.0001**
Stddev	.0016	.0012	.0192	.0029	.0008	.0002	.0004	.0005	.0000
%RSD	70.55	8.079	40.27	6.612	27.49	133.6	38.97	392.7	20.59
#1	.0014	.0144	.0664	.0449	.0039	-.0000	.0006	.0007	.0001
#2	.0042	.0139	.0483	.0447	.0028	.0004	.0012	-.0000	.0001
#3	.0014	.0162	.0281	.0399	.0023	.0002	.0014	-.0003	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 7/18/2019 14:17:49 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0030**	**.0003**	**-.0083**	**.0010**	**.0001**	**-.0010**
Stddev	.0001	.0007	.0002	.0012	.0010	.0004	.0002
%RSD	50.15	24.72	57.17	14.57	105.5	620.5	21.78
#1	.0001	.0026	.0003	-.0097	.0012	.0005	-.0009
#2	.0003	.0038	.0005	-.0075	-.0002	-.0002	-.0012
#3	.0004	.0025	.0001	-.0077	.0018	-.0002	-.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**236270.**	**37541.**	**10229.**	**13871.**
Stddev	2281.	186.	23.	32.
%RSD	.96528	.49424	.22022	.23339
#1	233670.	37509.	10209.	13841.
#2	237920.	37373.	10224.	13868.
#3	237230.	37740.	10253.	13905.

Zoom In Zoom Out

Sample Name: CRID Acquired: 7/18/2019 14:22:53 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0033**	**.0010**	**.0010**	**.0028**	**.0017**	F **.0011**	**.0031**	**.0038**
Stddev	.0002	.0000	.0001	.0003	.0004	.0001	.0001	.0002
%RSD	4.862	1.504	5.655	11.90	22.77	12.67	2.440	4.380
#1	.0031	.0010	.0010	.0025	.0017	.0011	.0031	.0038
#2	.0034	.0010	.0009	.0031	.0021	.0009	.0030	.0036
#3	.0034	.0010	.0010	.0027	.0013	.0012	.0031	.0040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-20.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0001**	F **.0015**	**.0088**	**.0032**	**.0018**	F **-.0001**	F **.0040**	F **.0001**
Stddev	.0003	.0001	.0001	.0005	.0014	.0009	.0009	.0002
%RSD	273.7	9.824	.9458	15.15	75.00	1070.	23.73	261.0
#1	.0002	.0015	.0089	.0031	.0027	.0005	.0042	-.0001
#2	-.0003	.0017	.0087	.0028	.0002	.0004	.0048	.0000
#3	-.0003	.0014	.0088	.0037	.0025	-.0012	.0029	.0003
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail
Value	.0020	.0020				.0025	.0050	.0030
Range	-20.00%	-20.00%				-20.00%	-20.00%	-20.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0966**	**.9751**	**-.0008**	**.1099**	**1.976**	**1.035**	**.0021**	**-.0003**
Stddev	.0104	.0032	.0016	.0069	.069	.007	.0004	.0001
%RSD	10.77	.3273	206.7	6.249	3.500	.7197	18.48	43.02
#1	.1069	.9772	.0009	.1137	1.912	1.042	.0025	-.0003
#2	.0968	.9714	-.0024	.1141	2.050	1.027	.0020	-.0001
#3	.0861	.9766	-.0008	.1020	1.967	1.036	.0017	-.0004
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: CRID Acquired: 7/18/2019 14:22:53 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**-.0008**	**.0000**	**.0000**	**.0020**	**.0002**	**-.0119**	**.0007**
Stddev	.0006	.0002	.0000	.0004	.0011	.0004	.0023	.0003
%RSD	57.74	22.60	48.85	2503.	56.96	194.5	19.17	48.85
#1	.0016	-.0007	.0000	.0004	.0013	.0006	-.0107	.0005
#2	.0009	-.0010	.0000	-.0005	.0033	.0004	-.0105	.0005
#3	.0005	-.0008	.0001	.0001	.0013	-.0003	-.0145	.0011
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0009**	**-.0003**
Stddev	.0010	.0004
%RSD	113.8	116.3
#1	-.0003	-.0002
#2	.0016	-.0008
#3	.0015	-.0000
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**234440.**	**37655.**	**10246.**	**13872.**
Stddev	6423.	208.	87.	105.
%RSD	2.7398	.55158	.85065	.75979
#1	227040.	37882.	10163.	13770.
#2	238520.	37609.	10337.	13980.
#3	237770.	37475.	10237.	13866.

Zoom In Zoom Out

Sample Name: CRI Acquired: 7/18/2019 14:27:56 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1980**	**.0019**	**.0029**	**.0476**	**.0098**	**.0106**	**.0149**	**.0096**	**.0049**
Stddev	.0002	.0000	.0000	.0001	.0003	.0006	.0002	.0002	.0002
%RSD	.1180	1.989	1.535	.1617	3.043	6.024	1.014	1.912	4.889
#1	.1982	.0020	.0029	.0477	.0095	.0112	.0149	.0098	.0047
#2	.1978	.0019	.0029	.0476	.0101	.0107	.0150	.0094	.0051
#3	.1982	.0019	.0029	.0477	.0097	.0099	.0147	.0097	.0047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0482**	**.0194**	**.0081**	**.0093**	**.0025**	**.0113**	**.0059**	**.1909**	**4.960**
Stddev	.0004	.0000	.0001	.0004	.0006	.0005	.0007	.0047	.009
%RSD	.8531	.1578	.9709	3.905	23.93	4.116	11.83	2.479	.1807
#1	.0482	.0194	.0082	.0097	.0018	.0116	.0061	.1858	4.952
#2	.0486	.0195	.0081	.0091	.0027	.0107	.0051	.1951	4.957
#3	.0478	.0194	.0081	.0090	.0029	.0115	.0064	.1920	4.970
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1039**	**5.053**	**4.866**	**5.025**	**.0977**	**.0190**	**.1795**	**.0089**	**.0097**
Stddev	.0008	.007	.038	.003	.0003	.0003	.0014	.0001	.0000
%RSD	.8109	.1391	.7730	.0621	.2676	1.729	.7814	1.335	.2234
#1	.1034	5.050	4.825	5.029	.0974	.0186	.1802	.0090	.0097
#2	.1049	5.061	4.874	5.023	.0979	.0193	.1779	.0087	.0097
#3	.1035	5.049	4.899	5.024	.0977	.0190	.1805	.0089	.0097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRI Acquired: 7/18/2019 14:27:56 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0094**	**.0479**	**.0107**	F **.0397**	**.0209**	**.0534**	**.0449**
Stddev	.0002	.0005	.0003	.0009	.0001	.0006	.0003
%RSD	1.640	1.096	2.696	2.201	.2722	1.195	.7392
#1	.0092	.0474	.0108	.0406	.0209	.0532	.0450
#2	.0095	.0484	.0109	.0397	.0210	.0529	.0451
#3	.0095	.0480	.0104	.0388	.0209	.0541	.0445
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.0500			
Range				-20.00%			

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**235590.**	**37344.**	**10235.**	**13780.**
Stddev	2048.	35.	26.	13.
%RSD	.86915	.09384	.25329	.09467
#1	236340.	37310.	10261.	13795.
#2	233270.	37342.	10234.	13775.
#3	237150.	37380.	10209.	13771.

Zoom In Zoom Out

Sample Name: ICSA Acquired: 7/18/2019 14:32:53 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0012**	**.0003**	**.0005**	**-.0003**	**-.0003**	**-.0061**	**-.0002**	**.0000**	**-.0014**
Stddev	.0002	.0000	.0002	.0002	.0004	.0008	.0001	.0004	.0008
%RSD	14.91	12.58	39.92	47.13	123.4	12.73	37.81	918.2	58.39
#1	-.0010	.0002	.0004	-.0003	-.0007	-.0069	-.0002	-.0003	-.0019
#2	-.0014	.0003	.0004	-.0005	.0000	-.0053	-.0003	-.0001	-.0005
#3	-.0011	.0003	.0007	-.0002	-.0002	-.0061	-.0001	.0006	-.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0077**	**-.0009**	**-.0010**	**-.0058**	**-.0021**	**-.0018**	**-.0023**	**459.3**	**350.1**
Stddev	.0001	.0000	.0003	.0014	.0002	.0014	.0037	3.8	1.1
%RSD	1.842	5.509	26.86	24.49	10.58	79.52	164.1	.8351	.3038
#1	.0078	-.0009	-.0011	-.0069	-.0023	-.0007	-.0064	459.9	349.9
#2	.0077	-.0009	-.0012	-.0042	-.0020	-.0034	.0006	462.9	349.1
#3	.0075	-.0008	-.0007	-.0062	-.0019	-.0013	-.0010	455.2	351.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**173.4**	**458.0**	**.1767**	**.1661**	**-.0012**	**.0002**	**.0032**	**-.0025**	**-.0004**
Stddev	2.0	.6	.0210	.0010	.0006	.0002	.0008	.0006	.0002
%RSD	1.166	.1326	11.89	.6152	50.02	90.17	25.01	23.88	41.97
#1	171.8	457.3	.2002	.1651	-.0005	.0001	.0042	-.0031	-.0004
#2	175.7	458.3	.1704	.1661	-.0015	.0004	.0029	-.0020	-.0005
#3	172.7	458.5	.1596	.1672	-.0016	.0002	.0027	-.0024	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 7/18/2019 14:32:53 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0015**	**-.0334**	**.0074**	**.0108**	**-.0048**	**-.0053**	**.0180**
Stddev	.0003	.0013	.0003	.0024	.0010	.0007	.0009
%RSD	17.98	3.970	4.025	22.33	20.28	14.02	4.924
#1	-.0012	-.0349	.0073	.0111	-.0039	-.0058	.0181
#2	-.0015	-.0329	.0077	.0131	-.0047	-.0056	.0188
#3	-.0017	-.0324	.0071	.0083	-.0058	-.0044	.0171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**210100.**	**35960.**	**9280.7**	**11851.**
Stddev	2548.	72.	29.4	23.
%RSD	1.2126	.20003	.31677	.19796
#1	207440.	35910.	9251.4	11827.
#2	212520.	36043.	9280.5	11851.
#3	210330.	35928.	9310.2	11874.

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 7/18/2019 14:38:10 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4860**	**.4689**	**.9369**	**.4487**	**.4368**	**.4520**	**.4556**	**.9002**	**.9946**
Stddev	.0007	.0010	.0075	.0031	.0011	.0009	.0004	.0069	.0022
%RSD	.1441	.2105	.7997	.6806	.2427	.2082	.0775	.7659	.2238
#1	.4865	.4699	.9325	.4472	.4374	.4530	.4560	.8969	.9966
#2	.4862	.4689	.9326	.4467	.4375	.4519	.4556	.8955	.9950
#3	.4852	.4679	.9455	.4522	.4356	.4511	.4553	.9081	.9922
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4544**	**.8789**	**.9731**	**.9325**	**.8524**	**.9629**	**.9324**	**466.0**	**350.3**
Stddev	.0011	.0073	.0108	.0061	.0043	.0072	.0085	7.0	3.8
%RSD	.2334	.8283	1.109	.6547	.5079	.7506	.9086	1.511	1.090
#1	.4554	.8747	.9641	.9296	.8489	.9617	.9258	473.2	346.1
#2	.4533	.8747	.9701	.9285	.8511	.9564	.9295	465.6	353.6
#3	.4543	.8873	.9850	.9396	.8573	.9707	.9420	459.1	351.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**180.1**	**466.3**	**.1719**	**.1544**	**.4564**	**.4499**	**.4624**	**.4402**	**.4785**
Stddev	2.1	.9	.0412	.0092	.0041	.0040	.0039	.0028	.0007
%RSD	1.158	.1868	23.95	5.932	.8926	.8846	.8460	.6323	.1486
#1	182.4	467.0	.2192	.1649	.4541	.4478	.4593	.4382	.4790
#2	178.4	466.6	.1521	.1507	.4540	.4474	.4609	.4389	.4789
#3	179.3	465.3	.1444	.1477	.4611	.4545	.4668	.4434	.4777
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 7/18/2019 14:38:10 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4618**	**F .3730**	**.4911**	**.4768**	**.4648**	**.4925**	**.5168**
Stddev	.0007	.0034	.0005	.0042	.0027	.0004	.0062
%RSD	.1441	.9170	.1056	.8786	.5760	.0766	1.209
#1	.4622	.3709	.4917	.4762	.4631	.4923	.5120
#2	.4622	.3711	.4908	.4729	.4635	.4924	.5147
#3	.4611	.3769	.4909	.4813	.4679	.4930	.5239
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.5000					
Range		-20.00%					

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**212900.**	**36241.**	**9291.9**	**11886.**
Stddev	160.	67.	64.1	68.
%RSD	.07493	.18450	.68957	.56863
#1	212750.	36283.	9330.6	11926.
#2	212870.	36164.	9327.2	11925.
#3	213070.	36276.	9218.0	11808.

Zoom In Zoom Out

Sample Name: HSTD Acquired: 7/18/2019 14:43:24 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.176**	**7.928**	**7.836**	**7.760**	**7.770**	**7.604**	**7.713**	**7.835**	**.6246**
Stddev	.067	.065	.021	.024	.157	.138	.132	.020	.0119
%RSD	.8184	.8164	.2703	.3139	2.019	1.815	1.707	.2569	1.910
#1	8.229	7.854	7.840	7.760	7.890	7.685	7.792	7.838	.6300
#2	8.197	7.972	7.812	7.735	7.828	7.682	7.785	7.814	.6328
#3	8.101	7.959	7.854	7.783	7.593	7.445	7.561	7.853	.6109
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.670**	**8.013**	**7.858**	**8.062**	**8.361**	**7.819**	**7.991**	**.0799**	**-.0367**
Stddev	.119	.014	.017	.008	.026	.027	.028	.0069	.0005
%RSD	1.550	.1723	.2141	.1040	.3072	.3461	.3502	8.617	1.293
#1	7.670	8.009	7.855	8.061	8.358	7.817	7.989	.0878	-.0362
#2	7.789	8.001	7.842	8.054	8.336	7.793	7.964	.0767	-.0370
#3	7.551	8.028	7.875	8.070	8.387	7.847	8.020	.0752	-.0370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0218**	**.0439**	**.4269**	**.0654**	**7.924**	**8.015**	**25.46**	**8.217**	**7.820**
Stddev	.0013	.0093	.0288	.0028	.025	.024	.08	.018	.105
%RSD	6.162	21.10	6.752	4.281	.3169	.3024	.3294	.2253	1.345
#1	-.0204	.0337	.4410	.0683	7.923	8.016	25.46	8.215	7.737
#2	-.0219	.0518	.4460	.0651	7.899	7.991	25.38	8.200	7.938
#3	-.0231	.0462	.3937	.0627	7.949	8.039	25.55	8.237	7.784
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 7/18/2019 14:43:24 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.832**	**8.202**	**7.804**	**96.16**	**8.077**	**7.805**	**7.786**
Stddev	.184	.022	.191	.30	.015	.014	.014
%RSD	2.349	.2671	2.449	.3156	.1817	.1750	.1796
#1	7.886	8.199	7.927	96.16	8.083	7.789	7.791
#2	7.983	8.182	7.901	95.86	8.060	7.814	7.770
#3	7.627	8.225	7.583	96.47	8.087	7.812	7.797
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**234120.**	**37826.**	**9982.9**	**13721.**
Stddev	5018.	206.	25.4	34.
%RSD	2.1434	.54520	.25428	.24677
#1	231340.	38008.	10004.	13746.
#2	231100.	37602.	9989.9	13735.
#3	239910.	37870.	9954.8	13683.

Zoom In Zoom Out

Sample Name: HSTD Acquired: 7/18/2019 14:49:31 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0003**	**.0006**	**-.0003**	**.0003**	**-.0050**	**-.0005**	**.0006**	**.0003**
Stddev	.0001	.0001	.0003	.0002	.0004	.0002	.0001	.0003	.0008
%RSD	35.13	18.61	42.03	86.28	118.4	4.735	12.46	43.33	266.9
#1	-.0003	.0004	.0008	-.0002	.0007	-.0047	-.0005	.0009	.0012
#2	-.0005	.0003	.0003	-.0001	-.0001	-.0052	-.0004	.0004	-.0001
#3	-.0003	.0004	.0008	-.0005	.0004	-.0051	-.0005	.0005	-.0002
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0069**	**-.0003**	**-.0021**	**-.0053**	**-.0042**	**-.0047**	**.0030**	**300.1**	**191.2**
Stddev	.0006	.0000	.0020	.0009	.0014	.0003	.0017	1.2	2.4
%RSD	9.298	8.378	98.11	16.26	32.68	5.300	55.05	.3932	1.230
#1	.0068	-.0003	-.0016	-.0044	-.0057	-.0045	.0047	300.3	189.6
#2	.0064	-.0003	-.0043	-.0061	-.0036	-.0048	.0014	301.2	190.2
#3	.0076	-.0003	-.0003	-.0054	-.0032	-.0050	.0029	298.8	193.9
Check ?	None	None	None	None	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**188.6**	**300.8**	**197.5**	**197.9**	**.0049**	**.0025**	**.0119**	**-.0006**	**-.0010**
Stddev	2.5	.9	.3	3.4	.0006	.0003	.0005	.0005	.0000
%RSD	1.317	.2867	.1376	1.720	11.96	10.79	3.904	79.29	4.112
#1	190.7	300.8	197.2	201.0	.0042	.0027	.0124	-.0000	-.0009
#2	189.2	299.9	197.6	194.3	.0053	.0026	.0115	-.0009	-.0010
#3	185.9	301.6	197.7	198.5	.0052	.0022	.0117	-.0008	-.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 7/18/2019 14:49:31 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0201**	**.0084**	**-.0149**	**-.0051**	**-.0011**	**.0102**
Stddev	.0004	.0016	.0003	.0004	.0019	.0011	.0010
%RSD	126.3	8.209	3.543	2.449	37.65	99.63	9.628
#1	-.0007	-.0220	.0087	-.0145	-.0054	-.0019	.0109
#2	.0001	-.0191	.0082	-.0153	-.0068	-.0014	.0091
#3	-.0004	-.0191	.0082	-.0150	-.0030	.0001	.0107
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**210690.**	**36224.**	**9251.8**	**11815.**
Stddev	754.	161.	11.5	15.
%RSD	.35781	.44337	.12392	.13032
#1	211410.	36149.	9238.6	11801.
#2	209910.	36409.	9257.4	11812.
#3	210760.	36116.	9259.3	11832.

Zoom In Zoom Out

Sample Name: FECONF Acquired: 7/18/2019 14:54:59 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0003**	**.0006**	**-.0001**	**-.0006**	**-.0041**	**-.0007**	**.0004**	**.0025**
Stddev	.0002	.0000	.0002	.0002	.0002	.0002	.0001	.0001	.0013
%RSD	90.95	11.29	27.19	212.4	30.70	3.766	7.197	33.81	51.60
#1	-.0000	.0002	.0007	.0001	-.0008	-.0043	-.0008	.0005	.0011
#2	-.0002	.0003	.0006	-.0002	-.0004	-.0041	-.0007	.0004	.0028
#3	-.0004	.0003	.0004	-.0001	-.0006	-.0040	-.0007	.0002	.0036

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0020**	**-.0027**	**.0013**	**-.0012**	**-.0024**	**-.0027**	**.0060**	**-.0152**	**-.0136**
Stddev	.0003	.0001	.0008	.0015	.0017	.0011	.0018	.0068	.0010
%RSD	16.86	4.639	60.00	127.9	69.96	40.92	30.03	44.56	7.359
#1	-.0024	-.0028	.0012	.0004	-.0005	-.0035	.0046	-.0230	-.0137
#2	-.0019	-.0025	.0006	-.0013	-.0029	-.0014	.0080	-.0103	-.0125
#3	-.0018	-.0027	.0021	-.0026	-.0037	-.0031	.0053	-.0124	-.0145

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**199.8**	**-.0071**	**.0929**	**.0616**	**.0019**	**.0017**	**.0063**	**-.0003**	**.0000**
Stddev	1.8	.0170	.0108	.0149	.0003	.0003	.0004	.0004	.0000
%RSD	.9248	238.6	11.60	24.15	13.15	20.51	6.010	111.8	100.3
#1	198.1	-.0257	.0935	.0787	.0017	.0013	.0060	-.0006	.0000
#2	199.5	-.0034	.0819	.0540	.0019	.0019	.0062	.0001	.0001
#3	201.7	.0077	.1034	.0520	.0022	.0019	.0067	-.0005	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0019**	**.0082**	**-.0292**	**-.0016**	**-.0138**	**-.0036**
Stddev	.0001	.0009	.0004	.0016	.0013	.0012	.0009
%RSD	29.48	45.59	4.817	5.502	83.75	8.634	23.55
#1	.0003	.0010	.0078	-.0274	-.0027	-.0127	-.0040
#2	.0006	.0021	.0083	-.0304	-.0001	-.0135	-.0027
#3	.0005	.0027	.0086	-.0298	-.0020	-.0151	-.0043

Zoom In Zoom Out

Sample Name: FECONF Acquired: 7/18/2019 14:54:59 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**230820.**	**37582.**	**10077.**	**13962.**
Stddev	3362.	109.	54.	66.
%RSD	1.4565	.28895	.53172	.47436
#1	227170.	37466.	10027.	13894.
#2	233780.	37601.	10134.	14026.
#3	231530.	37680.	10069.	13967.

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 7/18/2019 15:00:09 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0000**	**-.0003**	**.0009**	F **9.496**	**.0034**	**.0001**	**.0001**
Stddev	.0001	.0000	.0002	.0000	.111	.0006	.0000	.0002
%RSD	25.16	21.26	85.14	2.784	1.166	18.35	29.26	260.2
#1	-.0006	.0000	-.0002	.0009	9.564	.0041	.0000	-.0001
#2	-.0004	.0000	-.0005	.0009	9.368	.0029	.0001	.0002
#3	-.0006	.0001	-.0001	.0009	9.556	.0031	.0001	.0002

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0017**	**.0003**	**.0663**	**.0009**	F **-.0037**	**-.0002**	**.0188**
Stddev	.0002	.0014	.0002	.0003	.0002	.0008	.0012	.0013
%RSD	206.5	87.17	52.64	.4901	25.58	22.66	702.7	7.023
#1	.0001	.0018	.0004	.0666	.0007	-.0043	.0008	.0180
#2	-.0001	.0002	.0001	.0661	.0008	-.0027	.0002	.0203
#3	-.0002	.0030	.0004	.0660	.0011	-.0039	-.0016	.0180

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**-.0004**	**.0079**	**.0199**	**-.0095**	**-.0027**	**.0024**	**.0007**
Stddev	.0068	.0003	.0015	.0036	.0489	.0080	.0007	.0001
%RSD	273.0	92.72	18.87	17.99	515.8	294.9	29.99	14.88
#1	.0022	-.0005	.0065	.0175	.0065	.0003	.0024	.0007
#2	.0095	-.0006	.0076	.0241	-.0644	-.0117	.0031	.0009
#3	-.0041	.0000	.0095	.0182	.0294	.0033	.0016	.0007

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0056**	**-.0016**	**.0001**	**-.0031**	**.0048**	**.0061**	**-.0079**	**.0010**
Stddev	.0007	.0001	.0000	.0001	.0010	.0002	.0014	.0007
%RSD	12.75	7.905	19.16	4.336	21.12	2.865	18.27	69.29
#1	.0058	-.0017	.0001	-.0032	.0048	.0059	-.0063	.0006
#2	.0048	-.0015	.0001	-.0030	.0038	.0060	-.0091	.0018
#3	.0062	-.0016	.0001	-.0031	.0058	.0063	-.0083	.0005

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 7/18/2019 15:00:09 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**-.0001**	**-.0029**
Stddev	.0011	.0004
%RSD	1494.	13.87
#1	-.0011	-.0031
#2	-.0002	-.0031
#3	.0011	-.0024

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**235710.**	**37812.**	**10003.**	**13849.**
Stddev	878.	186.	8.	13.
%RSD	.37233	.49280	.07862	.09190
#1	234840.	37745.	10012.	13863.
#2	236590.	37668.	9999.4	13842.
#3	235700.	38023.	9998.4	13840.

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 7/18/2019 15:05:21 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0000**	F **-.0051**	**.0001**	**.0005**	**.0020**	**.0001**	**.0001**
Stddev	.0002	.0000	.0002	.0001	.0004	.0008	.0000	.0001
%RSD	32.55	490.9	3.331	117.6	74.05	40.95	46.43	126.3
#1	-.0007	-.0000	-.0053	.0001	.0002	.0029	.0001	.0001
#2	-.0005	.0000	-.0050	.0001	.0004	.0012	.0000	.0002
#3	-.0010	-.0000	-.0050	-.0000	.0010	.0020	.0001	-.0000

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0004**	**-.0008**	**4.761**	**-.0002**	**-.0000**	**.0007**	**-.0002**
Stddev	.0006	.0002	.0001	.034	.0008	.0009	.0012	.0004
%RSD	419.1	53.24	7.818	.7227	429.5	26770.	175.6	203.6
#1	.0000	-.0002	-.0008	4.769	.0003	.0005	.0011	.0002
#2	-.0004	-.0006	-.0009	4.791	-.0011	-.0011	-.0007	-.0004
#3	.0008	-.0003	-.0008	4.724	.0002	.0005	.0017	-.0004

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0099**	**-.0606**	**.0024**	**.0155**	**-.0550**	**-.0216**	**.0022**	**-.0000**
Stddev	.0039	.0019	.0008	.0078	.0096	.0012	.0006	.0001
%RSD	39.70	3.076	33.78	50.37	17.42	5.619	25.77	323.4
#1	-.0091	-.0609	.0030	.0236	-.0659	-.0227	.0017	-.0002
#2	-.0064	-.0624	.0026	.0080	-.0510	-.0203	.0021	.0001
#3	-.0141	-.0587	.0015	.0149	-.0481	-.0219	.0029	-.0000

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0028**	**.0003**	**.0000**	**.0001**	**.0013**	**.0002**	**-.0082**	**.0005**
Stddev	.0004	.0002	.0000	.0001	.0005	.0002	.0008	.0016
%RSD	15.57	55.00	224.3	81.70	38.93	112.2	9.450	315.3
#1	.0023	.0004	.0001	.0000	.0014	-.0000	-.0079	-.0004
#2	.0029	.0001	-.0000	.0002	.0008	.0001	-.0076	.0023
#3	.0031	.0003	.0000	.0001	.0018	.0003	-.0091	-.0004

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 7/18/2019 15:05:21 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0003**	**-.0010**
Stddev	.0006	.0002
%RSD	211.5	20.89
#1	-.0002	-.0007
#2	.0001	-.0010
#3	.0009	-.0011

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**240130.**	**37674.**	**10236.**	**13916.**
Stddev	4576.	216.	68.	87.
%RSD	1.9054	.57389	.66393	.62365
#1	239440.	37801.	10221.	13884.
#2	245020.	37425.	10176.	13849.
#3	235950.	37797.	10310.	14014.

Zoom In Zoom Out

Sample Name: CCV Acquired: 7/18/2019 15:10:24 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.080**	**2.030**	**1.978**	**1.962**	**1.961**	**1.958**	**1.991**	**1.996**	**.2425**
Stddev	.009	.005	.004	.005	.017	.020	.025	.003	.0017
%RSD	.4337	.2699	.1804	.2322	.8807	.9979	1.259	.1240	.7139
#1	2.090	2.036	1.981	1.966	1.942	1.935	1.984	1.998	.2406
#2	2.075	2.027	1.978	1.962	1.967	1.969	1.970	1.997	.2430
#3	2.075	2.027	1.974	1.957	1.975	1.969	2.019	1.993	.2440
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.965**	**1.986**	**1.975**	**2.042**	**1.974**	**1.958**	**1.983**	**39.20**	**39.71**
Stddev	.019	.006	.002	.004	.005	.004	.006	.13	.13
%RSD	.9472	.2882	.1103	.1733	.2605	.2118	.2982	.3263	.3393
#1	1.944	1.993	1.977	2.045	1.979	1.962	1.985	39.35	39.86
#2	1.969	1.984	1.976	2.041	1.975	1.954	1.988	39.13	39.61
#3	1.980	1.982	1.973	2.038	1.968	1.959	1.976	39.13	39.66
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.10**	**39.72**	**39.07**	**39.86**	**1.995**	**1.977**	**4.840**	**1.999**	**1.982**
Stddev	.18	.23	.16	.19	.003	.003	.008	.006	.045
%RSD	.4423	.5850	.4007	.4815	.1467	.1577	.1698	.3101	2.257
#1	40.31	39.98	39.25	40.08	1.999	1.981	4.847	2.005	2.004
#2	40.00	39.56	38.98	39.74	1.994	1.977	4.842	2.000	2.011
#3	40.00	39.61	38.98	39.75	1.993	1.974	4.831	1.993	1.930
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 7/18/2019 15:10:24 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.002**	**1.939**	**2.012**	**1.919**	**1.976**	**1.960**	**1.948**
Stddev	.019	.004	.020	.006	.003	.006	.004
%RSD	.9580	.2092	1.011	.3015	.1606	.2930	.1780
#1	1.981	1.942	1.989	1.922	1.980	1.966	1.949
#2	2.006	1.940	2.016	1.923	1.974	1.955	1.951
#3	2.019	1.934	2.029	1.912	1.975	1.958	1.944
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**226040.**	**37264.**	**9951.8**	**13017.**
Stddev	1640.	349.	24.2	30.
%RSD	.72552	.93624	.24322	.22783
#1	227740.	36862.	9924.6	12984.
#2	225890.	37485.	9960.0	13026.
#3	224470.	37446.	9970.9	13041.

Zoom In Zoom Out

Sample Name: CCB Acquired: 7/18/2019 15:15:22 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0001**	**.0002**	**.0004**	**.0004**	**.0020**	**.0002**	**.0002**	**.0005**
Stddev	.0002	.0000	.0001	.0001	.0002	.0004	.0001	.0002	.0001
%RSD	42.42	21.45	46.77	27.67	61.60	18.89	42.27	95.57	12.49
#1	-.0004	.0001	.0002	.0005	.0003	.0022	.0001	.0003	.0005
#2	-.0002	.0001	.0001	.0003	.0002	.0022	.0001	.0003	.0005
#3	-.0005	.0001	.0003	.0004	.0006	.0016	.0002	-.0000	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0002**	**.0001**	**.0006**	**-.0003**	**.0000**	**.0008**	**-.0150**	**-.0017**
Stddev	.0001	.0000	.0003	.0009	.0007	.0008	.0013	.0106	.0021
%RSD	21.12	30.20	231.9	146.1	192.7	3477.	159.7	70.78	124.1
#1	-.0007	.0001	.0003	.0017	-.0011	.0006	.0022	-.0045	.0007
#2	-.0005	.0002	.0004	.0003	.0001	-.0009	.0005	-.0257	-.0032
#3	-.0005	.0002	-.0002	-.0001	-.0001	.0004	-.0003	-.0147	-.0025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046**	**.0298**	**-.0207**	**-.0109**	**.0031**	**.0005**	**.0007**	**.0000**	**.0001**
Stddev	.0011	.0040	.0296	.0088	.0004	.0003	.0003	.0002	.0001
%RSD	24.59	13.33	142.7	80.50	12.55	58.49	35.88	1059.	52.13
#1	.0038	.0344	-.0238	-.0195	.0034	.0003	.0006	-.0002	.0001
#2	.0041	.0276	.0103	-.0114	.0033	.0004	.0005	.0001	.0002
#3	.0059	.0274	-.0487	-.0019	.0027	.0009	.0011	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 7/18/2019 15:15:22 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0039**	**.0004**	**-.0088**	**.0014**	**.0005**	**-.0010**
Stddev	.0000	.0007	.0001	.0024	.0005	.0005	.0008
%RSD	15.21	18.15	28.10	26.92	39.13	97.50	85.64
#1	.0002	.0043	.0005	-.0071	.0017	.0011	-.0019
#2	.0003	.0031	.0005	-.0078	.0008	.0002	-.0008
#3	.0002	.0043	.0003	-.0115	.0017	.0002	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**238720.**	**37707.**	**10185.**	**13847.**
Stddev	2317.	277.	6.	12.
%RSD	.97046	.73587	.06310	.08804
#1	236120.	37590.	10178.	13833.
#2	239480.	37508.	10190.	13858.
#3	240570.	38024.	10187.	13849.

Zoom In Zoom Out

Sample Name: mp16437-mb1 Acquired: 7/18/2019 15:20:23 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0000**	**.0001**	**.0001**	**.0005**	**.0054**	**.0001**	**.0002**	**-.0002**
Stddev	.0001	.0000	.0001	.0001	.0001	.0004	.0001	.0002	.0003
%RSD	22.99	364.0	114.3	138.8	25.03	8.137	43.68	122.6	152.4
#1	-.0005	.0000	.0001	.0001	.0004	.0058	.0001	.0002	-.0005
#2	-.0008	.0000	.0003	.0002	.0006	.0056	.0002	.0004	.0001
#3	-.0006	-.0000	.0000	-.0001	.0005	.0050	.0001	-.0000	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0041**	**-.0002**	**-.0006**	**.0004**	**-.0009**	**-.0003**	**.0024**	**-.0051**
Stddev	.0001	.0001	.0003	.0013	.0009	.0011	.0012	.0053	.0017
%RSD	18.57	2.138	132.7	236.3	200.4	121.6	359.6	218.2	32.82
#1	-.0006	.0041	-.0001	-.0020	.0009	-.0020	-.0015	.0061	-.0061
#2	-.0004	.0041	-.0006	.0006	-.0006	-.0010	-.0005	.0049	-.0032
#3	-.0006	.0042	.0000	-.0003	.0009	.0002	.0010	-.0037	-.0060

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0060**	**.0144**	**-.0400**	**-.0049**	**.0022**	**.0001**	**.0101**	**-.0004**	**.0001**
Stddev	.0005	.0061	.0241	.0051	.0002	.0001	.0007	.0004	.0000
%RSD	7.760	42.70	60.18	102.9	8.394	64.10	6.563	82.62	25.16
#1	.0063	.0073	-.0302	-.0067	.0021	.0002	.0093	-.0007	.0001
#2	.0055	.0178	-.0675	-.0088	.0024	.0000	.0104	-.0000	.0001
#3	.0063	.0181	-.0225	.0008	.0020	.0001	.0106	-.0006	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0024**	**.0005**	**-.0080**	**.0006**	**.0011**	**-.0008**
Stddev	.0001	.0005	.0001	.0010	.0003	.0007	.0001
%RSD	69.75	20.45	23.42	12.81	45.67	60.20	9.164
#1	.0002	.0021	.0006	-.0078	.0009	.0019	-.0008
#2	.0001	.0021	.0005	-.0070	.0003	.0007	-.0008
#3	.0001	.0030	.0004	-.0090	.0006	.0008	-.0009

Zoom In Zoom Out

Sample Name: mp16437-mb1 Acquired: 7/18/2019 15:20:23 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**238440.**	**38096.**	**10166.**	**13811.**
Stddev	1259.	139.	100.	112.
%RSD	.52814	.36552	.98607	.81059
#1	237530.	37990.	10227.	13876.
#2	239880.	38043.	10222.	13874.
#3	237920.	38254.	10051.	13681.

Zoom In Zoom Out

Sample Name: mp16437-b1 Acquired: 7/18/2019 15:25:22 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.106**	**2.060**	**1.946**	**1.937**	**1.914**	**1.919**	**1.929**	**1.965**	**.2471**
Stddev	.100	.097	.004	.006	.021	.019	.039	.004	.0029
%RSD	4.770	4.696	.2141	.2887	1.078	1.006	2.037	.2018	1.192
#1	2.222	2.172	1.951	1.943	1.928	1.935	1.970	1.969	.2491
#2	2.047	2.005	1.943	1.934	1.890	1.898	1.891	1.963	.2437
#3	2.048	2.004	1.943	1.933	1.923	1.925	1.926	1.962	.2486

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.921**	**1.969**	**1.969**	**2.037**	**2.078**	**1.923**	**1.993**	**25.36**	**25.76**
Stddev	.021	.007	.005	.006	.005	.007	.004	1.21	1.21
%RSD	1.120	.3562	.2363	.2960	.2581	.3858	.2056	4.758	4.696
#1	1.934	1.977	1.974	2.044	2.084	1.931	1.998	26.75	27.16
#2	1.896	1.965	1.965	2.033	2.075	1.917	1.990	24.71	25.08
#3	1.932	1.965	1.967	2.034	2.075	1.921	1.991	24.62	25.04

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.01**	**25.72**	**25.18**	**25.77**	**1.962**	**1.995**	**-.0093**	**2.019**	**2.061**
Stddev	1.25	1.24	1.10	1.17	.004	.006	.0021	.006	.127
%RSD	4.793	4.821	4.348	4.553	.2279	.2829	23.08	.2826	6.179
#1	27.45	27.15	26.45	27.13	1.967	2.001	-.0114	2.025	2.208
#2	25.30	25.05	24.54	25.09	1.961	1.992	-.0071	2.015	1.995
#3	25.28	24.97	24.56	25.11	1.958	1.991	-.0093	2.016	1.980

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.992**	**1.896**	**2.001**	**-.0309**	**.0658**	**-.0002**	**1.899**
Stddev	.022	.007	.021	.0011	.0006	.0009	.006
%RSD	1.084	.3536	1.026	3.682	.9712	461.3	.3047
#1	2.006	1.901	2.015	-.0310	.0656	-.0011	1.905
#2	1.967	1.888	1.978	-.0297	.0653	.0007	1.894
#3	2.002	1.898	2.011	-.0320	.0665	-.0002	1.896

Zoom In Zoom Out

Sample Name: mp16437-b1 Acquired: 7/18/2019 15:25:22 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**232580.**	**36746.**	**10061.**	**13258.**
Stddev	3607.	1563.	32.	36.
%RSD	1.5506	4.2531	.32002	.27498
#1	230380.	34942.	10024.	13218.
#2	236750.	37659.	10075.	13268.
#3	230630.	37638.	10084.	13289.

Zoom In Zoom Out

Sample Name: mp16437-s1 Acquired: 7/18/2019 15:30:27 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.115**	**2.019**	**1.933**	**1.906**	**1.866**	**1.884**	**4.068**	**1.921**	**.2448**
Stddev	.128	.123	.004	.005	.030	.032	.057	.004	.0051
%RSD	6.058	6.071	.1856	.2670	1.614	1.714	1.390	.1963	2.087
#1	2.047	1.957	1.934	1.907	1.835	1.852	4.003	1.920	.2398
#2	2.035	1.939	1.937	1.911	1.867	1.882	4.100	1.925	.2445
#3	2.263	2.160	1.930	1.901	1.895	1.917	4.102	1.917	.2500

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.881**	**1.921**	**3.669**	**1.963**	**2.008**	**1.909**	**1.978**	**24.79**	**76.91**
Stddev	.031	.006	.003	.003	.004	.004	.007	1.52	1.48
%RSD	1.660	.3082	.0897	.1265	.2255	.2157	.3445	6.127	1.928
#1	1.850	1.921	3.669	1.963	2.008	1.907	1.984	24.00	76.82
#2	1.882	1.927	3.672	1.965	2.012	1.914	1.978	23.82	75.47
#3	1.912	1.915	3.666	1.960	2.003	1.906	1.971	26.54	78.43

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**98.22**	**32.33**	**33.89**	**38.70**	**2.094**	**1.968**	**9.984**	**1.970**	**2.389**
Stddev	5.95	1.91	1.88	2.21	.004	.004	.018	.004	.048
%RSD	6.053	5.897	5.537	5.718	.1744	.2279	.1758	.2195	2.003
#1	95.16	31.42	32.95	37.57	2.095	1.967	9.984	1.971	2.376
#2	94.43	31.06	32.66	37.27	2.097	1.973	10.00	1.974	2.349
#3	105.1	34.52	36.05	41.25	2.090	1.965	9.966	1.966	2.442

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.945**	**1.836**	**1.943**	**1.546**	**.0608**	**-.0035**	**1.956**
Stddev	.034	.002	.035	.004	.0029	.0011	.006
%RSD	1.763	.1106	1.783	.2711	4.756	31.58	.3239
#1	1.911	1.834	1.909	1.544	.0575	-.0044	1.955
#2	1.945	1.838	1.942	1.551	.0623	-.0038	1.963
#3	1.979	1.836	1.979	1.544	.0627	-.0023	1.950

Zoom In Zoom Out

Sample Name: mp16437-s1 Acquired: 7/18/2019 15:30:27 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**229910.**	**37045.**	**9914.6**	**13148.**
Stddev	3236.	1627.	27.4	35.
%RSD	1.4074	4.3929	.27594	.26865
#1	233510.	37789.	9909.7	13141.
#2	228970.	38167.	9890.0	13116.
#3	227250.	35179.	9944.1	13186.

Zoom In Zoom Out

Sample Name: mp16437-s2 Acquired: 7/18/2019 15:35:39 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.066**	**1.967**	**1.930**	**1.906**	**1.890**	**1.912**	**4.121**	**1.920**	**.2469**
Stddev	.008	.008	.006	.006	.024	.024	.068	.006	.0024
%RSD	.3743	.4189	.3041	.3415	1.251	1.256	1.656	.3070	.9914
#1	2.067	1.970	1.928	1.901	1.883	1.906	4.063	1.917	.2458
#2	2.058	1.957	1.926	1.903	1.916	1.939	4.196	1.916	.2497
#3	2.073	1.973	1.937	1.913	1.871	1.892	4.105	1.927	.2452

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.906**	**1.920**	**3.678**	**1.964**	**2.006**	**1.904**	**1.980**	**24.18**	**75.10**
Stddev	.024	.005	.007	.006	.006	.009	.005	.10	.48
%RSD	1.257	.2784	.2050	.2856	.3017	.4648	.2336	.4283	.6419
#1	1.899	1.918	3.673	1.962	2.002	1.901	1.980	24.23	75.30
#2	1.932	1.916	3.675	1.959	2.002	1.896	1.976	24.06	75.45
#3	1.886	1.926	3.687	1.970	2.013	1.913	1.985	24.25	74.55

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**96.00**	**31.54**	**33.18**	**37.91**	**2.089**	**1.970**	**10.04**	**1.968**	**2.308**
Stddev	.35	.12	.06	.12	.008	.007	.04	.005	.012
%RSD	.3642	.3883	.1811	.3106	.3683	.3334	.3697	.2740	.5334
#1	96.10	31.51	33.23	37.91	2.087	1.967	10.02	1.965	2.305
#2	95.62	31.44	33.11	37.79	2.083	1.965	10.02	1.965	2.321
#3	96.30	31.68	33.20	38.03	2.098	1.977	10.08	1.974	2.297

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.976**	**1.845**	**1.973**	**1.547**	**.0631**	**-.0034**	**1.953**
Stddev	.025	.005	.024	.002	.0024	.0012	.006
%RSD	1.271	.2719	1.228	.1050	3.801	36.12	.2977
#1	1.971	1.842	1.969	1.546	.0625	-.0021	1.947
#2	2.003	1.843	1.998	1.546	.0658	-.0035	1.954
#3	1.953	1.851	1.950	1.549	.0612	-.0046	1.958

Zoom In Zoom Out

Sample Name: mp16437-s2 Acquired: 7/18/2019 15:35:39 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**228520.**	**38029.**	**9913.3**	**13141.**
Stddev	3102.	148.	23.0	28.
%RSD	1.3573	.38900	.23237	.21353
#1	229830.	38164.	9915.7	13150.
#2	224980.	38051.	9935.1	13164.
#3	230750.	37871.	9889.2	13110.

Zoom In Zoom Out

Sample Name: jc91275-2a Acquired: 7/18/2019 15:40:50 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0519**	**.0001**	W **-.0014**	**.0184**	**.0004**	**.0014**	**2.168**	**.0063**
Stddev	.0002	.0001	.0001	.0001	.0002	.0001	.010	.0003
%RSD	.4297	40.40	5.818	.3310	48.00	3.857	.4580	4.398
#1	.0518	.0001	-.0014	.0184	.0005	.0014	2.161	.0063
#2	.0522	.0001	-.0015	.0185	.0002	.0014	2.163	.0066
#3	.0517	.0002	-.0013	.0184	.0006	.0013	2.179	.0061

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0004**	**.0042**	**1.657**	**-.0004**	**-.0021**	**.0029**	**.0045**
Stddev	.0002	.0001	.0001	.003	.0008	.0004	.0015	.0008
%RSD	23.93	18.11	2.632	.2039	216.1	20.50	52.78	18.15
#1	.0009	.0003	.0042	1.661	-.0012	-.0020	.0042	.0053
#2	.0013	.0004	.0041	1.655	.0004	-.0017	.0012	.0037
#3	.0008	.0004	.0043	1.655	-.0003	-.0026	.0033	.0044

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0097**	**50.06**	**69.34**	**7.171**	**8.597**	**12.79**	**.1470**	**.0022**
Stddev	.0029	.15	.22	.027	.021	.01	.0001	.0001
%RSD	30.10	.3080	.3173	.3742	.2503	.1165	.1019	5.341
#1	-.0125	50.03	69.29	7.192	8.587	12.81	.1471	.0023
#2	-.0067	50.23	69.57	7.180	8.622	12.78	.1470	.0023
#3	-.0098	49.93	69.14	7.141	8.583	12.78	.1468	.0021

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.677**	**-.0026**	**.3821**	**-.0005**	**.0115**	**.0035**	**1.495**	**-.0028**
Stddev	.014	.0005	.0008	.0002	.0014	.0001	.001	.0009
%RSD	.1461	18.25	.2184	37.86	11.86	3.462	.0313	30.42
#1	9.688	-.0025	.3820	-.0004	.0130	.0037	1.495	-.0038
#2	9.661	-.0023	.3830	-.0007	.0104	.0034	1.495	-.0022
#3	9.681	-.0032	.3813	-.0004	.0110	.0035	1.495	-.0025

Zoom In Zoom Out

Sample Name: jc91275-2a Acquired: 7/18/2019 15:40:50 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**-.0024**	**.0635**
Stddev	.0006	.0012
%RSD	23.06	1.914
#1	-.0027	.0627
#2	-.0028	.0649
#3	-.0018	.0629

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**235490.**	**38384.**	**10107.**	**13526.**
Stddev	2375.	131.	25.	42.
%RSD	1.0086	.34024	.24910	.31342
#1	238020.	38399.	10108.	13520.
#2	233300.	38246.	10081.	13487.
#3	235140.	38506.	10131.	13571.

Zoom In Zoom Out

Sample Name: mp16437-sd1conf Acquired: 7/18/2019 15:45:51 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0525**	**.0002**	**-.0013**	**.0200**	**.0018**	**.0138**	**2.337**	**.0068**	**.0017**
Stddev	.0015	.0001	.0004	.0001	.0013	.0033	.025	.0005	.0004
%RSD	2.817	68.98	29.32	.7302	73.38	23.74	1.076	7.511	25.07
#1	.0518	.0002	-.0014	.0200	.0025	.0169	2.364	.0074	.0013
#2	.0542	.0001	-.0008	.0202	.0003	.0142	2.334	.0066	.0021
#3	.0515	.0004	-.0015	.0199	.0026	.0103	2.314	.0064	.0017

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0074**	**1.725**	**-.0001**	**-.0031**	**.0015**	**.0053**	**-.0019**	**52.74**
Stddev	.0004	.0001	.009	.0038	.0029	.0079	.0050	.0144	.25
%RSD	304.1	.9407	.5529	2903.	93.79	526.1	93.16	752.7	.4825
#1	-.0000	.0074	1.731	-.0020	-.0015	.0085	.0017	.0001	52.85
#2	-.0002	.0075	1.730	.0043	-.0014	.0031	.0034	.0113	52.93
#3	.0006	.0073	1.714	-.0026	-.0064	-.0071	.0110	-.0172	52.45

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**73.50**	**7.737**	**8.776**	**13.40**	**.1623**	**.0031**	**10.10**	**-.0081**	**.4021**
Stddev	.28	.051	.029	.05	.0012	.0004	.04	.0005	.0010
%RSD	.3817	.6638	.3330	.3842	.7360	12.13	.3734	6.306	.2460
#1	73.59	7.784	8.806	13.42	.1612	.0027	10.13	-.0086	.4031
#2	73.72	7.744	8.748	13.44	.1636	.0033	10.12	-.0076	.4022
#3	73.18	7.682	8.774	13.34	.1620	.0034	10.06	-.0081	.4011

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0341**	**.0043**	**1.512**	**.0022**	**.0039**	**.0604**
Stddev	.0010	.0047	.0004	.015	.0017	.0085	.0020
%RSD	200.9	13.93	9.728	.9728	74.23	220.3	3.310
#1	-.0002	.0297	.0039	1.528	.0008	.0096	.0586
#2	.0001	.0391	.0048	1.500	.0018	-.0059	.0602
#3	.0016	.0334	.0043	1.507	.0041	.0078	.0626

Zoom In Zoom Out

Sample Name: mp16437-sd1conf Acquired: 7/18/2019 15:45:51 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**237590.**	**37979.**	**10221.**	**13824.**
Stddev	2189.	89.	41.	50.
%RSD	.92148	.23415	.40026	.35833
#1	235750.	37998.	10183.	13774.
#2	236990.	37883.	10216.	13825.
#3	240010.	38058.	10264.	13873.

Zoom In Zoom Out

Sample Name: mp16437-ps1 Acquired: 7/18/2019 15:50:48 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.210**	**2.087**	**2.011**	**1.973**	**1.991**	**2.021**	**4.034**	**1.993**	**.2745**
Stddev	.051	.070	.032	.030	.012	.014	.037	.030	.0017
%RSD	2.303	3.360	1.612	1.513	.5887	.7043	.9191	1.516	.6076
#1	2.183	2.023	2.035	1.994	2.002	2.034	4.077	2.013	.2755
#2	2.269	2.162	2.024	1.986	1.994	2.023	4.008	2.007	.2753
#3	2.178	2.075	1.974	1.939	1.978	2.005	4.018	1.958	.2725

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.004**	**1.996**	**3.697**	**2.049**	**2.088**	**1.982**	**2.115**	**26.40**	**74.88**
Stddev	.013	.034	.062	.028	.030	.030	.039	.64	1.38
%RSD	.6634	1.710	1.669	1.367	1.422	1.513	1.858	2.425	1.837
#1	2.015	2.019	3.742	2.066	2.108	2.003	2.146	26.01	74.19
#2	2.008	2.011	3.722	2.064	2.102	1.995	2.129	27.13	76.47
#3	1.989	1.956	3.627	2.016	2.054	1.948	2.071	26.04	73.99

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**94.57**	**33.34**	**34.81**	**39.32**	**2.161**	**2.058**	**9.224**	**2.108**	**2.438**
Stddev	2.27	.83	.72	.88	.034	.032	.151	.036	.042
%RSD	2.401	2.485	2.076	2.243	1.564	1.533	1.636	1.721	1.731
#1	93.22	32.86	34.43	38.84	2.186	2.079	9.339	2.134	2.392
#2	97.19	34.30	35.65	40.34	2.174	2.073	9.280	2.123	2.474
#3	93.29	32.87	34.36	38.79	2.123	2.022	9.053	2.067	2.448

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.153**	**1.883**	**2.145**	**1.419**	**.0729**	**-.0042**	**2.022**
Stddev	.014	.016	.016	.021	.0026	.0009	.029
%RSD	.6706	.8523	.7229	1.451	3.530	21.46	1.415
#1	2.165	1.883	2.157	1.434	.0755	-.0052	2.041
#2	2.158	1.900	2.151	1.428	.0704	-.0035	2.035
#3	2.137	1.867	2.128	1.396	.0728	-.0038	1.989

Zoom In Zoom Out

Sample Name: mp16437-ps1 Acquired: 7/18/2019 15:50:48 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**227610.**	**37003.**	**9965.4**	**13210.**
Stddev	1547.	807.	143.3	164.
%RSD	.67973	2.1812	1.4381	1.2383
#1	226150.	37570.	9868.8	13103.
#2	227450.	36079.	9897.2	13129.
#3	229230.	37361.	10130.	13399.

Zoom In Zoom Out

Sample Name: jc91275-1a Acquired: 7/18/2019 15:56:03 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0142**	**.0000**	**-.0000**	**.0002**	**.0006**	**.0251**	**.0184**	**.0057**	**-.0007**
Stddev	.0002	.0000	.0001	.0001	.0001	.0005	.0001	.0003	.0004
%RSD	1.220	99.21	147.3	62.53	18.48	1.821	.5532	6.053	57.91
#1	.0144	.0000	-.0000	.0002	.0005	.0257	.0185	.0053	-.0007
#2	.0141	.0000	-.0000	.0000	.0005	.0249	.0185	.0060	-.0011
#3	.0142	.0001	-.0001	.0002	.0007	.0249	.0183	.0058	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**.0134**	**.0222**	**-.0002**	**-.0012**	**.0036**	**.0023**	**-.0080**	**42.80**
Stddev	.0002	.0001	.0009	.0005	.0003	.0005	.0013	.0036	.17
%RSD	9.441	.5534	3.913	246.8	26.94	14.93	54.64	45.61	.3880
#1	.0017	.0133	.0219	.0004	-.0013	.0037	.0015	-.0121	42.97
#2	.0020	.0135	.0232	-.0007	-.0009	.0040	.0038	-.0054	42.63
#3	.0017	.0134	.0215	-.0003	-.0015	.0030	.0017	-.0064	42.80

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4685**	**5.940**	**7.496**	**25.01**	**.1140**	**.0067**	**8.433**	**-.0022**	**.3047**
Stddev	.0011	.025	.036	.05	.0011	.0008	.016	.0002	.0008
%RSD	.2359	.4167	.4872	.2080	.9410	12.35	.1865	8.573	.2564
#1	.4692	5.968	7.531	25.06	.1145	.0075	8.434	-.0023	.3056
#2	.4673	5.920	7.458	24.95	.1128	.0066	8.418	-.0020	.3042
#3	.4691	5.931	7.500	25.00	.1148	.0059	8.449	-.0023	.3042

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0430**	**.0003**	**1.595**	**-.0011**	**.0030**	**.0174**
Stddev	.0001	.0036	.0001	.005	.0009	.0011	.0012
%RSD	94.71	8.341	37.47	.3016	83.35	35.05	6.686
#1	-.0001	.0463	.0004	1.592	-.0002	.0043	.0187
#2	-.0001	.0435	.0002	1.592	-.0011	.0024	.0171
#3	-.0000	.0392	.0002	1.600	-.0019	.0025	.0164

Zoom In Zoom Out

Sample Name: jc91275-1a Acquired: 7/18/2019 15:56:03 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**232940.**	**37850.**	**10056.**	**13398.**
Stddev	993.	152.	24.	25.
%RSD	.42626	.40234	.23574	.18390
#1	232960.	37751.	10060.	13393.
#2	231930.	38026.	10078.	13424.
#3	233920.	37774.	10031.	13375.

Zoom In Zoom Out

Sample Name: jc91275-3a Acquired: 7/18/2019 16:00:59 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0176**	**.0000**	W **-.0027**	**.0152**	**.0002**	**.0018**	**2.559**	**.0066**
Stddev	.0002	.0000	.0002	.0000	.0002	.0005	.035	.0001
%RSD	1.008	210.9	6.974	.2841	97.08	27.01	1.379	1.223
#1	.0178	.0001	-.0025	.0152	.0005	.0013	2.531	.0065
#2	.0174	-.0000	-.0029	.0152	.0001	.0019	2.599	.0066
#3	.0176	.0000	-.0028	.0153	.0001	.0023	2.547	.0067

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0005**	**.0048**	**3.351**	**-.0001**	**-.0020**	**.0010**	**.0040**
Stddev	.0003	.0002	.0001	.016	.0008	.0002	.0017	.0003
%RSD	30.00	39.12	1.535	.4766	568.4	10.92	166.1	7.655
#1	.0007	.0004	.0047	3.361	.0003	-.0022	.0012	.0039
#2	.0013	.0007	.0047	3.333	-.0010	-.0021	.0025	.0037
#3	.0013	.0004	.0049	3.360	.0003	-.0017	-.0008	.0043

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0021**	**29.74**	**47.79**	**3.451**	**3.815**	**6.734**	**.0519**	**.0051**
Stddev	.0043	.02	.06	.012	.024	.001	.0002	.0001
%RSD	200.7	.0707	.1276	.3426	.6213	.0186	.4456	1.108
#1	-.0054	29.73	47.75	3.449	3.788	6.734	.0516	.0051
#2	.0027	29.77	47.86	3.440	3.830	6.733	.0519	.0050
#3	-.0038	29.73	47.75	3.463	3.829	6.736	.0521	.0051

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.083**	**-.0027**	**.2007**	**-.0002**	**.0202**	**.0049**	**1.515**	**-.0001**
Stddev	.043	.0005	.0003	.0001	.0014	.0001	.008	.0012
%RSD	.5383	19.68	.1285	47.09	6.788	2.820	.5113	841.0
#1	8.102	-.0023	.2005	-.0001	.0217	.0048	1.520	.0012
#2	8.033	-.0025	.2010	-.0002	.0194	.0051	1.506	-.0009
#3	8.114	-.0033	.2005	-.0003	.0193	.0048	1.518	-.0008

Zoom In Zoom Out

Sample Name: jc91275-3a Acquired: 7/18/2019 16:00:59 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**-.0028**	**.0476**
Stddev	.0007	.0010
%RSD	24.20	2.076
#1	-.0020	.0474
#2	-.0033	.0468
#3	-.0030	.0487

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**236480.**	**37809.**	**10213.**	**13736.**
Stddev	1743.	171.	47.	51.
%RSD	.73717	.45161	.45938	.37323
#1	237910.	37835.	10181.	13708.
#2	234540.	37966.	10267.	13795.
#3	236980.	37627.	10191.	13705.

Zoom In Zoom Out

Sample Name: ccv Acquired: 7/18/2019 16:06:05 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.083**	**2.024**	**2.008**	**1.981**	**1.951**	**1.948**	**1.982**	**2.018**	**.2415**
Stddev	.009	.011	.024	.023	.010	.006	.014	.022	.0006
%RSD	.4192	.5612	1.209	1.146	.5224	.3035	.7091	1.093	.2412
#1	2.086	2.033	1.995	1.968	1.941	1.941	1.974	2.006	.2410
#2	2.073	2.011	1.992	1.967	1.951	1.950	1.973	2.004	.2413
#3	2.089	2.028	2.036	2.007	1.961	1.952	1.998	2.043	.2421
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.951**	**2.009**	**1.999**	**2.068**	**1.987**	**1.979**	**2.010**	**39.17**	**39.62**
Stddev	.008	.022	.025	.024	.022	.025	.021	.17	.20
%RSD	.4224	1.084	1.273	1.179	1.111	1.262	1.044	.4272	.4972
#1	1.942	1.997	1.985	2.058	1.975	1.966	2.001	39.31	39.79
#2	1.953	1.996	1.984	2.050	1.974	1.963	1.995	38.99	39.40
#3	1.959	2.034	2.028	2.096	2.013	2.008	2.034	39.21	39.67
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.09**	**39.64**	**39.04**	**39.80**	**2.020**	**2.003**	**4.910**	**2.023**	**2.028**
Stddev	.20	.21	.21	.14	.027	.023	.061	.021	.022
%RSD	.4959	.5217	.5501	.3554	1.327	1.168	1.243	1.063	1.099
#1	40.26	39.82	39.20	39.88	2.008	1.992	4.878	2.013	2.054
#2	39.87	39.42	38.80	39.63	2.002	1.987	4.871	2.008	2.012
#3	40.13	39.68	39.12	39.87	2.051	2.030	4.980	2.048	2.019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 7/18/2019 16:06:05 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.991**	**1.970**	**1.994**	**1.940**	**2.002**	**1.955**	**1.973**
Stddev	.008	.025	.009	.025	.023	.009	.021
%RSD	.4101	1.281	.4518	1.266	1.128	.4680	1.089
#1	1.982	1.956	1.984	1.929	1.992	1.963	1.963
#2	1.992	1.955	1.997	1.923	1.985	1.945	1.957
#3	1.999	2.000	2.002	1.968	2.027	1.959	1.997
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**227500.**	**37190.**	**9822.5**	**12875.**
Stddev	1374.	254.	80.4	100.
%RSD	.60396	.68163	.81883	.77782
#1	228600.	36913.	9865.1	12933.
#2	227940.	37246.	9872.6	12933.
#3	225960.	37410.	9729.7	12760.

Zoom In Zoom Out

Sample Name: ccb Acquired: 7/18/2019 16:11:09 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0002**	**.0003**	**.0002**	**.0005**	**.0024**	**.0002**	**.0002**	**.0001**
Stddev	.0003	.0000	.0001	.0000	.0001	.0002	.0001	.0002	.0001
%RSD	85.93	15.59	33.13	7.843	17.45	7.913	29.51	66.57	38.78
#1	-.0006	.0002	.0003	.0002	.0006	.0026	.0001	.0001	.0002
#2	-.0000	.0002	.0002	.0003	.0004	.0022	.0002	.0004	.0001
#3	-.0003	.0002	.0003	.0002	.0006	.0024	.0003	.0002	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**.0004**	**.0000**	**.0002**	**.0011**	**.0009**	**-.0080**	**-.0016**
Stddev	.0001	.0001	.0010	.0003	.0004	.0017	.0002	.0112	.0006
%RSD	80.96	64.35	230.1	919.0	245.6	155.3	26.10	139.5	39.28
#1	.0000	.0002	-.0005	-.0001	.0006	.0024	.0011	.0044	-.0016
#2	.0001	.0002	.0015	-.0002	.0000	.0015	.0006	-.0173	-.0009
#3	.0002	.0001	.0003	.0003	-.0002	-.0008	.0009	-.0113	-.0021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0075**	**.0210**	**-.0277**	**-.0066**	**.0028**	**.0016**	**.0005**	**-.0001**	**.0002**
Stddev	.0017	.0070	.0147	.0047	.0003	.0001	.0008	.0003	.0000
%RSD	23.22	33.28	53.01	71.75	12.06	8.479	154.7	559.8	19.63
#1	.0083	.0235	-.0273	-.0050	.0032	.0015	.0004	-.0004	.0002
#2	.0087	.0263	-.0132	-.0119	.0026	.0018	-.0002	.0000	.0002
#3	.0055	.0131	-.0426	-.0029	.0027	.0016	.0014	.0002	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 7/18/2019 16:11:09 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**F .0126**	**.0006**	**-.0088**	**.0003**	**.0001**	**-.0015**
Stddev	.0003	.0007	.0002	.0006	.0006	.0021	.0005
%RSD	89.81	5.370	36.64	6.609	209.5	2060.	34.88
#1	.0003	.0128	.0004	-.0095	-.0001	.0019	-.0019
#2	.0000	.0118	.0008	-.0085	.0010	-.0022	-.0009
#3	.0007	.0131	.0005	-.0085	-.0001	.0006	-.0018
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0050					
Low Limit		-.0050					

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**238280.**	**37934.**	**10254.**	**13944.**
Stddev	2010.	116.	18.	20.
%RSD	.84334	.30462	.17106	.14358
#1	239680.	38050.	10244.	13927.
#2	235980.	37934.	10244.	13939.
#3	239190.	37819.	10274.	13966.

Zoom In Zoom Out

Sample Name: emptyconf Acquired: 7/18/2019 16:16:13 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0140**	**-.0009**	**-.0007**	**-.0001**	**.0039**	**.0194**	**.0009**	**-.0012**	**-.0235**
Stddev	.0005	.0001	.0001	.0003	.0006	.0002	.0001	.0003	.0001
%RSD	3.564	5.733	18.77	266.3	15.25	1.244	9.949	26.11	.2202
#1	-.0135	-.0010	-.0008	-.0001	.0034	.0191	.0010	-.0016	-.0234
#2	-.0143	-.0009	-.0006	.0002	.0038	.0195	.0008	-.0010	-.0235
#3	-.0144	-.0009	-.0007	-.0004	.0046	.0194	.0009	-.0011	-.0235

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0049**	**-.0051**	**.0044**	**.0115**	**-.0007**	**-.0057**	**-.0041**	**.4978**	**-.1664**
Stddev	.0007	.0002	.0010	.0023	.0008	.0012	.0007	.0238	.0039
%RSD	13.51	2.987	21.84	19.91	113.1	20.70	16.84	4.781	2.373
#1	-.0053	-.0053	.0042	.0099	-.0011	-.0053	-.0035	.4728	-.1649
#2	-.0053	-.0050	.0036	.0104	-.0013	-.0048	-.0040	.5202	-.1634
#3	-.0041	-.0051	.0054	.0141	.0002	-.0071	-.0049	.5003	-.1708

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0164**	**.2668**	**-.1940**	**-.2554**	**.0021**	**.0025**	**-.0179**	**-.0075**	**.0003**
Stddev	.0032	.0099	.1208	.0027	.0007	.0002	.0008	.0008	.0001
%RSD	19.53	3.715	62.27	1.041	31.10	9.516	4.743	10.56	42.50
#1	.0154	.2612	-.0570	-.2581	.0027	.0028	-.0175	-.0071	.0003
#2	.0138	.2608	-.2396	-.2527	.0023	.0024	-.0189	-.0070	.0003
#3	.0200	.2782	-.2852	-.2555	.0014	.0023	-.0173	-.0084	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0557**	**.0004**	**.0088**	**-.0004**	**.0083**	**-.0665**
Stddev	.0003	.0013	.0002	.0015	.0014	.0023	.0011
%RSD	67.28	2.302	59.08	17.53	388.2	27.98	1.694
#1	-.0003	.0572	.0002	.0089	.0006	.0078	-.0658
#2	-.0008	.0548	.0006	.0073	.0003	.0109	-.0659
#3	-.0002	.0552	.0004	.0104	-.0020	.0063	-.0678

Zoom In Zoom Out

Sample Name: emptyconf Acquired: 7/18/2019 16:16:13 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**592530.**	**72588.**	**27815.**	**36334.**
Stddev	7668.	1492.	119.	166.
%RSD	1.2940	2.0560	.42872	.45795
#1	596780.	71954.	27750.	36251.
#2	583680.	71518.	27741.	36226.
#3	597130.	74293.	27952.	36526.

Zoom In Zoom Out

Sample Name: mp16437-s1 Acquired: 7/18/2019 16:21:49 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.106**	**2.002**	**1.985**	**1.943**	**1.908**	**1.932**	**4.134**	**1.960**	**.2506**
Stddev	.006	.008	.030	.025	.006	.005	.018	.027	.0008
%RSD	.3004	.3919	1.493	1.294	.2995	.2657	.4384	1.385	.3365
#1	2.112	2.004	1.971	1.931	1.903	1.927	4.118	1.947	.2497
#2	2.108	2.008	1.965	1.926	1.907	1.930	4.129	1.941	.2510
#3	2.100	1.993	2.019	1.972	1.914	1.937	4.153	1.991	.2513

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.923**	**1.967**	**3.749**	**2.014**	**2.047**	**1.952**	**2.024**	**24.60**	**76.83**
Stddev	.004	.033	.054	.027	.028	.032	.032	.08	1.01
%RSD	.1909	1.654	1.437	1.319	1.383	1.633	1.560	.3095	1.315
#1	1.919	1.955	3.727	2.004	2.034	1.940	2.012	24.64	77.96
#2	1.924	1.942	3.710	1.995	2.028	1.928	2.000	24.64	76.51
#3	1.926	2.004	3.810	2.045	2.080	1.988	2.060	24.51	76.01

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**97.60**	**32.03**	**33.76**	**38.43**	**2.140**	**2.014**	**10.20**	**2.016**	**2.368**
Stddev	.27	.14	.11	.08	.033	.031	.15	.032	.032
%RSD	.2783	.4488	.3386	.2156	1.556	1.540	1.482	1.603	1.335
#1	97.68	32.08	33.77	38.49	2.124	2.001	10.13	2.001	2.354
#2	97.82	32.14	33.86	38.47	2.117	1.991	10.10	1.993	2.345
#3	97.30	31.86	33.63	38.34	2.178	2.049	10.38	2.053	2.404

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.991**	**1.918**	**1.989**	**1.572**	**.0630**	**-.0043**	**1.998**
Stddev	.004	.029	.003	.021	.0022	.0012	.028
%RSD	.2115	1.492	.1685	1.341	3.451	28.35	1.377
#1	1.986	1.903	1.985	1.564	.0605	-.0057	1.988
#2	1.992	1.901	1.990	1.556	.0644	-.0033	1.978
#3	1.995	1.951	1.991	1.595	.0641	-.0040	2.030

Zoom In Zoom Out

Sample Name: mp16437-s1 Acquired: 7/18/2019 16:21:49 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**227360.**	**37371.**	**9748.7**	**12958.**
Stddev	756.	179.	155.6	176.
%RSD	.33254	.48016	1.5958	1.3610
#1	228090.	37447.	9807.3	13027.
#2	227410.	37166.	9866.5	13090.
#3	226580.	37499.	9572.3	12758.

Zoom In Zoom Out

Sample Name: mp16437-ps1 Acquired: 7/18/2019 16:27:03 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.176**	**2.073**	**2.037**	**2.027**	**2.004**	**1.949**	**4.189**	**2.058**	**.2724**
Stddev	.008	.004	.002	.002	.001	.001	.008	.003	.0013
%RSD	.3528	.2162	.0889	.1024	.0583	.0735	.1952	.1232	.4928
#1	2.183	2.077	2.039	2.030	2.004	1.951	4.199	2.060	.2740
#2	2.177	2.072	2.036	2.026	2.004	1.948	4.186	2.059	.2717
#3	2.168	2.068	2.036	2.026	2.002	1.950	4.183	2.055	.2716

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.986**	**2.080**	**3.720**	**2.147**	**2.166**	**1.992**	**2.133**	**26.12**	**75.42**
Stddev	.003	.004	.013	.007	.004	.004	.007	.13	.17
%RSD	.1521	.1817	.3419	.3114	.1849	.2259	.3462	.4822	.2266
#1	1.990	2.082	3.724	2.155	2.170	1.992	2.139	26.25	75.62
#2	1.984	2.082	3.731	2.142	2.162	1.997	2.125	26.11	75.36
#3	1.984	2.076	3.706	2.145	2.166	1.988	2.135	25.99	75.29

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**94.59**	**33.87**	**34.13**	**39.00**	**2.200**	**2.081**	**9.287**	**2.188**	**2.432**
Stddev	.22	.10	.34	.12	.001	.003	.009	.006	.008
%RSD	.2343	.3015	1.006	.3005	.0523	.1524	.1005	.2583	.3244
#1	94.83	33.96	34.50	39.14	2.201	2.078	9.285	2.194	2.440
#2	94.56	33.76	34.07	38.96	2.199	2.085	9.279	2.187	2.432
#3	94.39	33.88	33.83	38.92	2.200	2.081	9.297	2.183	2.424

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.124**	**1.808**	**2.109**	**1.373**	**.0744**	**-.0068**	**2.013**
Stddev	.004	.010	.006	.015	.0051	.0078	.006
%RSD	.2019	.5545	.2950	1.082	6.899	113.9	.2834
#1	2.128	1.796	2.115	1.372	.0800	.0015	2.006
#2	2.124	1.814	2.110	1.389	.0698	-.0080	2.015
#3	2.119	1.813	2.103	1.359	.0735	-.0140	2.017

Zoom In Zoom Out

Sample Name: mp16437-ps1 Acquired: 7/18/2019 16:27:03 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**235700.**	**37777.**	**10180.**	**13605.**
Stddev	401.	230.	26.	29.
%RSD	.17001	.60908	.25514	.21203
#1	235910.	37666.	10164.	13583.
#2	235240.	38042.	10166.	13595.
#3	235960.	37624.	10210.	13638.

Zoom In Zoom Out

Sample Name: mp16437-sd1 Acquired: 7/18/2019 16:31:50 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0527**	**.0002**	**-.0007**	**.0189**	**.0012**	**.0123**	**2.245**	**.0065**	**.0033**
Stddev	.0015	.0001	.0003	.0011	.0010	.0042	.009	.0004	.0011
%RSD	2.770	38.53	49.98	5.870	82.84	34.26	.3873	6.908	34.08
#1	.0528	.0002	-.0004	.0197	.0020	.0165	2.254	.0064	.0025
#2	.0512	.0003	-.0010	.0177	.0015	.0081	2.236	.0070	.0028
#3	.0541	.0001	-.0005	.0195	.0001	.0122	2.244	.0061	.0046

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0032**	**1.682**	**-.0036**	**-.0028**	**-.0020**	**-.0020**	**.0090**	**50.78**
Stddev	.0007	.0002	.015	.0026	.0048	.0081	.0053	.0460	.08
%RSD	83.34	4.746	.8944	73.82	172.1	408.4	270.8	509.1	.1592
#1	.0000	.0032	1.664	-.0039	.0027	.0011	.0040	.0600	50.74
#2	.0013	.0034	1.690	-.0061	-.0048	-.0112	-.0061	-.0295	50.73
#3	.0011	.0031	1.691	-.0008	-.0062	.0041	-.0039	-.0034	50.88

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**70.98**	**7.428**	**8.536**	**12.88**	**.1570**	**.0127**	**9.879**	**-.0037**	**.3882**
Stddev	.07	.050	.096	.03	.0009	.0013	.101	.0027	.0013
%RSD	.0916	.6784	1.120	.2571	.6037	10.41	1.024	71.74	.3257
#1	70.94	7.461	8.430	12.85	.1575	.0142	9.763	-.0036	.3875
#2	70.94	7.453	8.564	12.88	.1559	.0125	9.947	-.0065	.3875
#3	71.05	7.370	8.614	12.92	.1577	.0115	9.927	-.0011	.3897

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0944**	**.0055**	**1.498**	**-.0038**	**-.0000**	**.0568**
Stddev	.0010	.0014	.0005	.022	.0071	.0032	.0025
%RSD	381.7	1.530	8.798	1.498	187.1	46170.	4.484
#1	.0014	.0954	.0059	1.479	.0021	.0028	.0542
#2	-.0007	.0949	.0058	1.492	-.0117	-.0035	.0569
#3	.0001	.0927	.0050	1.523	-.0018	.0006	.0593

Zoom In Zoom Out

Sample Name: mp16437-sd1 Acquired: 7/18/2019 16:31:50 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**238310.**	**38126.**	**10160.**	**13787.**
Stddev	903.	189.	78.	95.
%RSD	.37895	.49628	.76580	.69147
#1	237620.	38329.	10246.	13894.
#2	239330.	37954.	10094.	13711.
#3	237980.	38097.	10141.	13757.

Zoom In Zoom Out

Sample Name: mp16437-s1 Acquired: 7/18/2019 16:36:45 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.103**	**2.006**	**1.955**	**1.942**	**1.907**	**1.897**	**4.144**	**1.965**	**.2478**
Stddev	.005	.005	.004	.003	.028	.032	.033	.004	.0038
%RSD	.2260	.2316	.2187	.1402	1.467	1.671	.7908	.1775	1.538
#1	2.108	2.011	1.954	1.942	1.876	1.863	4.116	1.965	.2439
#2	2.102	2.002	1.951	1.939	1.915	1.904	4.137	1.962	.2481
#3	2.098	2.004	1.960	1.944	1.930	1.925	4.180	1.969	.2516

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.912**	**1.972**	**3.708**	**2.034**	**2.052**	**1.922**	**1.997**	**24.55**	**77.90**
Stddev	.027	.005	.008	.005	.005	.004	.005	.06	.17
%RSD	1.425	.2478	.2095	.2650	.2383	.2155	.2531	.2555	.2236
#1	1.882	1.972	3.709	2.032	2.052	1.917	1.994	24.61	78.10
#2	1.919	1.967	3.700	2.030	2.047	1.924	1.995	24.48	77.80
#3	1.935	1.977	3.716	2.040	2.057	1.924	2.003	24.54	77.80

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**98.57**	**32.48**	**33.56**	**38.55**	**2.125**	**2.005**	**10.08**	**2.020**	**2.390**
Stddev	.25	.08	.05	.05	.005	.004	.03	.006	.005
%RSD	.2544	.2478	.1527	.1266	.2278	.2216	.2614	.3078	.2200
#1	98.86	32.56	33.60	38.58	2.127	2.006	10.08	2.020	2.396
#2	98.42	32.40	33.50	38.56	2.119	2.000	10.05	2.014	2.387
#3	98.43	32.47	33.56	38.49	2.128	2.009	10.10	2.026	2.386

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.978**	**1.907**	**1.968**	**1.529**	**.0614**	**-.0037**	**1.973**
Stddev	.031	.007	.029	.001	.0029	.0005	.006
%RSD	1.547	.3734	1.452	.0598	4.699	14.13	.2961
#1	1.944	1.905	1.936	1.528	.0580	-.0039	1.969
#2	1.986	1.901	1.975	1.530	.0632	-.0040	1.971
#3	2.003	1.915	1.992	1.530	.0629	-.0031	1.980

Zoom In Zoom Out

Sample Name: mp16437-s1 Acquired: 7/18/2019 16:36:45 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**232400.**	**37550.**	**9956.6**	**13249.**
Stddev	3001.	158.	33.5	39.
%RSD	1.2914	.42022	.33626	.29802
#1	235550.	37368.	9984.0	13286.
#2	232060.	37636.	9966.6	13255.
#3	229570.	37646.	9919.3	13208.

Zoom In Zoom Out

Sample Name: mp16437-s2 Acquired: 7/18/2019 16:41:40 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.114**	**2.012**	**1.922**	**1.909**	**1.895**	**1.885**	**4.160**	**1.934**	**.2460**
Stddev	.013	.019	.014	.014	.026	.022	.069	.014	.0038
%RSD	.6017	.9607	.7235	.7111	1.351	1.175	1.669	.7038	1.524
#1	2.128	2.033	1.936	1.923	1.924	1.909	4.236	1.947	.2502
#2	2.109	2.008	1.922	1.909	1.885	1.879	4.100	1.933	.2448
#3	2.104	1.995	1.908	1.896	1.875	1.866	4.144	1.920	.2430

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.900**	**1.937**	**3.650**	**2.000**	**2.020**	**1.884**	**1.963**	**24.71**	**78.47**
Stddev	.026	.012	.022	.010	.015	.015	.014	.22	.70
%RSD	1.368	.6286	.6021	.5215	.7264	.7698	.7206	.8966	.8886
#1	1.929	1.948	3.673	2.011	2.035	1.898	1.975	24.94	79.23
#2	1.891	1.939	3.648	1.999	2.021	1.885	1.966	24.68	78.33
#3	1.879	1.924	3.629	1.990	2.005	1.869	1.947	24.50	77.86

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**99.41**	**32.72**	**33.87**	**38.87**	**2.089**	**1.970**	**9.970**	**1.987**	**2.402**
Stddev	.85	.21	.29	.27	.012	.014	.066	.011	.020
%RSD	.8589	.6278	.8660	.6994	.5922	.7324	.6609	.5595	.8162
#1	100.4	32.95	34.16	39.18	2.102	1.984	10.04	1.996	2.424
#2	99.15	32.62	33.85	38.75	2.088	1.972	9.972	1.991	2.396
#3	98.72	32.58	33.58	38.68	2.077	1.955	9.903	1.974	2.387

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.969**	**1.874**	**1.958**	**1.512**	**.0620**	**-.0033**	**1.934**
Stddev	.026	.012	.026	.009	.0035	.0020	.017
%RSD	1.319	.6639	1.323	.6213	5.665	60.99	.8872
#1	1.999	1.885	1.987	1.520	.0661	-.0011	1.952
#2	1.960	1.878	1.951	1.514	.0602	-.0038	1.933
#3	1.949	1.860	1.937	1.501	.0598	-.0050	1.918

Zoom In Zoom Out

Sample Name: mp16437-s2 Acquired: 7/18/2019 16:41:40 Type: Unk
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**234000.**	**37905.**	**10048.**	**13358.**
Stddev	2025.	187.	29.	35.
%RSD	.86537	.49364	.28775	.25933
#1	231700.	37689.	10060.	13363.
#2	235500.	38021.	10015.	13321.
#3	234810.	38005.	10069.	13390.

Zoom In Zoom Out

Sample Name: ccv Acquired: 7/18/2019 16:46:37 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**2.006**	**1.967**	**1.944**	**1.928**	**1.918**	**1.938**	**1.984**	**.2383**
Stddev	.002	.001	.010	.011	.006	.005	.021	.010	.0007
%RSD	.0733	.0304	.5282	.5416	.3101	.2624	1.062	.5015	.2906
#1	2.053	2.006	1.955	1.932	1.934	1.923	1.953	1.972	.2389
#2	2.056	2.006	1.974	1.950	1.929	1.917	1.946	1.990	.2383
#3	2.053	2.005	1.973	1.950	1.922	1.913	1.914	1.989	.2376
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.926**	**1.974**	**1.959**	**2.036**	**1.945**	**1.931**	**1.969**	**38.85**	**39.27**
Stddev	.005	.008	.008	.013	.011	.010	.010	.06	.05
%RSD	.2612	.4230	.4030	.6250	.5724	.5097	.4886	.1431	.1254
#1	1.929	1.964	1.950	2.022	1.932	1.920	1.958	38.81	39.21
#2	1.929	1.980	1.964	2.046	1.949	1.938	1.977	38.92	39.31
#3	1.920	1.978	1.962	2.040	1.953	1.935	1.971	38.84	39.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.64**	**39.19**	**38.76**	**39.30**	**1.975**	**1.962**	**4.813**	**1.975**	**1.982**
Stddev	.04	.07	.04	.06	.008	.009	.023	.008	.008
%RSD	.0976	.1803	.0995	.1410	.4091	.4867	.4777	.3940	.3814
#1	39.62	39.14	38.73	39.26	1.966	1.951	4.786	1.967	1.991
#2	39.69	39.27	38.80	39.36	1.980	1.969	4.827	1.982	1.977
#3	39.63	39.18	38.76	39.28	1.979	1.966	4.825	1.977	1.979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 7/18/2019 16:46:37 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.963**	**1.929**	**1.959**	**1.888**	**1.964**	**1.938**	**1.932**
Stddev	.003	.007	.004	.008	.009	.002	.010
%RSD	.1337	.3899	.1772	.4104	.4674	.1228	.5187
#1	1.965	1.920	1.963	1.879	1.954	1.936	1.920
#2	1.965	1.934	1.959	1.891	1.969	1.940	1.938
#3	1.960	1.933	1.956	1.894	1.969	1.940	1.936
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**228870.**	**37415.**	**9958.0**	**13035.**
Stddev	802.	209.	28.5	42.
%RSD	.35054	.55750	.28620	.31974
#1	228360.	37583.	9990.6	13082.
#2	228470.	37182.	9937.8	13005.
#3	229800.	37481.	9945.5	13017.

Zoom In Zoom Out

Sample Name: ccb Acquired: 7/18/2019 16:51:39 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**.0002**	**.0004**	**.0003**	F **.0029**	**.0002**	**.0001**	**.0005**
Stddev	.0001	.0000	.0001	.0000	.0004	.0009	.0000	.0002	.0004
%RSD	124.3	11.27	83.39	6.390	138.3	32.29	11.52	174.7	79.35
#1	-.0000	.0002	.0000	.0004	.0000	.0022	.0002	-.0000	.0009
#2	.0002	.0002	.0002	.0004	.0007	.0025	.0002	.0000	.0003
#3	.0001	.0001	.0003	.0004	.0001	.0039	.0002	.0003	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit						.0024			
Low Limit						-.0024			

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0001**	**.0002**	**-.0004**	**-.0000**	**.0003**	**.0019**	**.0031**	**.0015**
Stddev	.0003	.0001	.0005	.0004	.0005	.0007	.0005	.0034	.0007
%RSD	1336.	65.88	275.5	96.99	2095.	269.8	27.68	109.4	46.40
#1	-.0003	.0001	.0001	-.0009	-.0006	-.0003	.0014	.0070	.0010
#2	-.0001	.0003	.0008	-.0002	.0005	-.0000	.0018	.0006	.0013
#3	.0003	.0001	-.0003	-.0002	.0000	.0011	.0024	.0017	.0023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0071**	**.0266**	**-.0432**	**-.0147**	**.0027**	**.0013**	**-.0002**	**-.0000**	**.0003**
Stddev	.0017	.0113	.0046	.0089	.0004	.0002	.0007	.0004	.0001
%RSD	23.80	42.39	10.55	60.34	14.66	15.92	427.5	1335.	37.38
#1	.0091	.0366	-.0419	-.0088	.0028	.0015	-.0004	-.0004	.0001
#2	.0063	.0144	-.0483	-.0104	.0023	.0011	.0006	-.0001	.0003
#3	.0060	.0288	-.0395	-.0249	.0031	.0013	-.0007	.0004	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 7/18/2019 16:51:39 Type: QC
Method: SGS 3 NO Valve(v48) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	F **.0113**	**.0007**	**-.0102**	**.0001**	**.0005**	**-.0015**
Stddev	.0002	.0002	.0002	.0006	.0007	.0006	.0002
%RSD	58.62	1.713	23.40	5.606	501.8	134.1	15.83
#1	.0005	.0115	.0006	-.0108	.0008	.0001	-.0017
#2	.0001	.0111	.0008	-.0097	.0002	.0001	-.0015
#3	.0006	.0114	.0005	-.0101	-.0005	.0012	-.0012
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0050					
Low Limit		-.0050					

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**235080.**	**37381.**	**10163.**	**13846.**
Stddev	2370.	254.	105.	127.
%RSD	1.0080	.68049	1.0317	.91566
#1	235690.	37349.	10272.	13981.
#2	237080.	37144.	10063.	13730.
#3	232460.	37650.	10154.	13826.

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	1	Zr	0.001245	0.000000	No
Be 313.042 {108}	☒	9	V	0.001650	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.000141	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
			Fe	-0.000001	0.000000	No
			Al	0.000000	0.000000	No
			Mg	0.000000	0.000000	No
Cd 228.802 {448}	☒	11	As	0.007060	0.000000	No
			Ni	-0.000828	0.000000	No
			Fe	-0.000008	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.000600	0.000000	No
			Sr	-0.000020	0.000000	No
			Mn	0.000050	0.000000	No
			Cu	-0.000026	0.000000	No
			Zn	-0.000018	0.000000	No
			W	-0.000482	0.000000	No
Co 228.616 {448}	☒	7	Fe	0.000004	0.000000	No
			Mo	-0.001810	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.002192	0.000000	No
			Ba	0.000140	0.000000	No
			W	0.000327	0.000000	No
			Cd	-0.000510	0.000000	No
Cr 267.716 {126}	☒	9	Mn	0.000458	0.000000	No
			V	-0.000010	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000005	0.000000	No
			Ti	0.000060	0.000000	No
			Ba	0.000045	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
			W	0.000404	0.000000	No
Cu 324.754 {104}2	☒	14	Cr	-0.000099	0.000000	No
			V	-0.000306	0.000000	No
			Mo	0.000544	0.000000	No
			Ti	-0.000208	0.000000	No
			Fe	-0.000199	0.000000	No
			Zn	-0.000041	0.000000	No
			Co	-0.000060	0.000000	No
			Si	0.000016	0.000000	No
			Mn	0.000003	0.000000	No
			Se	0.000050	0.000000	No
			Sb	0.000069	0.000000	No
			W	0.000000	0.000000	No
			Al	0.000012	0.000000	No
			Zr	-0.002300	0.000000	No
Mn 257.610 {131}	☒	5	Fe	0.000015	0.000000	No
			Si	0.000010	0.000000	No
			Ba	0.000004	0.000000	No
			Ni	0.000028	0.000000	No
			Al	0.000004	0.000000	No
Ni 231.604 {446}	☒	8	Fe	0.000033	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Zn	-0.000013	0.000000	No
			Be	0.000213	0.000000	No
			Co	-0.000220	0.000000	No
			Tl	0.000209	0.000000	No
			Mo	0.000026	0.000000	No
			Cu	0.000050	0.000000	No
			Se	0.000100	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000052	0.000000	No
			Mo	0.000012	-0.000003	No
			Ti	-0.001790	0.000000	No
			Fe	-0.000275	0.000000	No
			Zn	-0.000120	0.000000	No
			Ca	-0.000004	0.000000	No
			Zr	0.006915	0.000000	No
			Sr	-0.000020	0.000000	No
			Mg	0.000000	0.000000	No
			Ba	0.000071	0.000000	No
			Cr	0.000022	0.000000	No
			V	-0.001880	0.000000	No
			Al	-0.000004	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	☒	6	Ti	0.000689	0.000000	No
			Mo	-0.000100	0.000000	No
			Fe	0.000004	0.000000	No
			Sr	-0.000100	0.000000	No
			Cr	-0.012800	0.000000	No
			Mn	-0.001257	0.000000	No
Zn 206.200 {464}	☒	9	Cr	-0.000850	0.000000	No
			Fe	0.000011	0.000000	No
			Si	0.000015	0.000000	No
			Mn	-0.000045	0.000000	No
			Ba	-0.000060	0.000000	No
			Sn	-0.000023	0.000000	No
			Cu	0.000148	0.000000	No
			As	0.000055	0.000000	No
			Be	0.000058	0.000000	No
As 189.042 {478}	☒	19	Al	0.000068	0.000000	No
			Fe	-0.000045	0.000000	No
			Ca	-0.000091	0.000000	No
			Mo	0.001730	0.000000	No
			Cr	-0.008710	0.000000	No
			Ba	-0.000114	0.000000	No
			Sn	-0.000130	0.000000	No
			Cd	-0.000328	0.000000	No
			Si	0.000024	0.000000	No
			Zn	-0.000082	0.000000	No
			Sr	-0.000045	0.000000	No
			W	0.001546	0.000000	No
			Cu	-0.000058	0.000000	No
			Co	-0.000045	0.000000	No
			Zr	0.000036	0.000000	No
			Mn	-0.000158	0.000000	No
			S	-0.000008	0.000000	No
			Ti	0.000100	0.000000	No
			Mg	0.000006	0.000000	No
Tl 190.856 {477}	☒	24	Cr	0.000182	0.000000	No
			Mo	-0.010420	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Al	-0.000003	0.000000	No
				Fe	-0.000040	0.000000	No
				V	-0.021380	0.000000	No
				Mn	0.001941	0.000000	No
				Si	-0.000018	0.000000	No
				Ca	0.000000	0.000000	No
				Ti	-0.013190	0.000000	No
				Mg	0.000000	0.000000	No
				Co	0.005280	0.000000	No
				Sr	0.000010	0.000000	No
				B	-0.000003	0.000000	No
				Ba	0.000034	0.000000	No
				Zn	-0.000053	0.000000	No
				As	0.000068	0.000000	No
				W	-0.035182	0.000000	No
				Cu	0.000142	0.000000	No
				Pb	-0.000020	0.000000	No
				S	0.000010	0.000000	No
				Sn	-0.000086	0.000000	No
				Li	0.000000	0.000000	No
				K	0.000000	0.000000	No
				Zr	0.000000	0.000000	No
	Pb 220.353 {453}	☒	20	Al	-0.000186	0.000000	No
				Fe	0.000038	0.000000	No
				Ca	0.000004	0.000000	No
				Mn	0.000024	0.000000	No
				Mo	-0.000500	0.000000	No
				Cu	0.000545	0.000000	No
				Co	0.000064	0.000000	No
				Ti	-0.000200	0.000000	No
				Si	0.000133	0.000000	No
				Ba	-0.000022	0.000000	No
				Sb	-0.000084	0.000000	No
				Sr	-0.000033	0.000000	No
				W	0.000000	0.000000	No
				Mg	0.000003	0.000000	No
				Cd	0.000012	0.000000	No
				Cr	-0.000031	0.000000	No
				Zr	-0.000281	0.000000	No
				Ni	0.000371	0.000000	No
				S	0.000010	0.000000	No
				Zn	-0.000106	0.000000	No
	Se 196.090 {472}	☒	23	Al	0.000052	0.000000	No
				Ca	-0.000057	0.000000	No
				Mn	0.000924	0.000000	No
				Mo	0.000600	0.000000	No
				Fe	-0.000374	0.000000	No
				Co	0.000127	0.000000	No
				Sr	-0.000011	0.000000	No
				Cu	-0.000087	0.000000	No
				W	0.000000	0.000000	No
				Si	0.000054	0.000000	No
				Be	-0.000347	0.000000	No
				Zn	0.000050	0.000000	No
				B	0.000028	0.000000	No
				Ti	-0.000020	0.000000	No
				Cd	0.000090	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Zr	-0.000297	0.000000	No
			Ba	-0.000046	0.000000	No
			Mg	-0.000000	0.000000	No
			Pb	-0.000078	0.000000	No
			Ni	-0.000100	0.000000	No
			Cr	-0.000024	0.000000	No
			S	-0.000014	0.000000	No
			V	0.000188	0.000000	No
Sb 206.833 {463}	☒	17	Fe	-0.000180	0.000000	No
			Al	0.000017	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000716	0.000000	No
			Cr	0.024200	0.000000	No
			V	-0.003758	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	0.000639	0.000000	No
			Ti	0.000530	0.000000	No
			Sn	-0.008627	0.000000	No
			Mg	0.000001	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	-0.000142	0.000000	No
			W	-0.000300	0.000000	No
			Si	-0.000170	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000652	0.000000	No
			Ca	0.000018	0.000000	No
			Mo	0.043916	0.000000	No
			Zr	0.005268	0.000000	No
			Ti	-0.000583	0.000000	No
Ca 317.933 {106}	☒	14	Fe	0.000012	0.000000	No
			W	0.003960	0.000000	No
			Tl	-0.000152	0.000000	No
			Be	0.001840	0.000000	No
			Ba	-0.001224	0.000000	No
			Cu	-0.000822	0.000000	No
			Cd	-0.007593	0.000000	No
			Ni	0.000667	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.000923	0.000000	No
			Co	-0.000408	0.000000	No
			Cr	0.000640	0.000000	No
			Al	-0.000000	0.000000	No
			As	0.010000	0.000000	No
Fe 259.940 {130}	☒	10	Si	0.000819	0.000000	No
			Tl	-0.000051	0.000000	No
			Cr	0.000310	0.000000	No
			Mn	-0.000196	0.000000	No
			V	-0.000064	0.000000	No
			Cu	-0.000015	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	☒	3	Mo	-0.013702	0.000000	No
			W	-0.006578	0.000000	No
			Mn	-0.002445	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
K 766.490 { 44}	☒	11	Fe	-0.000440	0.000000	No
			Al	0.000077	0.000000	No
			Ca	-0.000121	0.000000	No
			Mn	-0.007074	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Ba	-0.010574	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.011483	0.000000	No
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	☒	4	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000180	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.045137	0.000000	No
Mo 202.030 {467}	☒	2	Al	-0.000004	0.000000	No
			Fe	-0.000010	0.000000	No
Si 212.412 {459}	☒	12	Sr	0.000366	0.000000	No
			Ni	0.002092	0.000000	No
			Mo	0.034932	0.000000	No
			V	0.036950	0.000000	No
			Ti	0.004593	0.000000	No
			Al	-0.000010	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.001987	0.000000	No
			Sn	0.007500	0.000000	No
			Zn	0.000385	0.000000	No
			Be	-0.000048	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	☒	4	Ti	-0.002964	0.000000	No
			Fe	0.000004	0.000000	No
			Si	0.000131	0.000000	No
			Zr	0.000908	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	0.000018	0.000000	No
			Si	0.000033	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000189	0.000000	No
			Mo	0.001351	0.000000	No
			Si	0.000035	0.000000	No
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
In 230.606 {446}*	☒	None				
W 207.911 {462}	☒	20	Si	0.000105	0.000000	No
			As	0.000100	0.000000	No
			Mn	0.000066	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.013026	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	0.000061	0.000000	No
			B	0.000009	0.000000	No
			Sb	-0.000300	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Co	-0.001000	0.000000	No
				Ni	-0.003000	0.000000	No
				Be	-0.000185	0.000000	No
				Se	-0.000105	0.000000	No
				Cu	-0.000138	0.000000	No
				Tl	-0.000220	0.000000	No
	Zr 339.198 { 99}	☒	6	Mo	0.001069	0.000000	No
				Ti	0.000203	0.000000	No
				Fe	-0.000075	0.000000	No
				Si	0.000074	0.000000	No
				S	-0.000002	0.000000	No
				Cr	-0.000700	0.000000	No
	S 182.034 {485}	☒	7	Mo	0.001779	0.000000	No
				Al	-0.000033	0.000000	No
				Fe	0.000117	0.000000	No
				Mn	0.004620	0.000000	No
				W	-0.032564	0.000000	No
				Ca	-0.000218	0.000000	No
				Mg	0.000005	0.000000	No
	Bi 223.061 {451}	☒	9	Ti	-0.072020	0.000000	No
				V	-0.000704	0.000000	No
				Co	-0.002380	0.000000	No
				Ca	-0.000002	0.000000	No
				Mg	-0.000000	0.000000	No
				Fe	0.000187	0.000000	No
				Cr	0.001595	0.000000	No
				Cu	-0.001148	0.000000	No
				W	0.020000	0.000000	No
	Li 670.784 { 50}	☒	2	Ca	0.000023	0.000000	No
				Fe	0.000081	0.000000	No
	P 177.495 {490}	☒	9	Mn	-0.006184	0.000000	No
				Al	0.000140	0.000000	No
				V	-0.001953	0.000000	No
				Si	-0.001622	0.000000	No
				Ti	0.000000	-0.001185	No
				Mo	-0.001880	0.000000	No
				S	-0.000189	0.000000	No
				Co	-0.002198	0.000000	No
				Cu	-0.023500	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.011944	1.614983	0.000000	1.000000
Be 313.042 {108}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000176	2.978060	0.000000	1.000000
Cd 228.802 {448}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000165	0.884077	0.000000	1.000000
Co 228.616 {448}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000036	0.633362	0.000000	1.000000
Cr 267.716 {126}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.000247	0.109762	0.000000	1.000000
Cu 324.754 {104}2	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.005692	0.192802	0.000000	1.000000
Mn 257.610 {131}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.000216	0.544379	0.000000	1.000000
Ni 231.604 {446}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000270	0.515852	0.000000	1.000000
Ag 328.068 {103}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000931	0.122913	0.000000	1.000000
V 292.402 {115}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000293	0.149352	0.000000	1.000000
Zn 206.200 {464}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.001407	1.298021	0.000000	1.000000
As 189.042 {478}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.000087	0.086558	0.000000	1.000000
Tl 190.856 {477}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.000318	0.071088	0.000000	1.000000
Pb 220.353 {453}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.000006	0.214718	0.000000	1.000000
Se 196.090 {472}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000092	0.069079	0.000000	1.000000
Sb 206.833 {463}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000191	0.104392	0.000000	1.000000
Al 396.152 { 85}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.008704	0.033407	0.000000	1.000000
Ca 317.933 {106}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.012509	0.091109	0.000000	1.000000
Fe 259.940 {130}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.000546	0.056164	0.000000	1.000000
Mg 279.079 {121}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.001303	0.010326	0.000000	1.000000
K 766.490 { 44}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000816	0.019803	0.000000	1.000000
Na 589.592 { 57}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.001890	0.075023	0.000000	1.000000
B 208.959 {462}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000364	0.190052	0.000000	1.000000
Mo 202.030 {467}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.000528	0.562589	0.000000	1.000000
Si 212.412 {459}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000881	0.161401	0.000000	1.000000
Sn 189.989 {478}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000401	0.212418	0.000000	1.000000
Sr 407.771 { 83}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.001197	3.160607	0.000000	1.000000
Ti 334.904 {101}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	0.000056	0.143655	0.000000	1.000000
Y 360.073 { 94}*	7/19/2019 8:02:25	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	7/19/2019 8:02:25	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	7/19/2019 8:02:25	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	7/19/2019 8:02:25	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.005636	0.267650	0.000000	1.000000
Zr 339.198 { 99}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.000048	0.295535	0.000000	1.000000
S 182.034 {485}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.000793	0.043351	0.000000	1.000000
Bi 223.061 {451}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.000063	0.150362	0.000000	1.000000
Li 670.784 { 50}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	None	-0.002203	0.471415	0.000000	1.000000
P 177.495 {490}	7/19/2019 8:02:25	7/18/2019 13:52:24	Linear	1/Conc	-0.007900	0.106175	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ba 455.403 { 74}	1.000000	0.000000	0.000256	0.000854	OK.	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000052	0.000172	OK.	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000169	0.000563	OK.	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000201	0.000669	OK.	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000291	0.000971	OK.	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000390	0.001301	OK.	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000064	0.000214	OK.	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000287	0.000957	OK.	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000381	0.001271	OK.	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000345	0.001151	OK.	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000096	0.000320	OK.	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.001067	0.003557	OK.	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.001164	0.003880	OK.	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.000972	0.003239	OK.	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.001821	0.006069	OK.	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001528	0.005095	OK.	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.010143	0.033812	OK.	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.002054	0.006846	OK.	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.001759	0.005863	OK.	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.011945	0.039817	OK.	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.030410	0.101366	OK.	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.008525	0.028418	OK.	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000595	0.001985	OK.	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000250	0.000835	OK.	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.001001	0.003336	OK.	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000450	0.001501	OK.	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000087	0.000288	OK.	1.000000	0.000000	1	0
Ti 334.904 {101}	1.000000	0.000000	0.000296	0.000986	OK.	1.000000	0.000000	1	0
Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
W 207.911 {462}	1.000000	0.000000	0.001065	0.003549	OK.	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000202	0.000675	OK.	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.002304	0.007679	OK.	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001446	0.004819	OK.	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001380	0.004601	OK.	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.000995	0.003317	OK.	1.000000	0.000000	1	0

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP16329	7/10/2019	15:40	7/10/2019	21:10	JC91111-1	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	5	2106305	95	0	95
1	End	5	2106305	95	0	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1902243	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP16329-MB1	N/A	N	50	50	AB		
MP16329-B1	N/A	N	50	50	AB	ABCDE	
MP16329-S1	11	Y	50	50	AB	ABCDE	
MP16329-S2	11	Y	50	50	AB	ABCDE	
MP16329-SD1	11	Y	50	50	AB		
JC91111-1	11	Y	50	50	AB		
JC91111-1F	12	Y	50	50	AB		
JC91111-2	11	Y	50	50	AB		
JC91111-2F	12	Y	50	50	AB		
JC91111-3	11	Y	50	50	AB		
JC91111-3F	12	Y	50	50	AB		
JC91111-4	11	Y	50	50	AB		
JC91111-4F	12	Y	50	50	AB		
JC91275-1	1	Y	50	50	AB		
JC91275-2	1	Y	50	50	AB		
JC91275-3	1	Y	50	50	AB		
MP16329-B2	N/A	N	50	50	AB	FGHIJ	
MP16329-S3	11	Y	50	50	AB	FGHIJ	
MP16329-S4	11	Y	50	50	AB	FGHIJ	

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	
E	LITHIUM	0.1
F	AG 20PPM	
G	ACCUTEST 13B REV1	0.2
H	ACCUTEST 14A REV1	0.2

Comments:

Analyst MOUSTAFR **Approved by** Wendyz **Approved on** 7/11/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS North America Inc

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP16329	7/10/2019	15:40	7/10/2019	21:30	JC91111-1	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	5	2106305	95	0	95
1	End	5	2106305	95	0	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1902243	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP16329-MB1	N/A	N	50	50	AB		
MP16329-B1	N/A	N	50	50	AB	ABCDE	
MP16329-S1	11	Y	50	50	AB	ABCDE	
MP16329-S2	11	Y	50	50	AB	ABCDE	
MP16329-SD1	11	Y	50	50	AB		
JC91111-1	11	Y	50	50	AB		
JC91111-1F	12	Y	50	50	AB		
JC91111-2	11	Y	50	50	AB		
JC91111-2F	12	Y	50	50	AB		
JC91111-3	11	Y	50	50	AB		
JC91111-3F	12	Y	50	50	AB		
JC91111-4	11	Y	50	50	AB		
JC91111-4F	12	Y	50	50	AB		
JC91275-1	1	Y	50	50	AB		
JC91275-2	1	Y	50	50	AB		
JC91275-3	1	Y	50	50	AB		
MP16329-B2	N/A	N	50	50	AB	FGHIJ	
MP16329-S3	11	Y	50	50	AB	FGHIJ	
MP16329-S4	11	Y	50	50	AB	FGHIJ	

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 11A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.05
D	AG 20PPM	0.625
E	LITHIUM	0.2
F	AG 20PPM	0.2
G	ACCUTEST 13B REV1	0.2
H	ACCUTEST 14A REV1	0.2
I	Metals 100ppm	0.2
J	SE 20ppm	0.8

Comments:

Analyst MOUSTAFR Approved by Approved on

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 16329 **Date:** 7/10/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	1/2/2020	MP-015-1195
Spiking Solution - (ACCUTEST-14A REV1)	12/29/2019	MP-015-1193
Spiking Solution - 5000 mg/l Minerals	6/13/2020	P2-MEB680008 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	9/25/2021	LOT: 092518 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	5/30/2020	P2-SI676242 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	6/18/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	12/26/2019	MP-015-1191
Spiking Solution - Li 1000ppm	6/18/2020	P2-LI675235 MFG. INO. VENT.
Spiking Solution- Ag 20 ppm	1/2/2020	MP-015-1194
Spiking Solution - (ACCUTEST-13B REV1)	11/7/2019	MP-015-1169
Spiking Solution - (ACCUTEST-14B REV1)	11/29/2019	MP-015-1180
Spiking Solution - 1000ppm Minerals	10/29/2019	MP-015-1164
Spiking Solution- P		
Nitric Acid	7/9/2021	LOT: 221802 MFG: J.T. BAKER
Nitric Acid (1:1)	1/8/2020	MP-018-42-258 1:1 HNO3
Hydrochloric Acid	7/5/2021	LOT:229504 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	1/2/2020	MP-018-42-256 1.1 HCL
Hydrogen Peroxide	7/8/2021	LOT: 191365 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24635764 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1902243 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: TG

Validated By:

Validated On:

Metals Prep Reagent
1/17/18

7.4.1

7

MP 16329 A
~~MP 16332~~

Date 7/11/19 Analyst RVP. MP #

Post spike for ICP Method 6010D

QC sample #

Spiking solution	Elements	Spike added (Y/N)	Vendor	Intermediate Lot #	Exp. Date	Conc. (mg/l)	Amt of Spike added (ml)	Digestate sample volume (ml)	Final Digestate volume in ml (Spike+ Sample)	Final Conc at the instrument (mg/l)
Mixed ICP intermediate Metals Solution (ACCUTEST-13A-REV1)	Ba,Be,B Cd,Cr,Co,Cu,Pb, Mn,Ni,P,Se,Sr,TL, V,Zn	Yes	Inhouse	MA-18-354-153	11/28/19	200	0.2	19.05	20	2
Mixed ICP intermediate Metals Solution (ACCUTEST-14A-REV1)	Sb,As,Mo,Sn,Ti, W,Zr	Yes	Inhouse	MA-18-354-154	11/28/19	200	0.2			2
Ag Spike Intermediate	Ag	Yes	Inhouse	MA-18-354-152	11/28/19	20	0.25			0.25
Metals Mix	Ca,Al,Fe,Mg,K, Na	Yes	Inorganic Venture	P2-MEB 678659	4/25/20	5000	0.1			25
S spike	S					200	0.2			2
Bi Spike	Bi					200	0.2			2
Li Spike	Li	Yes	Inhouse	MA-18-354-167	12/10/19	200	0.2			2
Si spike	Si					1000	0.1			5

Form: DAYT-MET-0095-01-FORM
Rev. Date 7/10/2018

Reviewed by

7.4.1 7

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP16437	7/17/2019	16:00	7/17/2019	21:30	JC91275-2A	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	5	2106305	95	0	95
1	End	5	2106305	95	0	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1902243	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP16437-MB1	N/A	N	50	50	AB		
MP16437-B1	N/A	N	50	50	AB	ABCD	
MP16437-S1	1	Y	50	50	AB	ABCD	
MP16437-S2	1	Y	50	50	AB	ABCD	
MP16437-SD1	1	Y	50	50	AB		
JC91275-1A	1	Y	50	50	AB		
JC91275-2A	1	Y	50	50	AB		
JC91275-3A	1	Y	50	50	AB		

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E		
F	AG 20PPM	0.625
G		
H		

Comments:

Analyst MOUSTAFR **Approved by** gulcagt **Approved on** 7/18/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 16437 Date: 7/17/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	1/2/2020	MP-015-1195
Spiking Solution - (ACCUTEST-14A REV1)	1/2/2020	MP-015-1196
Spiking Solution - 5000 mg/l Minerals	6/13/2020	P2-MEB680008 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	9/25/2021	LOT: 092518 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	5/30/2020	P2-SI676242 MFG: INO. VENT
Spiking Solution - Bi 1000ppm	6/18/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	12/26/2019	MP-015-1191
Spiking Solution - Li 1000ppm	6/18/2020	P2-LI675235 MFG. INO. VENT.
Spiking Solution- Ag 20 ppm	1/2/2020	MP-015-1194
Spiking Solution - (ACCUTEST-13B REV1)	11/7/2019	MP-015-1169
Spiking Solution - (ACCUTEST-14B REV1)	11/29/2019	MP-015-1180
Spiking Solution - 1000ppm Minerals	10/29/2019	MP-015-1164
Spiking Solution- P		
Nitric Acid	7/16/2021	LOT: 221802 MFG: J.T. BAKER
Nitric Acid (1:1)	1/8/2020	MP-018-42-258 1:1 HNO3
Hydrochloric Acid	7/10/2021	LOT:229504 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	1/2/2020	MP-018-42-256 1:1 HCL
Hydrogen Peroxide	7/8/2021	LOT: 191365 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24635764 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1902243 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT. 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F9BA55973E MFG: FISHER

Spike witnessed By: BP

Validated By:

Validated On:

Metals Prep Reagent
1/17/18

7.4.2

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Date 7/18/2019 Analyst AD MP # 16437

Post spike for ICP Method 6010D

QC sample #

Spiking solution	Elements	Spike added (Y/N)	Vendor	Intermediate Lot #	Exp. Date	Conc. (mg/l)	Amt of Spike added (ml)	Digestate sample volume (ml)	Final Digestate volume in ml (Spike+ Sample)	Final Conc at the instrument (mg/l)
Mixed ICP intermediate Metals Solution (ACCUTEST-13A-REV1)	Ba,Be,B Cd,Cr,Co,Cu,Pb, Mn,Ni,P,Se,Sr,TL, V,Zn	Yes	Inhouse	MA-18-354-153	11/28/19	200	0.2			2
Mixed ICP intermediate Metals Solution (ACCUTEST-14A-REV1)	Sb,As,Mo,Sn,Ti, W,Zr	Yes	Inhouse	MA-18-354-154	11/28/19	200	0.2	19.25	20	2
Ag Spike Intermediate	Ag	Yes	Inhouse	MA-18-354-152	11/28/19	20	0.25			0.25
Metals Mix	Ca,Al,Fe,Mg,K, Na	Yes	Inorganic Venture	P2-MEB 678659	4/25/20	5000	0.1			25
S spike	S					200	0.2			2
Bi Spike	Bi					200	0.2			2
Li Spike	Li					200	0.2			2
Si spike	Si					1000	0.1			5

Form: DAYT-MET-0095-01-FORM
Rev. Date : 7/10/2018

Reviewed by

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP22543/GN97854	2.0	0.0	mg/l	80	86.8	108.5	90-110%
Nitrogen, Nitrate + Nitrite	GP22423/GN97639	0.10	0.0	mg/l	2	2.05	102.5	90-110%
Nitrogen, Nitrite	GN97342	0.010	0.0	mg/l	0.04	0.040	100.0	90-110%
Sulfate	GP22543/GN97854	2.0	0.0	mg/l	80	86.6	108.3	90-110%

Associated Samples:
Batch GN97342: JC91275-1A
Batch GP22423: JC91275-1A
Batch GP22543: JC91275-1A
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP22543/GN97884	JC91330-1	mg/l	1900	1900	0.0	0-20%
Nitrogen, Nitrate + Nitrite	GP22423/GN97639	JC91201-1	mg/l	0.0	0.0	0.0	0-33%
Nitrogen, Nitrite	GN97342	JC91275-1A	mg/l	0.0030 U	0.0	0.0	0-11%
Sulfate	GP22543/GN97854	JC91330-1	mg/l	234	273	0.4	0-20%
Sulfate	GP22543/GN97854	JC91330-1	mg/l	272	273	0.4	0-20%

Associated Samples:
Batch GN97342: JC91275-1A
Batch GP22423: JC91275-1A
Batch GP22543: JC91275-1A
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP22543/GN97884	JC91330-1	mg/l	1900	1600	3860	122.5N(a)	80-120%
Nitrogen, Nitrate + Nitrite	GP22423/GN97639	JC91201-1	mg/l	0.0	1	0.96	96.0	90-110%
Nitrogen, Nitrite	GN97342	JC91275-1A	mg/l	0.0030 U	0.04	0.042	105.0	22-140%
Sulfate	GP22543/GN97854	JC91330-1	mg/l	234	80	348	95.0	80-120%
Sulfate	GP22543/GN97854	JC91330-1	mg/l	272	80	348	95.0	80-120%

Associated Samples:
Batch GN97342: JC91275-1A
Batch GP22423: JC91275-1A
Batch GP22543: JC91275-1A
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: E071719W1.NO32 Date Analyzed: 07/17/19 Methods: EPA 353.2/LACHAT
Analyst: KI Run ID: GN97639
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:22	GN97639-STD1	1		STDA
12:23	GN97639-STD2	1		STDB
12:24	GN97639-STD3	1		STDC
12:25	GN97639-STD4	1		STDD
12:26	GN97639-STD5	1		STDE
12:27	GN97639-STD6	1		STDF
12:28	GN97639-STD7	1		STDG
12:31	GN97639-ICV1	1		
12:32	GN97639-ICB1	1		
12:33	GN97639-CCV1	1		
12:34	GN97639-CCB1	1		
12:35	GP22423-MB1	1		
12:36	GP22423-B1	1		
12:37	GP22423-S1	1		
12:39	GP22423-S2	1		
12:40	GP22423-D1	1		
12:41	ZZZZZZ	1		
12:42	ZZZZZZ	1		
12:43	JC91201-1	1		(sample used for QC only; not part of login JC91275)
12:44	ZZZZZZ	1		
12:45	ZZZZZZ	1		
12:46	GN97639-CCV2	1		
12:48	GN97639-CCB2	1		
12:49	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:51	ZZZZZZ	1		
12:52	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:57	JC91574-1	1		(sample used for QC only; not part of login JC91275)
12:58	ZZZZZZ	1		
12:59	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: E071719W1.NO32 Date Analyzed: 07/17/19 Methods: EPA 353.2/LACHAT
Analyst: KI Run ID: GN97639
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:00	GN97639-CCV3	1		
13:01	GN97639-CCB3	1		
13:02	ZZZZZZ	1		
13:03	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:06	JC91275-1A	1		
13:07	ZZZZZZ	1		
13:10	GN97639-CCV4	1		
13:11	GN97639-CCB4	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: E071719W1.NO32 Date Analyzed: 07/17/19 Methods: EPA 353.2/LACHAT
Run ID: GN97639 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN97639-ICV1	Nitrogen, Nitrate + Nitrite	2.11	0.10	0.090	2	105.5	90-110
GN97639-ICB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN97639-CCV1	Nitrogen, Nitrate + Nitrite	2.69	0.10	0.090	2.5	107.6	90-110
GN97639-CCB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN97639-CCV2	Nitrogen, Nitrate + Nitrite	2.69	0.10	0.090	2.5	107.6	90-110
GN97639-CCB2	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN97639-CCV3	Nitrogen, Nitrate + Nitrite	2.69	0.10	0.090	2.5	107.6	90-110
GN97639-CCB3	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN97639-CCV4	Nitrogen, Nitrate + Nitrite	2.68	0.10	0.090	2.5	107.2	90-110
GN97639-CCB4	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			

(!) Outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219072301.TXT Date Analyzed: 07/23/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN97854
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:08	GN97854-STD1	1		Manually integrated chrom. peaks reviewed and verified to comply with criteria of Accutest SOP EQA044.
18:32	GN97854-STD2	1		RT: Chl=4.703 min So4=6.761 min
18:56	GN97854-STD3	1		STDC
19:20	GN97854-STD4	1		STDCD
19:44	GN97854-STD5	1		STDD
20:08	GN97854-STD6	1		STDDE
20:32	GN97854-STD7	1		STDE
20:55	GN97854-STD8	1		STDF
21:19	GN97854-STD9	1		STDG
09:26	GN97854-ICV1	1		
10:14	GN97854-CCV1	1		
10:38	GN97854-CCB1	1		
11:02	GP22413-MB2	1		
11:02	GP22442-MB3	1		
11:02	GP22503-MB2	1		
11:26	GP22413-B2	1		
11:26	GP22442-B3	1		
11:26	GP22503-B2	1		
11:49	GP22413-S1	10		
12:13	GP22413-D1	5		
12:37	JC90966-1	5		(sample used for QC only; not part of login JC91275)
13:01	ZZZZZZ	5		
13:28	ZZZZZZ	5		
13:51	ZZZZZZ	5		
14:15	ZZZZZZ	5		
14:39	ZZZZZZ	3		
15:03	GN97854-CCV2	1		
15:27	GN97854-CCB2	1		
15:51	ZZZZZZ	2		
16:15	ZZZZZZ	2		
16:39	ZZZZZZ	2		
17:03	ZZZZZZ	5		
17:27	ZZZZZZ	3		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219072301.TXT Date Analyzed: 07/23/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN97854
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:50	ZZZZZZ	3		
18:14	ZZZZZZ	2		
18:38	ZZZZZZ	2		
19:02	ZZZZZZ	3		
19:26	GN97854-CCV3	1		
19:50	GN97854-CCB3	1		
20:14	ZZZZZZ	1		
20:38	ZZZZZZ	30		
21:02	ZZZZZZ	2		
21:26	GP22543-MB1	1		
21:50	GP22543-B1	1		
22:14	JC91275-1A	1		
22:38	GP22543-S1	1		Over calibration curve. See rerun at dilution for chl. reporting for so4
23:01	GP22543-D1	1		Over calibration curve. See rerun at dilution for chl. reporting for so4
23:25	JC91330-1	1		(sample used for QC only; not part of login JC91275)
23:49	GP22543-S2	1		Over calibration curve. See rerun at dilution for chl. reporting for so4
00:13	GN97854-CCV4	1		
00:37	GN97854-CCB4	1		
01:01	JC91330-2	1		(sample used for QC only; not part of login JC91275)
01:25	ZZZZZZ	1		
01:49	ZZZZZZ	1		
02:13	ZZZZZZ	1		
02:37	ZZZZZZ	1		
03:01	ZZZZZZ	1		
03:25	ZZZZZZ	1		
03:49	ZZZZZZ	1		
04:12	ZZZZZZ	1		
04:36	ZZZZZZ	1		
05:00	GN97854-CCV5	1		
05:24	GN97854-CCB5	1		
05:48	ZZZZZZ	1		
06:12	ZZZZZZ	1		
06:36	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219072301.TXT Date Analyzed: 07/23/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN97854
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
07:00	ZZZZZZ	1		
07:24	ZZZZZZ	1		
07:48	ZZZZZZ	1		
08:12	ZZZZZZ	1		
08:36	GN97854-CCV6	1		
09:00	GN97854-CCB6	1		

Refer to raw data for calibration curve and standards.

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Instrument QC Summary
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219072301.TXT Date Analyzed: 07/23/19 Methods: EPA 300/SW846 9056A
Run ID: GN97854 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN97854-ICV1	Chloride	98.2	2.0	0.83	100	98.2	90-110
GN97854-ICV1	Sulfate	102	2.0	0.89	100	102.0	90-110
GN97854-CCV1	Chloride	193	2.0	0.83	200	96.5	90-110
GN97854-CCV1	Sulfate	202	2.0	0.89	200	101.0	90-110
GN97854-CCB1	Chloride	0.83 U	2.0	0.83			
GN97854-CCB1	Sulfate	0.89 U	2.0	0.89			
GN97854-CCV2	Chloride	198	2.0	0.83	200	99.0	90-110
GN97854-CCV2	Sulfate	204	2.0	0.89	200	102.0	90-110
GN97854-CCB2	Chloride	0.83 U	2.0	0.83			
GN97854-CCB2	Sulfate	0.89 U	2.0	0.89			
GN97854-CCV3	Chloride	204	2.0	0.83	200	102.0	90-110
GN97854-CCV3	Sulfate	208	2.0	0.89	200	104.0	90-110
GN97854-CCB3	Chloride	0.83 U	2.0	0.83			
GN97854-CCB3	Sulfate	0.89 U	2.0	0.89			
GN97854-CCV4	Chloride	204	2.0	0.83	200	102.0	90-110
GN97854-CCV4	Sulfate	207	2.0	0.89	200	103.5	90-110
GN97854-CCB4	Chloride	0.83 U	2.0	0.83			
GN97854-CCB4	Sulfate	0.89 U	2.0	0.89			
GN97854-CCV5	Chloride	205	2.0	0.83	200	102.5	90-110
GN97854-CCV5	Sulfate	207	2.0	0.89	200	103.5	90-110
GN97854-CCB5	Chloride	0.83 U	2.0	0.83			
GN97854-CCB5	Sulfate	0.89 U	2.0	0.89			
GN97854-CCV6	Chloride	206	2.0	0.83	200	103.0	90-110
GN97854-CCV6	Sulfate	208	2.0	0.89	200	104.0	90-110
GN97854-CCB6	Chloride	0.83 U	2.0	0.83			
GN97854-CCB6	Sulfate	0.89 U	2.0	0.89			

(!) Outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219072401.TXT Date Analyzed: 07/24/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN97884
Parameters: Chloride

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:08	GN97884-STD1	1		Manually integrated chrom. peaks reviewed and verified to comply with criteria of Accutest SOP EQA044.
18:32	GN97884-STD2	1		RT: Chl=4.703 min So4=6.761 min
18:56	GN97884-STD3	1		STDC
19:20	GN97884-STD4	1		STDCD
19:44	GN97884-STD5	1		STDD
20:08	GN97884-STD6	1		STDDE
20:32	GN97884-STD7	1		STDE
20:55	GN97884-STD8	1		STDF
21:19	GN97884-STD9	1		STDG
10:54	GN97884-ICV1	1		
11:18	GN97884-CCV1	1		
11:42	GN97884-CCB1	1		
12:06	GP22543-MB2	1		
12:30	GP22543-B2	1		
13:03	ZZZZZZ	4		
13:27	ZZZZZZ	2		
13:51	ZZZZZZ	2		
14:15	ZZZZZZ	10		
14:39	ZZZZZZ	10		
15:03	GN97884-CCV2	1		
15:27	GN97884-CCB2	1		
15:50	GP22543-S1	20		
16:14	GP22543-D1	10		
16:38	JC91330-1	10		(sample used for QC only; not part of login JC91275)
17:02	GP22543-S2	20		
17:26	JC91330-2	10		(sample used for QC only; not part of login JC91275)
17:50	ZZZZZZ	4		
18:14	ZZZZZZ	4		
18:38	ZZZZZZ	4		
19:02	ZZZZZZ	4		
19:26	GN97884-CCV3	1		
19:50	GN97884-CCB3	1		
20:14	GP22576-MB1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219072401.TXT Date Analyzed: 07/24/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN97884
Parameters: Chloride

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:38	GP22576-B1	1		
21:01	GP22576-S1	1		Over calibration curve. See rerun at dilution for so4. reporting for chl
21:25	GP22576-D1	1		Over calibration curve. See rerun at dilution for so4. reporting for chl
21:49	JC91272-1	1		(sample used for QC only; not part of login JC91275)
22:13	GP22576-S2	1		Over calibration curve. See rerun at dilution for so4. reporting for chl
22:37	JC91272-2	1		(sample used for QC only; not part of login JC91275)
23:01	ZZZZZZ	1		
23:25	ZZZZZZ	1		
23:49	ZZZZZZ	1		
00:13	GN97884-CCV4	1		
00:37	GN97884-CCB4	1		
01:01	ZZZZZZ	1		
01:25	ZZZZZZ	1		
01:48	ZZZZZZ	1		
02:12	ZZZZZZ	1		
02:36	ZZZZZZ	1		
03:00	ZZZZZZ	1		
03:24	ZZZZZZ	1		
03:48	ZZZZZZ	1		
04:12	ZZZZZZ	1		
04:36	ZZZZZZ	1		
05:00	GN97884-CCV5	1		
05:24	GN97884-CCB5	1		
05:48	ZZZZZZ	1		
06:12	ZZZZZZ	1		
06:36	ZZZZZZ	1		
07:00	ZZZZZZ	1		
07:23	ZZZZZZ	1		
07:47	GN97884-CCV6	1		
08:11	GN97884-CCB6	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC91275
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219072401.TXT Date Analyzed: 07/24/19 Methods: EPA 300/SW846 9056A
Run ID: GN97884 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN97884-ICV1	Chloride	102	2.0	0.83	100	102.0	90-110
GN97884-CCV1	Chloride	201	2.0	0.83	200	100.5	90-110
GN97884-CCB1	Chloride	0.83 U	2.0	0.83			
GN97884-CCV2	Chloride	201	2.0	0.83	200	100.5	90-110
GN97884-CCB2	Chloride	0.83 U	2.0	0.83			
GN97884-CCV3	Chloride	202	2.0	0.83	200	101.0	90-110
GN97884-CCB3	Chloride	0.83 U	2.0	0.83			
GN97884-CCV4	Chloride	196	2.0	0.83	200	98.0	90-110
GN97884-CCB4	Chloride	0.83 U	2.0	0.83			
GN97884-CCV5	Chloride	196	2.0	0.83	200	98.0	90-110
GN97884-CCB5	Chloride	0.83 U	2.0	0.83			
GN97884-CCV6	Chloride	198	2.0	0.83	200	99.0	90-110
GN97884-CCB6	Chloride	0.83 U	2.0	0.83			

(!) Outside of QC limits

General Chemistry

Raw Data

SGS

Test: Nitrogen, Nitrite
Product: NO2
Method: SM4500NO2 B-11 (Aqueous) ◉ Units: mg/l
SM4500NO2 B-11 M (Solids) ○ mg/kg

Analyst: EB/MS
GN Batch ID: gn97342
GP Batch ID:
Date: 7/9/2019
Instrument ID: M

Original Calibration Information Calibration Date: 4/26/2019

	Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7
Known:	0.000	0.010	0.025	0.050	0.075	0.100	0.200	
Absorbance:	0.000	0.035	0.087	0.171	0.261	0.347	0.684	
Actual Value	0.000	0.010	0.025	0.050	0.076	0.101	0.199	

Continuing Calibration Check Standards Data: 7/2/2019

	Blank	Std 1	Std 6
Known	0.000	0.010	0.200
Absorbance	0.000	0.035	0.691
Recovery:	0.0%	98.1%	100.7%
Actual Value:		0.010	0.201

Correlation Coeff. = 0.99996
Slope = 0.29205
Intercept = -0.00041

Bottle #	Sample ID	Time Analyzed	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	DL	Units	Factor	pH between 5 and 9 (Y or N)
	ICV	23:00	50	50	1	0.339	NA	0.099	0.099	NA	mg/l	NA	
	CCV		50	50	1	0.342	NA	0.099	0.099	NA	mg/l	NA	
	GN97342-MB1		50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
	GN97342-B1		50	50	1	0.139	0.000	0.040	0.040	0.010	mg/l	1	Y
	GN97342-S1		50	50	1	0.145	0.001	0.042	0.042	0.010	mg/l	1	Y
	GN97342-D1		50	50	1	0.003	0.001	0.000	0.000	0.010	mg/l	1	Y
4	JC91275-1		50	50	1	0.002	0.001	0.000	0.000	0.010	mg/l	1	Y
7	JC91304-2		50	50	1	0.873	0.001	0.254	0.254	0.010	mg/l	1	Y
9	JC91326-8		50	50	1	0.004	0.001	0.000	0.000	0.010	mg/l	1	Y
7	JC91330-1		50	50	1	0.038	0.001	0.010	0.010	0.010	mg/l	1	Y
7	JC91330-2conf		50	50	1	>2.565	0.001			0.010			Y
8	JC91333-1		50	50	1	0.033	0.001	0.009	0.009	0.010	mg/l	1	Y
	CCVA		50	50	1	0.666	NA	0.194	0.194	NA	mg/l	NA	
^8	JC91326-7		50	50	1	0.004	0.001	0.000	0.000	0.010	mg/l	1	Y
^8	JC91326-6		50	50	1	0.009	0.001	0.002	0.002	0.010	mg/l	1	Y
^5	JC91326-3		50	50	1	0.002	0.001	0.000	0.000	0.010	mg/l	1	Y
^5	JC91330-3		50	50	1	0.000	0.001	0.000	0.000	0.010	mg/l	1	Y
^8	JC91326-5		50	50	1	0.002	0.001	0.000	0.000	0.010	mg/l	1	Y
^8	JC91326-4		50	50	1	0.004	0.001	0.000	0.000	0.010	mg/l	1	Y
^8	JC91326-1		50	50	1	0.001	0.001	0.000	0.000	0.010	mg/l	1	Y
^8	JC91326-2		50	50	1	0.002	0.001	0.000	0.000	0.010	mg/l	1	Y
7	JC91330-2		50	50	5	0.473	0.001	0.137	0.687	0.050	mg/l	1	Y
			50	50	1								Y
	CCV	23:45	50	50	1	0.363		0.106	0.106	NA	mg/l	NA	
			50	50	1								Y
			50	50	1								Y
			50	50	1								Y
			50	50	5								Y
			50	50	1								Y
			50	50	1								Y
			50	50	1								Y
			50	50	1								Y
			50	50	1								Y
			50	50	1								Y
	CCVA		50	50	1					NA		NA	Y

^ filtered
QC=JC91275-1
BS/MS = 2ml of 1ppm Std ↑ 50ml DI H_2O | Sample

Analyst: EB/MS Date: 7/9/19 QC Reviewer: Date: 7/10/19

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: NO2

GN or GP Number: GN97342

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume or weight used with units	Balance or Auto pipet ID (*)	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
NO2 10 mg/L	ERA Lot 190917 Exp: 9/30/2019	1000 mg/L	1.0 ml	A	DI water	100 ml	10 mg/L	7/5/2019	JO	7/5/2019
NO2 1 mg/L	NO2 10 mg/L (STD)	100 mg/L	10.0 ml	A	DI water	100 ml	1 mg/L	7/5/2019	JO	7/5/2019
NO2 10 mg/L	ERA Lot 020518 Exp. 5/30/2020	1000 mg/L	1.0 ml	A	DI water	100 ml	10 mg/L	7/5/2019	JO	7/5/2019
NO2 1 mg/L	NO2 10 mg/L (ICV)	100 mg/L	10.0 ml	A	DI water	100 ml	1 mg/L	7/5/2019	JO	7/5/2019

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Balance or Auto pipet ID (*)	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
0.2 mg/L	1.0 mg/L	1.0 mg/L	20.0 ml	A	DI water	100 ml	3/1/2019	7/5/2019	JO	7/5/2019
0.01 mg/L	1.0 mg/L	1.0 mg/L	1.0 ml	A	DI water	100 ml	3/1/2019	7/5/2019	JO	7/5/2019
0 mg/L	NA	NA	NA	NA	NA	100 ml	NA	7/5/2019	JO	7/5/2019
ICV	1.0 mg/L	1.0 mg/L	10.0 ml	A	DI water	100 ml	0.1 mg/L	7/5/2019	JO	7/5/2019
CCV	1.0 mg/L	1.0 mg/L	10.0 ml	A	DI water	100 ml	0.1 mg/L	7/5/2019	JO	7/5/2019
CCVA	1.0 mg/L	1.0 mg/L	20.0 ml	A	DI water	100 ml	0.2 mg/L	7/5/2019	JO	7/5/2019

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Form: GN121-01
Rev. Date. 1/13/09

SGS

Reagent Information Log - Nitrite as Nitrogen

GN97342

Reagent	Reagent # or Manufacturer/Lot
Calibration Source: 1000 mg/l nitrite stock	ERA LOT#190917 XP:9/30/2019
External Check	ERA LOT #020518 XP: 5/30/2020
Spiking Solution Source (1 PPM)	ERA LOT#190917 XP:9/30/2019
Color Reagent	GNE6-58255-NO2 XP 7/12/2019
NH4OH	FISHER 153331 XP:7/15/21

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN087A-42
Rev. Date:7/9/2019

SGS

Test: **Nitrogen, Nitrite**
Product: **NO2**
Method: **SM18 4500 NO2B (aqueous)**
SM18 4500 NO2B M (solids)

Units: mg/l
mg/kg

Analyst: EB/MK
GNBatch ID: GN97342
GPBatch ID:
Date: 7/9/19

Preparation Batch QC Summary Units = _____

Method Blank ID: MB1 Date: 7/9/19 Result: <0.010 DL: 0.010 <DL: yes
Spike Blank ID: B1 Date: 7/9/19 Result: ~~<0.010~~ Spike: 0.04 %Rec: 100% Result. 0.04
Duplicate ID: D1 Samp. Result: 0 Dup. Result: 0 %RPD: 0
MS ID: S1 Samp. Result: 0 MS Result: 0.042 Spike: 0.04 %Rec: 105%

Method Blank ID:_____ Date:_____ Result:_____ DL:_____ <DL:_____
Spike Blank ID:_____ Date:_____ Result:_____ Spike:_____ %Rec.:_____
Duplicate ID:_____ Samp. Result:_____ Dup. Result:_____ %RPD:_____
MS ID:_____ Samp. Result:_____ MS Result:_____ Spike:_____ %Rec:_____

Analysis Batch QC Summary Units = _____

ICV (Ext): 7/9/19 Result: 0.099 TV: 0.1 %Rec:_____

CCV :_____ Result: 0.099 TV: 0.1 %Rec.: 99%
CCVA :_____ Result: 0.194 TV: 0.2 %Rec.: 97%
CCV :_____ Result: 0.106 TV: 0.1 %Rec.: 106%
CCVA :_____ Result:_____ TV:_____ %Rec.:_____
CCV :_____ Result:_____ TV:_____ %Rec.:_____
CCVA :_____ Result:_____ TV:_____ %Rec.:_____

CCB:_____ Result:_____ DL:_____ <DL:_____
CCB:_____ Result:_____ DL:_____ <DL:_____
CCB:_____ Result:_____ DL:_____ <DL:_____
CCB:_____ Result:_____ DL:_____ <DL:_____
CCB:_____ Result:_____ DL:_____ <DL:_____
CCB:_____ Result:_____ DL:_____ <DL:_____

Reagent Reference Numbers:

Analyst:_____ Date:_____

Comments:_____

Form: GN032-01
Rev. Date:9/4/09]

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E071719W1.NO32 Date Analyzed: 07/17/19 Methods: EPA 353.2/LACHAT
Analyst: KI Run ID: GN97639

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: KI Date 7/17/19

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 7/17/19

e071719w1.no32

GN97639

Author: Chemistry

Date . 7/17/2019

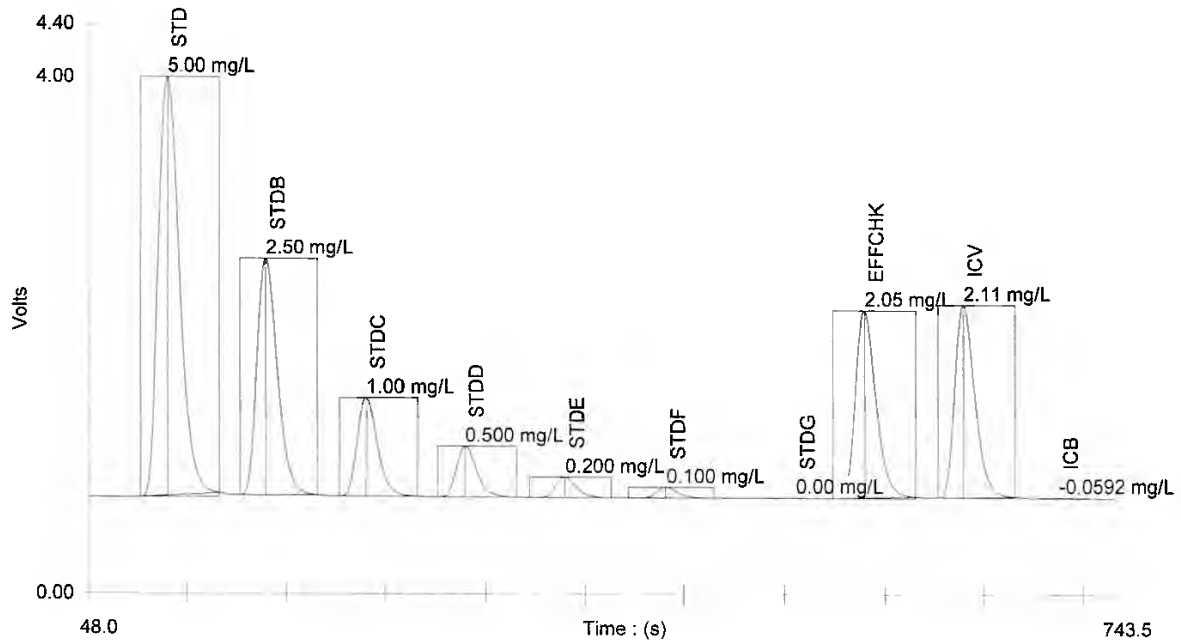
Original Run Filename: OM_7-17-2019_12-21-21PM.OMN Created: 7/17/2019 12:21:21 PM
Original Run Author's Signature: [Chemistry]
Current Run Filename: OM_7-17-2019_12-21-21PM.OMN Last Modified: 7/17/2019 1:13:47 PM
Current Run Author's Signature: [Chemistry]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 NO32 (mg/L)	Detection Time	MDF	% rec
STDA	1	S1	5.00	7/17/2019@12:22:12 PM		
STDB	1	S2	2.50	7/17/2019@12:23:19 PM		
STDC	1	S3	1.00	7/17/2019@12:24:27 PM		
STDD	1	S4	0.500	7/17/2019@12:25:34 PM		
STDE	1	S5	0.200	7/17/2019@12:26:42 PM		
STDF	1	S6	0.100	7/17/2019@12:27:49 PM		
STDG	1	S7	0.00	7/17/2019@12:28:56 PM		
EFFCHK	1	1	2.05	7/17/2019@12:30:04 PM		102.5
	Known Conc:		2.00			
	Calibration:		Table/Fig. : 1			
ICV	1	2	2.11	7/17/2019@12:31:12 PM		105.5
	Known Conc:		2.00			
ICB	1	3	-0.0592	7/17/2019@12:32:20 PM		
	Known Conc:		0.00			
CCV	1	S9	2.69	7/17/2019@12:33:27 PM		107.6
	Known Conc:		2.50			
CCB	1	S10	-0.0766	7/17/2019@12:34:35 PM		
	Known Conc:		0.00			
GP22423-MB1	1	4	-0.0502	7/17/2019@12:35:42 PM		
GP22423-B1	1	5	2.05	7/17/2019@12:36:50 PM		102.5
GP22423-S1	1	6	0.958	7/17/2019@12:37:57 PM		
GP22423-S2	1	7	1.09	7/17/2019@12:39:05 PM		
GP22423-D1	1	8	-0.0133	7/17/2019@12:40:12 PM		
JC91410-12	1	9	0.0844	7/17/2019@12:41:19 PM		
JC91521-1	1	10	0.347	7/17/2019@12:42:26 PM		
JC91201-1	1	11	-0.0127	7/17/2019@12:43:33 PM		
JC91201-2	1	12	-0.0387	7/17/2019@12:44:40 PM		
JC91202-1	1	13	0.608	7/17/2019@12:45:47 PM		
CCV	1	S9	2.69	7/17/2019@12:46:54 PM		107.6
	Known Conc:		2.50			
CCB	1	S10	-0.0635	7/17/2019@12:48:02 PM		
	Known Conc:		0.00			
JC91202-2	1	14	0.536	7/17/2019@12:49:09 PM		
JC91217-1	1	15	0.595	7/17/2019@12:50:16 PM		
JC91513-8	1	16	-4.63e-3	7/17/2019@12:51:23 PM		
JC91513-9	1	17	0.674	7/17/2019@12:52:31 PM		
JC91513-10	1	18	0.0914	7/17/2019@12:53:39 PM		
JC91513-11	1	19	-0.0103	7/17/2019@12:54:47 PM		
JC91513-13	1	20	0.248	7/17/2019@12:55:55 PM		
JC91574-1	1	21	0.0722	7/17/2019@12:57:02 PM		
JC91574-3	1	22	0.401	7/17/2019@12:58:10 PM		
JC91574-4	1	23	0.227	7/17/2019@12:59:17 PM		
CCV	1	S9	2.69	7/17/2019@1:00:24 PM		107.6
	Known Conc:		2.50			
CCB	1	S10	-0.0631	7/17/2019@1:01:32 PM		
	Known Conc:		0.00			
JC91574-5	1	24	3.67e-3	7/17/2019@1:02:39 PM		
JC91574-6	1	25	0.0147	7/17/2019@1:03:46 PM		
JC91262-1	1	26	2.50	7/17/2019@1:04:53 PM		
JC91275-1A	1	27	0.214	7/17/2019@1:06:00 PM		
JC91304-2	1	28	3.96	7/17/2019@1:07:07 PM		
CCV	1	S9	2.68	7/17/2019@1:10:18 PM		107.2
	Known Conc:		2.50			
CCB	1	S10	-0.0634	7/17/2019@1:11:26 PM		
	Known Conc:		0.00			

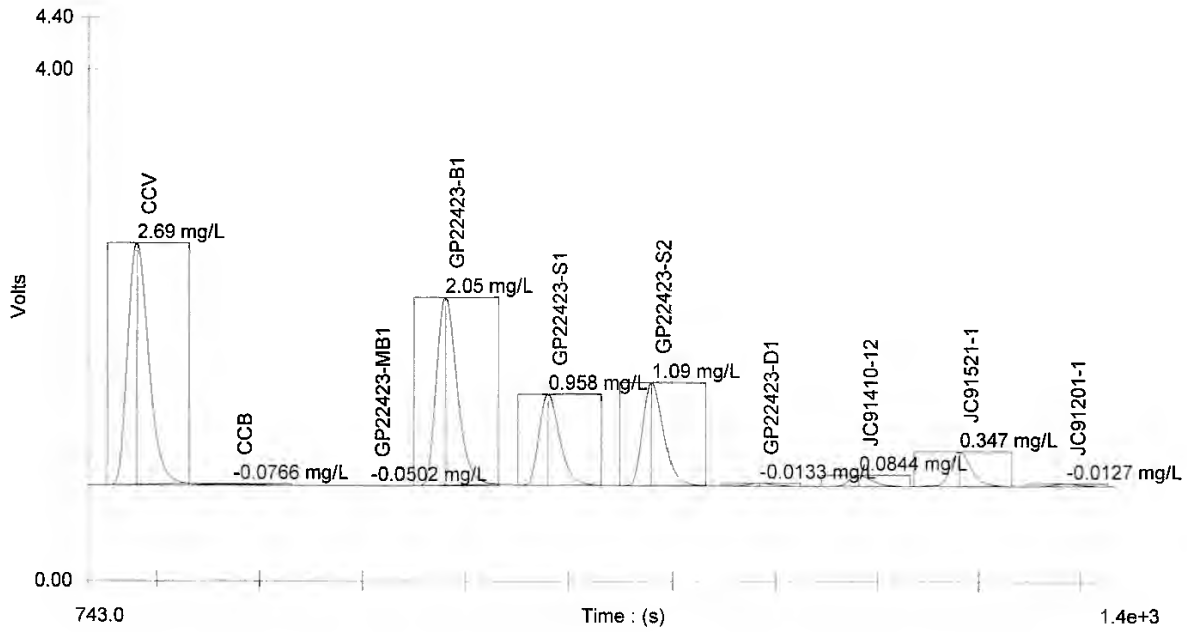
Author: Chemistry

Date : 7/17/2019

Channel 1 - Set: 1 / 5



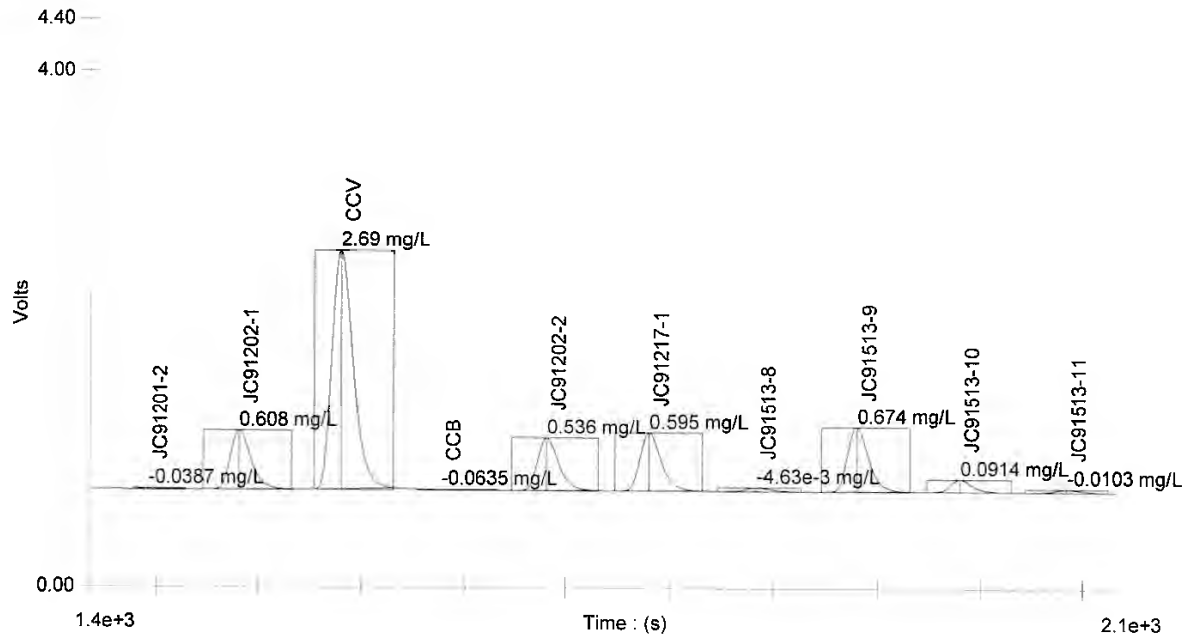
Channel 1 - Set: 2 / 5



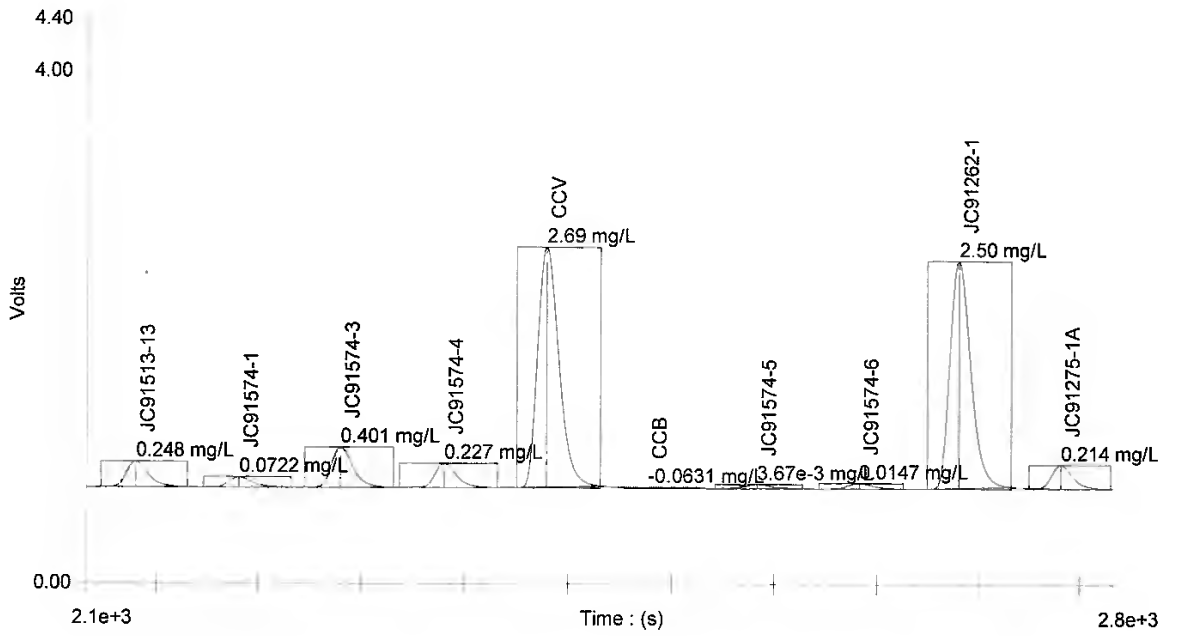
Author: Chemistry

Date : 7/17/2019

Channel 1 - Set: 3 / 5



Channel 1 - Set: 4 / 5



Author: Chemistry

Date : 7/17/2019

Channel 1 - Set: 5 / 5

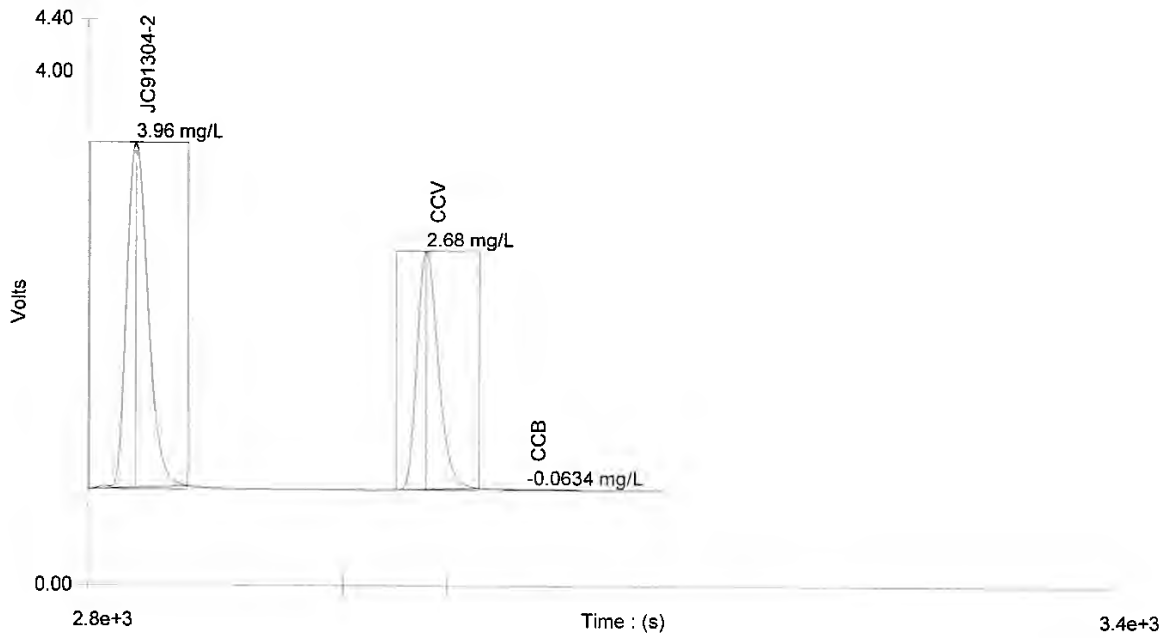
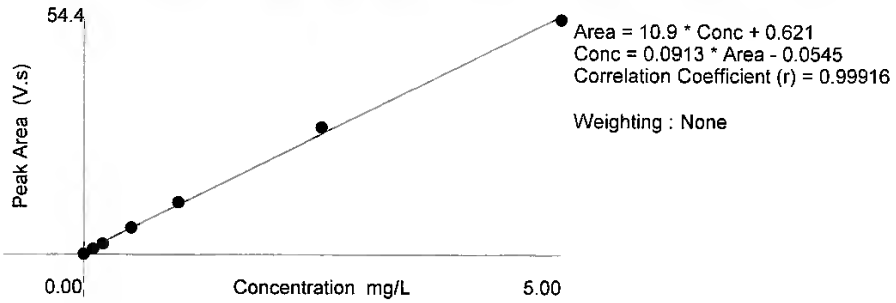


Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	54.4	3.24	0.0	1.6	4.91	7/17/2019	12:22:12 PM
2	2.50	1	29.5	1.85	0.0	-5.5	2.64	7/17/2019	12:23:19 PM
3	1.00	1	12.1	0.771	0.0	-5.1	1.05	7/17/2019	12:24:27 PM
4	0.500	1	6.17	0.393	0.0	-1.3	0.508	7/17/2019	12:25:34 PM
5	0.200	1	2.46	0.156	0.0	12.3	0.170	7/17/2019	12:26:42 PM
6	0.100	1	1.29	0.0802	0.0	24.9	0.0630	7/17/2019	12:27:49 PM
7	0.00	1	0.0661	2.16e-3			-0.0485	7/17/2019	12:28:56 PM

Figure : 1 (NO32)



SGS

Analyst: KI

Product: NO32

Pipette ID: 45

Prep Date: 7/17/19

Balance ID: _____

Batch ID: _____

Sample Prep Log

Sample ID	Initial Sample Amount	Final Volume
GP22423-B1	2mL 100ppm NO32 std	100mL carrier
↓ -S1	.5mL 100ppm	50mL JC91201-1 (cloudy)
-S2	↓	50mL JC91574-1 (clear)
	*all samples pH'd to 5-9 w/ NH4OH	

Reviewer: _____

Date: 7/17/19

Form: GN166-04
Revised: 10/27/16

SGS

GN97639

Reagent Information Log - Nitrate Lachat Autoanalyzer

Reagent	Reagent # or Manufacturer/Lot	Expiration Date
Nitrate Stock Solution	GNE2-57126-NO32	8/4/2019
Ammonium Chloride Buffer Solution	GNE7-58438-NO3	1/1/2020
Sulfanilamide Color Reagent	GNE7-58547-NO3	8/12/2019
1:1 NH4OH	GNE7-58439NO3	1/1/2020
Carrier Solution	GNE5-58132-NO3	11/28/2019
1000 ppm Nitrite Solution	GNE2-57128-NO32	8/4/2019
Nitrate External Stock Solution	GNE2-57127-NO32	8/4/2019

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-43
Rev. Date: 7/19/06

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR NITRATE

GN or GP Number: GN97639

Intermediate Standard Description	Stock used to prepare standard	Stock concentration in mg/l	Stock volume used in ml	Diluent (a)	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
100 ppm NO3 intermediate	GNE2-57126-NO32	1000	10	Carrier	100 ml	100	7/27/2019	BM	6/27/2019
100 ppm NO2 Intermediate	GNE2-57128-NO32	1000	10	Carrier	100 ml	100	7/27/2019	BM	6/27/2019
100 ppm NO3 External	GNE2-57127-NO32	1000	10	Carrier	100 ml	100	7/27/2019	BM	6/27/2019

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
5.0 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	5.0	Carrier	100 ml	5.0	7/24/2019	KI	7/17/2019
2.5 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	2.5	Carrier	100 ml	2.5	7/24/2019	KI	7/17/2019
1.0 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	1.0	Carrier	100 ml	1.0	7/24/2019	KI	7/17/2019
0.5 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	5.0	Carrier	100 ml	0.5	7/24/2019	KI	7/17/2019
0.2 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	2.0	Carrier	100 ml	0.2	7/24/2019	KI	7/17/2019
0.1 mg/l NO3	100 ppm NO3 intermediate		1.0	Carrier	100 ml	0.1	7/24/2019	KI	7/17/2019
Effcheck 2.0	100 ppm NO2 Intermediate	100 mg/l	2.0	Carrier	100 ml	2.0	7/24/2019	KI	7/17/2019
ICV	100 ppm NO3 External	100 mg/l	2.0	Carrier	100 ml	2.0	7/24/2019	KI	7/17/2019

(a) Diluent reagent reference number_____Expiration Date_____

**Volume will change with standardization concentration.

Form: GN199-02
Rev. Date: 3/2/18

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: 219072301.TXT Date Analyzed: 07/23/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN97854

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: NV Date 7/24/19

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 7/24/19

Sequence: 219072301
Operator: chemistry

Printed: 7/24/2019 10:34:33 AM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\JULY
Timebase: ACCUTEST_SYS#2
#Samples: 69

GN97854

Created: 7/23/2019 8:52:01 AM by chemistry
Last Update: 7/24/2019 9:02:44 AM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
1	BLANKCONF	1		Unknown	20.0	1.0000	Finished	7/23/2019 9:02:36 AM
2	STDA	2		Standard	20.0	1.0000	Finished	7/18/2019 6:08:27 PM
3	STDB	3		Standard	20.0	1.0000	Finished	7/18/2019 6:32:22 PM
4	STDC	4		Standard	20.0	1.0000	Finished	7/18/2019 6:56:18 PM
5	STDCD	5		Standard	20.0	1.0000	Finished	7/18/2019 7:20:14 PM
6	STDD	6		Standard	20.0	1.0000	Finished	7/18/2019 7:44:09 PM
7	STDDE	7		Standard	20.0	1.0000	Finished	7/18/2019 8:08:04 PM
8	STDE	8		Standard	20.0	1.0000	Finished	7/18/2019 8:32:00 PM
9	STDF	9		Standard	20.0	1.0000	Finished	7/18/2019 8:55:56 PM
10	STDG	10		Standard	20.0	1.0000	Finished	7/18/2019 9:19:51 PM
11	ICV	2		Unknown	20.0	1.0000	Finished	7/23/2019 9:26:18 AM
12	CCV	6		Unknown	20.0	1.0000	Finished	7/23/2019 10:14:13 AM
13	CCB	7		Unknown	20.0	1.0000	Finished	7/23/2019 10:38:09 AM
14	MB	8		Unknown	20.0	1.0000	Finished	7/23/2019 11:02:04 AM
15	BSP	9		Unknown	20.0	1.0000	Finished	7/23/2019 11:26:00 AM
16	GP22413-S1	10	JC90966-1	Unknown	20.0	10.0000	Finished	7/23/2019 11:49:56 AM
17	GP22413-D1	11	JC90966-1	Unknown	20.0	5.0000	Finished	7/23/2019 12:13:51 PM
18	JC90966-1	12		Unknown	20.0	5.0000	Finished	7/23/2019 12:37:46 PM
19	JC90966-2	13		Unknown	20.0	5.0000	Finished	7/23/2019 1:01:41 PM
20	JC90966-3	14		Unknown	20.0	5.0000	Finished	7/23/2019 1:28:04 PM
21	JC90966-6	15		Unknown	20.0	5.0000	Finished	7/23/2019 1:51:45 PM
22	JC90966-7	16		Unknown	20.0	5.0000	Finished	7/23/2019 2:15:39 PM
23	JC90966-8	17		Unknown	20.0	3.0000	Finished	7/23/2019 2:39:35 PM
24	CCV	18		Unknown	20.0	1.0000	Finished	7/23/2019 3:03:30 PM
25	CCB	19		Unknown	20.0	1.0000	Finished	7/23/2019 3:27:25 PM
26	JC90966-9	20		Unknown	20.0	2.0000	Finished	7/23/2019 3:51:20 PM
27	JC90966-10	21		Unknown	20.0	2.0000	Finished	7/23/2019 4:15:16 PM
28	JC90966-12	22		Unknown	20.0	2.0000	Finished	7/23/2019 4:39:11 PM
29	JC90966-13	23		Unknown	20.0	5.0000	Finished	7/23/2019 5:03:08 PM
30	JC90966-14	24		Unknown	20.0	3.0000	Finished	7/23/2019 5:27:03 PM
31	JC91371-3	25		Unknown	20.0	3.0000	Finished	7/23/2019 5:50:58 PM
32	JC91371-4	26		Unknown	20.0	2.0000	Finished	7/23/2019 6:14:54 PM
33	JC91410-1	27		Unknown	20.0	2.0000	Finished	7/23/2019 6:38:49 PM
34	JC91410-7	28		Unknown	20.0	3.0000	Finished	7/23/2019 7:02:45 PM
35	CCV	29		Unknown	20.0	1.0000	Finished	7/23/2019 7:26:40 PM
36	CCB	30		Unknown	20.0	1.0000	Finished	7/23/2019 7:50:36 PM
37	JC91410-12	31		Unknown	20.0	1.0000	Finished	7/23/2019 8:14:31 PM
38	JC91410-12	32		Unknown	20.0	30.0000	Finished	7/23/2019 8:38:27 PM
39	JC91612-10	33		Unknown	20.0	2.0000	Finished	7/23/2019 9:02:23 PM
40	MB	34		Unknown	20.0	1.0000	Finished	7/23/2019 9:26:18 PM
41	BSP	35		Unknown	20.0	1.0000	Finished	7/23/2019 9:50:13 PM
42	JC91275-1A	36		Unknown	20.0	1.0000	Finished	7/23/2019 10:14:08 PM

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9.3.9

Sequence: 219072301
Operator: chemistry Printed: 7/24/2019 10:34:39 AM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\JULY
Timebase: ACCUTEST_SYS#2 Created: 7/23/2019 8:52:01 AM by chemistry
#Samples: 69 Last Update: 7/24/2019 9:02:44 AM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
43	GP22543-S1	37	JC91330-1	Unknown	20.0	1.0000	Finished	7/23/2019 10:38:03 PM
44	GP22543-D1	38	JC91330-1	Unknown	20.0	1.0000	Finished	7/23/2019 11:01:59 PM
45	JC91330-1	39		Unknown	20.0	1.0000	Finished	7/23/2019 11:25:54 PM
46	GP22543-S2	40	JC91330-2	Unknown	20.0	1.0000	Finished	7/23/2019 11:49:49 PM
47	CCV	41		Unknown	20.0	1.0000	Finished	7/24/2019 12:13:44 AM
48	CCB	42		Unknown	20.0	1.0000	Finished	7/24/2019 12:37:39 AM
49	JC91330-2	43		Unknown	20.0	1.0000	Finished	7/24/2019 1:01:35 AM
50	JC91330-3	44		Unknown	20.0	1.0000	Finished	7/24/2019 1:25:31 AM
51	JC91333-1	45		Unknown	20.0	1.0000	Finished	7/24/2019 1:49:26 AM
52	JC91348-1	46		Unknown	20.0	1.0000	Finished	7/24/2019 2:13:22 AM
53	JC91348-2	47		Unknown	20.0	1.0000	Finished	7/24/2019 2:37:17 AM
54	JC91373-1	48		Unknown	20.0	1.0000	Finished	7/24/2019 3:01:12 AM
55	JC91373-3	49		Unknown	20.0	1.0000	Finished	7/24/2019 3:25:08 AM
56	JC91330-5	50		Unknown	20.0	1.0000	Finished	7/24/2019 3:49:04 AM
57	JC91330-6	1		Unknown	20.0	1.0000	Finished	7/24/2019 4:12:59 AM
58	JC91330-7	2		Unknown	20.0	1.0000	Finished	7/24/2019 4:36:54 AM
59	CCV	3		Unknown	20.0	1.0000	Finished	7/24/2019 5:00:50 AM
60	CCB	4		Unknown	20.0	1.0000	Finished	7/24/2019 5:24:45 AM
61	JC91330-8	5		Unknown	20.0	1.0000	Finished	7/24/2019 5:48:41 AM
62	JC91301-1	6		Unknown	20.0	1.0000	Finished	7/24/2019 6:12:36 AM
63	JC91301-2	7		Unknown	20.0	1.0000	Finished	7/24/2019 6:36:32 AM
64	JC91301-3	8		Unknown	20.0	1.0000	Finished	7/24/2019 7:00:28 AM
65	JC91301-4	9		Unknown	20.0	1.0000	Finished	7/24/2019 7:24:24 AM
66	JC91310-1	10		Unknown	20.0	1.0000	Finished	7/24/2019 7:48:19 AM
67	JC91310-2	11		Unknown	20.0	1.0000	Finished	7/24/2019 8:12:15 AM
68	CCV	12		Unknown	20.0	1.0000	Finished	7/24/2019 8:36:11 AM
69	CCB	13		Unknown	20.0	1.0000	Finished	7/24/2019 9:00:07 AM

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Sequence: 219072301
Operator: chemistry

Printed: 7/23/2019 1:14:31 PM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\JULY
Timebase: ACCUTEST_SYS#2
#Samples: 67

GN97854

Created: 7/23/2019 8:52:01 AM by chemistry
Last Update: 7/23/2019 1:14:27 PM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
1	BLANKCONF	1		Unknown	20.0	1.0000	Finished	7/23/2019 9:02:36 AM
2	STDA	2		Standard	20.0	1.0000	Finished	7/18/2019 6:08:27 PM
3	STDB	3		Standard	20.0	1.0000	Finished	7/18/2019 6:32:22 PM
4	STDC	4		Standard	20.0	1.0000	Finished	7/18/2019 6:56:18 PM
5	STDCD	5		Standard	20.0	1.0000	Finished	7/18/2019 7:20:14 PM
6	STDD	6		Standard	20.0	1.0000	Finished	7/18/2019 7:44:09 PM
7	STDDE	7		Standard	20.0	1.0000	Finished	7/18/2019 8:08:04 PM
8	STDE	8		Standard	20.0	1.0000	Finished	7/18/2019 8:32:00 PM
9	STDF	9		Standard	20.0	1.0000	Finished	7/18/2019 8:55:56 PM
10	STDG	10		Standard	20.0	1.0000	Finished	7/18/2019 9:19:51 PM
11	ICV	2		Unknown	20.0	1.0000	Finished	7/23/2019 9:26:18 AM
12	CCV	6		Unknown	20.0	1.0000	Finished	7/23/2019 10:14:13 AM
13	CCB	7		Unknown	20.0	1.0000	Finished	7/23/2019 10:38:09 AM
14	MB	8		Unknown	20.0	1.0000	Finished	7/23/2019 11:02:04 AM
15	BSP	9		Unknown	20.0	1.0000	Finished	7/23/2019 11:26:00 AM
16	GP22413-S1	10	JC90966-1	Unknown	20.0	10.0000	Finished	7/23/2019 11:49:56 AM
17	GP22413-D1	11	JC90966-1	Unknown	20.0	5.0000	Finished	7/23/2019 12:13:51 PM
18	JC90966-1	12		Unknown	20.0	5.0000	Finished	7/23/2019 12:37:46 PM
▶	JC90966-2	13		Unknown	20.0	5.0000	Running	7/23/2019 1:01:41 PM
20	JC90966-3	14		Unknown	20.0	5.0000	Single	
21	JC90966-6	15		Unknown	20.0	5.0000	Single	
22	JC90966-7	16		Unknown	20.0	5.0000	Single	
23	JC90966-8	17		Unknown	20.0	3.0000	Single	
24	CCV	18		Unknown	20.0	1.0000	Single	
25	CCB	19		Unknown	20.0	1.0000	Single	
26	JC90966-9	20		Unknown	20.0	2.0000	Single	
27	JC90966-10	21		Unknown	20.0	2.0000	Single	
28	JC90966-12	22		Unknown	20.0	2.0000	Single	
29	JC90966-13	23		Unknown	20.0	5.0000	Single	
30	JC90966-14	24		Unknown	20.0	3.0000	Single	
31	JC91371-3	25		Unknown	20.0	3.0000	Single	
32	JC91371-4	26		Unknown	20.0	2.0000	Single	
33	JC91410-1	27		Unknown	20.0	2.0000	Single	
34	JC91410-7	28		Unknown	20.0	3.0000	Single	
35	CCV	29		Unknown	20.0	1.0000	Single	
36	CCB	30		Unknown	20.0	1.0000	Single	
37	JC91410-12	31		Unknown	20.0	1.0000	Single	
38	JC91410-12	32		Unknown	20.0	30.0000	Single	
39	JC91612-10	33		Unknown	20.0	2.0000	Single	
40	MB	34		Unknown	20.0	1.0000	Single	
41	BSP	35		Unknown	20.0	1.0000	Single	
42	JC91275-1A	36		Unknown	20.0	1.0000	Single	

GP22413 (2)
GP22442 (3)
GP22503 (2)

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Sequence: 219072301
Operator: chemistry

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\JULY
Timebase: ACCUTEST_SYS#2
#Samples: 70

Created: 7/23/2019 8:52:01 AM by chemistry
Last Update: 7/23/2019 1:20:42 PM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
43	GP22543-S1 5	37	JC91330-1	Unknown	20.0	1.0000	Single	
44	GP22543-D1 5	38	JC91330-1	Unknown	20.0	1.0000	Single	
45	JC91330-1 5	39		Unknown	20.0	1.0000	Single	
46	GP22543-S2 4	40	JC91330-2	Unknown	20.0	1.0000	Single	
47	CCV	41		Unknown	20.0	1.0000	Single	
48	CCB	42		Unknown	20.0	1.0000	Single	
49	JC91330-2 4	43		Unknown	20.0	1.0000	Single	
50	JC91330-3 4	44		Unknown	20.0	1.0000	Single	
51	JC91333-1 4	45		Unknown	20.0	1.0000	Single	
52	JC91348-1 4	46		Unknown	20.0	1.0000	Single	
53	JC91348-2 4	47		Unknown	20.0	1.0000	Single	
54	JC91373-1 3	48		Unknown	20.0	1.0000	Single	
55	JC91373-3 3	49		Unknown	20.0	1.0000	Single	
56	JC91330-5 4	50		Unknown	20.0	1.0000	Single	
57	JC91330-6 4	1		Unknown	20.0	1.0000	Single	
58	JC91330-7 4	2		Unknown	20.0	1.0000	Single	
59	CCV	3		Unknown	20.0	1.0000	Single	
60	CCB	4		Unknown	20.0	1.0000	Single	
61	JC91330-8 4	5		Unknown	20.0	1.0000	Single	
62	JC91301-1 5	6		Unknown	20.0	1.0000	Single	
63	JC91301-2 5	7		Unknown	20.0	1.0000	Single	
64	JC91301-3 5	8		Unknown	20.0	1.0000	Single	
65	JC91301-4 5	9		Unknown	20.0	1.0000	Single	
66	JC91310-1 3	10		Unknown	20.0	1.0000	Single	
67	JC91310-2 3	11		Unknown	20.0	1.0000	Single	
68	CCV	12		Unknown	20.0	1.0000	Single	
69	CCB	13		Unknown	20.0	1.0000	Single	
70	STANDBY	14		Unknown	20.0	1.0000	Single	

GP22543 (1)

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SGS

Analyst NV

Product Cn1, Sq

Pipette ID 42

Prep Date 7/23/19

Balance ID NA

Batch ID GN97854

Sample Prep Log

Sample ID	Initial Sample Amount	(mL) Final Volume
BSP	0.5mL spiking solution	50
GP22543-S1	0.5mL spiking solution	50 JC91330-1
GP22543-S2	0.5mL spiking solution	50 JC91330-2

Form: GN166-02
Rev. Date: 8/5/05

QC Review_____

9.3

9

Analyst NV Product SO4 Autopipette # 42

Date 7/23/19 Batch ID GN97854 Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
GP22413-S1	1:10	5	50	SO4 JC909466-1 + 0.5mL spike
GP22413-D1	1:5	10	50	SO4 JC909466-1
JC909466-1	1:5	10	50	SO4
JC909466-2	1:5	10	50	SO4
JC909466-3	1:5	10	50	SO4
JC909466-6	1:5	10	50	SO4
JC909466-7	1:5	10	50	SO4
JC909466-8	1:3	10	30	SO4
JC909466-9	1:2	10	20	SO4
JC909466-10	1:2	10	20	SO4
JC909466-12	1:2	10	20	SO4
JC909466-13	1:5	10	50	SO4
JC909466-14	1:3	10	30	SO4
JC91371-3	1:3	10	30	SO4
JC91371-4	1:2	10	20	SO4
JC91410-1	1:2	10	20	SO4
JC91410-7	1:3	10	30	SO4
JC91410-12	1			SO4 rerun straight
JC91812-10	1:2	10	20	SO4
JC91410-12	1:30	1	30	SO4

QC Reviewer: Date

Form: GN165-01
Rev. Date: 2/25/03

SGS

Reagent Information Log - IONC IC2 - Water /Soil

GN Batch ID#: GN97854

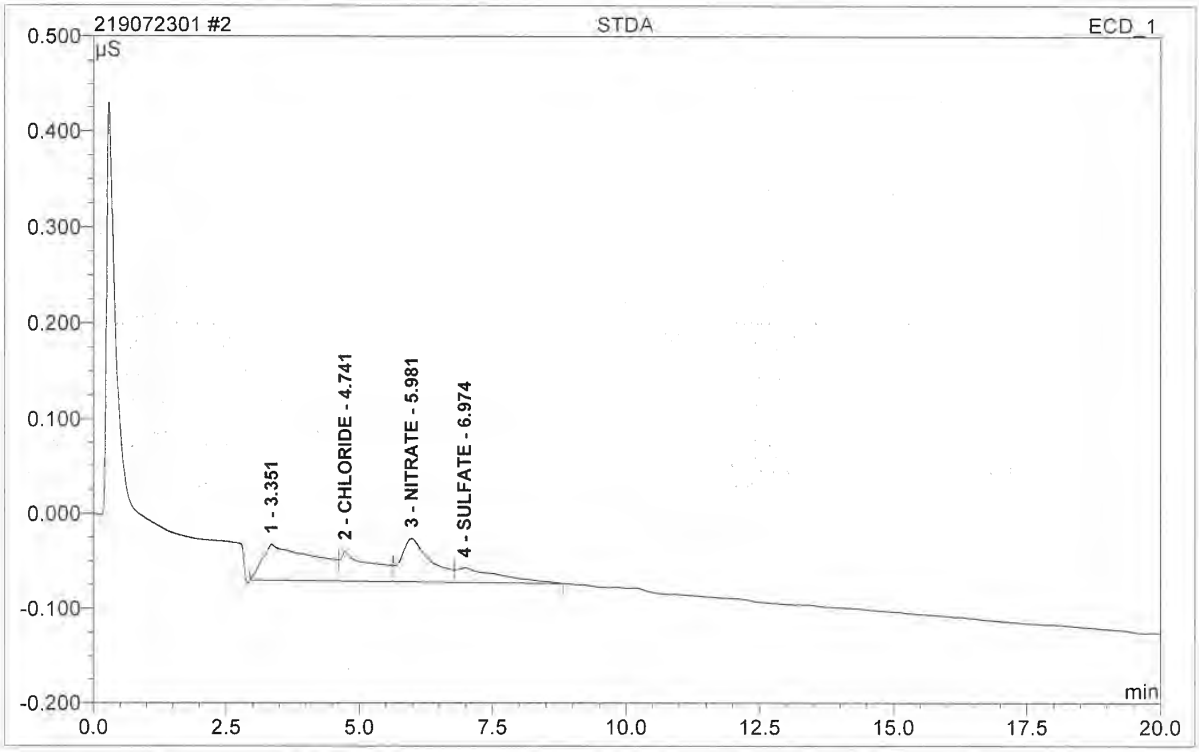
Reagent	Reagent # or Manufacturer/Lot	Exp. Date
Standard Intermediate (for Calibration Curve)	GN18-476-184	7/29/2019
Standard Intermediate (for Calibration Curve)	GN18-476-186	7/29/2019
ICV	GN18-479-57	7/29/2019
Eluent	190332638010	3/26/2021
Standard Intermediate (for Working std/Spikes)	GN18-476-184	7/29/2019
Standard Intermediate (for Working std/Spikes)	GN18-476-186	7/29/2019
CCV	GN19-493-34	7/29/2019
Spiking Solution Intermediate (CHL/SO4)	GN18-478-54	7/29/2019
Spiking Solution Intermediate (F/BRO)	GN18-478-55	7/29/2019
Spiking Solution (SOUP)	GN18-478-59	7/29/2019
Filter lot numbers	GREENWOOD #180111044	NA

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form : GN087A-76
Rev. Date: 4/7/09

2 STDA

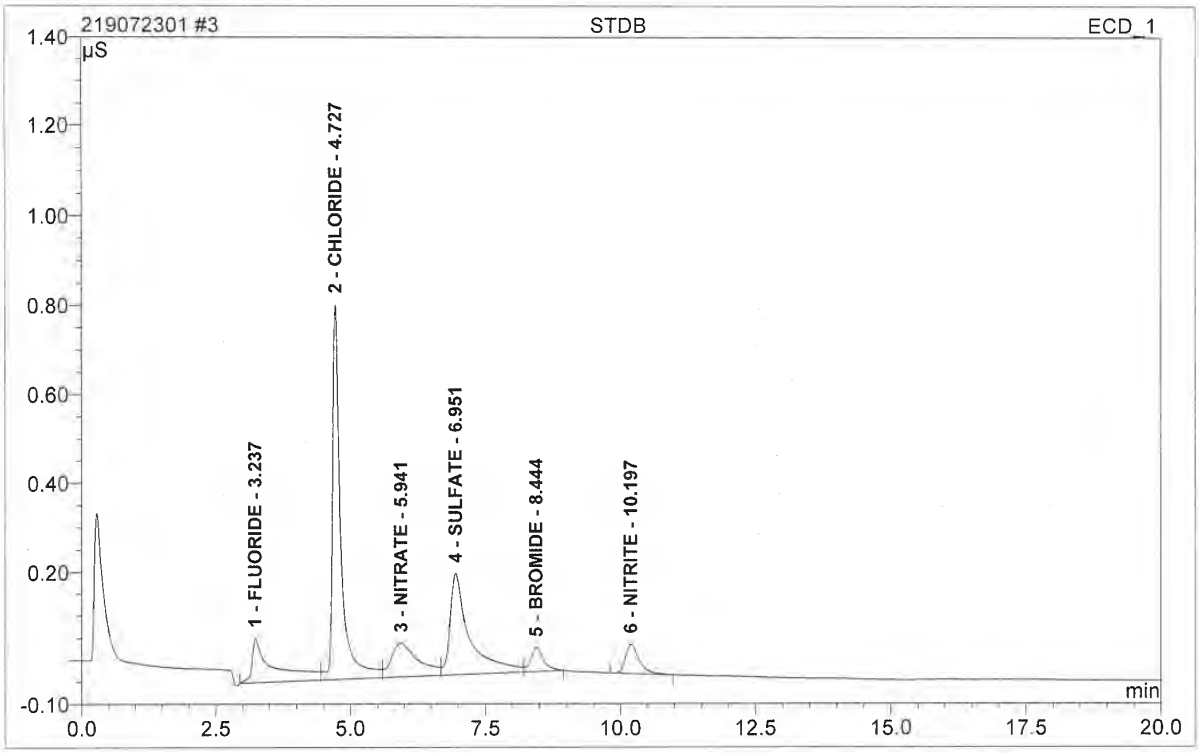
Sample Name:	**STDA**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 18:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.35	n.a.	0.038	0.043	39.63	n.a.	BM
2	4.74	CHLORIDE	0.032	0.022	19.88	0.073	M
3	5.98	NITRATE	0.046	0.030	27.47	0.050	M
4	6.97	SULFATE	0.015	0.014	13.02	0.065	MB
Total:			0.131	0.109	100.00	0.188	

3 STDB

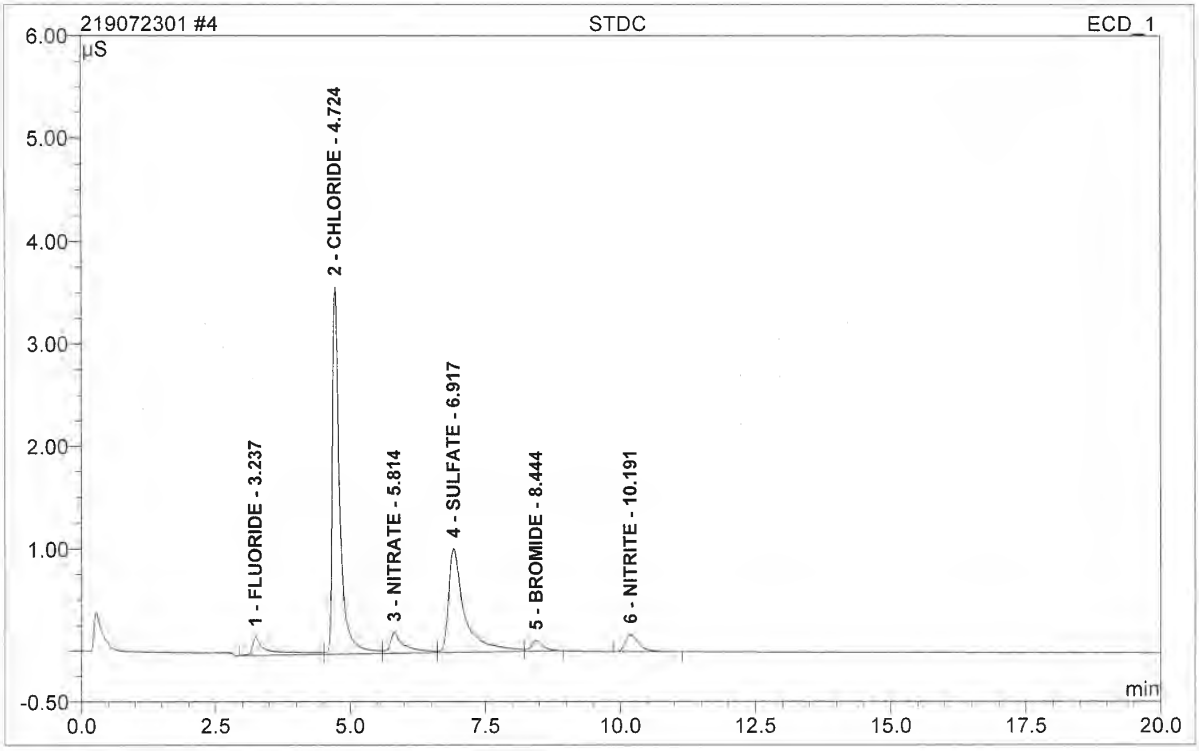
Sample Name:	**STDB**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 18:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	0.102	0.047	12.49	0.118	BM
2	4.73	CHLORIDE	0.847	0.152	40.42	0.513	M
3	5.94	NITRATE	0.077	0.045	11.99	0.075	M
4	6.95	SULFATE	0.231	0.097	25.82	0.446	M
5	8.44	BROMIDE	0.056	0.015	4.02	0.122	MB
6	10.20	NITRITE	0.068	0.020	5.26	0.027	BMB
Total:			1.380	0.377	100.00	1.302	

4 STDC

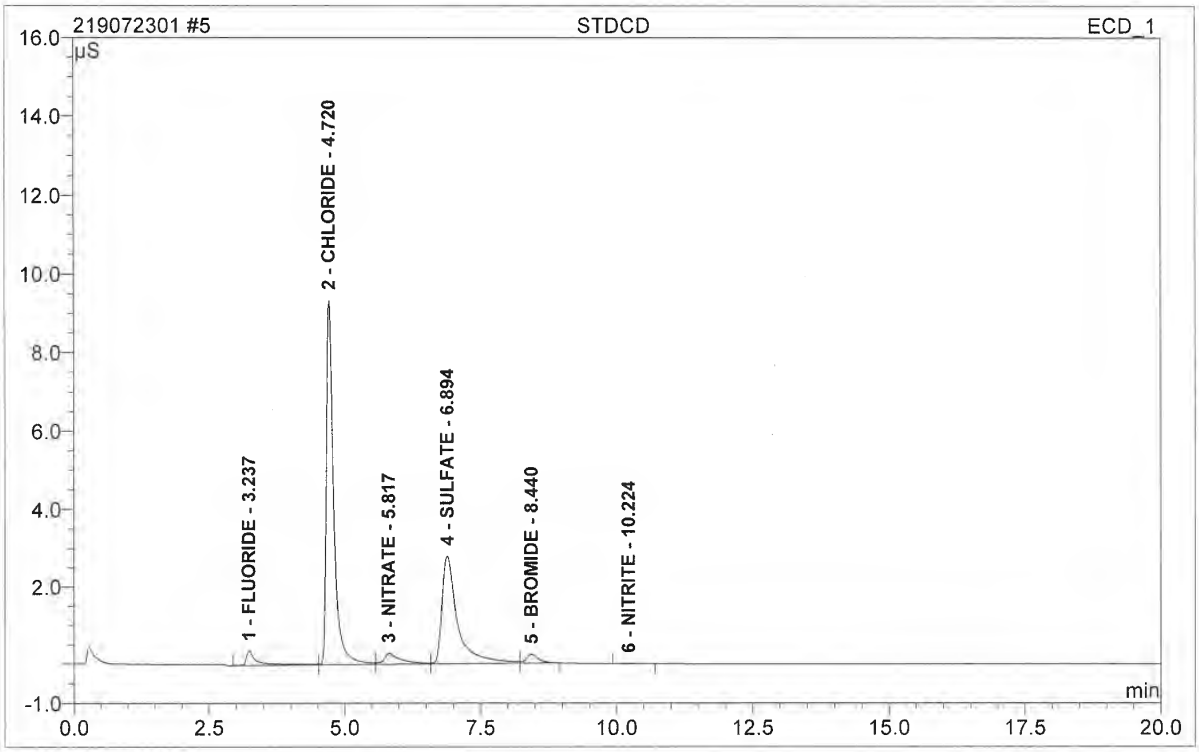
Sample Name:	**STDC**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 18:56**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	0.182	0.062	5.45	0.155	BM
2	4.72	CHLORIDE	3.590	0.573	50.67	1.933	M
3	5.81	NITRATE	0.207	0.066	5.80	0.110	M
4	6.92	SULFATE	1.020	0.353	31.20	1.619	M
5	8.44	BROMIDE	0.108	0.028	2.49	0.228	MB
6	10.19	NITRITE	0.172	0.050	4.38	0.068	BMB
Total:			5.279	1.132	100.00	4.112	

5 STDCD

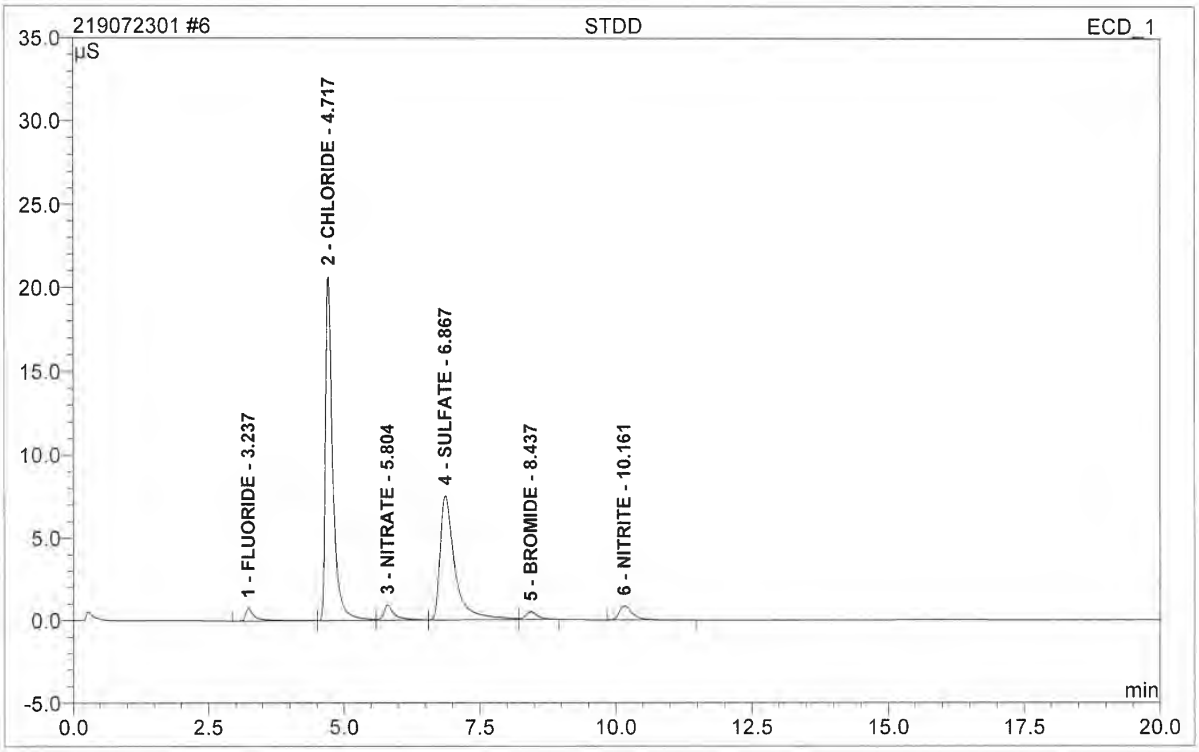
Sample Name:	**STDCD**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 19:20**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	0.368	0.093	3.50	0.232	BM
2	4.72	CHLORIDE	9.343	1.470	55.50	4.956	M
3	5.82	NITRATE	0.285	0.103	3.88	0.171	M
4	6.89	SULFATE	2.806	0.923	34.86	4.235	M
5	8.44	BROMIDE	0.225	0.058	2.19	0.468	MB
6	10.22	NITRITE	0.007	0.002	0.07	0.003	BMB
Total:			13.033	2.649	100.00	10.065	

6 STDD

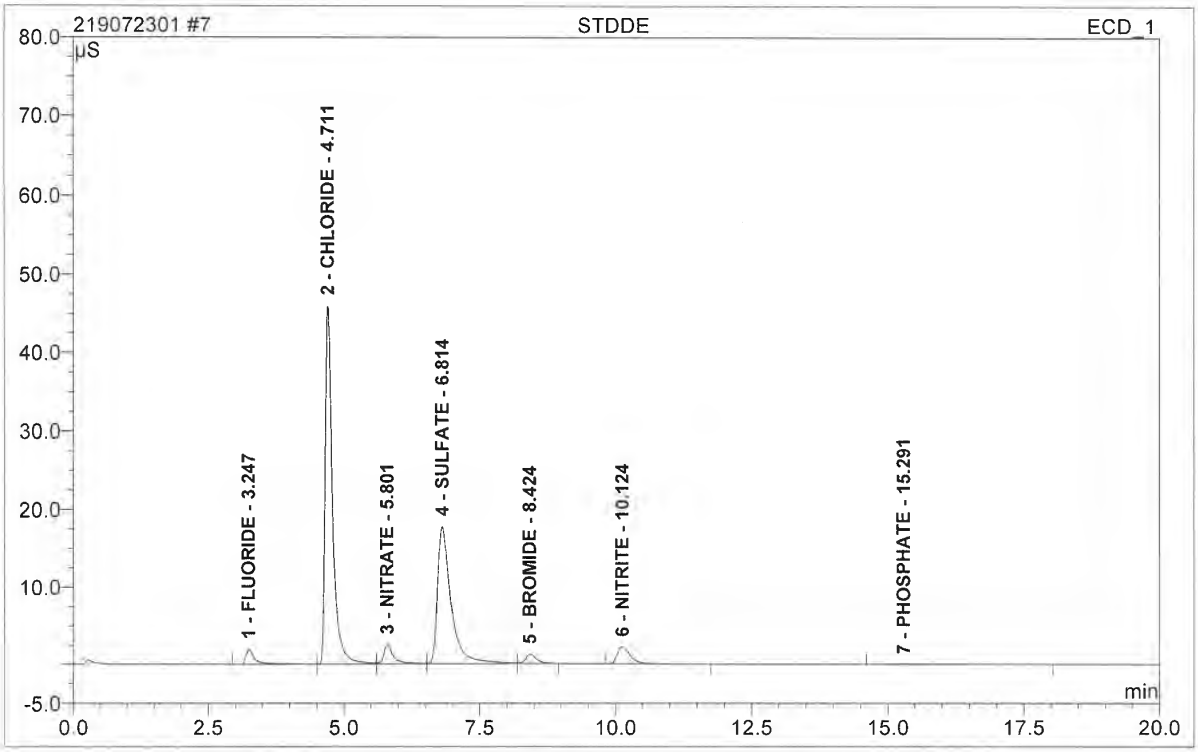
Sample Name:	**STDD**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 19:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	0.763	0.156	2.45	0.392	BM
2	4.72	CHLORIDE	20.679	3.262	51.15	10.996	M
3	5.80	NITRATE	0.930	0.214	3.36	0.357	M
4	6.87	SULFATE	7.553	2.388	37.45	10.954	M
5	8.44	BROMIDE	0.474	0.118	1.85	0.954	MB
6	10.16	NITRITE	0.845	0.238	3.73	0.328	BMB
Total:			31.245	6.377	100.00	23.981	

7 STDDE

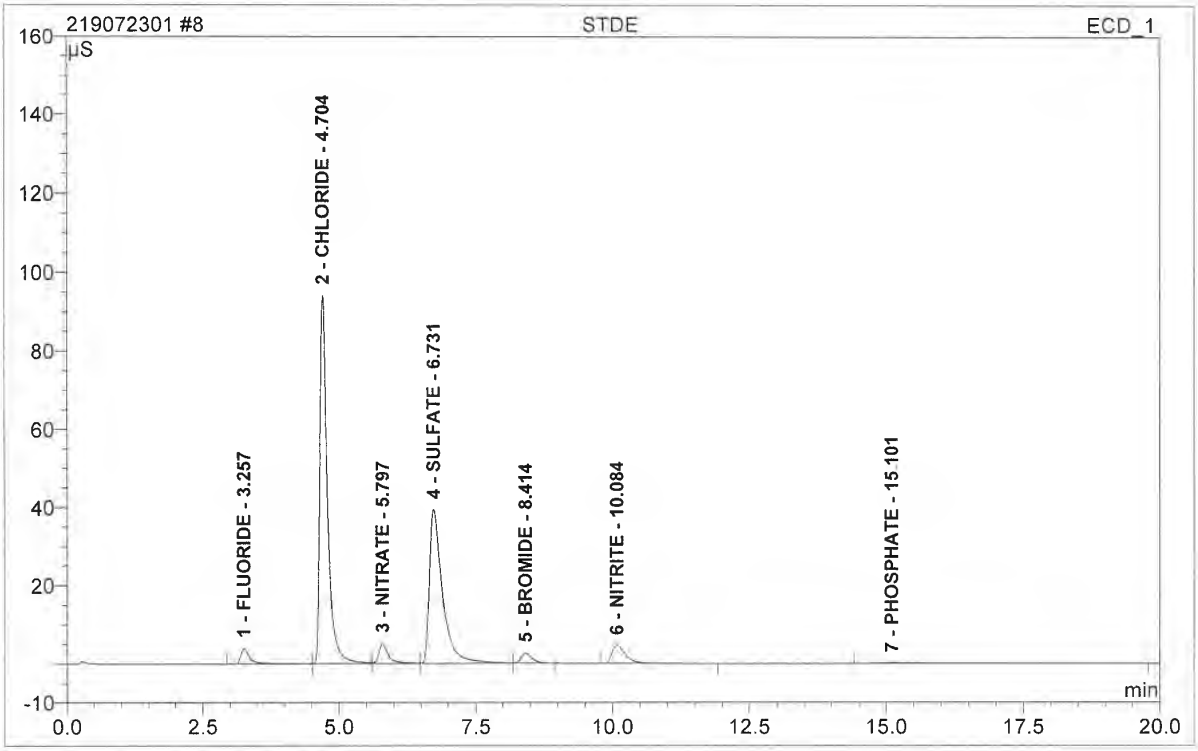
Sample Name:	**STDDE**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 20:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	2.039	0.389	2.69	0.974	BM
2	4.71	CHLORIDE	45.966	7.318	50.58	24.669	M
3	5.80	NITRATE	2.579	0.543	3.75	0.905	M
4	6.81	SULFATE	17.811	5.186	35.85	23.785	M
5	8.42	BROMIDE	1.271	0.299	2.07	2.414	MB
6	10.12	NITRITE	2.305	0.658	4.55	0.905	BMB
7	15.29	PHOSPHATE	0.055	0.075	0.52	0.386	BMB
Total:			72.025	14.467	100.00	54.039	

8 STDE

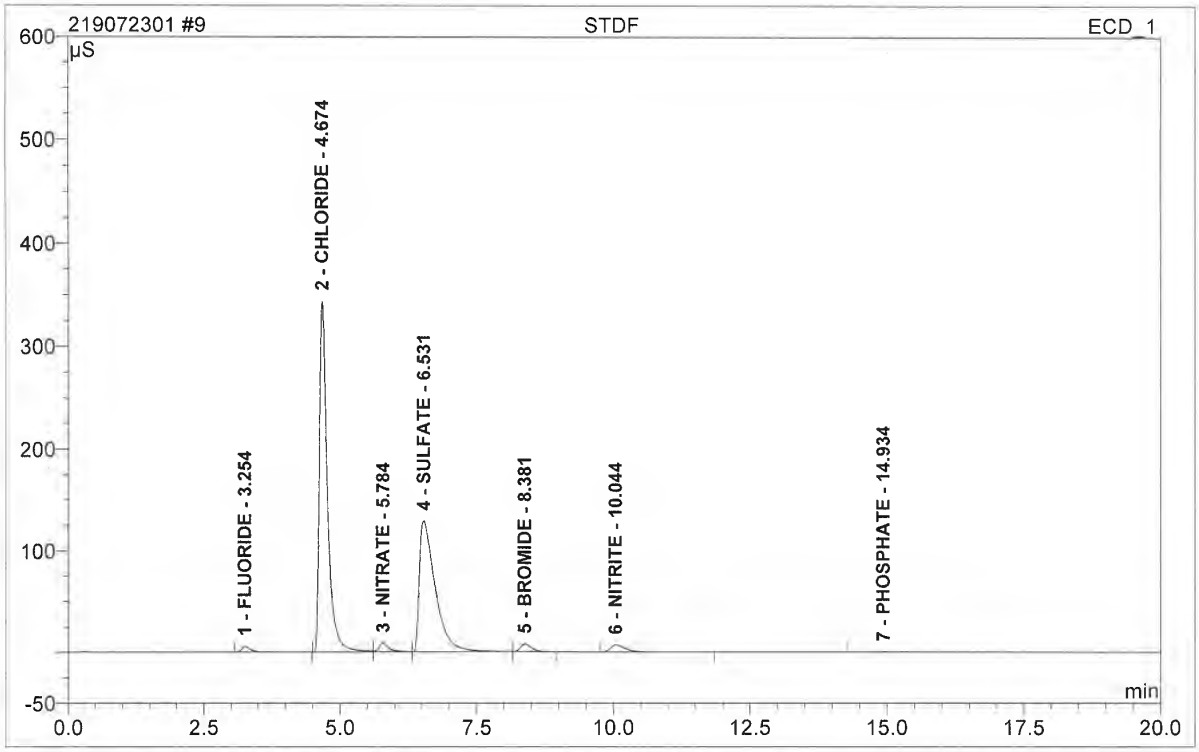
Sample Name:	**STDE**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 20:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	FLUORIDE	4.029	0.788	2.60	1.973	BM
2	4.70	CHLORIDE	94.138	15.221	50.17	51.310	M
3	5.80	NITRATE	5.137	1.073	3.54	1.790	M
4	6.73	SULFATE	39.386	11.031	36.36	50.595	M
5	8.41	BROMIDE	2.632	0.610	2.01	4.923	MB
6	10.08	NITRITE	4.555	1.351	4.45	1.859	BMB
7	15.10	PHOSPHATE	0.193	0.261	0.86	1.353	BMB
Total:			150.071	30.336	100.00	113.802	

9 STDF

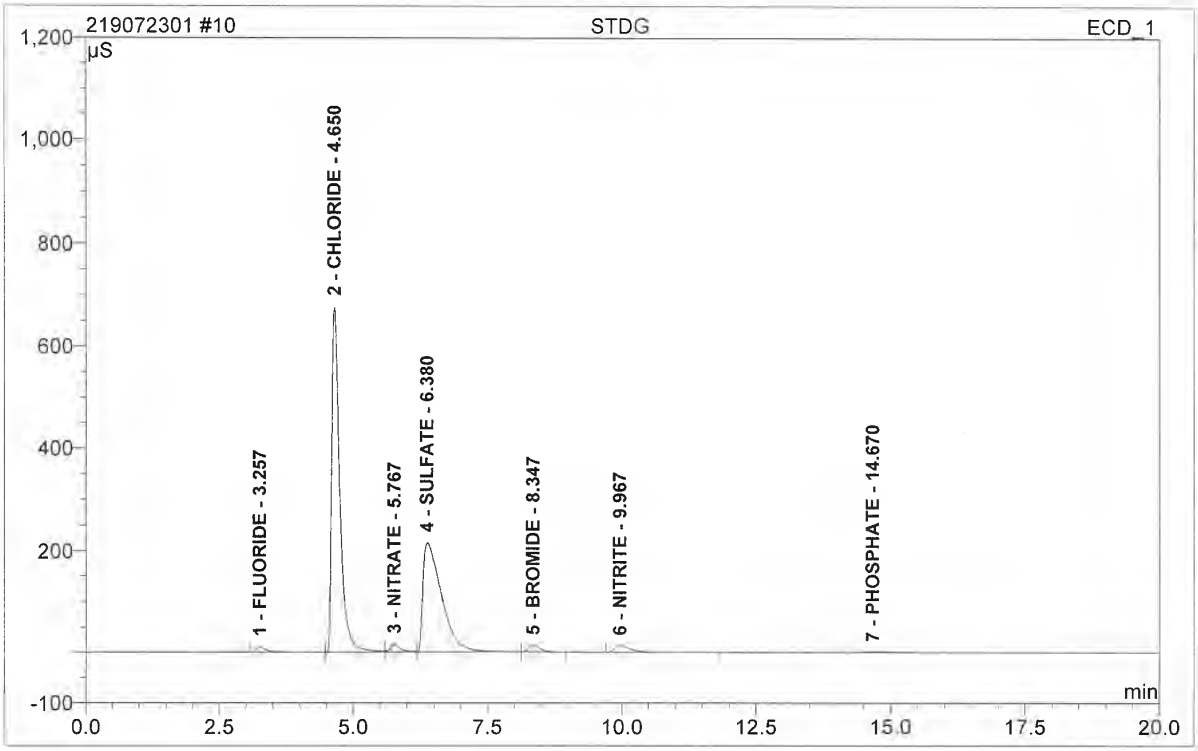
Sample Name:	**STDF**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 20:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



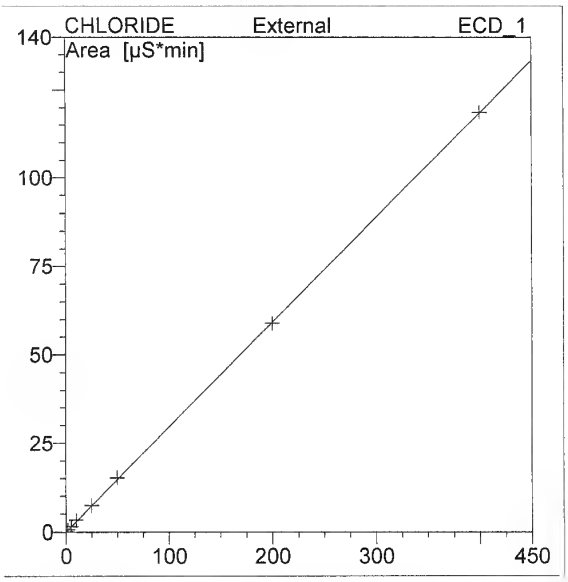
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	5.837	1.153	1.05	2.888	BMB
2	4.67	CHLORIDE	343.694	58.996	53.64	198.878	BM
3	5.78	NITRATE	8.827	1.903	1.73	3.173	M
4	6.53	SULFATE	129.053	43.476	39.53	199.398	Mb
5	8.38	BROMIDE	7.609	1.784	1.62	14.396	bMB
6	10.04	NITRITE	7.042	2.181	1.98	3.002	BMB
7	14.93	PHOSPHATE	0.422	0.499	0.45	2.583	BMB
Total:			502.486	109.992	100.00	424.319	

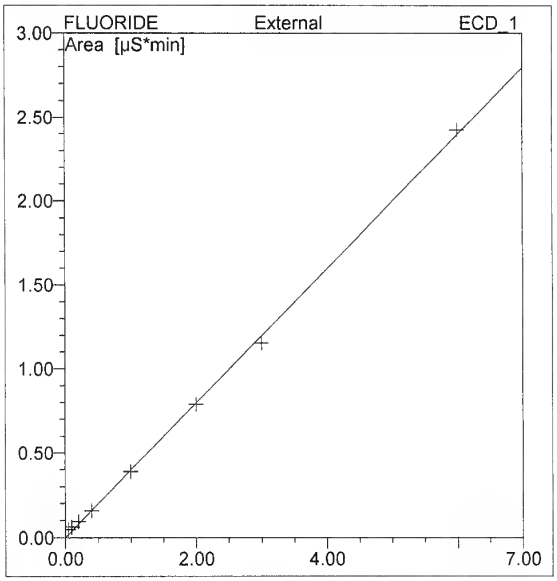
10 STDG

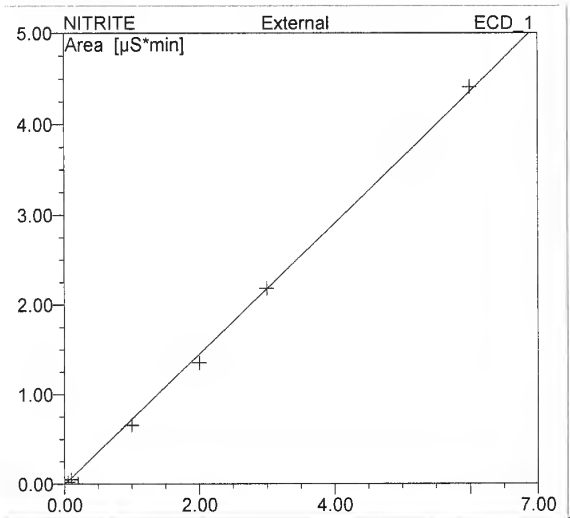
Sample Name:	**STDG**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 21:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

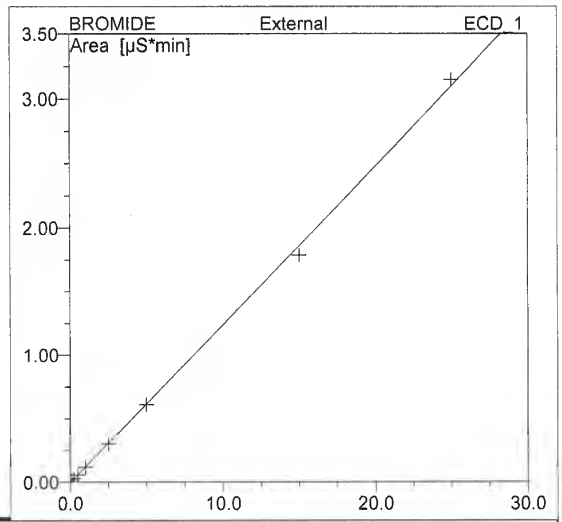


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	FLUORIDE	11.516	2.423	1.10	6.067	BMB
2	4.65	CHLORIDE	676.417	118.774	53.77	400.394	BM
3	5.77	NITRATE	16.433	3.590	1.63	5.987	M
4	6.38	SULFATE	215.324	87.277	39.51	400.290	Mb
5	8.35	BROMIDE	12.836	3.146	1.42	25.389	bMB
6	9.97	NITRITE	12.937	4.411	2.00	6.069	BMB
7	14.67	PHOSPHATE	1.281	1.261	0.57	6.526	BMB
Total:			946.745	220.882	100.00	850.723	









No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	3.26	FLUORIDE	Lin	8	99.9552	0.0000	0.3993	0.0000
2	4.65	CHLORIDE	Lin	8	99.9986	0.0000	0.2966	0.0000
3	5.77	NITRATE	Lin	7	99.8726	0.0000	0.5997	0.0000
4	6.38	SULFATE	Lin	8	99.9987	0.0000	0.2180	0.0000
5	8.35	BROMIDE	Lin	8	99.9582	0.0000	0.1239	0.0000
6	9.97	NITRITE	Lin	7	99.9495	0.0000	0.7267	0.0000
7	14.67	PHOSPHATE	Lin	4	99.8560	0.0000	0.1932	0.0000
Average:					99.9413	0.0000	0.3654	0.0000

anions/Calibration(Curr.Peak)

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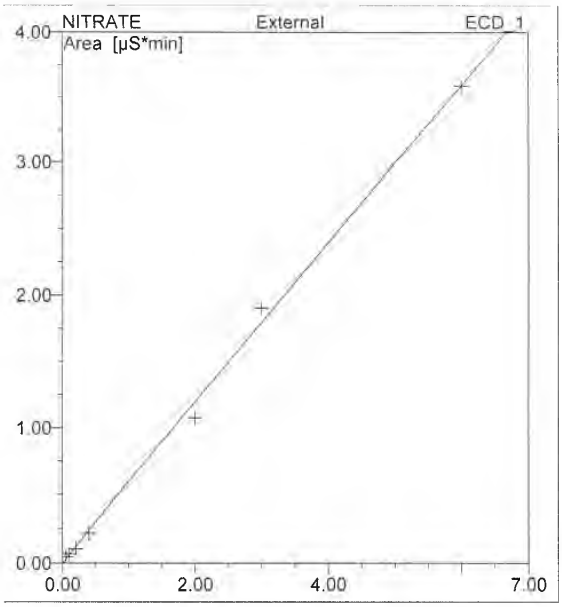
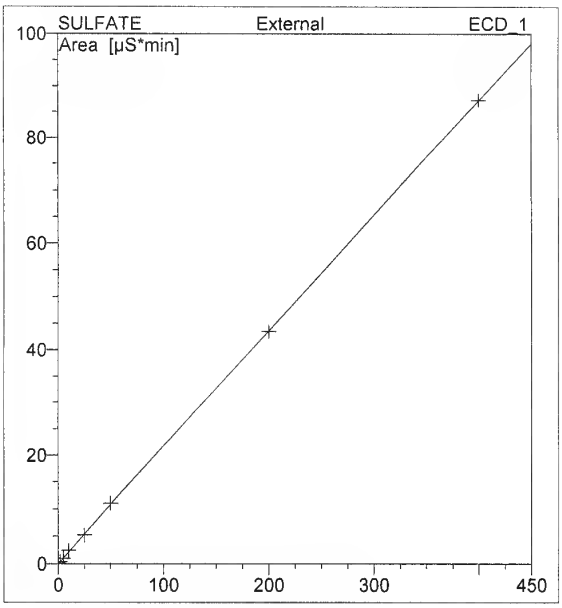
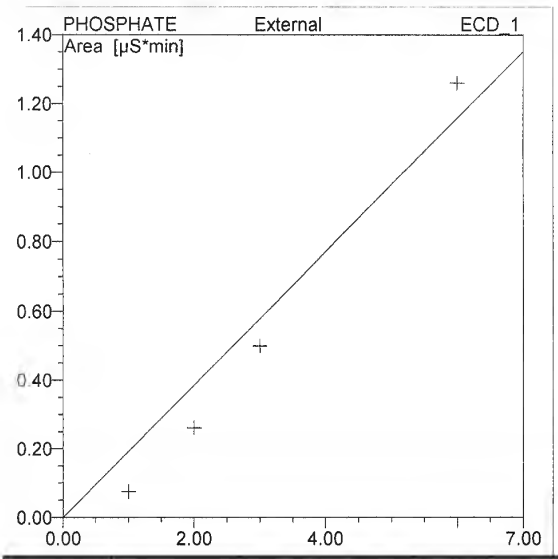


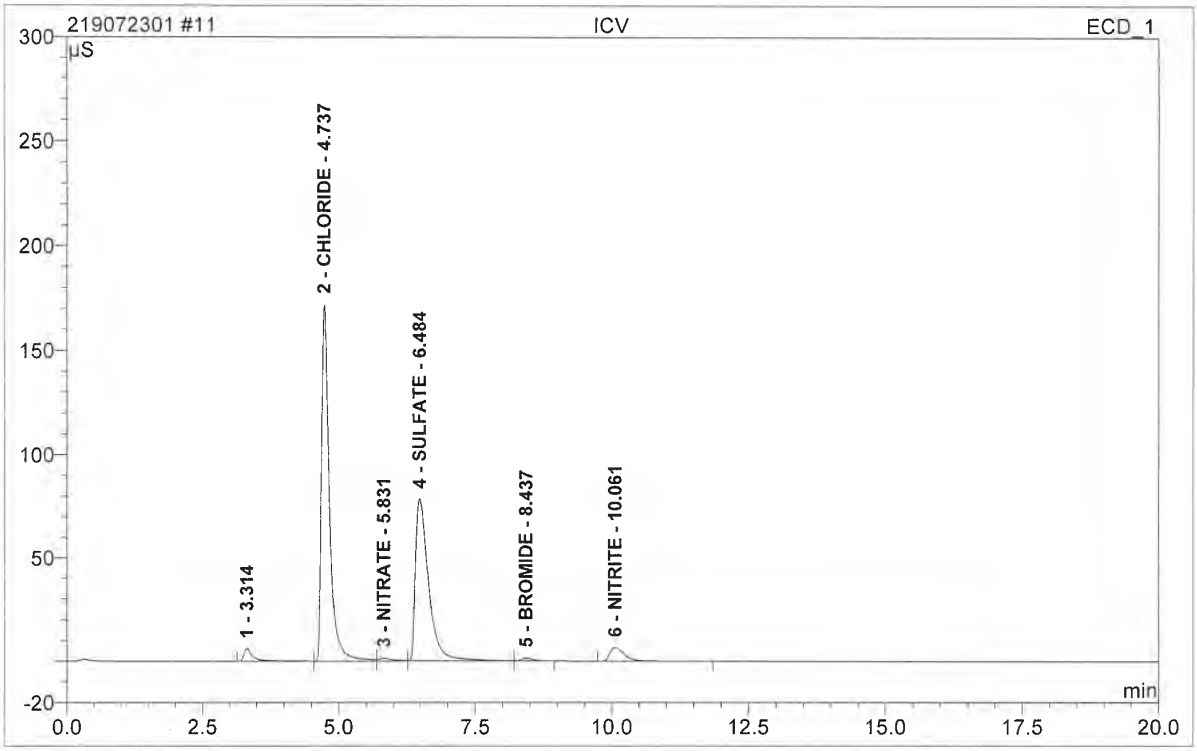




No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	3.26	FLUORIDE	Lin	8	99.9552	0.0000	0.3993	0.0000
2	4.65	CHLORIDE	Lin	8	99.9986	0.0000	0.2966	0.0000
3	5.77	NITRATE	Lin	7	99.8726	0.0000	0.5997	0.0000
4	6.38	SULFATE	Lin	8	99.9987	0.0000	0.2180	0.0000
5	8.35	BROMIDE	Lin	8	99.9582	0.0000	0.1239	0.0000
6	9.97	NITRITE	Lin	7	99.9495	0.0000	0.7267	0.0000
7	14.67	PHOSPHATE	Lin	4	99.8560	0.0000	0.1932	0.0000
Average:					99.9413	0.0000	0.3654	0.0000

11 ICV

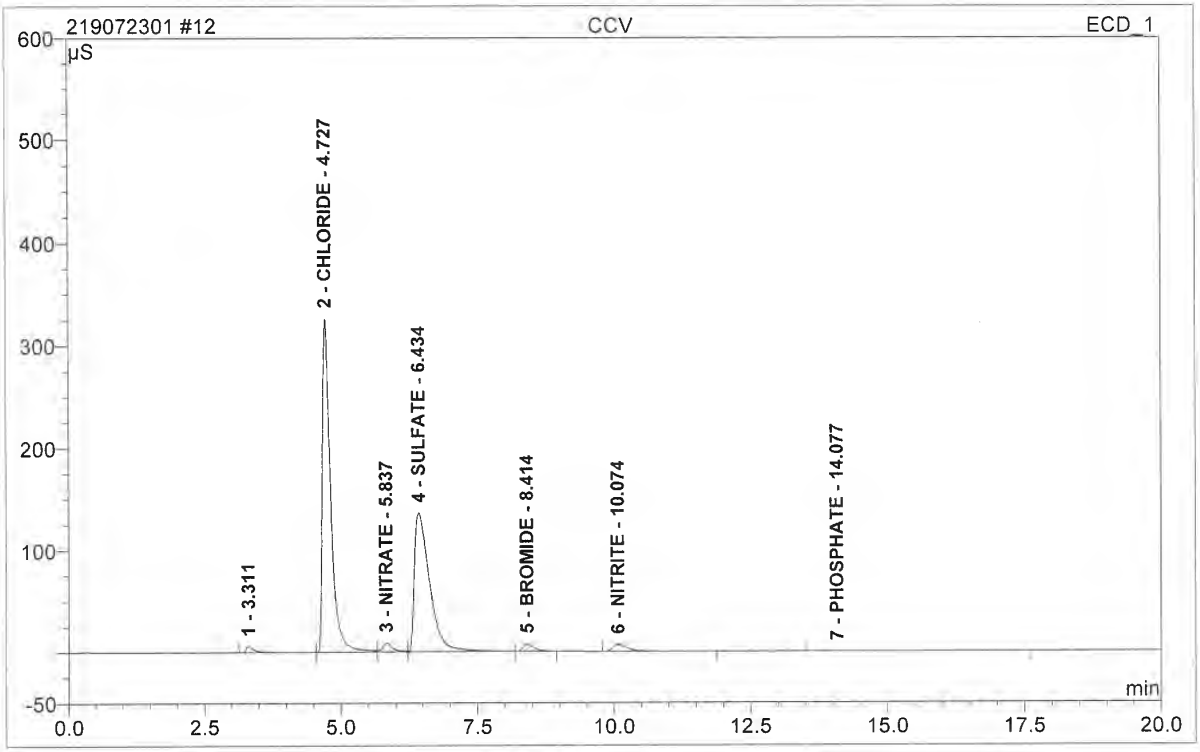
Sample Name:	**ICV**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 9:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.31	n.a.	6.105	1.234	2.23	n.a.	BM
2	4.74	CHLORIDE	171.918	29.140	52.60	98.233	M
3	5.83	NITRATE	1.426	0.419	0.76	0.699	M
4	6.48	SULFATE	78.793	22.176	40.03	101.710	M
5	8.44	BROMIDE	1.505	0.369	0.67	2.974	MB
6	10.06	NITRITE	6.604	2.059	3.72	2.834	BMB
Total:			266.351	55.398	100.00	206.451	

12 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 10:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.31	n.a.	5.897	1.123	1.03	n.a.	BMB
2	4.73	CHLORIDE	325.776	57.319	52.81	193.225	BM
3	5.84	NITRATE	8.906	1.925	1.77	3.211	M
4	6.43	SULFATE	135.952	44.137	40.67	202.433	MB
5	8.41	BROMIDE	7.359	1.693	1.56	13.664	BMB
6	10.07	NITRITE	6.800	2.089	1.92	2.874	BMB
7	14.08	PHOSPHATE	0.164	0.250	0.23	1.296	BMB
Total:			490.853	108.537	100.00	416.703	

anions/Integration

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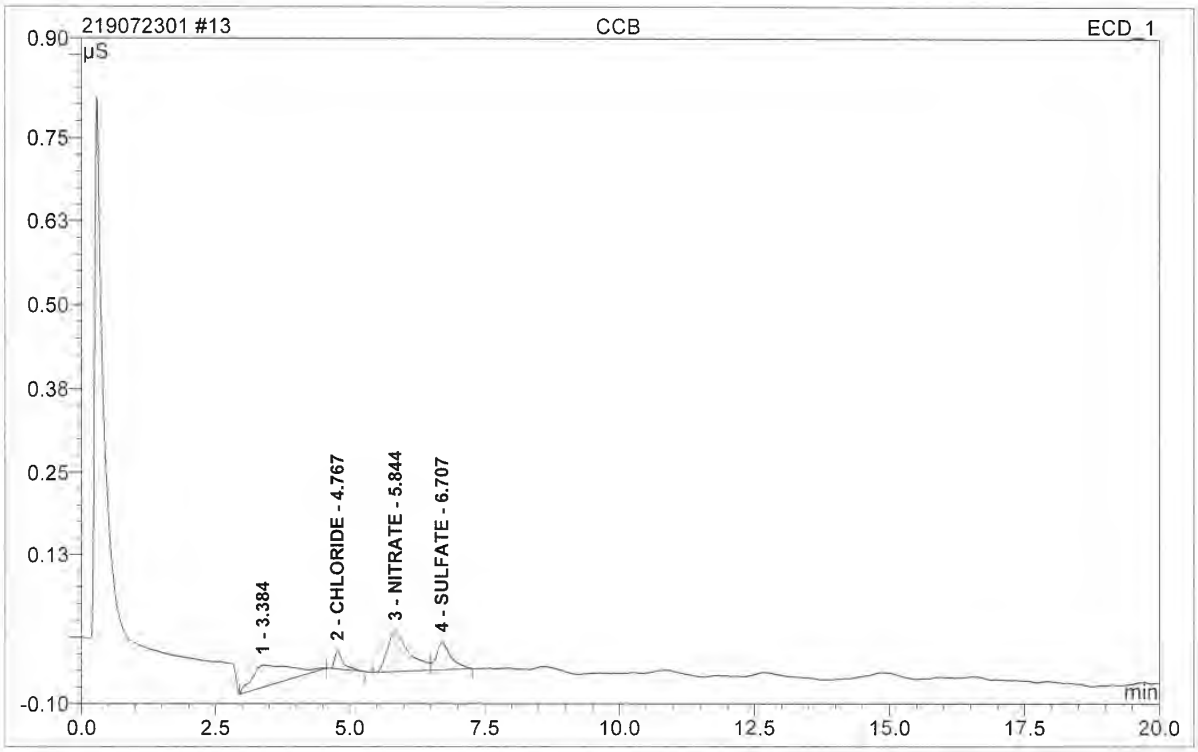
13 CCB

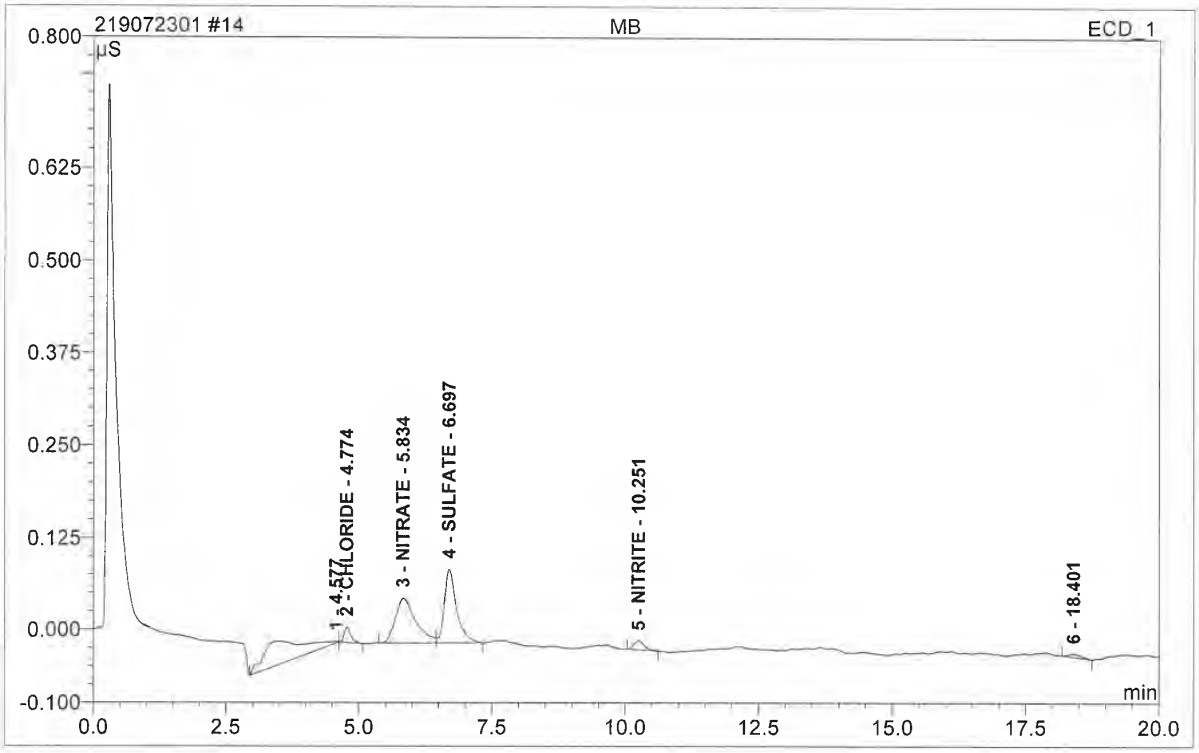
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 10:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.38	n.a.	0.033	0.026	36.28	n.a.	BMB
2	4.77	CHLORIDE	0.026	0.005	6.68	0.016	bMB
3	5.84	NITRATE	0.060	0.028	38.93	0.047	BM
4	6.71	SULFATE	0.041	0.013	18.11	0.060	MB
Total:			0.161	0.072	100.00	0.123	

14 MB

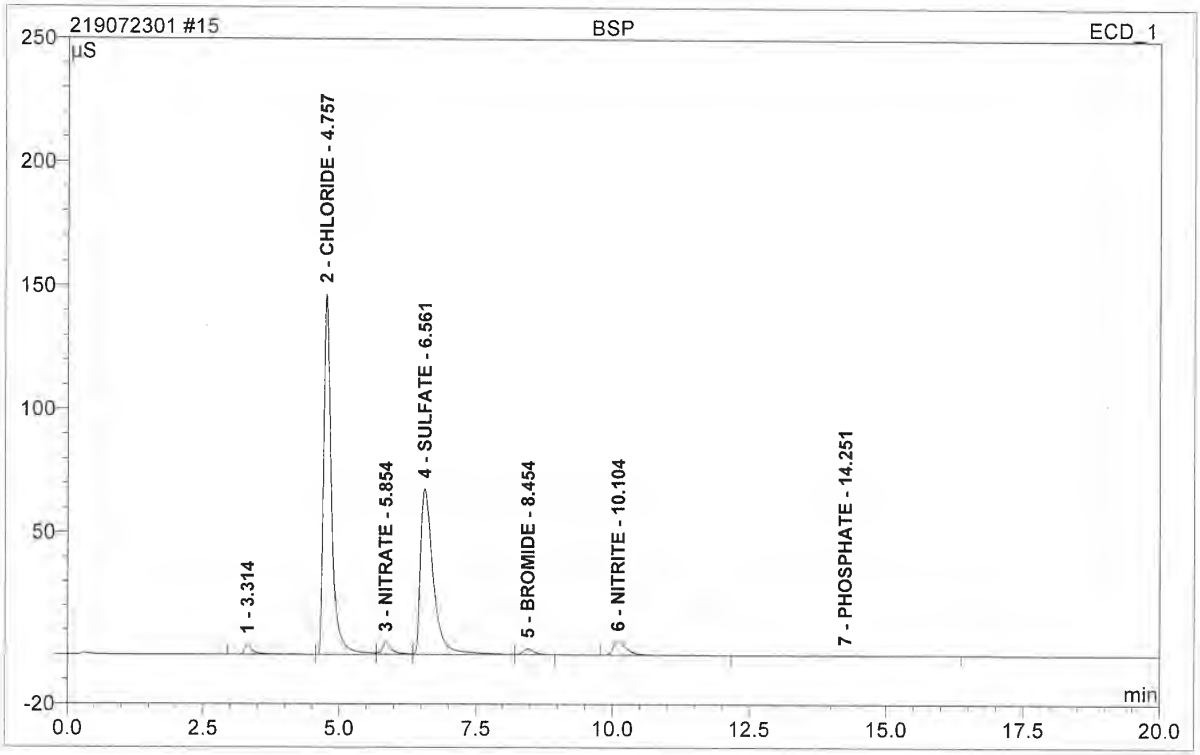
Sample Name:	**MB**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 11:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.58	n.a.	0.002	0.028	31.27	n.a.	BMB
2	4.77	CHLORIDE	0.021	0.003	3.34	0.010	bMB
3	5.83	NITRATE	0.061	0.027	30.40	0.045	BM
4	6.70	SULFATE	0.101	0.027	30.34	0.124	MB
5	10.25	NITRITE	0.012	0.003	3.15	0.004	BMB
6	18.40	n.a.	0.005	0.001	1.51	n.a.	BMB
Total:			0.202	0.089	100.00	0.182	

15 BSP

Sample Name:	**BSP**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 11:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

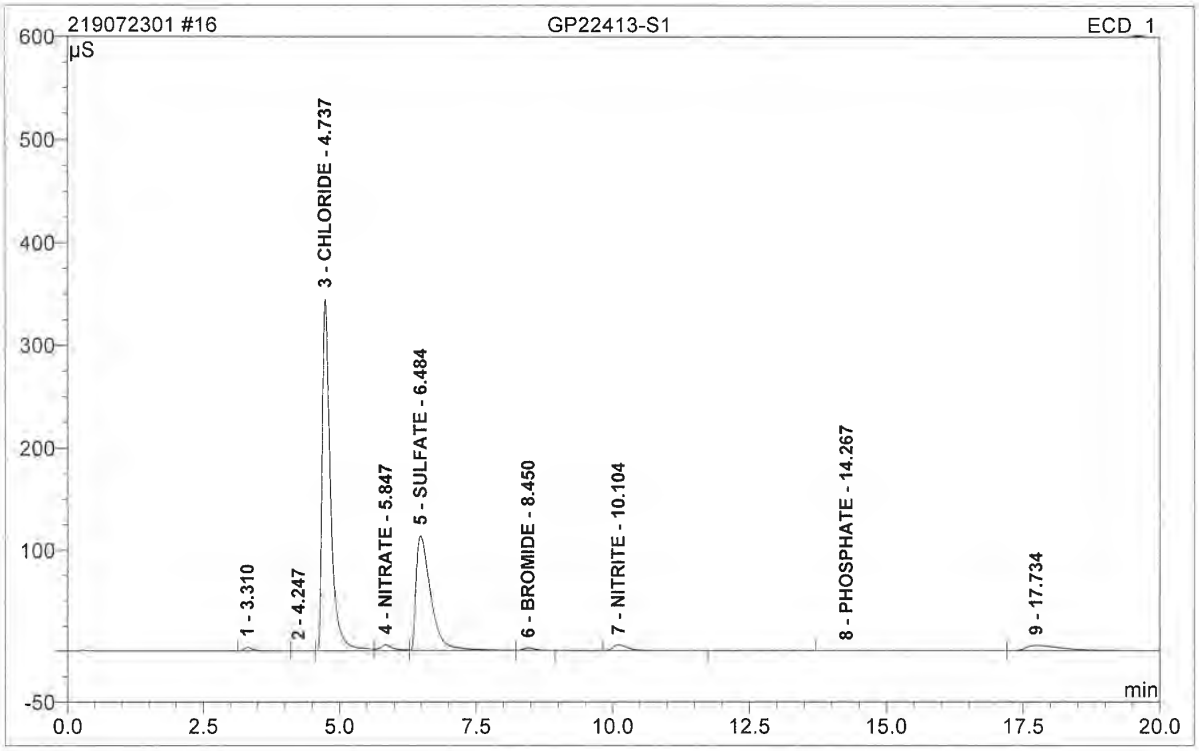


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.31	n.a.	4.060	0.748	1.59	n.a.	BMB
2	4.76	CHLORIDE	146.688	24.470	52.18	82.490	BM
3	5.85	NITRATE	4.844	1.018	2.17	1.698	M
4	6.56	SULFATE	67.699	18.352	39.13	84.169	Mb
5	8.45	BROMIDE	2.401	0.525	1.12	4.237	bMB
6	10.10	NITRITE	5.472	1.657	3.53	2.280	BMB
7	14.25	PHOSPHATE	0.107	0.130	0.28	0.672	BMB
Total:			231.272	46.900	100.00	175.546	

16 GP22413-S1

JC90966-1

Sample Name:	**GP22413-S1**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**7/23/2019 11:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.31	n.a.	3.951	0.727	0.69	n.a.	BM
2	4.25	n.a.	0.076	0.019	0.02	n.a.	MB
3	4.74	CHLORIDE	345.207	61.322	58.08	2067.177	BM
4	5.85	NITRATE	6.087	1.589	1.50	26.497	M
5	6.48	SULFATE	113.892	35.529	33.65	1629.491	Mb
6	8.45	BROMIDE	2.457	0.540	0.51	43.563	bMB
7	10.10	NITRITE	5.717	1.724	1.63	23.725	BMB
8	14.27	PHOSPHATE	0.139	0.223	0.21	11.563	BM
9	17.73	n.a.	5.128	3.915	3.71	n.a.	MB
Total:			482.654	105.587	100.00	3802.015	

anions/Integration

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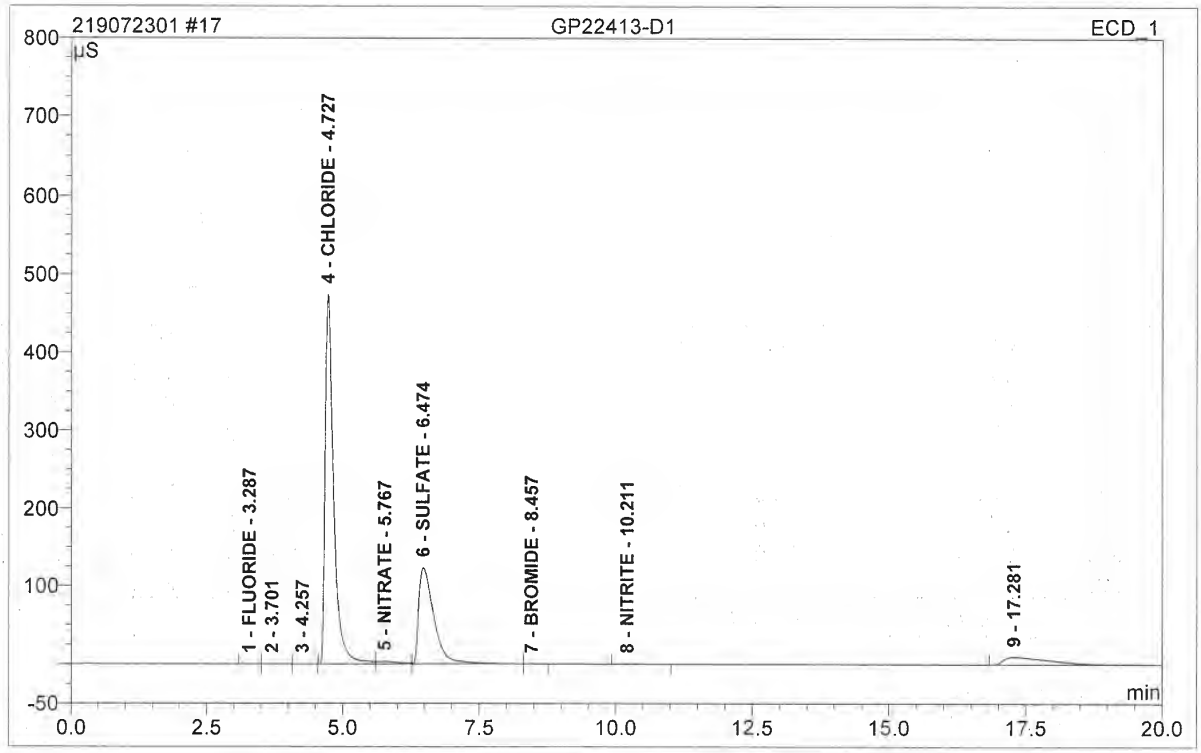
17 GP22413-D1

JC90966-1

Sample Name:	**GP22413-D1**	*Injection Volume:*	**20.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**5.0000**
Recording Time:	**7/23/2019 12:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.29	FLUORIDE	0.092	0.020	0.01	0.248	BM
2	3.70	n.a.	0.066	0.017	0.01	n.a.	MB
3	4.26	n.a.	0.110	0.023	0.02	n.a.	BMB
4	4.73	CHLORIDE	474.484	85.733	62.94	1445.053	BM
5	5.77	NITRATE	2.956	1.333	0.98	11.116	M
6	6.47	SULFATE	123.009	39.534	29.02	906.610	Mb
7	8.46	BROMIDE	0.126	0.024	0.02	0.975	bMB
8	10.21	NITRITE	0.353	0.098	0.07	0.672	BMB
9	17.28	n.a.	9.551	9.431	6.92	n.a.	BMB
Total:			610.747	136.213	100.00	2364.673	

anions/Integration

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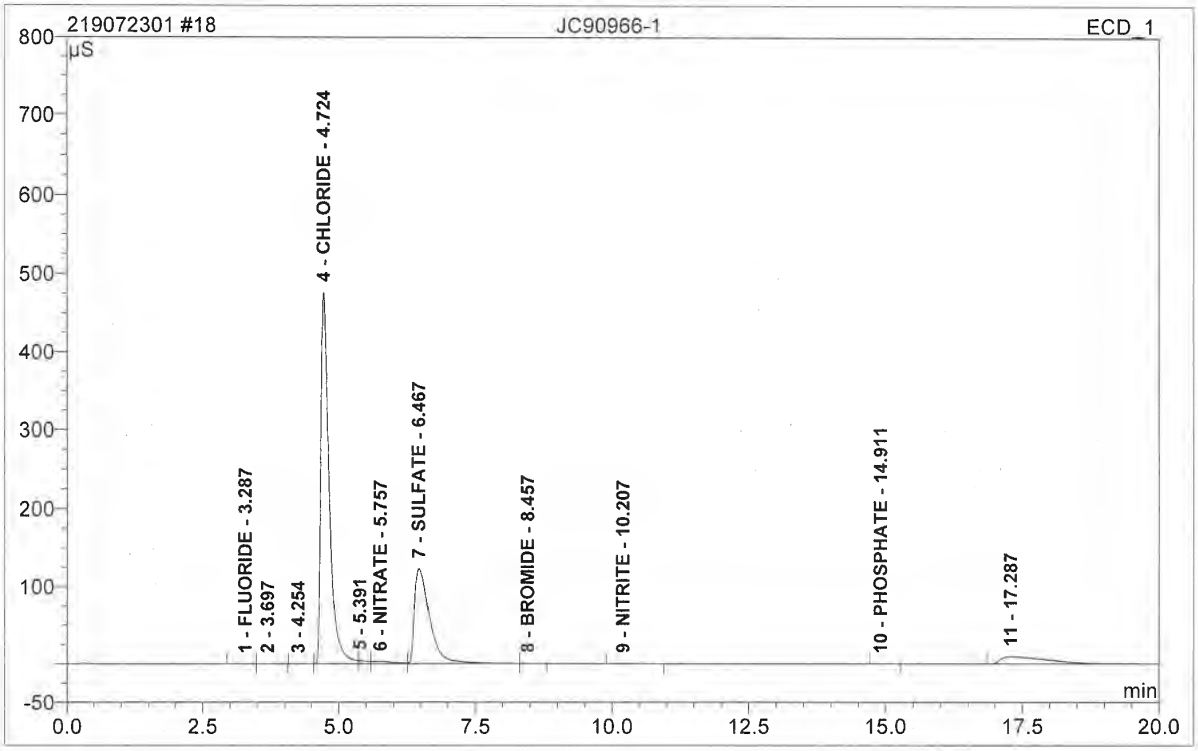
18 JC90966-1

Sample Name:	**JC90966-1**	*Injection Volume:*	**20.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**5.0000**
Recording Time:	**7/23/2019 12:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

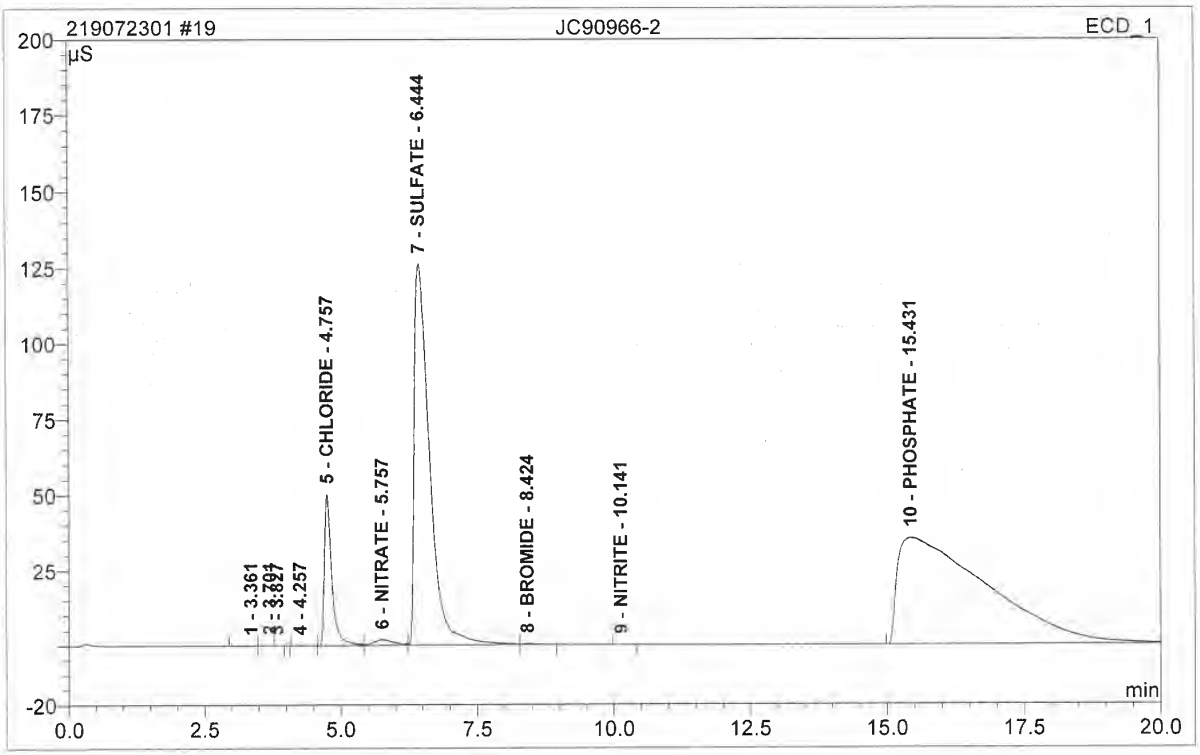


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.29	FLUORIDE	0.096	0.019	0.01	0.241	BM
2	3.70	n.a.	0.067	0.019	0.01	n.a.	MB
3	4.25	n.a.	0.102	0.021	0.02	n.a.	BMB
4	4.72	CHLORIDE	476.216	85.000	62.41	1432.702	BM
5	5.39	n.a.	3.840	0.720	0.53	n.a.	M
6	5.76	NITRATE	2.941	1.344	0.99	11.210	M
7	6.47	SULFATE	122.859	39.545	29.03	906.849	Mb
8	8.46	BROMIDE	0.134	0.026	0.02	1 055	bMB
9	10.21	NITRITE	0.339	0.092	0.07	0.630	BMB
10	14.91	PHOSPHATE	0.007	0.002	0.00	0.053	BMB
11	17.29	n.a.	9.318	9.418	6.91	n.a.	BMB

Total:		615.919	136.207	100.00	2352.740

19 JC90966-2

Sample Name:	**JC90966-2**	*Injection Volume:*	**20.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**5.0000**
Recording Time:	**7/23/2019 13:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.36	n.a.	0.052	0.013	0.01	n.a.	BM
2	3.70	n.a.	0.074	0.020	0.02	n.a.	MB
3	3.83	n.a.	0.013	0.001	0.00	n.a.	Rd
4	4.26	n.a.	0.128	0.028	0.02	n.a.	BMB
5	4.76	CHLORIDE	50.264	7.972	6.78	134.374	BM
6	5.76	NITRATE	1.871	0.816	0.69	6.802	M
7	6.44	SULFATE	126.175	41.136	34.99	943.336	M
8	8.42	BROMIDE	0.327	0.103	0.09	4.139	MB
9	10.14	NITRITE	0.014	0.003	0.00	0.020	BMB
10	15.43	PHOSPHATE	35.385	67.476	57.39	1746.603	BMB
Total:			214.303	117.568	100.00	2835.275	

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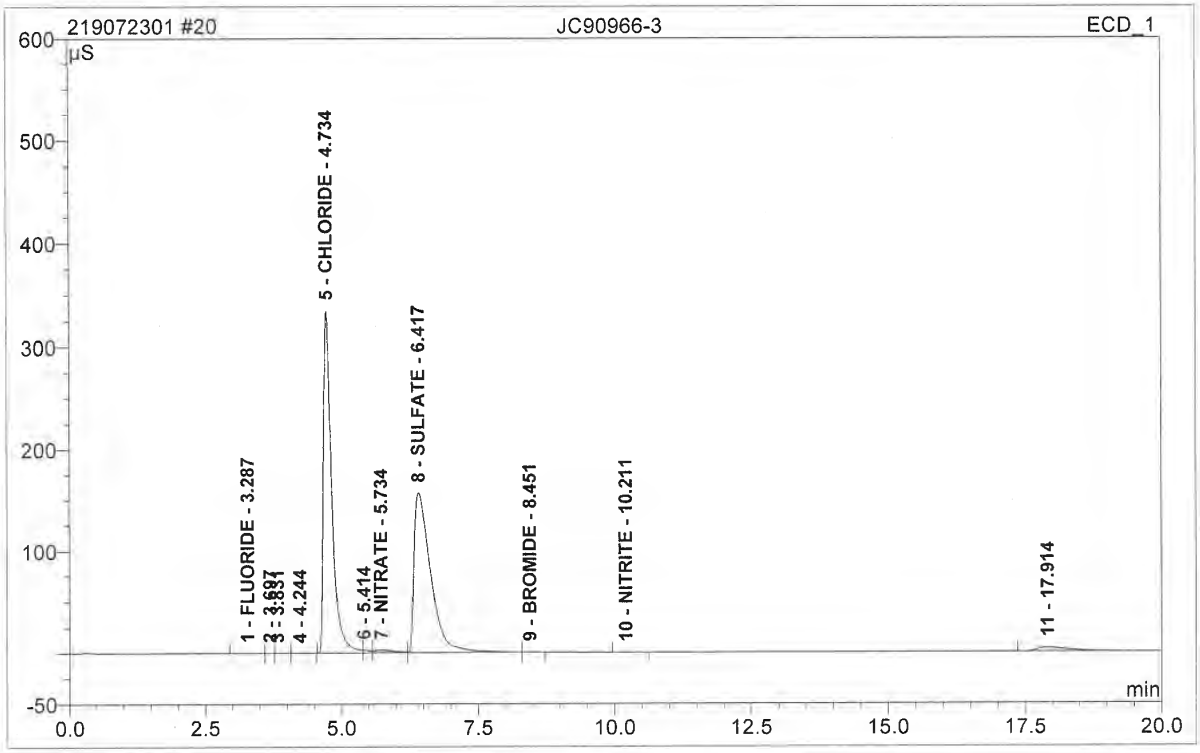
20 JC90966-3

Sample Name:	**JC90966-3**	*Injection Volume:*	**20.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**5.0000**
Recording Time:	**7/23/2019 13:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.29	FLUORIDE	0.141	0.034	0.03	0.429	BM
2	3.70	n.a.	0.067	0.010	0.01	n.a.	M
3	3.83	n.a.	0.058	0.010	0.01	n.a.	M
4	4.24	n.a.	0.038	0.009	0.01	n.a.	MB
5	4.73	CHLORIDE	334.594	59.207	49.83	997.945	BM
6	5.41	n.a.	2.644	0.411	0.35	n.a.	M
7	5.73	NITRATE	2.680	1.159	0.98	9.661	M
8	6.42	SULFATE	156.799	55.200	46.45	1265.849	Mb
9	8.45	BROMIDE	0.172	0.033	0.03	1.317	bMB
10	10.21	NITRITE	0.033	0.009	0.01	0.062	BMB
11	17.91	n.a.	3.840	2.748	2.31	n.a.	BMB

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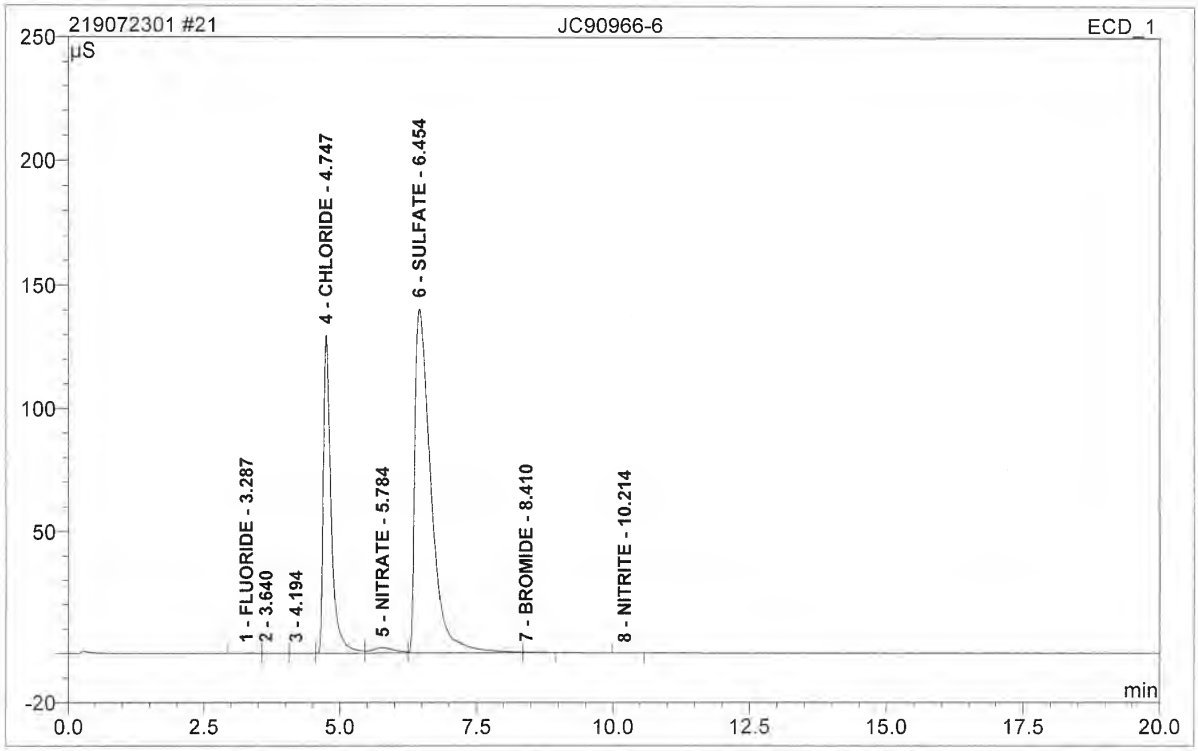
Total:		501.066	118.828	100.00	2275.263

21 JC90966-6

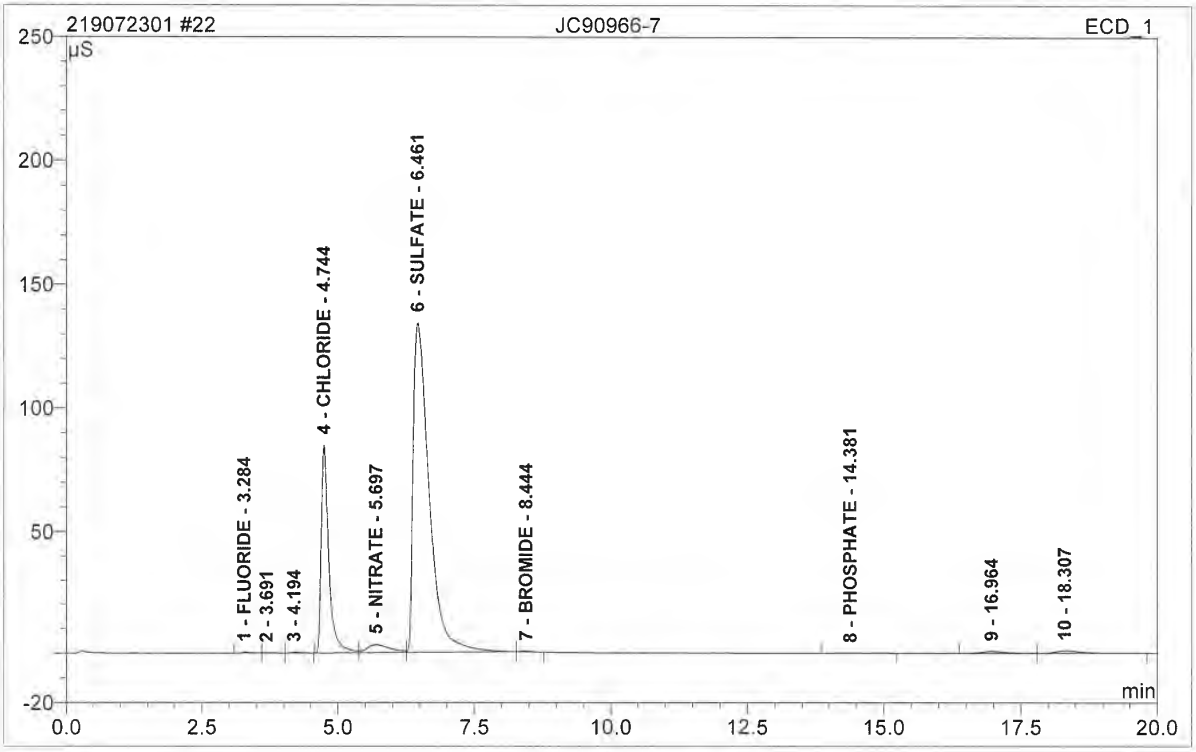
Sample Name:	**JC90966-6**	*Injection Volume:*	**20.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**5.0000**
Recording Time:	**7/23/2019 13:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.29	FLUORIDE	0.184	0.042	0.06	0.531	BM
2	3.64	n.a.	0.056	0.018	0.03	n.a.	M
3	4.19	n.a.	0.021	0.006	0.01	n.a.	MB
4	4.75	CHLORIDE	130.023	21.650	30.46	364.907	BM
5	5.78	NITRATE	2.301	1.079	1.52	8.993	M
6	6.45	SULFATE	140.586	48.192	67.80	1105.156	M
7	8.41	BROMIDE	0.287	0.084	0.12	3.404	MB
8	10.21	NITRITE	0.029	0.007	0.01	0.051	BMB
Total:			273.487	71.078	100.00	1483.042	

22 JC90966-7

Sample Name:	**JC90966-7**	*Injection Volume:*	**20.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**5.0000**
Recording Time:	**7/23/2019 14:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.28	FLUORIDE	0.425	0.079	0.13	0.989	BM
2	3.69	n.a.	0.105	0.024	0.04	n.a.	M
3	4.19	n.a.	0.325	0.059	0.10	n.a.	MB
4	4.74	CHLORIDE	84.997	13.749	22.09	231.736	BM
5	5.70	NITRATE	3.225	1.541	2.48	12.852	M
6	6.46	SULFATE	134.354	45.760	73.53	1049.369	Mb
7	8.44	BROMIDE	0.355	0.070	0.11	2.830	bMB
8	14.38	PHOSPHATE	0.027	0.019	0.03	0.480	BMB
9	16.96	n.a.	0.758	0.352	0.57	n.a.	BM
10	18.31	n.a.	1.040	0.582	0.94	n.a.	MB
Total:			225.612	62.234	100.00	1298.257	

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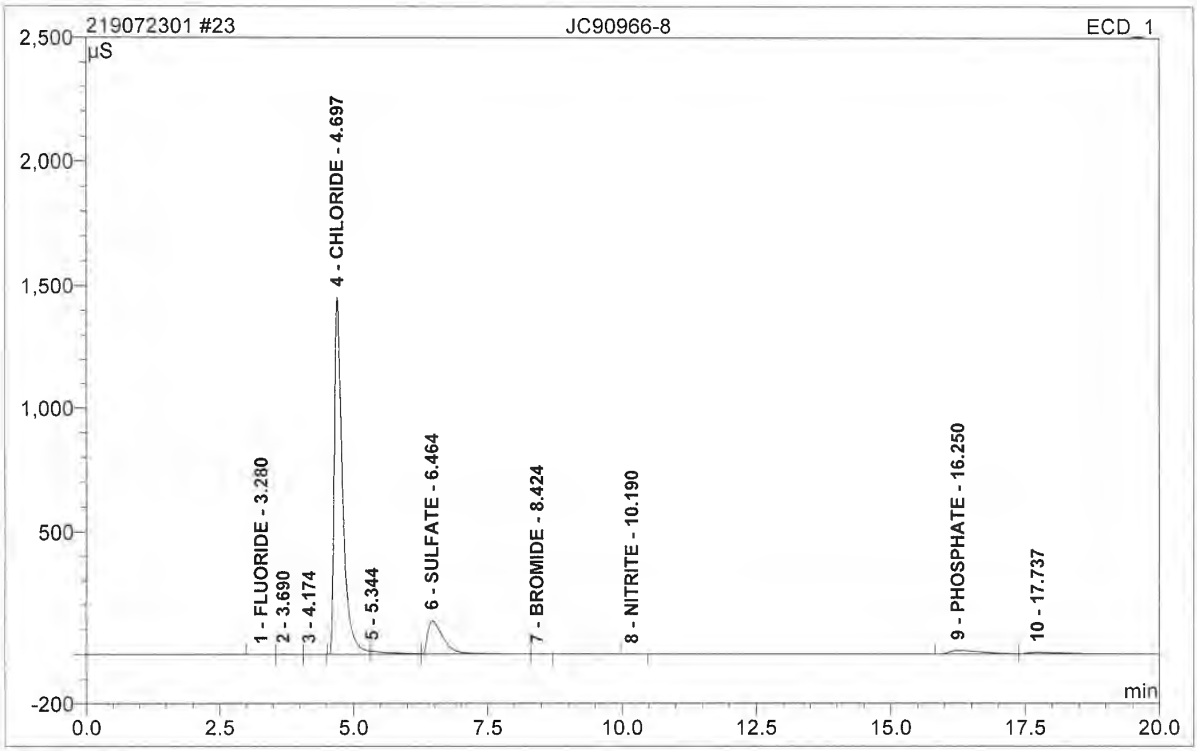
23 JC90966-8

Sample Name:	**JC90966-8**	*Injection Volume:*	**20.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**7/23/2019 14:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.28	FLUORIDE	0.089	0.020	0.01	0.151	BM
2	3.69	n.a.	0.445	0.074	0.02	n.a.	M
3	4.17	n.a.	0.036	0.008	0.00	n.a.	MB
4	4.70	CHLORIDE	1453.673	258.797	79.65	2617.247	BM
5	5.34	n.a.	12.821	5.194	1.60	n.a.	M
6	6.46	SULFATE	135.930	46.067	14.18	633.849	Mb
7	8.42	BROMIDE	0.142	0.027	0.01	0.646	bMB
8	10.19	NITRITE	0.046	0.011	0.00	0.045	BMB
9	16.25	PHOSPHATE	14.240	9.670	2.98	150.184	BM
10	17.74	n.a.	6.205	5.067	1.56	n.a.	MB
Total:			1623.628	324.934	100.00	3402.123	

anions/Integration

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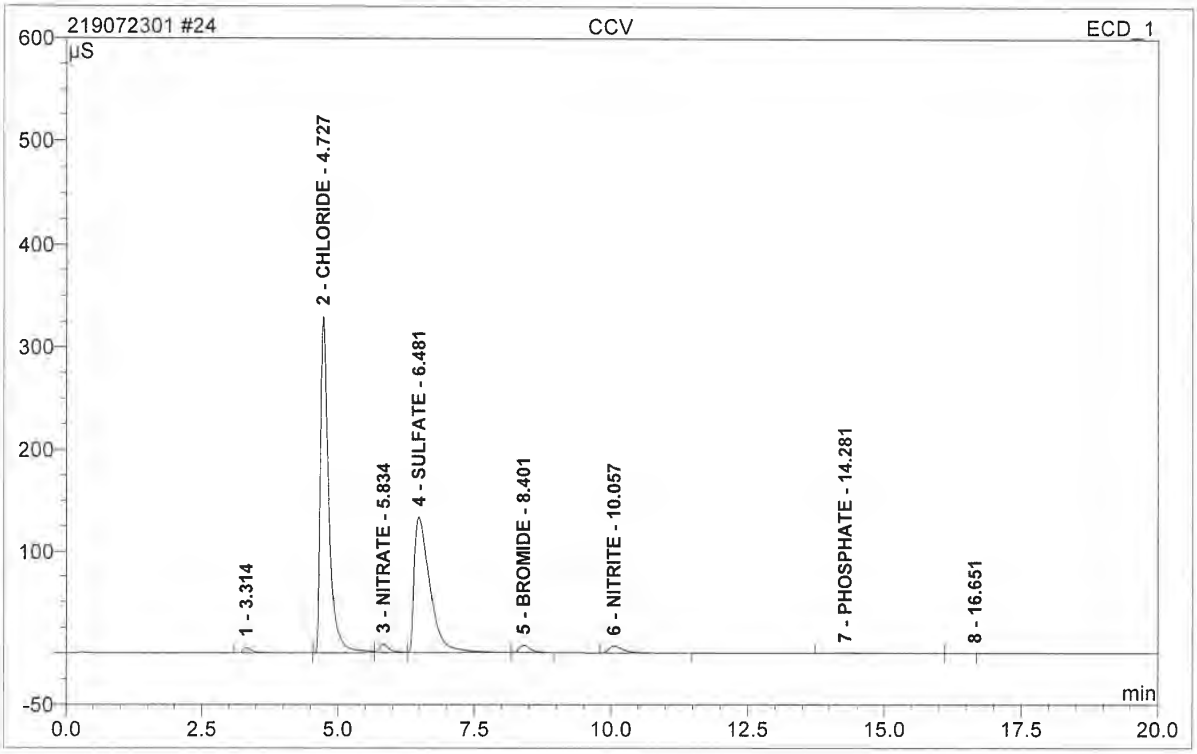
24 CCV

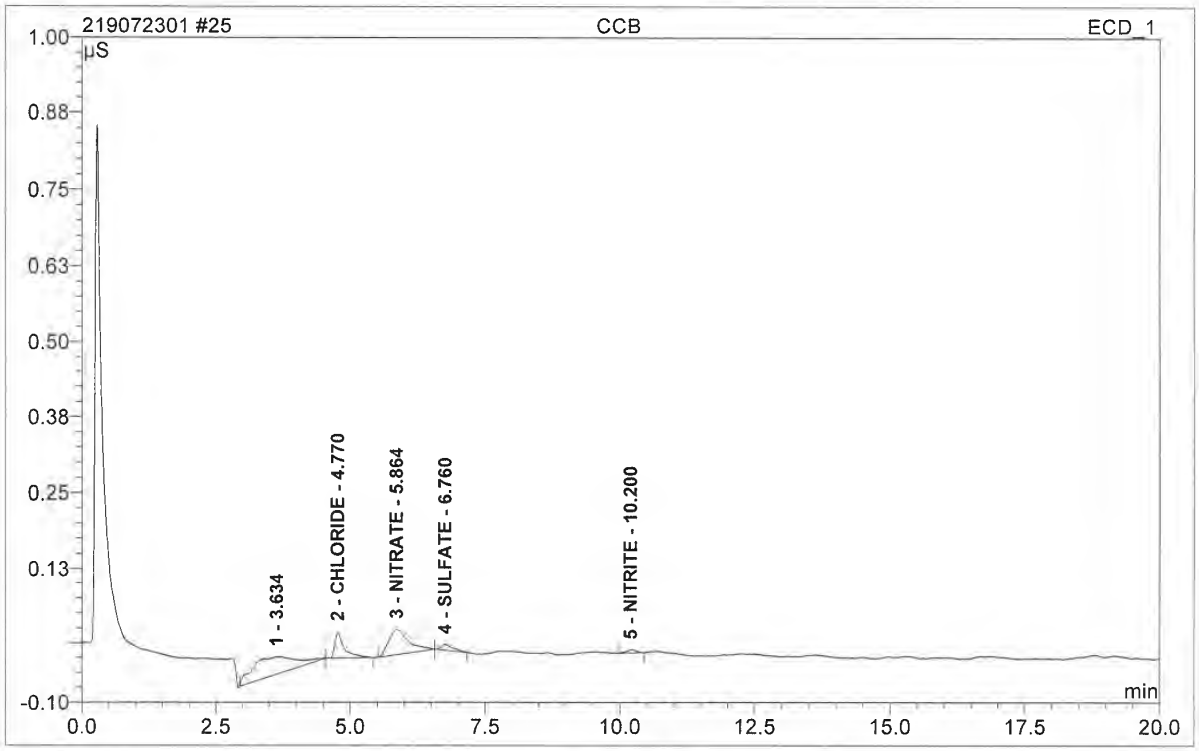
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 15:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.31	n.a.	5.735	1.102	1.00	n.a.	BMB
2	4.73	CHLORIDE	329.962	58.860	53.32	198.418	BM
3	5.83	NITRATE	8.714	1.866	1.69	3.112	M
4	6.48	SULFATE	133.700	44.385	40.21	203.570	Mb
5	8.40	BROMIDE	7.378	1.704	1.54	13.749	bMB
6	10.06	NITRITE	6.797	2.087	1.89	2.871	BMB
7	14.28	PHOSPHATE	0.383	0.375	0.34	1.940	BM
8	16.65	n.a.	0.000	0.006	0.01	n.a.	MB
Total:			492.670	110.384	100.00	423.661	

25 CCB

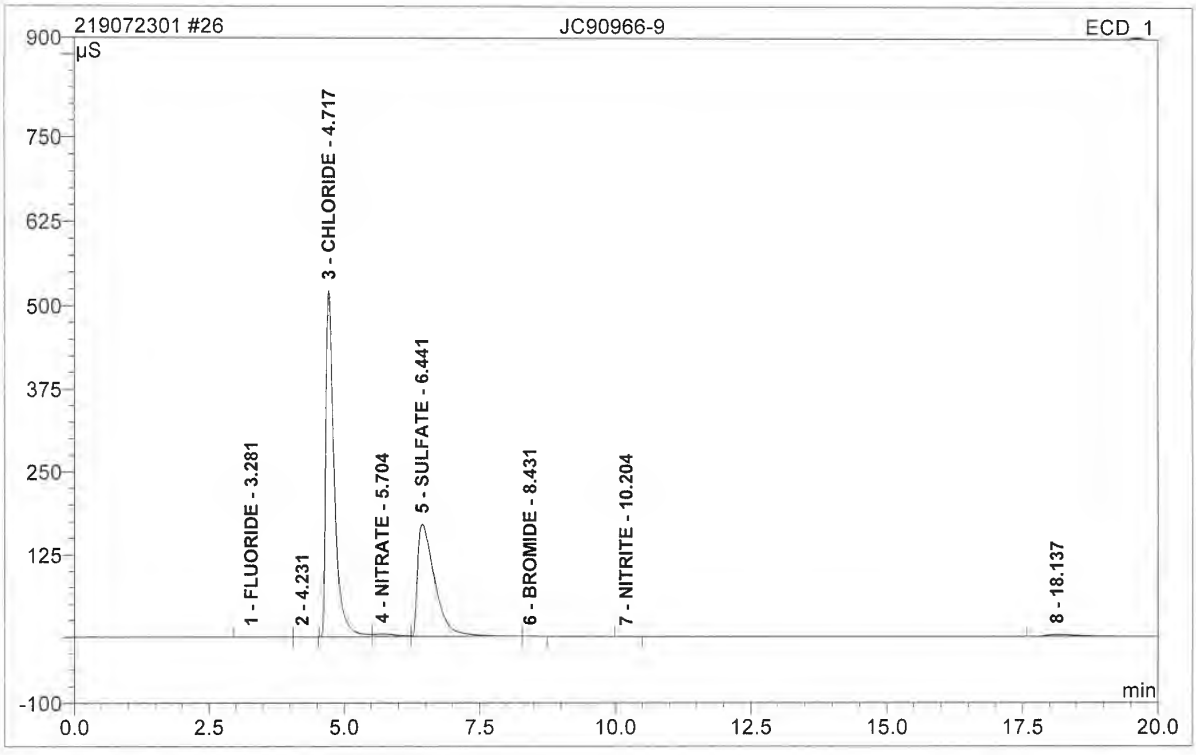
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 15:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.63	n.a.	0.029	0.028	47.88	n.a.	BMB
2	4.77	CHLORIDE	0.045	0.009	15.36	0.030	bMB
3	5.86	NITRATE	0.042	0.018	30.49	0.030	BMB
4	6.76	SULFATE	0.010	0.002	4.23	0.011	bMB
5	10.20	NITRITE	0.005	0.001	2.03	0.002	BMB
Total:			0.131	0.059	100.00	0.073	

26 JC90966-9

Sample Name:	**JC90966-9**	*Injection Volume:*	**20.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**7/23/2019 15:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.28	FLUORIDE	0.108	0.034	0.02	0.172	BM
2	4.23	n.a.	0.044	0.009	0.01	n.a.	MB
3	4.72	CHLORIDE	522.686	95.358	58.84	642.909	BM
4	5.70	NITRATE	4.213	2.037	1.26	6.795	M
5	6.44	SULFATE	170.679	62.642	38.65	574.607	Mb
6	8.43	BROMIDE	0.210	0.040	0.02	0.651	bMB
7	10.20	NITRITE	0.040	0.010	0.01	0.027	BMB
8	18.14	n.a.	2.853	1.941	1.20	n.a.	BMB
Total:			700.834	162.071	100.00	1225.160	

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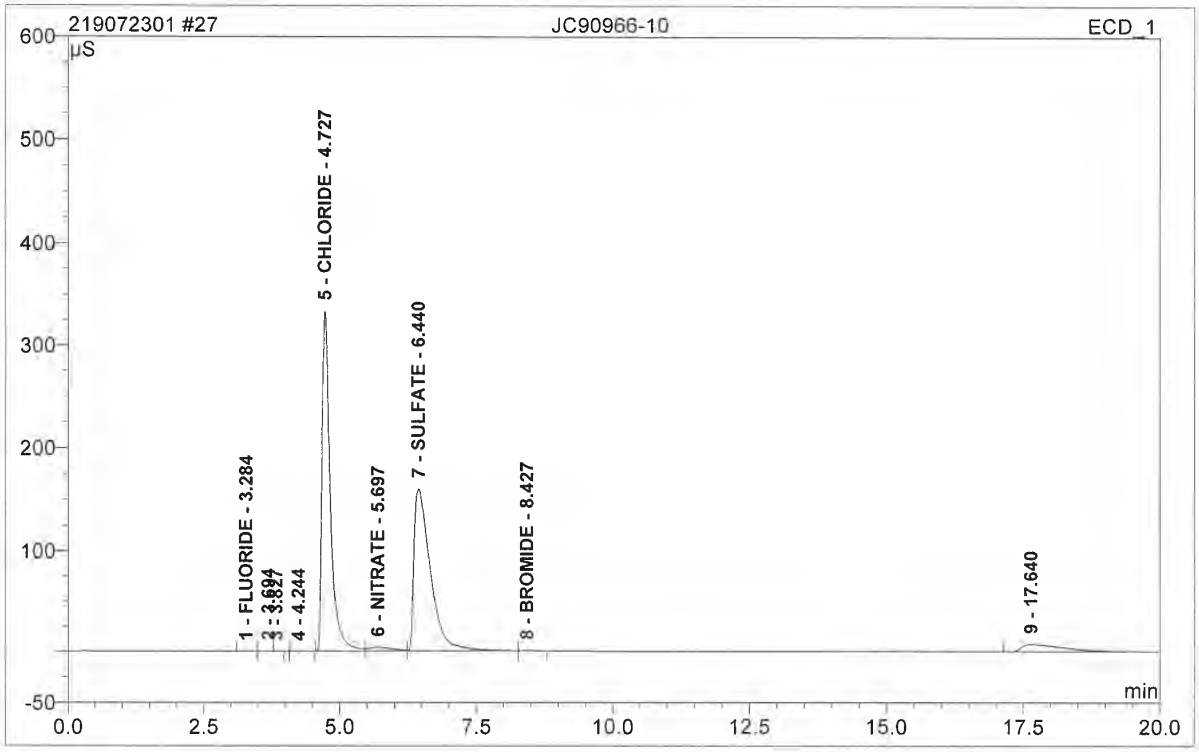
27 JC90966-10

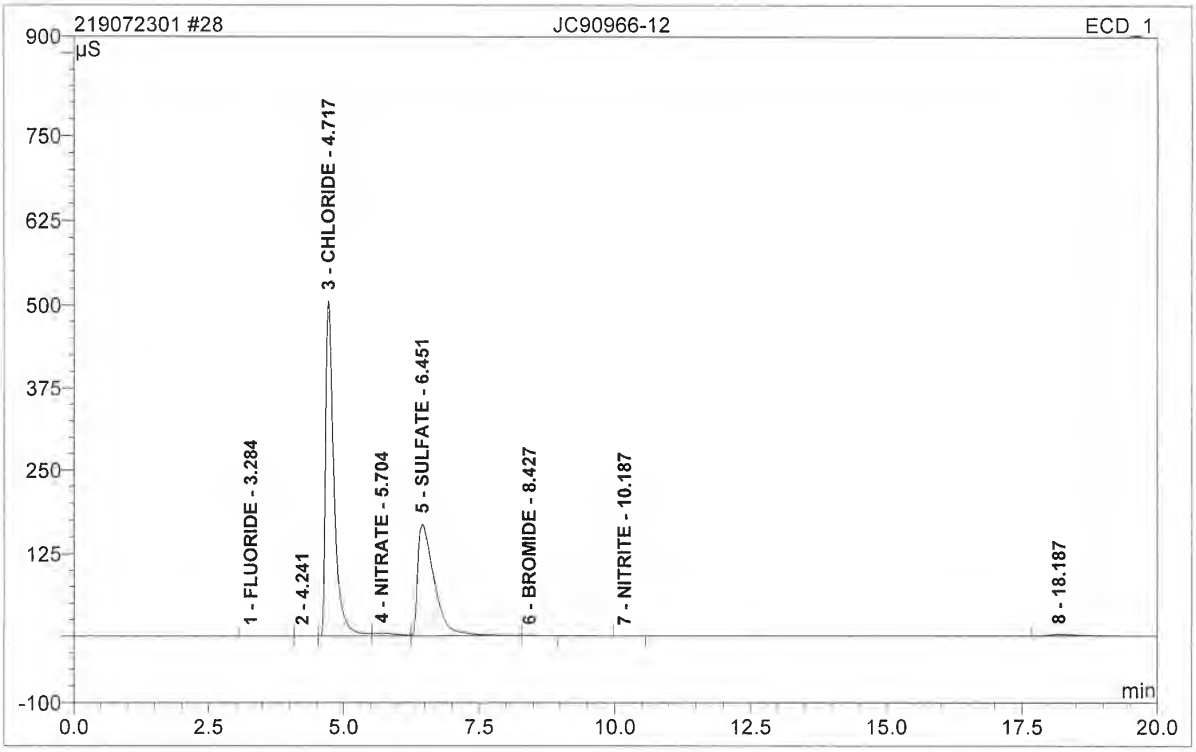
Sample Name:	**JC90966-10**	*Injection Volume:*	**20.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**7/23/2019 16:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.28	FLUORIDE	0.227	0.039	0.03	0.197	BM
2	3.69	n.a.	0.096	0.028	0.02	n.a.	MB
3	3.83	n.a.	0.019	0.002	0.00	n.a.	Rd
4	4.24	n.a.	0.095	0.020	0.02	n.a.	BMB
5	4.73	CHLORIDE	333.746	59.020	47.66	397.919	BM
6	5.70	NITRATE	3.832	1.914	1.55	6.385	M
7	6.44	SULFATE	159.927	56.149	45.34	515.047	Mb
8	8.43	BROMIDE	0.351	0.069	0.06	1.107	bMB
9	17.64	n.a.	7.304	6.590	5.32	n.a.	BMB
Total:			505.598	123.832	100.00	920.656	

28 JC90966-12

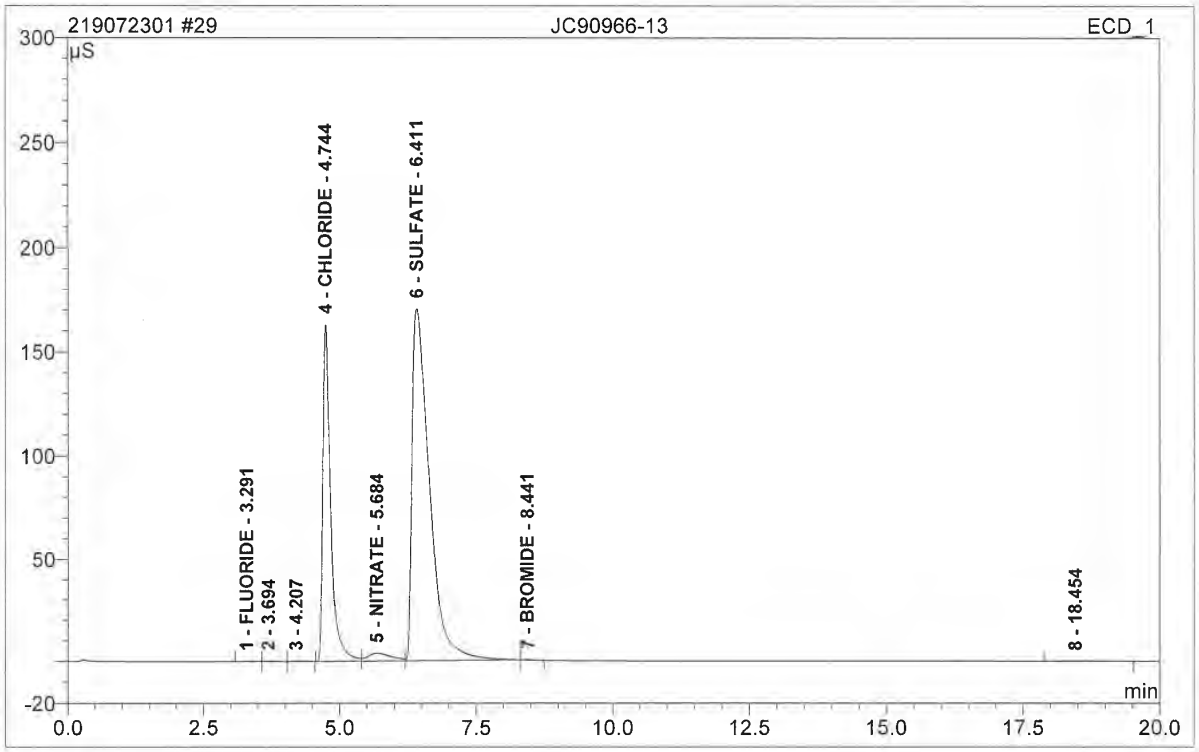
Sample Name:	**JC90966-12**	*Injection Volume:*	**20.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**7/23/2019 16:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.28	FLUORIDE	0.099	0.032	0.02	0.163	BMB
2	4.24	n.a.	0.037	0.007	0.00	n.a.	BMB
3	4.72	CHLORIDE	506.177	91.494	58.71	616.862	BM
4	5.70	NITRATE	4.190	2.070	1.33	6.905	M
5	6.45	SULFATE	168.648	60.458	38.79	554.571	M
6	8.43	BROMIDE	0.510	0.163	0.10	2.626	MB
7	10.19	NITRITE	0.038	0.010	0.01	0.027	BMB
8	18.19	n.a.	2.487	1.609	1.03	n.a.	BMB
Total:			682.185	155.844	100.00	1181.154	

29 JC90966-13

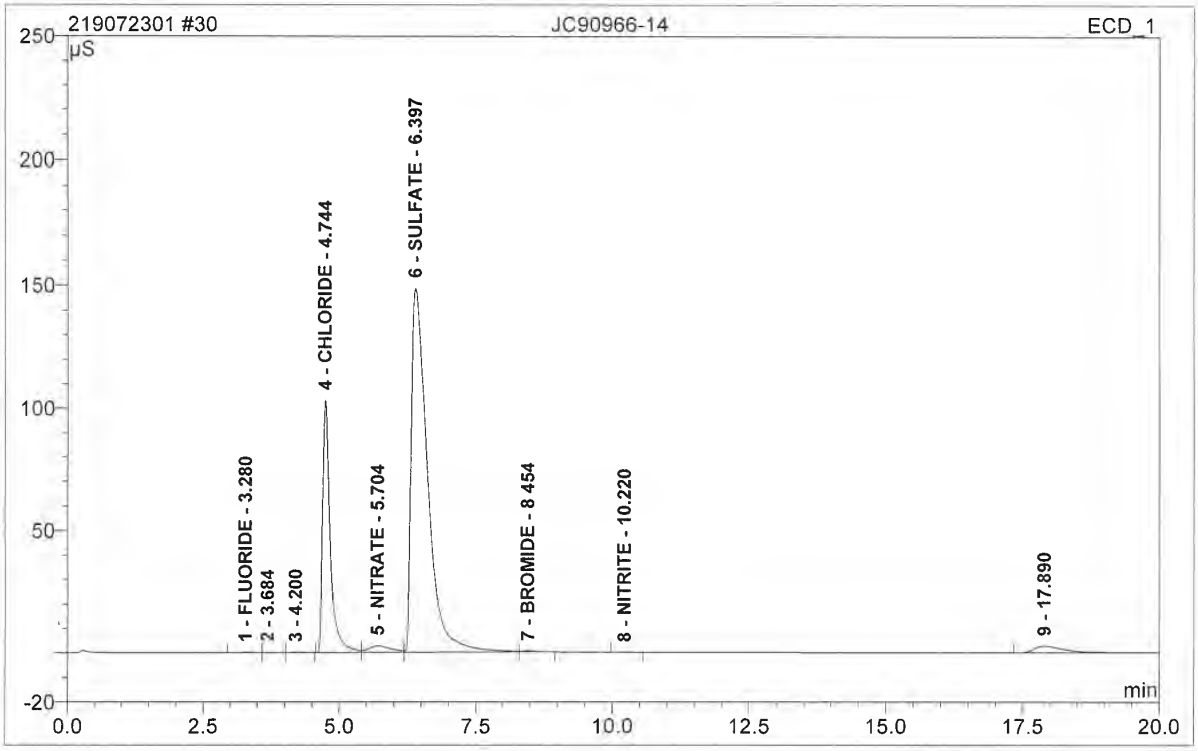
Sample Name:	**JC90966-13**	*Injection Volume:*	**20.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**5.0000**
Recording Time:	**7/23/2019 17:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.29	FLUORIDE	0.088	0.022	0.02	0.279	BM
2	3.69	n.a.	0.040	0.011	0.01	n.a.	M
3	4.21	n.a.	0.093	0.018	0.02	n.a.	MB
4	4.74	CHLORIDE	163.054	27.331	29.56	460.677	BM
5	5.68	NITRATE	3.709	1.819	1.97	15.167	M
6	6.41	SULFATE	170.365	63.194	68.34	1449.170	Mb
7	8.44	BROMIDE	0.178	0.034	0.04	1.365	bMB
8	18.45	n.a.	0.065	0.040	0.04	n.a.	BMB
Total:			337.592	92.469	100.00	1926.657	

30 JC90966-14

Sample Name:	**JC90966-14**	*Injection Volume:*	**20.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**7/23/2019 17:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



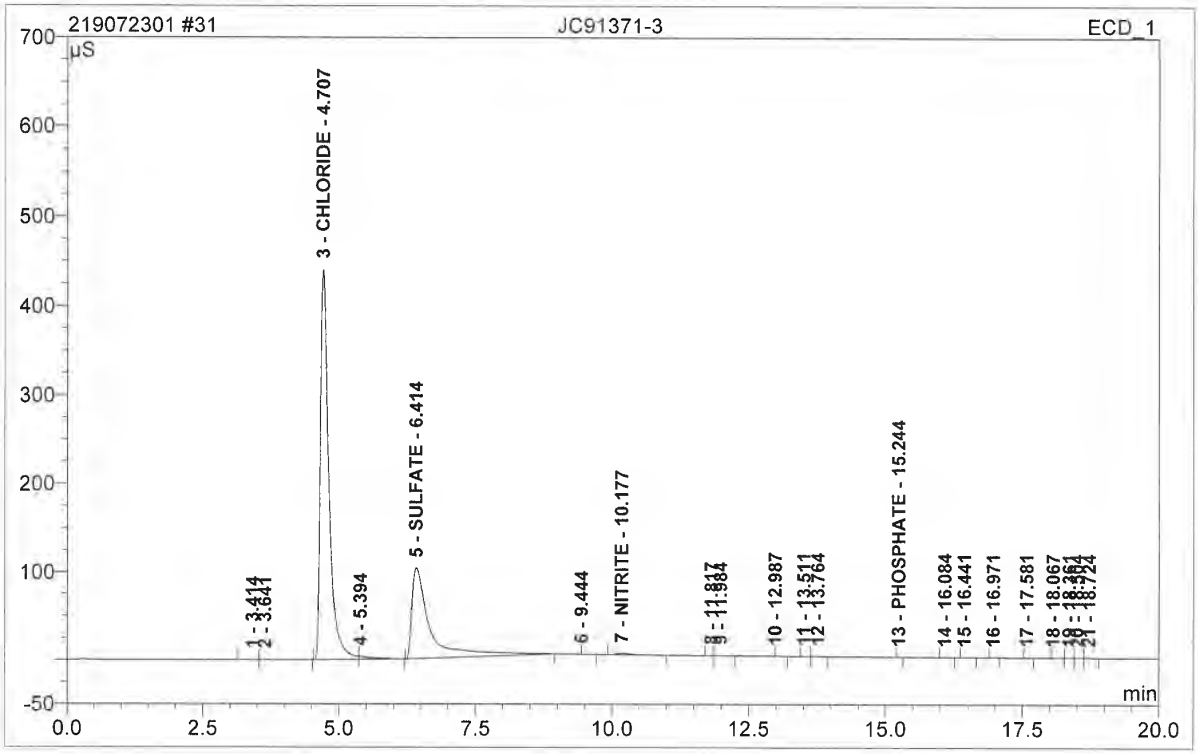
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.28	FLUORIDE	0.195	0.040	0.06	0.304	BM
2	3.68	n.a.	0.041	0.010	0.01	n.a.	M
3	4.20	n.a.	0.140	0.028	0.04	n.a.	MB
4	4.74	CHLORIDE	103.266	16.965	23.53	171.569	BM
5	5.70	NITRATE	2.762	1.283	1.78	6.417	M
6	6.40	SULFATE	148.610	51.841	71.91	713.289	M
7	8.45	BROMIDE	0.480	0.144	0.20	3.479	MB
8	10.22	NITRITE	0.046	0.012	0.02	0.048	BMB
9	17.89	n.a.	2.753	1.767	2.45	n.a.	BMB
Total:			258.294	72.089	100.00	895.106	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

31 JC91371-3

Sample Name:	**JC91371-3**	*Injection Volume:*	**20.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**7/23/2019 17:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.41	n.a.	0.136	0.029	0.02	n.a.	BM
2	3.64	n.a.	0.231	0.055	0.04	n.a.	MB
3	4.71	CHLORIDE	440.178	79.820	65.56	807.234	BM
4	5.39	n.a.	3.302	1.093	0.90	n.a.	MB
5	6.41	SULFATE	103.020	40.105	32.94	551.813	BMB
6	9.44	n.a.	0.000	0.008	0.01	n.a.	BMB
7	10.18	NITRITE	1.827	0.540	0.44	2.231	BMB
8	11.82	n.a.	0.067	0.006	0.01	n.a.	BM
9	11.98	n.a.	0.140	0.032	0.03	n.a.	MB
10	12.99	n.a.	0.000	0.003	0.00	n.a.	BMB
11	13.51	n.a.	0.030	0.002	0.00	n.a.	BMb

anions/Integration

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Version 6.80 SR9a Build 2680 (163077)

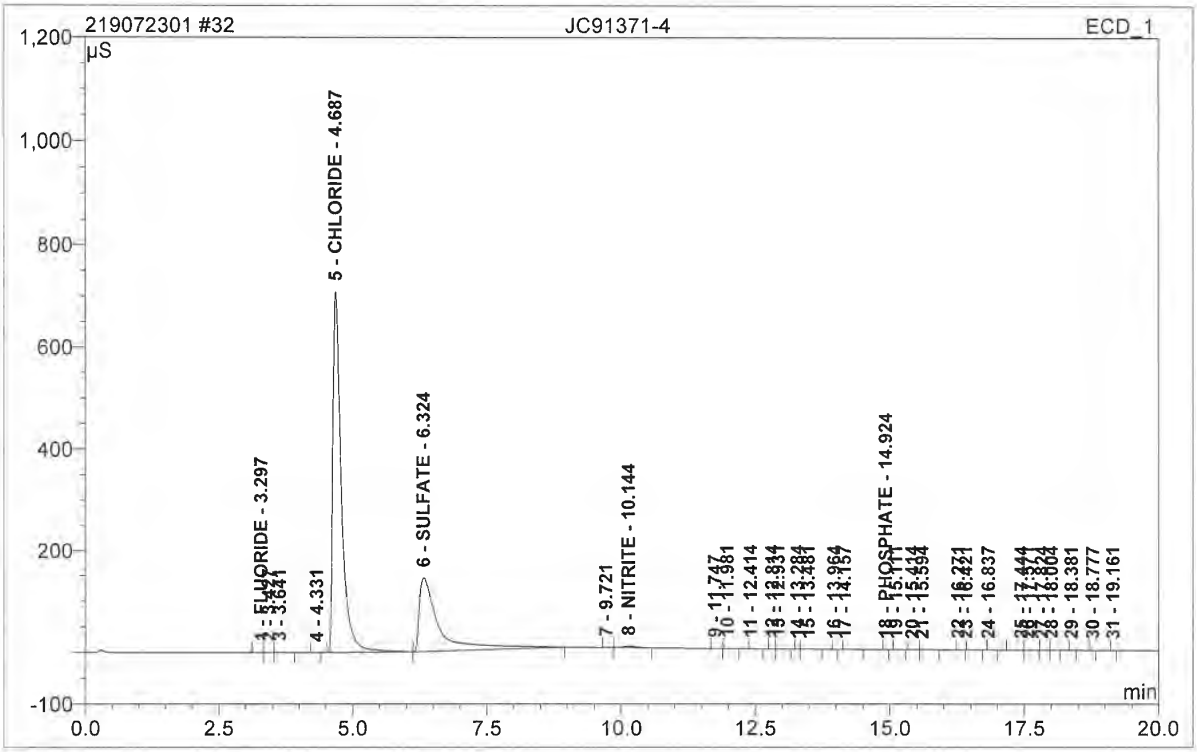
12	13.76	n.a.	0.085	0.016	0.01	n.a.	bMB
13	15.24	PHOSPHATE	0.021	0.001	0.00	0.018	BMB
14	16.08	n.a.	0.042	0.007	0.01	n.a	BMB
15	16.44	n.a.	0.033	0.006	0.00	n.a	BMB
16	16.97	n.a.	0.022	0.002	0.00	n.a.	BMB
17	17.58	n.a.	0.015	0.002	0.00	n.a.	BMB
18	18.07	n.a.	0.013	0.003	0.00	n.a.	BMB
19	18.36	n.a	0.036	0.004	0.00	n.a.	BM
20	18.50	n.a.	0.039	0.004	0.00	n.a.	Mb
21	18.72	n.a.	0.057	0.008	0.01	n.a.	bMB
22	20.45	n.a.	0.021	0.001	0.00	n.a.	BMB
23	20.93	n.a.	0.016	0.001	0.00	n.a.	BMB
Total:			549.329	121.751	100.00	1361.296	

9.3

9

32 JC91371-4

Sample Name:	**JC91371-4**	*Injection Volume:*	**20.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**7/23/2019 18:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

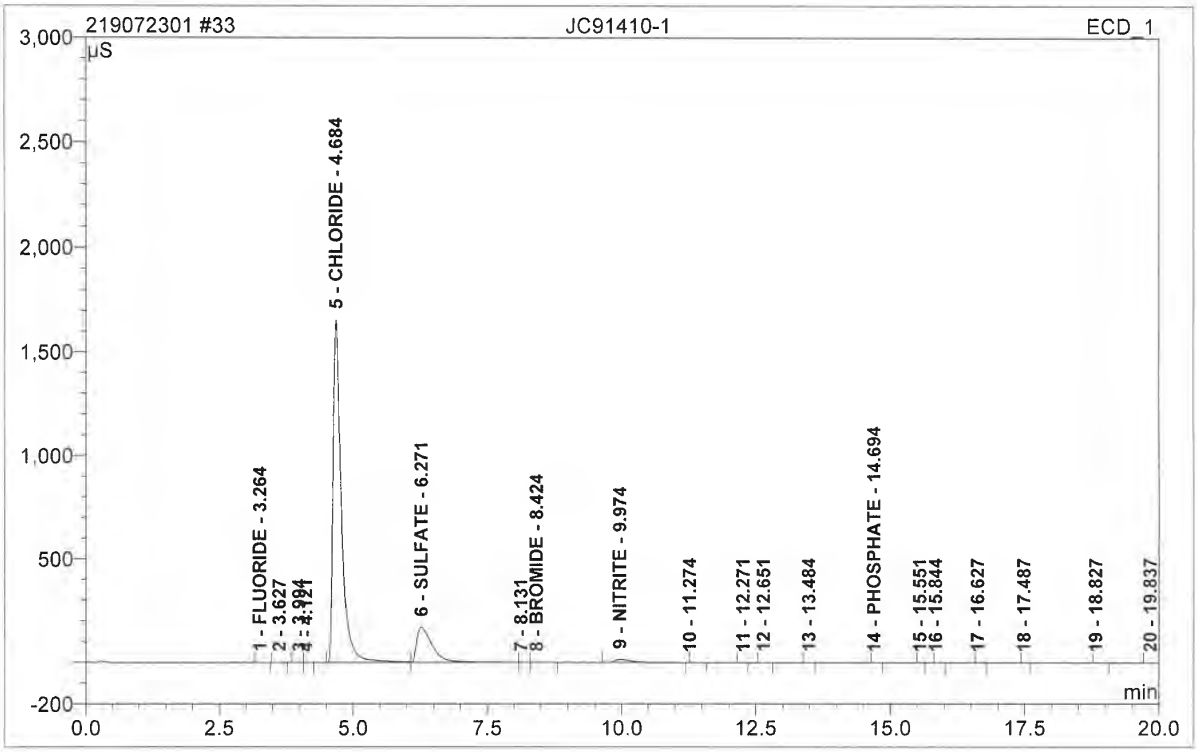


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.30	FLUORIDE	0.112	0.012	0.01	0.060	BM
2	3.43	n.a.	0.167	0.028	0.01	n.a.	M
3	3.64	n.a.	0.363	0.060	0.03	n.a.	MB
4	4.33	n.a.	0.014	0.001	0.00	n.a.	BMB
5	4.69	CHLORIDE	709.131	131.205	67.86	884.596	BMB
6	6.32	SULFATE	144.284	60.919	31.51	558.797	BMB
7	9.72	n.a.	0.067	0.007	0.00	n.a.	BMB
8	10.14	NITRITE	3.103	0.862	0.45	2.373	BMB
9	11.75	n.a.	0.093	0.008	0.00	n.a.	BMB
10	11.98	n.a.	0.068	0.013	0.01	n.a.	BMB
11	12.41	n.a.	0.046	0.006	0.00	n.a.	BMB

12	12.81	n.a.	0.064	0.006	0.00	n.a.	BM
13	12.93	n.a.	0.139	0.030	0.02	n.a.	MB
14	13.28	n.a.	0.032	0.002	0.00	n.a.	BMb
15	13.48	n.a.	0.132	0.029	0.02	n.a.	bMB
16	13.96	n.a.	0.029	0.001	0.00	n.a.	BMB
17	14.16	n.a.	0.019	0.014	0.01	n.a.	BMB
18	14.92	PHOSPHATE	0.031	0.002	0.00	0.020	BMB
19	15.11	n.a.	0.052	0.007	0.00	n.a.	BMB
20	15.41	n.a.	0.032	0.004	0.00	n.a.	BMB
21	15.59	n.a.	0.020	0.012	0.01	n.a.	BMB
22	16.27	n.a.	0.025	0.002	0.00	n.a.	BMB
23	16.42	n.a.	0.000	0.009	0.00	n.a.	BMB
24	16.84	n.a.	0.036	0.005	0.00	n.a.	BMB
25	17.44	n.a.	0.142	0.023	0.01	n.a.	BM
26	17.57	n.a.	0.149	0.027	0.01	n.a.	MB
27	17.82	n.a.	0.024	0.004	0.00	n.a.	BMB
28	18.00	n.a.	0.019	0.003	0.00	n.a.	BMB
29	18.38	n.a.	0.028	0.002	0.00	n.a.	BMB
30	18.78	n.a.	0.033	0.002	0.00	n.a.	BMB
31	19.16	n.a.	0.020	0.001	0.00	n.a.	BMB
32	20.61	n.a.	0.104	0.032	0.02	n.a.	BMB
33	20.68	n.a.	0.018	0.001	0.00	n.a.	Rd
Total:			858.594	193.340	100.00	1445.846	

33 JC91410-1

Sample Name:	**JC91410-1**	*Injection Volume:*	**20.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**7/23/2019 18:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

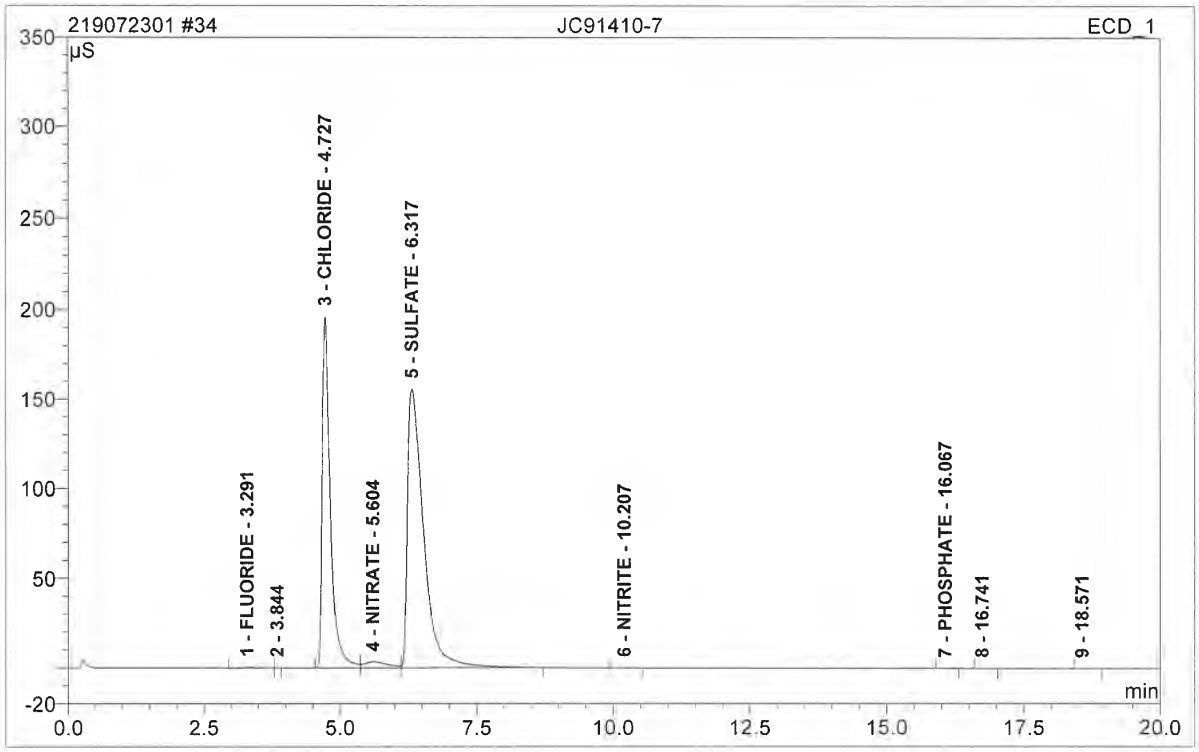


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	FLUORIDE	0.151	0.026	0.01	0.128	BMB
2	3.63	n.a.	0.053	0.008	0.00	n.a.	BMB
3	3.99	n.a.	0.051	0.007	0.00	n.a.	BM
4	4.12	n.a.	0.040	0.005	0.00	n.a.	MB
5	4.68	CHLORIDE	1656.912	297.934	82.35	2008.699	BM
6	6.27	SULFATE	169.211	58 057	16.05	532.551	M
7	8.13	n.a.	0.493	0.094	0.03	n.a.	M
8	8.42	BROMIDE	0.395	0.114	0.03	1.832	MB
9	9.97	NITRITE	15.321	5.499	1.52	15.134	BMB
10	11.27	n.a.	0.000	0.009	0.00	n.a.	BMB
11	12.27	n.a.	0.032	0.004	0.00	n.a.	BMB

12	12.65	n.a.	0.022	0.004	0.00	n.a.	BMB
13	13.48	n.a.	0.016	0.002	0.00	n.a.	BMB
14	14.69	PHOSPHATE	0.013	0.002	0.00	0.016	BMB
15	15.55	n.a.	0.016	0.001	0.00	n.a.	BMB
16	15.84	n.a.	0.012	0.002	0.00	n.a.	BMB
17	16.63	n.a.	0.025	0.003	0.00	n.a.	BMB
18	17.49	n.a.	0.012	0.001	0.00	n.a.	BMB
19	18.83	n.a.	0.016	0.004	0.00	n.a.	BMB
20	19.84	n.a.	0.030	0.006	0.00	n.a.	BMB
Total:			1842.822	361.781	100.00	2558.362	

34 JC91410-7

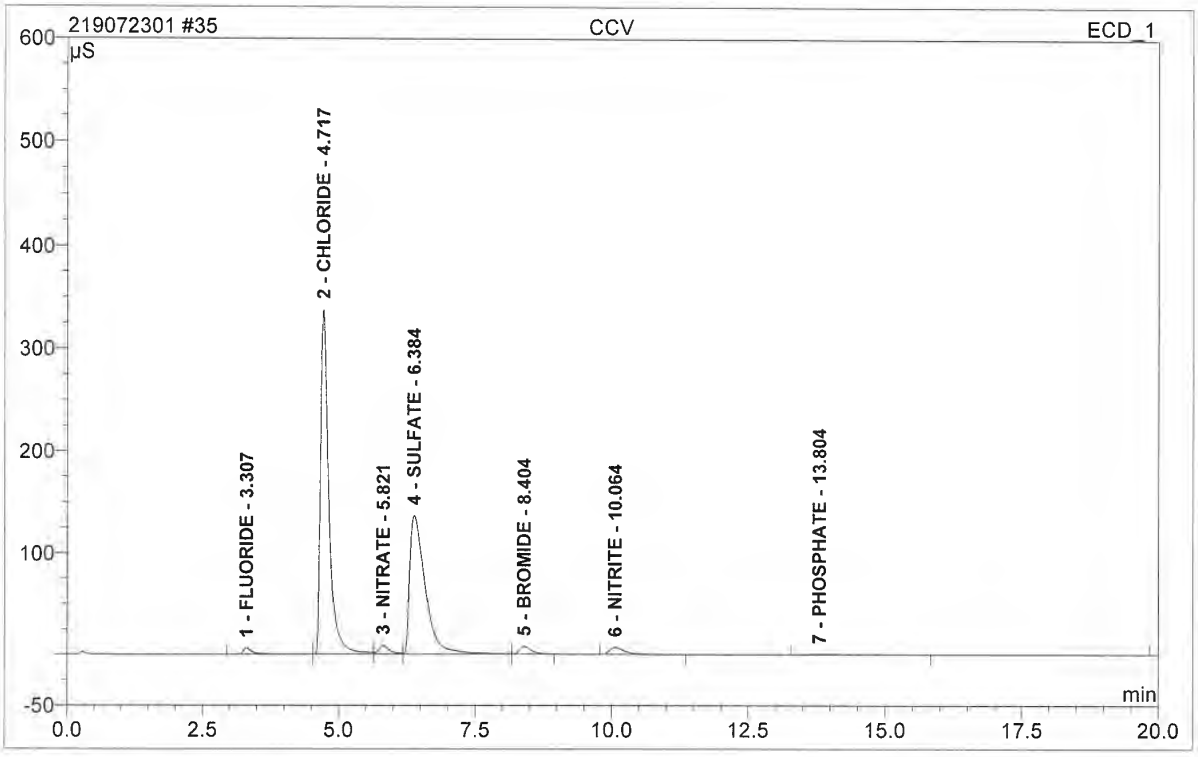
Sample Name:	**JC91410-7**	*Injection Volume:*	**20.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**7/23/2019 19:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.29	FLUORIDE	0.441	0.158	0.18	1.187	BMB
2	3.84	n.a.	0.020	0.001	0.00	n.a.	bMB
3	4.73	CHLORIDE	196.248	33.883	38.11	342.667	BM
4	5.60	NITRATE	3.323	1.595	1.79	7.981	M
5	6.32	SULFATE	155.826	53.229	59.88	732.399	MB
6	10.21	NITRITE	0.077	0.021	0.02	0.085	BMB
7	16.07	PHOSPHATE	0.015	0.004	0.00	0.058	BMB
8	16.74	n.a.	0.017	0.005	0.01	n.a.	BMB
9	18.57	n.a.	0.012	0.004	0.00	n.a.	BMB
Total:			355.981	88.900	100.00	1084.377	

35 CCV

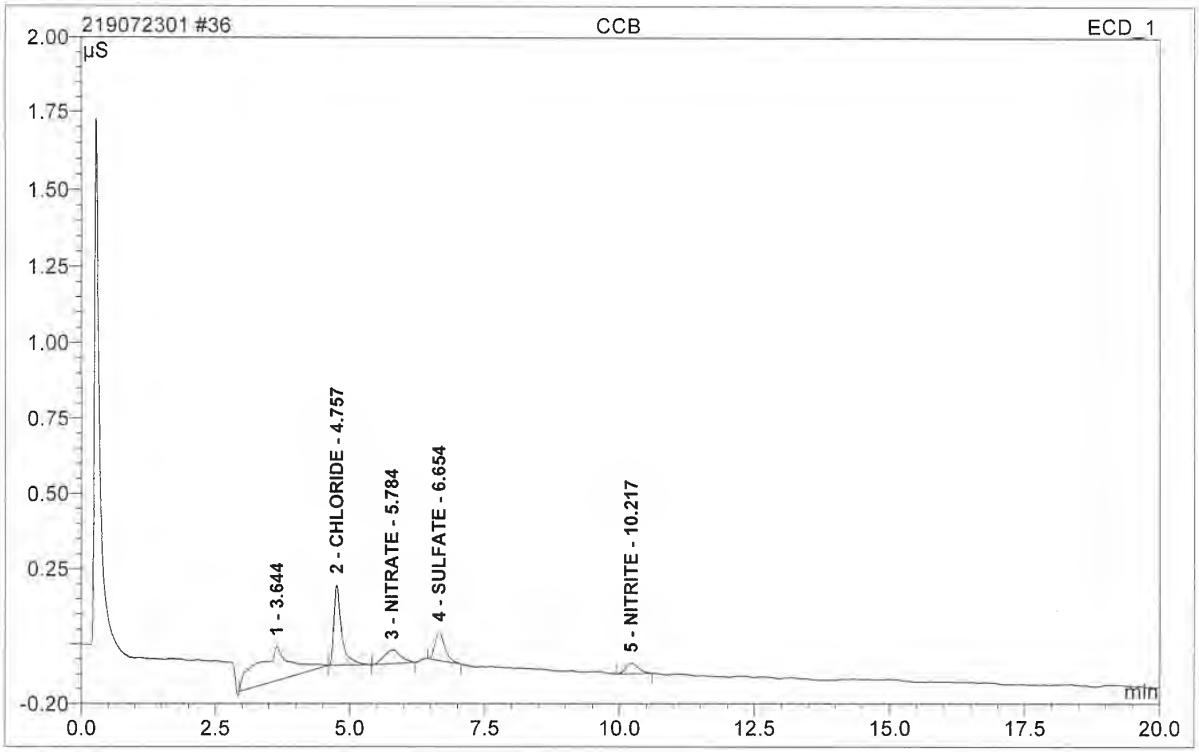
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**29**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 19:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.31	FLUORIDE	6.252	1.296	1.14	3.245	BM
2	4.72	CHLORIDE	337.433	60.393	53.18	203.588	M
3	5.82	NITRATE	9.046	1.963	1.73	3.274	M
4	6.38	SULFATE	136.791	45.321	39.91	207.861	M
5	8.40	BROMIDE	7.663	1.843	1.62	14.874	MB
6	10.06	NITRITE	6.969	2.206	1.94	3.035	BMB
7	13.80	PHOSPHATE	0.650	0.533	0.47	2.758	BMB
8	20.01	n.a.	0.005	0.002	0.00	n.a.	BMB
Total:			504.809	113.557	100.00	438.636	

36 CCB

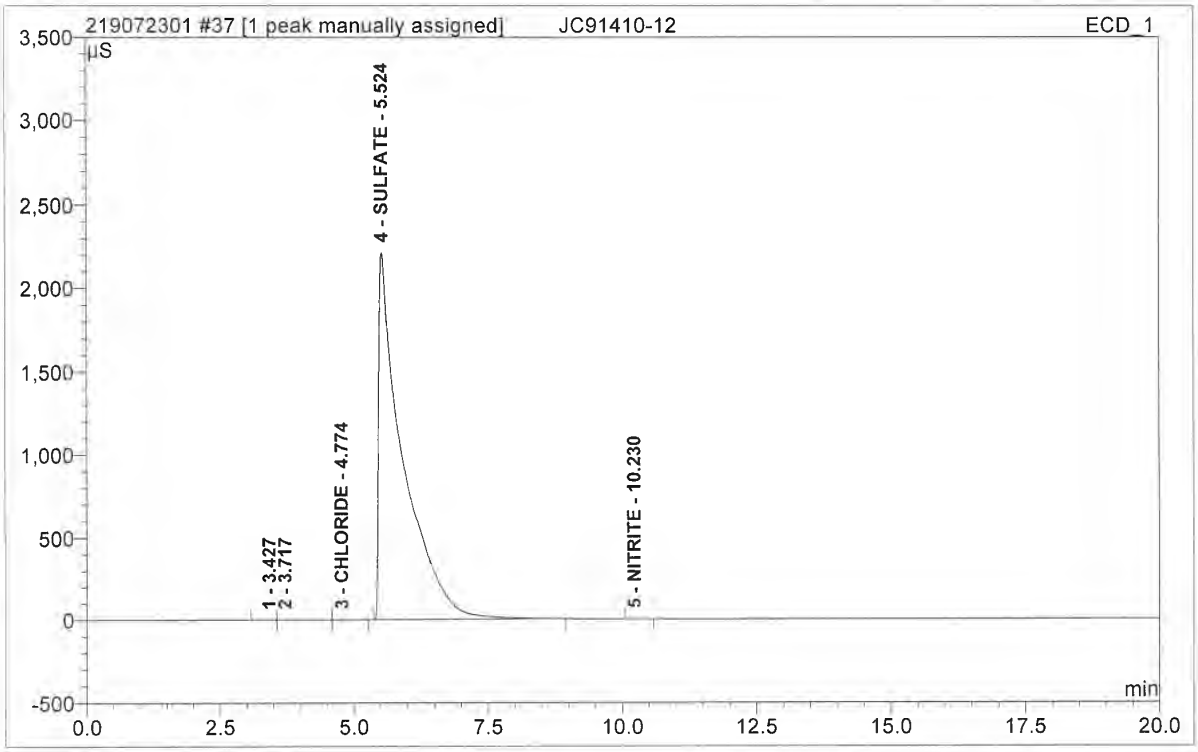
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**30**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 19:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.64	n.a.	0.114	0.083	47.77	n.a.	BMB
2	4.76	CHLORIDE	0.268	0.044	25.41	0.148	bMB
3	5.78	NITRATE	0.046	0.016	9.43	0.027	BMB
4	6.65	SULFATE	0.095	0.020	11.78	0.094	BMB
5	10.22	NITRITE	0.036	0.010	5.61	0.013	BMB
Total:			0.559	0.173	100.00	0.282	

37 JC91410-12

Sample Name:	**JC91410-12**	*Injection Volume:*	**20.0**
Vial Number:	**31**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 20:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.43	n.a.	0.072	0.020	0.00	n.a.	BM
2	3.72	n.a.	0.125	0.054	0.00	n.a.	M
3	4.77	CHLORIDE	0.057	0.013	0.00	0.045	MB
4	5.52	SULFATE	2215.683	1158.578	99.99	5313.734	BMB^
5	10.23	NITRITE	0.199	0.049	0.00	0.068	BMB
Total:			2216.137	1158.714	100.00	5313.847	

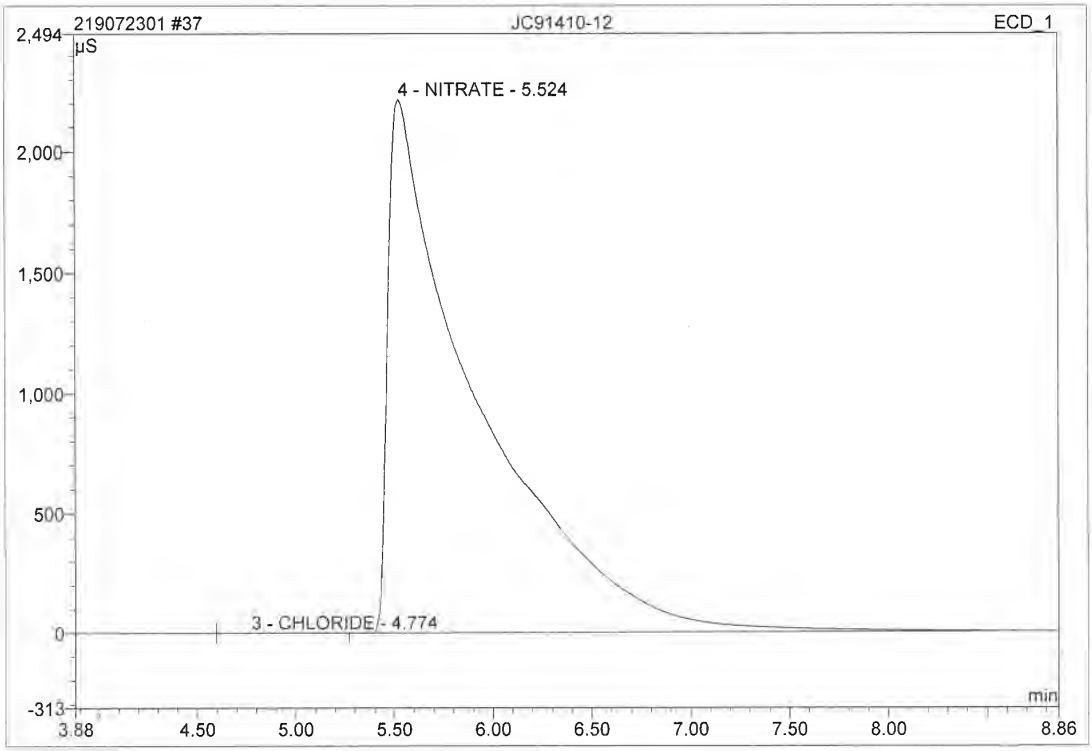
missed peak
NV 7/24/19

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

37 JC91410-12

Sample Name:	**JC91410-12**	*Injection Volume:*	**20.0**
Vial Number:	**31**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 20:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



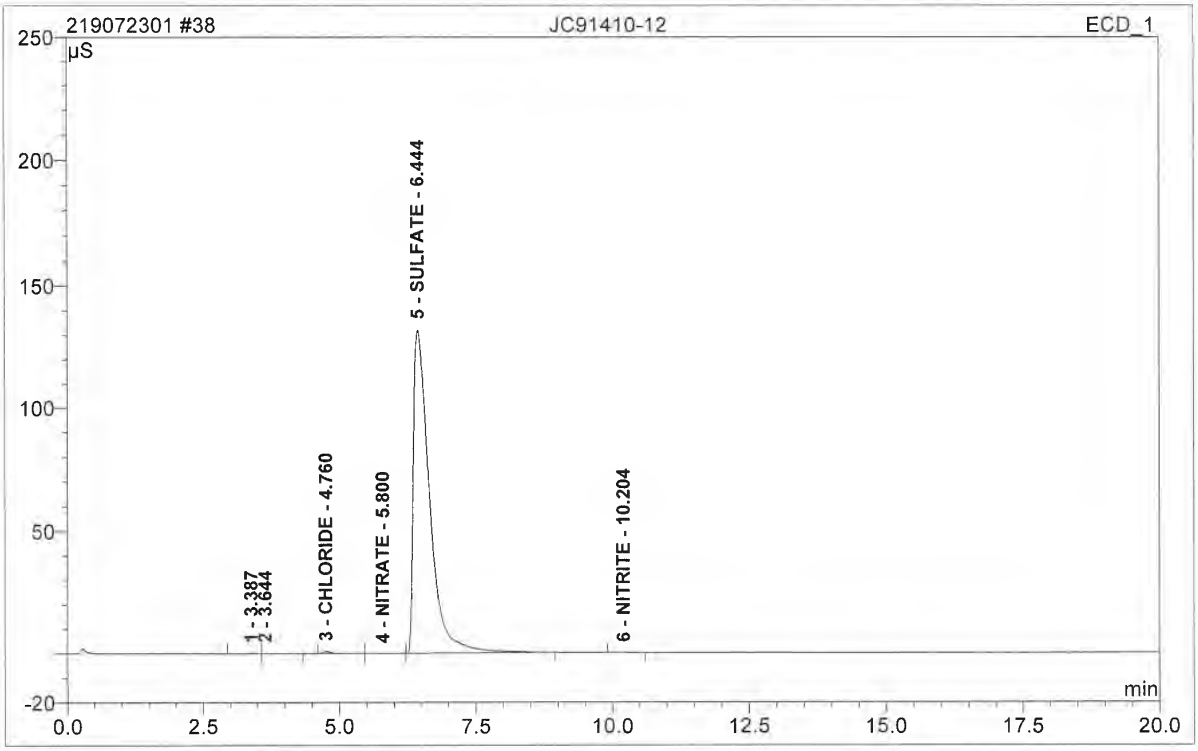
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.43	n.a.	0.072	0.020	0.00	n.a.	BM
2	3.72	n.a.	0.125	0.054	0.00	n.a.	M
3	4.77	CHLORIDE	0.057	0.013	0.00	0.045	MB
4	5.52	NITRATE	2215.683	1158.578	99.99	1932.073	BMB
5	10.23	NITRITE	0.199	0.049	0.00	0.068	BMB
Total:			2216.137	1158.714	100.00	1932.186	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

38 JC91410-12

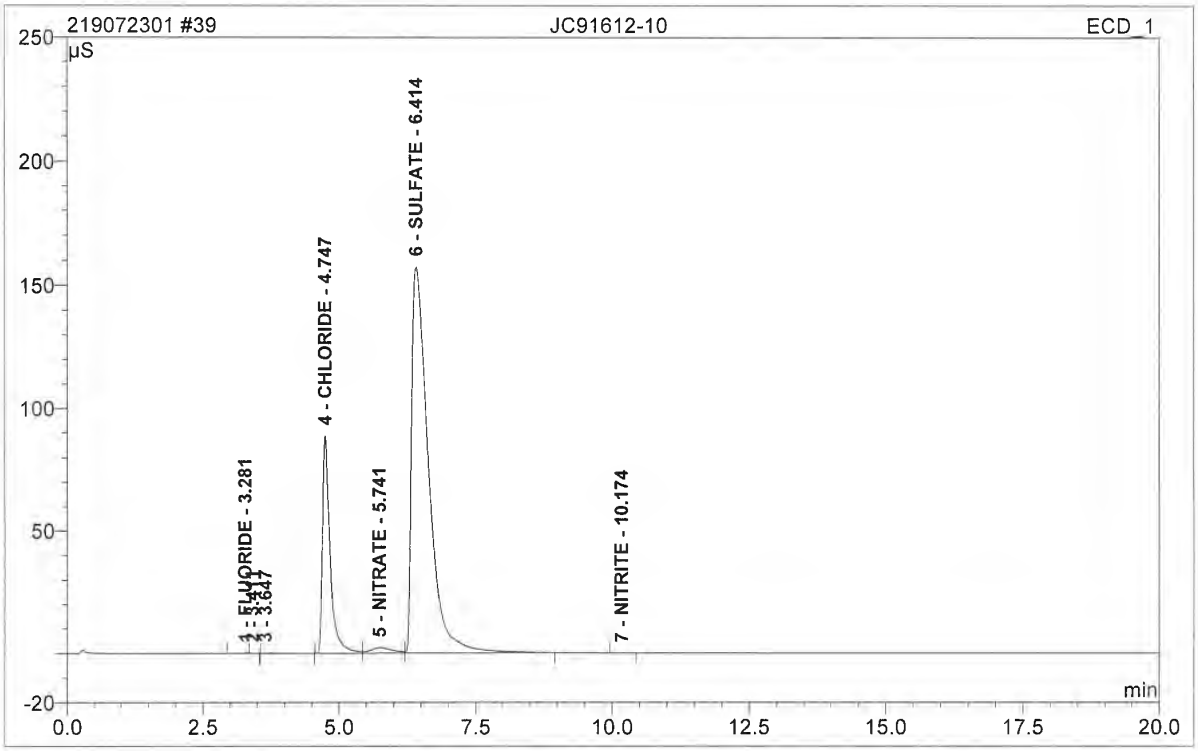
Sample Name:	**JC91410-12**	*Injection Volume:*	**20.0**
Vial Number:	**32**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**30.0000**
Recording Time:	**7/23/2019 20:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.39	n.a.	0.094	0.039	0.08	n.a.	BM
2	3.64	n.a.	0.076	0.028	0.06	n.a.	MB
3	4.76	CHLORIDE	0.937	0.145	0.32	14.694	BM
4	5.80	NITRATE	0.051	0.018	0.04	0.898	MB
5	6.44	SULFATE	132.146	45.643	99.44	6280.079	BMB
6	10.20	NITRITE	0.102	0.026	0.06	1.073	BMB
Total:			133.406	45.898	100.00	6296.744	

39 JC91612-10

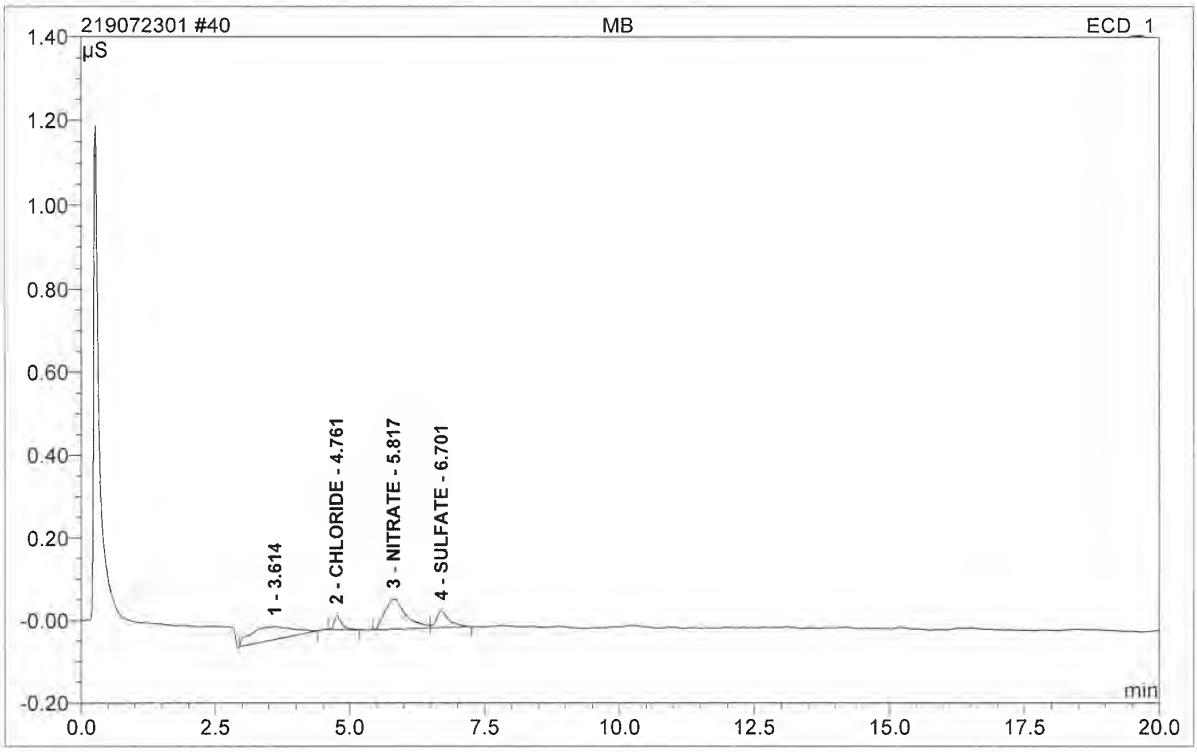
Sample Name:	**JC91612-10**	*Injection Volume:*	**20.0**
Vial Number:	**33**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**7/23/2019 21:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.28	FLUORIDE	0.126	0.037	0.05	0.186	BM
2	3.41	n.a.	0.022	0.002	0.00	n.a.	Rd
3	3.65	n.a.	0.154	0.040	0.06	n.a.	MB
4	4.75	CHLORIDE	88.840	14.487	20.16	97.671	BM
5	5.74	NITRATE	2.254	1.009	1.40	3.365	M
6	6.41	SULFATE	157.204	56.268	78.32	516.138	MB
7	10.17	NITRITE	0.016	0.003	0.00	0.010	BMB
Total:			248.614	71.846	100.00	617.370	

40 MB

Sample Name:	**MB**	*Injection Volume:*	**20.0**
Vial Number:	**34**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength.*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 21:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



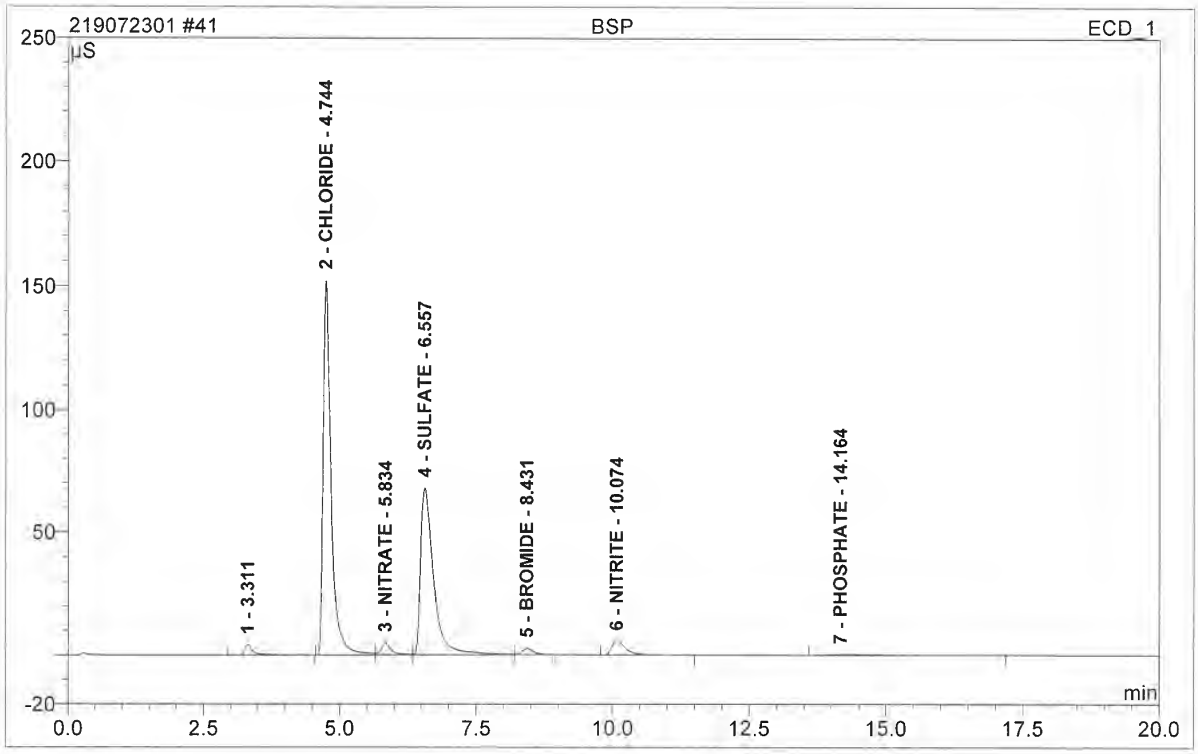
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.61	n.a.	0.031	0.030	37.54	n.a.	BMB
2	4.76	CHLORIDE	0.035	0.005	6.82	0.018	BMB
3	5.82	NITRATE	0.072	0.033	41.60	0.055	BM
4	6.70	SULFATE	0.041	0.011	14.04	0.051	MB
Total:			0.179	0.079	100.00	0.124	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

41 BSP

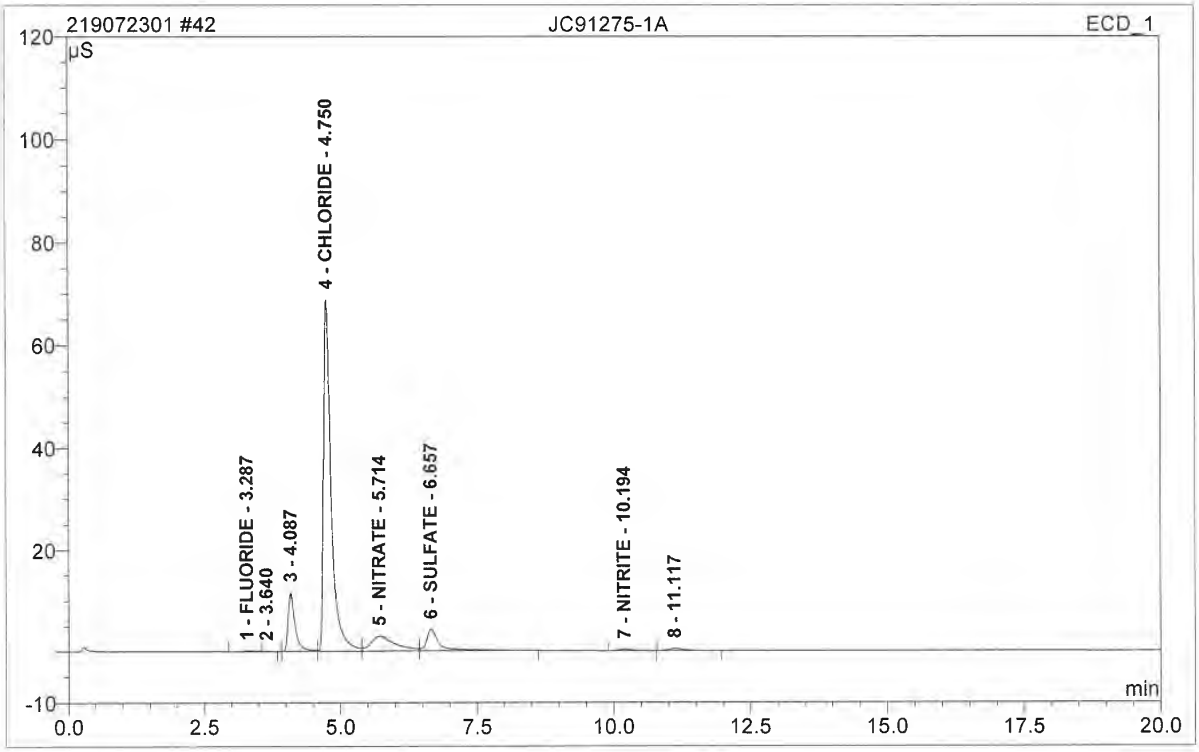
Sample Name:	**BSP**	*Injection Volume:*	**20.0**
Vial Number:	**35**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 21:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.31	n.a.	4.293	0.776	1.58	n.a	BMB
2	4.74	CHLORIDE	152.109	25.762	52.44	86.844	BM
3	5.83	NITRATE	4.926	1.027	2.09	1.713	M
4	6.56	SULFATE	68.013	18.887	38.44	86.622	M
5	8.43	BROMIDE	2.600	0.601	1.22	4.847	MB
6	10.07	NITRITE	5.704	1.725	3.51	2.373	BMB
7	14.16	PHOSPHATE	0.351	0.349	0.71	1.809	BMB
Total:			237.997	49.126	100.00	184.208	

42 JC91275-1A

Sample Name:	**JC91275-1A**	*Injection Volume:*	**20.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 22:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.29	FLUORIDE	0.170	0.062	0.39	0.155	BM
2	3.64	n.a.	0.028	0.003	0.02	n.a.	Rd
3	4.09	n.a.	11.564	1.728	10.79	n.a.	M
4	4.75	CHLORIDE	68.897	11.242	70.24	37.897	M
5	5.71	NITRATE	2.943	1.538	9.61	2.565	M
6	6.66	SULFATE	4.256	1.234	7.71	5.659	MB
7	10.19	NITRITE	0.271	0.073	0.45	0.100	BMB
8	11.12	n.a.	0.413	0.127	0.79	n.a.	BMB
Total:			88.541	16.006	100.00	46.375	

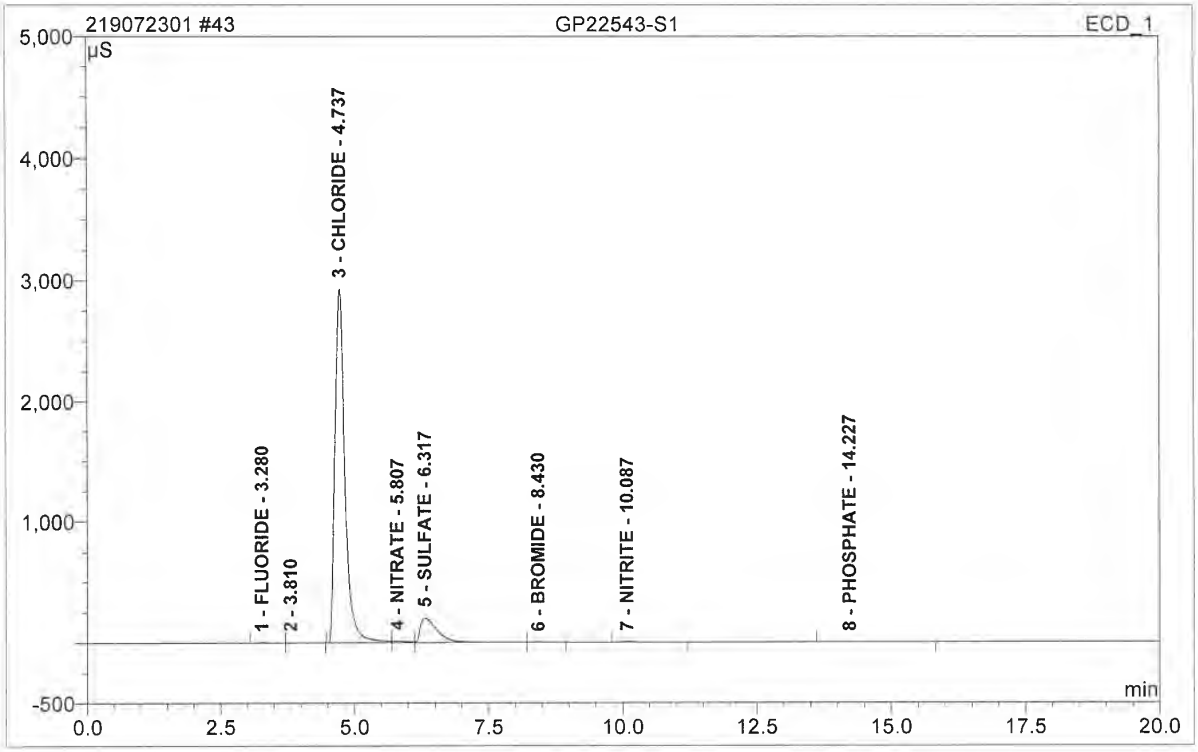
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

43 GP22543-S1

JC91330-1

Sample Name:	**GP22543-S1**	*Injection Volume:*	**20.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 22:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.28	FLUORIDE	3.545	0.702	0.10	1.757	BM
2	3.81	n.a.	0.278	0.070	0.01	n.a.	MB
3	4.74	CHLORIDE	2930.891	629.387	88.25	2121.693	BM
4	5.81	NITRATE	14.188	4.194	0.59	6.994	M
5	6.32	SULFATE	203.042	75.980	10.65	348.475	M
6	8.43	BROMIDE	3.625	0.953	0.13	7.692	MB
7	10.09	NITRITE	5.776	1.759	0.25	2.420	BMB
8	14.23	PHOSPHATE	0.148	0.142	0.02	0.735	BMB
Total:			3161.494	713.186	100.00	2489.766	

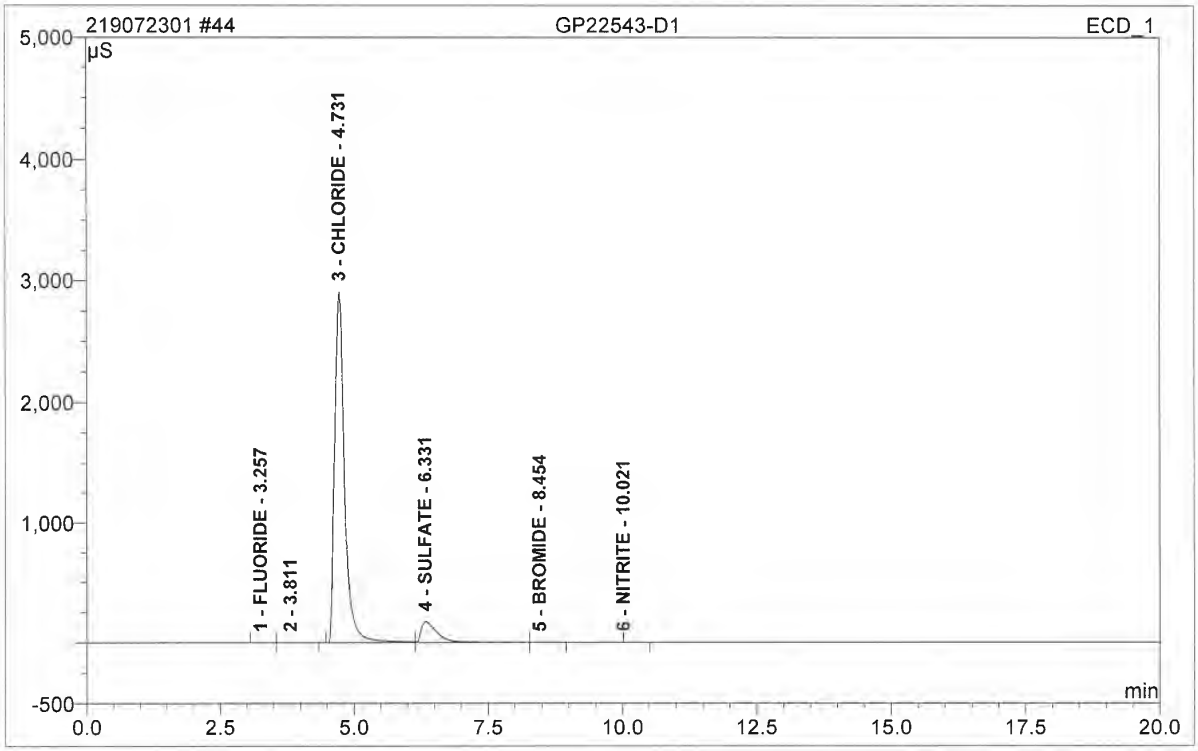
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

44 GP22543-D1

JC91330-1

Sample Name:	**GP22543-D1**	*Injection Volume:*	**20.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 23:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



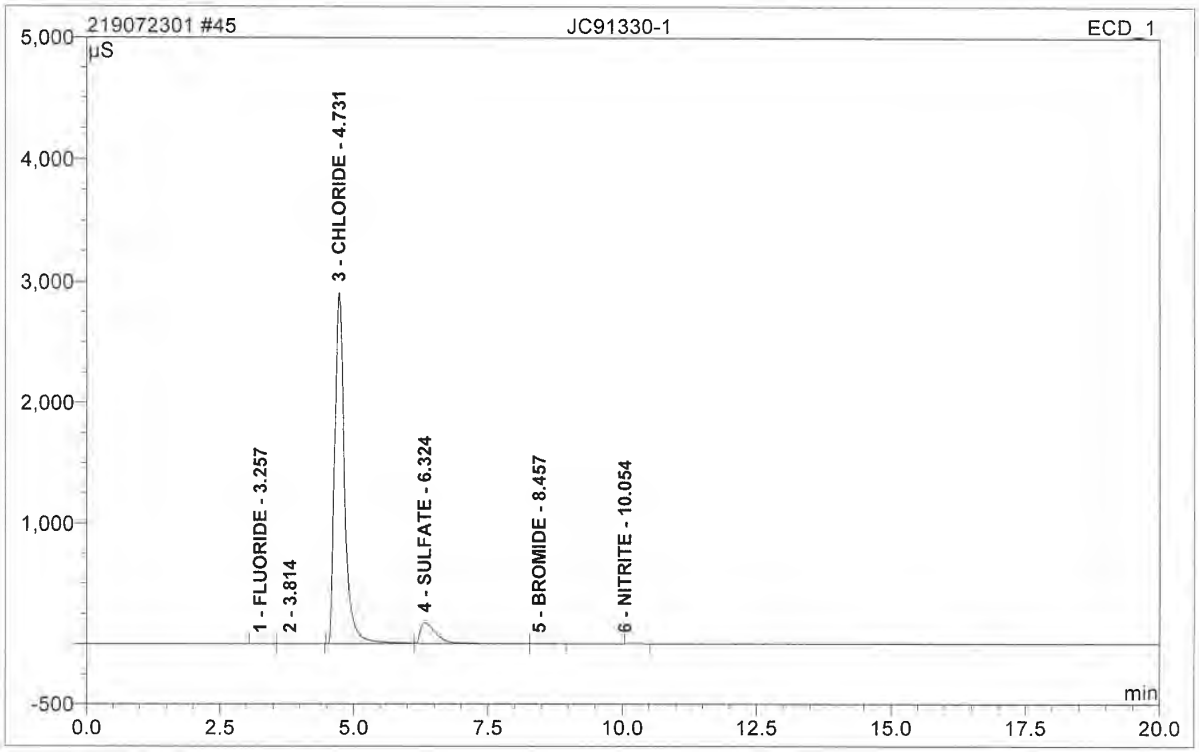
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	FLUORIDE	0.161	0.032	0.00	0.080	BM
2	3.81	n.a.	0.185	0.043	0.01	n.a.	MB
3	4.73	CHLORIDE	2905.196	624.763	91.24	2106.104	BM
4	6.33	SULFATE	171.908	59.575	8.70	273.238	M
5	8.45	BROMIDE	1.045	0.331	0.05	2.672	MB
6	10.02	NITRITE	0.000	0.006	0.00	0.008	BMB
Total:			3078.496	684.750	100.00	2382.103	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

45 JC91330-1

Sample Name:	**JC91330-1**	*Injection Volume:*	**20.0**
Vial Number:	**39**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 23:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

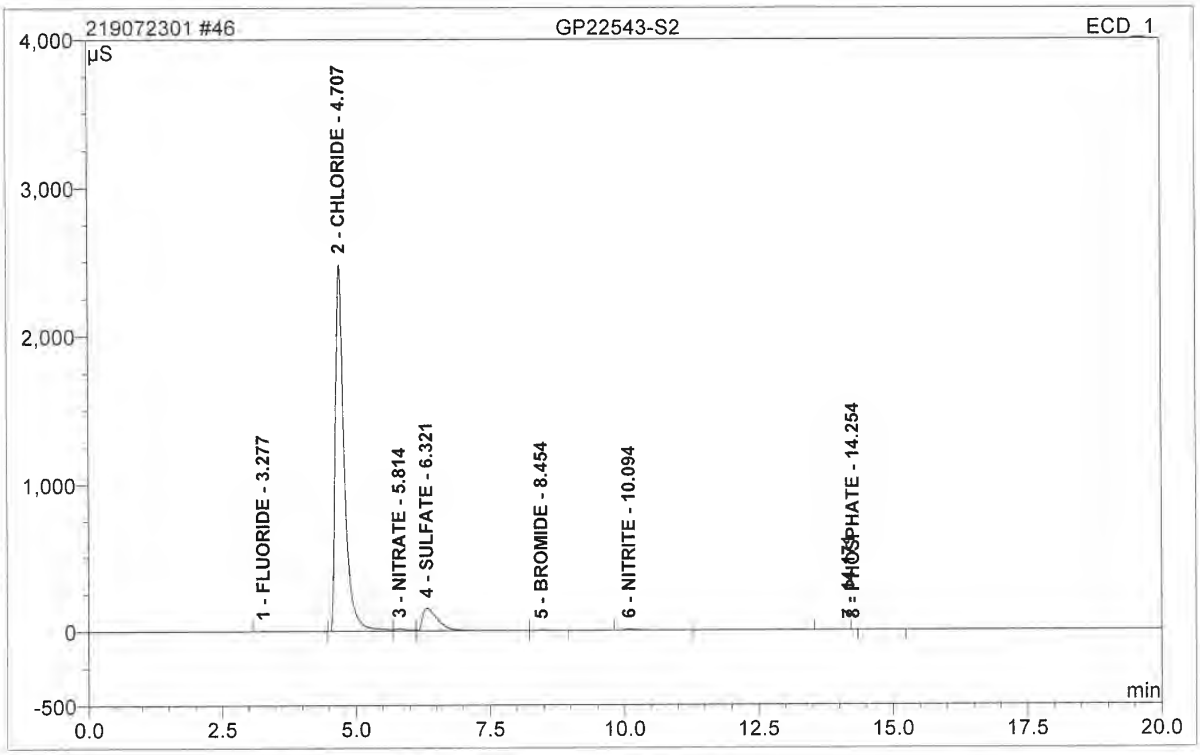


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	FLUORIDE	0.162	0.032	0.00	0.080	BM
2	3.81	n.a.	0.192	0.047	0.01	n.a.	MB
3	4.73	CHLORIDE	2908.690	623.490	91.26	2101.813	BM
4	6.32	SULFATE	171.663	59.358	8.69	272.241	M
5	8.46	BROMIDE	0.978	0.304	0.04	2.455	MB
6	10.05	NITRITE	0.000	0.006	0.00	0.009	BMB
Total:			3081.686	683.237	100.00	2376.598	

46 GP22543-S2

JC91330-2

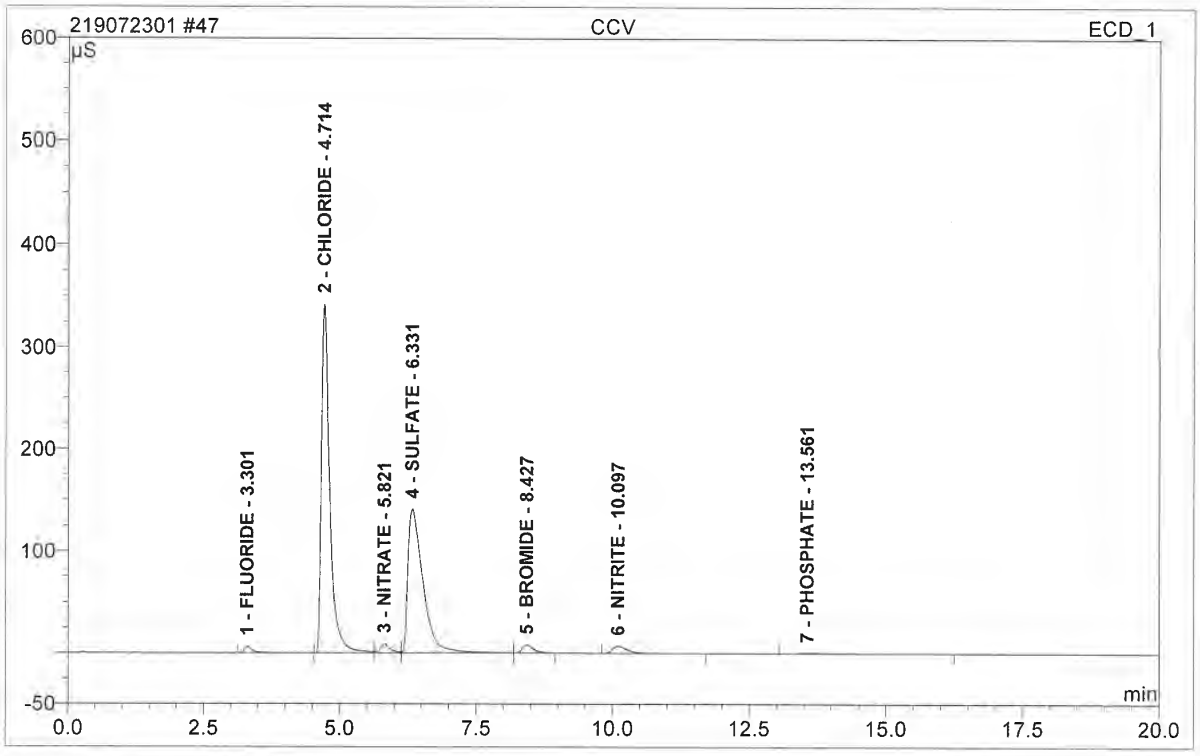
Sample Name:	**GP22543-S2**	*Injection Volume:*	**20.0**
Vial Number:	**40**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/23/2019 23:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.28	FLUORIDE	3.993	0.794	0.15	1.988	BMB
2	4.71	CHLORIDE	2480.230	475.502	88.94	1602.938	BM
3	5.81	NITRATE	15.131	4.374	0.82	7.294	M
4	6.32	SULFATE	151.891	50.946	9.53	233.658	M
5	8.45	BROMIDE	3.093	0.790	0.15	6.374	MB
6	10.09	NITRITE	7.053	2.191	0.41	3.014	BMB
7	14.17	n.a.	0.066	0.061	0.01	n.a.	BMB
8	14.25	PHOSPHATE	0.001	0.000	0.00	0.000	Rd
Total:			2661.458	534.657	100.00	1855.267	

47 CCV

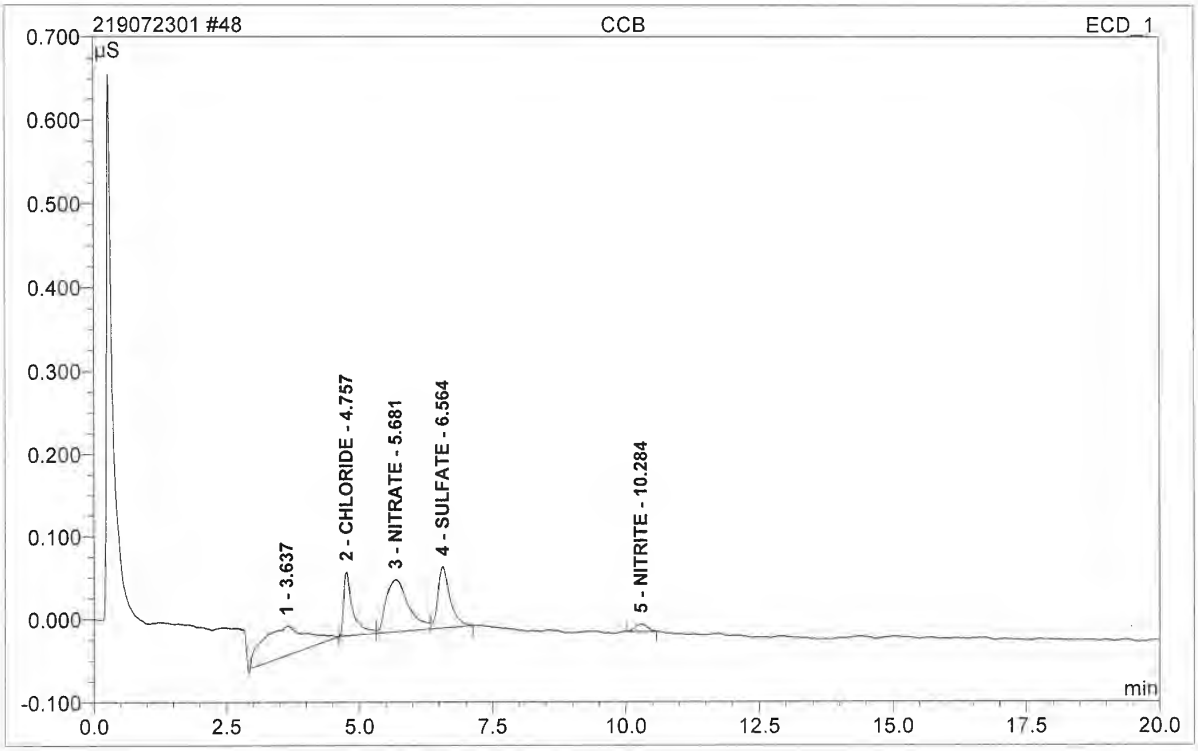
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**41**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 0:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.30	FLUORIDE	6.543	1.179	1.04	2.953	BMB
2	4.71	CHLORIDE	341.878	60.631	53.47	204.391	BM
3	5.82	NITRATE	8.938	1.844	1.63	3.074	M
4	6.33	SULFATE	141.024	45.184	39.84	207.235	MB
5	8.43	BROMIDE	7.702	1.810	1.60	14.608	BMB
6	10.10	NITRITE	7.072	2.218	1.96	3.052	BMB
7	13.56	PHOSPHATE	0.617	0.536	0.47	2.775	BMB
Total:			513.775	113.403	100.00	438.089	

48 CCB

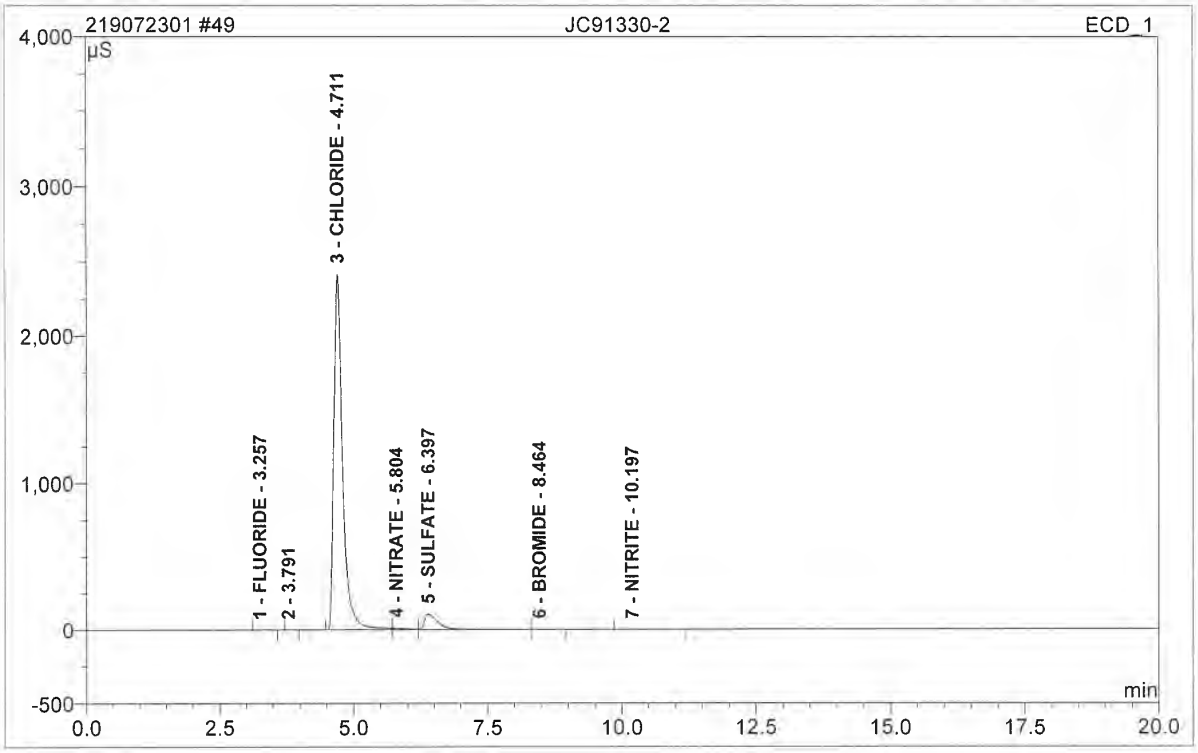
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**42**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 0:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.64	n.a.	0.035	0.034	33.46	n.a.	BMB
2	4.76	CHLORIDE	0.077	0.015	14.97	0.052	BM
3	5.68	NITRATE	0.063	0.031	29.97	0.051	M
4	6.56	SULFATE	0.075	0.020	19.31	0.091	MB
5	10.28	NITRITE	0.009	0.002	2.29	0.003	BMB
Total:			0.260	0.103	100.00	0.197	

49 JC91330-2

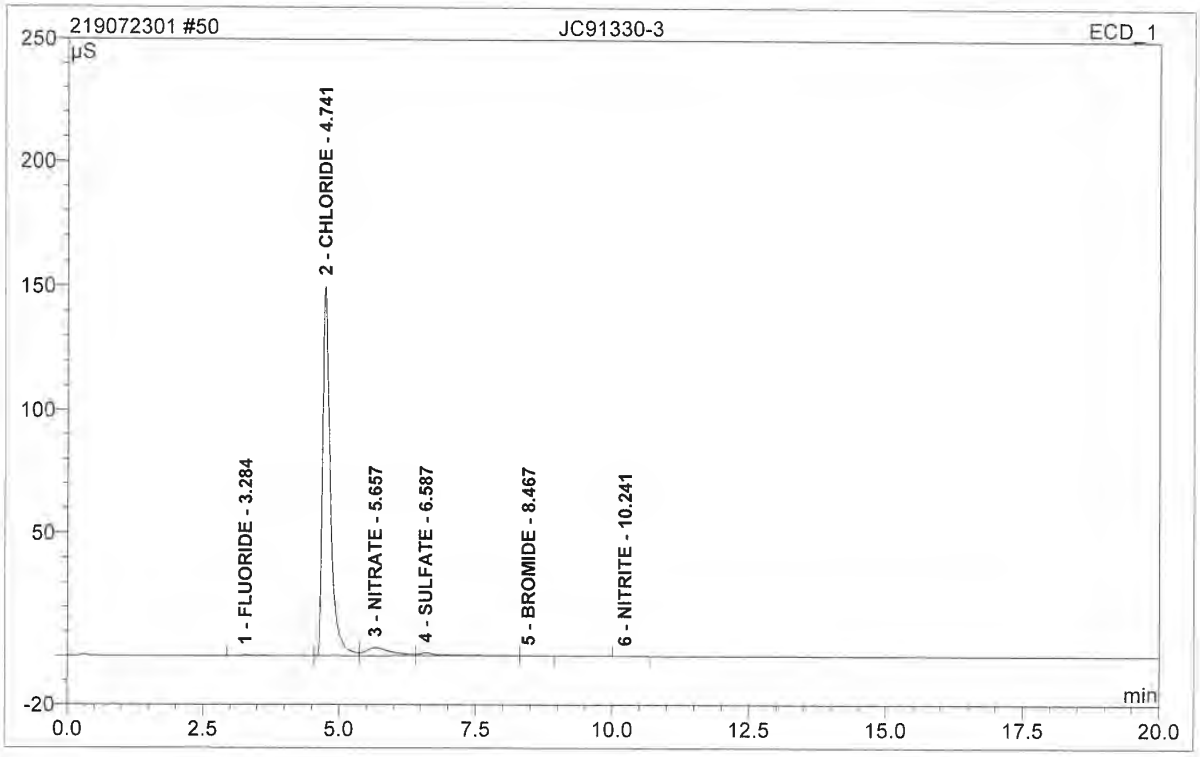
Sample Name:	**JC91330-2**	*Injection Volume:*	**20.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 1:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	FLUORIDE	0.237	0.039	0.01	0.097	BMB
2	3.79	n.a.	0.009	0.001	0.00	n.a.	BMB
3	4.71	CHLORIDE	2416.486	460.380	92.58	1551.962	BM
4	5.80	NITRATE	10.719	3.439	0.69	5.736	M
5	6.40	SULFATE	106.892	32.831	6.60	150.575	M
6	8.46	BROMIDE	0.561	0.181	0.04	1.462	MB
7	10.20	NITRITE	1.371	0.388	0.08	0.535	BMB
Total:			2536.274	497.260	100.00	1710.367	

50 JC91330-3

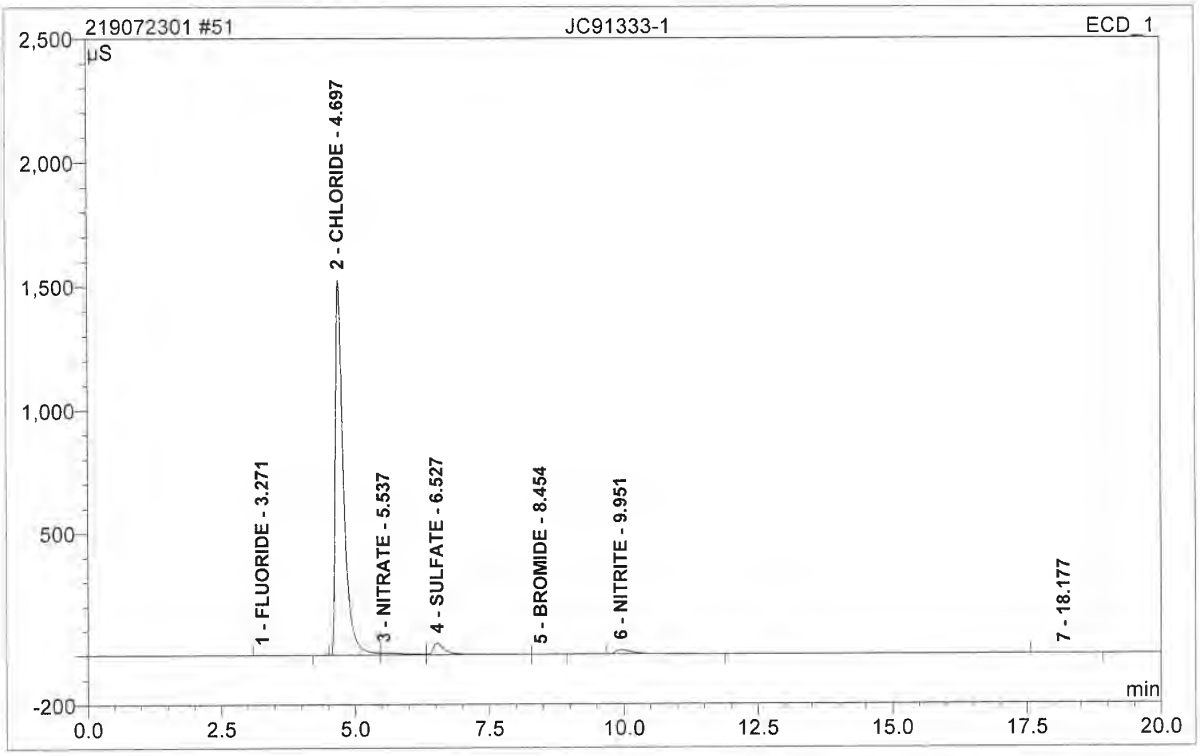
Sample Name:	**JC91330-3**	*Injection Volume:*	**20.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 1:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.28	FLUORIDE	0.365	0.122	0.44	0.306	BM
2	4.74	CHLORIDE	149.954	24.988	90.15	84.237	M
3	5.66	NITRATE	3.399	1.876	6.77	3.129	M
4	6.59	SULFATE	1.294	0.694	2.50	3.183	M
5	8.47	BROMIDE	0.091	0.030	0.11	0.246	MB
6	10.24	NITRITE	0.023	0.006	0.02	0.008	BMB
Total:			155.126	27.718	100.00	91.109	

51 JC91333-1

Sample Name:	**JC91333-1**	*Injection Volume:*	**20.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 1:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.27	FLUORIDE	0.486	0.089	0.03	0.223	BMB
2	4.70	CHLORIDE	1525.707	269.243	91.72	907.630	BM
3	5.54	NITRATE	8.382	4.428	1.51	7.384	M
4	6.53	SULFATE	47.993	13.221	4.50	60.637	M
5	8.45	BROMIDE	0.428	0.136	0.05	1.099	MB
6	9.95	NITRITE	17.634	6.385	2.18	8.786	BMB
7	18.18	n.a.	0.065	0.034	0.01	n.a.	BMB
Total:			1600.694	293.536	100.00	985.760	

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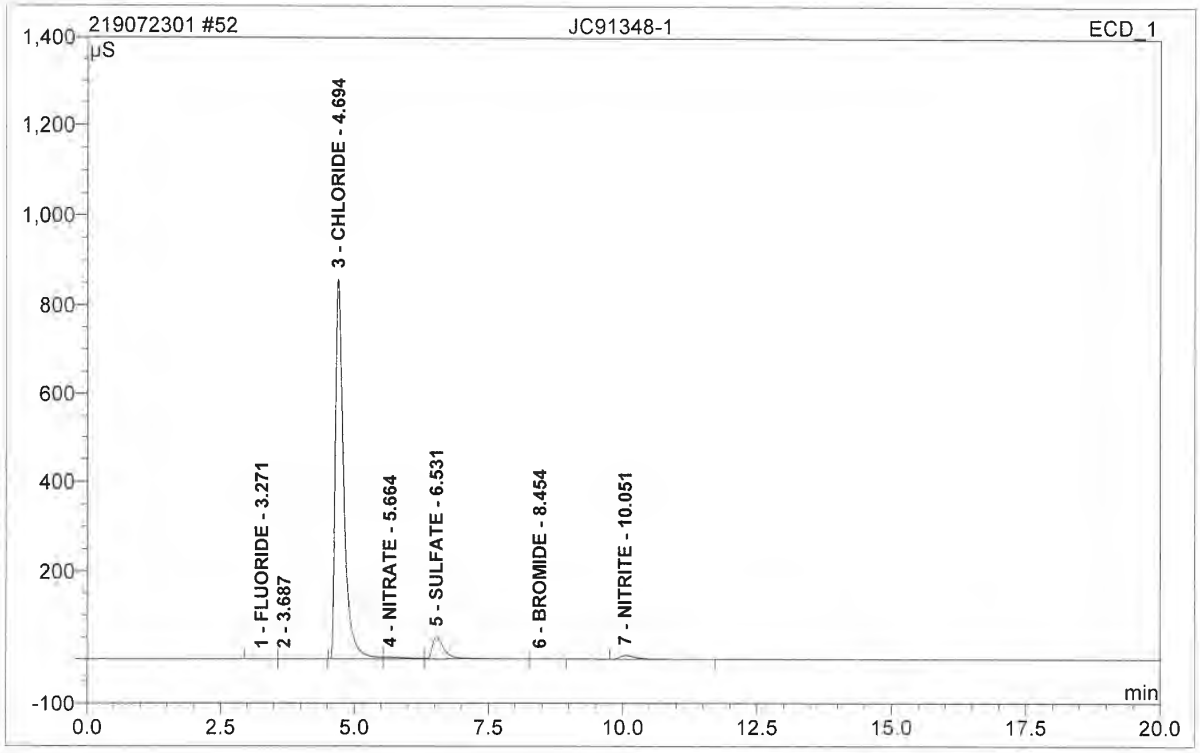
JC91275

52 JC91348-1

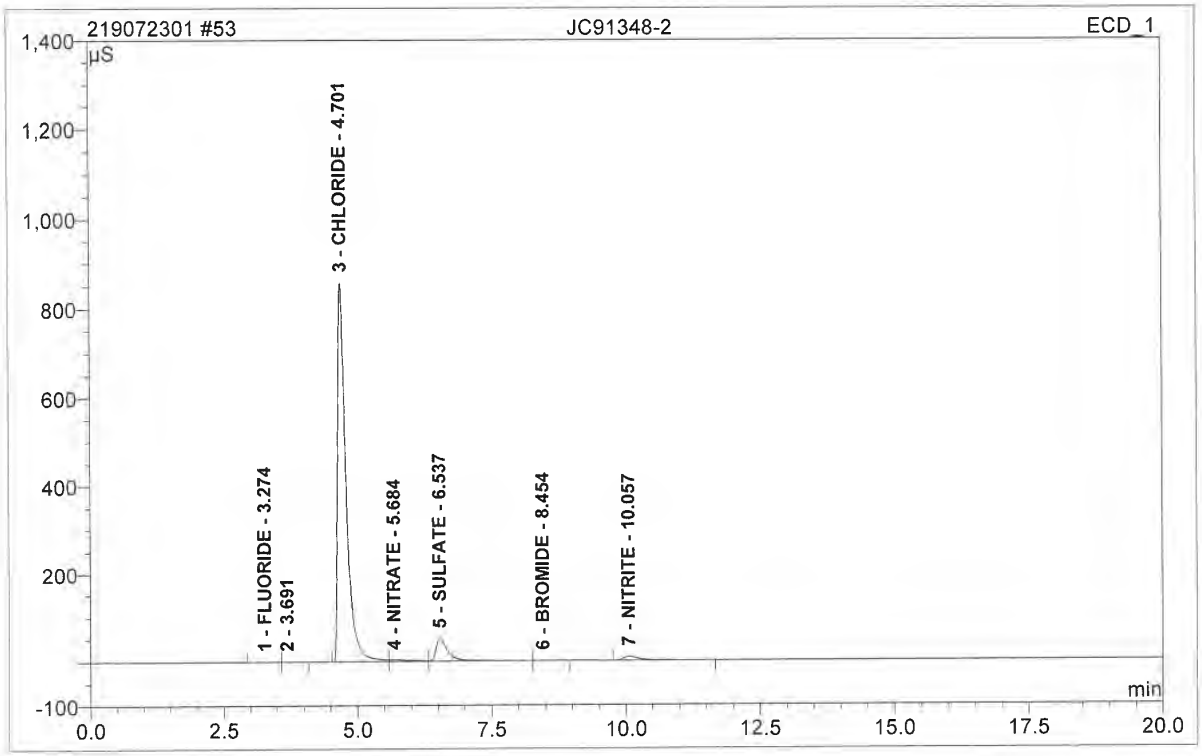
Sample Name:	**JC91348-1**	*Injection Volume:*	**20.0**
Vial Number:	**46**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 2:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.27	FLUORIDE	0.247	0.046	0.03	0.115	BM
2	3.69	n.a.	0.096	0.022	0.01	n.a.	MB
3	4.69	CHLORIDE	858.824	156.129	89.43	526.319	BM
4	5.66	NITRATE	4.075	2.039	1.17	3.400	M
5	6.53	SULFATE	50.261	13.489	7.73	61.866	M
6	8.45	BROMIDE	0.436	0.129	0.07	1.043	MB
7	10.05	NITRITE	8.568	2.726	1.56	3.751	BMB
Total:			922.507	174.580	100.00	596.493	

53 JC91348-2

Sample Name:	**JC91348-2**	*Injection Volume:*	**20.0**
Vial Number:	**47**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 2:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.27	FLUORIDE	0.241	0.045	0.03	0.112	BM
2	3.69	n.a.	0.091	0.016	0.01	n.a.	MB
3	4.70	CHLORIDE	856.337	156.027	89.58	525.973	BM
4	5.68	NITRATE	3.705	1.785	1.02	2.977	M
5	6.54	SULFATE	50.064	13.439	7.72	61.637	M
6	8.45	BROMIDE	0.436	0.129	0.07	1.042	MB
7	10.06	NITRITE	8.625	2.732	1.57	3.759	BMB
Total:			919.500	174.173	100.00	595.501	

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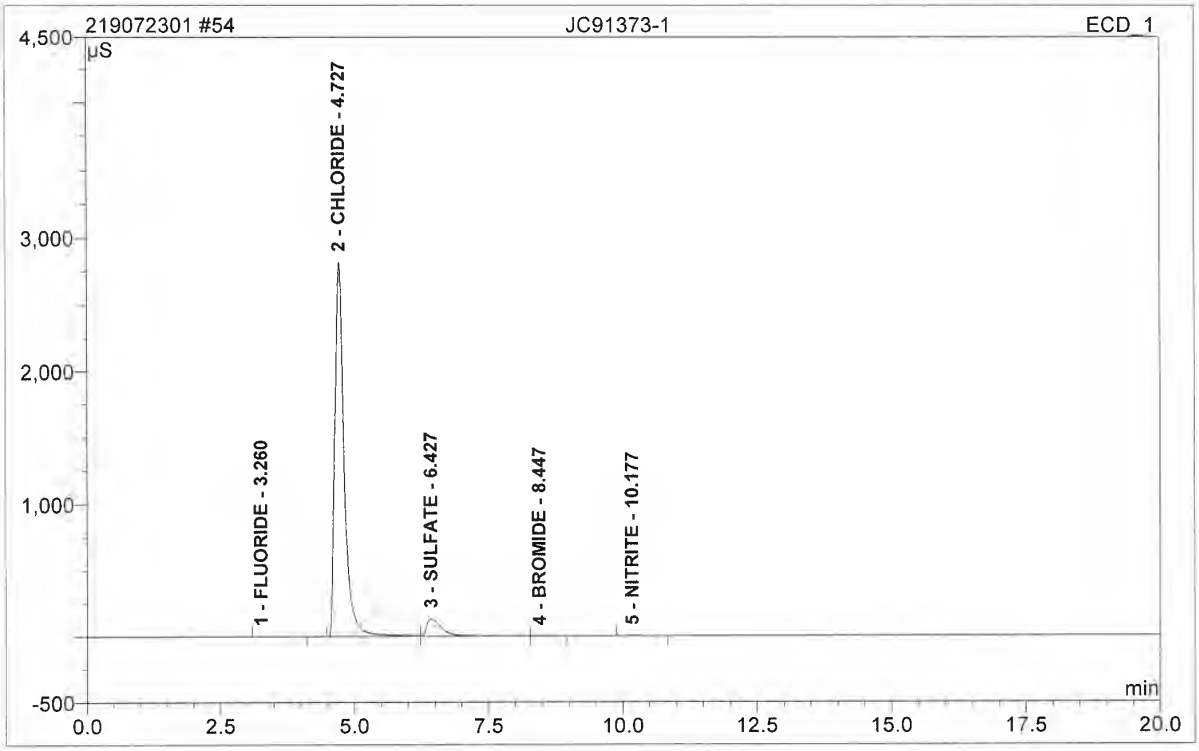
54 JC91373-1

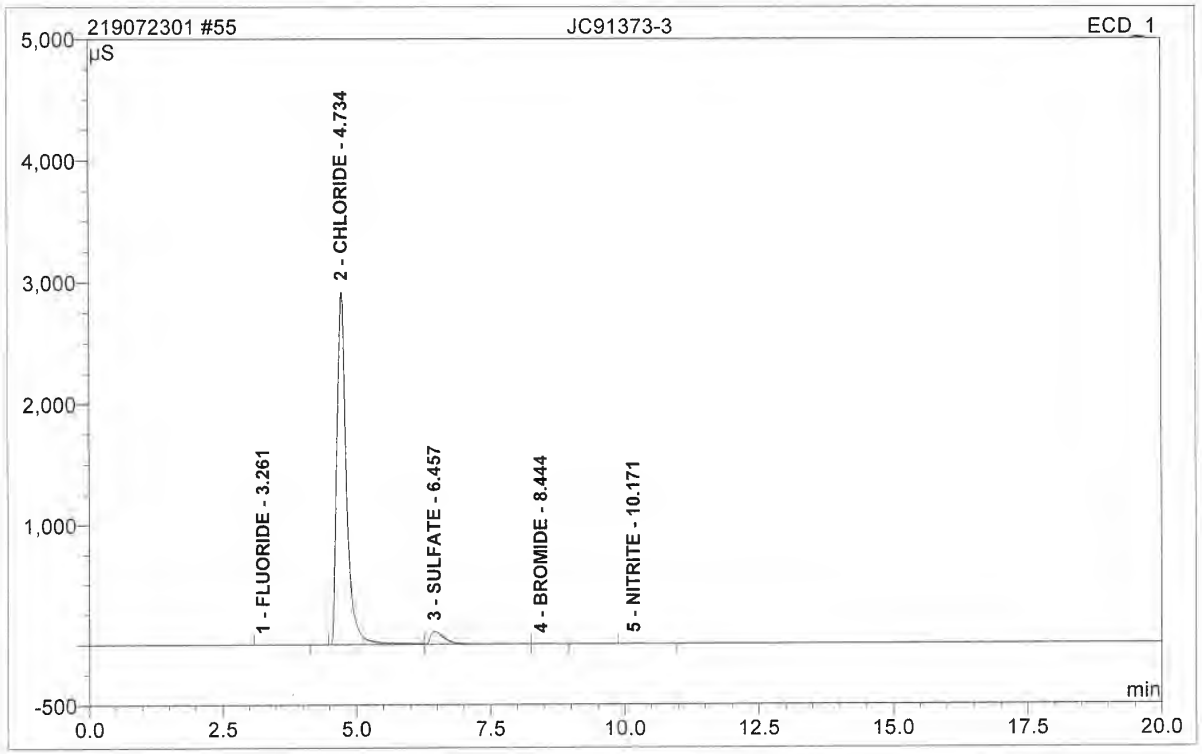
Sample Name:	**JC91373-1**	*Injection Volume:*	**20.0**
Vial Number:	**48**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method.	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 3:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	FLUORIDE	0.795	0.147	0.02	0.368	BMB
2	4.73	CHLORIDE	2814.666	568.549	92.98	1916.603	BM
3	6.43	SULFATE	129.783	42.232	6.91	193.695	M
4	8.45	BROMIDE	0.867	0.276	0.05	2.227	MB
5	10.18	NITRITE	1.095	0.303	0.05	0.417	BMB
Total:			2947.206	611.507	100.00	2113.309	

55 JC91373-3

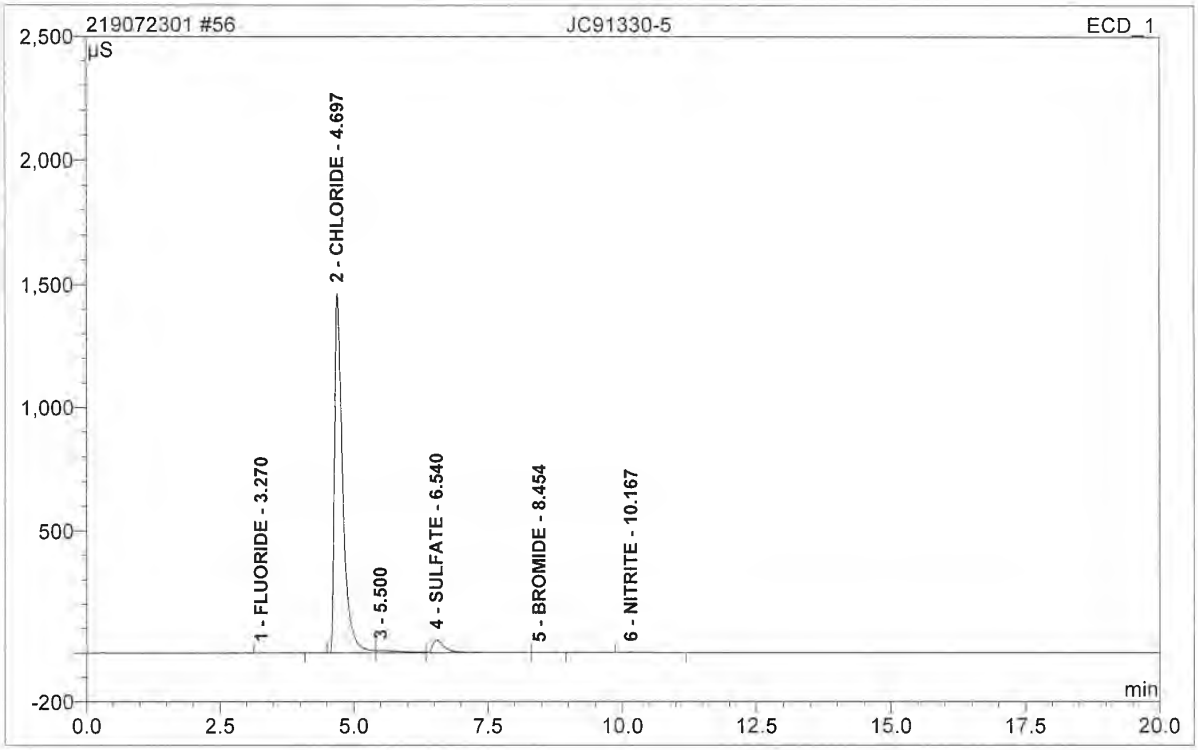
Sample Name:	**JC91373-3**	*Injection Volume:*	**20.0**
Vial Number:	**49**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 3:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	FLUORIDE	0.677	0.129	0.02	0.324	BMB
2	4.73	CHLORIDE	2923.201	606.604	94.84	2044.890	BM
3	6.46	SULFATE	104.300	32.250	5.04	147.914	M
4	8.44	BROMIDE	0.906	0.281	0.04	2.271	MB
5	10.17	NITRITE	1.249	0.352	0.06	0.485	BMB
Total:			3030.332	639.617	100.00	2195.883	

56 JC91330-5

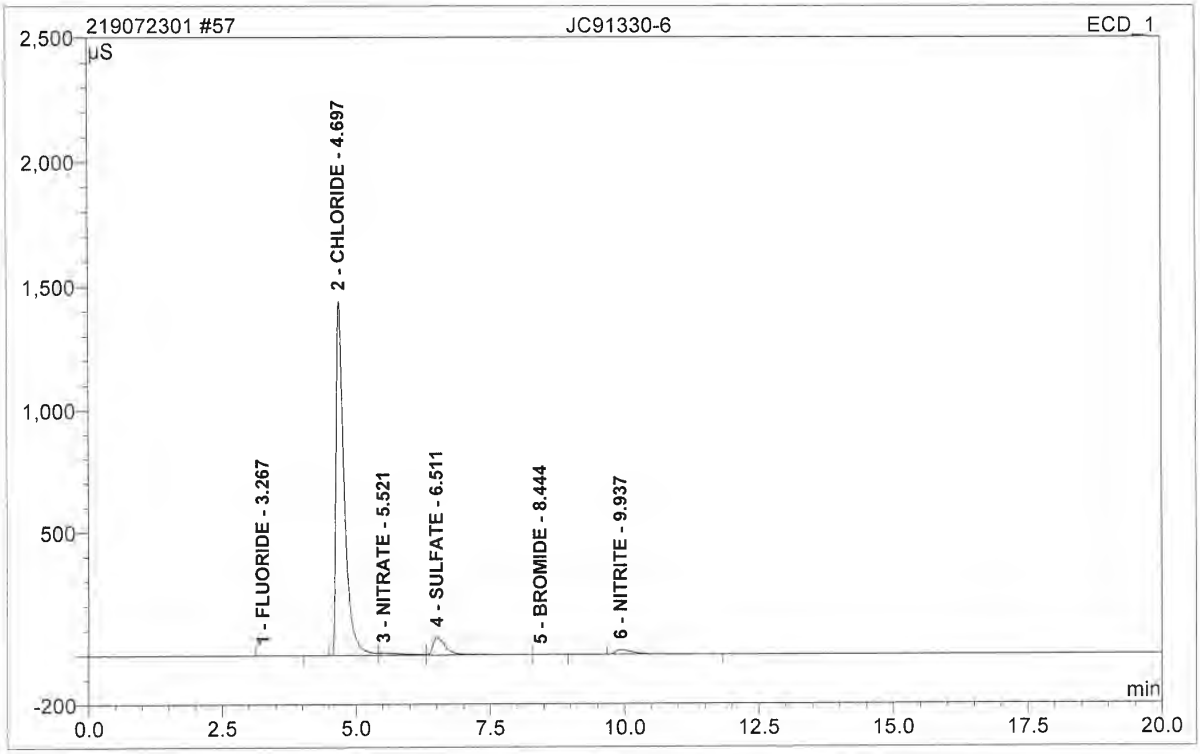
Sample Name:	**JC91330-5**	*Injection Volume:*	**20.0**
Vial Number:	**50**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 3:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.27	FLUORIDE	0.244	0.047	0.02	0.119	BMB
2	4.70	CHLORIDE	1464.917	260.547	92.67	878.316	BM
3	5.50	n.a.	9.423	5.379	1.91	n.a.	M
4	6.54	SULFATE	52.231	14.526	5.17	66.622	M
5	8.45	BROMIDE	0.383	0.128	0.05	1.030	MB
6	10.17	NITRITE	1.878	0.527	0.19	0.726	BMB
Total:			1529.076	281.155	100.00	946.813	

57 JC91330-6

Sample Name:	**JC91330-6**	*Injection Volume:*	**20.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 4:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.27	FLUORIDE	0.249	0.046	0.02	0.116	BMB
2	4.70	CHLORIDE	1439.588	255.009	88.65	859.647	BM
3	5.52	NITRATE	8.783	4.931	1.71	8.223	M
4	6.51	SULFATE	72.638	20.784	7.23	95.325	M
5	8.44	BROMIDE	0.445	0.145	0.05	1.172	MB
6	9.94	NITRITE	18.464	6.734	2.34	9.266	BMB
Total:			1540.168	287.649	100.00	973.749	

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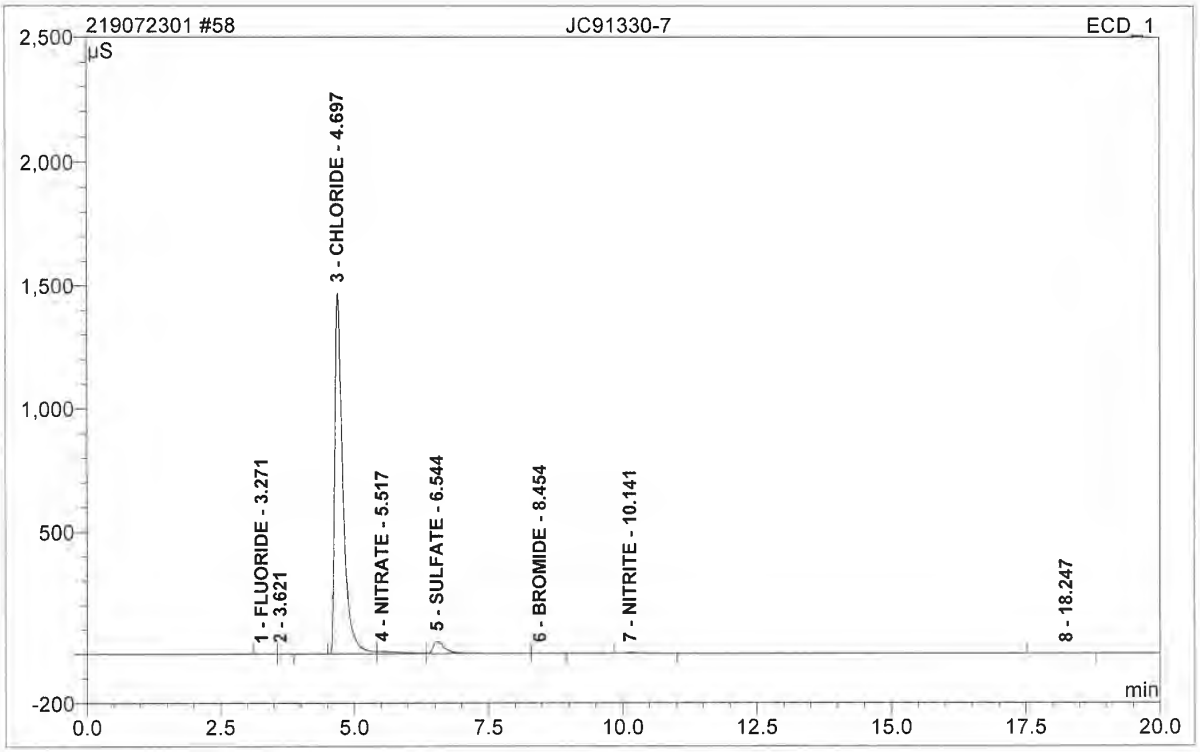
58 JC91330-7

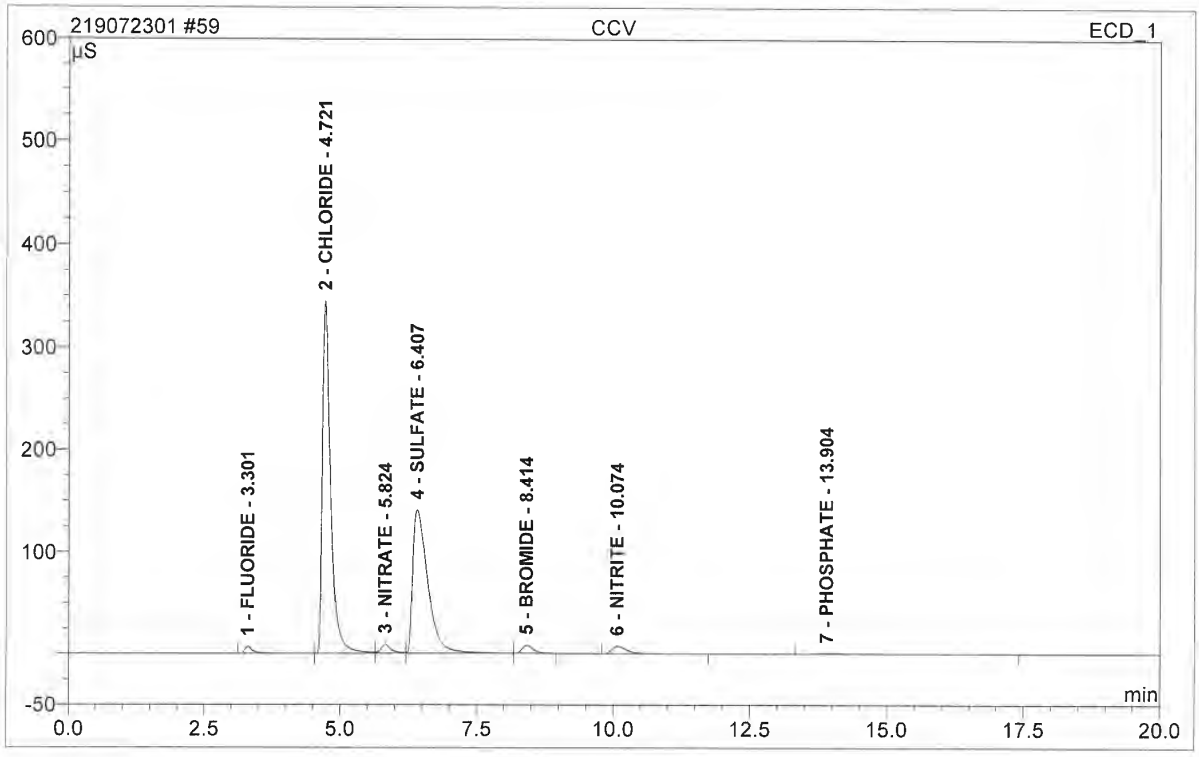
Sample Name:	**JC91330-7**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 4:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.27	FLUORIDE	0.335	0.060	0.02	0.150	BM
2	3.62	n.a.	0.046	0.007	0.00	n.a.	MB
3	4.70	CHLORIDE	1469.056	259.769	92.99	875.692	BM
4	5.52	NITRATE	8.895	5.039	1.80	8.403	M
5	6.54	SULFATE	49.324	13.467	4.82	61.763	M
6	8.45	BROMIDE	0.510	0.156	0.06	1.259	MB
7	10.14	NITRITE	3.003	0.847	0.30	1.165	BMB
8	18.25	n.a.	0.020	0.011	0.00	n.a.	BMB
Total:			1531.189	279.355	100.00	948.432	

59 CCV

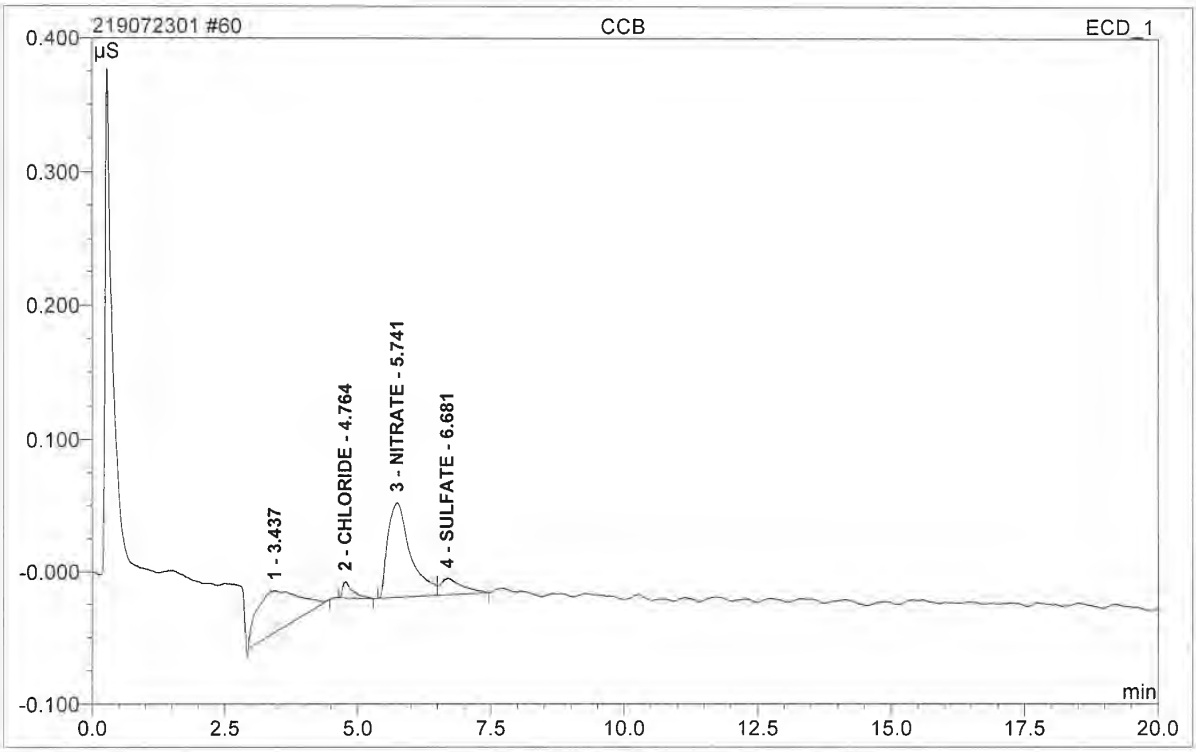
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 5:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.30	FLUORIDE	6.772	1.218	1.07	3.050	BMB
2	4.72	CHLORIDE	344.788	60.879	53.44	205.226	BM
3	5.82	NITRATE	9.079	1.922	1.69	3.206	M
4	6.41	SULFATE	140.607	45.185	39.66	207.239	Mb
5	8.41	BROMIDE	7.972	1.864	1.64	15.038	bMB
6	10.07	NITRITE	7.379	2.277	2.00	3.133	BMB
7	13.90	PHOSPHATE	0.595	0.579	0.51	2.998	BMB
Total:			517.191	113.924	100.00	439.889	

60 CCB

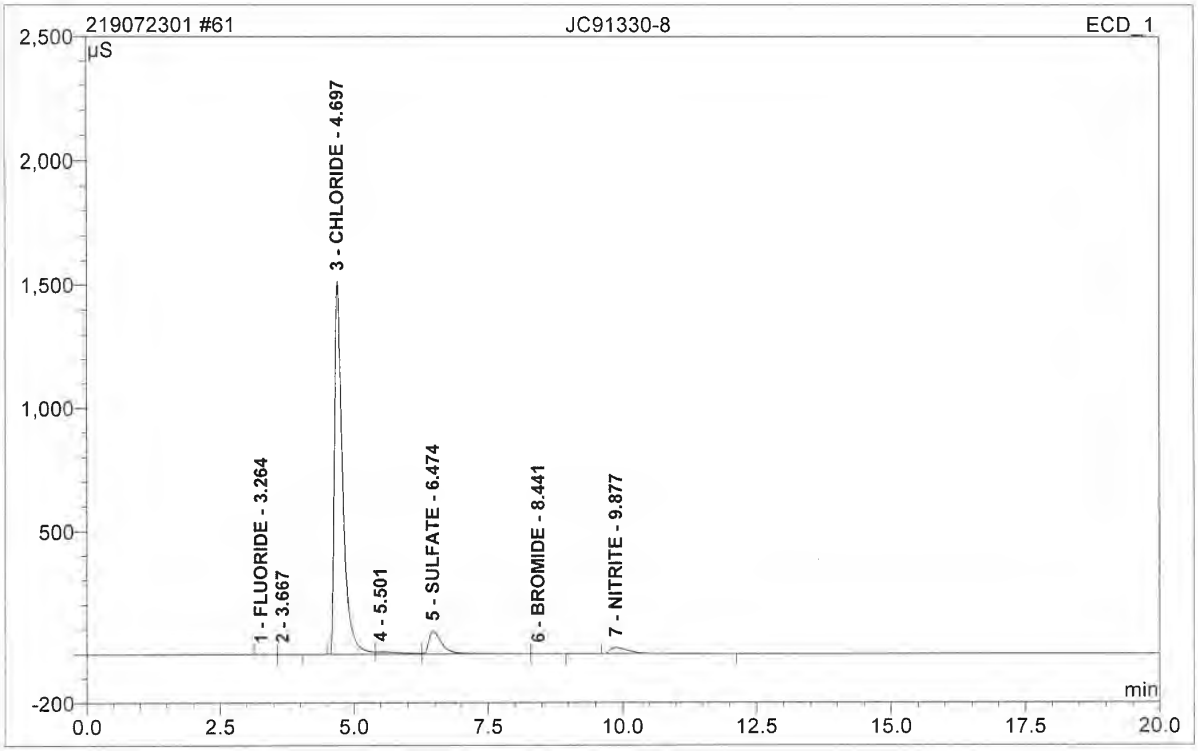
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 5:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.44	n.a.	0.031	0.028	37.68	n.a.	BMB
2	4.76	CHLORIDE	0.013	0.003	3.84	0.010	BMB
3	5.74	NITRATE	0.072	0.036	48.82	0.060	BM
4	6.68	SULFATE	0.013	0.006	8.12	0.027	MB
5	20.75	n.a.	0.004	0.001	1.55	n.a.	BMB
Total:			0.133	0.073	100.00	0.097	

61 JC91330-8

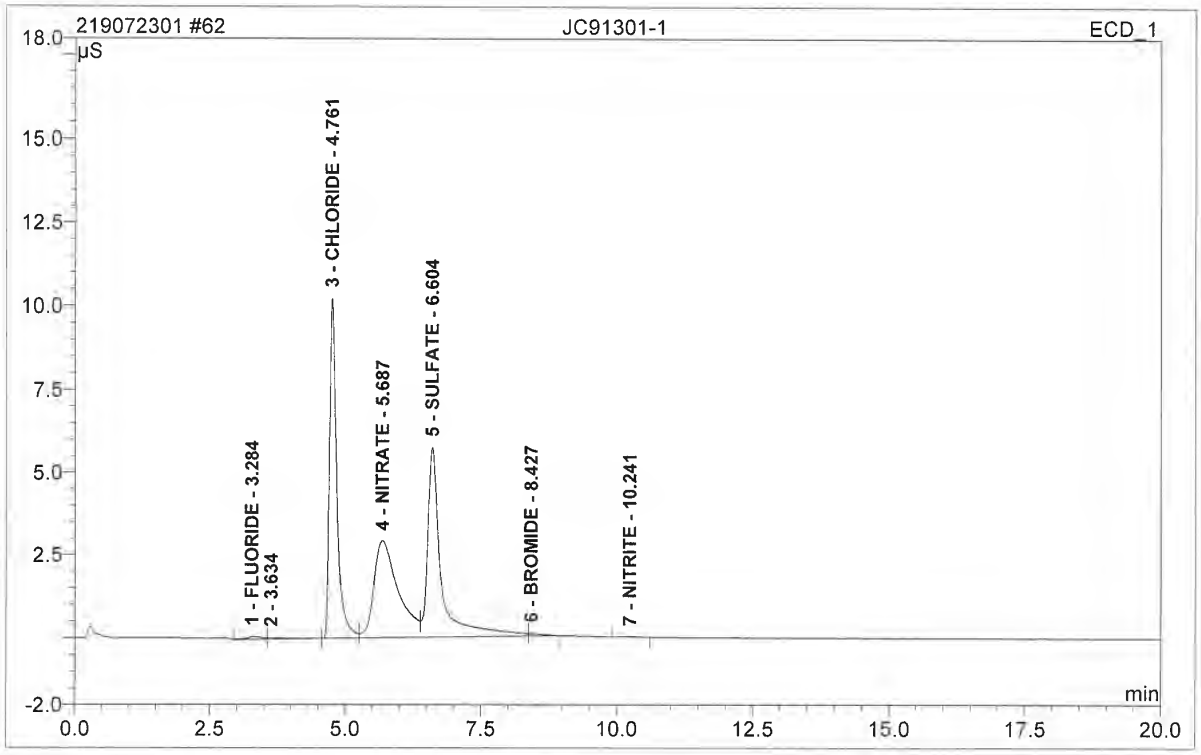
Sample Name:	**JC91330-8**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 5:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	FLUORIDE	0.136	0.024	0.01	0.061	BM
2	3.67	n.a.	0.022	0.005	0.00	n.a.	MB
3	4.70	CHLORIDE	1514.257	267.277	86.42	901.002	BM
4	5.50	n.a.	9.212	5.145	1.66	n.a.	M
5	6.47	SULFATE	91.501	26.793	8.66	122.886	M
6	8.44	BROMIDE	0.431	0.141	0.05	1.141	MB
7	9.88	NITRITE	25.105	9.901	3.20	13.624	BMB
Total:			1640.664	309.286	100.00	1038.713	

62 JC91301-1

Sample Name:	**JC91301-1**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 6:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.28	FLUORIDE	0.089	0.028	0.58	0.071	BM
2	3.63	n.a.	0.044	0.017	0.36	n.a.	MB
3	4.76	CHLORIDE	10.228	1.604	33.13	5.408	BM
4	5.69	NITRATE	2.920	1.506	31.10	2.511	M
5	6.60	SULFATE	5.747	1.662	34.32	7.621	M
6	8.43	BROMIDE	0.070	0.020	0.41	0.159	MB
7	10.24	NITRITE	0.019	0.005	0.10	0.007	BMB
Total:			19.118	4.842	100.00	15.778	

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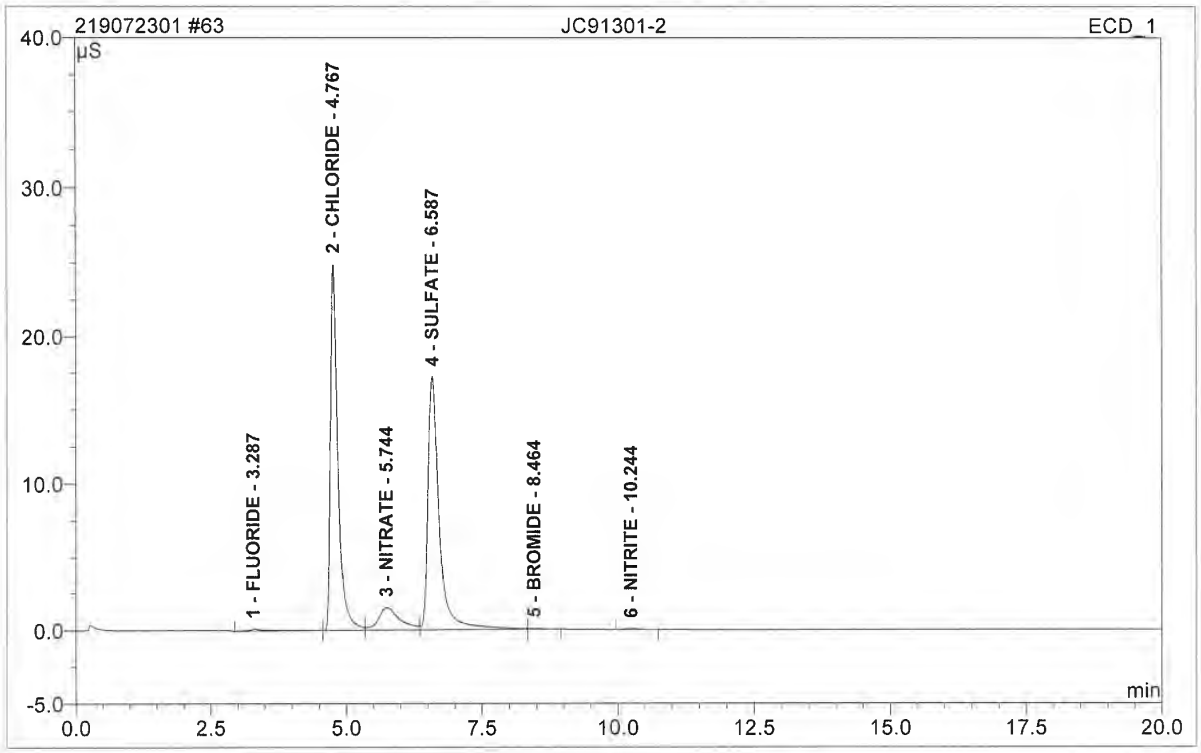
63 JC91301-2

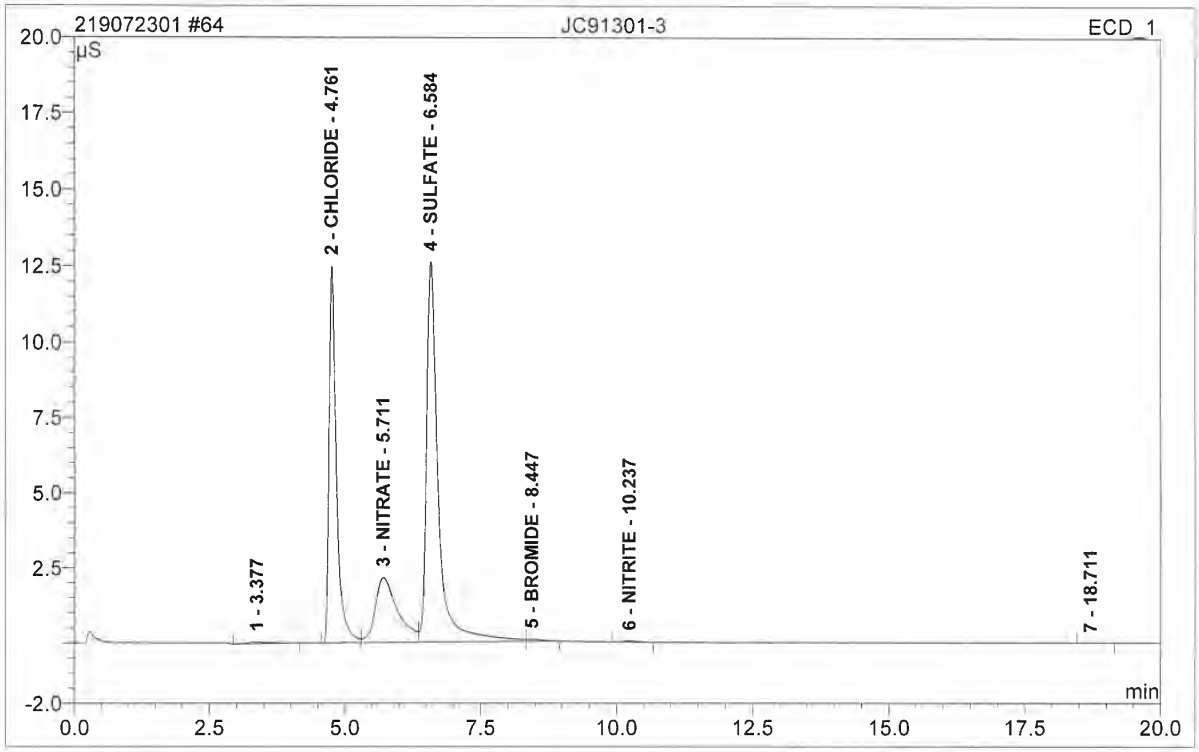
Sample Name:	**JC91301-2**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 6:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.29	FLUORIDE	0.160	0.058	0.65	0.145	BMB
2	4.77	CHLORIDE	24.866	3.977	44.40	13.406	BM
3	5.74	NITRATE	1.518	0.704	7.86	1.173	M
4	6.59	SULFATE	17.207	4.183	46.70	19.184	M
5	8.46	BROMIDE	0.054	0.018	0.20	0.143	MB
6	10.24	NITRITE	0.064	0.018	0.20	0.024	BMB
Total:			43.870	8.956	100.00	34.074	

64 JC91301-3

Sample Name:	**JC91301-3**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 7:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



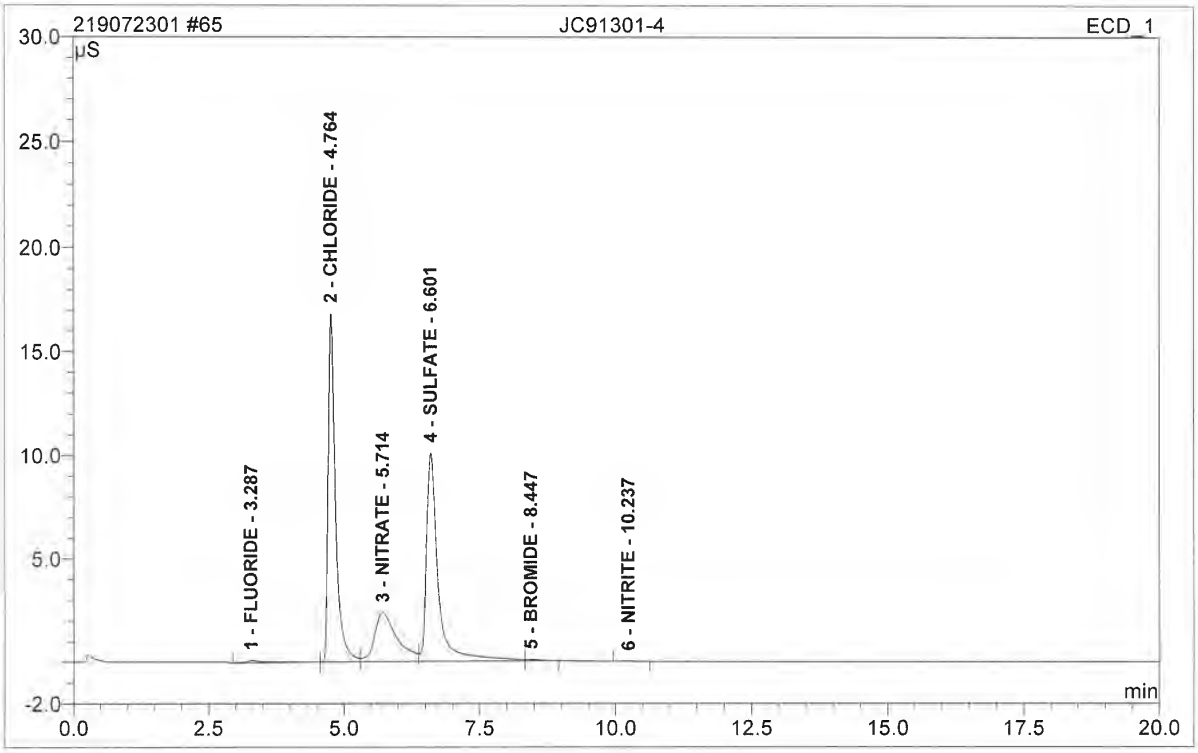
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.38	n.a.	0.064	0.032	0.52	n.a.	BMB
2	4.76	CHLORIDE	12.488	1.965	31.63	6.623	BM
3	5.71	NITRATE	2.164	1.029	16.57	1.716	M
4	6.58	SULFATE	12.610	3.152	50.75	14.456	M
5	8.45	BROMIDE	0.066	0.021	0.34	0.170	MB
6	10.24	NITRITE	0.037	0.010	0.17	0.014	BMB
7	18.71	n.a.	0.003	0.001	0.02	n.a.	BMB
Total:			27.432	6.210	100.00	22.979	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

65 JC91301-4

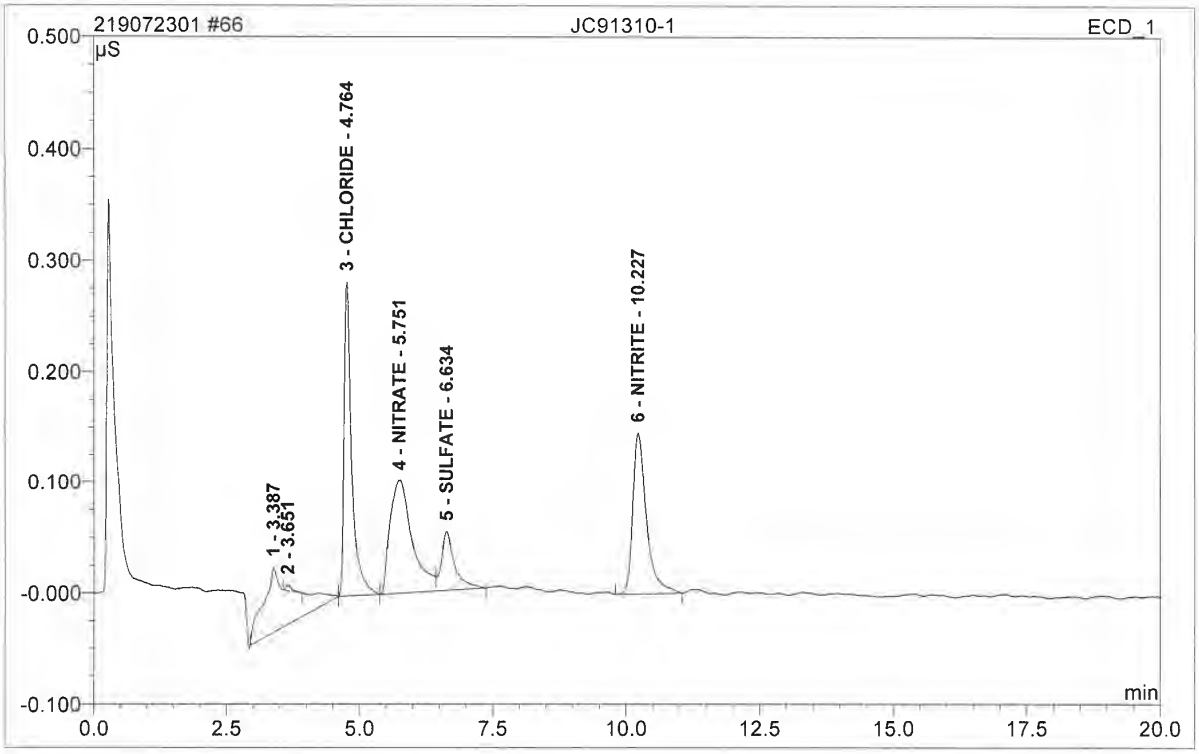
Sample Name:	**JC91301-4**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 7:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.29	FLUORIDE	0.115	0.053	0.82	0.132	BMB
2	4.76	CHLORIDE	16.827	2.649	41.28	8.930	bM
3	5.71	NITRATE	2.363	1.151	17.94	1.920	M
4	6.60	SULFATE	10.083	2.539	39.57	11.643	M
5	8.45	BROMIDE	0.061	0.020	0.31	0.161	MB
6	10.24	NITRITE	0.019	0.005	0.08	0.007	BMB
Total:			29.468	6.416	100.00	22.792	

66 JC91310-1

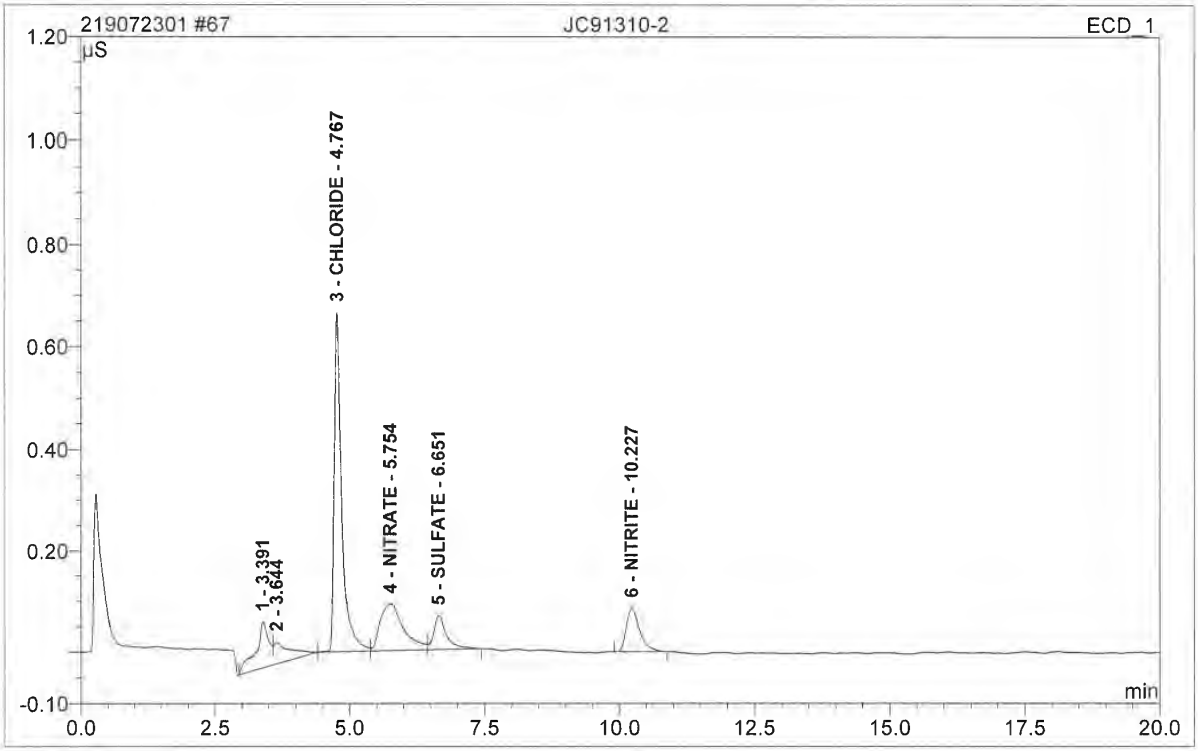
Sample Name:	**JC91310-1**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 7:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.39	n.a.	0.058	0.038	19.60	n.a.	BMB
2	3.65	n.a.	0.005	0.001	0.35	n.a.	Rd
3	4.76	CHLORIDE	0.283	0.047	24.15	0.158	bMB
4	5.75	NITRATE	0.102	0.049	25.42	0.082	BM
5	6.63	SULFATE	0.053	0.015	7.99	0.071	MB
6	10.23	NITRITE	0.146	0.044	22.49	0.060	BMB
Total:			0.648	0.194	100.00	0.370	

67 JC91310-2

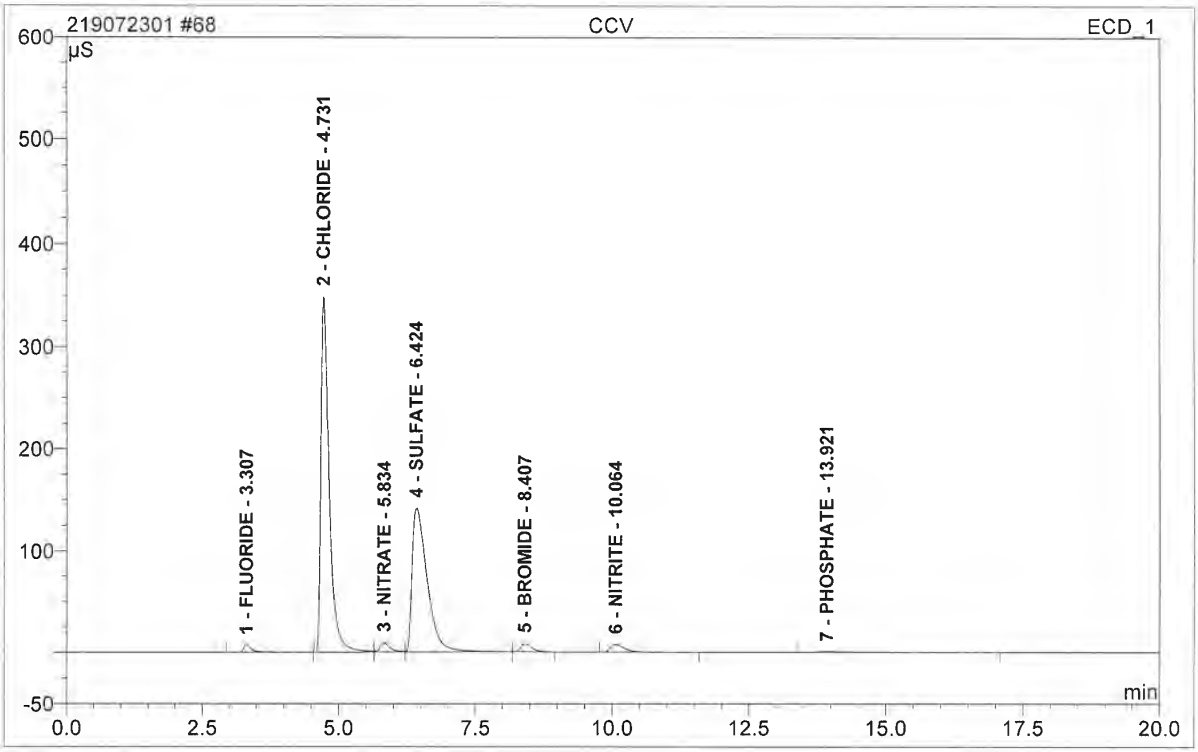
Sample Name:	**JC91310-2**	*Injection Volume:*	**20.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 8:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.39	n.a.	0.089	0.025	10.62	n.a.	BM
2	3.64	n.a.	0.042	0.015	6.16	n.a.	MB
3	4.77	CHLORIDE	0.666	0.108	45.77	0.365	bM
4	5.75	NITRATE	0.092	0.046	19.36	0.076	M
5	6.65	SULFATE	0.066	0.018	7.73	0.084	MB
6	10.23	NITRITE	0.086	0.024	10.35	0.034	BMB
Total:			1.040	0.237	100.00	0.559	

68 CCV

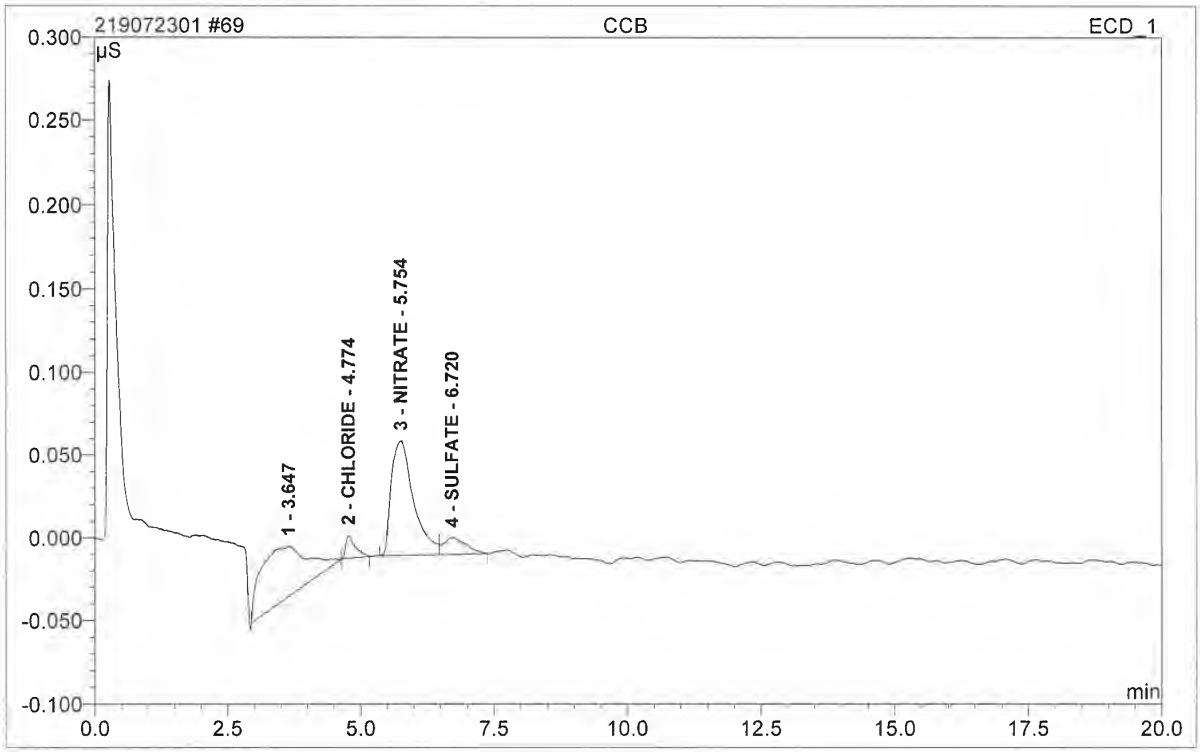
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 8:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.31	FLUORIDE	6.938	1.257	1.10	3.147	BMB
2	4.73	CHLORIDE	348.231	61.151	53.39	206.142	BM
3	5.83	NITRATE	9.196	1.946	1.70	3.246	M
4	6.42	SULFATE	141.558	45.351	39.60	207.998	Mb
5	8.41	BROMIDE	8.080	1.881	1.64	15.177	bMB
6	10.06	NITRITE	7.514	2.289	2.00	3.150	BMB
7	13.92	PHOSPHATE	0.799	0.659	0.58	3.412	BMB
Total:			522.316	114.534	100.00	442.273	

69 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 9:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.65	n.a.	0.030	0.033	43.83	n.a.	BMB
2	4.77	CHLORIDE	0.014	0.003	3.95	0.010	bMB
3	5.75	NITRATE	0.069	0.034	45.40	0.056	BM
4	6.72	SULFATE	0.010	0.005	6.82	0.023	MB
Total:			0.124	0.074	100.00	0.089	

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Version 6.80 SR9a Build 2680 (163077)

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: 219072401.TXT
Analyst: NV

Date Analyzed: 07/24/19
Run ID: GN97884

Methods: EPA 300/SW846 9056A

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: NV Date 7/25/19

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 7/25/19

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: 219072401.TXT Date Analyzed: 07/24/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN97884

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: NV Date 7/24/19

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date _____

Sequence: 219072401
Operator: chemistry

Printed: 7/25/2019 9:07:13 AM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\JULY
Timebase: ACCUTEST_SYS#2 GN97884
#Samples: 64

Created: 7/24/2019 10:29:15 AM by chemistry
Last Update: 7/25/2019 8:43:24 AM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
1	BLANKCONF	1		Unknown	20.0	1.0000	Finished	7/24/2019 10:31:24 AM
2	STDA	2		Standard	20.0	1.0000	Finished	7/18/2019 6:08:27 PM
3	STDB	3		Standard	20.0	1.0000	Finished	7/18/2019 6:32:22 PM
4	STDC	4		Standard	20.0	1.0000	Finished	7/18/2019 6:56:18 PM
5	STDCD	5		Standard	20.0	1.0000	Finished	7/18/2019 7:20:14 PM
6	STDD	6		Standard	20.0	1.0000	Finished	7/18/2019 7:44:09 PM
7	STDDE	7		Standard	20.0	1.0000	Finished	7/18/2019 8:08:04 PM
8	STDE	8		Standard	20.0	1.0000	Finished	7/18/2019 8:32:00 PM
9	STDF	9		Standard	20.0	1.0000	Finished	7/18/2019 8:55:56 PM
10	STDG	10		Standard	20.0	1.0000	Finished	7/18/2019 9:19:51 PM
11	ICV	2		Unknown	20.0	1.0000	Finished	7/24/2019 10:54:52 AM
12	CCV	3		Unknown	20.0	1.0000	Finished	7/24/2019 11:18:47 AM
13	CCB	4		Unknown	20.0	1.0000	Finished	7/24/2019 11:42:42 AM
14	MB	5		Unknown	20.0	1.0000	Finished	7/24/2019 12:06:37 PM
15	BSP	6		Unknown	20.0	1.0000	Finished	7/24/2019 12:30:33 PM
16	JC91333-1	7		Unknown	20.0	4.0000	Finished	7/24/2019 1:03:45 PM
17	JC91348-1	8		Unknown	20.0	2.0000	Finished	7/24/2019 1:27:20 PM
18	JC91348-2	9		Unknown	20.0	2.0000	Finished	7/24/2019 1:51:16 PM
19	JC91373-1	10		Unknown	20.0	10.0000	Finished	7/24/2019 2:15:12 PM
20	JC91373-3	11		Unknown	20.0	10.0000	Finished	7/24/2019 2:39:08 PM
21	CCV	12		Unknown	20.0	1.0000	Finished	7/24/2019 3:03:04 PM
22	CCB	13		Unknown	20.0	1.0000	Finished	7/24/2019 3:27:00 PM
23	GP22543-S1	14	JC91330-1	Unknown	20.0	20.0000	Finished	7/24/2019 3:50:55 PM
24	GP22543-D1	15	JC91330-1	Unknown	20.0	10.0000	Finished	7/24/2019 4:14:50 PM
25	JC91330-1	16		Unknown	20.0	10.0000	Finished	7/24/2019 4:38:46 PM
26	GP22543-S2	17	JC91330-2	Unknown	20.0	20.0000	Finished	7/24/2019 5:02:41 PM
27	JC91330-2	18		Unknown	20.0	10.0000	Finished	7/24/2019 5:26:37 PM
28	JC91330-5	19		Unknown	20.0	4.0000	Finished	7/24/2019 5:50:31 PM
29	JC91330-6	20		Unknown	20.0	4.0000	Finished	7/24/2019 6:14:28 PM
30	JC91330-7	21		Unknown	20.0	4.0000	Finished	7/24/2019 6:38:22 PM
31	JC91330-8	22		Unknown	20.0	4.0000	Finished	7/24/2019 7:02:18 PM
32	CCV	23		Unknown	20.0	1.0000	Finished	7/24/2019 7:26:13 PM
33	CCB	24		Unknown	20.0	1.0000	Finished	7/24/2019 7:50:09 PM
34	MB	25		Unknown	20.0	1.0000	Finished	7/24/2019 8:14:04 PM
35	BSP	26		Unknown	20.0	1.0000	Finished	7/24/2019 8:38:00 PM
36	GP22576-S1	27	JC91272-1	Unknown	20.0	1.0000	Finished	7/24/2019 9:01:55 PM
37	GP22576-D1	28	JC91272-1	Unknown	20.0	1.0000	Finished	7/24/2019 9:25:50 PM
38	JC91272-1	29		Unknown	20.0	1.0000	Finished	7/24/2019 9:49:46 PM
39	GP22576-S2	30	JC91272-2	Unknown	20.0	1.0000	Finished	7/24/2019 10:13:40 PM
40	JC91272-2	31		Unknown	20.0	1.0000	Finished	7/24/2019 10:37:35 PM
41	JC91272-3	32		Unknown	20.0	1.0000	Finished	7/24/2019 11:01:31 PM
42	JC91272-4	33		Unknown	20.0	1.0000	Finished	7/24/2019 11:25:27 PM

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Sequence: 219072401
Operator: chemistry Printed: 7/25/2019 9:07:18 AM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\JULY
Timebase: ACCUTEST_SYS#2 Created 7/24/2019 10:29:15 AM by chemistry
#Samples: 64 Last Update: 7/25/2019 8:43:24 AM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
43	JC91272-5	34		Unknown	20.0	1.0000	Finished	7/24/2019 11:49:22 PM
44	CCV	35		Unknown	20.0	1.0000	Finished	7/25/2019 12:13:18 AM
45	CCB	36		Unknown	20.0	1.0000	Finished	7/25/2019 12:37:13 AM
46	JC91272-6	37		Unknown	20.0	1.0000	Finished	7/25/2019 1:01:08 AM
47	JC91272-7	38		Unknown	20.0	1.0000	Finished	7/25/2019 1:25:03 AM
48	JC91272-8	39		Unknown	20.0	1.0000	Finished	7/25/2019 1:48:58 AM
49	JC91272-9	40		Unknown	20.0	1.0000	Finished	7/25/2019 2:12:53 AM
50	JC91272-10	41		Unknown	20.0	1.0000	Finished	7/25/2019 2:36:49 AM
51	JC91707-1	42		Unknown	20.0	1.0000	Finished	7/25/2019 3:00:45 AM
52	JC91707-2	43		Unknown	20.0	1.0000	Finished	7/25/2019 3:24:41 AM
53	JC91707-3	44		Unknown	20.0	1.0000	Finished	7/25/2019 3:48:36 AM
54	JC91707-4	45		Unknown	20.0	1.0000	Finished	7/25/2019 4:12:31 AM
55	JC91707-5	46		Unknown	20.0	1.0000	Finished	7/25/2019 4:36:27 AM
56	CCV	47		Unknown	20.0	1.0000	Finished	7/25/2019 5:00:23 AM
57	CCB	48		Unknown	20.0	1.0000	Finished	7/25/2019 5:24:18 AM
58	JC91707-6	49		Unknown	20.0	1.0000	Finished	7/25/2019 5:48:13 AM
59	JC91330-14	50		Unknown	20.0	1.0000	Finished	7/25/2019 6:12:09 AM
60	JC91330-15	1		Unknown	20.0	1.0000	Finished	7/25/2019 6:36:05 AM
61	JC91330-16	2		Unknown	20.0	1.0000	Finished	7/25/2019 7:00:02 AM
62	JC91330-18	3		Unknown	20.0	1.0000	Finished	7/25/2019 7:23:57 AM
63	CCV	4		Unknown	20.0	1.0000	Finished	7/25/2019 7:47:52 AM
64	CCB	5		Unknown	20.0	1.0000	Finished	7/25/2019 8:11:47 AM

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Sequence: 219072401 — Page 1 of 4
Operator: chemistry — Printed: 7/24/2019 11:54:11 AM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\JULY
Timebase: ACCUTEST_SYS#2 — Created: 7/24/2019 10:29:15 AM by chemistry
#Samples: 65 — (Modified, not saved)

GN97884

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
1	BLANKCONF	1		Unknown	20.0	1.0000	Finished	7/24/2019 10:31:24 AM
2	STDA	2		Standard	20.0	1.0000	Finished	7/18/2019 6:08:27 PM
3	STDB	3		Standard	20.0	1.0000	Finished	7/18/2019 6:32:22 PM
4	STDC	4		Standard	20.0	1.0000	Finished	7/18/2019 6:56:18 PM
5	STDCD	5		Standard	20.0	1.0000	Finished	7/18/2019 7:20:14 PM
6	STDD	6		Standard	20.0	1.0000	Finished	7/18/2019 7:44:09 PM
7	STDDE	7		Standard	20.0	1.0000	Finished	7/18/2019 8:08:04 PM
8	STDE	8		Standard	20.0	1.0000	Finished	7/18/2019 8:32:00 PM
9	STDF	9		Standard	20.0	1.0000	Finished	7/18/2019 8:55:56 PM
10	STDG	10		Standard	20.0	1.0000	Finished	7/18/2019 9:19:51 PM
11	ICV	2		Unknown	20.0	1.0000	Finished	7/24/2019 10:54:52 AM
12	CCV	3		Unknown	20.0	1.0000	Finished	7/24/2019 11:18:47 AM
▶	CCB	4		Unknown	20.0	1.0000	Running	7/24/2019 11:42:42 AM
14	MB	5		Unknown	20.0	1.0000	Single	
15	BSP	6		Unknown	20.0	1.0000	Single	
16	JC91333-1 4	7		Unknown	20.0	4.0000	Single	
17	JC91348-1 4	8		Unknown	20.0	2.0000	Single	
18	JC91348-2 4	9		Unknown	20.0	2.0000	Single	
19	JC91373-1 3	10		Unknown	20.0	10.0000	Single	
20	JC91373-3 3	11		Unknown	20.0	10.0000	Single	
21	CCV	12		Unknown	20.0	1.0000	Single	
22	CCB	13		Unknown	20.0	1.0000	Single	
23	GP22543-S1 5	14	JC91330-1	Unknown	20.0	20.0000	Single	
24	GP22543-D1 5	15	JC91330-1	Unknown	20.0	10.0000	Single	
25	JC91330-1 5	16		Unknown	20.0	10.0000	Single	
26	GP22543-S2 4	17	JC91330-2	Unknown	20.0	20.0000	Single	
27	JC91330-2 4	18		Unknown	20.0	10.0000	Single	
28	JC91330-5 4	19		Unknown	20.0	4.0000	Single	
29	JC91330-6 4	20		Unknown	20.0	4.0000	Single	
30	JC91330-7 4	21		Unknown	20.0	4.0000	Single	
31	JC91330-8 4	22		Unknown	20.0	4.0000	Single	
32	CCV	23		Unknown	20.0	1.0000	Single	
33	CCB	24		Unknown	20.0	1.0000	Single	
34	MB	25		Unknown	20.0	1.0000	Single	
35	BSP	26		Unknown	20.0	1.0000	Single	
36	GP22576-S1 3	27	JC91272-1	Unknown	20.0	1.0000	Single	
37	GP22576-D1 3	28	JC91272-1	Unknown	20.0	1.0000	Single	
38	JC91272-1 3	29		Unknown	20.0	1.0000	Single	
39	GP22576-S2 3	30	JC91272-2	Unknown	20.0	1.0000	Single	
40	JC91272-2 3	31		Unknown	20.0	1.0000	Single	
41	JC91272-3 3	32		Unknown	20.0	1.0000	Single	
42	JC91272-4 3	33		Unknown	20.0	1.0000	Single	

GP22543 (2)

GP22576 (1)

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Sequence: 219072401
Operator: chemistry

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\JULY
Timebase: ACCUTEST_SYS#2
#Samples: 65

Created: 7/24/2019 10:29:15 AM by chemistry
Last Update: 7/24/2019 12:00:26 PM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
43	JC91272-5 3	34		Unknown	20.0	1.0000	Single	
44	CCV	35		Unknown	20.0	1.0000	Single	
45	CCB	36		Unknown	20.0	1.0000	Single	
46	JC91272-6 3	37		Unknown	20.0	1.0000	Single	
47	JC91272-7 2	38		Unknown	20.0	1.0000	Single	
48	JC91272-8 3	39		Unknown	20.0	1.0000	Single	
49	JC91272-9 3	40		Unknown	20.0	1.0000	Single	
50	JC91272-10 3	41		Unknown	20.0	1.0000	Single	
51	JC91707-1 3	42		Unknown	20.0	1.0000	Single	
52	JC91707-2 3	43		Unknown	20.0	1.0000	Single	
53	JC91707-3 3	44		Unknown	20.0	1.0000	Single	
54	JC91707-4 3	45		Unknown	20.0	1.0000	Single	
55	JC91707-5 3	46		Unknown	20.0	1.0000	Single	
56	CCV	47		Unknown	20.0	1.0000	Single	
57	CCB	48		Unknown	20.0	1.0000	Single	
58	JC91707-6 3	49		Unknown	20.0	1.0000	Single	
59	JC91330-14 5	50		Unknown	20.0	1.0000	Single	
60	JC91330-15 5	1		Unknown	20.0	1.0000	Single	
61	JC91330-16 4	2		Unknown	20.0	1.0000	Single	
62	JC91330-18 4	3		Unknown	20.0	1.0000	Single	
63	CCV	4		Unknown	20.0	1.0000	Single	
64	CCB	5		Unknown	20.0	1.0000	Single	
65	STANDBY	6		Unknown	20.0	1.0000	Single	

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SGS

Analyst NV

Product CN1, SO4

Pipette ID 42

Prep Date 7/24/19

Balance ID NA

Batch ID GN97884

Sample Prep Log

Sample ID	Initial Sample Amount	Final Volume (mL)
BSP	0.5mL spiking solution	50
GP82576-S1	0.5mL spiking solution	50 JC91272-1
GP82576-S2	0.5mL spiking solution	50 JC91272-2

Form: GN166-02
Rev. Date: 8/5/05

QC Review

Analyst NV Product CN1 Autopipette # 42

Date 7/24/19 Batch ID GN97884 Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
GP22543-S1	1:20	5	100	CN1 JC91330-1 + 1mL spike
GP22543-D1	1:10	5	50	CN1 JC91330-1
JC91330-1	1:10	5	50	CN1
GP22543-S2	1:20	5	100	CN1 JC91330-2 + 1mL spike
JC91330-2	1:10	5	50	CN1
JC91333-1	1:4	10	40	CN1
JC91348-1	1:2	10	20	CN1
JC91348-2	1:2	10	20	CN1
JC91373-1	1:10	5	50	CN1
JC91373-3	1:10	5	50	CN1
JC91330-5	1:4	10	40	CN1
JC91330-6	1:4	10	40	CN1
JC91330-7	1:4	10	40	CN1
JC91330-8	1:4	10	40	CN1

QC Reviewer: Date:

Form: GN165-01
Rev. Date: 2/25/03

9.4 9

SGS

Reagent Information Log - IONC IC2 - Water /Soil

GN Batch ID#: GN97884

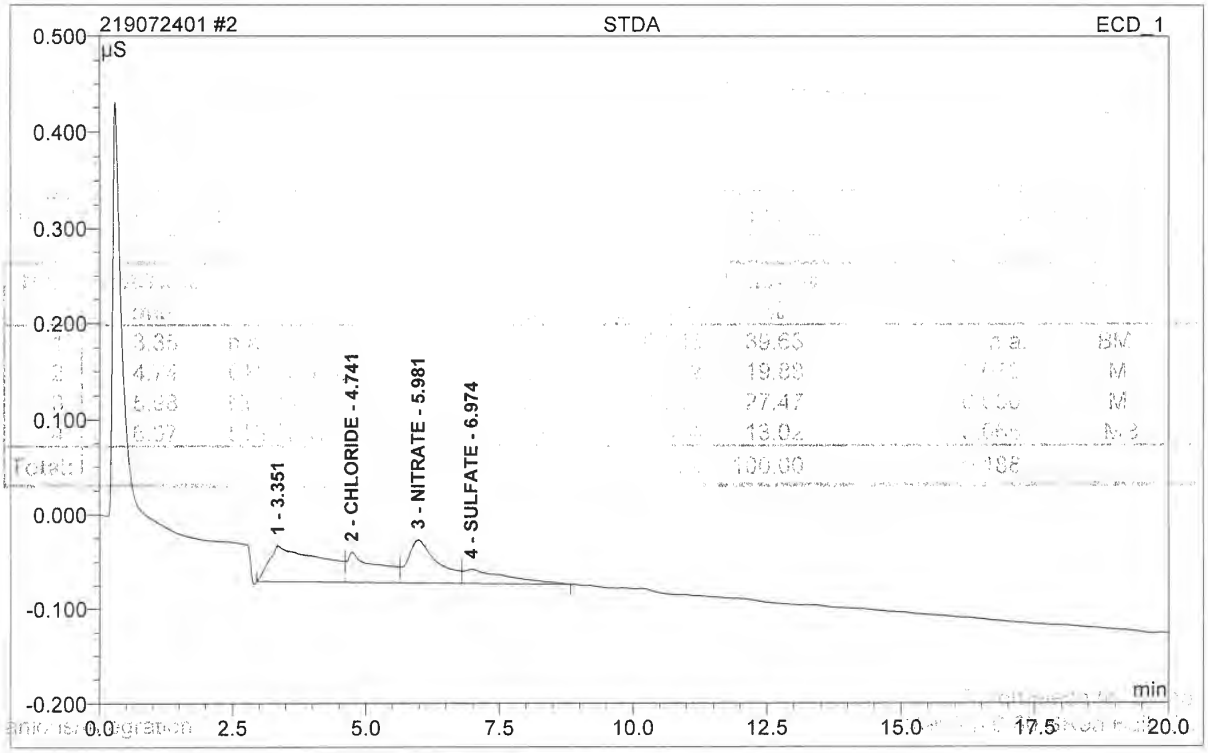
Reagent	Reagent # or Manufacturer/Lot	Exp. Date
Standard Intermediate (for Calibration Curve)	GN18-476-184	7/29/2019
Standard Intermediate (for Calibration Curve)	GN18-476-186	7/29/2019
ICV	GN18-479-57	7/29/2019
Eluent	190332638010	3/26/2021
Standard Intermediate (for Working std/Spikes)	GN18-476-184	7/29/2019
Standard Intermediate (for Working std/Spikes)	GN18-476-186	7/29/2019
CCV	GN19-493-34	7/29/2019
Spiking Solution Intermediate (CHL/SO4)	GN18-478-54	7/29/2019
Spiking Solution Intermediate (F/BRO)	GN18-478-55	7/29/2019
Spiking Solution (SOUP)	GN18-478-59	7/29/2019
Filter lot numbers	GREENWOOD #180111044	NA

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form : GN087A-76
Rev. Date: 4/7/09

2 STDA

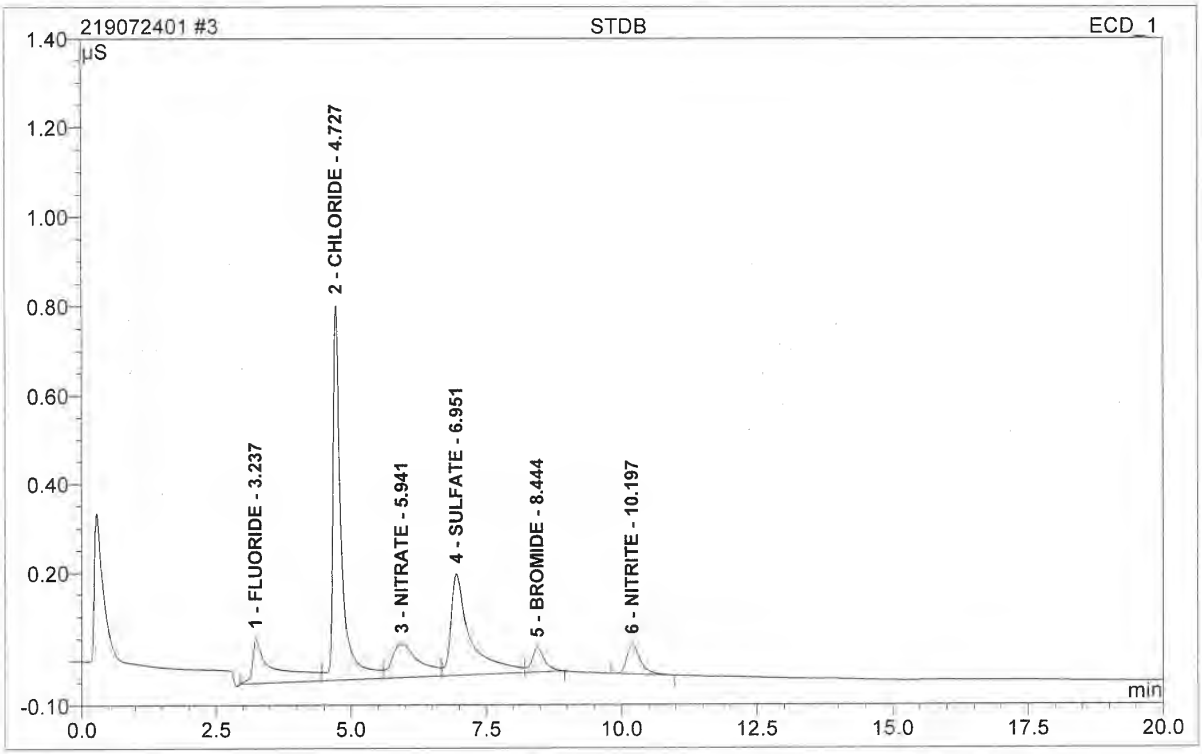
Sample Name:	**STDA**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 18:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.35	n.a.	0.038	0.043	39.63	n.a.	BM
2	4.74	CHLORIDE	0.032	0.022	19.88	0.073	M
3	5.98	NITRATE	0.046	0.030	27.47	0.050	M
4	6.97	SULFATE	0.015	0.014	13.02	0.065	MB
Total:			0.131	0.109	100.00	0.188	

3 STDB

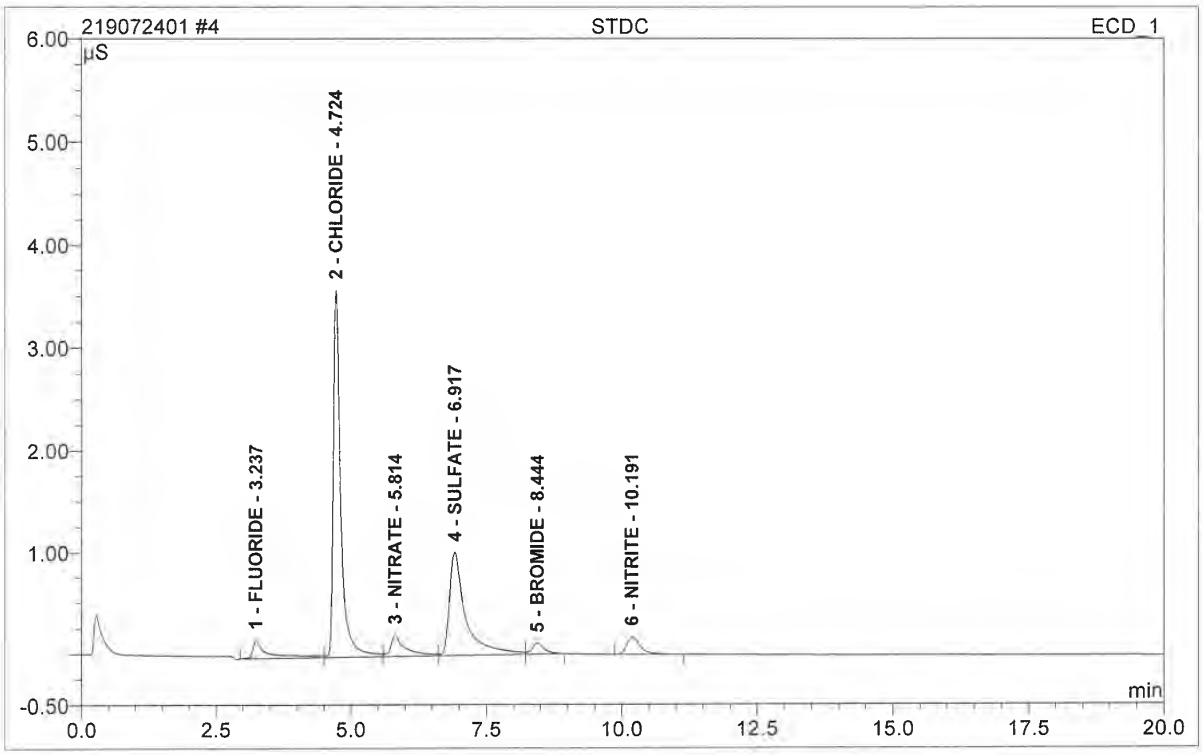
Sample Name:	**STDB**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 18:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	0.102	0.047	12.49	0.118	BM
2	4.73	CHLORIDE	0.847	0.152	40.42	0.513	M
3	5.94	NITRATE	0.077	0.045	11.99	0.075	M
4	6.95	SULFATE	0.231	0.097	25.82	0.446	M
5	8.44	BROMIDE	0.056	0.015	4.02	0.122	MB
6	10.20	NITRITE	0.068	0.020	5.26	0.027	BMB
Total:			1.380	0.377	100.00	1.302	

4 STDC

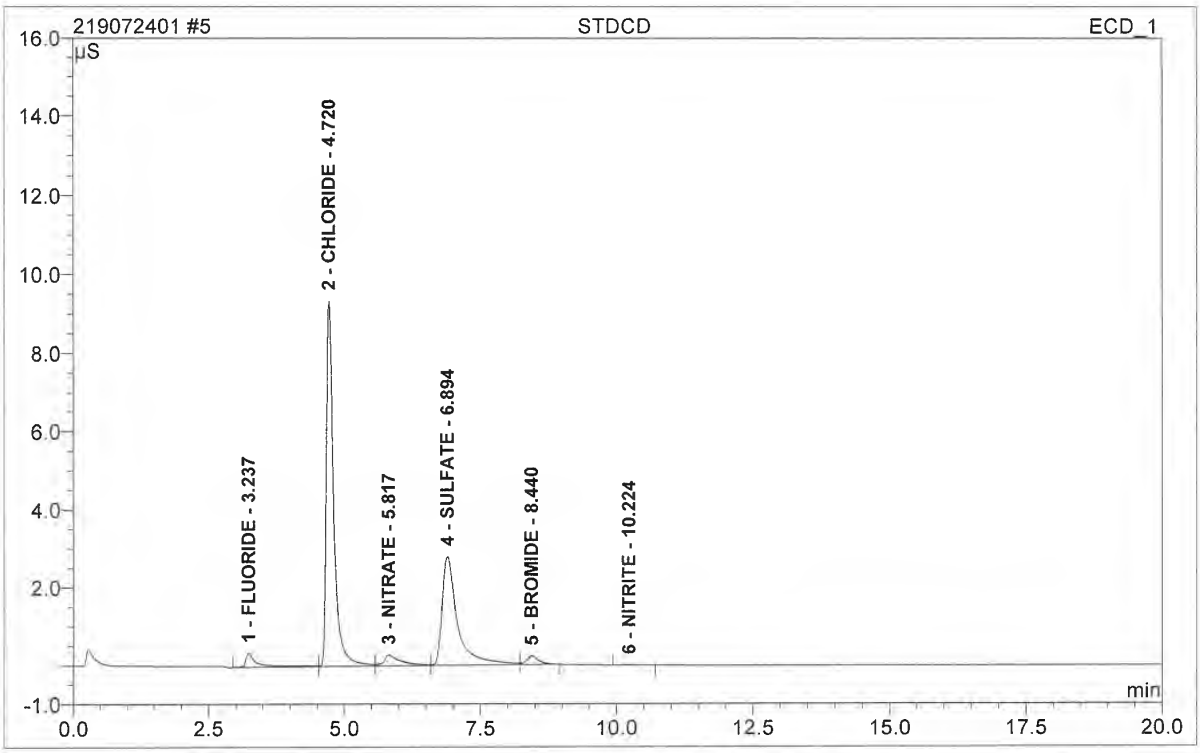
Sample Name:	**STDC**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 18:56**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	0.182	0.062	5.45	0.155	BM
2	4.72	CHLORIDE	3.590	0.573	50.67	1.933	M
3	5.81	NITRATE	0.207	0.066	5.80	0.110	M
4	6.92	SULFATE	1.020	0.353	31.20	1.619	M
5	8.44	BROMIDE	0.108	0.028	2.49	0.228	MB
6	10.19	NITRITE	0.172	0.050	4.38	0.068	BMB
Total:			5.279	1.132	100.00	4.112	

5 STDCD

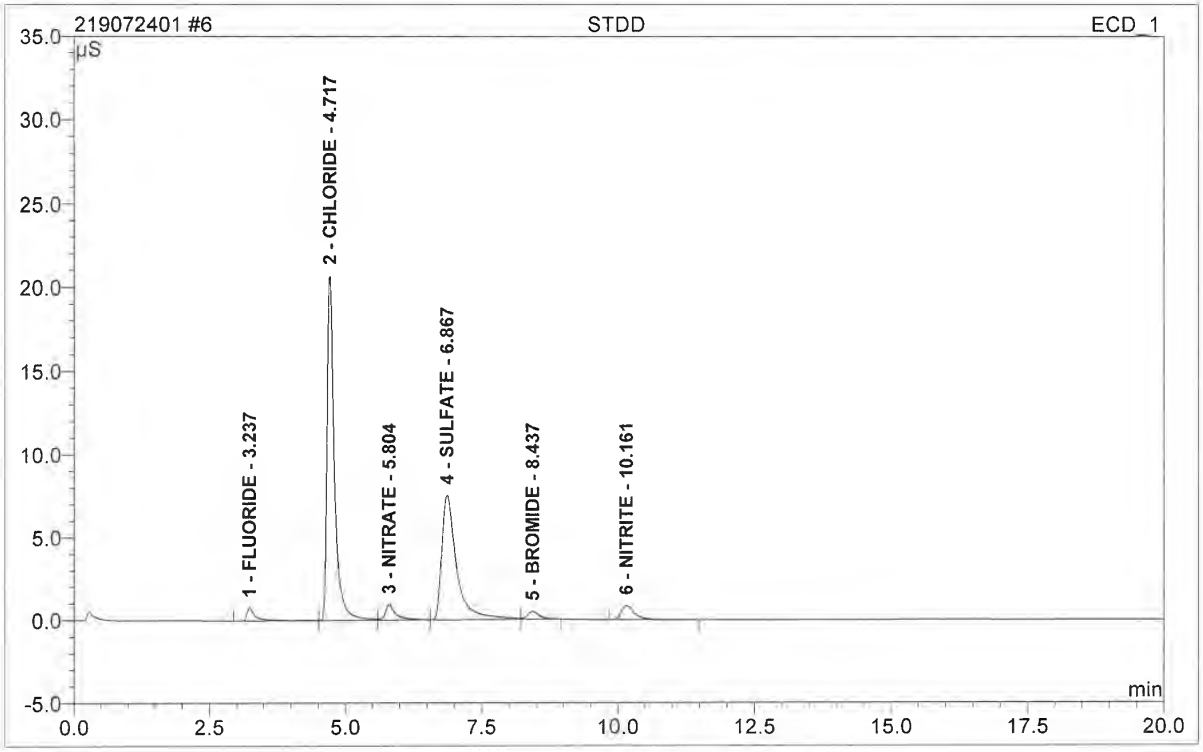
Sample Name:	**STDCD**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 19:20**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	0.368	0.093	3.50	0.232	BM
2	4.72	CHLORIDE	9.343	1.470	55.50	4.956	M
3	5.82	NITRATE	0.285	0.103	3.88	0.171	M
4	6.89	SULFATE	2.806	0.923	34.86	4.235	M
5	8.44	BROMIDE	0.225	0.058	2.19	0.468	MB
6	10.22	NITRITE	0.007	0.002	0.07	0.003	BMB
Total:			13.033	2.649	100.00	10.065	

6 STDD

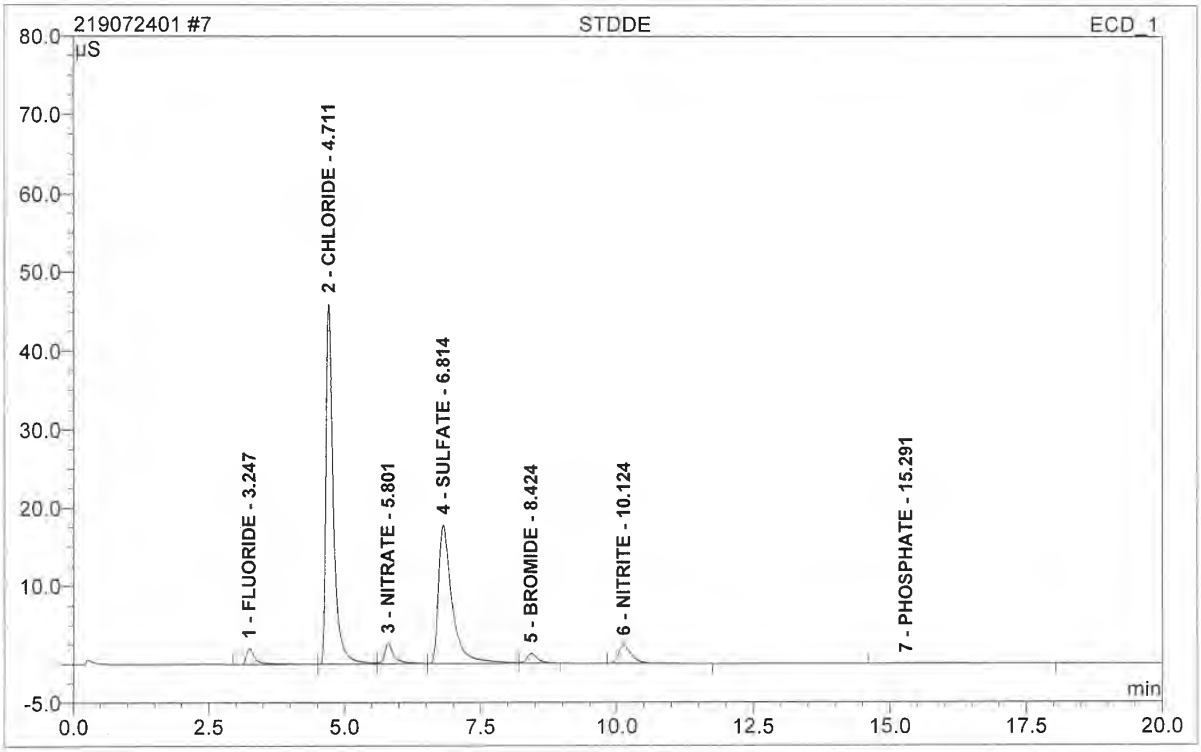
Sample Name:	**STDD**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 19:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	0.763	0.156	2.45	0.392	BM
2	4.72	CHLORIDE	20.679	3.262	51.15	10.996	M
3	5.80	NITRATE	0.930	0.214	3.36	0.357	M
4	6.87	SULFATE	7.553	2.388	37.45	10.954	M
5	8.44	BROMIDE	0.474	0.118	1.85	0.954	MB
6	10.16	NITRITE	0.845	0.238	3.73	0.328	BMB
Total:			31.245	6.377	100.00	23.981	

7 STDDE

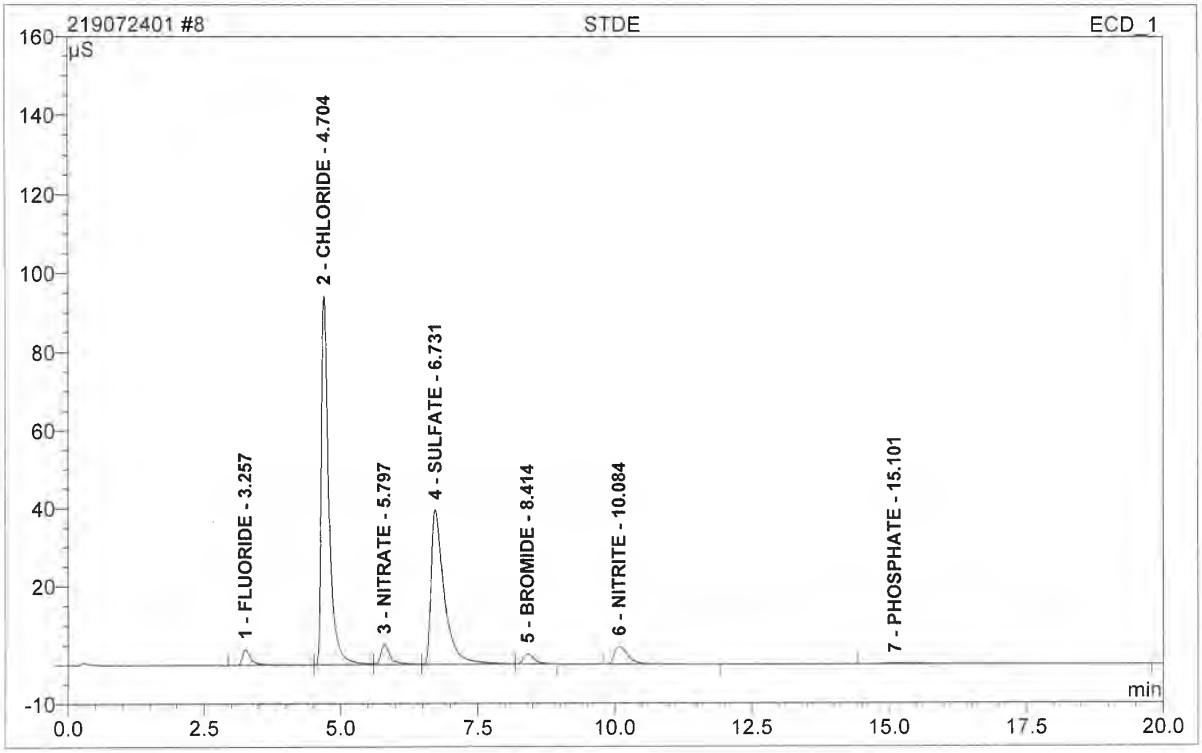
Sample Name:	**STDDE**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 20:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	2.039	0.389	2.69	0.974	BM
2	4.71	CHLORIDE	45.966	7.318	50.58	24.669	M
3	5.80	NITRATE	2.579	0.543	3.75	0.905	M
4	6.81	SULFATE	17.811	5.186	35.85	23.785	M
5	8.42	BROMIDE	1.271	0.299	2.07	2.414	MB
6	10.12	NITRITE	2.305	0.658	4.55	0.905	BMB
7	15.29	PHOSPHATE	0.055	0.075	0.52	0.386	BMB
Total:			72.025	14.467	100.00	54.039	

8 STDE

Sample Name:	**STDE**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 20:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	FLUORIDE	4.029	0.788	2.60	1.973	BM
2	4.70	CHLORIDE	94.138	15.221	50.17	51.310	M
3	5.80	NITRATE	5.137	1.073	3.54	1.790	M
4	6.73	SULFATE	39.386	11.031	36.36	50.595	M
5	8.41	BROMIDE	2.632	0.610	2.01	4.923	MB
6	10.08	NITRITE	4.555	1.351	4.45	1.859	BMB
7	15.10	PHOSPHATE	0.193	0.261	0.86	1.353	BMB
Total:			150.071	30.336	100.00	113.802	

anions/Integration

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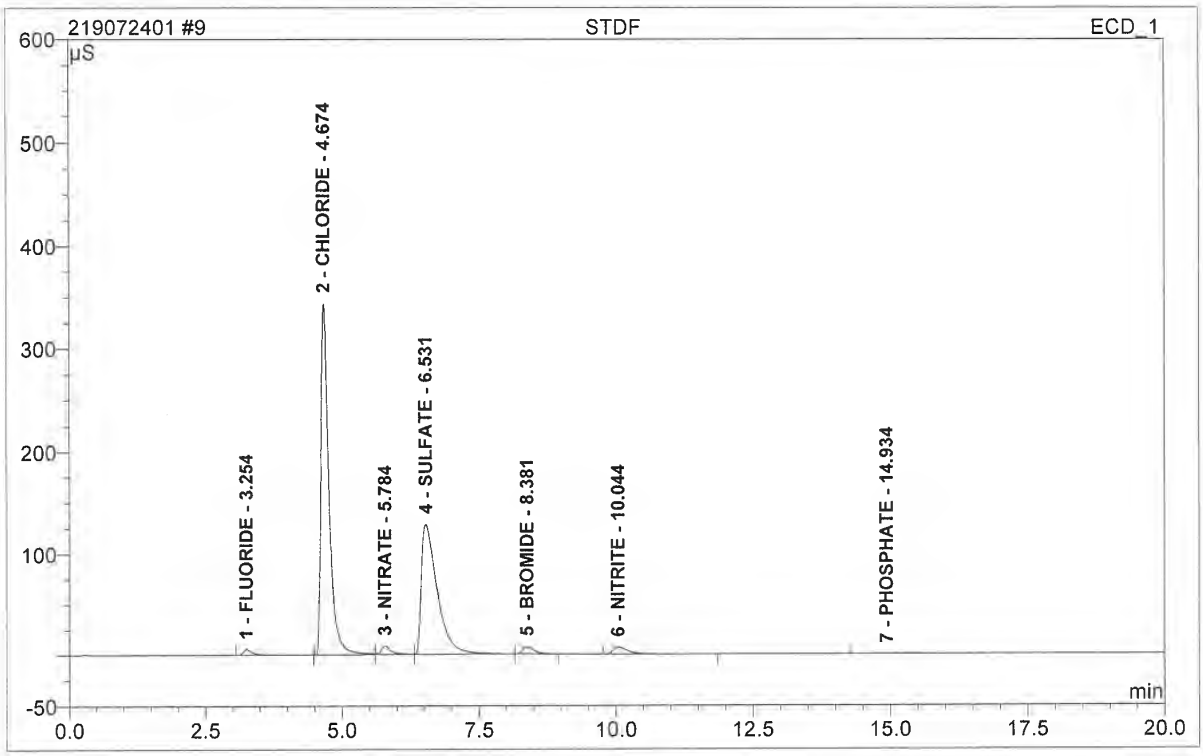
9 STDF

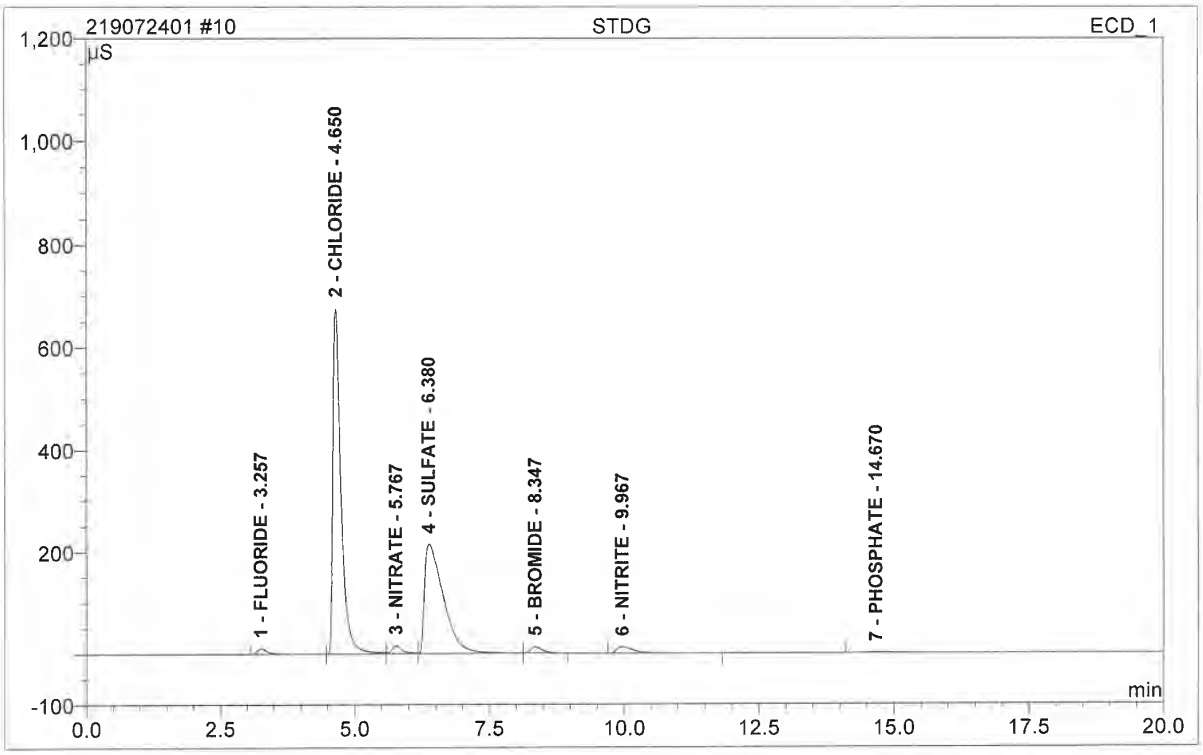
Sample Name:	**STDF**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength.*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 20:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	5.837	1.153	1.05	2.888	BMB
2	4.67	CHLORIDE	343.694	58.996	53.64	198.878	BM
3	5.78	NITRATE	8.827	1.903	1.73	3.173	M
4	6.53	SULFATE	129.053	43.476	39.53	199.398	Mb
5	8.38	BROMIDE	7.609	1.784	1.62	14.396	bMB
6	10.04	NITRITE	7.042	2.181	1.98	3.002	BMB
7	14.93	PHOSPHATE	0.422	0.499	0.45	2.583	BMB
Total:			502.486	109.992	100.00	424.319	

10 STDG

Sample Name:	**STDG**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/18/2019 21:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	FLUORIDE	11.516	2.423	1.10	6.067	BMB
2	4.65	CHLORIDE	676.417	118.774	53.77	400.394	BM
3	5.77	NITRATE	16.433	3.590	1.63	5.987	M
4	6.38	SULFATE	215.324	87.277	39.51	400.290	Mb
5	8.35	BROMIDE	12.836	3.146	1.42	25.389	bMB
6	9.97	NITRITE	12.937	4.411	2.00	6.069	BMB
7	14.67	PHOSPHATE	1.281	1.261	0.57	6.526	BMB
Total:			946.745	220.882	100.00	850.723	

anions/Integration

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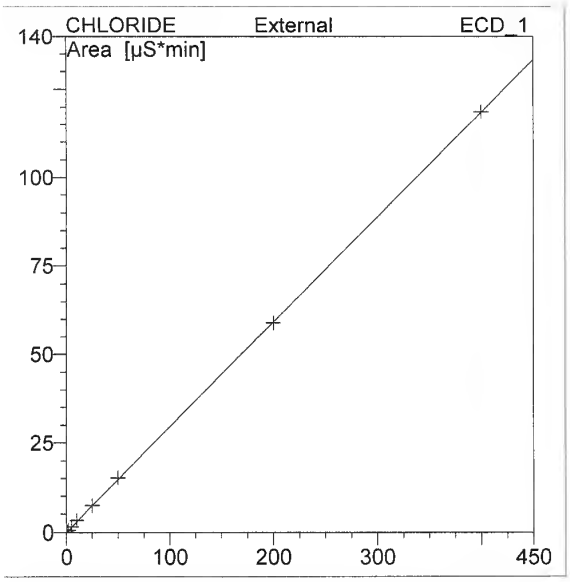
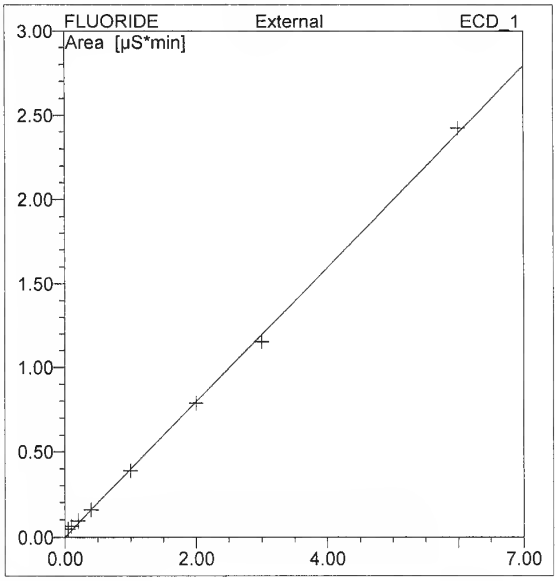
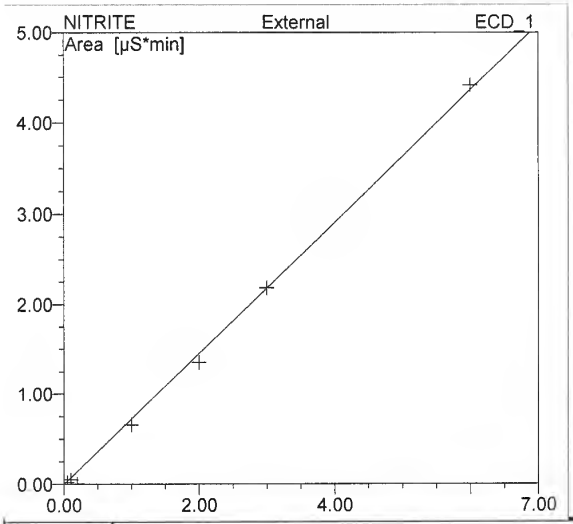
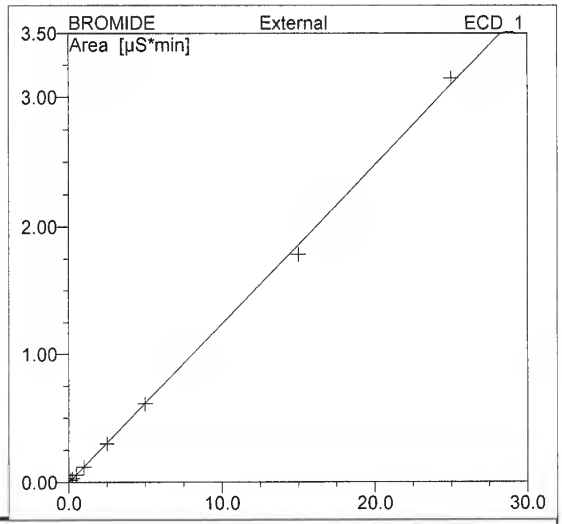
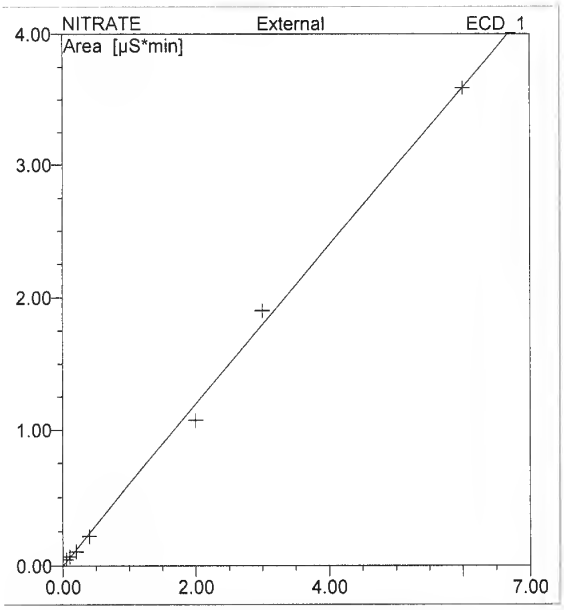


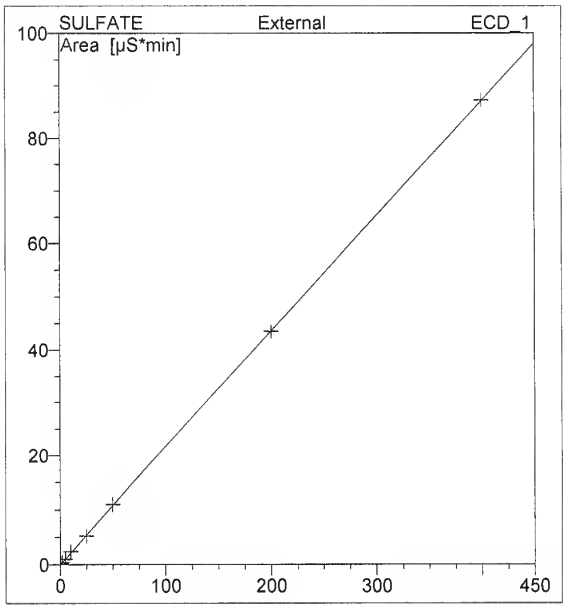


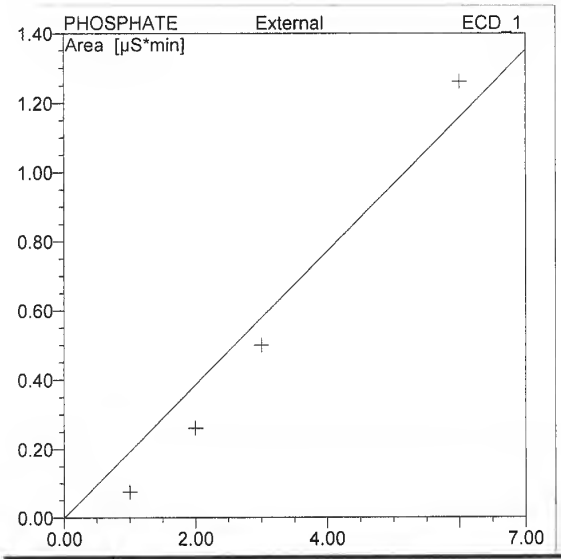




No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	3.26	FLUORIDE	Lin	8	99.9552	0.0000	0.3993	0.0000
2	4.65	CHLORIDE	Lin	8	99.9986	0.0000	0.2966	0.0000
3	5.77	NITRATE	Lin	7	99.8726	0.0000	0.5997	0.0000
4	6.38	SULFATE	Lin	8	99.9987	0.0000	0.2180	0.0000
5	8.35	BROMIDE	Lin	8	99.9582	0.0000	0.1239	0.0000
6	9.97	NITRITE	Lin	7	99.9495	0.0000	0.7267	0.0000
7	14.67	PHOSPHATE	Lin	4	99.8560	0.0000	0.1932	0.0000
Average:					99.9413	0.0000	0.3654	0.0000







No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	3.26	FLUORIDE	Lin	8	99.9552	0.0000	0.3993	0.0000
2	4.65	CHLORIDE	Lin	8	99.9986	0.0000	0.2966	0.0000
3	5.77	NITRATE	Lin	7	99.8726	0.0000	0.5997	0.0000
4	6.38	SULFATE	Lin	8	99.9987	0.0000	0.2180	0.0000
5	8.35	BROMIDE	Lin	8	99.9582	0.0000	0.1239	0.0000
6	9.97	NITRITE	Lin	7	99.9495	0.0000	0.7267	0.0000
7	14.67	PHOSPHATE	Lin	4	99.8560	0.0000	0.1932	0.0000
Average:					99.9413	0.0000	0.3654	0.0000

anions/Calibration(Curr.Peak)

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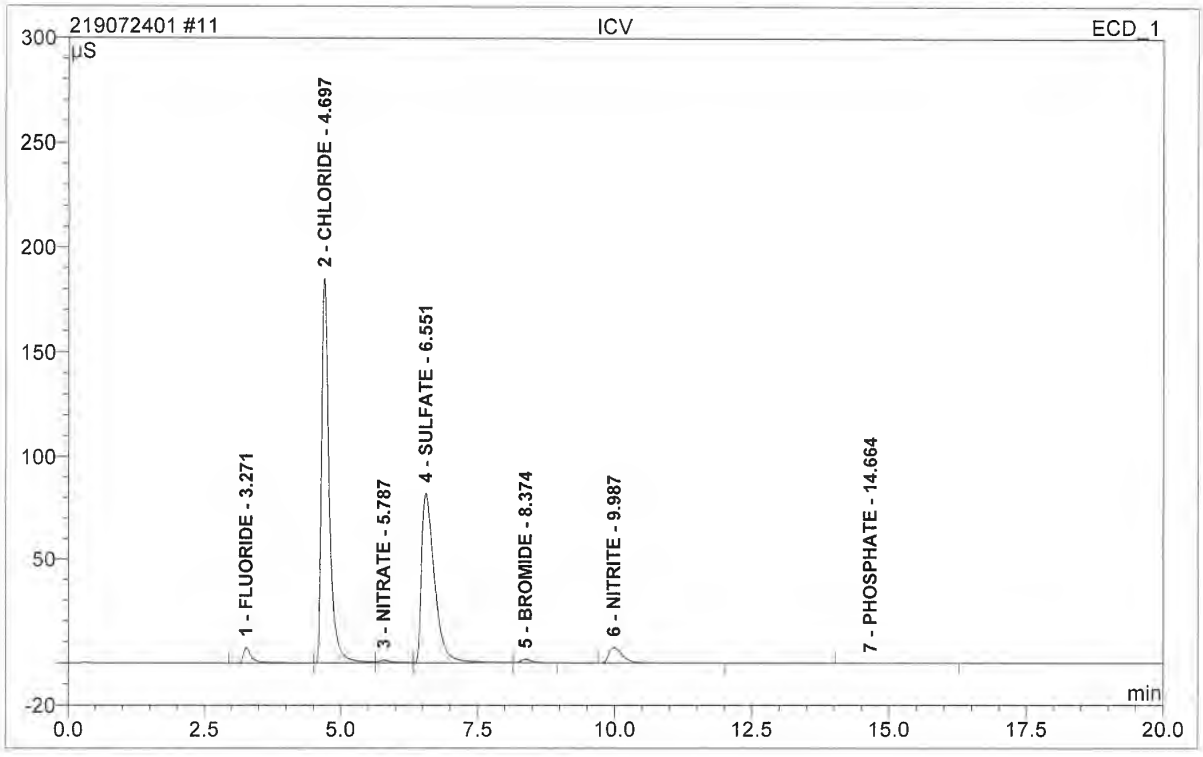
Version 6.80 SR9a Build 2680 (163077)

11 ICV

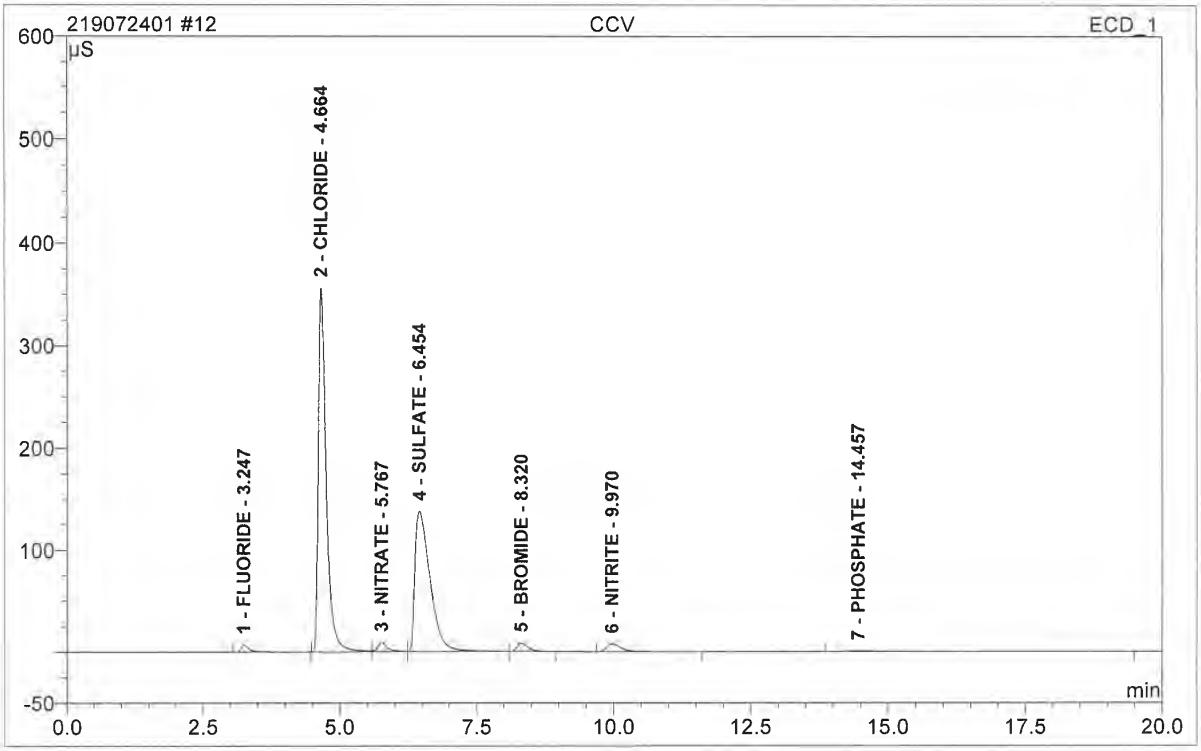
Sample Name:	**ICV**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 10:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.27	FLUORIDE	7.362	1.346	2.36	3.371	BM
2	4.70	CHLORIDE	185.091	30.249	52.94	101.971	M
3	5.79	NITRATE	1.332	0.378	0.66	0.630	M
4	6.55	SULFATE	82.346	22.567	39.50	103.500	M
5	8.37	BROMIDE	1.729	0.404	0.71	3.262	MB
6	9.99	NITRITE	7.333	2.175	3.81	2.993	BMB
7	14.66	PHOSPHATE	0.018	0.019	0.03	0.097	BMB
Total:			285.211	57.137	100.00	215.822	

12 CCV

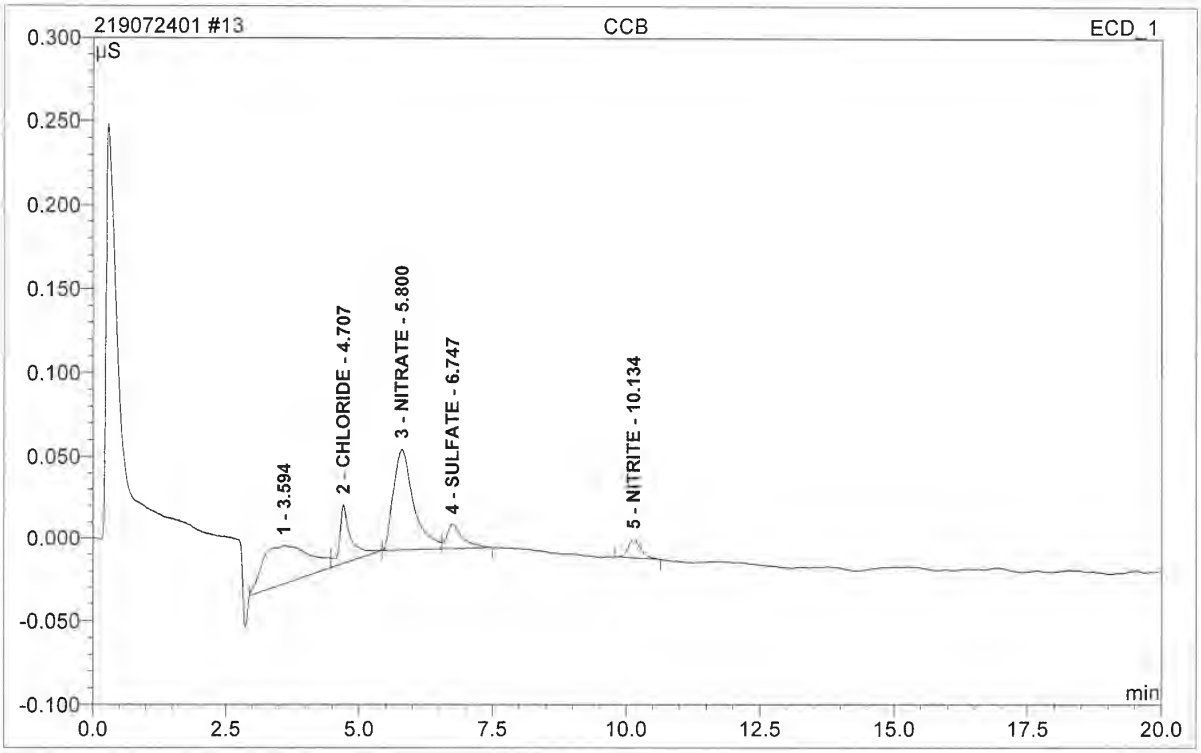
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 11:18**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	7.238	1.280	1.15	3.206	BMB
2	4.66	CHLORIDE	356.260	59.704	53.43	201.264	BM
3	5.77	NITRATE	9.127	1.912	1.71	3.188	M
4	6.45	SULFATE	138.257	44.146	39.51	202.471	Mb
5	8.32	BROMIDE	8.140	1.843	1.65	14.874	bMB
6	9.97	NITRITE	7.504	2.216	1.98	3.049	BMB
7	14.46	PHOSPHATE	0.625	0.635	0.57	3.286	BMB
Total:			527.152	111.735	100.00	431.338	

13 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 11:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

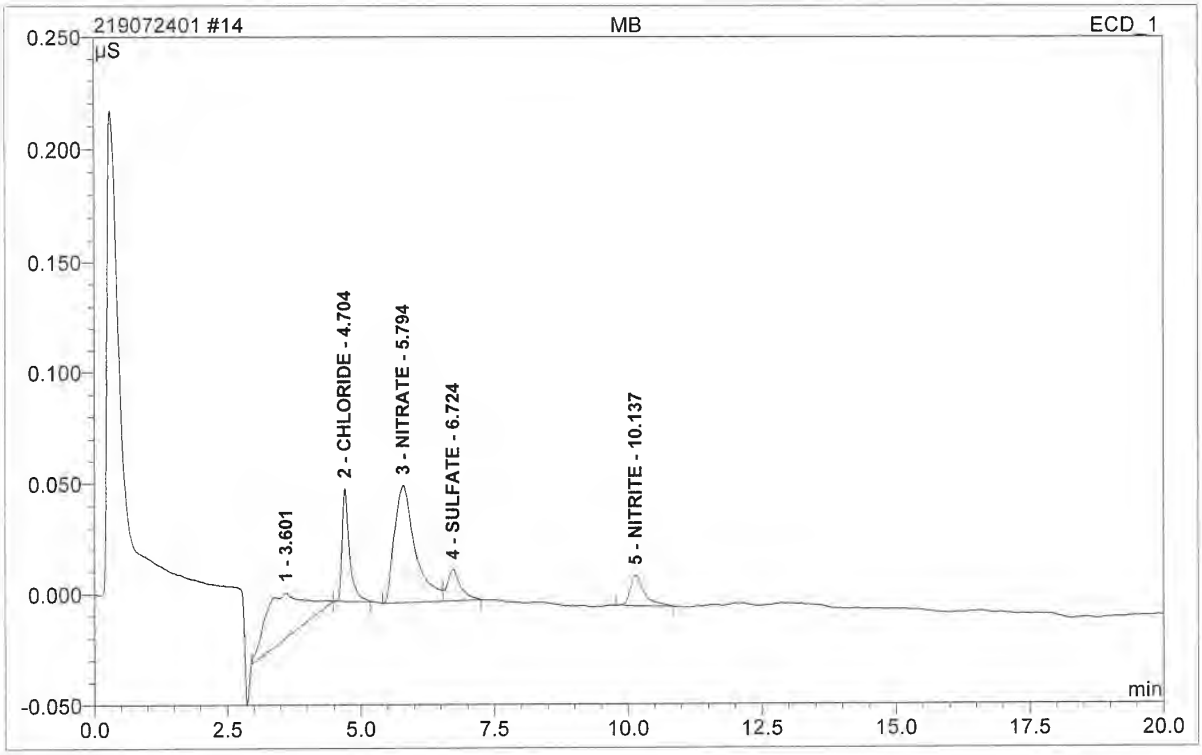


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.59	n.a.	0.023	0.023	34.26	n.a.	BM
2	4.71	CHLORIDE	0.036	0.009	13.25	0.031	MB
3	5.80	NITRATE	0.062	0.027	40.07	0.046	bM
4	6.75	SULFATE	0.015	0.005	7.72	0.024	MB
5	10.13	NITRITE	0.011	0.003	4.70	0.004	BMB
Total:			0.148	0.068	100.00	0.105	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219072401

14 MB

Sample Name:	**MB**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 12:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.60	n.a.	0.020	0.018	30.68	n.a.	BMB
2	4.70	CHLORIDE	0.051	0.008	14.04	0.027	bMB
3	5.79	NITRATE	0.053	0.024	41.20	0.040	BM
4	6.72	SULFATE	0.014	0.004	6.82	0.018	MB
5	10.14	NITRITE	0.013	0.004	7.26	0.006	BMB
Total:			0.151	0.058	100.00	0.091	

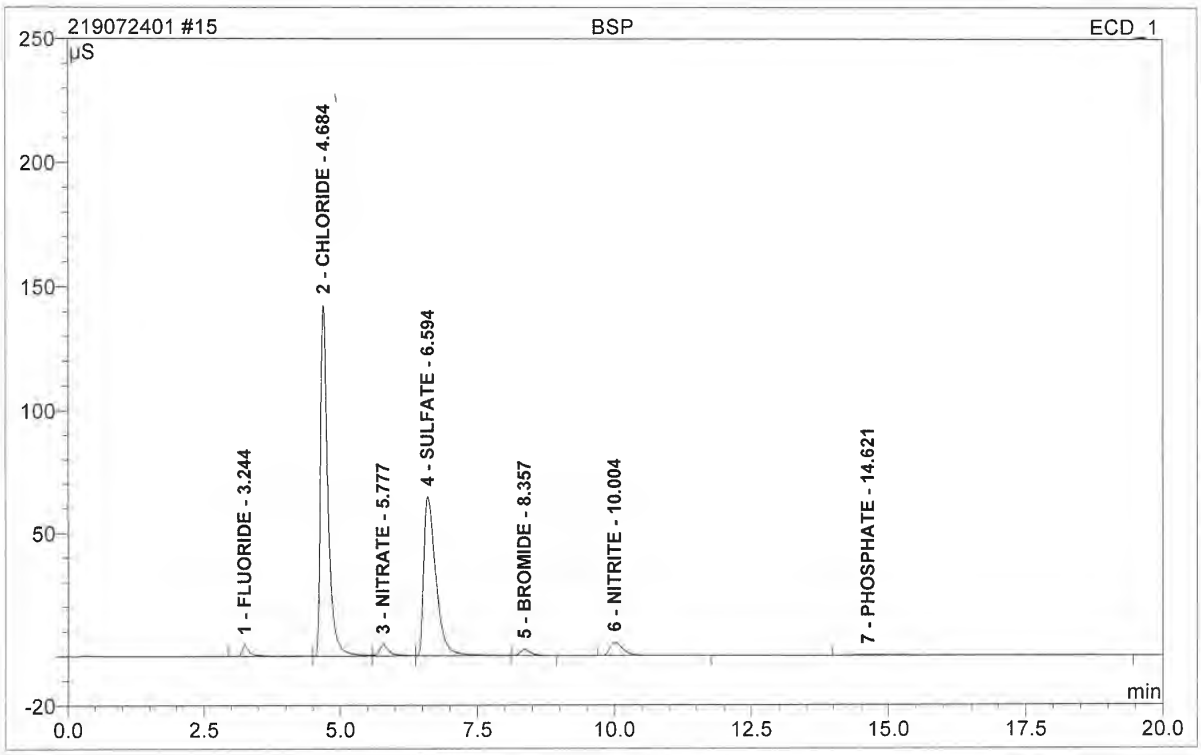
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077

9.4
9

15 BSP

Sample Name:	**BSP**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 12:30**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	4.450	0.767	1.76	1.922	BM
2	4.68	CHLORIDE	142.514	22.672	52.03	76.428	M
3	5.78	NITRATE	4.551	0.959	2.20	1.599	M
4	6.59	SULFATE	64.770	16.711	38.35	76.642	M
5	8.36	BROMIDE	2.472	0.557	1.28	4.495	MB
6	10.00	NITRITE	5.444	1.545	3.54	2.126	BMB
7	14.62	PHOSPHATE	0.327	0.368	0.84	1.903	BMB
Total:			224.528	43.578	100.00	165.115	

anions/Integration

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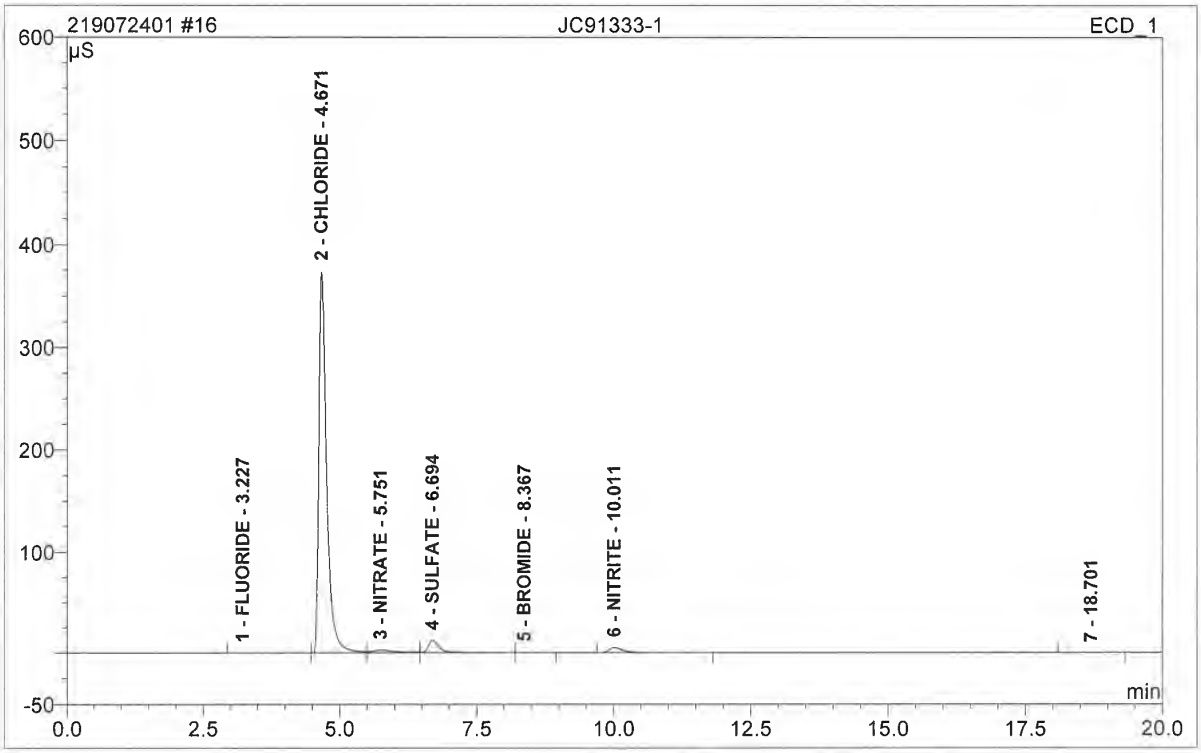
Version 6.80 SR9a Build 2680 (163077)

16 JC91333-1

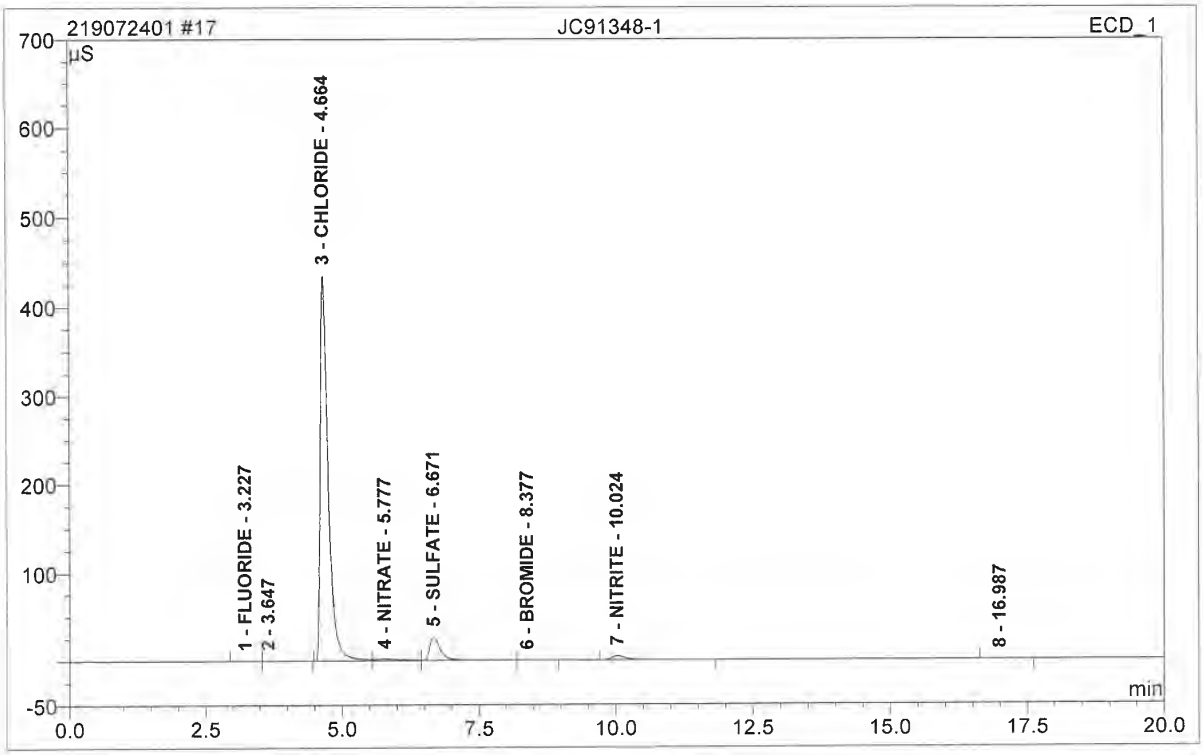
Sample Name:	**JC91333-1**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**4.0000**
Recording Time:	**7/24/2019 13:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.152	0.040	0.06	0.397	BMB
2	4.67	CHLORIDE	373.732	62.430	91.47	841.817	BM
3	5.75	NITRATE	2.601	1.367	2.00	9.119	M
4	6.69	SULFATE	12.277	2.973	4.36	54.542	M
5	8.37	BROMIDE	0.107	0.037	0.05	1.205	MB
6	10.01	NITRITE	4.955	1.395	2.04	7.678	BMB
7	18.70	n.a.	0.016	0.008	0.01	n.a.	BMB
Total:			393.840	68.250	100.00	914.759	

17 JC91348-1

Sample Name:	**JC91348-1**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**7/24/2019 13:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.132	0.027	0.03	0.134	BM
2	3.65	n.a.	0.055	0.014	0.02	n.a.	MB
3	4.66	CHLORIDE	435.125	73.669	89.50	496.681	BM
4	5.78	NITRATE	1.942	1.026	1.25	3.423	M
5	6.67	SULFATE	26.260	6.264	7.61	57.455	M
6	8.38	BROMIDE	0.213	0.065	0.08	1.049	MB
7	10.02	NITRITE	4.453	1.245	1.51	3.426	BMB
8	16.99	n.a.	0.003	0.002	0.00	n.a.	BMB
Total:			468.183	82.311	100.00	562.168	

anions/Integration

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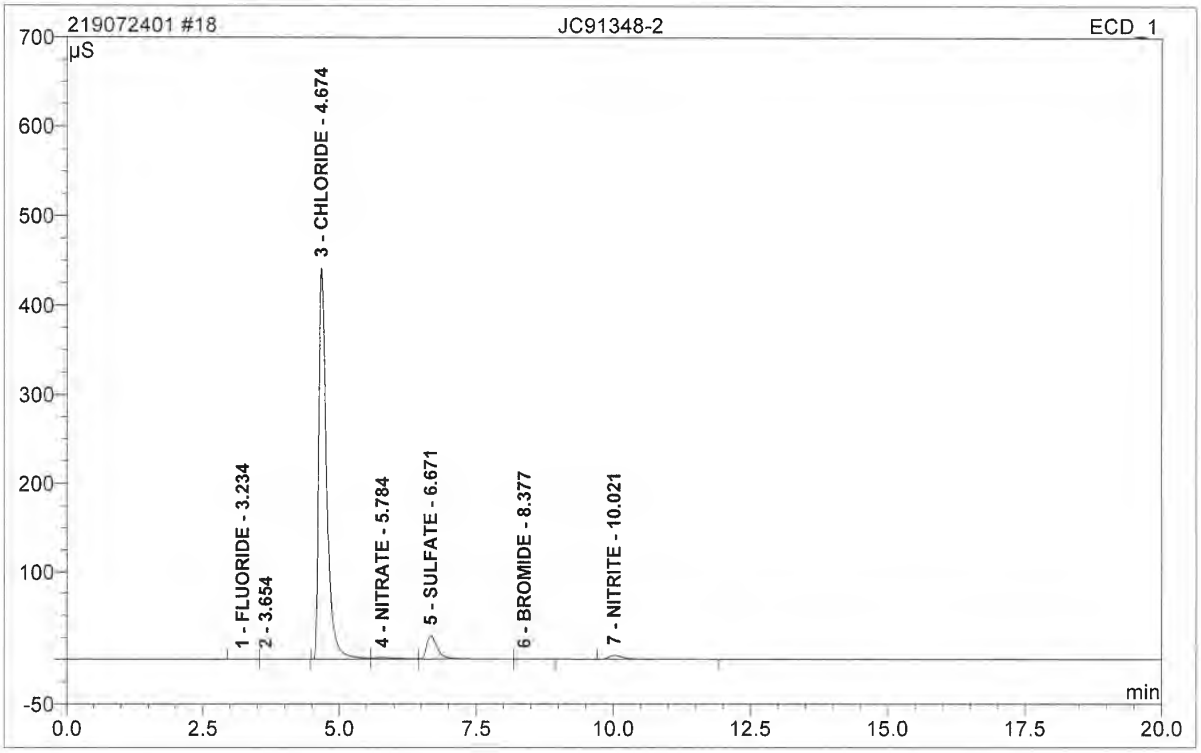
18 JC91348-2

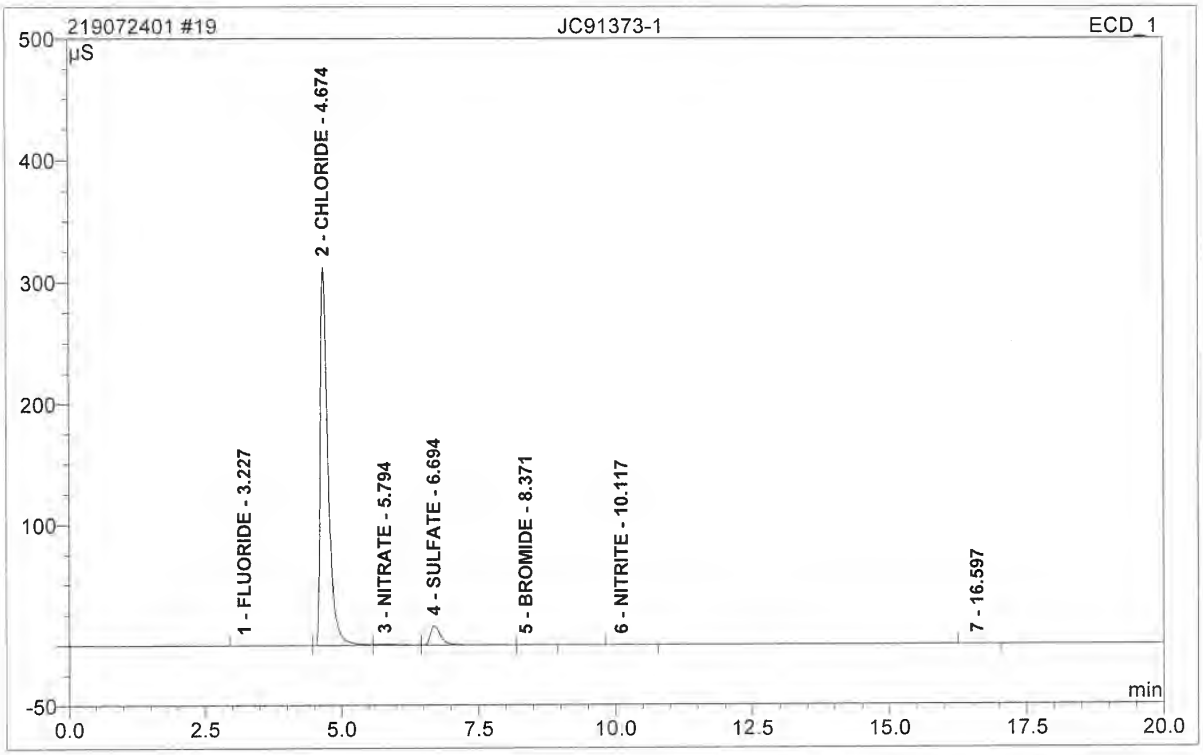
Sample Name:	**JC91348-2**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**7/24/2019 13:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.133	0.028	0.03	0.138	BM
2	3.65	n.a.	0.057	0.014	0.02	n.a.	MB
3	4.67	CHLORIDE	441.551	74.910	89.61	505.051	BM
4	5.78	NITRATE	1.832	0.961	1.15	3.204	M
5	6.67	SULFATE	26.680	6.345	7.59	58.201	M
6	8.38	BROMIDE	0.217	0.066	0.08	1.064	MB
7	10.02	NITRITE	4.527	1.268	1.52	3.490	BMB
Total:			474.996	83.591	100.00	571.148	

19 JC91373-1

Sample Name:	**JC91373-1**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**7/24/2019 14:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.105	0.036	0.06	0.896	BM
2	4.67	CHLORIDE	312.080	51.643	92.41	1740.902	M
3	5.79	NITRATE	1.044	0.550	0.98	9.172	M
4	6.69	SULFATE	15.741	3.603	6.45	165.255	M
5	8.37	BROMIDE	0.074	0.025	0.05	2.033	MB
6	10.12	NITRITE	0.108	0.029	0.05	0.393	BMB
7	16.60	n.a.	0.003	0.001	0.00	n.a.	BMB
Total:			329.155	55.887	100.00	1918.651	

anions/Integration

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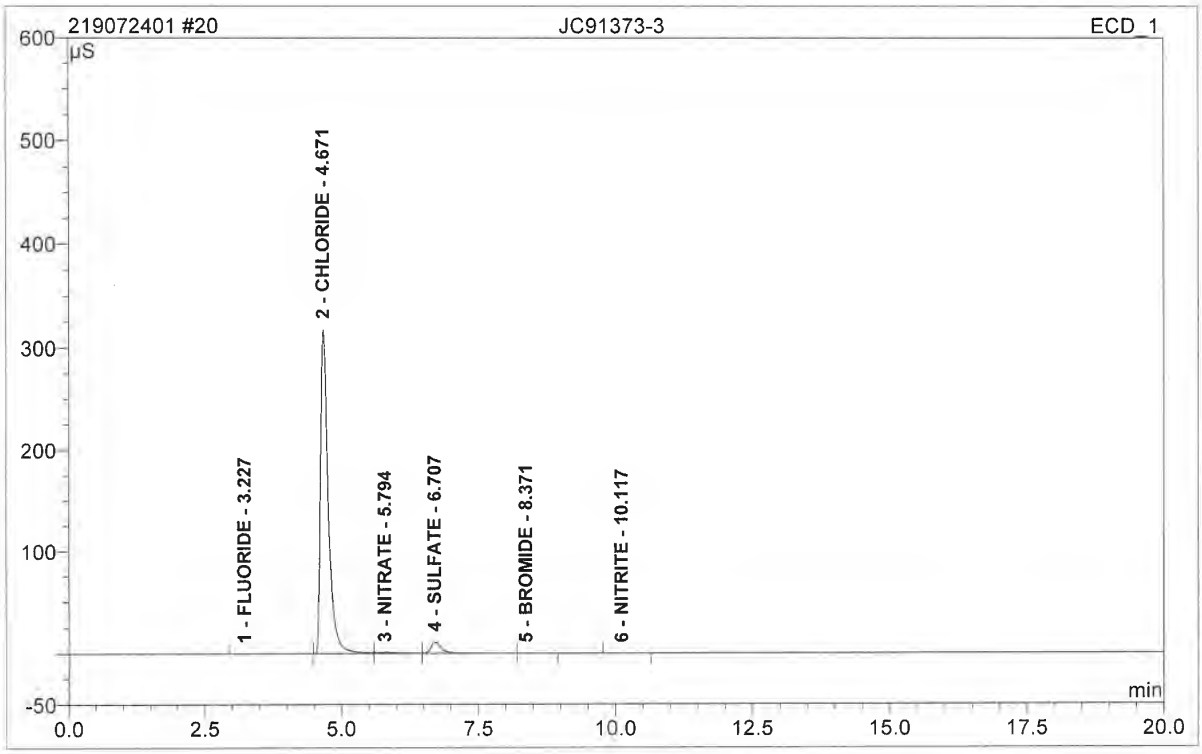
20 JC91373-3

Sample Name:	**JC91373-3**	*Injection Volume:*	**20.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program.	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**7/24/2019 14:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.084	0.030	0.05	0.744	BMB
2	4.67	CHLORIDE	317.223	52.926	94.03	1784.170	BM
3	5.79	NITRATE	1.135	0.609	1.08	10.160	M
4	6.71	SULFATE	11.277	2.662	4.73	122.090	M
5	8.37	BROMIDE	0.084	0.029	0.05	2.352	MB
6	10.12	NITRITE	0.107	0.028	0.05	0.387	BMB
Total:			329.910	56.285	100.00	1919.904	

anions/Integration

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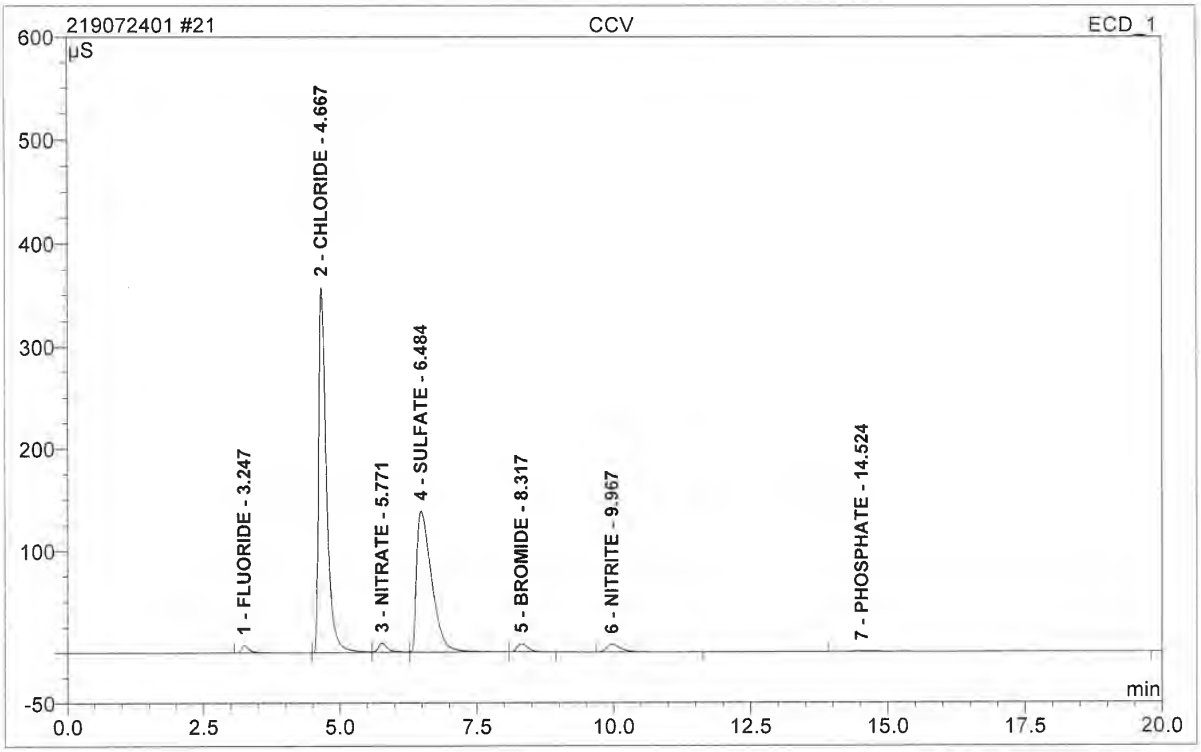
21 CCV

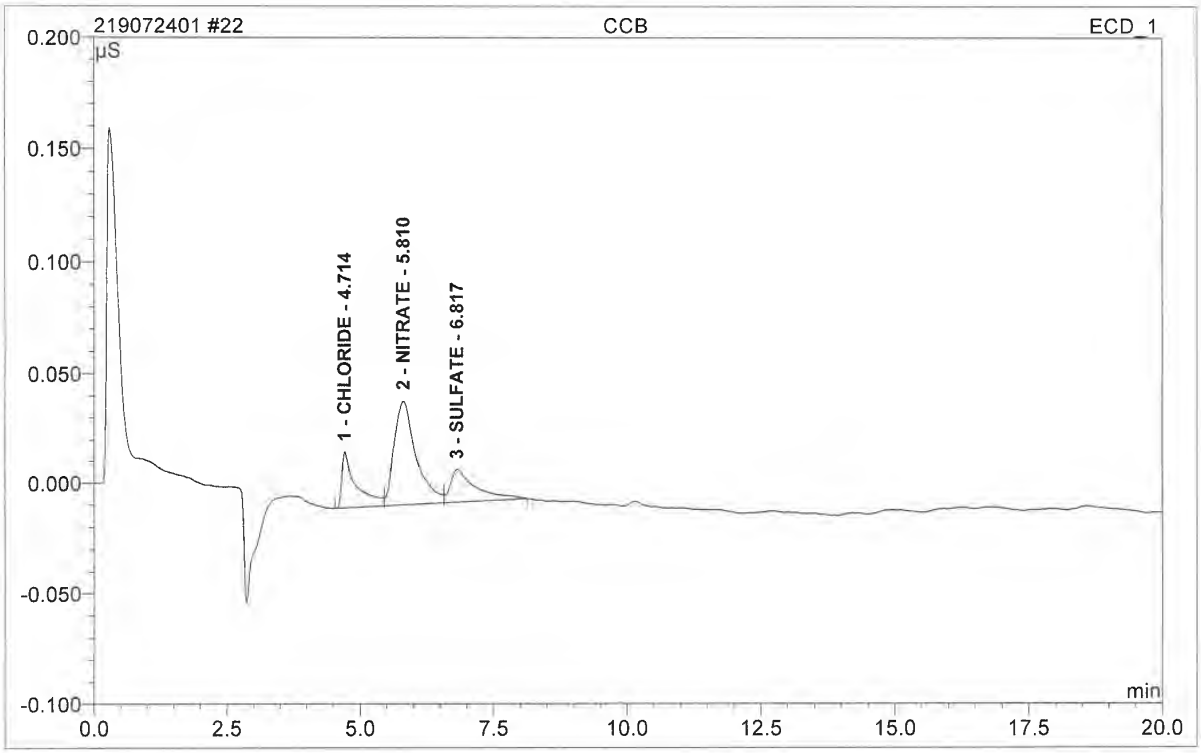
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 15:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	7.507	1.307	1.17	3.274	BMB
2	4.67	CHLORIDE	357.746	59.764	53.43	201.466	BM
3	5.77	NITRATE	9.222	1.901	1.70	3.171	M
4	6.48	SULFATE	138.492	44.130	39.45	202.399	Mb
5	8.32	BROMIDE	8.211	1.845	1.65	14.888	bMB
6	9.97	NITRITE	7.643	2.240	2.00	3.083	BMB
7	14.52	PHOSPHATE	0.716	0.664	0.59	3.440	BMB
Total:			529.539	111.852	100.00	431.720	

22 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 15:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

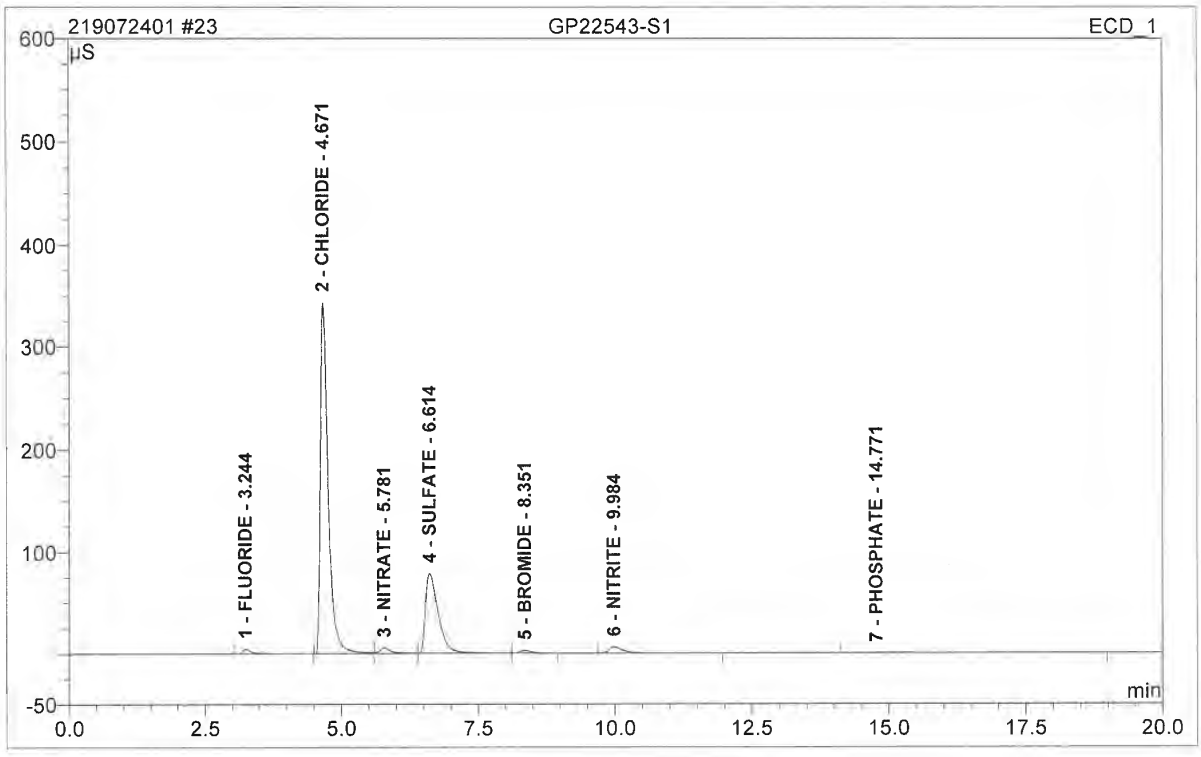


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.71	CHLORIDE	0.026	0.008	20.50	0.027	BM
2	5.81	NITRATE	0.048	0.023	58.34	0.038	M
3	6.82	SULFATE	0.015	0.008	21.16	0.038	MB
Total:			0.089	0.039	100.00	0.103	

23 GP22543-S1

JC91330-1

Sample Name:	**GP22543-S1**	*Injection Volume:*	**20.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**20.0000**
Recording Time:	**7/24/2019 15:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	5.070	0.865	1.03	43.312	BMB
2	4.67	CHLORIDE	343.021	57.311	68.46	3863.934	BM
3	5.78	NITRATE	5.837	1.355	1.62	45.191	M
4	6.61	SULFATE	78.896	21.364	25.52	1959.731	Mb
5	8.35	BROMIDE	2.738	0.587	0.70	94.740	bMB
6	9.98	NITRITE	6.258	1.791	2.14	49.290	BMB
7	14.77	PHOSPHATE	0.398	0.437	0.52	45.220	BMB
Total:			442.220	83.710	100.00	6101.418	

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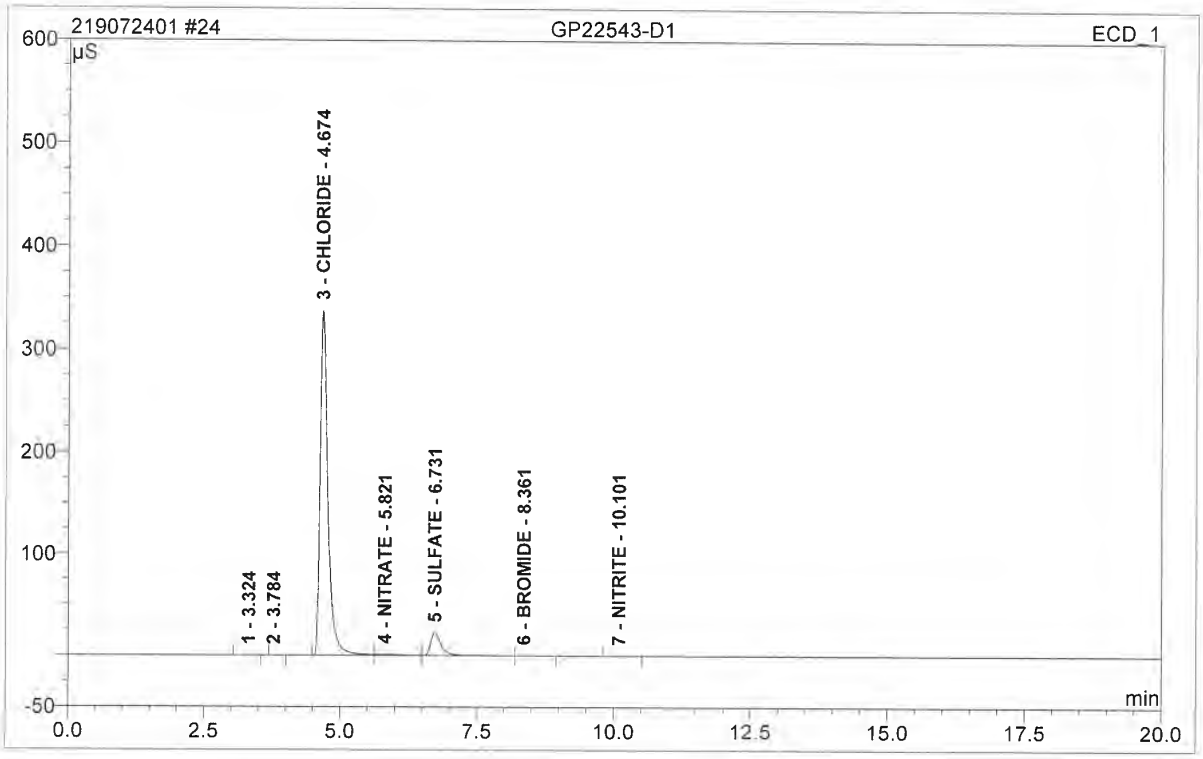
24 GP22543-D1

JC91330-1

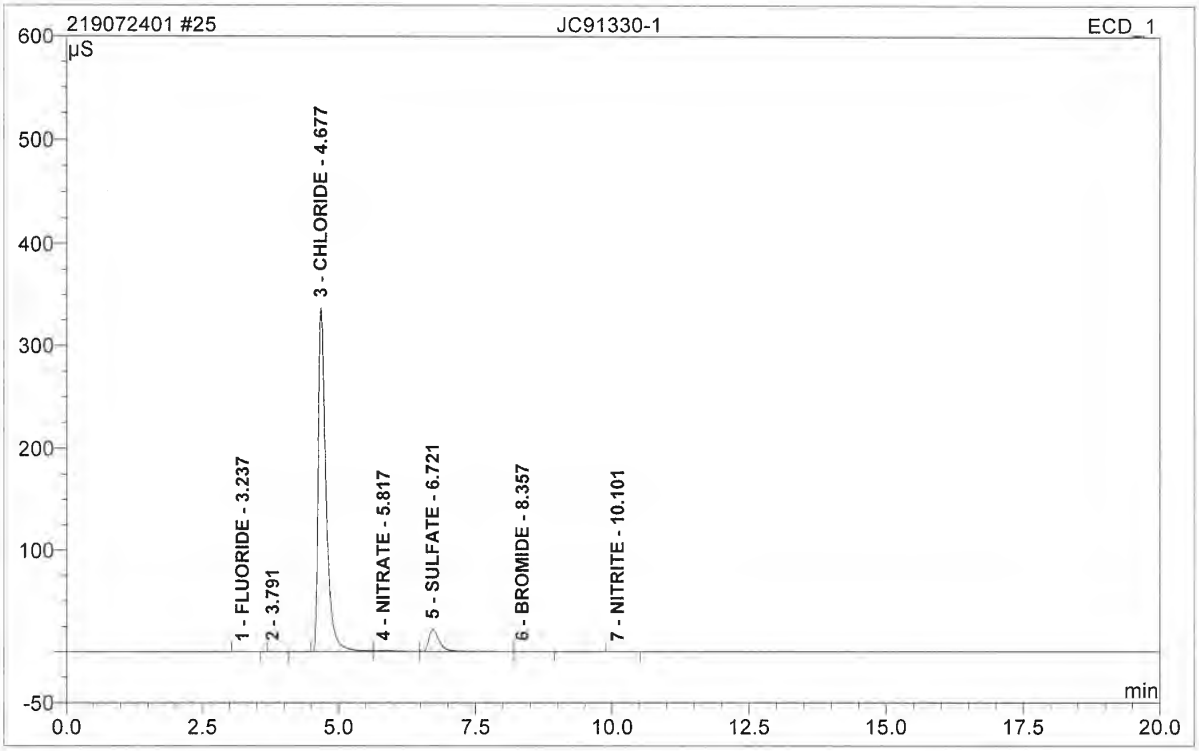
Sample Name:	**GP22543-D1**	*Injection Volume:*	**20.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**7/24/2019 16:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.32	n.a.	0.032	0.007	0.01	n.a.	BMB
2	3.78	n.a.	0.014	0.002	0.00	n.a.	BMB
3	4.67	CHLORIDE	337.289	56.436	90.84	1902.491	BM
4	5.82	NITRATE	1.021	0.548	0.88	9.143	M
5	6.73	SULFATE	21.877	5.099	8.21	233.855	M
6	8.36	BROMIDE	0.102	0.035	0.06	2.817	MB
7	10.10	NITRITE	0.011	0.003	0.00	0.040	BMB
Total:			360.346	62.130	100.00	2148.345	

25 JC91330-1

Sample Name:	**JC91330-1**	*Injection Volume:*	**20.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**7/24/2019 16:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

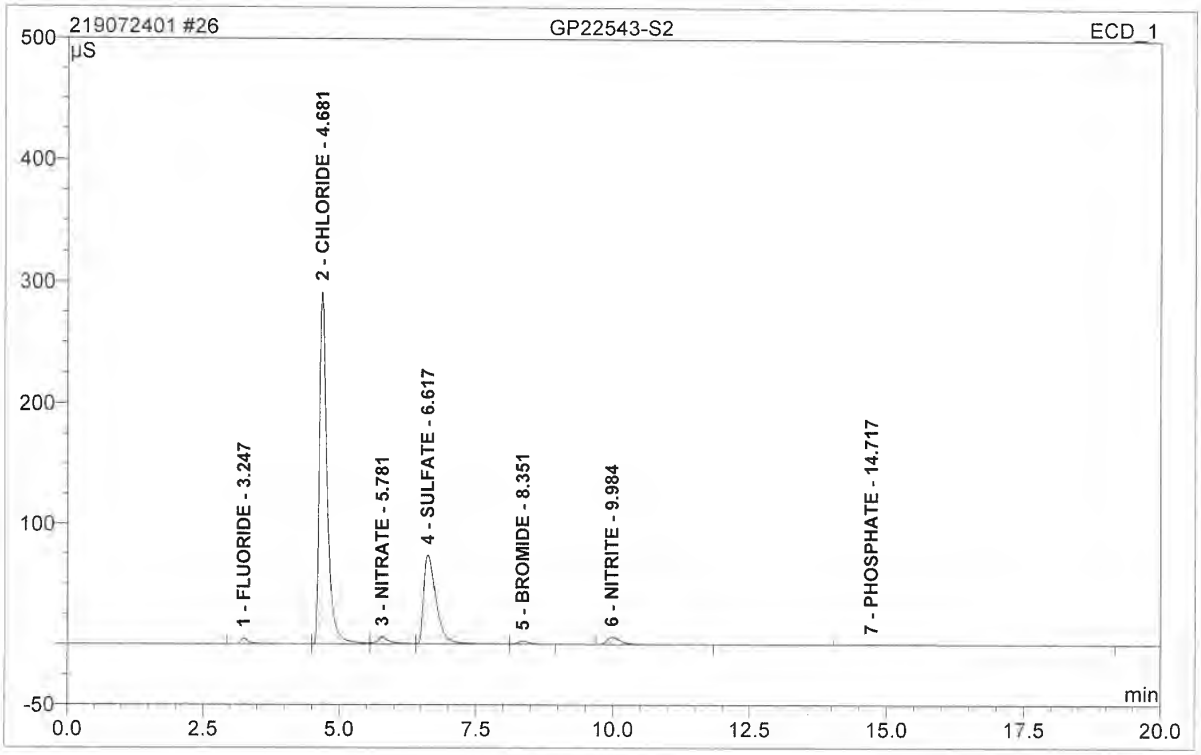


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	0.027	0.005	0.01	0.138	BMB
2	3.79	n.a.	0.014	0.002	0.00	n.a.	BMB
3	4.68	CHLORIDE	336.773	56.306	90.81	1898.104	BM
4	5.82	NITRATE	1.036	0.555	0.89	9.249	M
5	6.72	SULFATE	21.727	5.101	8.23	233.945	M
6	8.36	BROMIDE	0.104	0.035	0.06	2.854	MB
7	10.10	NITRITE	0.007	0.002	0.00	0.024	BMB
Total:			359.688	62.006	100.00	2144.314	

26 GP22543-S2

JC91330-2

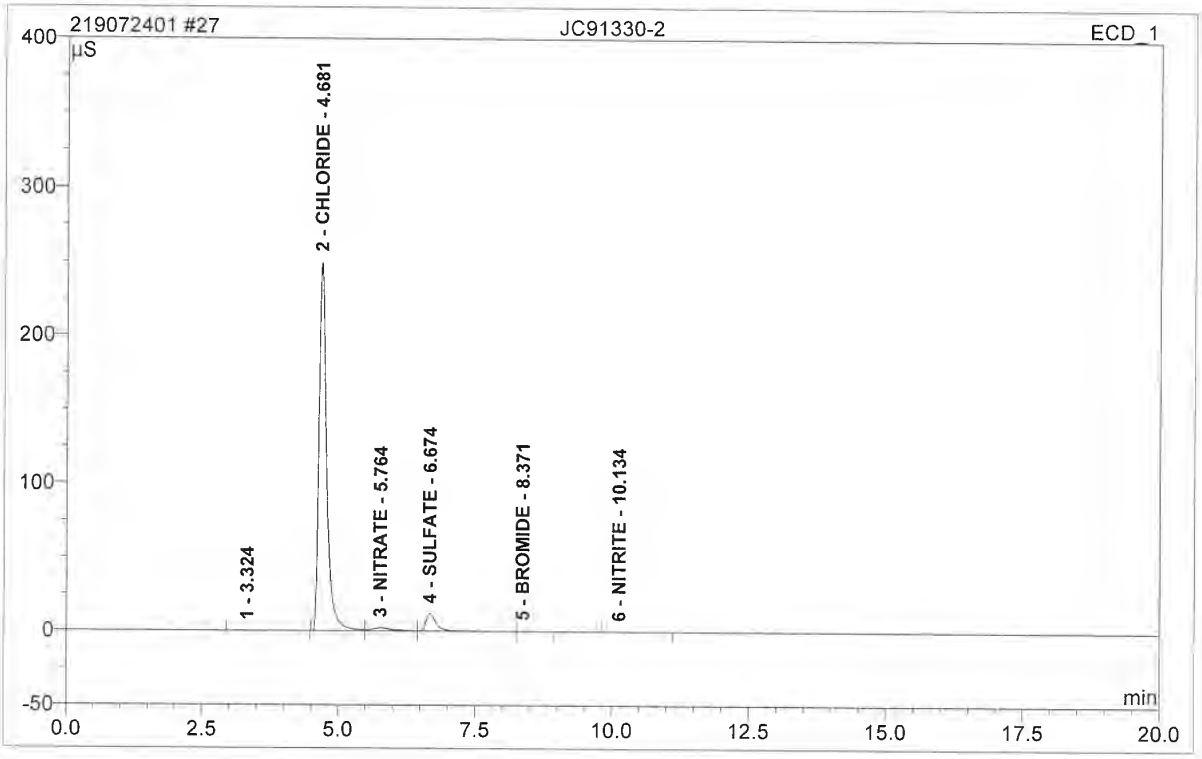
Sample Name:	**GP22543-S2**	*Injection Volume:*	**20.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**20.0000**
Recording Time:	**7/24/2019 17:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	4.960	0.851	1.16	42.639	BM
2	4.68	CHLORIDE	291.859	48.131	65.81	3245.029	M
3	5.78	NITRATE	6.056	1.580	2.16	52.696	M
4	6.62	SULFATE	74.028	19.762	27.02	1812.756	M
5	8.35	BROMIDE	2.732	0.624	0.85	100.775	MB
6	9.98	NITRITE	6.147	1.757	2.40	48.366	BMB
7	14.72	PHOSPHATE	0.394	0.426	0.58	44.058	BMB
Total:			386.175	73.132	100.00	5346.319	

27 JC91330-2

Sample Name:	**JC91330-2**	*Injection Volume:*	**20.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**7/24/2019 17:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.32	n.a.	0.053	0.027	0.06	n.a.	BMB
2	4.68	CHLORIDE	249.752	40.897	91.28	1378.641	BM
3	5.76	NITRATE	2.170	1.029	2.30	17.166	M
4	6.67	SULFATE	11.863	2.797	6.24	128.267	M
5	8.37	BROMIDE	0.061	0.021	0.05	1.702	MB
6	10.13	NITRITE	0.122	0.034	0.07	0.461	BMB
Total:			264.023	44.804	100.00	1526.237	

anions/Integration

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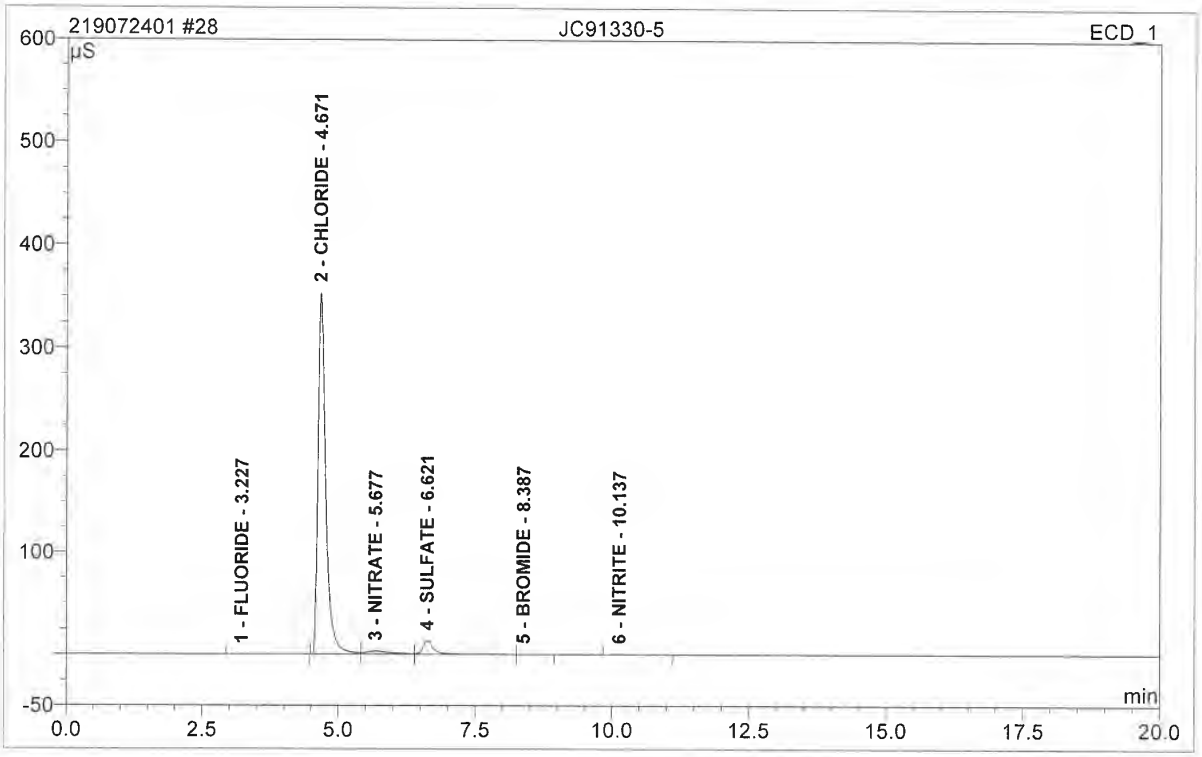
28 JC91330-5

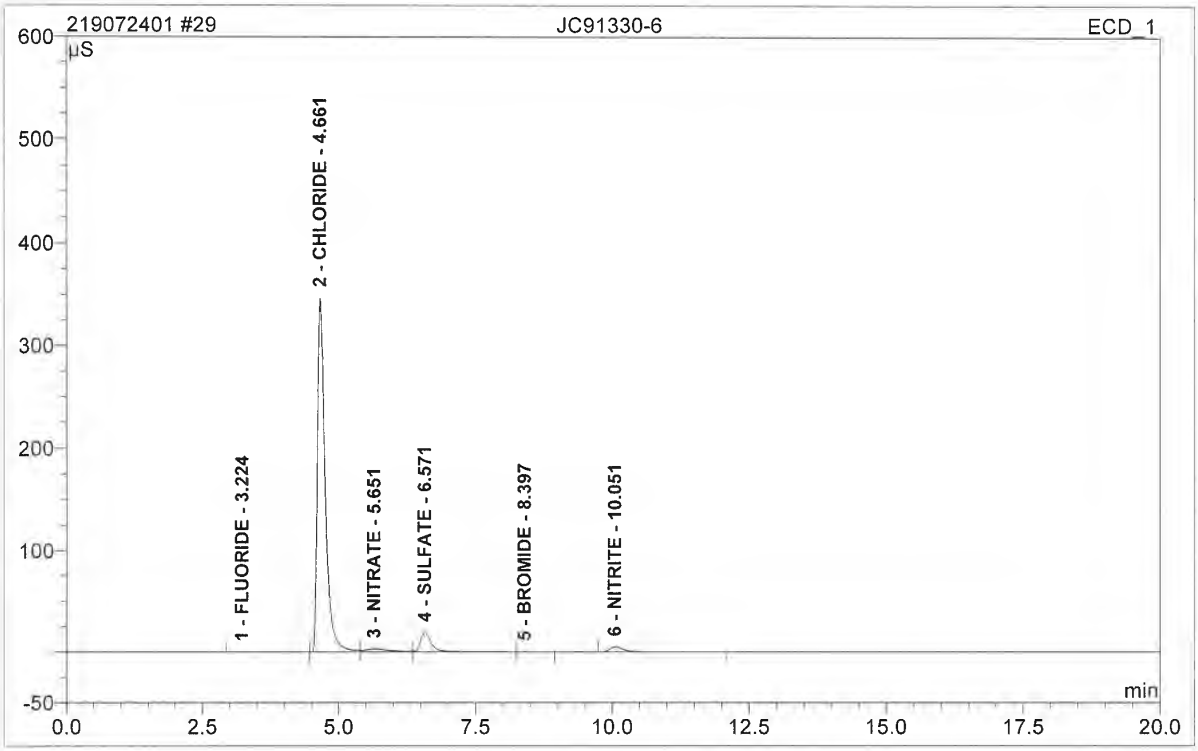
Sample Name:	**JC91330-5**	*Injection Volume:*	**20.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**4.0000**
Recording Time:	**7/24/2019 17:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.074	0.026	0.04	0.256	BMB
2	4.67	CHLORIDE	353.034	58.673	92.11	791.153	BM
3	5.68	NITRATE	3.120	1.648	2.59	10.994	M
4	6.62	SULFATE	13.191	3.213	5.04	58.940	M
5	8.39	BROMIDE	0.093	0.032	0.05	1.038	MB
6	10.14	NITRITE	0.401	0.107	0.17	0.591	BMB
Total:			369.912	63.699	100.00	862.972	

29 JC91330-6

Sample Name:	**JC91330-6**	*Injection Volume:*	**20.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**4.0000**
Recording Time:	**7/24/2019 18:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.22	FLUORIDE	0.076	0.026	0.04	0.265	BMB
2	4.66	CHLORIDE	346.603	57.526	88.22	775.687	BM
3	5.65	NITRATE	3.025	1.578	2.42	10.523	M
4	6.57	SULFATE	19.353	4.621	7.09	84.784	M
5	8.40	BROMIDE	0.103	0.035	0.05	1.128	MB
6	10.05	NITRITE	4.999	1.422	2.18	7.828	BMB
Total:			374.159	65.208	100.00	880.215	

anions/Integration

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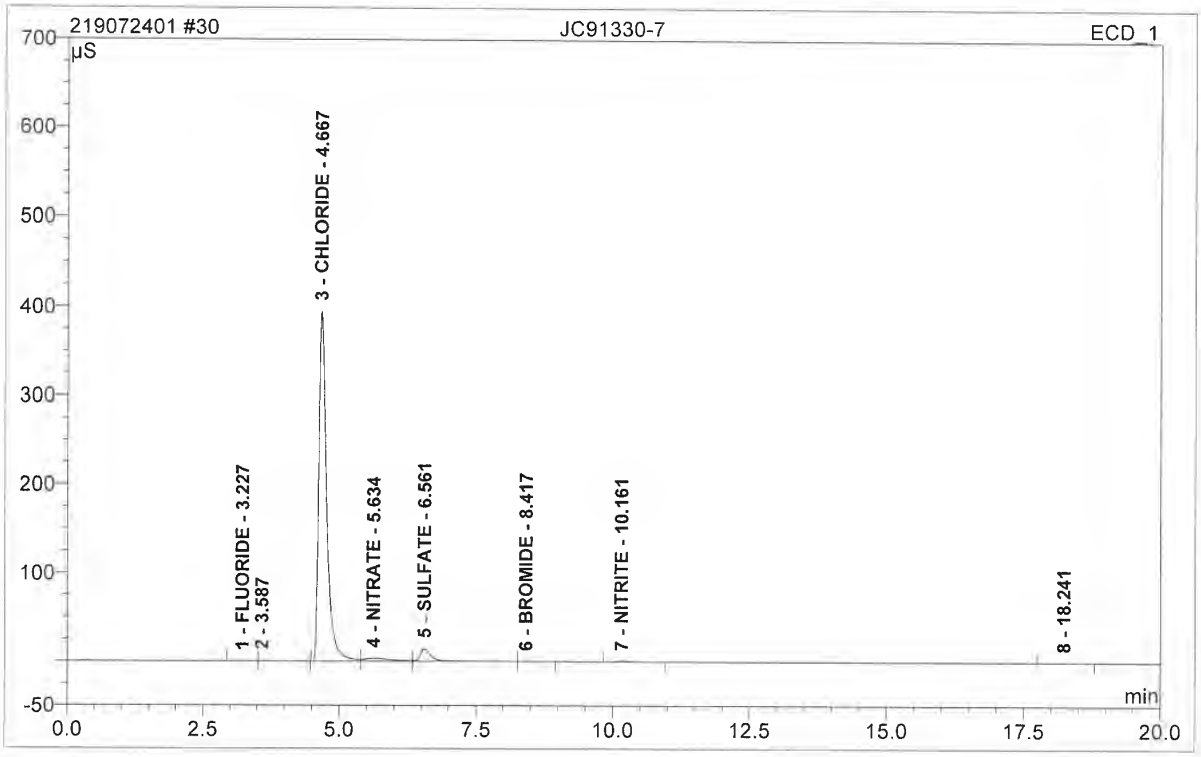
JC91275

30 JC91330-7

Sample Name:	**JC91330-7**	*Injection Volume:*	**20.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**4.0000**
Recording Time:	**7/24/2019 18:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.104	0.023	0.03	0.233	BM
2	3.59	n.a.	0.033	0.013	0.02	n.a.	MB
3	4.67	CHLORIDE	394.523	66.109	92.36	891.430	BM
4	5.63	NITRATE	3.331	1.771	2.47	11.814	M
5	6.56	SULFATE	13.935	3.424	4.78	62.810	M
6	8.42	BROMIDE	0.130	0.042	0.06	1.348	MB
7	10.16	NITRITE	0.721	0.192	0.27	1.057	BMB
8	18.24	n.a.	0.005	0.002	0.00	n.a.	BMB
Total:			412.782	71.576	100.00	968.692	

anions/Integration

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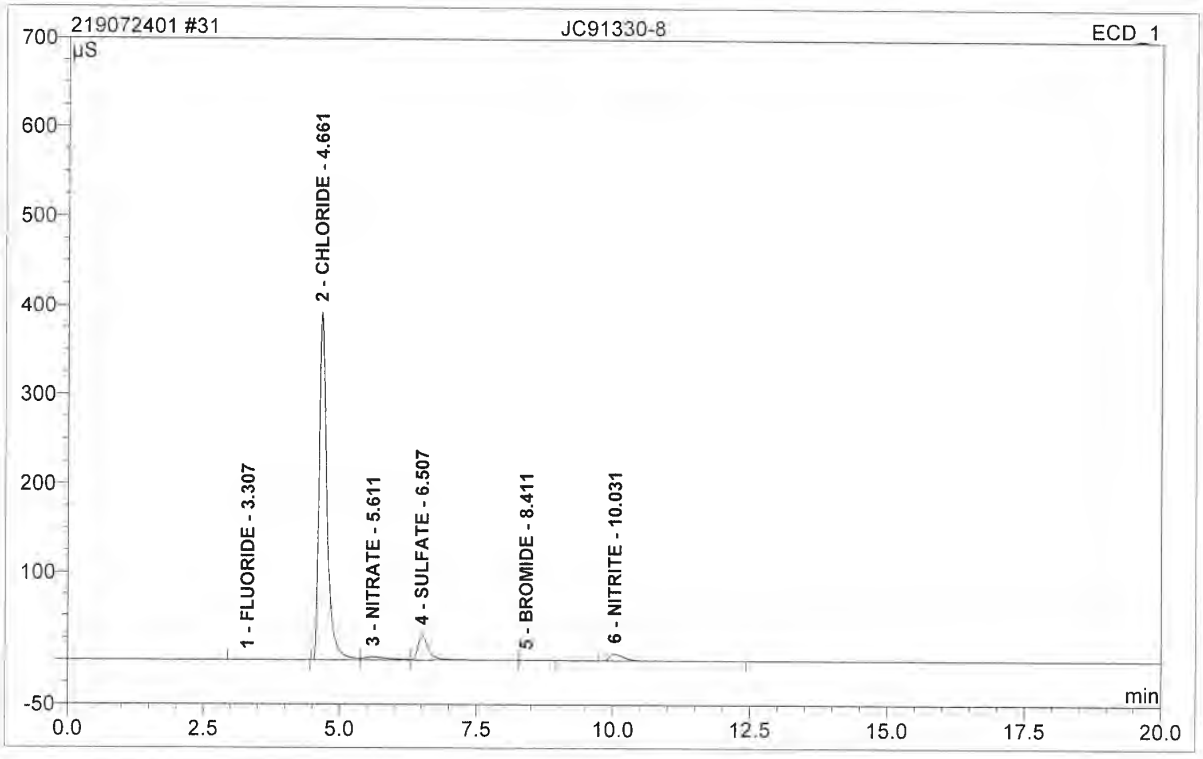
31 JC91330-8

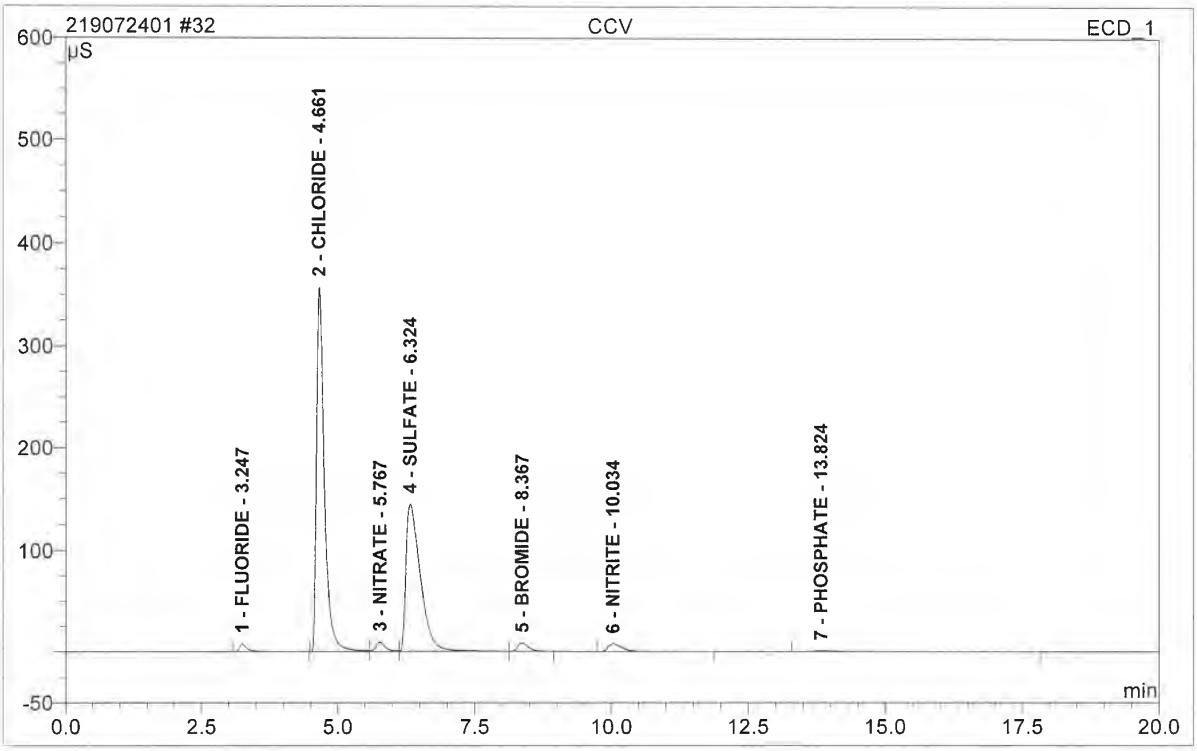
Sample Name:	**JC91330-8**	*Injection Volume:*	**20.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**4.0000**
Recording Time:	**7/24/2019 19:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.31	FLUORIDE	0.055	0.025	0.03	0.247	BMB
2	4.66	CHLORIDE	392.339	65.806	86.09	887.338	BM
3	5.61	NITRATE	3.356	1.759	2.30	11.735	M
4	6.51	SULFATE	27.248	6.506	8.51	119.363	M
5	8.41	BROMIDE	0.104	0.035	0.05	1.132	MB
6	10.03	NITRITE	7.691	2.309	3.02	12.711	BMB
Total:			430.793	76.440	100.00	1032.525	

32 CCV

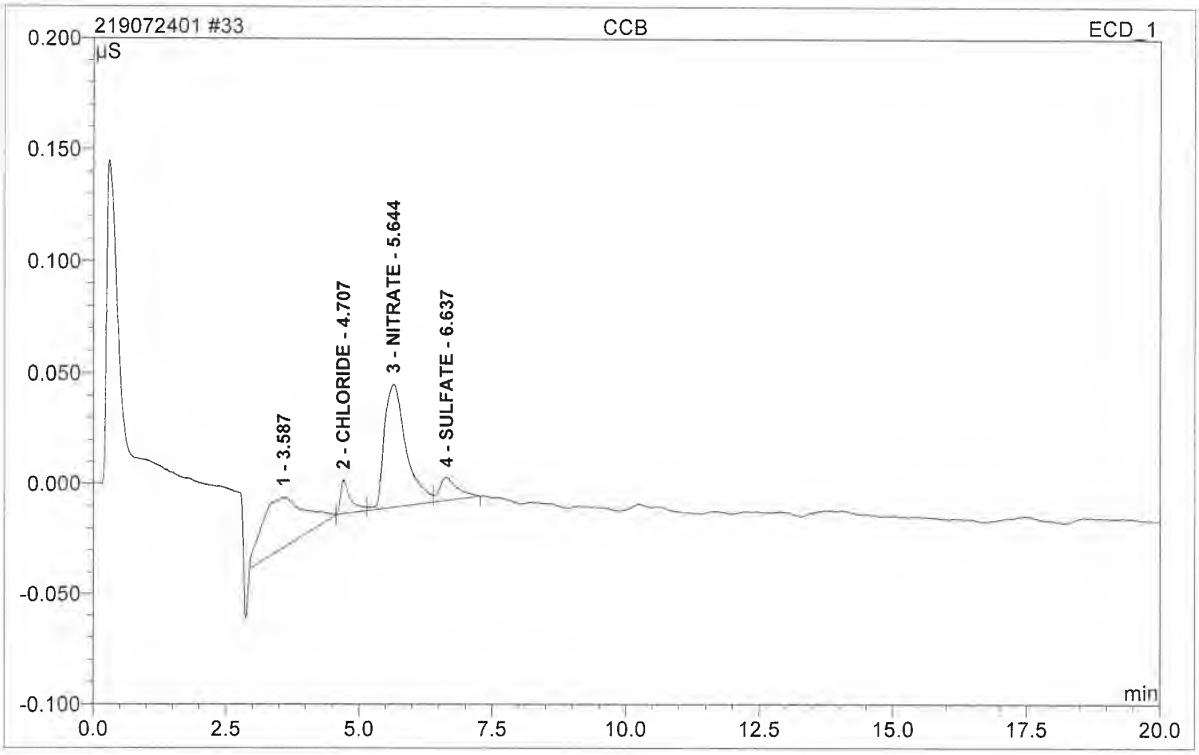
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 19:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	7.723	1.325	1.18	3.320	BMB
2	4.66	CHLORIDE	356.991	59.890	53.30	201.893	BM
3	5.77	NITRATE	9.272	1.886	1.68	3.146	M
4	6.32	SULFATE	144.538	44.498	39.60	204.089	Mb
5	8.37	BROMIDE	8.121	1.851	1.65	14.936	bMB
6	10.03	NITRITE	7.459	2.232	1.99	3.071	BMB
7	13.82	PHOSPHATE	0.855	0.685	0.61	3.544	BMB
Total:			534.959	112.368	100.00	433.999	

33 CCB

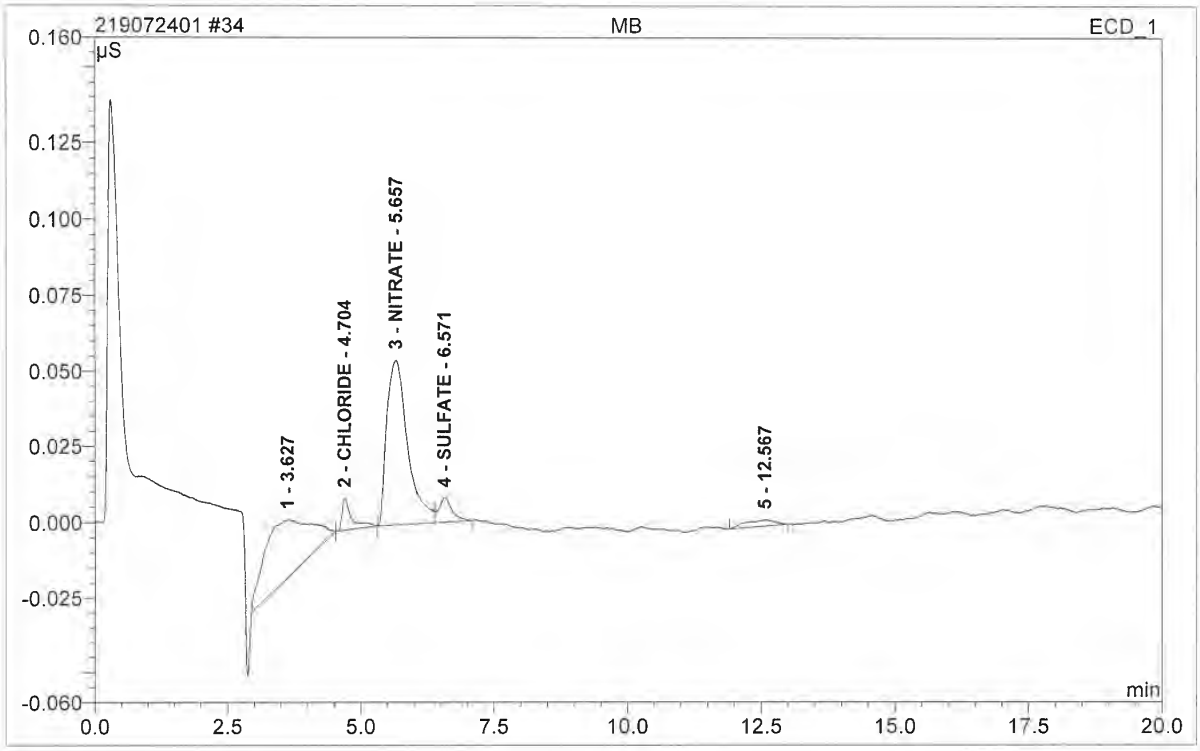
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 19:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.59	n.a.	0.023	0.021	38.13	n.a.	BMB
2	4.71	CHLORIDE	0.015	0.003	5.89	0.011	bM
3	5.64	NITRATE	0.056	0.026	48.49	0.044	M
4	6.64	SULFATE	0.010	0.004	7.50	0.019	MB
Total:			0.104	0.054	100.00	0.074	

34 MB

Sample Name:	**MB**	*Injection Volume:*	**20.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 20:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.63	n.a.	0.019	0.019	38.96	n.a.	BMB
2	4.70	CHLORIDE	0.010	0.002	4.29	0.007	bMB
3	5.66	NITRATE	0.055	0.025	49.48	0.041	BM
4	6.57	SULFATE	0.008	0.002	4.65	0.011	MB
5	12.57	n.a.	0.002	0.001	2.63	n.a.	BMB
Total:			0.094	0.050	100.00	0.059	

anions/Integration

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Version 6.80 SR9a Build 2680 (163077)

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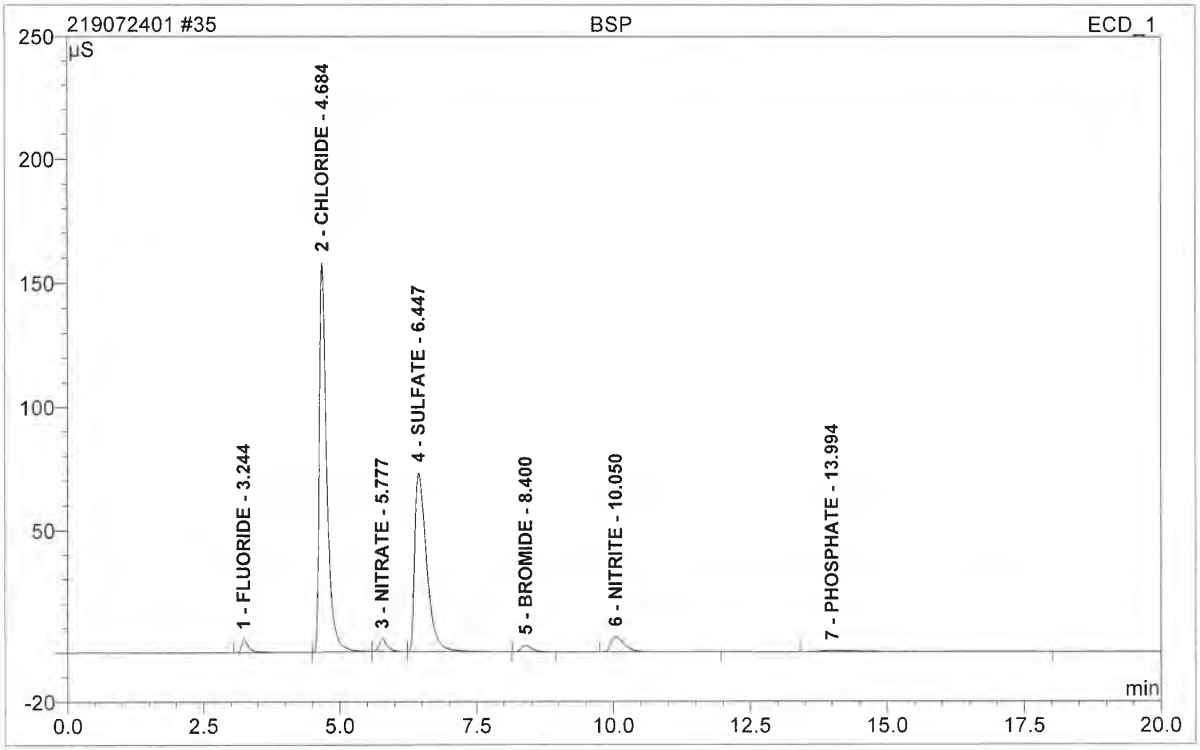
35 BSP

Sample Name:	**BSP**	*Injection Volume:*	**20.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 20:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

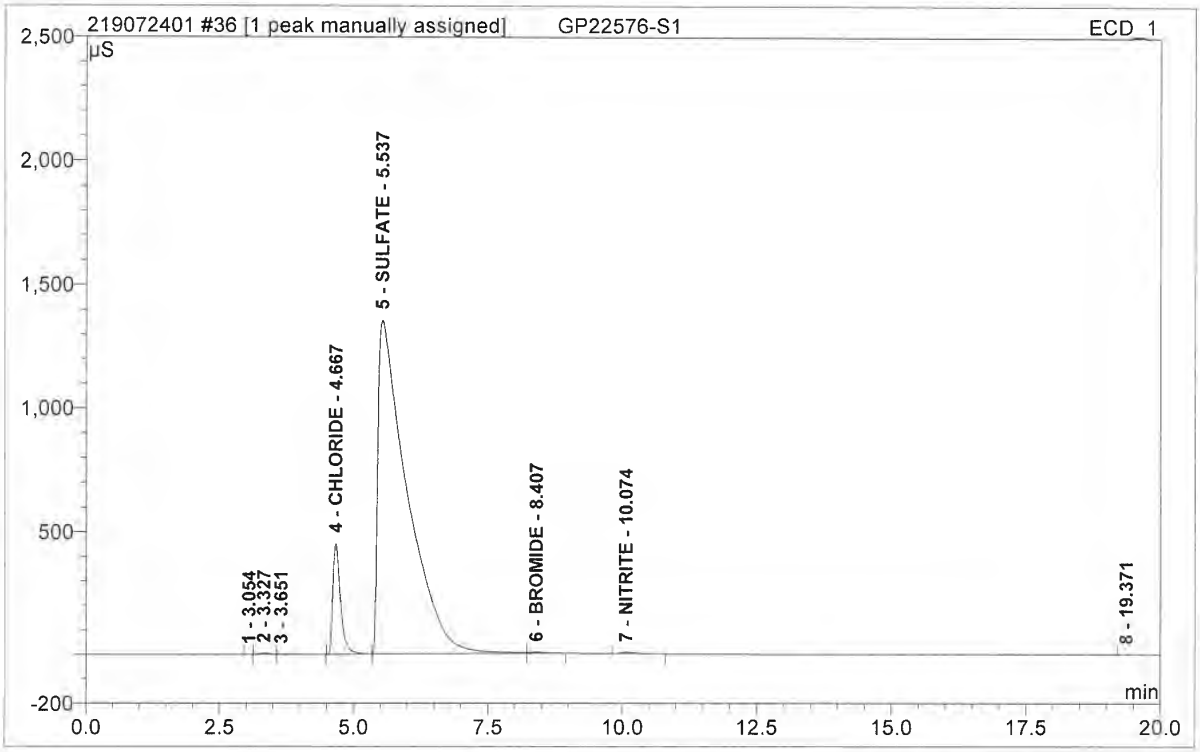


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	5.215	0.870	1.81	2.179	BMB
2	4.68	CHLORIDE	157.950	25.104	52.17	84.626	BMb
3	5.78	NITRATE	5.073	0.897	1.86	1.495	bMB
4	6.45	SULFATE	72.974	18.437	38.31	84.562	BMB
5	8.40	BROMIDE	2.674	0.580	1.21	4.684	BMB
6	10.05	NITRITE	6.116	1.787	3.71	2.459	BMB
7	13.99	PHOSPHATE	0.525	0.447	0.93	2.314	BMB
Total:			250.526	48.123	100.00	182.320	

36 GP22576-S1

JC91272-1

Sample Name:	**GP22576-S1**	*Injection Volume:*	**20.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 21:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.018	0.002	0.00	n.a.	BMB
2	3.33	n.a.	5.063	1.035	0.11	n.a.	BM
3	3.65	n.a.	1.256	0.364	0.04	n.a.	MB
4	4.67	CHLORIDE	453.578	75.305	8.08	253.857	BMb
5	5.54	SULFATE	1354.751	851.550	91.39	3905.570	bM ^
6	8.41	BROMIDE	5.148	1.621	0.17	13.079	MB
7	10.07	NITRITE	6.552	1.928	0.21	2.653	BMB
8	19.37	n.a.	0.011	0.005	0.00	n.a.	BMB
Total:			1826.378	931.809	100.00	4175.159	

missed peak
NV 7/25/19

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

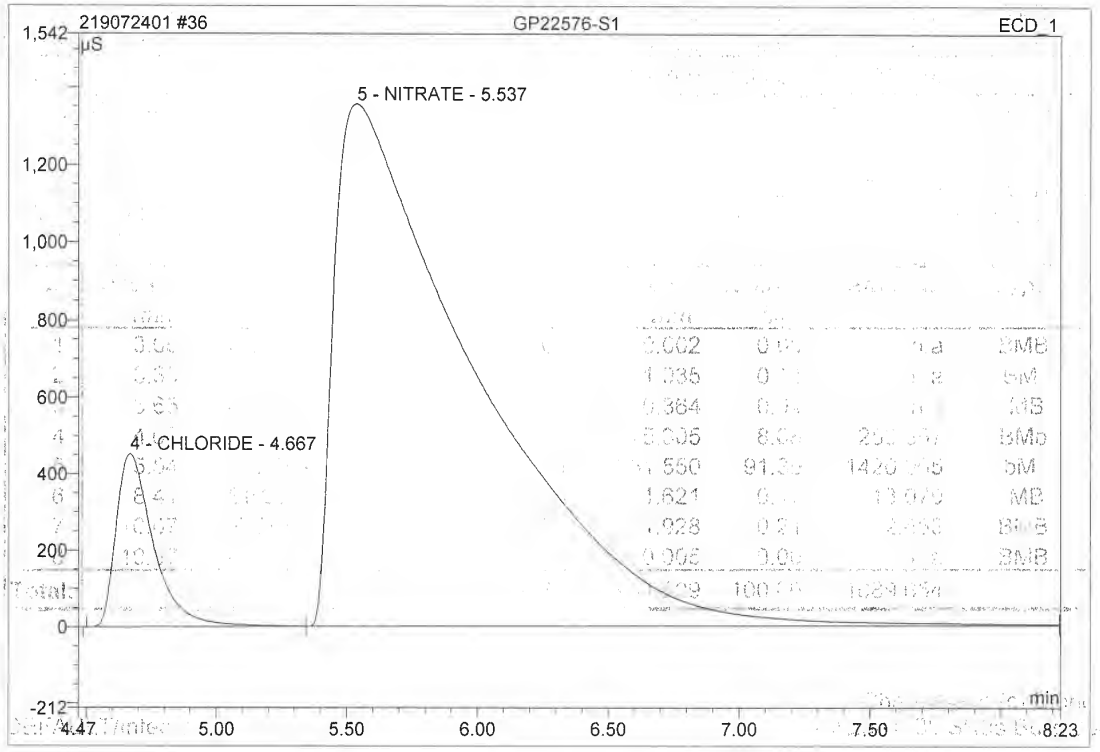
9.4

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219072401

36 GP22576-S1

JC91272-1

Sample Name:	**GP22576-S1**	*Injection Volume:*	**20.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 21:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.018	0.002	0.00	n.a.	BMB
2	3.33	n.a.	5.063	1.035	0.11	n.a.	BM
3	3.65	n.a.	1.256	0.364	0.04	n.a.	MB
4	4.67	CHLORIDE	453.578	75.305	8.08	253.857	BMb
5	5.54	NITRATE	1354.751	851.550	91.39	1420.065	bM
6	8.41	BROMIDE	5.148	1.621	0.17	13.079	MB
7	10.07	NITRITE	6.552	1.928	0.21	2.653	BMB
8	19.37	n.a.	0.011	0.005	0.00	n.a.	BMB
Total:			1826.378	931.809	100.00	1689.654	

DEFAULT/Integration

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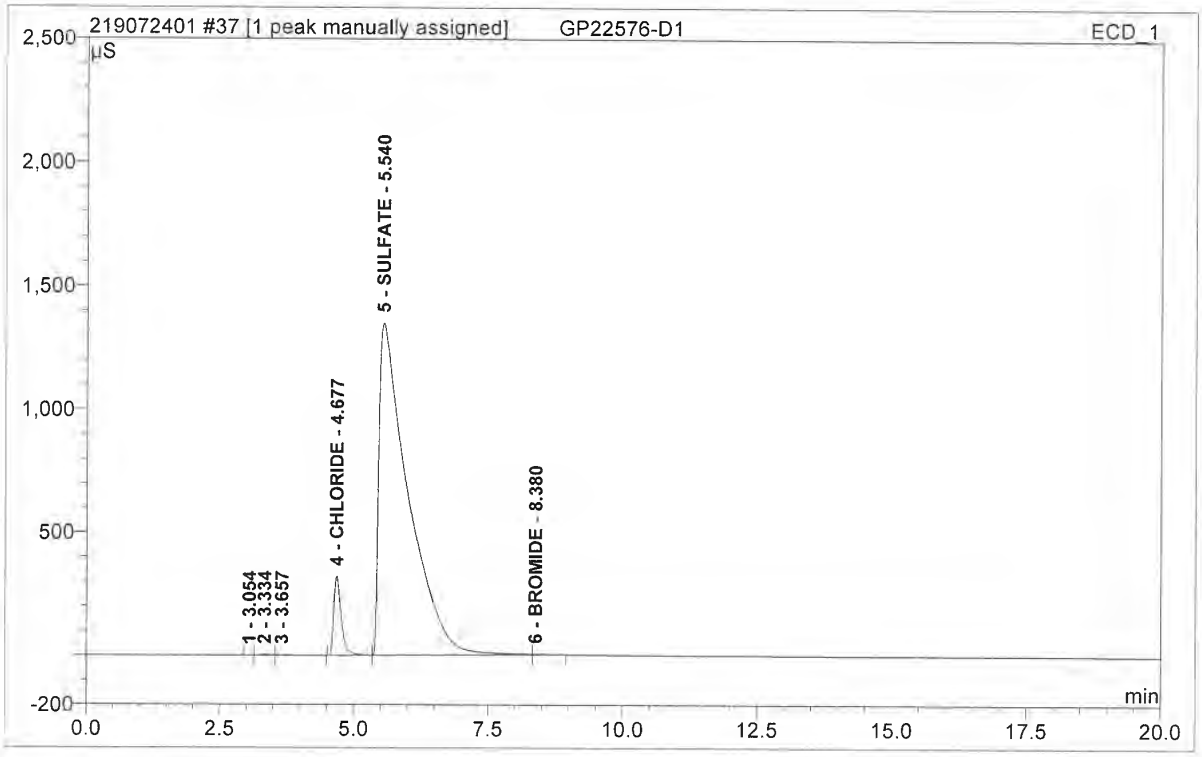
Version 6.80 SR9a Build 2680 (163077)

37 GP22576-D1

JC91272-1

Sample Name:	**GP22576-D1**	*Injection Volume:*	**20.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 21:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.049	0.005	0.00	n.a.	BMB
2	3.33	n.a.	2.210	0.477	0.05	n.a.	BM
3	3.66	n.a.	1.472	0.377	0.04	n.a.	MB
4	4.68	CHLORIDE	320.448	52.060	5.76	175.496	BMB
5	5.54	SULFATE	1349.863	849.725	94.05	3897.202	bM ^
6	8.38	BROMIDE	2.569	0.830	0.09	6.693	MB
Total:			1676.610	903.473	100.00	4079.391	

missed peaks
NV 7/25/19

anions/Integration

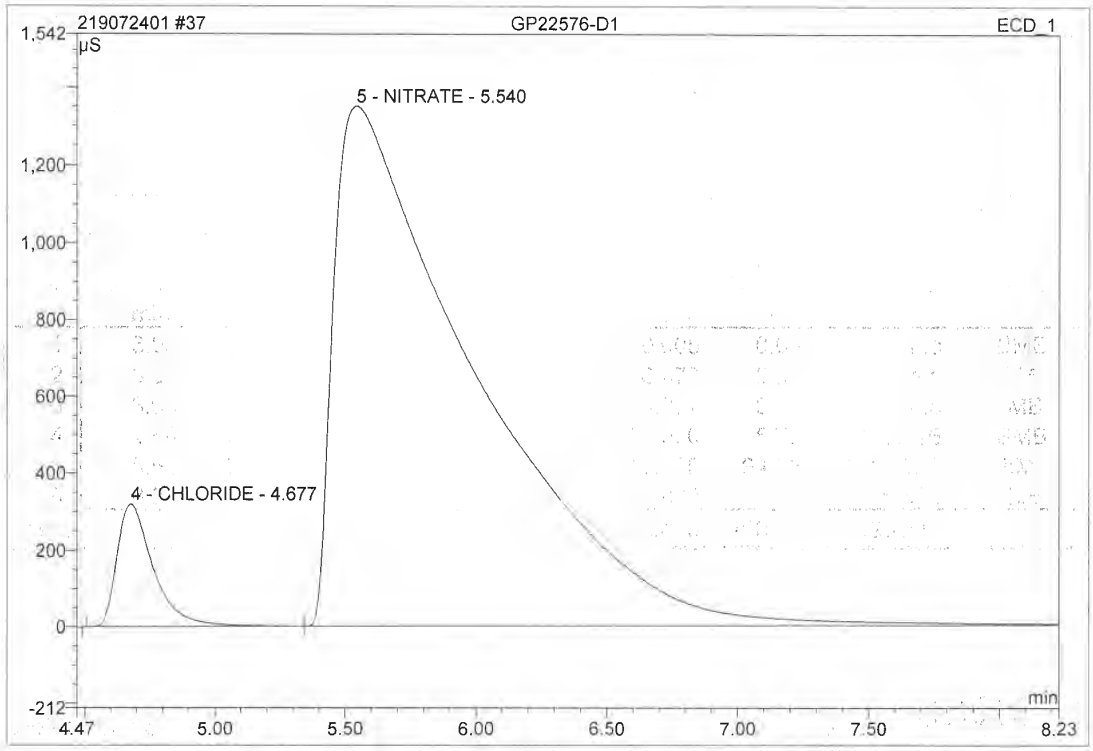
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

9.4

37 GP22576-D1

JC91272-1

Sample Name:	**GP22576-D1**	*Injection Volume:*	**20.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 21:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



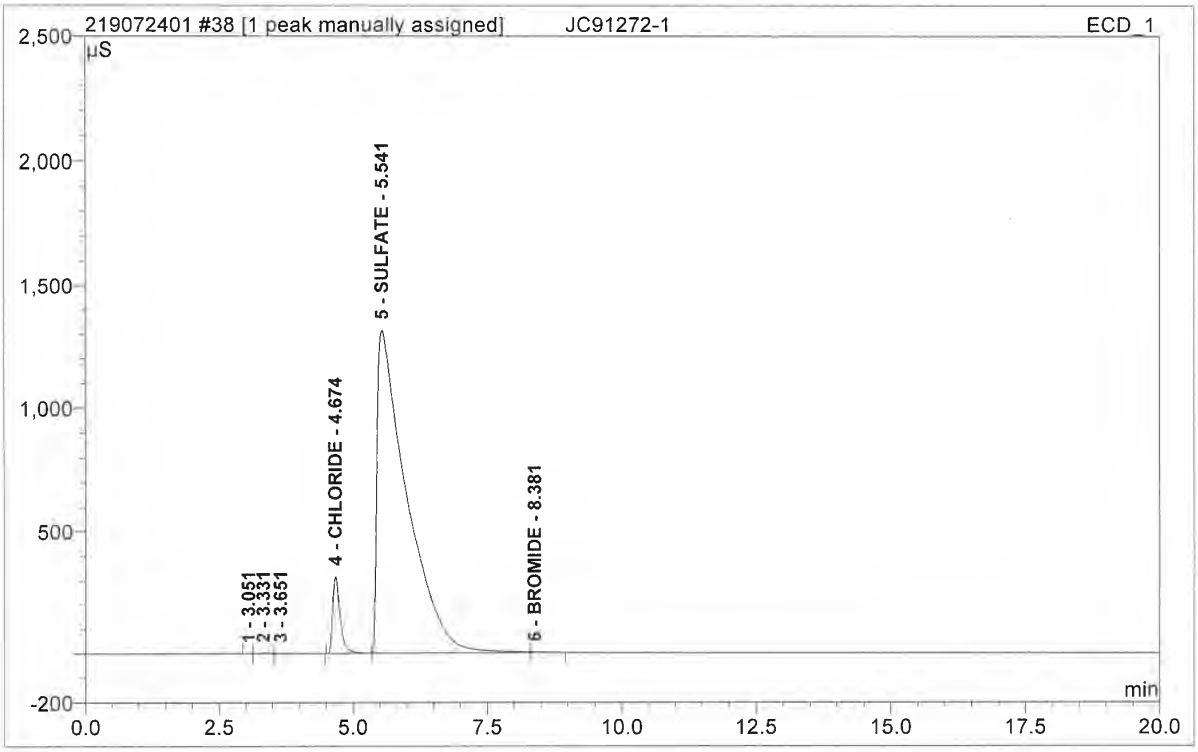
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.049	0.005	0.00	n.a.	BMB
2	3.33	n.a.	2.210	0.477	0.05	n.a.	BM
3	3.66	n.a.	1.472	0.377	0.04	n.a.	MB
4	4.68	CHLORIDE	320.448	52.060	5.76	175.496	BMB
5	5.54	NITRATE	1349.863	849.725	94.05	1417.022	bM
6	8.38	BROMIDE	2.569	0.830	0.09	6.693	MB
Total:			1676.610	903.473	100.00	1599.211	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

38 JC91272-1

Sample Name:	**JC91272-1**	*Injection Volume:*	**20.0**
Vial Number:	**29**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 21:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.044	0.004	0.00	n.a.	BMB
2	3.33	n.a.	2.146	0.462	0.05	n.a.	BM
3	3.65	n.a.	1.474	0.386	0.04	n.a.	MB
4	4.67	CHLORIDE	318.242	51.584	5.76	173.894	BMB
5	5.54	SULFATE	1315.162	841.789	94.05	3860.801	bM ^
6	8.38	BROMIDE	2.527	0.840	0.09	6.782	MB
Total:			1639.594	895.066	100.00	4041.477	

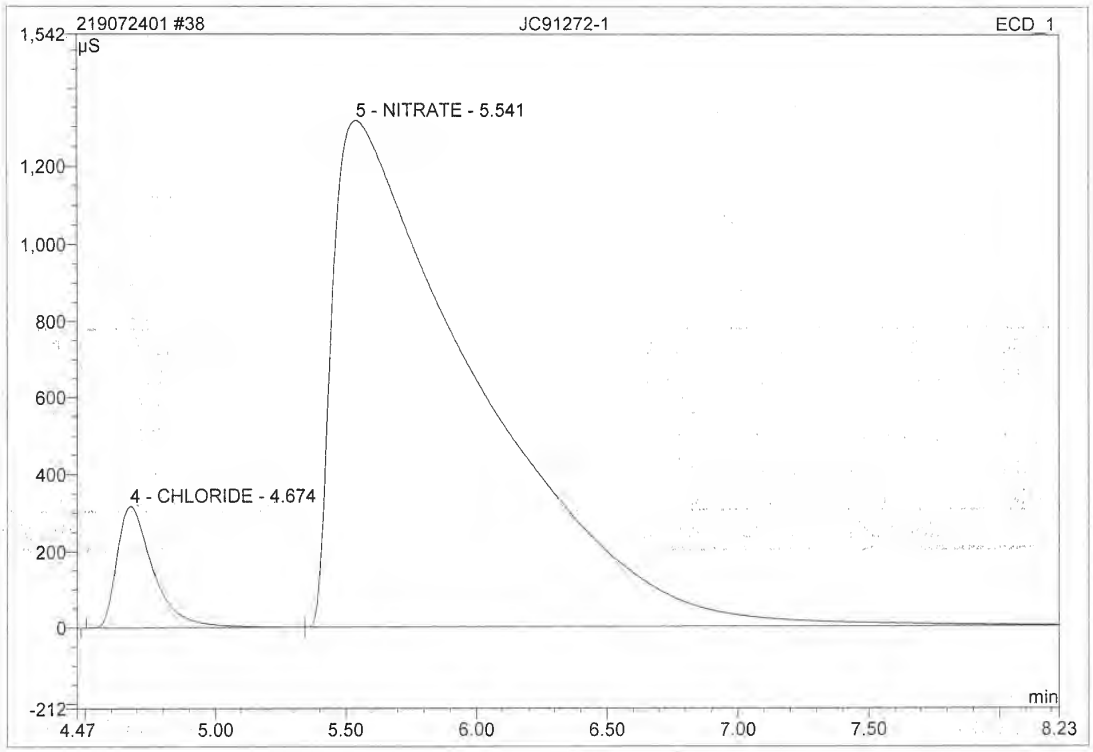
missed peak
NV 7/25/19

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

38 JC91272-1

Sample Name:	**JC91272-1**	*Injection Volume:*	**20.0**
Vial Number:	**29**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 21:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	n.a.	0.044	0.004	0.00	n.a.	BMB
2	3.33	n.a.	2.146	0.462	0.05	n.a.	BM
3	3.65	n.a.	1.474	0.386	0.04	n.a.	MB
4	4.67	CHLORIDE	318.242	51.584	5.76	173.894	BMB
5	5.54	NITRATE	1315.162	841.789	94.05	1403.787	bM
6	8.38	BROMIDE	2.527	0.840	0.09	6.782	MB
Total:			1639.594	895.066	100.00	1584.462	

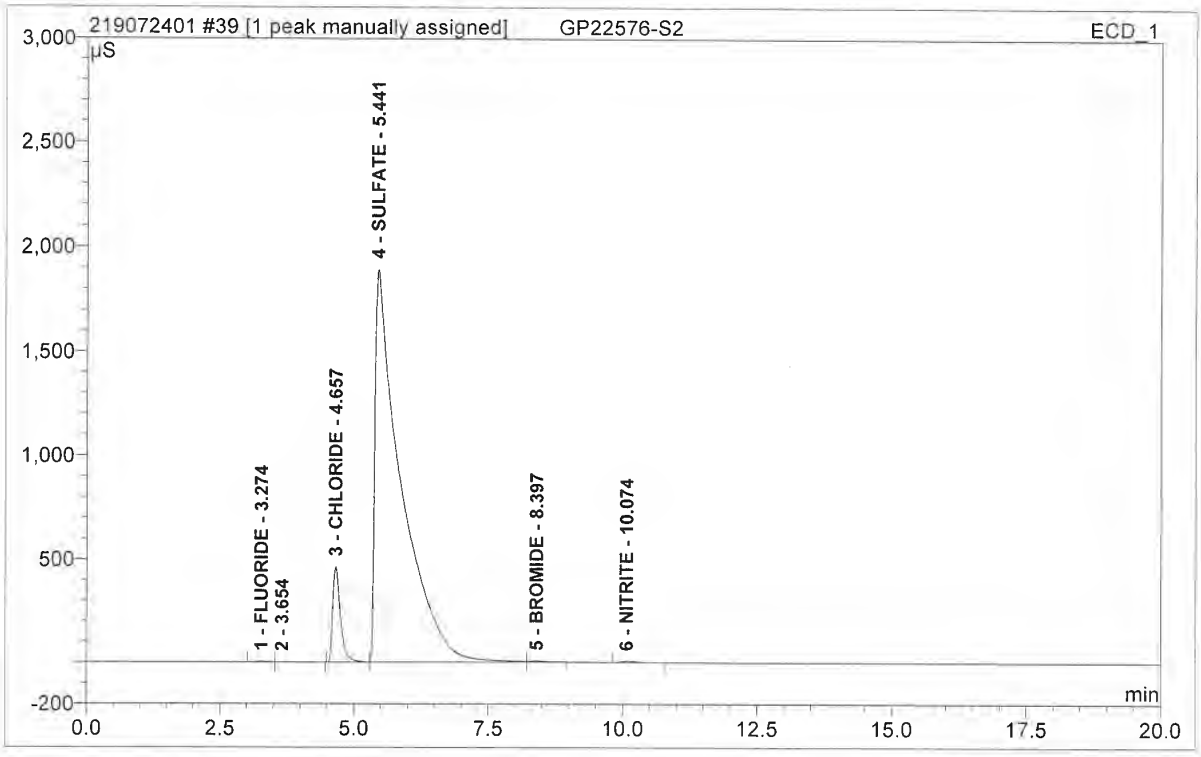
DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

39 GP22576-S2

JC91272-2

Sample Name:	**GP22576-S2**	*Injection Volume:*	**20.0**
Vial Number:	**30**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 22:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.27	FLUORIDE	4.206	0.895	0.08	2.242	BM
2	3.65	n.a.	1.578	0.426	0.04	n.a.	MB
3	4.66	CHLORIDE	464.108	77.739	6.82	262.062	BM
4	5.44	SULFATE	1891.198	1057.695	92.75	4851.042	M ^
5	8.40	BROMIDE	5.397	1.759	0.15	14.194	MB
6	10.07	NITRITE	6.298	1.823	0.16	2.508	BMB
Total:			2372.784	1140.337	100.00	5132.048	

missed peak
NV 7/25/19

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

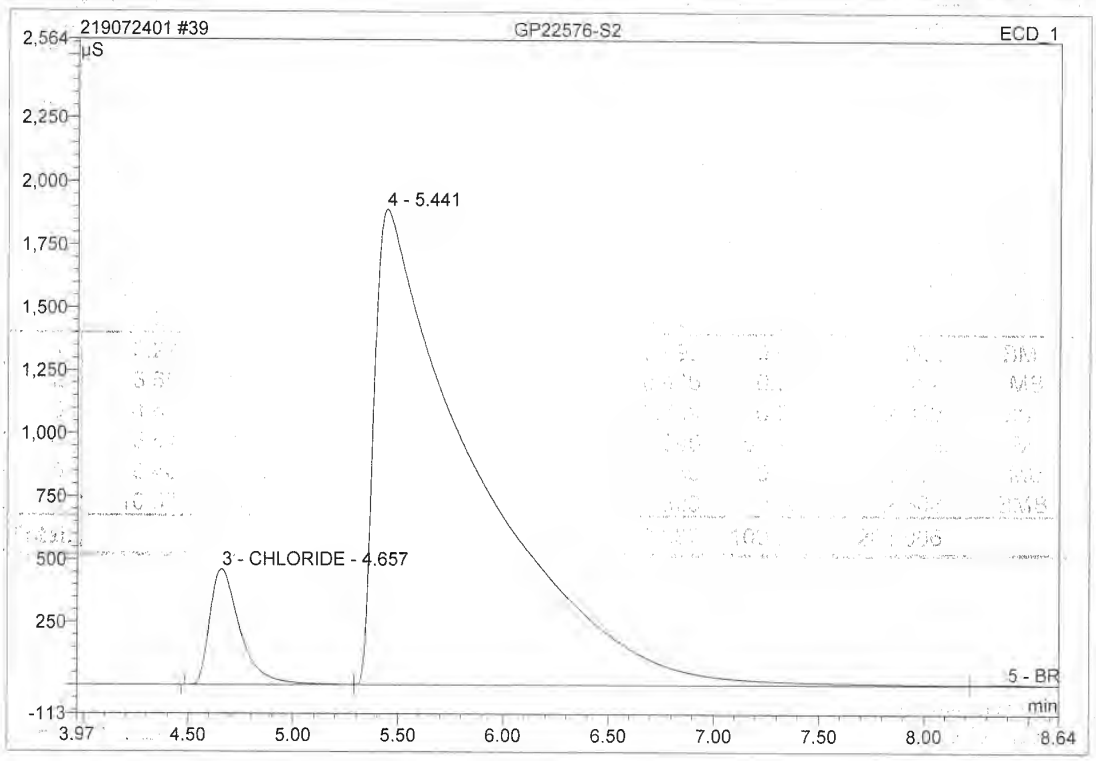
9.4

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219072401

39 GP22576-S2

JC91272-2

Sample Name:	**GP22576-S2**	*Injection Volume:*	**20.0**
Vial Number:	**30**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 22:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



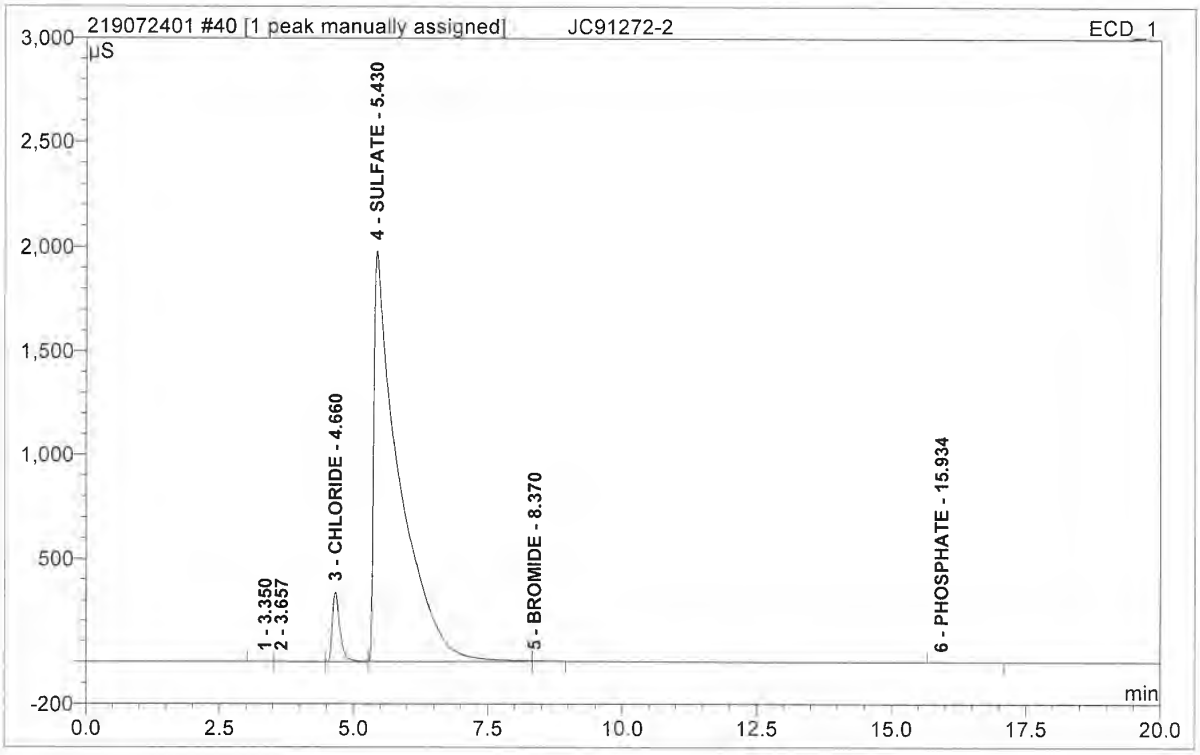
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.27	FLUORIDE	4.206	0.895	0.08	2.242	BM
2	3.65	n.a.	1.578	0.426	0.04	n.a.	MB
3	4.66	CHLORIDE	464.108	77.739	6.82	262.062	BM
4	5.44	n.a.	1891.198	1057.695	92.75	n.a.	M
5	8.40	BROMIDE	5.397	1.759	0.15	14.194	MB
6	10.07	NITRITE	6.298	1.823	0.16	2.508	BMB
Total:			2372.784	1140.337	100.00	281.006	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

40 JC91272-2

Sample Name:	**JC91272-2**	*Injection Volume:*	**20.0**
Vial Number:	**31**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 22:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.35	n.a.	0.804	0.202	0.02	n.a.	BM
2	3.66	n.a.	1.321	0.330	0.03	n.a.	MB
3	4.66	CHLORIDE	339.643	55.324	4.89	186.501	BM
4	5.43	SULFATE	1980.955	1074.764	94.99	4929.327	M ^
5	8.37	BROMIDE	2.514	0.771	0.07	6.218	MB
6	15.93	PHOSPHATE	0.070	0.040	0.00	0.208	BMB
Total:			2325.307	1131.431	100.00	5122.253	

missed peak
NV 7/25/19

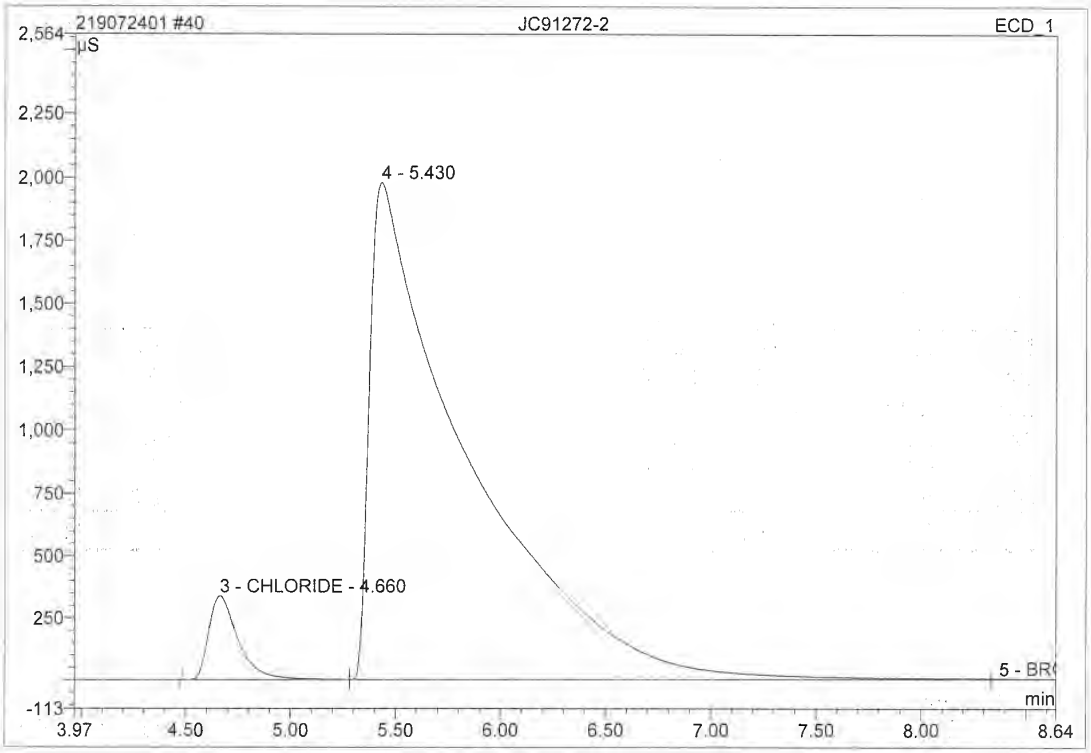
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

9.4

40 JC91272-2

Sample Name:	**JC91272-2**	*Injection Volume:*	**20.0**
Vial Number:	**31**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 22:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



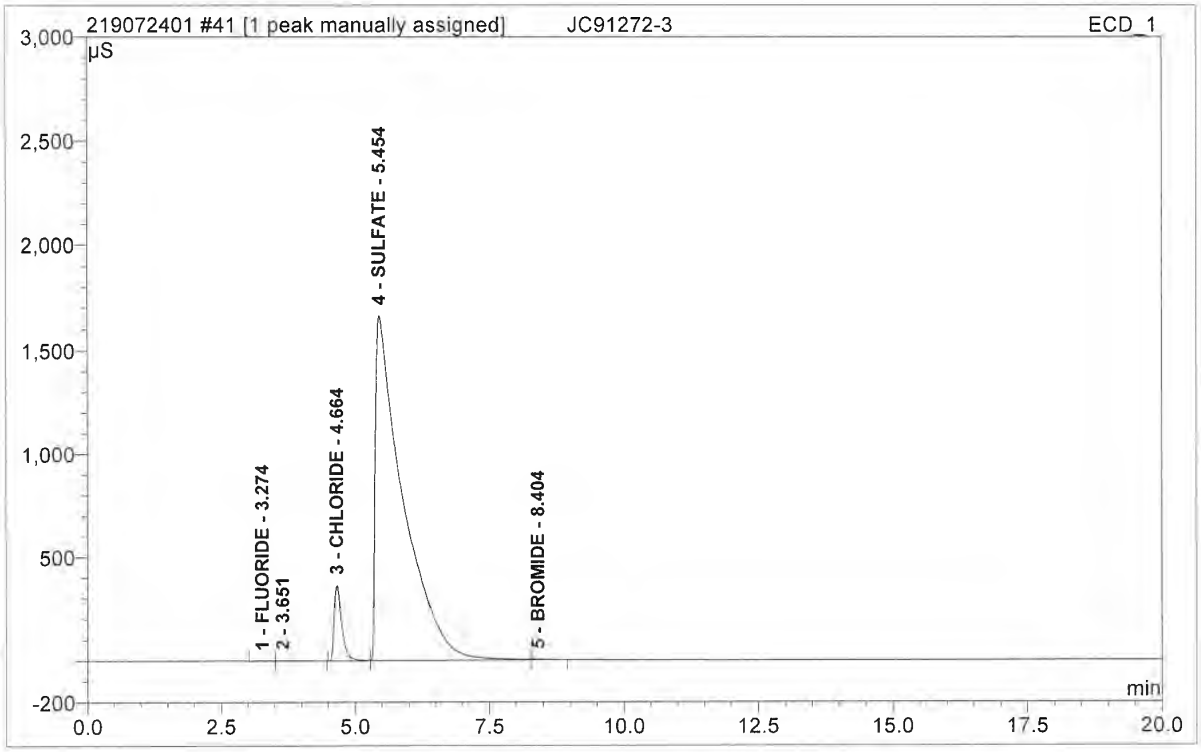
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.35	n.a.	0.804	0.202	0.02	n.a.	BM
2	3.66	n.a.	1.321	0.330	0.03	n.a.	MB
3	4.66	CHLORIDE	339.643	55.324	4.89	186.501	BM
4	5.43	n.a.	1980.955	1074.764	94.99	n.a.	M
5	8.37	BROMIDE	2.514	0.771	0.07	6.218	MB
6	15.93	PHOSPHATE	0.070	0.040	0.00	0.208	BMB
Total:			2325.307	1131.431	100.00	192.927	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

41 JC91272-3

Sample Name:	**JC91272-3**	*Injection Volume:*	**20.0**
Vial Number:	**32**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 23:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.27	FLUORIDE	0.953	0.217	0.02	0.544	BM
2	3.65	n.a.	0.991	0.271	0.03	n.a.	MB
3	4.66	CHLORIDE	364.281	59.773	5.70	201.496	BM
4	5.45	SULFATE	1663.322	986.859	94.16	4526.157	M ^
5	8.40	BROMIDE	2.639	0.919	0.09	7.413	MB
Total:			2032.185	1048.039	100.00	4735.611	

missed peak
NV 7/25/19

anions/Integration

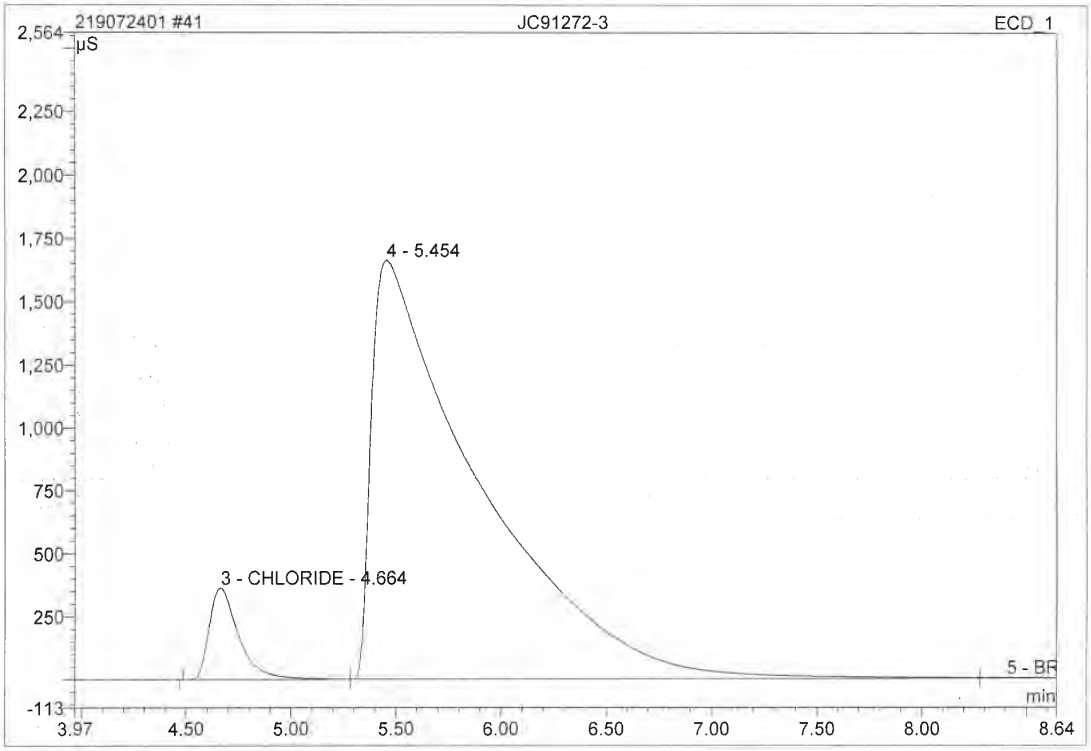
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

9.4

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219072401

41 JC91272-3

Sample Name:	**JC91272-3**	*Injection Volume:*	**20.0**
Vial Number:	**32**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 23:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



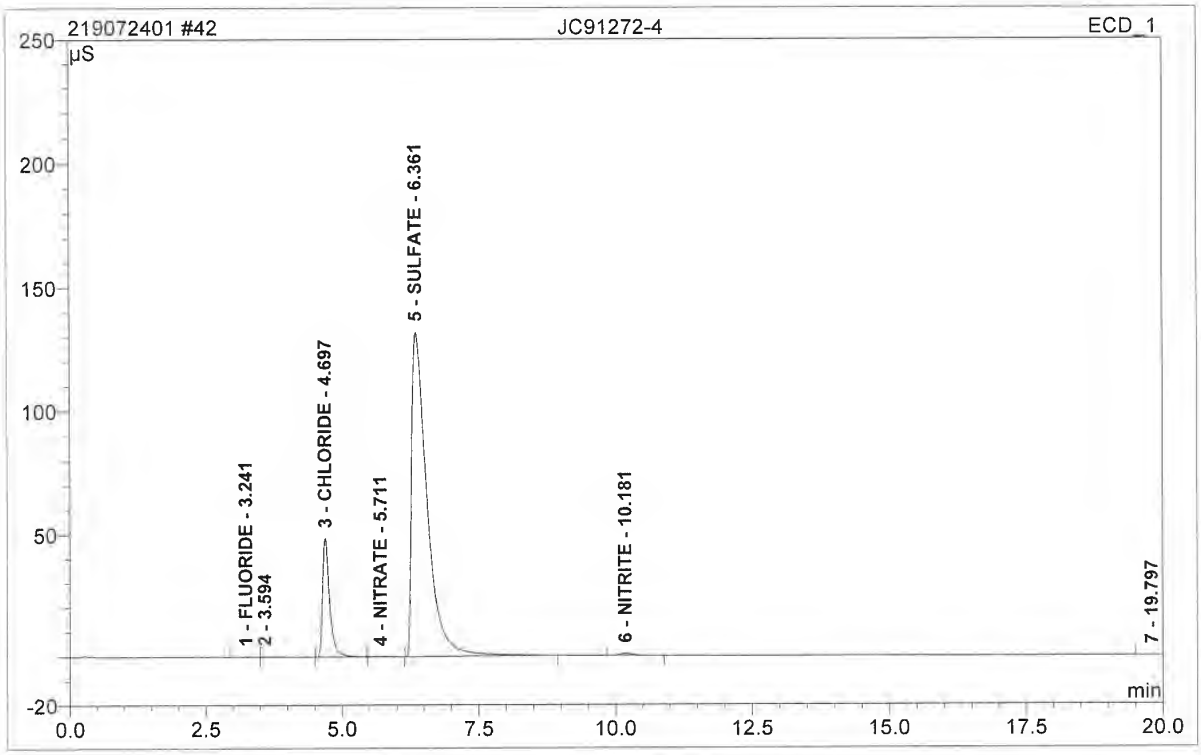
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.27	FLUORIDE	0.953	0.217	0.02	0.544	BM
2	3.65	n.a.	0.991	0.271	0.03	n.a.	MB
3	4.66	CHLORIDE	364.281	59.773	5.70	201.496	BM
4	5.45	n.a.	1663.322	986.859	94.16	n.a.	M
5	8.40	BROMIDE	2.639	0.919	0.09	7.413	MB
Total:			2032.185	1048.039	100.00	209.454	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

42 JC91272-4

Sample Name:	**JC91272-4**	*Injection Volume:*	**20.0**
Vial Number:	**33**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 23:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



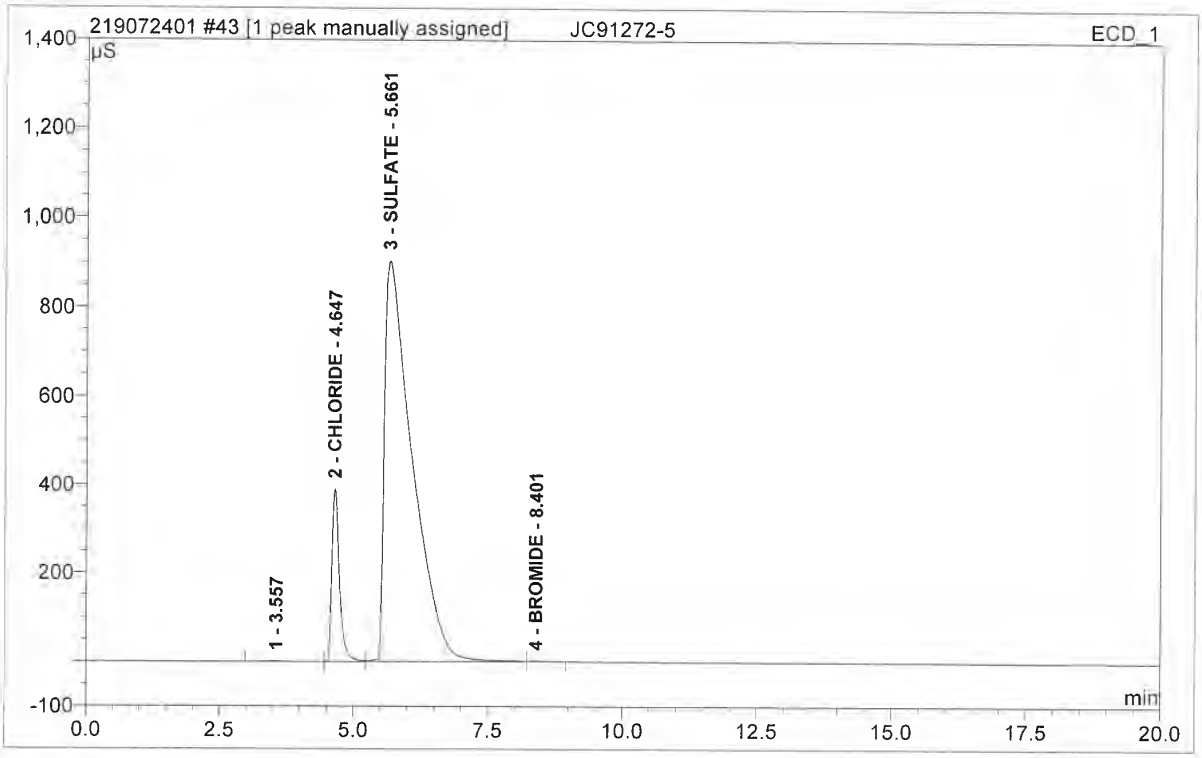
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	0.119	0.041	0.08	0.102	BM
2	3.59	n.a.	0.099	0.059	0.12	n.a.	MB
3	4.70	CHLORIDE	48.621	7.378	14.38	24.871	BM
4	5.71	NITRATE	0.118	0.053	0.10	0.088	MB
5	6.36	SULFATE	132.071	43.539	84.86	199.688	BMB
6	10.18	NITRITE	0.877	0.235	0.46	0.324	BMB
7	19.80	n.a.	0.003	0.002	0.00	n.a.	BMB
Total:			181.908	51.306	100.00	225.072	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

43 JC91272-5

Sample Name:	**JC91272-5**	*Injection Volume:*	**20.0**
Vial Number:	**34**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 23:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



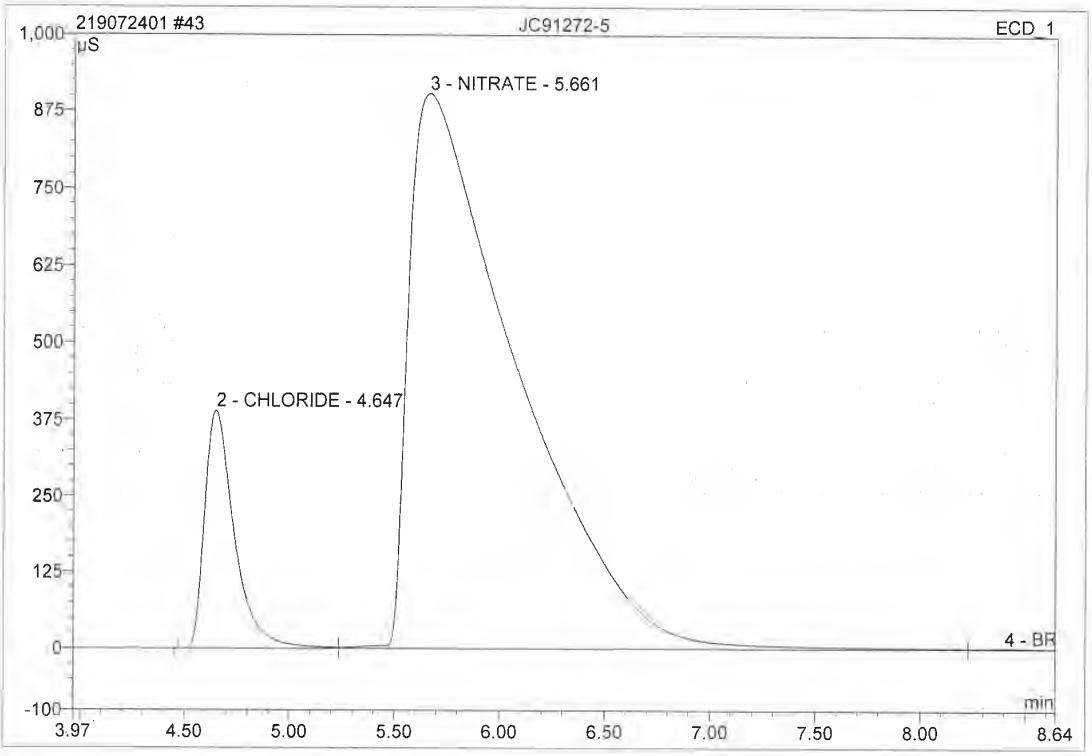
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.56	n.a.	1.104	0.513	0.08	n.a.	BMB
2	4.65	CHLORIDE	390.129	64.319	10.62	216.823	BM
3	5.66	SULFATE	904.057	540.056	89.19	2476.928	M ^
4	8.40	BROMIDE	1.850	0.609	0.10	4.918	MB
Total:			1297.140	605.498	100.00	2698.669	

missed peak
NV 7/25/19

Operator:chemistry Timebase.ACCUTEST_SYS#2 Sequence:219072401

43 JC91272-5

Sample Name:	**JC91272-5**	*Injection Volume:*	**20.0**
Vial Number:	**34**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/24/2019 23:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



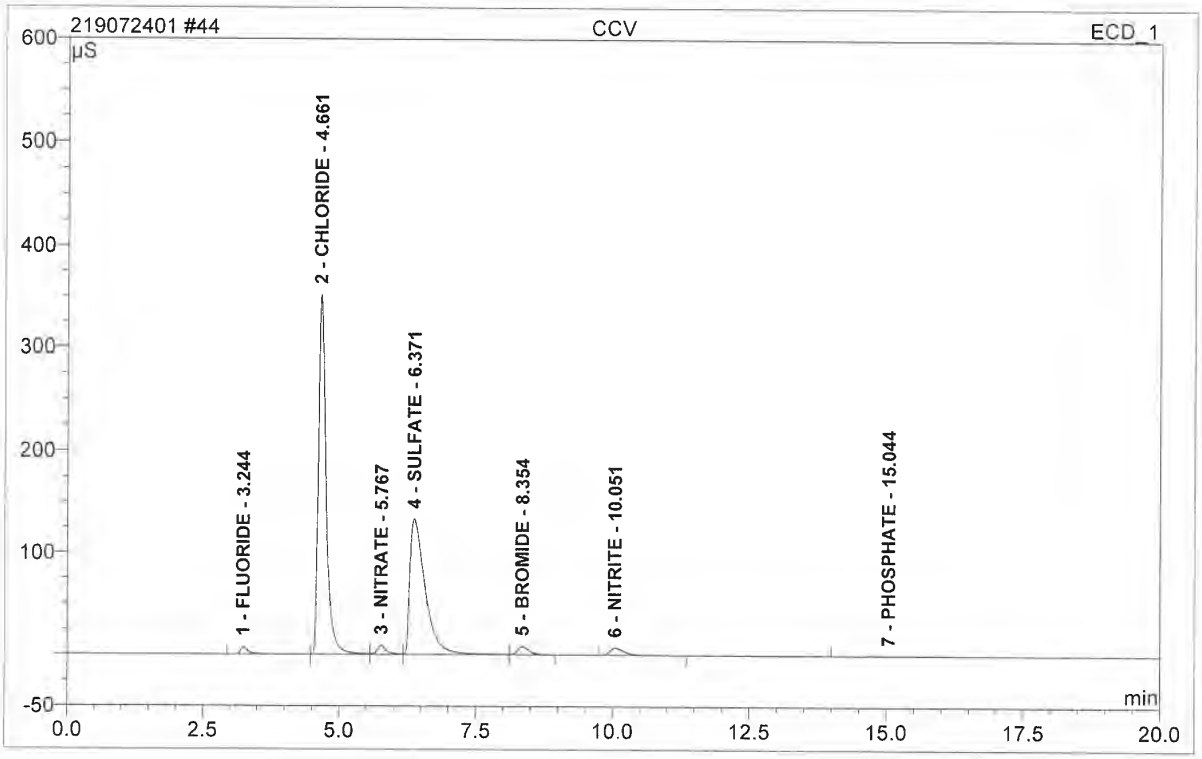
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.56	n.a.	1.104	0.513	0.08	n.a.	BMB
2	4.65	CHLORIDE	390.129	64.319	10.62	216.823	BM
3	5.66	NITRATE	904.057	540.056	89.19	900.611	M
4	8.40	BROMIDE	1.850	0.609	0.10	4.918	MB
Total:			1297.140	605.498	100.00	1122.352	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

44 CCV

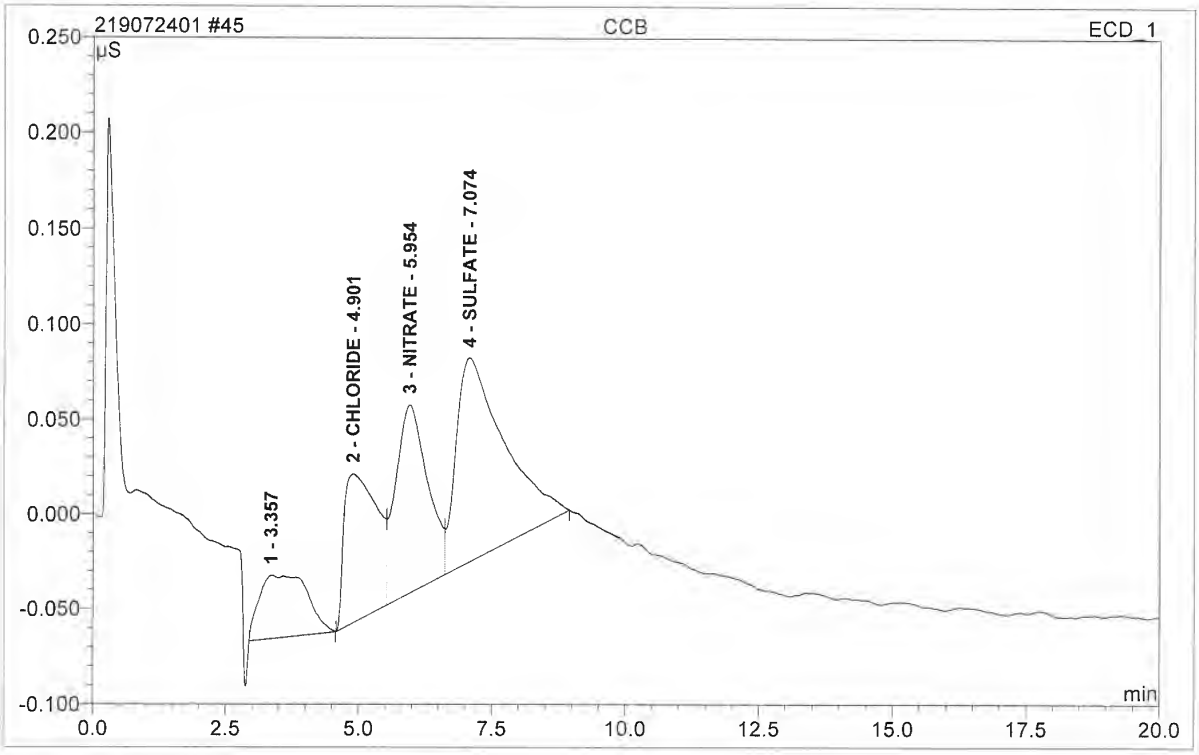
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**35**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 0:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	7.582	1.324	1.21	3.315	BMB
2	4.66	CHLORIDE	352.153	58.174	53.10	196.106	BM
3	5.77	NITRATE	9.092	1.834	1.67	3.059	M
4	6.37	SULFATE	133.838	43.562	39.76	199.796	M
5	8.35	BROMIDE	8.163	1.927	1.76	15.552	MB
6	10.05	NITRITE	7.139	2.175	1.99	2.993	BMB
7	15.04	PHOSPHATE	0.239	0.569	0.52	2.944	BMB
Total:			518.207	109.565	100.00	423.764	

45 CCB

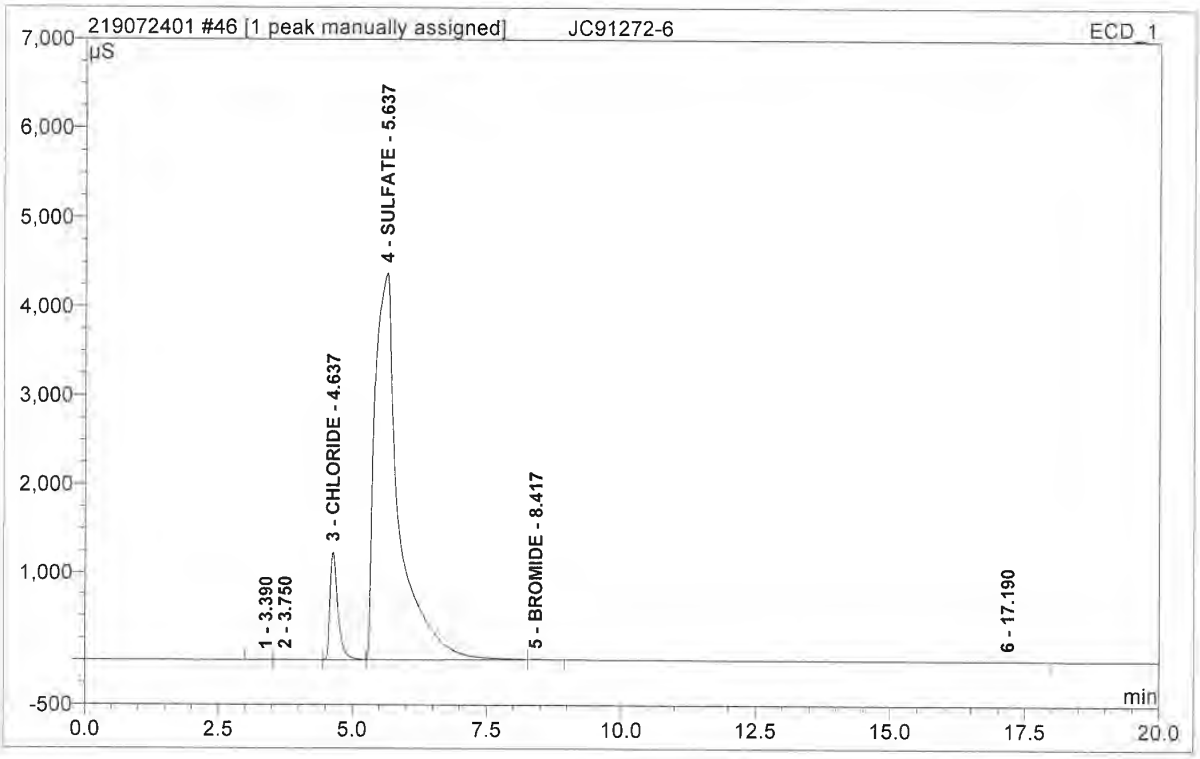
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 0:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.36	n.a.	0.033	0.034	12.55	n.a.	BMB
2	4.90	CHLORIDE	0.078	0.055	20.27	0.185	BM
3	5.95	NITRATE	0.099	0.070	25.73	0.116	M
4	7.07	SULFATE	0.108	0.112	41.44	0.515	MB
Total:			0.319	0.271	100.00	0.816	

46 JC91272-6

Sample Name:	**JC91272-6**	*Injection Volume:*	**20.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 1:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.39	n.a.	1.661	0.347	0.01	n.a.	BM
2	3.75	n.a.	3.203	0.913	0.04	n.a.	MB
3	4.64	CHLORIDE	1230.024	210.261	8.36	708.799	BM
4	5.64	SULFATE	4378.242	2301.886	91.49	10557.429	M ^
5	8.42	BROMIDE	7.420	2.487	0.10	20.066	MB
6	17.19	n.a.	0.067	0.038	0.00	n.a.	BMB
Total:			5620.618	2515.932	100.00	11286.294	

missed peak
NV 7/25/19

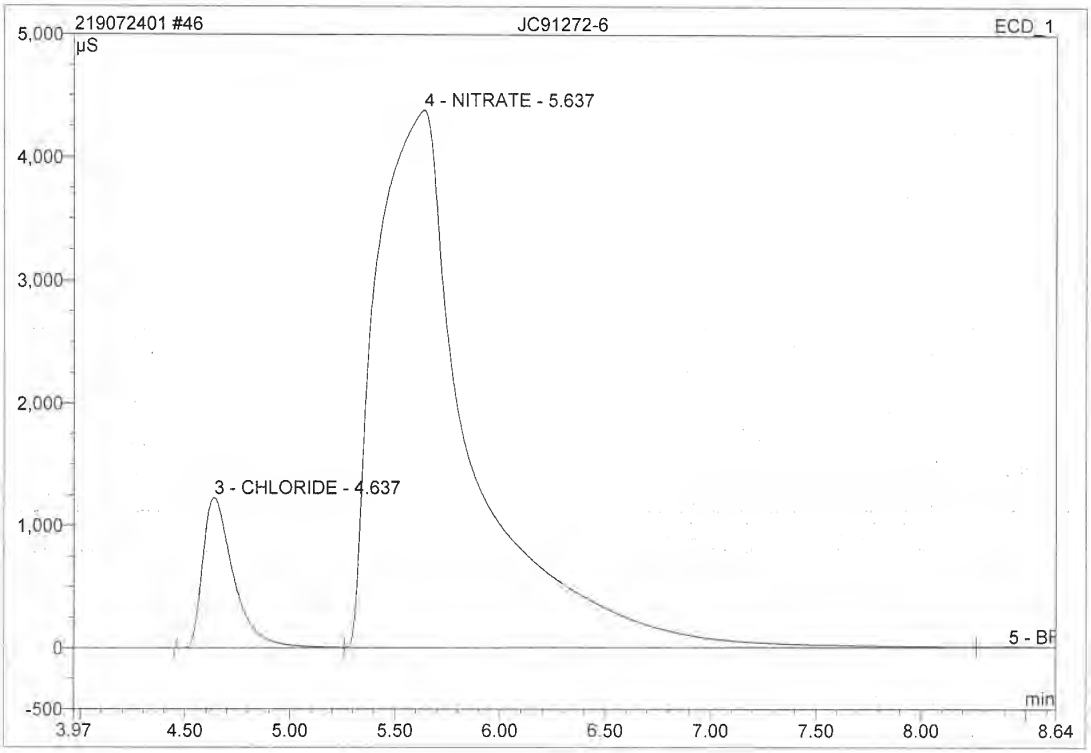
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219072401

46 JC91272-6

Sample Name:	**JC91272-6**	*Injection Volume:*	**20.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 1:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.39	n.a.	1.661	0.347	0.01	n.a.	BM
2	3.75	n.a.	3.203	0.913	0.04	n.a.	MB
3	4.64	CHLORIDE	1230.024	210.261	8.36	708.799	BM
4	5.64	NITRATE	4378.242	2301.886	91.49	3838.680	M
5	8.42	BROMIDE	7.420	2.487	0.10	20.066	MB
6	17.19	n.a.	0.067	0.038	0.00	n.a.	BMB
Total:			5620.618	2515.932	100.00	4567.545	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

9.4
9
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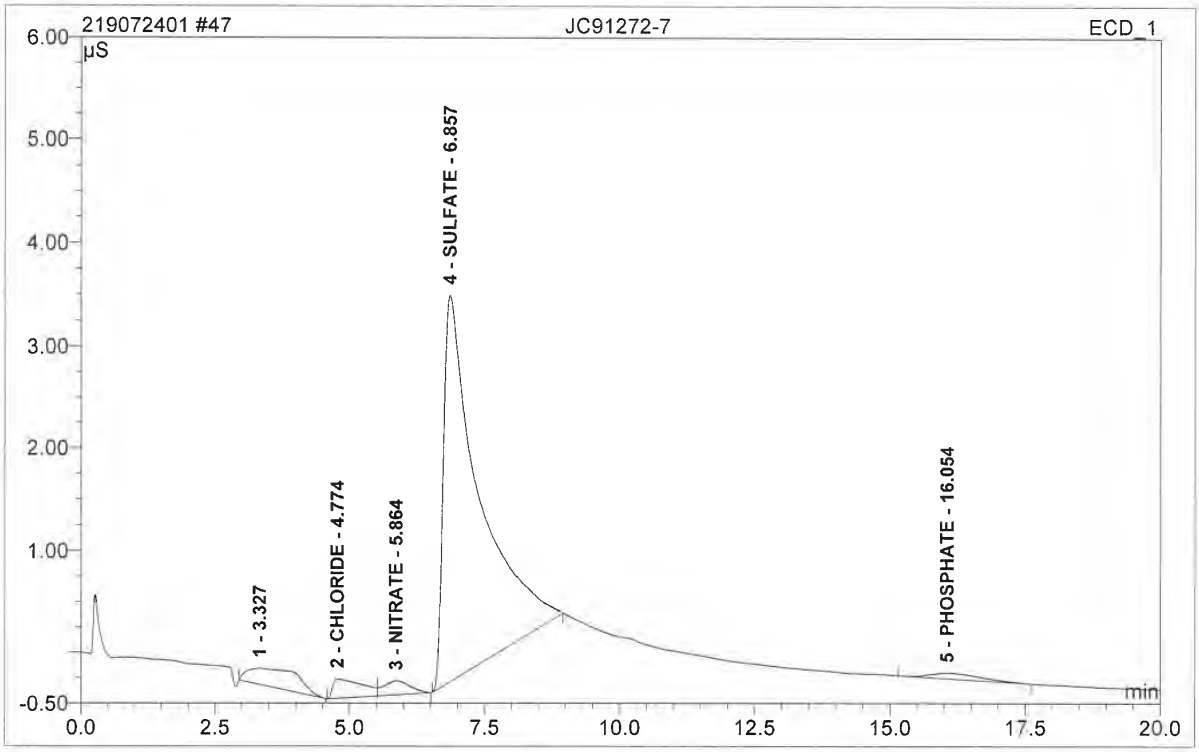
JC91275
Raw Data GN97884: Chloride page 64 of 87

47 JC91272-7

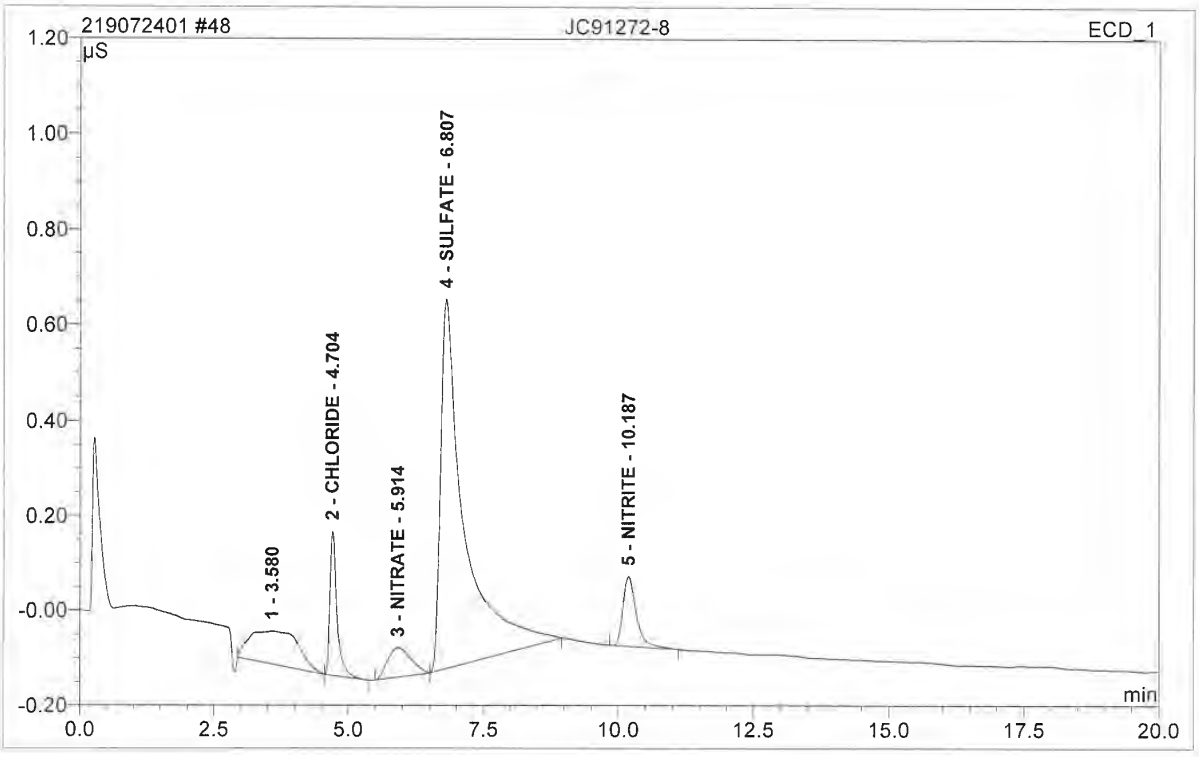
Sample Name:	**JC91272-7**	*Injection Volume:*	**20.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 1:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.33	n.a.	0.159	0.198	5.85	n.a.	BMB
2	4.77	CHLORIDE	0.189	0.119	3.51	0.400	BM
3	5.86	NITRATE	0.139	0.078	2.30	0.130	MB
4	6.86	SULFATE	3.788	2.928	86.53	13.428	BMB
5	16.05	PHOSPHATE	0.055	0.061	1.81	0.318	BMB
Total:			4.330	3.384	100.00	14.276	

48 JC91272-8

Sample Name:	**JC91272-8**	*Injection Volume:*	**20.0**
Vial Number:	**39**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 1:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



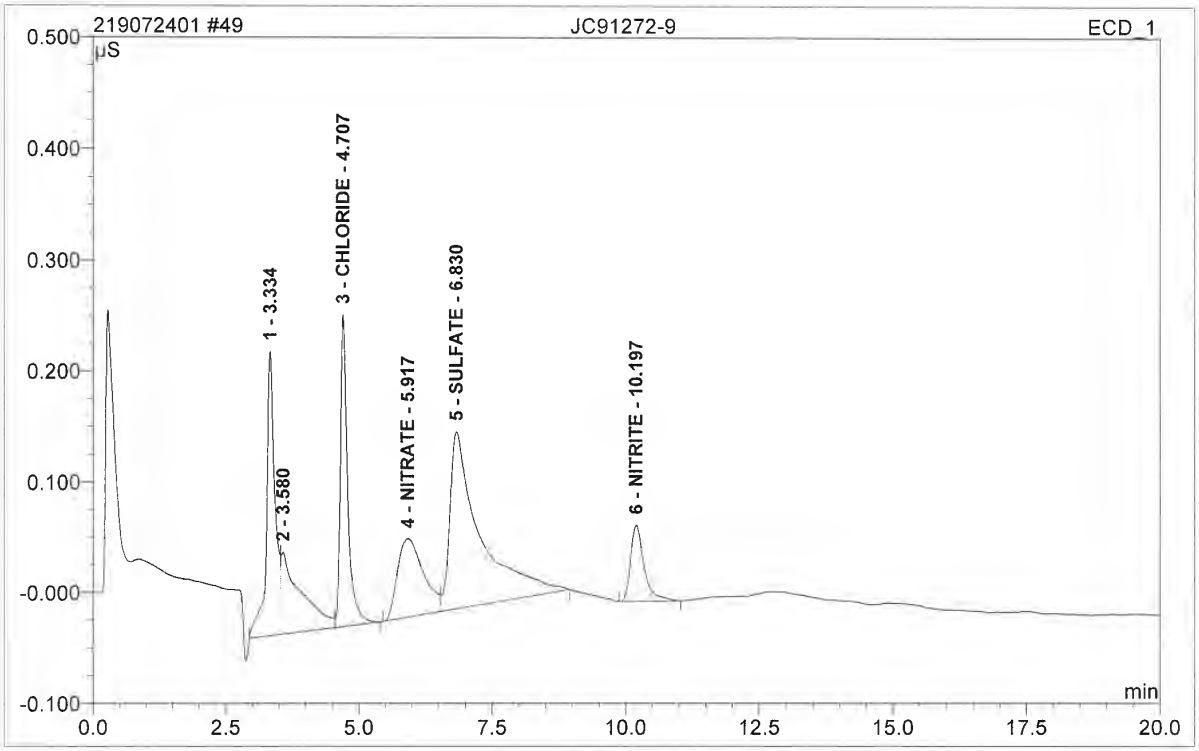
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.58	n.a.	0.070	0.074	12.58	n.a.	BMB
2	4.70	CHLORIDE	0.304	0.046	7.85	0.156	BMB
3	5.91	NITRATE	0.062	0.031	5.29	0.052	BMB
4	6.81	SULFATE	0.777	0.396	67.11	1.816	BMB
5	10.19	NITRITE	0.147	0.042	7.17	0.058	BMB
Total:			1.361	0.590	100.00	2.083	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

49 JC91272-9

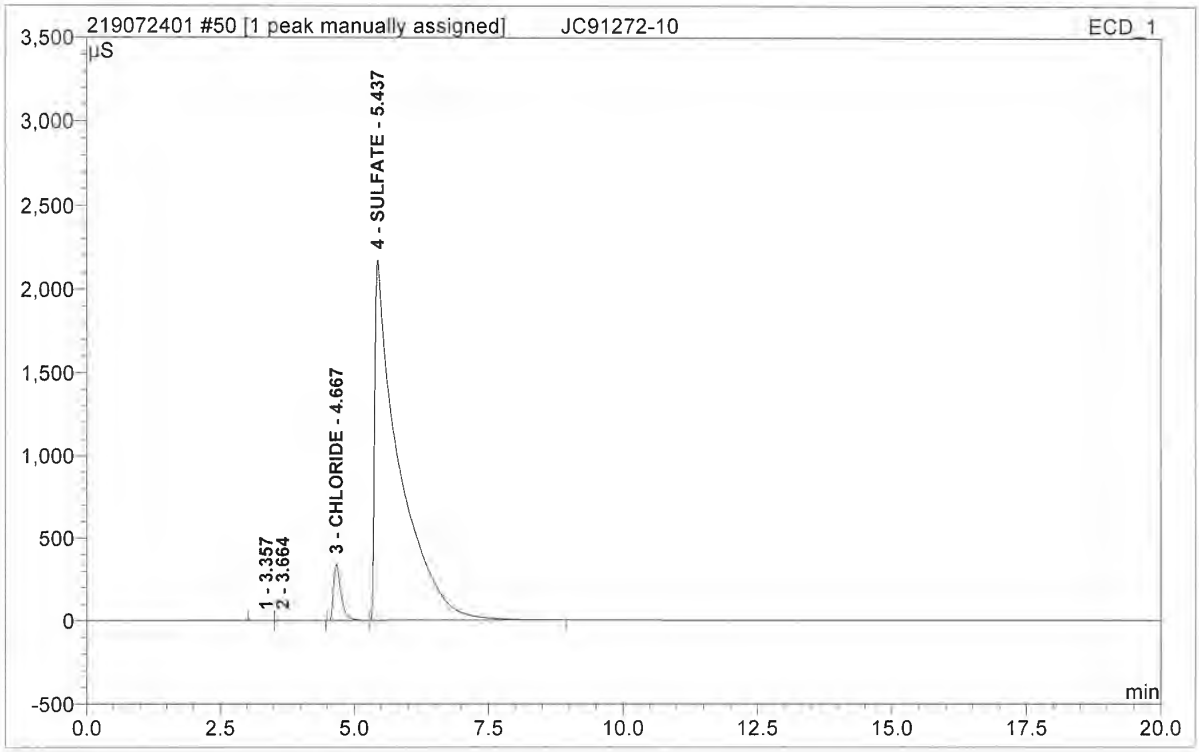
Sample Name:	**JC91272-9**	*Injection Volume:*	**20.0**
Vial Number:	**40**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 2:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.33	n.a.	0.257	0.048	16.28	n.a.	BM
2	3.58	n.a.	0.074	0.032	11.06	n.a.	M
3	4.71	CHLORIDE	0.282	0.045	15.44	0.153	MB
4	5.92	NITRATE	0.072	0.040	13.81	0.067	BM
5	6.83	SULFATE	0.160	0.107	36.43	0.490	MB
6	10.20	NITRITE	0.070	0.020	6.99	0.028	BMB
Total:			0.915	0.293	100.00	0.738	

50 JC91272-10

Sample Name:	**JC91272-10**	*Injection Volume:*	**20.0**
Vial Number:	**41**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 2:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.36	n.a.	0.755	0.173	0.01	n.a.	BM
2	3.66	n.a.	1.152	0.276	0.02	n.a.	MB
3	4.67	CHLORIDE	337.924	55.131	4.64	185.851	BM
4	5.44	SULFATE	2175.376	1132.291	95.32	5193.167	MB^
Total:			2515.207	1187.871	100.00	5379.018	

missed peak
NV 7/25/19

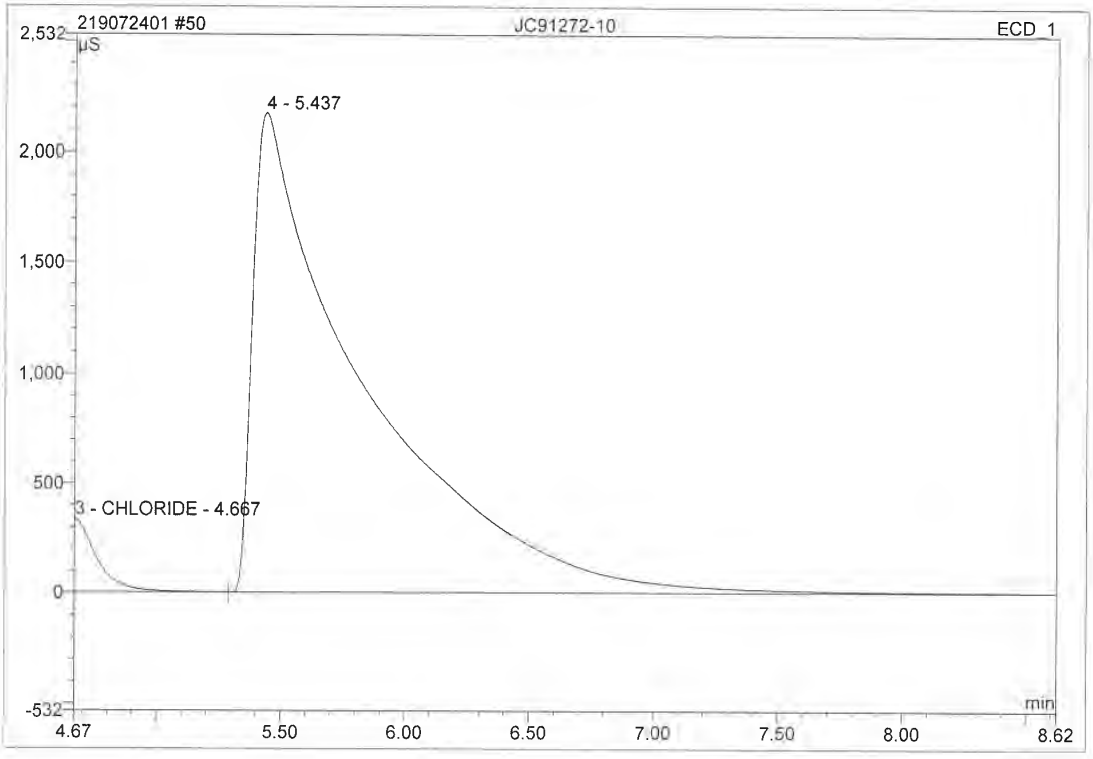
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219072401

50 JC91272-10

Sample Name:	**JC91272-10**	*Injection Volume:*	**20.0**
Vial Number:	**41**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 2:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



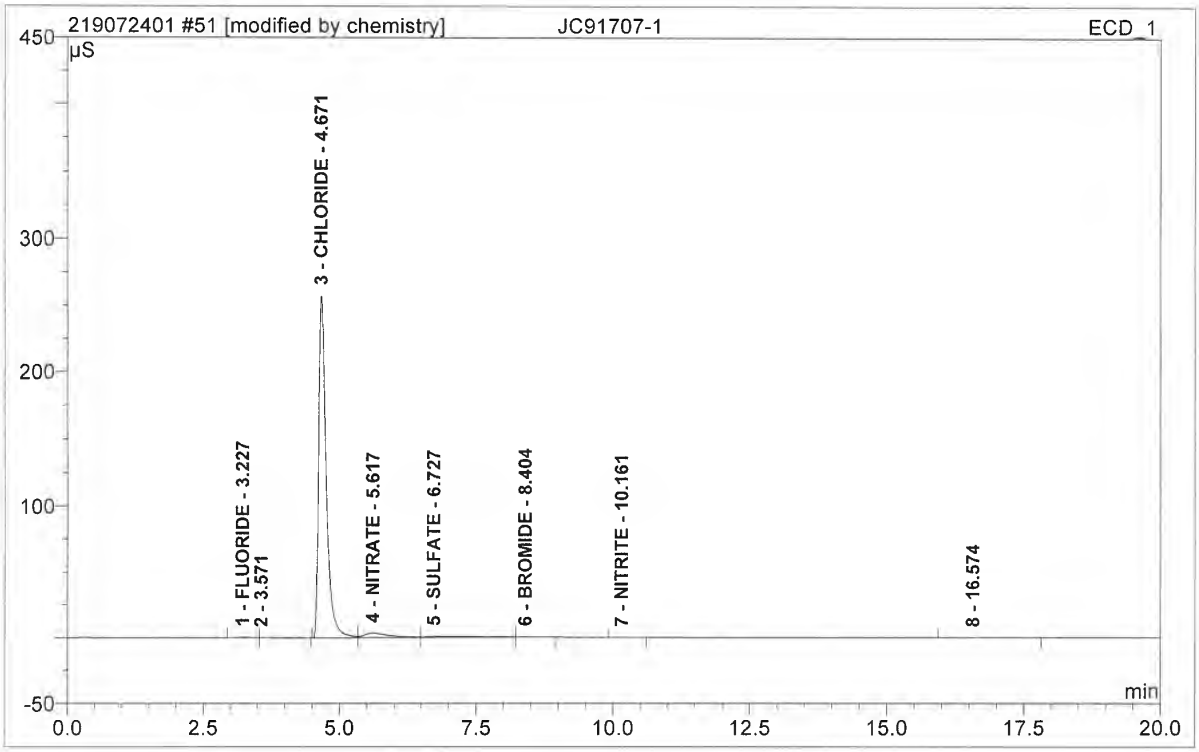
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.36	n.a.	0.755	0.173	0.01	n.a.	BM
2	3.66	n.a.	1.152	0.276	0.02	n.a.	MB
3	4.67	CHLORIDE	337.924	55.131	4.64	185.851	BM
4	5.44	n.a.	2175.376	1132.291	95.32	n.a.	MB
Total:			2515.207	1187.871	100.00	185.851	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

51 JC91707-1

Sample Name:	**JC91707-1**	*Injection Volume:*	**20.0**
Vial Number:	**42**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 3:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

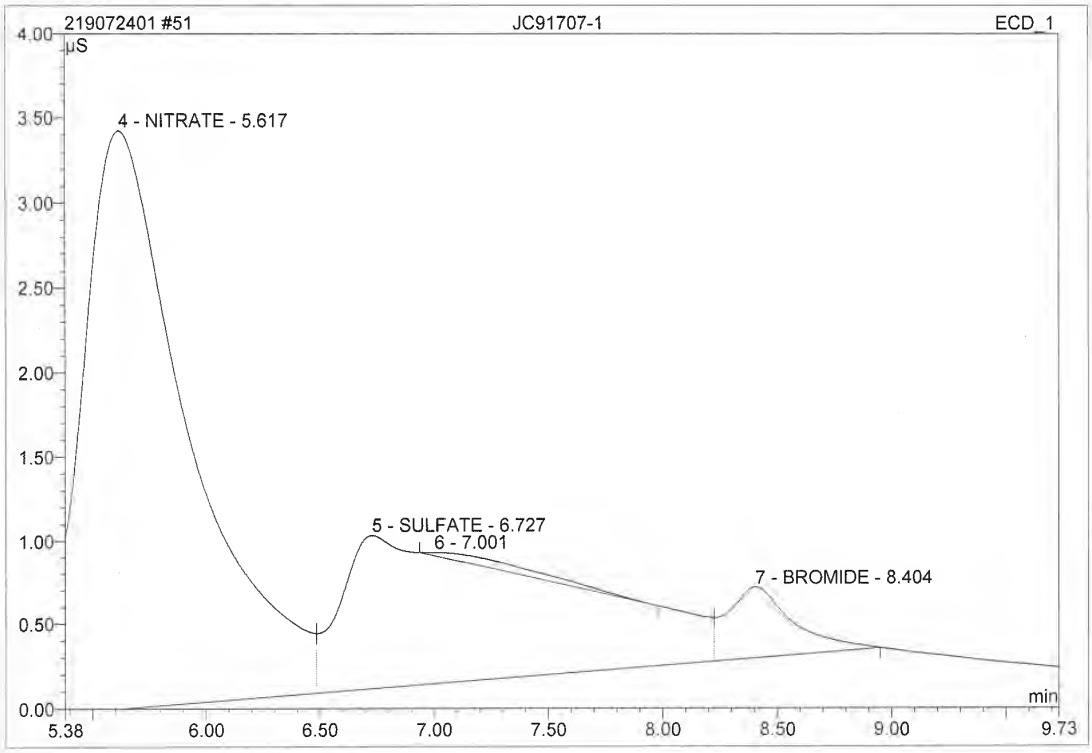


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.578	0.106	0.24	0.266	BM
2	3.57	n.a.	0.104	0.050	0.11	n.a.	MB
3	4.67	CHLORIDE	257.469	41.412	92.85	139.603	BM
4	5.62	NITRATE	3.425	1.853	4.15	3.089	M
5	6.73	SULFATE	0.916	1.024	2.30	4.695	M *
6	8.40	BROMIDE	0.419	0.138	0.31	1.113	MB
7	10.16	NITRITE	0.031	0.008	0.02	0.011	BMB
8	16.57	n.a.	0.011	0.011	0.03	n.a.	BMB
Total:			262.953	44.602	100.00	148.778	

Dii
NV 7/25/19

51 JC91707-1

Sample Name:	**JC91707-1**	*Injection Volume:*	**20.0**
Vial Number:	**42**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 3:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



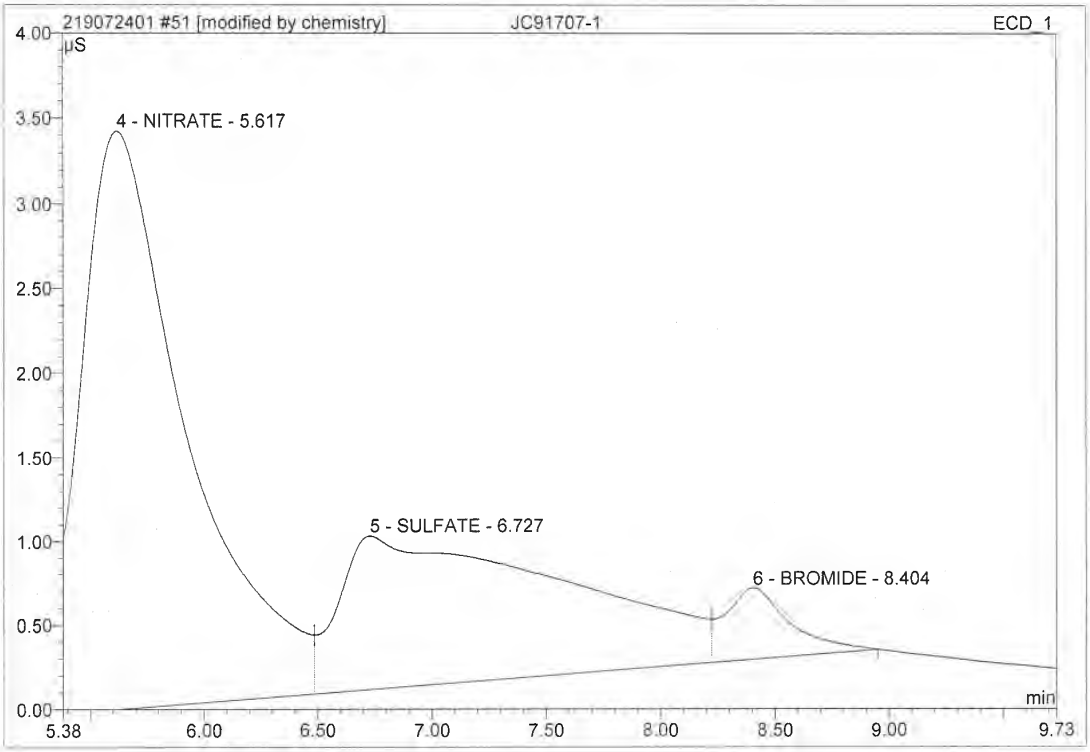
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.578	0.106	0.24	0.266	BM
2	3.57	n.a.	0.104	0.050	0.11	n.a.	MB
3	4.67	CHLORIDE	257.469	41.412	92.85	139.603	BM
4	5.62	NITRATE	3.425	1.853	4.15	3.089	M
5	6.73	SULFATE	0.916	0.994	2.23	4.561	M
6	7.00	n.a.	0.020	0.029	0.07	n.a.	Rd
7	8.40	BROMIDE	0.419	0.138	0.31	1.113	MB
8	10.16	NITRITE	0.031	0.008	0.02	0.011	BMB
9	16.57	n.a.	0.011	0.011	0.03	n.a.	BMB
Total:			262.974	44.602	100.00	148.643	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

51 JC91707-1

Sample Name:	**JC91707-1**	*Injection Volume:*	**20.0**
Vial Number:	**42**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 3:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



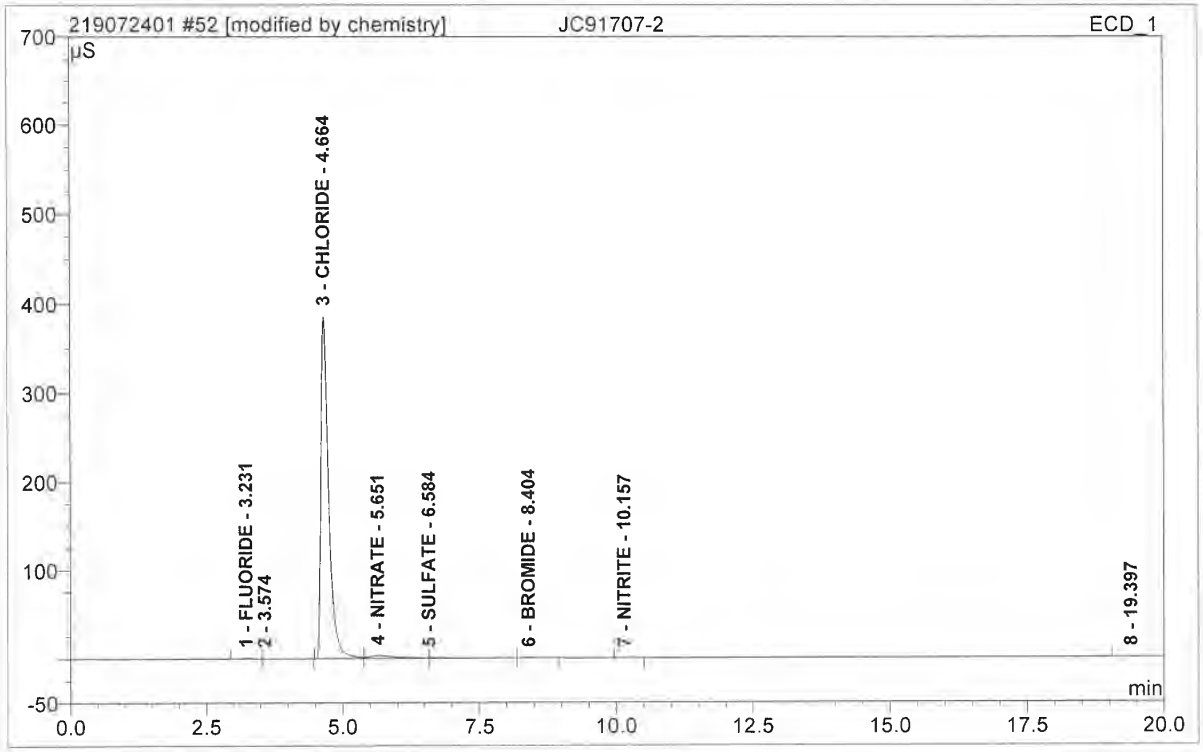
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.578	0.106	0.24	0.266	BM
2	3.57	n.a.	0.104	0.050	0.11	n.a.	MB
3	4.67	CHLORIDE	257.469	41.412	92.85	139.603	BM
4	5.62	NITRATE	3.425	1.853	4.15	3.089	M
5	6.73	SULFATE	0.916	1.024	2.30	4.695	M *
6	8.40	BROMIDE	0.419	0.138	0.31	1.113	MB
7	10.16	NITRITE	0.031	0.008	0.02	0.011	BMB
8	16.57	n.a.	0.011	0.011	0.03	n.a.	BMB
Total:			262.953	44.602	100.00	148.778	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

52 JC91707-2

Sample Name:	**JC91707-2**	*Injection Volume:*	**20.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 3:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.791	0.129	0.19	0.324	BM
2	3.57	n.a.	0.101	0.038	0.06	n.a.	MB
3	4.66	CHLORIDE	386.011	63.854	96.04	215.255	BM
4	5.65	NITRATE	3.229	1.893	2.85	3.156	M *
5	6.58	SULFATE	0.488	0.445	0.67	2.041	M *
6	8.40	BROMIDE	0.468	0.125	0.19	1.010	MB
7	10.16	NITRITE	0.011	0.002	0.00	0.003	BMB
8	19.40	n.a.	0.003	0.002	0.00	n.a.	BMB
Total:			391.101	66.490	100.00	221.791	

missed peak
NV 7/25/19

anions/Integration

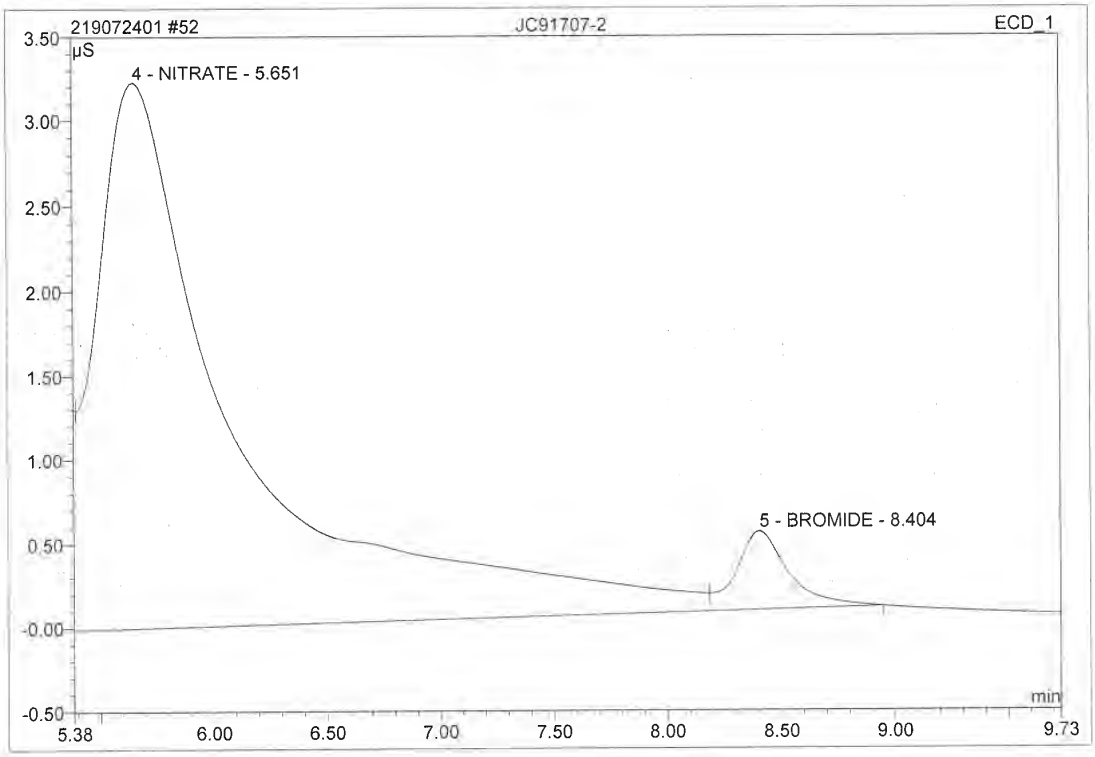
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

9.4

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219072401

52 JC91707-2

Sample Name:	**JC91707-2**	*Injection Volume:*	**20.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 3:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



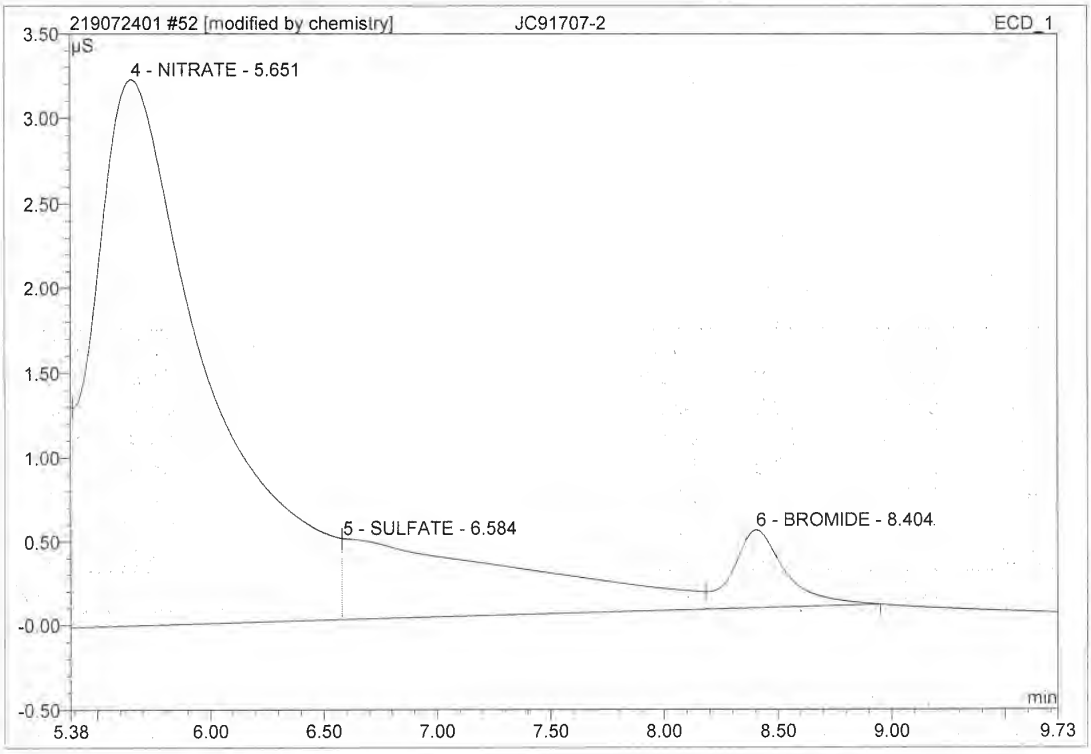
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.791	0.129	0.19	0.324	BM
2	3.57	n.a.	0.101	0.038	0.06	n.a.	MB
3	4.66	CHLORIDE	386.011	63.854	96.04	215.255	BM
4	5.65	NITRATE	3.229	2.338	3.52	3.899	M
5	8.40	BROMIDE	0.468	0.125	0.19	1.010	MB
6	10.16	NITRITE	0.011	0.002	0.00	0.003	BMB
7	19.40	n.a.	0.003	0.002	0.00	n.a.	BMB
Total:			390.614	66.490	100.00	220.492	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

52 JC91707-2

Sample Name:	**JC91707-2**	*Injection Volume:*	**20.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 3:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



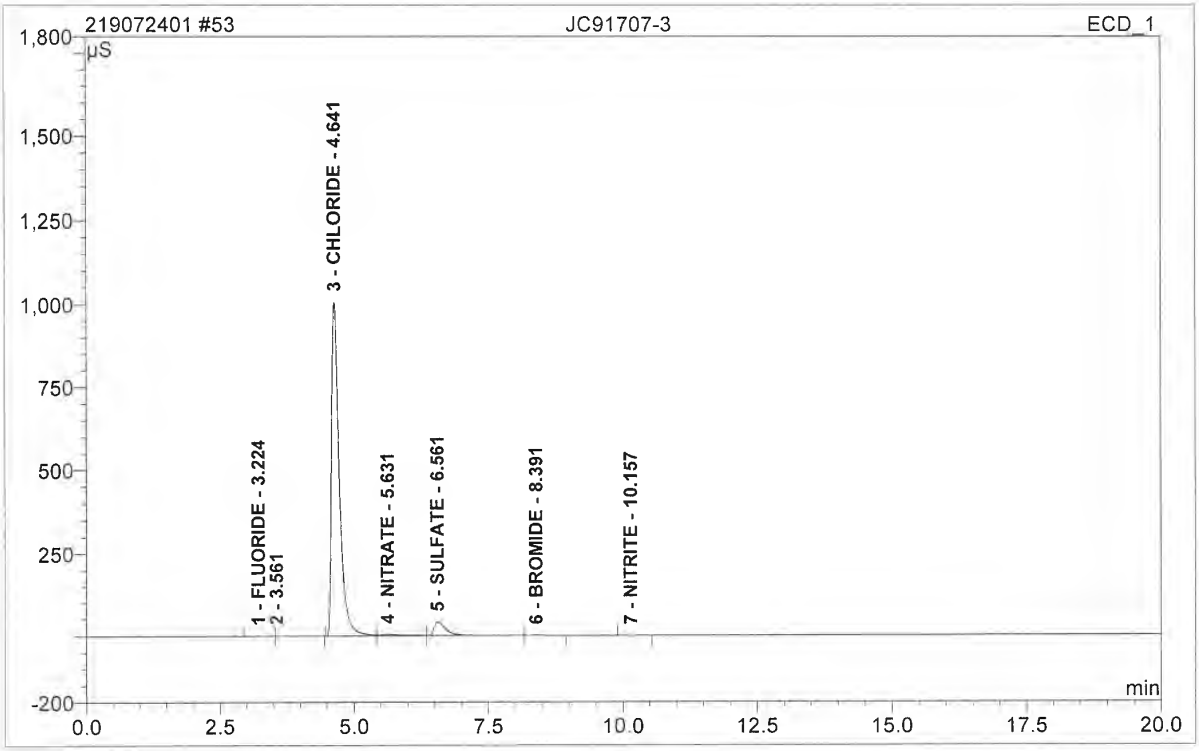
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.791	0.129	0.19	0.324	BM
2	3.57	n.a.	0.101	0.038	0.06	n.a.	MB
3	4.66	CHLORIDE	386.011	63.854	96.04	215.255	BM
4	5.65	NITRATE	3.229	1.893	2.85	3.156	M *
5	6.58	SULFATE	0.488	0.445	0.67	2.041	M *
6	8.40	BROMIDE	0.468	0.125	0.19	1.010	MB
7	10.16	NITRITE	0.011	0.002	0.00	0.003	BMB
8	19.40	n.a.	0.003	0.002	0.00	n.a.	BMB
Total:			391.101	66.490	100.00	221.791	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

53 JC91707-3

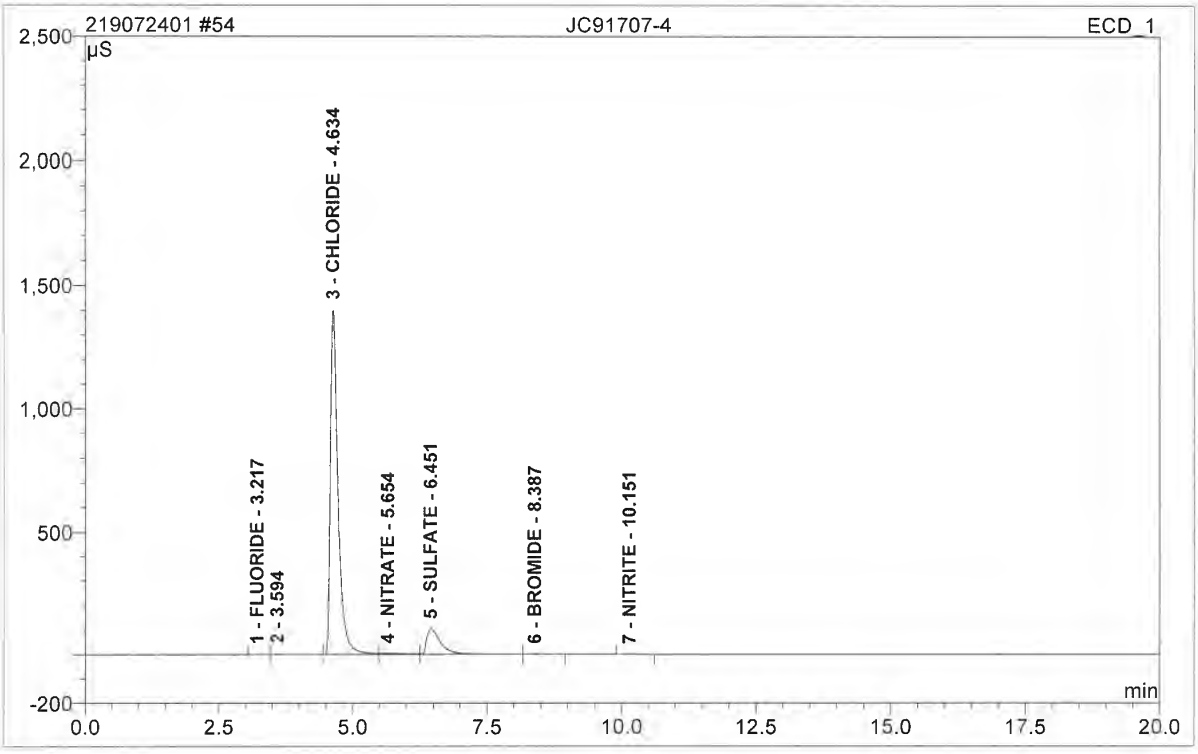
Sample Name:	**JC91707-3**	*Injection Volume:*	**20.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 3:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.22	FLUORIDE	0.572	0.095	0.05	0.238	BM
2	3.56	n.a.	0.067	0.021	0.01	n.a.	MB
3	4.64	CHLORIDE	1006.133	168.963	92.52	569.581	BM
4	5.63	NITRATE	4.220	2.439	1.34	4.067	M
5	6.56	SULFATE	40.657	10.884	5.96	49.916	Mb
6	8.39	BROMIDE	1.020	0.218	0.12	1.761	bMB
7	10.16	NITRITE	0.047	0.012	0.01	0.016	BMB
Total:			1052.717	182.630	100.00	625.579	

54 JC91707-4

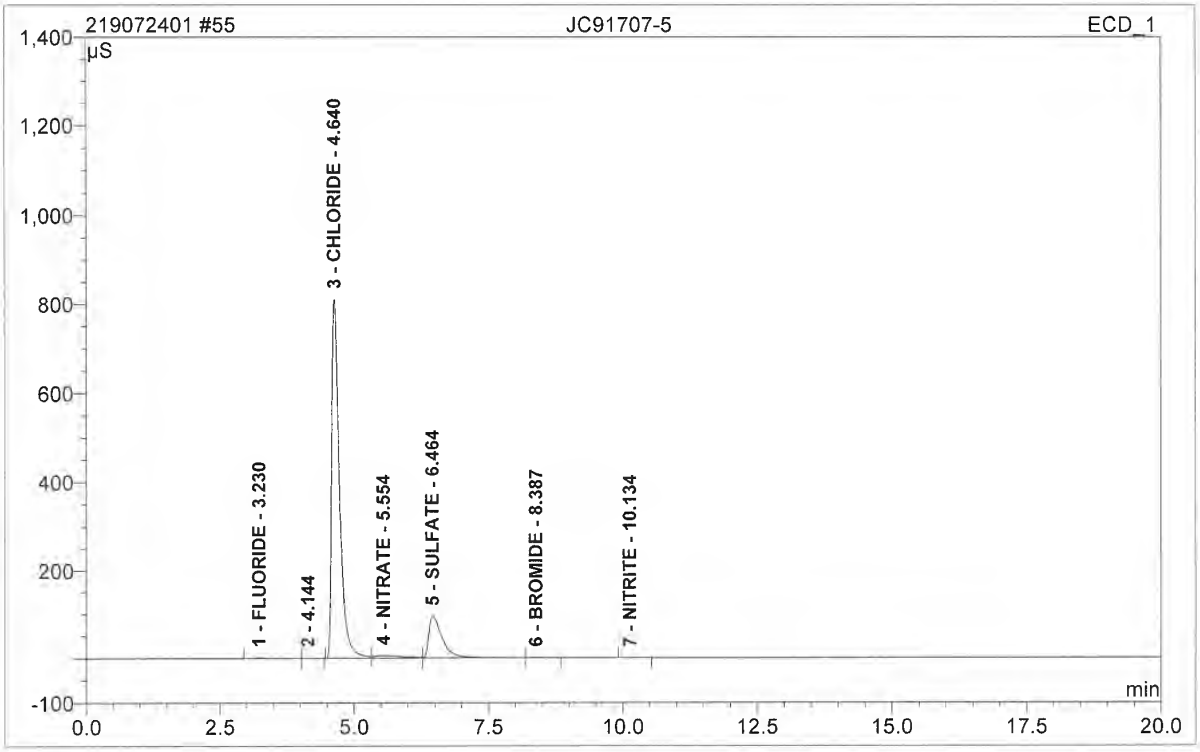
Sample Name:	**JC91707-4**	*Injection Volume:*	**20.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 4:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.22	FLUORIDE	0.362	0.066	0.02	0.165	BM
2	3.59	n.a.	0.941	0.158	0.06	n.a.	MB
3	4.63	CHLORIDE	1400.426	233.224	87.05	786.208	BM
4	5.65	NITRATE	4.221	2.279	0.85	3.800	M
5	6.45	SULFATE	103.257	31.841	11.88	146.034	M
6	8.39	BROMIDE	1.200	0.338	0.13	2.731	MB
7	10.15	NITRITE	0.099	0.025	0.01	0.035	BMB
Total:			1510.505	267.931	100.00	938.974	

55 JC91707-5

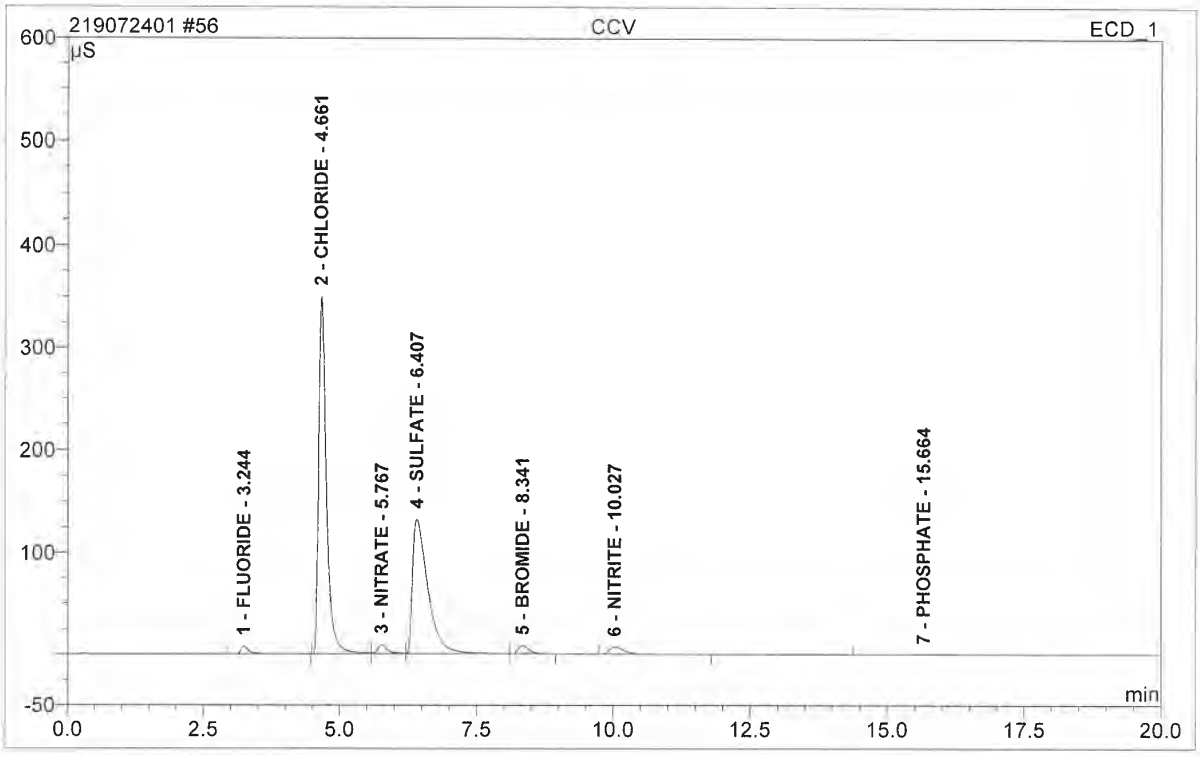
Sample Name:	**JC91707-5**	*Injection Volume:*	**20.0**
Vial Number:	**46**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 4:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	1.550	0.270	0.16	0.676	BM
2	4.14	n.a.	0.033	0.007	0.00	n.a.	MB
3	4.64	CHLORIDE	810.884	137.291	81.60	462.813	BM
4	5.55	NITRATE	5.615	3.330	1.98	5.552	M
5	6.46	SULFATE	93.919	27.193	16.16	124.718	Mb
6	8.39	BROMIDE	0.744	0.155	0.09	1.255	bMB
7	10.13	NITRITE	0.026	0.007	0.00	0.009	BMB
Total:			912.770	168.252	100.00	595.023	

56 CCV

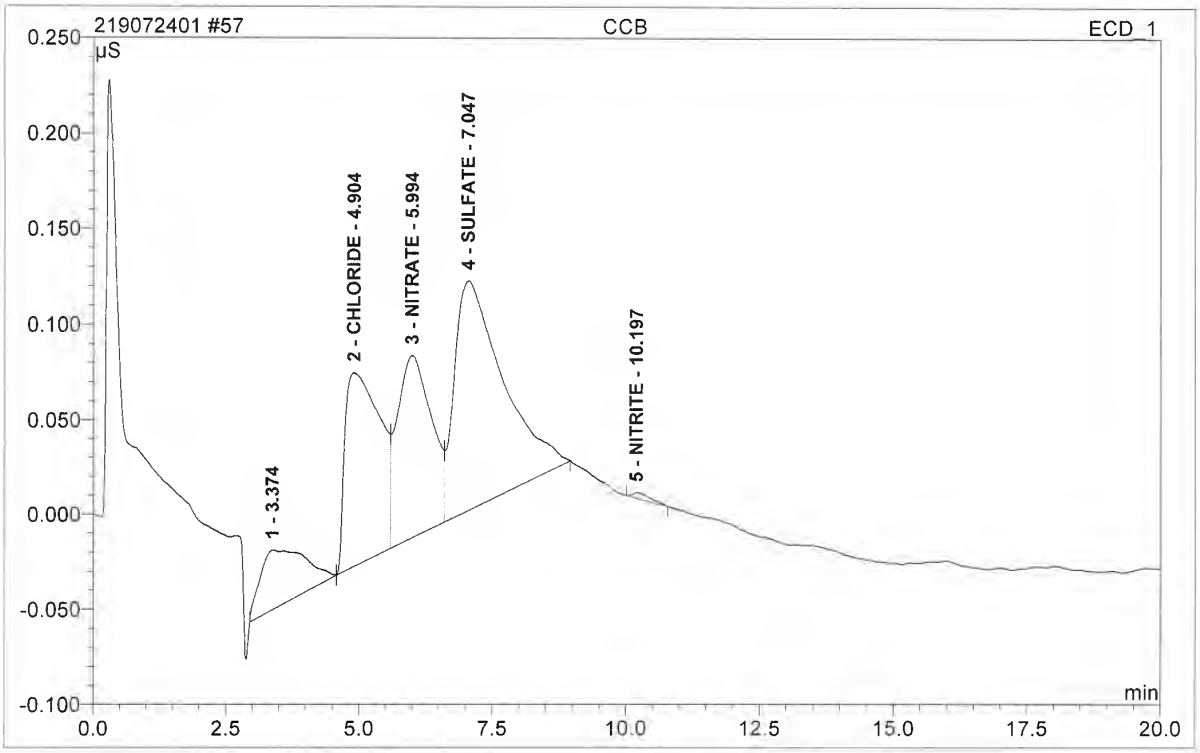
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**47**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program.	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 5:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	7.750	1.324	1.22	3.317	BMB
2	4.66	CHLORIDE	349.922	58.134	53.37	195.972	BM
3	5.77	NITRATE	9.196	1.905	1.75	3.177	M
4	6.41	SULFATE	132.643	43.090	39.56	197.631	Mb
5	8.34	BROMIDE	7.986	1.814	1.67	14.636	bMB
6	10.03	NITRITE	7.143	2.162	1.98	2.975	BMB
7	15.66	PHOSPHATE	0.189	0.487	0.45	2.519	BMB
Total:			514.830	108.916	100.00	420.227	

57 CCB

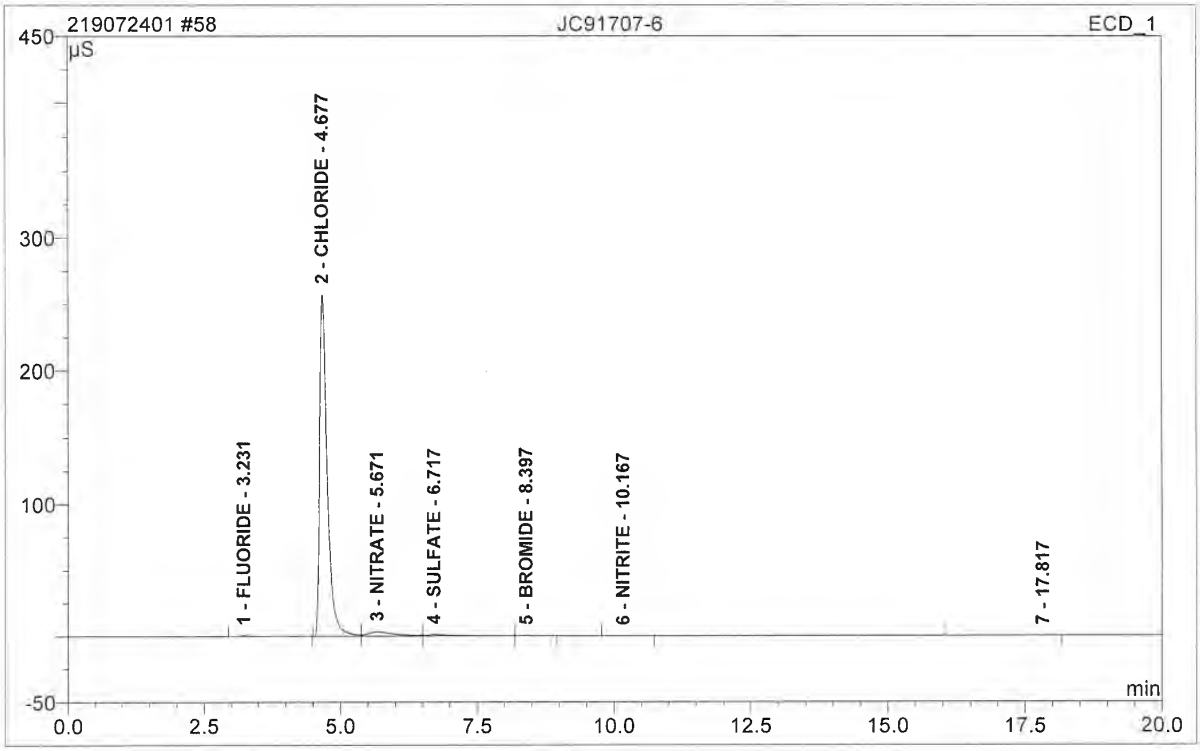
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**48**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 5:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.37	n.a.	0.031	0.029	9.43	n.a.	BMB
2	4.90	CHLORIDE	0.102	0.077	24.99	0.259	BM
3	5.99	NITRATE	0.096	0.072	23.53	0.120	M
4	7.05	SULFATE	0.121	0.128	41.66	0.586	MB
5	10.20	NITRITE	0.003	0.001	0.40	0.002	BMB
Total:			0.353	0.307	100.00	0.967	

58 JC91707-6

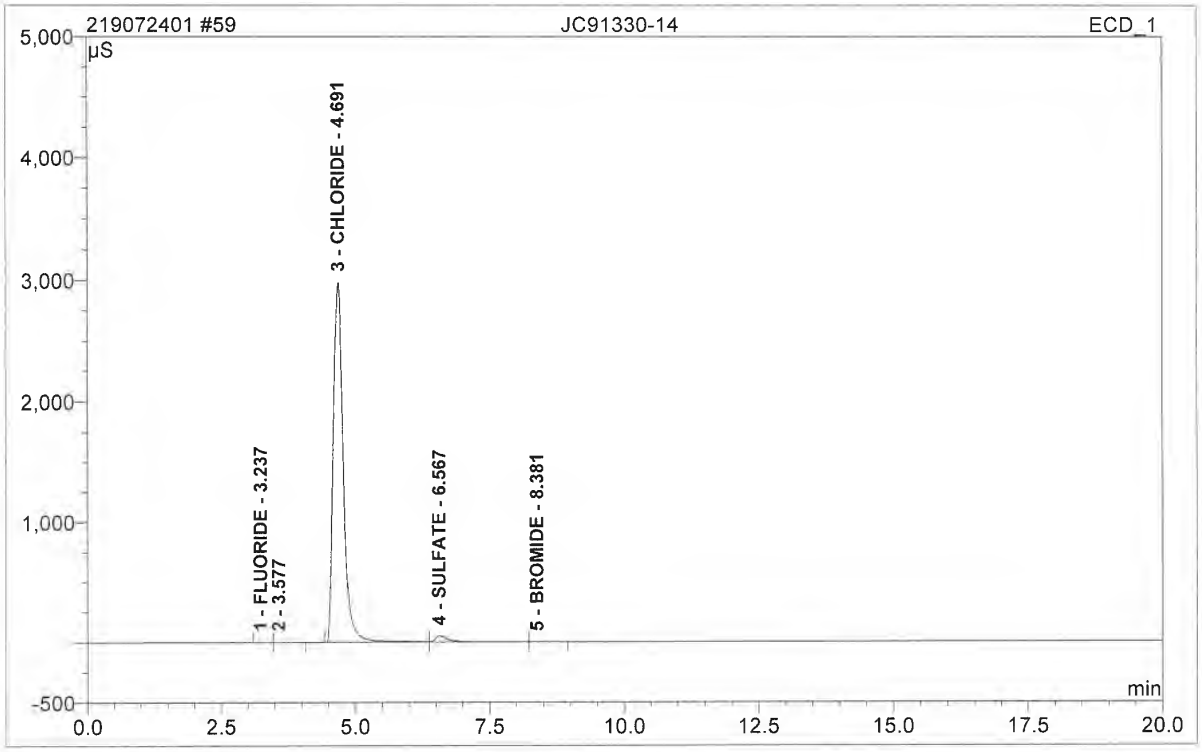
Sample Name:	**JC91707-6**	*Injection Volume:*	**20.0**
Vial Number:	**49**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 5:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.550	0.112	0.25	0.280	BMB
2	4.68	CHLORIDE	257.395	41.709	93.86	140.602	BM
3	5.67	NITRATE	3.247	1.839	4.14	3.066	M
4	6.72	SULFATE	1.173	0.679	1.53	3.114	M
5	8.40	BROMIDE	0.278	0.080	0.18	0.649	MB
6	10.17	NITRITE	0.038	0.011	0.02	0.015	BMB
7	17.82	n.a.	0.003	0.006	0.01	n.a.	BMB
Total:			262.684	44.435	100.00	147.725	

59 JC91330-14

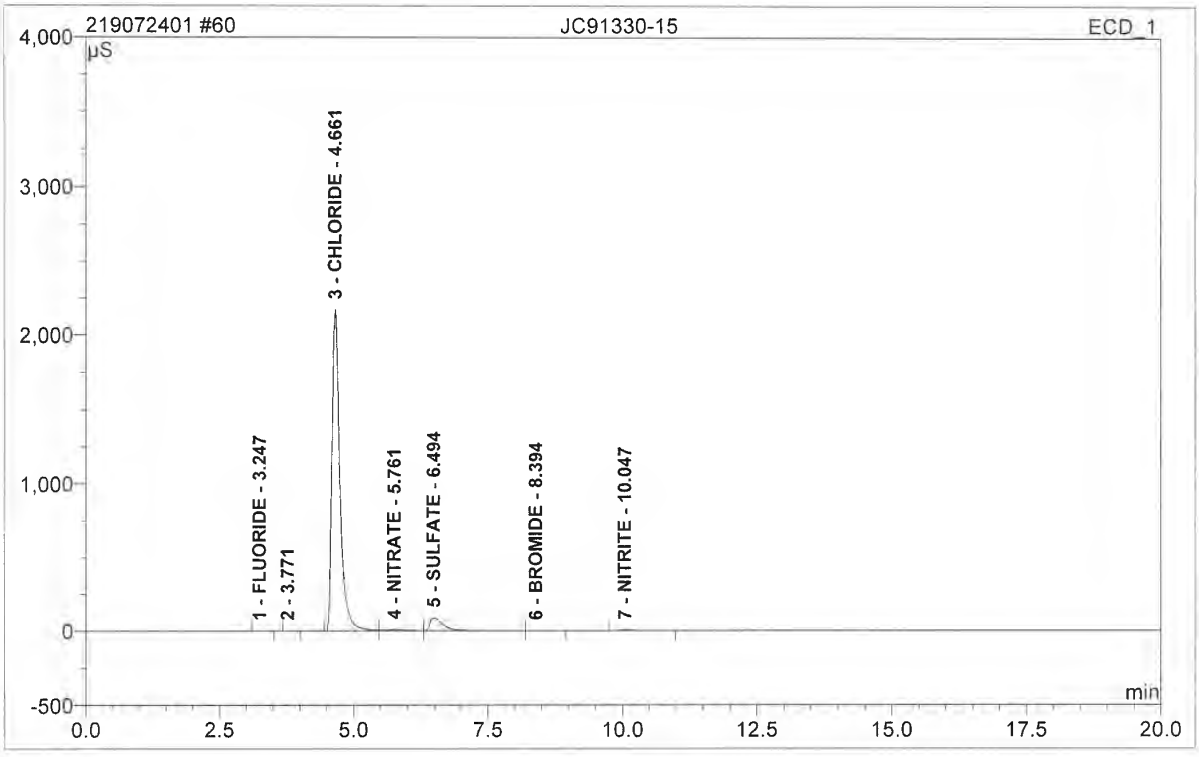
Sample Name:	**JC91330-14**	*Injection Volume:*	**20.0**
Vial Number:	**50**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 6:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	0.046	0.010	0.00	0.024	BM
2	3.58	n.a.	0.032	0.007	0.00	n.a.	MB
3	4.69	CHLORIDE	2980.799	648.508	97.71	2186.149	BM
4	6.57	SULFATE	49.895	14.952	2.25	68.576	M
5	8.38	BROMIDE	0.695	0.247	0.04	1.990	MB
Total:			3031.467	663.723	100.00	2256.739	

60 JC91330-15

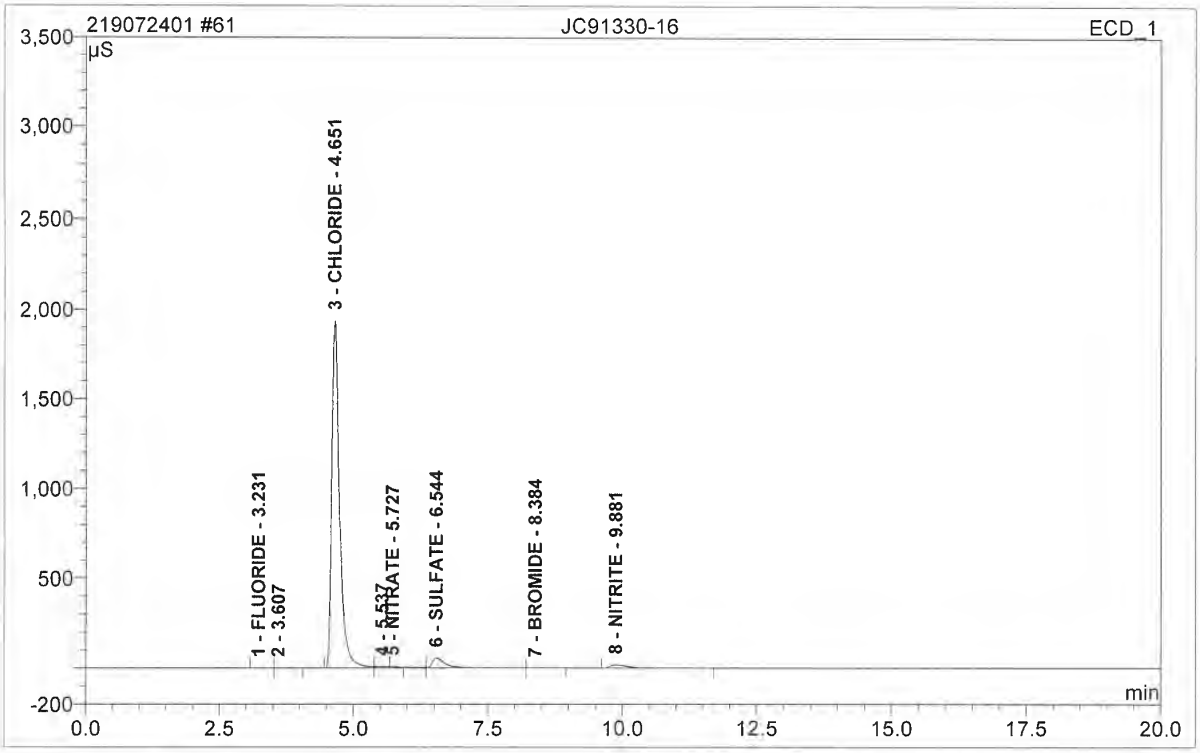
Sample Name:	**JC91330-15**	*Injection Volume:*	**20.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 6:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.041	0.008	0.00	0.021	BMB
2	3.77	n.a.	0.026	0.003	0.00	n.a.	BMB
3	4.66	CHLORIDE	2169.630	375.390	91.96	1265.455	BM
4	5.76	NITRATE	9.580	4.810	1.18	8.022	M
5	6.49	SULFATE	87.853	26.229	6.43	120.296	M
6	8.39	BROMIDE	0.980	0.307	0.08	2.476	MB
7	10.05	NITRITE	5.187	1.460	0.36	2.008	BMB
Total:			2273.296	408.206	100.00	1398.279	

61 JC91330-16

Sample Name:	**JC91330-16**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 7:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



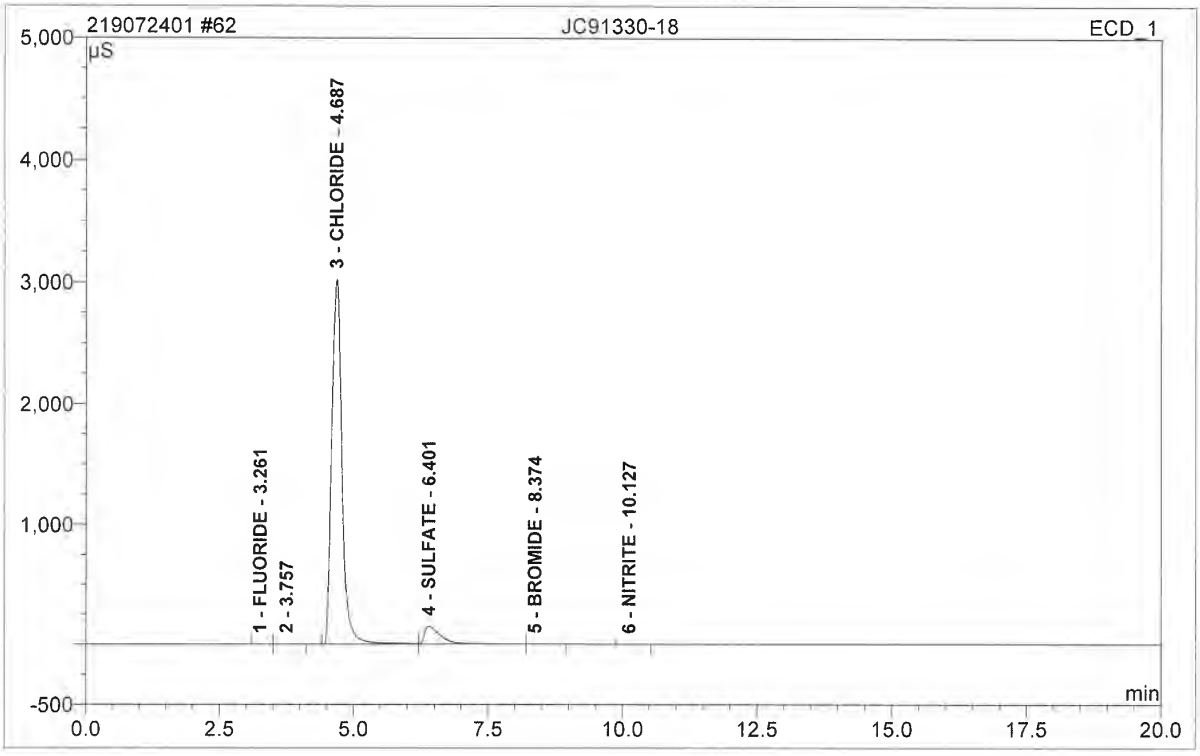
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	FLUORIDE	0.063	0.014	0.00	0.036	BM
2	3.61	n.a.	0.022	0.005	0.00	n.a.	MB
3	4.65	CHLORIDE	1937.538	327.502	92.29	1104.024	BM
4	5.54	n.a.	7.659	4.927	1.39	n.a.	M
5	5.73	NITRATE	0.585	0.104	0.03	0.173	Rd
6	6.54	SULFATE	56.152	16.054	4.52	73.633	M
7	8.38	BROMIDE	0.601	0.205	0.06	1.655	MB
8	9.88	NITRITE	17.681	6.033	1.70	8.302	BMB
Total:			2020.302	354.845	100.00	1187.822	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

62 JC91330-18

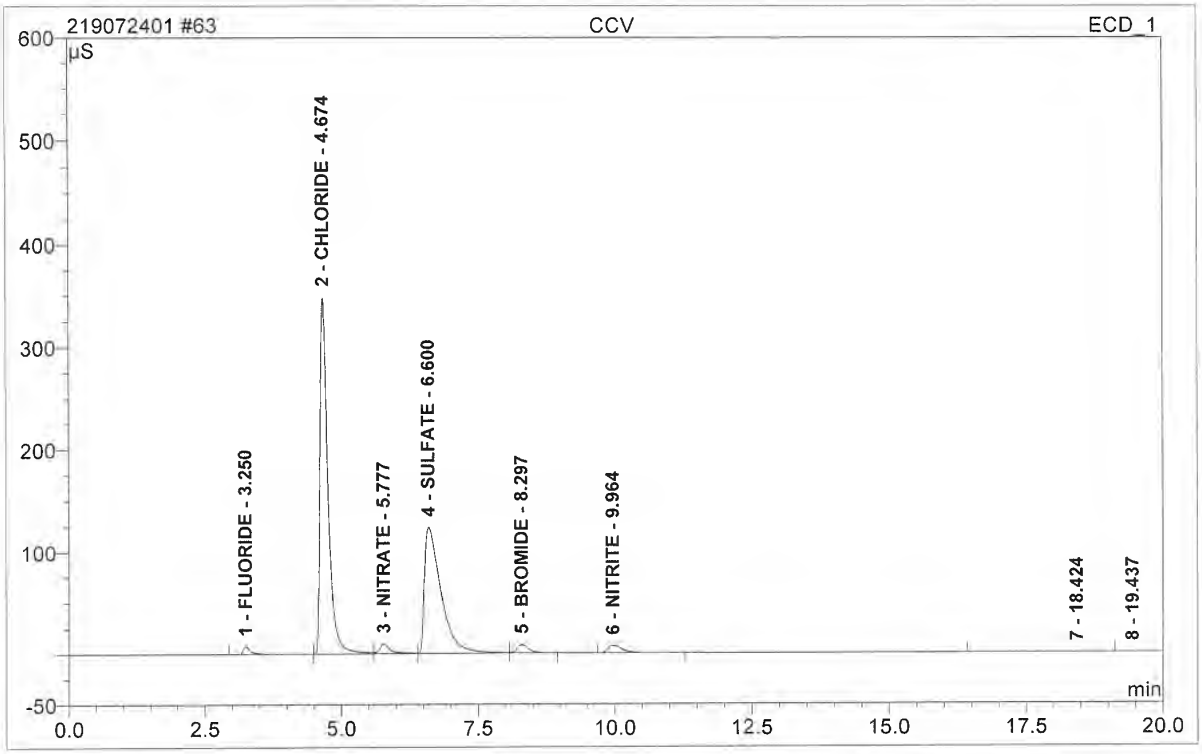
Sample Name:	**JC91330-18**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 7:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	FLUORIDE	0.076	0.016	0.00	0.040	BMB
2	3.76	n.a.	0.067	0.016	0.00	n.a.	BMB
3	4.69	CHLORIDE	3022.199	673.373	92.80	2269.970	BM
4	6.40	SULFATE	147.379	51.809	7.14	237.618	M
5	8.37	BROMIDE	1.005	0.353	0.05	2.849	MB
6	10.13	NITRITE	0.157	0.039	0.01	0.054	BMB
Total:			3170.883	725.606	100.00	2510.531	

63 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 7:47**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



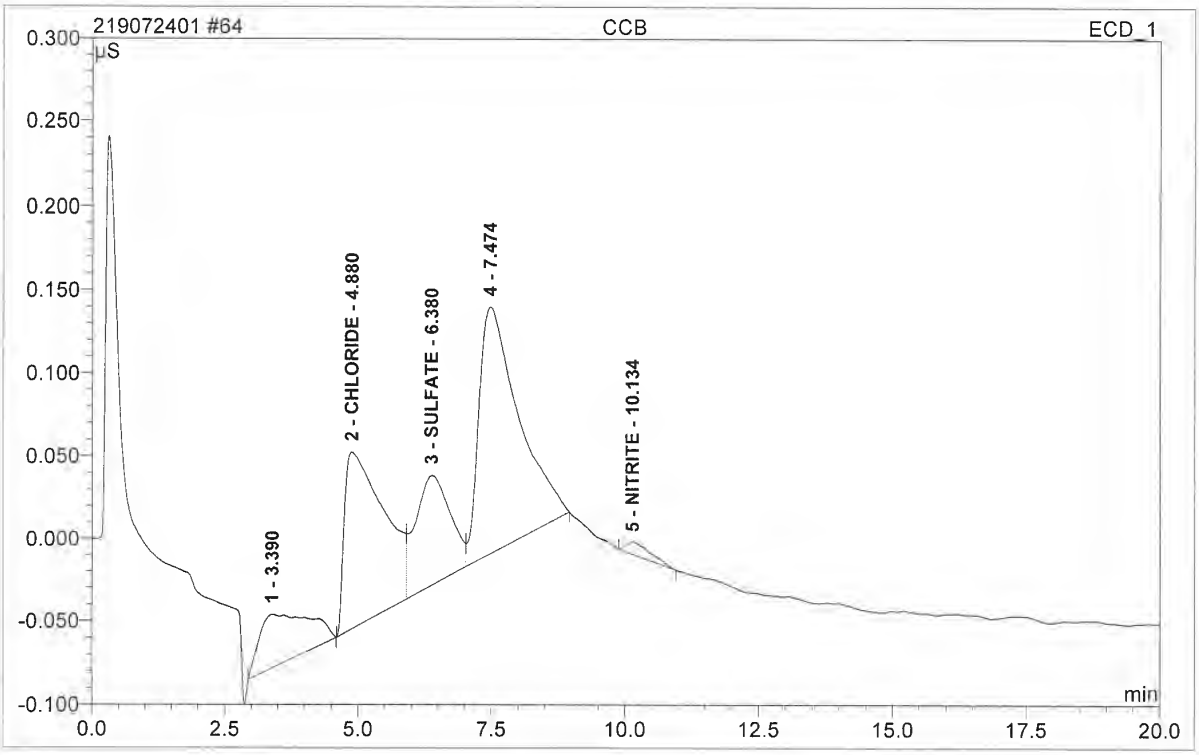
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	7.622	1.329	1.21	3.329	BMB
2	4.67	CHLORIDE	348.344	58.694	53.28	197.862	BM
3	5.78	NITRATE	9.619	2.278	2.07	3.799	M
4	6.60	SULFATE	124.024	43.529	39.51	199.643	M
5	8.30	BROMIDE	8.335	2.030	1.84	16.380	MB
6	9.96	NITRITE	7.256	2.182	1.98	3.002	BMB
7	18.42	n.a.	0.048	0.114	0.10	n.a.	BMB
8	19.44	n.a.	0.004	0.004	0.00	n.a.	Rd
Total:			505.252	110.160	100.00	424.015	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

64 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**7/25/2019 8:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.39	n.a.	0.032	0.033	10.81	n.a.	BMB
2	4.88	CHLORIDE	0.107	0.089	29.14	0.300	BM
3	6.38	SULFATE	0.067	0.051	16.63	0.233	M
4	7.47	n.a.	0.149	0.128	42.00	n.a.	MB
5	10.13	NITRITE	0.008	0.004	1.43	0.006	BMB
Total:			0.363	0.305	100.00	0.539	

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report



Technical Report for

Sovereign Consulting

Shepley's Hill (SHL), Devens, MA

AC001.M01

SGS Job Number: JC93074

Sampling Date: 08/09/19

Report to:

Sovereign Consulting
9 Payson Road Suite 150
Foxborough, MA 02035
SPassafaro@SovCon.com

ATTN: Steve Passafaro

Total number of pages in report: **171**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp
General Manager

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: JC93074

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC93074-1	08/09/19	09:32	LAP	08/09/19	AQ	Effluent	EFFLUENT

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Sovereign Consulting	**Job No**	JC93074
Site:	Shepley's Hill (SHL), Devens, MA	**Report Date**	8/15/2019 12:18:35 P

On 08/09/2019, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC93074 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP16806

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC92907-15MS, JC92907-15MSD, JC92907-15PS, JC92907-15SDL were used as the QC samples for metals.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC93074
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 08/09/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC93074-1	**EFFLUENT**					
Arsenic		25.3	3.0	2.0	ug/l	SW846 6020B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	JC93074-1	**Date Sampled:**	08/09/19
Matrix:	AQ - Effluent	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL), Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	25.3	3.0	2.0	0.94	ug/l	2	08/13/19	08/14/19	SN	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA47285
(2) Prep QC Batch: MP16806

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody
- QC Evaluation: DOD QSM5 Limits

SGS

GW

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

PAGE 1 OF 1

FED-EX Tracking # 1063 6339 0375
Bottle Order Control #
SGS Quote #
SGS Job # JC93074

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Street Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steve Passafaro E-mail: (spassafaro@sovcon.com)
Phone #: (508) 339-3200 Fax #: (
Sampler(s) Name(s): Sovereign Staff Phone #:

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project #: AC001.M01
Client Purchase Order #:
Project Manager: Steve Passafaro
Billing Information (if different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Lab Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Total As - 6020A	LAB USE ONLY
1	Effluent		8/9/19	9:32	LAP	GW	1			X						X	AG

Initial Assessment KG 2B
Label Verification AC

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [X] 5 Day RUSH - Arsenic Only
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available via LabLink

Approved by (SGS Project Manager)/Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [X] Other See QAPP

Commercial "A" = Results Only; Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

See Project QAPP for all specfic project requirements
5 Day Rush on Arsenic

SGS-ACCUTEST MARLBOR 8/9

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Louis A. Pescetta	08/09/19 11:19	1 Thelma Flaherty	2 [signature]		2 fedex
3 fedex	8/10/19 9:40	3 [signature]	4		4
5		5	Custody Seal # 28320 ☐ Intact ☐ Not intact	Preserved where applicable ☑ KG	On Ice ☑ Cooler Temp. 3.3 CIP

Form:SM088-03C (revised 2/12/18)

http://www.sgs.com/en/terms-and-conditions.

5.1

5

JC93074: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC93074 **Client:** _____ **Project:** _____

Date / Time Received: 8/9/2019 11:19:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (3.3);

Cooler Temps (Corrected) °C: Cooler 1: (3.2);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

Sovereign Consulting

Job No: JC93074

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC93074-1 EFFLUENT	Collected: 09-AUG-19 09:32 By: LAP			Received: 09-AUG-19 By: JK		
JC93074-1	SW846 6020B	14-AUG-19 14:54	SN	13-AUG-19	BP	ASMS

SGS Internal Chain of Custody

Job Number: JC93074
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Received: 08/09/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC93074-1.1	Secured Storage	Matthew Robbins	08/12/19 18:58	Retrieve from Storage
JC93074-1.1	Matthew Robbins	Secured Staging Area	08/12/19 18:58	Return to Storage
JC93074-1.1	Secured Staging Area	Bhooma Patel	08/13/19 09:12	Retrieve from Storage
JC93074-1.1	Bhooma Patel	Secured Storage	08/13/19 10:52	Return to Storage
JC93074-1.1.1	Bhooma Patel	Metals Digestion	08/13/19 10:51	Digestate from JC93074-1.1
JC93074-1.1.1	Metals Digestion	Bhooma Patel	08/13/19 10:51	Digestate from JC93074-1.1
JC93074-1.1.1	Bhooma Patel	Metals Digestate Storage	08/13/19 10:51	Return to Storage

QC Evaluation: DOD QSM5 Limits

Job Number: JC93074
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 08/09/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP16806	SW846 6020B						
MP16806-B1	7440-38-2	Arsenic	BSP	REC	91.1	%	84-116
MP16806-S1*	7440-38-2	Arsenic	MS	REC	88	%	84-116
MP16806-S2*	7440-38-2	Arsenic	MSD	REC	85.4	%	84-116
MP16806-S2*	7440-38-2	Arsenic	MSD	RPD	2.7	%	20

* Sample used for QC is not from job JC93074

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:59	MA47285-STD1	1		See rerun, sample intro not stable.
11:04	MA47285-STD2	1		See rerun, sample intro not stable.
11:09	MA47285-STD3	1		STDA
11:14	MA47285-STD4	1		STDB
11:19	MA47285-STD5	1		STDC
11:24	MA47285-STD6	1		STDD
11:29	MA47285-STD7	1		STDE
11:34	MA47285-STD8	1		STDF
11:39	MA47285-STD9	1		STDG
11:44	MA47285-STD10	1		STDH
11:50	MA47285-STD11	1		STDI
11:54	MA47285-STD12	1		STDJ
11:59	ZZZZZZ	1		
12:05	MA47285-ICVA1	1		
12:09	MA47285-ICV1	1		
12:19	MA47285-ICB1	1		
12:24	MA47285-CCVA1	1		
12:29	MA47285-CCB1	1		
12:34	MA47285-CRI1	1		
12:39	MA47285-ICSA1	1		
12:44	MA47285-ICSAB1	1		
12:49	ZZZZZZ	1		
12:54	ZZZZZZ	2		
12:59	MA47285-CCVA2	1		
13:04	MA47285-CCB2	1		
13:09	ZZZZZZ	2		
13:14	ZZZZZZ	2		
13:19	ZZZZZZ	2		
13:24	ZZZZZZ	2		
13:29	ZZZZZZ	2		
13:34	ZZZZZZ	2		
13:39	ZZZZZZ	10		
13:44	MP16806-MB1	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:49	MA47285-CCVA3	1		
13:54	MA47285-CCB3	1		
13:59	MP16806-B1	2		
14:04	MP16806-S1	2		Ca, Mn and Fe overrange
14:09	MP16806-S2	2		Ca, Mn and Fe overrange
14:14	JC92907-15	2		(sample used for QC only; not part of login JC93074)
14:19	MP16806-SD1	10		Ca, Mn and Fe overrange
14:24	MP16806-PS1	2		Ca, Mn and Fe overrange
14:29	ZZZZZZ	2		
14:34	ZZZZZZ	2		
14:39	MA47285-CCVA4	1		
14:44	MA47285-CCB4	1		
14:49	ZZZZZZ	2		
14:54	JC93074-1	2		
---------->	Last reportable sample/prep for job JC93074			
14:59	ZZZZZZ	10		
15:04	ZZZZZZ	2		
15:09	ZZZZZZ	2		
15:14	ZZZZZZ	2		
15:19	MP16784A-SD1	10		
15:24	ZZZZZZ	2		
15:29	MA47285-CCVA5	1		
15:34	MA47285-CCB5	1		
---------->	Last reportable CCB for job JC93074			
15:39	ZZZZZZ	2		
15:44	ZZZZZZ	2		
15:49	MP16807-MB1	2		
15:54	MP16807-B2	2		
15:59	MP16807-S3	2		
16:04	MP16807-S4	2		
16:09	JC93034-1	2		(sample used for QC only; not part of login JC93074)
16:14	MP16807-SD1	10		
16:19	MA47285-CCVA6	1		
16:24	MA47285-CCB6	1		
16:29	ZZZZZZ	10		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:34	ZZZZZZ	2		
16:39	ZZZZZZ	2		
16:44	ZZZZZZ	2		
16:49	ZZZZZZ	2		
16:54	MP16814-MB1	5		
16:59	MP16814-B1	5		
17:04	MP16814-S1	5		Ba overrange
17:09	MA47285-CCVA7	1		
17:14	MA47285-CCB7	1		
17:19	MP16814-S2	5		Ba overrange
17:24	JC92907-9	5		(sample used for QC only; not part of login JC93074)
17:29	MP16814-SD1	25		Ba overrange
17:34	MP16814-PS1	5		Ba overrange
17:39	ZZZZZZ	5		
17:44	ZZZZZZ	5		
17:49	ZZZZZZ	5		
17:54	ZZZZZZ	5		
17:59	MA47285-CCVA8	1		
18:04	MA47285-CCB8	1		
18:09	ZZZZZZ	5		
18:14	ZZZZZZ	5		
18:19	ZZZZZZ	5		
18:24	ZZZZZZ	5		
18:29	ZZZZZZ	5		
18:34	ZZZZZZ	5		
18:39	ZZZZZZ	5		
18:44	ZZZZZZ	5		
18:49	MA47285-CCVA9	1		
18:54	MA47285-CCB9	1		
18:59	ZZZZZZ	5		
19:04	ZZZZZZ	5		
19:09	MP16818-MB1	1		
19:14	MP16818-B1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:19	MP16818-S1	1		
19:24	MP16818-S2	1		
19:29	JC92996-3	1		(sample used for QC only; not part of login JC93074)
19:34	ZZZZZZ	1		
19:39	MA47285-CCVA10	1		
19:44	MA47285-CCB10	1		
19:49	ZZZZZZ	1		
19:54	ZZZZZZ	1		
19:59	ZZZZZZ	1		
20:04	ZZZZZZ	1		
20:09	MA47285-CCVA11	1		
20:14	MA47285-CCB11	1		
20:20	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Element: Dilution	As	
11:59	ZZZZZZ	1		
12:05	MA47285-ICVA1	1	X	
12:09	MA47285-ICV1	1		
12:19	MA47285-ICB1	1	X	
12:24	MA47285-CCVA1	1	X	
12:29	MA47285-CCB1	1	X	
12:34	MA47285-CRI1	1	X	
12:39	MA47285-ICSA1	1	X	
12:44	MA47285-ICSAB1	1	X	
12:49	ZZZZZZ	1		
12:54	ZZZZZZ	2		
12:59	MA47285-CCVA2	1	X	
13:04	MA47285-CCB2	1	X	
13:09	ZZZZZZ	2		
13:14	ZZZZZZ	2		
13:19	ZZZZZZ	2		
13:24	ZZZZZZ	2		
13:29	ZZZZZZ	2		
13:34	ZZZZZZ	2		
13:39	ZZZZZZ	10		
13:44	MP16806-MB1	2	X	
13:49	MA47285-CCVA3	1	X	
13:54	MA47285-CCB3	1	X	
13:59	MP16806-B1	2	X	
14:04	MP16806-S1	2	X	
14:09	MP16806-S2	2	X	
14:14	JC92907-15	2	X	(a)
14:19	MP16806-SD1	10	X	
14:24	MP16806-PS1	2	X	
14:29	ZZZZZZ	2		
14:34	ZZZZZZ	2		
14:39	MA47285-CCVA4	1	X	
14:44	MA47285-CCB4	1	X	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Element: Dilution	As	
14:49	ZZZZZZ	2		
14:54	JC93074-1	2	X	
14:59	ZZZZZZ	10		
15:04	ZZZZZZ	2		
15:09	ZZZZZZ	2		
15:14	ZZZZZZ	2		
15:19	MP16784A-SD1	10	X	
15:24	ZZZZZZ	2		
15:29	MA47285-CCVA5	1	X	
15:34	MA47285-CCB5	1	X	
15:39	ZZZZZZ	2		
15:44	ZZZZZZ	2		
15:49	MP16807-MB1	2	X	
15:54	MP16807-B2	2	X	
15:59	MP16807-S3	2	X	
16:04	MP16807-S4	2	X	
16:09	JC93034-1	2	X	(a)
16:14	MP16807-SD1	10	X	
16:19	MA47285-CCVA6	1	X	
16:24	MA47285-CCB6	1	X	
16:29	ZZZZZZ	10		
16:34	ZZZZZZ	2		
16:39	ZZZZZZ	2		
16:44	ZZZZZZ	2		
16:49	ZZZZZZ	2		
16:54	MP16814-MB1	5	X	
16:59	MP16814-B1	5	X	
17:04	MP16814-S1	5		
17:09	MA47285-CCVA7	1	X	
17:14	MA47285-CCB7	1	X	
17:19	MP16814-S2	5		
17:24	JC92907-9	5		(a)
17:29	MP16814-SD1	25		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Element: Dilution	As
17:34	MP16814-PS1	5	
17:39	ZZZZZZ	5	
17:44	ZZZZZZ	5	
17:49	ZZZZZZ	5	
17:54	ZZZZZZ	5	
17:59	MA47285-CCVA8	1	X
18:04	MA47285-CCB8	1	X
18:09	ZZZZZZ	5	
18:14	ZZZZZZ	5	
18:19	ZZZZZZ	5	
18:24	ZZZZZZ	5	
18:29	ZZZZZZ	5	
18:34	ZZZZZZ	5	
18:39	ZZZZZZ	5	
18:44	ZZZZZZ	5	
18:49	MA47285-CCVA9	1	X
18:54	MA47285-CCB9	1	X
18:59	ZZZZZZ	5	
19:04	ZZZZZZ	5	
19:09	MP16818-MB1	1	
19:14	MP16818-B1	1	
19:19	MP16818-S1	1	
19:24	MP16818-S2	1	
19:29	JC92996-3	1	(a)
19:34	ZZZZZZ	1	
19:39	MA47285-CCVA10	1	X
19:44	MA47285-CCB10	1	X
19:49	ZZZZZZ	1	
19:54	ZZZZZZ	1	
19:59	ZZZZZZ	1	
20:04	ZZZZZZ	1	
20:09	MA47285-CCVA11	1	X
20:14	MA47285-CCB11	1	X
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Element: Dilution	As
20:20	ZZZZZZ		1

(a) Sample used for QC only; not part of login JC93074.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
10:59	MA47285-STD1	No results reported for the elements associated with this internal standard.							
11:04	MA47285-STD2	No results reported for the elements associated with this internal standard.							
11:09	MA47285-STD3	100	100	100	100	100	100	100	100
11:14	MA47285-STD4	99.168	100.117	101.828	100.425	100.263	100.627	100.442	99.89
11:19	MA47285-STD5	99.951	100.307	101.041	100.422	100.517	101.51	100.736	100.737
11:24	MA47285-STD6	99.944	100.094	101.174	99.944	100.196	101.25	100.161	99.996
11:29	MA47285-STD7	99.616	98.522	101.077	99.281	99.116	100.694	99.492	99.909
11:34	MA47285-STD8	98.132	96.534	99.932	99.449	97.582	98.358	99.489	97.625
11:39	MA47285-STD9	99.054	97.25	99.895	99.198	97.565	100.369	99.856	98.779
11:44	MA47285-STD10	100.445	99.763	102.962	100.261	99.62	102.889	100.796	101.403
11:50	MA47285-STD11	100.491	102.067	104.234	101.774	100.353	102.204	100.362	100.104
11:54	MA47285-STD12	100.866	100.835	104.895	100.173	99.682	101.477	100.312	100.025
11:59	ZZZZZZ	100.526	101.589	104.84	102.134	101.576	105.229	103.122	101.321
12:05	MA47285-ICVA1	100.085	99.836	101.077	99.585	100.56	101.396	99.819	101.457
12:09	MA47285-ICV1	100.506	98.772	103.387	101.504	99.759	102.711	101.74	100.205
12:19	MA47285-ICB1	101.142	101.776	106.513	102.269	101.616	104.613	102.435	101.448
12:24	MA47285-CCVA1	99.165	99.691	103.222	100.35	99.851	101.386	99.992	100.261
12:29	MA47285-CCB1	100.286	100.804	104.849	100.575	100.23	104.049	102.97	100.206
12:34	MA47285-CRI1	102.133	101.091	105.642	101.301	100.692	103.524	103.211	101.758
12:39	MA47285-ICSA1	89.043	91.309	93.82	92.532	90.673	92.466	90.558	87.74
12:44	MA47285-ICSAB1	84.675	88.405	92.052	93.551	89.712	91.423	91.144	87.62
12:49	ZZZZZZ	86.402	89.407	92.052	96.48	92.267	94.651	99.102	92.626
12:54	ZZZZZZ	84.476	90.572	95.278	96.664	91.876	96.592	97.434	91.08
12:59	MA47285-CCVA2	91.337	94.901	97.293	100.699	96.558	99.87	101.693	97.392
13:04	MA47285-CCB2	93.917	95.428	98.261	100.675	97.366	99.18	103.107	97.386
13:09	ZZZZZZ	98.807	98.607	100.931	106.898	103.646	104.272	106.868	101.997
13:14	ZZZZZZ	98.437	97.969	99.252	108.387	103.847	105.754	107.873	104.421
13:19	ZZZZZZ	77.334	81.842	78.958	86.111	83.881	83.052	85.202	84
13:24	ZZZZZZ	77.898	81.913	83.178	90.683	87.205	88.281	90.072	87.083
13:29	ZZZZZZ	87.302	88.675	85.309	97.424	97.346	94.407	101.444	96.618
13:34	ZZZZZZ	88.355	88.328	87.313	100.332	95.152	94.674	100.695	96.039
13:39	ZZZZZZ	85.638	86.195	87.704	97.629	89.763	91.741	100.342	89.647
13:44	MP16806-MB1	90.104	90.743	92.724	103.345	99.282	99.375	106.672	98.82

INTERNAL STANDARD SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
13:49	MA47285-CCVA3	88.981	90.336	91.466	99.895	93.407	94.344	99.672	93.24
13:54	MA47285-CCB3	89.045	89.231	90.71	97.95	92.148	93.169	99.803	92.705
13:59	MP16806-B1	92.442	92.891	93.78	103.973	99.34	98.641	103.608	99.395
14:04	MP16806-S1	92.103	93.93	96.144	104.408	100.051	103.538	104.706	100.981
14:09	MP16806-S2	93.726	96.061	98.7	107.418	100.793	104.425	106.536	101.533
14:14	JC92907-15	95.682	97.918	100.384	109.598	103.995	105.605	108.296	103.853
14:19	MP16806-SD1	100.387	100.801	104.721	103.067	102.286	105.937	105.315	102.809
14:24	MP16806-PS1	97.414	99.871	102.021	109.614	103.383	104.982	107.973	103.546
14:29	ZZZZZZ	98.002	100.546	102.087	108.014	104.014	104.818	106.851	103.118
14:34	ZZZZZZ	98.081	100.177	100.694	109.681	104.083	105.7	109.035	103.287
14:39	MA47285-CCVA4	99.797	101.92	105.455	106.342	103.101	105.357	105.904	102.871
14:44	MA47285-CCB4	96.967	97.573	100.707	104.048	98.846	101.786	104.735	98.261
14:49	ZZZZZZ	101.491	101.512	105.487	111.565	106.425	110.193	110.71	106.426
14:54	JC93074-1	99.264	100.307	103.48	109.924	105.577	108.181	109.534	104.666
14:59	ZZZZZZ	100.621	100.085	104.41	105.315	102.172	104.395	105.793	101.996
15:04	ZZZZZZ	98.426	98.874	101.465	108.974	102.48	103.828	107.138	101.024
15:09	ZZZZZZ	100.327	99.72	102.964	109.245	104.56	107.526	108.665	104.329
15:14	ZZZZZZ	101.934	103.354	104.889	112.204	105.998	107.956	109.7	105.815
15:19	MP16784A-SD1	98.739	98.576	101.498	103.545	99.849	100.552	103.796	99.411
15:24	ZZZZZZ	96.273	97.061	99.668	108.289	100.164	104.318	106.102	99.572
15:29	MA47285-CCVA5	97.49	100.468	104.071	105.489	100.823	102.371	104.508	101.396
15:34	MA47285-CCB5	95.445	95.269	100.146	102.144	96.282	100.239	102.922	96.829
15:39	ZZZZZZ	96.755	98.539	101.044	106.549	101.728	103.867	105.497	101.039
15:44	ZZZZZZ	98.956	99.92	102.926	109.848	104.134	105.986	107.646	103.906
15:49	MP16807-MB1	100.956	100.35	104.045	109.947	107.484	109.81	109.706	106.617
15:54	MP16807-B2	100.497	99.924	102.924	109.895	105.065	107.863	108.66	105.571
15:59	MP16807-S3	100.53	100.761	104.805	111.032	105.415	108.92	108.732	105.541
16:04	MP16807-S4	102.068	102.03	106.199	110.831	106.758	109.39	109.455	105.718
16:09	JC93034-1	101.525	101.643	105.176	110.602	104.71	108.644	107.972	104.383
16:14	MP16807-SD1	102.363	103.022	108.786	104.102	103.296	107.77	105.649	104.18
16:19	MA47285-CCVA6	97.957	97.338	101.217	101.966	97.275	100.992	100.19	98.087
16:24	MA47285-CCB6	95.254	95.194	99.209	100.415	95.958	99.003	100.001	96.385
16:29	ZZZZZZ	88.492	92.938	97.296	95.839	92.442	94.816	95.586	92.077

INTERNAL STANDARD SUMMARY

Login Number: JC93074
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Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:34	ZZZZZZ	90.991	93.712	94.264	103.041	97.953	100.776	101.534	98.165
16:39	ZZZZZZ	95.594	94.813	98.062	105.219	102.369	104.576	105.136	101.468
16:44	ZZZZZZ	96.019	97.289	102.136	107.233	103.519	106.676	104.879	102.083
16:49	ZZZZZZ	94.706	95.372	98.509	105.979	102.131	104.348	105.891	101.95
16:54	MP16814-MB1	96.412	97.016	100.139	102.16	99.008	102.316	103.583	99.346
16:59	MP16814-B1	93.156	93.749	97.456	99.088	94.326	96.92	99.924	95.134
17:04	MP16814-S1	91.089	94.051	98.889	102.701	93.105	95.592	99.888	92.942
17:09	MA47285-CCVA7	90.955	90.129	95.014	96.257	91.599	95.612	95.55	92.534
17:14	MA47285-CCB7	88.739	88.682	92.912	95.015	90.558	93.611	96.83	90.091
17:19	MP16814-S2	92.626	94.292	100.693	102.228	93.021	97.738	99.231	93.692
17:24	JC92907-9	93.841	96.998	101.396	104.513	96.301	99.089	102.178	95.201
17:29	MP16814-SD1	90.392	91.175	97.23	94.363	91.825	95.868	95.672	91.707
17:34	MP16814-PS1	93.827	96.055	99.912	101.137	95.332	97.429	98.878	95.204
17:39	ZZZZZZ	87.967	100.411	105.805	106.387	89.573	95.069	95.071	87.789
17:44	ZZZZZZ	87.863	100.59	104.701	106.475	89.673	94.999	95.375	87.362
17:49	ZZZZZZ	86.927	97.902	103.884	105.476	89.387	93.242	95.504	87.659
17:54	ZZZZZZ	86.863	99.005	105.32	106.854	88.806	93.109	94.613	87.159
17:59	MA47285-CCVA8	91.076	90.999	94.695	95.756	92.17	93.399	94.352	92.081
18:04	MA47285-CCB8	89.539	89.405	93.266	94.542	91.636	93.448	96.038	91.491
18:09	ZZZZZZ	87.415	98.795	102.837	104.536	90.485	93.638	93.886	88.299
18:14	ZZZZZZ	86.627	99.677	104.152	105.936	89.976	92.932	94.544	87.407
18:19	ZZZZZZ	89.763	90.502	93.153	95.898	90.048	92.108	95.222	90.092
18:24	ZZZZZZ	91.201	93.172	95.994	98.951	91.536	93.836	96.171	91.097
18:29	ZZZZZZ	89.633	91.583	95.792	97.26	90.869	93.128	96.838	91.391
18:34	ZZZZZZ	92.432	97.098	100.347	102.713	94.111	95.241	99.108	94.16
18:39	ZZZZZZ	94.93	98.263	102.527	102.551	96.204	99.788	100.554	96.477
18:44	ZZZZZZ	96.212	99.503	104.75	101.141	97.217	100.423	99.154	97.133
18:49	MA47285-CCVA9	94.018	95.565	99.05	99.276	95.813	98.195	97.598	96.234
18:54	MA47285-CCB9	92.346	93.317	98.396	98.481	95.359	97.447	98.754	94.846
18:59	ZZZZZZ	96.218	99.624	104.736	103.92	98.66	102.002	101.811	97.713
19:04	ZZZZZZ	97.535	101.767	105.91	104.811	99.909	102.953	102.179	98.686
19:09	MP16818-MB1	94.692	97.215	100.559	100.786	98.435	100.253	101.289	97.685
19:14	MP16818-B1	94.937	96.81	99.782	100.097	97.109	100.086	99.124	97.394

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
19:19	MP16818-S1	82.409	89.145	95.219	93.047	85.617	90.274	89.012	86.187
19:24	MP16818-S2	82.711	90.351	94.666	94.505	87.141	92.152	89.743	87.524
19:29	JC92996-3	82.485	89.701	95.085	91.006	86.845	91.43	87.8	87.092
19:34	ZZZZZZ	84.13	90.258	96.428	98.073	87.511	93.13	92.217	87.399
19:39	MA47285-CCVA10	89.414	91.718	95.668	98.681	93.971	94.937	98.764	94.704
19:44	MA47285-CCB10	88.602	90.412	93.737	98.039	92.486	95.459	98.547	92.941
19:49	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:54	ZZZZZZ	87.597	93.164	97.594	97.878	89.351	94.416	93.461	89.438
19:59	ZZZZZZ	92.796	95.302	97.971	100.306	97.666	100.527	102.1	97.004
20:04	ZZZZZZ	93.797	93.281	95.988	100.958	95.747	99.844	100.983	96.208
20:09	MA47285-CCVA11	91.182	91.071	94.36	98.81	92.757	95.772	99.268	93.783
20:14	MA47285-CCB11	90.109	90.795	93.99	97.718	93.295	96.084	99.875	93.045
20:20	ZZZZZZ	92.52	92.846	96.994	99.222	94.778	97.259	99.417	95.076

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	60-125 %	60-125 %
Istd#2	Scandium (45-1)	60-125 %	60-125 %
Istd#3	Scandium (45-2)	60-125 %	60-125 %
Istd#4	Scandium (45-3)	60-125 %	60-125 %
Istd#5	Germanium (72-1)	60-125 %	60-125 %
Istd#6	Germanium (72-2)	60-125 %	60-125 %
Istd#7	Germanium (72-3)	60-125 %	60-125 %
Istd#8	Germanium (74-1)	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

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File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
10:59	MA47285-STD1	No results reported for the elements associated with this internal standard.							
11:04	MA47285-STD2	No results reported for the elements associated with this internal standard.							
11:09	MA47285-STD3	100	100	100	100	100	100	100	100
11:14	MA47285-STD4	100.979	100.437	100.328	100.374	99.754	100.315	101.644	100.237
11:19	MA47285-STD5	101.332	100.3	100.583	101.115	100.513	100.584	102.154	100.954
11:24	MA47285-STD6	100.702	100.403	100.246	100.967	99.117	99.876	101.706	99.793
11:29	MA47285-STD7	100.458	99.516	99.682	99.834	98.497	100.323	100.502	100.196
11:34	MA47285-STD8	99.483	98.769	98.685	99.06	98.753	99.83	100.383	100.264
11:39	MA47285-STD9	99.705	100.36	98.9	98.986	99.317	98.781	100.984	99.638
11:44	MA47285-STD10	101.842	102.069	100.474	100.604	99.351	101.082	103.562	100.187
11:50	MA47285-STD11	103.011	99.773	98.375	100.142	97.685	100.124	103.78	100.922
11:54	MA47285-STD12	101.942	98.898	98.035	98.431	95.186	98.791	101.915	100.434
11:59	ZZZZZZ	103.963	102.123	102.939	102.965	101.097	102.798	105.422	100.807
12:05	MA47285-ICVA1	100.678	99.815	98.6	98.948	96.14	99.079	101.642	100.381
12:09	MA47285-ICV1	102.619	101.677	101.089	101.567	101.131	100.98	103.766	100.544
12:19	MA47285-ICB1	105.105	101.064	101.386	102.778	100.862	101.411	105.735	100.408
12:24	MA47285-CCVA1	103.193	99.475	98.905	98.737	96.681	99.625	102.383	100.328
12:29	MA47285-CCB1	105.166	101.51	100.812	102.662	100.158	100.851	104.862	100.523
12:34	MA47285-CRI1	105.281	101.783	101.837	102.91	100.648	101.868	106.165	100.629
12:39	MA47285-ICSA1	91.155	88.231	85.876	86.19	82.471	89.566	91.33	94.007
12:44	MA47285-ICSAB1	89.823	89.533	84.16	85.492	83.6	89.378	89.29	94.048
12:49	ZZZZZZ	93.929	99.335	97.646	97.16	99.935	98.415	97.826	100.69
12:54	ZZZZZZ	96.816	96.556	91.647	92.789	92.282	95.799	98.216	101.635
12:59	MA47285-CCVA2	98.797	100.722	98.365	97.989	99.07	99.924	100.479	102.734
13:04	MA47285-CCB2	100.846	103.317	101.023	101.016	102.174	101.58	100.846	103.63
13:09	ZZZZZZ	104.246	107.351	102.903	102.719	105.462	103.376	101.108	106.279
13:14	ZZZZZZ	106.085	107.889	100.119	100.285	103.823	102.981	98.036	105.723
13:19	ZZZZZZ	82.824	85.563	79.841	77.336	80.668	85.904	80.823	94.23
13:24	ZZZZZZ	89.59	90.339	80.843	81.681	84.523	86.974	82.78	95.318
13:29	ZZZZZZ	95.737	100.45	95.472	93.436	100.436	97.996	90.099	102.141
13:34	ZZZZZZ	94.152	101.449	93.916	92.311	99.699	97.78	88.849	102.611
13:39	ZZZZZZ	91.319	99.836	92.518	93.154	99.059	96.192	91.821	100.564
13:44	MP16806-MB1	100.493	104.762	95.828	96.568	103.878	99.175	93.135	103.795

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Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
13:49	MA47285-CCVA3	94.485	99.772	94.221	93.684	97.495	96.723	92.809	101.395
13:54	MA47285-CCB3	93.771	99.448	95.217	95.437	100.022	97.689	93.691	100.343
13:59	MP16806-B1	99.744	103.408	96.877	95.367	100.944	99.474	93.795	104.016
14:04	MP16806-S1	101.496	104.317	94.368	94.442	98.66	98.023	93.48	104.014
14:09	MP16806-S2	103.752	106.704	96.348	95.633	99.796	99.694	95.019	104.648
14:14	JC92907-15	105.574	107.788	97.697	97.431	101.087	100.878	96.161	104.61
14:19	MP16806-SD1	105.569	105.231	103.491	103.178	101.132	105.21	103.116	107.304
14:24	MP16806-PS1	105.712	108.165	98.023	97.583	101.242	101.359	97.56	105.859
14:29	ZZZZZZ	104.75	106.203	97.082	95.942	99.868	101.28	96.628	105.072
14:34	ZZZZZZ	104.346	107.574	96.839	95.471	100.527	100.276	96.376	105.892
14:39	MA47285-CCVA4	104.739	105.888	102.58	101.96	102.407	104.748	102.371	105.82
14:44	MA47285-CCB4	102.805	104.009	100.1	100.282	103.372	102.382	100.587	103.004
14:49	ZZZZZZ	110.202	110.761	100.403	100.157	103.801	102.298	99.687	105.352
14:54	JC93074-1	108.073	109.592	98.705	99.283	103.328	102.696	99.728	105.957
14:59	ZZZZZZ	104.937	105.745	101.217	101.645	101.835	104.55	102.405	105.188
15:04	ZZZZZZ	105.205	106.122	96.874	98.103	101.472	99.68	96.63	103.389
15:09	ZZZZZZ	107.417	107.877	99.602	98.334	103.14	102.425	97.951	105.015
15:14	ZZZZZZ	108.858	108.924	98.882	99.289	102.68	101.638	98.167	105.157
15:19	MP16784A-SD1	101.916	102.818	99.528	99.978	100.601	103.203	100.936	104.155
15:24	ZZZZZZ	103.599	105.799	93.621	93.599	98.629	98.063	94.955	102.355
15:29	MA47285-CCVA5	102.913	105.192	99.7	98.959	100.865	101.306	100.571	103.071
15:34	MA47285-CCB5	100.048	103.015	98.279	99.416	101.728	99.653	99.059	101.309
15:39	ZZZZZZ	103.846	104.346	95.307	94.8	97.93	98.227	95.786	102.618
15:44	ZZZZZZ	106.122	107.59	98.31	99.147	102.34	100.82	98.716	104.721
15:49	MP16807-MB1	109.29	110.111	101.902	102.007	106.045	102.784	100.415	103.57
15:54	MP16807-B2	106.182	109.259	99.306	99.698	104.175	100.757	98.952	104.31
15:59	MP16807-S3	108.868	108.755	96.885	97.258	100.494	100.244	98.596	104.149
16:04	MP16807-S4	109.106	108.954	97.129	97.816	100.575	99.997	98.183	104.16
16:09	JC93034-1	108.783	107.334	98.285	98.026	101.035	100.062	99.278	104.582
16:14	MP16807-SD1	108.073	104.926	102.726	102.583	101.413	104.134	104.828	104.667
16:19	MA47285-CCVA6	100.305	101.118	97.162	96.936	97.025	98.989	98.929	100.019
16:24	MA47285-CCB6	99.458	100.2	97.509	97.782	99.347	98.573	99.899	98.911
16:29	ZZZZZZ	95.954	94.868	88.89	89.912	88.616	94.529	96.172	96.832

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Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:34	ZZZZZZ	101.005	100.986	91.232	91.663	95.967	96.056	93.15	99.75
16:39	ZZZZZZ	103.093	104.732	96.62	96.545	100.599	99.566	95.701	103.312
16:44	ZZZZZZ	107.287	104.645	94.312	96.065	98.197	98.169	96.986	103.138
16:49	ZZZZZZ	103.339	105.752	96.655	96.705	101.701	99.252	96.329	102.479
16:54	MP16814-MB1	102.036	103.264	99.648	100.049	101.575	101.117	100.02	102.549
16:59	MP16814-B1	96.933	99.267	94.908	95.05	97.911	97.508	96.19	101.323
17:04	MP16814-S1	94.776	98.557	93.19	94.057	95.987	96.258	96.148	99.219
17:09	MA47285-CCVA7	94.323	96.302	92.205	93.256	94.009	94.787	93.893	98.043
17:14	MA47285-CCB7	93.706	96.038	93.031	93.294	96.597	94.389	94.511	95.912
17:19	MP16814-S2	97.327	98.107	93.619	93.762	95.701	95.013	96.791	98.633
17:24	JC92907-9	99.881	101.27	96.777	96.729	99.793	97.473	98.017	99.684
17:29	MP16814-SD1	96.34	95	94.452	95.062	95.453	95.973	98.093	97.337
17:34	MP16814-PS1	96.722	97.135	95.305	94.38	94.582	97.031	97.505	99.409
17:39	ZZZZZZ	91.161	91.625	86.714	86.855	86.654	91.019	91.365	96.902
17:44	ZZZZZZ	90.977	91.635	87.237	87.022	87.06	90.675	91.043	96.455
17:49	ZZZZZZ	89.914	92.018	86.289	86.121	87.687	90.689	90.319	95.466
17:54	ZZZZZZ	90.39	91.65	86.937	85.896	86.696	90.183	90.533	95.837
17:59	MA47285-CCVA8	94.675	95.418	93.111	92.719	93.164	94.478	94.786	96.946
18:04	MA47285-CCB8	93.842	93.875	93.659	93.521	95.199	94.899	95.005	96.058
18:09	ZZZZZZ	89.683	90.727	86.506	85.261	86.275	91.466	89.553	95.897
18:14	ZZZZZZ	91.155	91.303	86.634	86.079	86.491	90.699	90.803	95.474
18:19	ZZZZZZ	92.146	95.462	92.827	91.717	95.227	94.102	93.973	97.098
18:24	ZZZZZZ	93.257	96.127	94.159	93.126	95.834	96.181	95.736	97.583
18:29	ZZZZZZ	93.247	96.666	93.065	93.399	96.304	96.32	95.489	97.537
18:34	ZZZZZZ	95.68	97.596	95.709	94.965	96.89	96.725	97.993	98.68
18:39	ZZZZZZ	99.052	100.475	98.319	96.933	97.707	98.628	99.041	100.324
18:44	ZZZZZZ	99.604	99.385	97.641	97.829	96.052	98.672	99.437	100.055
18:49	MA47285-CCVA9	97.044	98.37	95.356	93.723	94.561	96.954	95.802	99.073
18:54	MA47285-CCB9	97.684	98.706	96.259	95.43	96.8	97	97.254	97.02
18:59	ZZZZZZ	101.733	101.283	97.888	97.761	98.181	98.676	99.921	100.118
19:04	ZZZZZZ	102.43	102.179	99.775	99.565	98.472	101.163	101.272	100.846
19:09	MP16818-MB1	100.575	100.384	99.414	99.359	99.174	99.608	101.178	99.132
19:14	MP16818-B1	100.359	98.704	97.013	95.189	95.99	98.31	98.28	99.195

INTERNAL STANDARD SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
19:19	MP16818-S1	90.525	88.814	82.141	82.466	81.966	88.207	90.409	92.184
19:24	MP16818-S2	91.643	89.646	83.893	83.291	82.909	89.049	90.728	93.661
19:29	JC92996-3	91.191	87.434	83.612	83.912	80.543	88.582	90.919	93.724
19:34	ZZZZZZ	93.086	93.501	85.029	85.271	85.644	90.529	92.276	94.357
19:39	MA47285-CCVA10	94.954	98.188	94.717	92.963	94.891	96.767	94.773	99.109
19:44	MA47285-CCB10	95.783	99.178	94.821	95.214	97.48	96.261	96.377	97.672
19:49	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:54	ZZZZZZ	94.103	93.416	85.972	86.016	86.212	91.792	93.289	96.503
19:59	ZZZZZZ	100.062	101.823	98.716	98.554	100.393	99.788	99.727	100.559
20:04	ZZZZZZ	98.557	100.702	98.858	97.241	99.92	100.968	98.389	100.996
20:09	MA47285-CCVA11	96.354	98.611	94.298	93.368	95.165	96.731	94.321	100.146
20:14	MA47285-CCB11	95.146	99.576	95.557	94.299	97.615	98.015	95.092	99.065
20:20	ZZZZZZ	98.258	100.398	97.292	96.764	99.102	98.976	97.842	100.347

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#9	Germanium (74-2)	60-125 %	60-125 %
Istd#10	Germanium (74-3)	60-125 %	60-125 %
Istd#11	Rhodium (103-1)	60-125 %	60-125 %
Istd#12	Rhodium (103-2)	60-125 %	60-125 %
Istd#13	Rhodium (103-3)	60-125 %	60-125 %
Istd#14	Indium (115-1)	60-125 %	60-125 %
Istd#15	Indium (115-2)	60-125 %	60-125 %
Istd#16	Terbium (159-1)	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
10:59	MA47285-STD1	No results reported for the elements associated with this internal standard.					
11:04	MA47285-STD2	No results reported for the elements associated with this internal standard.					
11:09	MA47285-STD3	100	100	100	100	100	100
11:14	MA47285-STD4	100.465	100.481	100.984	100.534	99.415	100.682
11:19	MA47285-STD5	100.13	100.354	101.528	100.006	101.246	101.139
11:24	MA47285-STD6	100.254	101.107	100.884	100.354	99.771	101.304
11:29	MA47285-STD7	99.977	100.34	102.085	100.647	100.232	100.781
11:34	MA47285-STD8	99.751	99.324	101.149	99.408	99.639	101.035
11:39	MA47285-STD9	99.676	101.061	101.321	100.547	100.229	100.866
11:44	MA47285-STD10	101.673	100.594	101.958	101.728	100.206	101.435
11:50	MA47285-STD11	102.637	99.778	102.609	102.441	98.625	99.847
11:54	MA47285-STD12	101.897	98.848	101.605	102.187	95.205	98.165
11:59	ZZZZZZ	102.29	101.239	101.975	101.871	100.87	103.267
12:05	MA47285-ICVA1	101.226	99.167	102.677	101.196	98.696	99.353
12:09	MA47285-ICV1	101.493	101.294	101.911	101.48	101.012	102.59
12:19	MA47285-ICB1	102.533	100.808	102.118	102.344	101.836	103.552
12:24	MA47285-CCVA1	101.631	99.355	101.446	101.956	98.275	99.686
12:29	MA47285-CCB1	102.263	100.456	102.323	101.964	100.506	102.217
12:34	MA47285-CRI1	102.951	100.842	102.241	102.795	100.24	103.033
12:39	MA47285-ICSA1	93.815	91.772	94.941	94.382	88.408	87.882
12:44	MA47285-ICSAB1	92.895	91.578	95.522	93.714	87.915	87.617
12:49	ZZZZZZ	97.126	100.65	103.074	97.546	102.74	100.422
12:54	ZZZZZZ	100.041	99.526	102.804	100.829	96.987	95.928
12:59	MA47285-CCVA2	100.696	101.948	104.577	100.909	103.077	100.446
13:04	MA47285-CCB2	100.399	103.058	104.511	100.696	105.647	102.865
13:09	ZZZZZZ	101.181	106.478	108.586	102.423	110.604	106.543
13:14	ZZZZZZ	99.797	105.632	108.18	100.131	107.382	102.132
13:19	ZZZZZZ	87.342	91.779	97.174	89.228	86.897	81.368
13:24	ZZZZZZ	89.69	93.993	98.222	91.69	87.862	82.81
13:29	ZZZZZZ	93.645	103.742	104.395	95.063	104.816	96.985
13:34	ZZZZZZ	93.527	103.7	105.455	94.68	102.723	94.653
13:39	ZZZZZZ	93.913	102.161	103.002	93.757	103.198	96.719
13:44	MP16806-MB1	95.299	106.191	105.632	96.547	105.429	97.824

INTERNAL STANDARD SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
13:49	MA47285-CCVA3	94.329	100.963	103.45	95.5	101.196	95.441
13:54	MA47285-CCB3	94.623	102.386	102.259	96.057	102.643	97.87
13:59	MP16806-B1	95.45	104.272	106.332	96.864	104.805	96.523
14:04	MP16806-S1	96.241	102.85	106.303	97.928	99.969	93.993
14:09	MP16806-S2	97.181	104.459	105.872	98.858	101.04	94.537
14:14	JC92907-15	96.963	105.019	106.947	99.119	101.361	95.337
14:19	MP16806-SD1	101.332	101.07	108.057	101.616	106.242	102.847
14:24	MP16806-PS1	98.085	104.294	107.887	99.522	101.018	95.368
14:29	ZZZZZZ	97.836	103.993	107.643	99.825	99.227	93.02
14:34	ZZZZZZ	97.824	105.639	108.067	98.826	98.994	93
14:39	MA47285-CCVA4	100.969	103.196	107.136	101.773	103.502	99.734
14:44	MA47285-CCB4	98.293	102.087	105.518	98.662	103.299	100.135
14:49	ZZZZZZ	100.453	106.343	108.3	100.684	104.222	98.889
14:54	JC93074-1	99.464	106.445	107.653	99.735	102.464	97.891
14:59	ZZZZZZ	100.888	103.341	106.526	100.973	106.081	102.094
15:04	ZZZZZZ	97.243	104.366	107.261	100.146	102.294	96.605
15:09	ZZZZZZ	99.133	104.96	107.089	99.838	101.926	96.954
15:14	ZZZZZZ	99.382	104.763	107.201	100.876	101.442	95.94
15:19	MP16784A-SD1	99.528	102.5	105.547	99.712	104.074	100.31
15:24	ZZZZZZ	95.722	102.838	104.676	97.825	97.815	91.797
15:29	MA47285-CCVA5	98.601	101.916	104.285	98.364	100.749	97.045
15:34	MA47285-CCB5	97.507	101.457	102.279	97.617	101.102	98.399
15:39	ZZZZZZ	97.102	102.286	104.571	97.904	97.486	93.744
15:44	ZZZZZZ	99.078	104.709	106.53	99.872	102.164	97.082
15:49	MP16807-MB1	99.432	106.178	105.154	100.622	103.788	99.929
15:54	MP16807-B2	97.672	105.097	106.366	98.687	102.035	96.852
15:59	MP16807-S3	98.26	104.06	105.456	99.176	98.612	94.286
16:04	MP16807-S4	98.421	103.719	106.405	99.513	98.542	94.617
16:09	JC93034-1	98.566	104.999	106.698	98.324	99.474	94.707
16:14	MP16807-SD1	102.109	102.244	104.738	102.409	103.944	101.951
16:19	MA47285-CCVA6	98.223	99.231	100.815	98.512	99.038	96.655
16:24	MA47285-CCB6	96.797	99.704	100.031	97.833	100.076	98.898
16:29	ZZZZZZ	95.827	95.586	98.192	95.803	91.464	90.354

INTERNAL STANDARD SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
16:34	ZZZZZZ	95.222	101.994	101.519	96.367	96	92.345
16:39	ZZZZZZ	96.552	103.931	104.341	98.106	101.596	96.206
16:44	ZZZZZZ	97.884	103.274	104.964	99.783	97.633	94.739
16:49	ZZZZZZ	96.942	104.62	104.673	97.349	101.598	96.557
16:54	MP16814-MB1	97.171	102.019	103.753	98.305	104.337	100.272
16:59	MP16814-B1	95.964	99.969	102.935	96.718	100.231	96.372
17:04	MP16814-S1	95.342	99.084	102.021	97.184	99.104	94.811
17:09	MA47285-CCVA7	94.086	97.249	98.392	95.873	97.314	94.583
17:14	MA47285-CCB7	93.27	97.363	97.689	93.66	98.652	94.796
17:19	MP16814-S2	96.409	98.993	102.007	97.696	98.02	95.705
17:24	JC92907-9	96.645	101.934	103.841	98.992	99.668	97.74
17:29	MP16814-SD1	96.234	96.597	98.857	97.215	100.014	98.681
17:34	MP16814-PS1	96.054	97.186	101.979	98.418	97.641	95.43
17:39	ZZZZZZ	93.16	94.14	112.067	106.595	91.754	88.285
17:44	ZZZZZZ	93.014	94.733	112.397	106.906	91.261	88.79
17:49	ZZZZZZ	91.791	94.426	110.038	104.898	91.216	88.352
17:54	ZZZZZZ	92.146	94.011	111.318	106.245	91.476	87.842
17:59	MA47285-CCVA8	93.386	95.828	98.892	95.245	95.536	93.441
18:04	MA47285-CCB8	94.153	96.512	98.499	94.128	97.444	95.5
18:09	ZZZZZZ	91.617	93.043	110.127	103.895	91.286	87.778
18:14	ZZZZZZ	92.499	94.407	111.969	106.506	91.869	88.187
18:19	ZZZZZZ	93.19	96.403	99.25	94.771	99.563	95.21
18:24	ZZZZZZ	94.067	97.464	100.045	96.467	99.097	95.976
18:29	ZZZZZZ	93.91	97.905	99.449	94.69	98.191	96.441
18:34	ZZZZZZ	95.359	99.181	104.765	100.69	98.766	96.822
18:39	ZZZZZZ	96.569	98.926	103.484	98.289	98.937	96.992
18:44	ZZZZZZ	96.573	96.831	103.801	98.167	99.511	96.862
18:49	MA47285-CCVA9	95.199	96.272	99.645	95.762	96.412	94.134
18:54	MA47285-CCB9	94.224	97.255	98.526	94.605	98.18	95.779
18:59	ZZZZZZ	97.074	97.751	103.189	100.008	99.391	98.947
19:04	ZZZZZZ	97.331	98.775	103.636	99.706	99.975	98.78
19:09	MP16818-MB1	96.95	98.063	99.839	96.719	98.479	98.69
19:14	MP16818-B1	96.403	96.805	99.571	97.21	97.53	95.428

INTERNAL STANDARD SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47285
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
19:19	MP16818-S1	90.457	90.31	94.499	91.539	84.679	82.897
19:24	MP16818-S2	91.453	91.008	95.371	91.538	85.956	83.303
19:29	JC92996-3	91.124	87.318	95.501	92.266	86.21	84.419
19:34	ZZZZZZ	92.45	93.444	96.945	94.049	85.814	84.621
19:39	MA47285-CCVA10	94.622	97.237	101.04	95.474	98.286	94.263
19:44	MA47285-CCB10	94.37	97.979	99.355	95.861	99.989	97.079
19:49	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:54	ZZZZZZ	92.759	92.627	97.709	93.306	87.668	84.922
19:59	ZZZZZZ	97.148	100.051	102.204	96.929	101.729	98.557
20:04	ZZZZZZ	95.517	99.334	103.148	96.8	101.902	98.001
20:09	MA47285-CCVA11	94.311	96.889	100.709	95.178	98.762	94.101
20:14	MA47285-CCB11	94.136	97.97	101.047	94.47	100.085	96.086
20:20	ZZZZZZ	95.612	98.679	102.013	95.678	100.796	97.202

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Terbium (159-2)	60-125 %	60-125 %
Istd#18	Terbium (159-3)	60-125 %	60-125 %
Istd#19	Holmium (165-1)	60-125 %	60-125 %
Istd#20	Holmium (165-2)	60-125 %	60-125 %
Istd#21	Bismuth (209-1)	60-125 %	60-125 %
Istd#22	Bismuth (209-2)	60-125 %	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47285 Units: ug/l

Time: / Sample ID:				12:19 ICB1		12:29 CCB1		13:04 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	-0.000160	<1.5	0.0175	<1.5	0.0254	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47285 Units: ug/l

Time: / Sample ID:				13:54 CCB3		14:44 CCB4		15:34 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.0295	<1.5	0.0253	<1.5	0.00398	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47285 Units: ug/l

Time:		12:05			12:09			12:24	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	60	63.7	106.2				50	50.9	101.8
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47285 Units: ug/l

Time:		12:59			13:49			14:39	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	50	52.5	105.0	50	53.0	106.0	50	51.0	102.0
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47285 Units: ug/l

Time:		15:29	
Sample ID:	CCVA	CCVA5	
Metal	True	Results	% Rec
Aluminum			
Antimony			
Arsenic	50	50.7	101.4
Barium	anr		
Beryllium			
Boron			
Cadmium	anr		
Calcium			
Chromium	anr		
Cobalt			
Copper	anr		
Iron	anr		
Lead	anr		
Magnesium			
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium			
Selenium	anr		
Silver	anr		
Sodium			
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium			
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA47285 Units: ug/l

Time:			12:34	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25		
Antimony	2.0	0.25		
Arsenic	0.50	0.50	0.484	96.8
Barium	1.0	0.50	anr	
Beryllium	0.50	0.25		
Boron	25	2.5		
Cadmium	0.50	0.25	anr	
Calcium	250	125		
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25		
Copper	2.0	2.0	anr	
Iron	25	25	anr	
Lead	0.50	0.25	anr	
Magnesium	250	125		
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50		
Nickel	1.0	2.0	anr	
Potassium	250	125		
Selenium	0.50	0.50	anr	
Silver	0.50	1.0	anr	
Sodium	250	125		
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0		
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA081419M1L.CSV Date Analyzed: 08/14/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA47285 Units: ug/l

Time:			12:39		12:44	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	94400	94.4	95200	95.2
Antimony			0.149		0.150	
Arsenic		20	0.0731		19.0	95.0
Barium			0.205		0.195	
Beryllium			0.00125		0.00188	
Boron		50	4.47		52.9	105.8
Cadmium		20	-0.457		17.3	86.5
Calcium	100000	100000	92100	92.1	95700	95.7
Chromium		20	0.234		18.9	94.5
Cobalt		20	0.187		18.7	93.5
Copper		20	0.0625		17.2	86.0
Iron	100000	100000	89600	89.6	92200	92.2
Lead			0.0896		0.0883	
Magnesium	100000	100000	90200	90.2	92400	92.4
Manganese		20	0.318		19.1	95.5
Molybdenum	2000	2000	1980	99.0	2060	103.0
Nickel		20	0.574		18.1	90.5
Potassium	100000	100000	95000	95.0	98400	98.4
Selenium		20	0.104		20.3	101.5
Silver		20	0.0152		17.8	89.0
Sodium	100000	100000	89100	89.1	91700	91.7
Strontium	2000	2000	1900	95.0	2010	100.5
Thallium			0.00156		0.00415	
Tin	2000	2000	1750	87.5	1850	92.5
Titanium	2000	2000	1740	87.0	1800	90.0
Vanadium		20	-0.0156		20.7	103.5
Zinc		20	0.173		16.2	81.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16806
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 08/13/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.55	32		
Antimony	4.0	.19	1.7		
Arsenic	3.0	.026	.94	0.093	<3.0
Barium	2.0	.016	.73		
Beryllium	1.0	.008	.15		
Boron	50	1.3	14		
Cadmium	6.0	.008	.17		
Calcium	500	12	64		
Chromium	8.0	.028	.62		
Cobalt	1.0	.004	.17		
Copper	10	.042	1.9		
Iron	50	.86	19		
Lead	3.0	.018	.52		
Magnesium	500	.3	46		
Manganese	4.0	.014	.63		
Molybdenum	2.0	.03	.45		
Nickel	8.0	.034	.95		
Potassium	500	1.4	68		
Selenium	2.0	.14	.55		
Silver	2.0	.008	.16		
Sodium	500	2.1	140		
Strontium	20	.006	2.4		
Thallium	2.0	.008	.17		
Tin	10	.14	2.6		
Titanium	4.0	.07	1.6		
Vanadium	3.0	.018	1.8		
Zinc	20	.058	5.4		

Associated samples MP16806: JC93074-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16806 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/13/19

Metal	JC92907-15 Original MS		Spikelot MP6020AQ3% Rec		QC Limits
Aluminum					
Antimony					
Arsenic	9.1	79.5	80	88.0	75-125
Beryllium					
Boron					
Cadmium	anr				
Calcium					
Chromium	anr				
Cobalt					
Copper					
Lead	anr				
Magnesium					
Molybdenum					
Nickel					
Potassium					
Selenium	anr				
Silver	anr				
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP16806: JC93074-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16806 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/13/19

Metal	JC92907-15 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	9.1	77.4	80	85.4	2.7	20
Beryllium						
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper						
Lead	anr					
Magnesium						
Molybdenum						
Nickel						
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP16806: JC93074-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16806
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 08/13/19

Metal	BSP Result	Spikelot MP6020AQ3% Rec	QC Limits
Aluminum			
Antimony			
Arsenic	72.9	80 91.1	80-120
Barium	anr		
Beryllium			
Boron			
Cadmium	anr		
Calcium			
Chromium	anr		
Cobalt			
Copper			
Iron	anr		
Lead	anr		
Magnesium			
Manganese	anr		
Molybdenum			
Nickel			
Potassium			
Selenium	anr		
Silver	anr		
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

Associated samples MP16806: JC93074-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16806
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 08/13/19

Metal	JC92907-15 Original	SDL 2:10	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	9.10	9.62	5.7	0-10
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Lead	anr			
Magnesium				
Molybdenum				
Nickel				
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP16806: JC93074-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: JC93074
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP16806 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/13/19

Metal	Sample ml	Final ml	JC92907-15 Raw	JC92907-15 Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.14	10	9.104386	8.321409	82.51463	0.2	4	80	92.7	75-125
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Lead										
Magnesium										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP16806: JC93074-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Instrument Detection Limits

Job Number: JC93074
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Aluminum	.045
Aluminum	.276
Antimony	.094
Arsenic	.12
Arsenic	.013
Barium	.008
Beryllium	.004
Boron	.648
Cadmium	.007
Cadmium	.004
Calcium	6.11
Chromium	.036
Chromium	.014
Cobalt	.0041
Cobalt	.002
Copper	.1044
Copper	.021
Iron	1.21
Iron	.432
Lead	.009
Magnesium	.033
Magnesium	.152
Manganese	.006
Manganese	.007
Molybdenum	.015
Nickel	.046
Nickel	.017
Potassium	.506
Potassium	.707
Selenium	.503
Selenium	.072
Silver	.004
Sodium	.357
Sodium	1.037
Strontium	.003
Thallium	.004
Tin	.025
Tin	.071
Titanium	.035
Titanium	.035
Vanadium	.112
Vanadium	.009
Zinc	.041
Zinc	.029

Instrument Detection Limits

Job Number: JC93074
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l

The above applies to the following instrument runs:
MA47285

Instrument Linear Ranges

Job Number: JC93074
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC93074
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA47285

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 10:59
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	73.76	12.00	5.147E-06	Pulse	0.25	3
B			1	0.082	ug/l	70.92	5,289.86	2.277E-03	Pulse	0.15	3
Ca			1	-0.279	ug/l	-47.46	9,413.01	3.083E-03	Pulse	0.10	3
Sr			1	-0.001	ug/l	-36.00	370.02	1.060E-04	Pulse	0.10	3
Mo			1	-0.003	ug/l	-47.40	16.67	4.781E-06	Pulse	0.10	3
Ag			1	-0.001	ug/l	-56.70	6.67	1.959E-06	Pulse	0.10	3
Sn			1	0.005	ug/l	131.26	3,753.92	1.095E-03	Pulse	0.10	3
Sb			1	-0.045	ug/l	-33.95	1,680.16	3.786E-04	Pulse	0.10	3
Ba			1	0.002	ug/l	153.79	43.33	9.779E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	12386.55	360.02	1.437E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-318.62	133.34	5.327E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	72.90	153.34	6.125E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	177.29	683.38	2.729E-04	Pulse	0.10	3
Na			2	0.101	ug/l	265.57	4,659.58	5.736E-02	Pulse	0.30	3
Mg			2	0.030	ug/l	67.05	61.11	7.527E-04	Pulse	0.30	3
Al			2	-0.082	ug/l	-125.57	36.67	4.522E-04	Pulse	0.30	3
K			2	0.550	ug/l	216.45	6,486.88	7.986E-02	Pulse	0.30	3
Ca			2	0.723	ug/l	41.38	41.11	5.060E-04	Pulse	0.30	3
Ti			2	0.021	ug/l	173.21	2.22	2.711E-05	Pulse	0.30	3
V			2	-0.009	ug/l	-55.37	87.78	1.079E-03	Pulse	0.30	3
Cr			2	0.014	ug/l	27.59	326.67	4.022E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	103.60	43.33	5.331E-04	Pulse	0.30	3
Fe			2	-0.024	ug/l	-118.35	1,358.96	1.673E-02	Pulse	0.30	3
Co			2	0.000	ug/l	1191.61	43.33	5.346E-04	Pulse	0.30	3
Ni			2	-0.004	ug/l	-188.12	32.22	3.955E-04	Pulse	0.30	3
Cu			2	0.017	ug/l	99.86	1,081.16	1.331E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.071	ug/l	41.18	278.89	3.431E-03	Pulse	0.30	3
As			2	0.007	ug/l	127.14	8.00	9.844E-05	Pulse	1.00	3
Cd			2	-0.001	ug/l	-388.04	2.22	5.715E-06	Pulse	0.30	3
Sn			2	0.016	ug/l	142.37	586.69	1.502E-03	Pulse	0.30	3
Se			3	0.001	ug/l	521.90	3.13	2.533E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,324,554.73	1.37	100.0	Pulse	0.10	3
1	Sc		3,053,136.83	1.52	100.0	Pulse	0.10	3
1	Ge		558,057.82	0.21	100.0	Pulse	0.10	3
1	Ge		770,532.20	0.87	100.0	Pulse	0.10	3
1	Rh		3,490,066.72	1.09	100.0	Pulse	0.10	3
1	In		3,427,148.70	1.01	100.0	Pulse	0.10	3
1	Tb		4,442,192.75	1.12	100.0	Pulse	0.10	3
1	Ho		436,953.14	0.52	100.0	Pulse	0.10	3
1	Bi		2,502,786.11	1.77	100.0	Pulse	0.10	3
2	Sc		81,237.96	0.88	100.0	Pulse	0.30	3
2	Ge		46,457.00	1.43	100.0	Pulse	0.30	3
2	Ge		69,833.11	0.39	100.0	Pulse	0.30	3
2	Rh		1,405,201.02	0.45	100.0	Pulse	0.30	3
2	In		390,547.00	0.36	100.0	Pulse	0.30	3
2	Tb		1,598,118.82	0.46	100.0	Pulse	0.30	3
2	Ho		160,897.59	0.20	100.0	Pulse	0.30	3
2	Bi		1,072,846.14	0.07	100.0	Pulse	0.30	3
3	Sc		126,721.35	0.19	100.0	Pulse	0.30	3
3	Ge		81,487.29	0.44	100.0	Pulse	0.30	3
3	Ge		123,563.69	1.03	100.0	Pulse	0.30	3
3	Rh		1,463,297.23	0.37	100.0	Pulse	0.30	3
3	Tb		2,133,742.07	0.38	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 11:04
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	101.93	14.67	6.386E-06	Pulse	0.25	3
B			1	0.014	ug/l	285.36	4,747.45	2.079E-03	Pulse	0.15	3
Ca			1	0.173	ug/l	168.89	9,779.89	3.233E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-633.81	416.69	1.199E-04	Pulse	0.10	3
Mo			1	-0.002	ug/l	-78.40	26.67	7.660E-06	Pulse	0.10	3
Ag			1	-0.001	ug/l	-58.35	10.00	2.944E-06	Pulse	0.10	3
Sn			1	0.011	ug/l	180.96	3,797.24	1.117E-03	Pulse	0.10	3
Sb			1	-0.044	ug/l	-11.40	1,686.82	3.805E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	632.31	36.67	8.309E-06	Pulse	0.10	3
Tl			1	0.001	ug/l	204.83	380.02	1.528E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	14.59	226.68	9.106E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	72.37	153.34	6.162E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	41.48	723.37	2.907E-04	Pulse	0.10	3
Na			2	0.120	ug/l	52.40	4,754.05	5.758E-02	Pulse	0.30	3
Mg			2	0.106	ug/l	52.05	93.34	1.129E-03	Pulse	0.30	3
Al			2	0.085	ug/l	342.80	57.78	6.990E-04	Pulse	0.30	3
K			2	0.473	ug/l	73.22	6,575.81	7.963E-02	Pulse	0.30	3
Ca			2	1.790	ug/l	54.67	55.56	6.728E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00	0.000E+00	Pulse	0.30	3
V			2	-0.007	ug/l	-96.21	94.45	1.142E-03	Pulse	0.30	3
Cr			2	0.004	ug/l	179.47	285.56	3.459E-03	Pulse	0.30	3
Mn			2	0.014	ug/l	91.02	61.11	7.423E-04	Pulse	0.30	3
Fe			2	-0.025	ug/l	-109.91	1,374.52	1.665E-02	Pulse	0.30	3
Co			2	0.000	ug/l	288.60	45.56	5.513E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	112.09	46.67	5.648E-04	Pulse	0.30	3
Cu			2	0.018	ug/l	103.92	1,102.27	1.335E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.072	ug/l	78.94	283.34	3.435E-03	Pulse	0.30	3
As			2	0.003	ug/l	237.30	6.67	8.091E-05	Pulse	1.00	3
Cd			2	0.004	ug/l	301.79	7.78	1.940E-05	Pulse	0.30	3
Sn			2	0.029	ug/l	56.31	628.91	1.568E-03	Pulse	0.30	3
Se			3	-0.007	ug/l	-60.10	2.27	1.835E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,285,052.33	1.83	100.0	Pulse	0.10	3
1	Sc		3,025,611.31	1.90	100.0	Pulse	0.10	3
1	Ge		551,051.10	1.75	100.0	Pulse	0.10	3
1	Ge		767,502.90	0.97	100.0	Pulse	0.10	3
1	Rh		3,473,154.01	2.35	100.0	Pulse	0.10	3
1	In		3,397,808.16	1.52	100.0	Pulse	0.10	3
1	Tb		4,434,576.39	1.30	100.0	Pulse	0.10	3
1	Ho		433,520.20	1.09	100.0	Pulse	0.10	3
1	Bi		2,488,113.71	1.38	100.0	Pulse	0.10	3
2	Sc		82,574.21	1.17	100.0	Pulse	0.30	3
2	Ge		46,778.05	0.80	100.0	Pulse	0.30	3
2	Ge		71,490.17	0.94	100.0	Pulse	0.30	3
2	Rh		1,419,727.13	0.51	100.0	Pulse	0.30	3
2	In		401,198.30	0.65	100.0	Pulse	0.30	3
2	Tb		1,632,402.61	0.63	100.0	Pulse	0.30	3
2	Ho		164,743.70	0.17	100.0	Pulse	0.30	3
2	Bi		1,086,591.34	0.72	100.0	Pulse	0.30	3
3	Sc		124,876.31	0.84	100.0	Pulse	0.30	3
3	Ge		81,368.46	0.90	100.0	Pulse	0.30	3
3	Ge		123,553.68	1.08	100.0	Pulse	0.30	3
3	Rh		1,465,204.56	0.26	100.0	Pulse	0.30	3
3	Tb		2,105,169.64	0.46	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 11:09
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	69669.17	6.67	2.906E-06	Pulse	0.25	3
B			1	0.000	ug/l	---	4,662.99	2.039E-03	Pulse	0.15	3
Ca			1	0.000	ug/l	---	9,559.77	3.175E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	3014.75	436.69	1.267E-04	Pulse	0.10	3
Mo			1	0.000	ug/l	425.83	43.33	1.259E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	28585.99	26.67	7.978E-06	Pulse	0.10	3
Sn			1	0.010	ug/l	138.92	3,767.28	1.114E-03	Pulse	0.10	3
Sb			1	-0.046	ug/l	-40.97	1,650.16	3.741E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	4790.27	33.33	7.548E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	---	356.69	1.435E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	277.55	163.34	6.568E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	1516.92	136.67	5.504E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	114.86	680.03	2.736E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	4,659.58	5.625E-02	Pulse	0.30	3
Mg			2	-0.003	ug/l	-1923.54	48.89	5.905E-04	Pulse	0.30	3
Al			2	-0.016	ug/l	-564.56	45.55	5.501E-04	Pulse	0.30	3
K			2	0.286	ug/l	410.52	6,550.25	7.909E-02	Pulse	0.30	3
Ca			2	-0.025	ug/l	-607.81	32.22	3.890E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00		Pulse	0.30	3
V			2	0.001	ug/l	513.30	125.56	1.516E-03	Pulse	0.30	3
Cr			2	0.000	ug/l	2260.89	267.78	3.232E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	31.11	3.754E-04	Pulse	0.30	3
Fe			2	-0.001	ug/l	-504.20	1,470.08	1.775E-02	Pulse	0.30	3
Co			2	0.000	ug/l	2486.57	43.33	5.236E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-935.10	38.89	4.702E-04	Pulse	0.30	3
Cu			2	0.013	ug/l	66.90	1,078.94	1.302E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.010	ug/l	-305.31	222.23	2.684E-03	Pulse	0.30	3
As			2	0.000	ug/l	-3750.84	5.33	6.431E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	---	3.33	8.266E-06	Pulse	0.30	3
Sn			2	0.014	ug/l	137.91	601.13	1.488E-03	Pulse	0.30	3
Se			3	-0.003	ug/l	-232.73	2.67	2.178E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,287,510.00	1.32	100.0	Pulse	0.10	3
1	Sc		3,010,986.52	0.44	100.0	Pulse	0.10	3
1	Ge		552,272.18	0.64	100.0	Pulse	0.10	3
1	Ge		762,673.06	0.58	100.0	Pulse	0.10	3
1	Rh		3,444,203.91	1.19	100.0	Pulse	0.10	3
1	In		3,381,386.84	1.58	100.0	Pulse	0.10	3
1	Tb		4,415,864.31	1.65	100.0	Pulse	0.10	3
1	Ho		429,629.92	0.97	100.0	Pulse	0.10	3
1	Bi		2,485,265.33	0.32	100.0	Pulse	0.10	3
2	Sc		82,831.14	0.45	100.0	Pulse	0.30	3
2	Ge		47,975.93	0.24	100.0	Pulse	0.30	3
2	Ge		72,069.34	1.18	100.0	Pulse	0.30	3
2	Rh		1,424,683.14	0.53	100.0	Pulse	0.30	3
2	In		403,860.03	0.23	100.0	Pulse	0.30	3
2	Tb		1,650,419.17	0.21	100.0	Pulse	0.30	3
2	Ho		165,782.98	1.27	100.0	Pulse	0.30	3
2	Bi		1,090,384.68	0.97	100.0	Pulse	0.30	3
3	Sc		125,980.44	0.55	100.0	Pulse	0.30	3
3	Ge		80,653.26	0.79	100.0	Pulse	0.30	3
3	Ge		122,440.67	0.73	100.0	Pulse	0.30	3
3	Rh		1,478,956.50	0.04	100.0	Pulse	0.30	3
3	Tb		2,132,023.18	0.26	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 11:14
Sample Name STDB
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.493	ug/l	3.03	4,415.30	1.946E-03	Pulse	0.25	3
B			1	23.707	ug/l	2.10	161,669.49	7.127E-02	Pulse	0.15	3
Ca			1	255.504	ug/l	0.67	264,923.58	8.788E-02	Pulse	0.10	3
Sr			1	4.876	ug/l	0.84	221,965.34	6.424E-02	Pulse	0.10	3
Mo			1	0.952	ug/l	4.87	8,345.80	2.414E-03	Pulse	0.10	3
Ag			1	0.491	ug/l	1.40	10,206.95	3.009E-03	Pulse	0.10	3
Sn			1	4.738	ug/l	0.64	63,552.53	1.874E-02	Pulse	0.10	3
Sb			1	2.004	ug/l	0.29	31,195.20	7.048E-03	Pulse	0.10	3
Ba			1	0.979	ug/l	6.13	5,928.00	1.339E-03	Pulse	0.10	3
Tl			1	0.494	ug/l	1.52	16,326.26	6.608E-03	Pulse	0.10	3
Pb			1	0.493	ug/l	2.16	5,624.63	2.276E-03	Pulse	0.10	3
Pb			1	0.490	ug/l	6.95	4,951.02	2.004E-03	Pulse	0.10	3
Pb			1	0.492	ug/l	1.65	22,841.15	9.244E-03	Pulse	0.10	3
Na			2	247.951	ug/l	0.66	236,131.09	2.800E+00	Pulse	0.30	3
Mg			2	256.742	ug/l	0.28	107,880.45	1.279E+00	Pulse	0.30	3
Al			2	24.937	ug/l	2.32	3,167.00	3.755E-02	Pulse	0.30	3
K			2	252.438	ug/l	1.44	68,308.50	8.099E-01	Pulse	0.30	3
Ca			2	281.738	ug/l	1.82	3,749.36	4.445E-02	Pulse	0.30	3
Ti			2	1.171	ug/l	5.45	127.78	1.515E-03	Pulse	0.30	3
V			2	0.973	ug/l	4.24	3,787.15	4.490E-02	Pulse	0.30	3
Cr			2	0.975	ug/l	4.91	5,074.18	6.016E-02	Pulse	0.30	3
Mn			2	0.982	ug/l	3.78	2,213.51	2.624E-02	Pulse	0.30	3
Fe			2	26.113	ug/l	0.62	99,383.05	1.178E+00	Pulse	0.30	3
Co			2	0.495	ug/l	2.11	4,149.20	4.919E-02	Pulse	0.30	3
Ni			2	1.029	ug/l	4.00	2,404.65	2.851E-02	Pulse	0.30	3
Cu			2	1.885	ug/l	1.25	13,065.30	1.549E-01	Pulse	0.30	3
Zn			2	5.172	ug/l	2.41	4,276.16	5.070E-02	Pulse	0.30	3
As			2	0.497	ug/l	12.40	209.33	2.482E-03	Pulse	1.00	3
Cd			2	0.490	ug/l	5.94	530.72	1.293E-03	Pulse	0.30	3
Sn			2	4.691	ug/l	0.42	10,296.79	2.508E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.512	ug/l	7.72	62.80	5.106E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,268,472.17	0.26	99.2	Pulse	0.10	3
1	Sc		3,014,513.81	1.00	100.1	Pulse	0.10	3
1	Ge		553,725.51	0.91	100.3	Pulse	0.10	3
1	Ge		761,833.24	0.75	99.9	Pulse	0.10	3
1	Rh		3,455,506.41	0.94	100.3	Pulse	0.10	3
1	In		3,392,031.04	0.93	100.3	Pulse	0.10	3
1	Tb		4,426,334.21	1.12	100.2	Pulse	0.10	3
1	Ho		433,855.80	1.39	101.0	Pulse	0.10	3
1	Bi		2,470,717.67	0.71	99.4	Pulse	0.10	3
2	Sc		84,345.48	0.16	101.8	Pulse	0.30	3
2	Ge		48,276.72	0.49	100.6	Pulse	0.30	3
2	Ge		72,774.64	1.22	101.0	Pulse	0.30	3
2	Rh		1,430,010.95	0.26	100.4	Pulse	0.30	3
2	In		410,499.83	0.60	101.6	Pulse	0.30	3
2	Tb		1,658,099.62	0.97	100.5	Pulse	0.30	3
2	Ho		166,668.83	1.08	100.5	Pulse	0.30	3
2	Bi		1,097,822.53	0.33	100.7	Pulse	0.30	3
3	Sc		126,515.46	1.84	100.4	Pulse	0.30	3
3	Ge		81,009.41	1.18	100.4	Pulse	0.30	3
3	Ge		122,975.35	0.16	100.4	Pulse	0.30	3
3	Rh		1,475,322.72	0.24	99.8	Pulse	0.30	3
3	Tb		2,142,268.53	1.13	100.5	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 11:19
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.988	ug/l	1.79	44,926.94	1.965E-02	Pulse	0.25	3
B			1	5.459	ug/l	3.00	41,098.98	1.798E-02	Pulse	0.15	3
Ca			1	23.437	ug/l	5.59	33,053.73	1.095E-02	Pulse	0.10	3
Sr			1	4.977	ug/l	0.53	227,131.67	6.556E-02	Pulse	0.10	3
Mo			1	4.841	ug/l	1.35	42,357.53	1.223E-02	Pulse	0.10	3
Ag			1	4.968	ug/l	2.02	103,258.88	3.037E-02	Pulse	0.10	3
Sn			1	4.845	ug/l	1.04	65,071.81	1.913E-02	Pulse	0.10	3
Sb			1	5.154	ug/l	3.03	77,119.89	1.730E-02	Pulse	0.10	3
Ba			1	4.970	ug/l	3.44	30,153.31	6.765E-03	Pulse	0.10	3
Tl			1	4.806	ug/l	0.48	158,455.88	6.297E-02	Pulse	0.10	3
Pb			1	4.887	ug/l	1.97	55,451.86	2.204E-02	Pulse	0.10	3
Pb			1	4.917	ug/l	3.04	49,356.91	1.962E-02	Pulse	0.10	3
Pb			1	4.897	ug/l	1.11	225,469.95	8.962E-02	Pulse	0.10	3
Na			2	10.080	ug/l	4.74	14,037.06	1.678E-01	Pulse	0.30	3
Mg			2	6.394	ug/l	4.52	2,714.70	3.244E-02	Pulse	0.30	3
Al			2	7.388	ug/l	2.39	964.48	1.153E-02	Pulse	0.30	3
K			2	6.892	ug/l	16.20	8,218.77	9.824E-02	Pulse	0.30	3
Ca			2	47.874	ug/l	8.76	658.91	7.880E-03	Pulse	0.30	3
Ti			2	4.625	ug/l	9.45	501.13	5.984E-03	Pulse	0.30	3
V			2	4.933	ug/l	1.15	18,549.42	2.216E-01	Pulse	0.30	3
Cr			2	5.032	ug/l	4.28	24,861.07	2.972E-01	Pulse	0.30	3
Mn			2	4.951	ug/l	4.18	10,942.62	1.308E-01	Pulse	0.30	3
Fe			2	6.461	ug/l	1.92	25,514.30	3.049E-01	Pulse	0.30	3
Co			2	4.935	ug/l	2.48	40,625.67	4.855E-01	Pulse	0.30	3
Ni			2	5.071	ug/l	4.31	11,589.75	1.385E-01	Pulse	0.30	3
Cu			2	5.249	ug/l	1.99	34,296.91	4.099E-01	Pulse	0.30	3
Zn			2	5.890	ug/l	2.11	4,799.65	5.735E-02	Pulse	0.30	3
As			2	5.012	ug/l	3.38	2,044.47	2.443E-02	Pulse	1.00	3
Cd			2	5.117	ug/l	1.65	5,542.33	1.343E-02	Pulse	0.30	3
Sn			2	4.892	ug/l	1.53	10,768.21	2.610E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	5.117	ug/l	3.06	599.21	4.879E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,286,390.79	2.15	100.0	Pulse	0.10	3
1	Sc		3,020,226.52	0.77	100.3	Pulse	0.10	3
1	Ge		555,127.82	2.32	100.5	Pulse	0.10	3
1	Ge		768,290.80	1.94	100.7	Pulse	0.10	3
1	Rh		3,464,289.53	1.32	100.6	Pulse	0.10	3
1	In		3,401,149.44	1.66	100.6	Pulse	0.10	3
1	Tb		4,457,989.83	1.49	101.0	Pulse	0.10	3
1	Ho		436,193.17	0.83	101.5	Pulse	0.10	3
1	Bi		2,516,238.50	1.67	101.2	Pulse	0.10	3
2	Sc		83,693.21	1.67	101.0	Pulse	0.30	3
2	Ge		48,700.26	0.51	101.5	Pulse	0.30	3
2	Ge		73,029.19	1.74	101.3	Pulse	0.30	3
2	Rh		1,440,565.22	0.29	101.1	Pulse	0.30	3
2	In		412,560.83	0.42	102.2	Pulse	0.30	3
2	Tb		1,652,568.65	0.60	100.1	Pulse	0.30	3
2	Ho		165,793.14	0.62	100.0	Pulse	0.30	3
2	Bi		1,102,808.88	0.88	101.1	Pulse	0.30	3
3	Sc		126,512.30	0.38	100.4	Pulse	0.30	3
3	Ge		81,247.25	0.54	100.7	Pulse	0.30	3
3	Ge		122,807.92	0.66	100.3	Pulse	0.30	3
3	Rh		1,486,547.62	0.38	100.5	Pulse	0.30	3
3	Tb		2,139,579.43	0.30	100.4	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 11:24
Sample Name	STDD
Sample Type	CalStd
Comment	25
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	25.167	ug/l	0.28	226,698.73	9.916E-02	Pulse	0.25	3
B			1	24.465	ug/l	1.02	167,978.98	7.348E-02	Pulse	0.15	3
Ca			1	42.378	ug/l	1.23	51,908.80	1.723E-02	Pulse	0.10	3
Sr			1	25.402	ug/l	0.36	1,153,644.90	3.341E-01	Pulse	0.10	3
Mo			1	25.368	ug/l	0.34	221,044.33	6.402E-02	Pulse	0.10	3
Ag			1	25.474	ug/l	2.19	525,676.14	1.557E-01	Pulse	0.10	3
Sn			1	25.422	ug/l	1.42	323,622.71	9.583E-02	Pulse	0.10	3
Sb			1	25.519	ug/l	0.87	368,352.10	8.359E-02	Pulse	0.10	3
Ba			1	25.426	ug/l	0.31	152,382.78	3.458E-02	Pulse	0.10	3
Tl			1	25.044	ug/l	1.60	812,043.45	3.276E-01	Pulse	0.10	3
Pb			1	25.227	ug/l	1.65	281,502.60	1.135E-01	Pulse	0.10	3
Pb			1	25.042	ug/l	1.28	247,228.70	9.972E-02	Pulse	0.10	3
Pb			1	25.079	ug/l	0.96	1,135,239.59	4.579E-01	Pulse	0.10	3
Na			2	27.174	ug/l	0.92	29,908.71	3.569E-01	Pulse	0.30	3
Mg			2	25.788	ug/l	2.64	10,810.24	1.290E-01	Pulse	0.30	3
Al			2	27.494	ug/l	3.81	3,464.85	4.134E-02	Pulse	0.30	3
K			2	25.989	ug/l	6.24	12,869.50	1.536E-01	Pulse	0.30	3
Ca			2	169.861	ug/l	3.26	2,259.07	2.696E-02	Pulse	0.30	3
Ti			2	25.182	ug/l	3.39	2,730.26	3.258E-02	Pulse	0.30	3
V			2	25.264	ug/l	1.07	94,603.25	1.129E+00	Pulse	0.30	3
Cr			2	25.123	ug/l	0.93	123,235.63	1.471E+00	Pulse	0.30	3
Mn			2	25.413	ug/l	0.58	56,133.82	6.699E-01	Pulse	0.30	3
Fe			2	31.684	ug/l	0.18	119,488.36	1.426E+00	Pulse	0.30	3
Co			2	25.271	ug/l	0.84	208,180.21	2.484E+00	Pulse	0.30	3
Ni			2	25.455	ug/l	0.48	58,110.97	6.934E-01	Pulse	0.30	3
Cu			2	25.235	ug/l	0.45	161,320.77	1.925E+00	Pulse	0.30	3
Zn			2	25.078	ug/l	0.92	19,706.42	2.352E-01	Pulse	0.30	3
As			2	25.382	ug/l	0.52	10,346.63	1.235E-01	Pulse	1.00	3
Cd			2	25.825	ug/l	2.54	27,835.38	6.777E-02	Pulse	0.30	3
Sn			2	25.255	ug/l	2.22	52,905.08	1.288E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	26.256	ug/l	1.90	3,064.29	2.493E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,286,238.80	1.76	99.9	Pulse	0.10	3
1	Sc		3,013,829.75	1.60	100.1	Pulse	0.10	3
1	Ge		553,354.81	1.42	100.2	Pulse	0.10	3
1	Ge		762,641.11	1.06	100.0	Pulse	0.10	3
1	Rh		3,452,688.80	0.87	100.2	Pulse	0.10	3
1	In		3,377,193.18	0.97	99.9	Pulse	0.10	3
1	Tb		4,406,708.06	1.11	99.8	Pulse	0.10	3
1	Ho		433,429.12	1.48	100.9	Pulse	0.10	3
1	Bi		2,479,581.32	2.04	99.8	Pulse	0.10	3
2	Sc		83,803.58	0.99	101.2	Pulse	0.30	3
2	Ge		48,575.40	1.05	101.2	Pulse	0.30	3
2	Ge		72,574.95	0.56	100.7	Pulse	0.30	3
2	Rh		1,438,455.18	0.38	101.0	Pulse	0.30	3
2	In		410,748.83	1.48	101.7	Pulse	0.30	3
2	Tb		1,654,603.68	0.54	100.3	Pulse	0.30	3
2	Ho		166,370.03	0.50	100.4	Pulse	0.30	3
2	Bi		1,104,601.41	0.63	101.3	Pulse	0.30	3
3	Sc		125,909.39	0.28	99.9	Pulse	0.30	3
3	Ge		80,782.73	1.34	100.2	Pulse	0.30	3
3	Ge		122,934.41	1.24	100.4	Pulse	0.30	3
3	Rh		1,465,892.27	0.66	99.1	Pulse	0.30	3
3	Tb		2,155,623.32	0.93	101.1	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 11:29
Sample Name	STDE
Sample Type	CalStd
Comment	50
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.034	ug/l	0.79	449,218.49	1.971E-01	Pulse	0.25	3
B			1	48.028	ug/l	2.94	324,225.60	1.423E-01	Pulse	0.15	3
Ca			1	77.587	ug/l	1.24	85,720.93	2.890E-02	Pulse	0.10	3
Sr			1	50.236	ug/l	0.15	2,268,274.71	6.607E-01	Pulse	0.10	3
Mo			1	50.640	ug/l	2.03	438,710.21	1.278E-01	Pulse	0.10	3
Ag			1	50.592	ug/l	1.25	1,048,554.88	3.091E-01	Pulse	0.10	3
Sn			1	50.256	ug/l	1.04	639,001.47	1.884E-01	Pulse	0.10	3
Sb			1	50.799	ug/l	1.06	733,950.12	1.659E-01	Pulse	0.10	3
Ba			1	50.437	ug/l	0.51	303,458.88	6.859E-02	Pulse	0.10	3
Tl			1	49.726	ug/l	1.26	1,619,856.90	6.503E-01	Pulse	0.10	3
Pb			1	50.442	ug/l	1.91	565,420.03	2.270E-01	Pulse	0.10	3
Pb			1	50.151	ug/l	1.04	497,342.44	1.996E-01	Pulse	0.10	3
Pb			1	50.164	ug/l	1.10	2,280,891.67	9.156E-01	Pulse	0.10	3
Na			2	51.886	ug/l	1.31	52,771.94	6.303E-01	Pulse	0.30	3
Mg			2	51.009	ug/l	1.87	21,317.97	2.546E-01	Pulse	0.30	3
Al			2	51.792	ug/l	2.15	6,477.99	7.737E-02	Pulse	0.30	3
K			2	49.517	ug/l	0.59	18,567.09	2.218E-01	Pulse	0.30	3
Ca			2	330.779	ug/l	5.29	4,362.85	5.212E-02	Pulse	0.30	3
Ti			2	49.702	ug/l	1.56	5,384.29	6.431E-02	Pulse	0.30	3
V			2	50.097	ug/l	1.25	187,292.80	2.237E+00	Pulse	0.30	3
Cr			2	49.958	ug/l	0.54	244,564.82	2.921E+00	Pulse	0.30	3
Mn			2	50.418	ug/l	0.27	111,231.95	1.329E+00	Pulse	0.30	3
Fe			2	51.385	ug/l	0.59	192,675.71	2.301E+00	Pulse	0.30	3
Co			2	50.146	ug/l	0.55	412,675.86	4.929E+00	Pulse	0.30	3
Ni			2	50.169	ug/l	1.36	114,382.97	1.366E+00	Pulse	0.30	3
Cu			2	49.386	ug/l	1.24	314,420.51	3.756E+00	Pulse	0.30	3
Zn			2	50.093	ug/l	0.86	39,094.33	4.670E-01	Pulse	0.30	3
As			2	50.228	ug/l	0.72	20,451.11	2.443E-01	Pulse	1.00	3
Cd			2	50.896	ug/l	0.86	54,208.85	1.336E-01	Pulse	0.30	3
Sn			2	50.553	ug/l	0.66	104,085.87	2.564E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	51.353	ug/l	0.35	5,938.34	4.874E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,278,730.42	0.19	99.6	Pulse	0.10	3
1	Sc		2,966,480.79	0.95	98.5	Pulse	0.10	3
1	Ge		547,388.66	1.06	99.1	Pulse	0.10	3
1	Ge		761,977.78	1.66	99.9	Pulse	0.10	3
1	Rh		3,433,250.68	0.90	99.7	Pulse	0.10	3
1	In		3,392,319.56	2.01	100.3	Pulse	0.10	3
1	Tb		4,424,505.66	1.07	100.2	Pulse	0.10	3
1	Ho		438,587.26	1.24	102.1	Pulse	0.10	3
1	Bi		2,491,042.15	0.31	100.2	Pulse	0.10	3
2	Sc		83,723.25	0.75	101.1	Pulse	0.30	3
2	Ge		48,309.04	1.81	100.7	Pulse	0.30	3
2	Ge		72,399.75	0.83	100.5	Pulse	0.30	3
2	Rh		1,422,311.40	1.32	99.8	Pulse	0.30	3
2	In		405,886.01	0.77	100.5	Pulse	0.30	3
2	Tb		1,650,047.19	0.39	100.0	Pulse	0.30	3
2	Ho		166,855.55	0.39	100.6	Pulse	0.30	3
2	Bi		1,098,902.11	0.62	100.8	Pulse	0.30	3
3	Sc		125,074.88	0.74	99.3	Pulse	0.30	3
3	Ge		80,243.57	1.61	99.5	Pulse	0.30	3
3	Ge		121,847.50	0.31	99.5	Pulse	0.30	3
3	Rh		1,456,723.45	0.40	98.5	Pulse	0.30	3
3	Tb		2,139,261.51	0.43	100.3	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 11:34
Sample Name STDF
Sample Type CalStd
Comment 100
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	99.432	ug/l	0.26	879,411.73	3.918E-01	Pulse	0.25	3
B			1	95.403	ug/l	0.74	629,934.12	2.806E-01	Pulse	0.15	3
Ca			1	150.009	ug/l	0.22	153,786.26	5.291E-02	Pulse	0.10	3
Sr			1	99.499	ug/l	1.80	4,446,768.27	1.308E+00	Pulse	0.10	3
Mo			1	99.226	ug/l	1.04	850,963.19	2.504E-01	Pulse	0.10	3
Ag			1	99.000	ug/l	0.56	2,042,019.34	6.049E-01	Pulse	0.10	3
Sn			1	99.597	ug/l	0.30	1,256,739.02	3.723E-01	Pulse	0.10	3
Sb			1	99.512	ug/l	0.27	1,436,473.57	3.244E-01	Pulse	0.10	3
Ba			1	99.205	ug/l	0.73	597,244.07	1.349E-01	Pulse	0.10	3
Tl			1	100.136	ug/l	0.30	3,242,181.72	1.309E+00	Pulse	0.10	3
Pb			1	100.159	ug/l	0.68	1,115,924.15	4.506E-01	Pulse	0.10	3
Pb			1	99.888	ug/l	0.86	984,544.15	3.976E-01	Pulse	0.10	3
Pb			1	99.871	ug/l	0.26	4,513,380.19	1.823E+00	Pulse	0.10	3
Na			2	105.695	ug/l	2.33	101,437.58	1.226E+00	Pulse	0.30	3
Mg			2	102.952	ug/l	2.63	42,475.43	5.132E-01	Pulse	0.30	3
Al			2	102.906	ug/l	2.37	12,674.89	1.532E-01	Pulse	0.30	3
K			2	99.477	ug/l	1.11	30,339.82	3.666E-01	Pulse	0.30	3
Ca			2	634.357	ug/l	3.08	8,243.25	9.960E-02	Pulse	0.30	3
Ti			2	100.120	ug/l	0.89	10,722.47	1.295E-01	Pulse	0.30	3
V			2	99.737	ug/l	1.18	368,523.53	4.453E+00	Pulse	0.30	3
Cr			2	99.629	ug/l	1.38	481,879.56	5.822E+00	Pulse	0.30	3
Mn			2	99.690	ug/l	1.65	217,383.27	2.627E+00	Pulse	0.30	3
Fe			2	102.963	ug/l	2.06	380,163.23	4.594E+00	Pulse	0.30	3
Co			2	99.659	ug/l	1.99	810,690.47	9.796E+00	Pulse	0.30	3
Ni			2	99.293	ug/l	1.35	223,758.65	2.704E+00	Pulse	0.30	3
Cu			2	97.843	ug/l	1.66	614,839.75	7.429E+00	Pulse	0.30	3
Zn			2	99.674	ug/l	1.68	76,678.11	9.264E-01	Pulse	0.30	3
As			2	99.391	ug/l	1.00	40,000.05	4.833E-01	Pulse	1.00	3
Cd			2	99.340	ug/l	1.16	105,671.69	2.607E-01	Pulse	0.30	3
Sn			2	99.518	ug/l	0.65	204,106.21	5.035E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	102.518	ug/l	0.59	11,762.95	9.727E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,244,783.15	0.73	98.1	Pulse	0.10	3
1	Sc		2,906,615.79	0.46	96.5	Pulse	0.10	3
1	Ge		538,917.39	0.68	97.6	Pulse	0.10	3
1	Ge		744,556.45	1.03	97.6	Pulse	0.10	3
1	Rh		3,398,914.95	1.18	98.7	Pulse	0.10	3
1	In		3,375,636.00	0.64	99.8	Pulse	0.10	3
1	Tb		4,427,516.81	1.03	100.3	Pulse	0.10	3
1	Ho		434,566.22	2.03	101.1	Pulse	0.10	3
1	Bi		2,476,287.10	0.77	99.6	Pulse	0.10	3
2	Sc		82,775.11	1.37	99.9	Pulse	0.30	3
2	Ge		47,188.14	1.69	98.4	Pulse	0.30	3
2	Ge		71,696.66	1.25	99.5	Pulse	0.30	3
2	Rh		1,411,292.69	0.53	99.1	Pulse	0.30	3
2	In		405,406.01	0.48	100.4	Pulse	0.30	3
2	Tb		1,646,314.76	0.39	99.8	Pulse	0.30	3
2	Ho		164,801.37	0.18	99.4	Pulse	0.30	3
2	Bi		1,101,670.10	0.51	101.0	Pulse	0.30	3
3	Sc		125,286.19	1.20	99.4	Pulse	0.30	3
3	Ge		80,241.31	1.29	99.5	Pulse	0.30	3
3	Ge		120,932.95	0.18	98.8	Pulse	0.30	3
3	Rh		1,460,518.41	0.73	98.8	Pulse	0.30	3
3	Tb		2,117,617.55	0.66	99.3	Pulse	0.30	3

Quantitation Report

File Name 009CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 11:39
Sample Name STDG
Sample Type CalStd
Comment 500MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.024	ug/l	28.93	220.00	9.707E-05	Pulse	0.25	3
B			1	203.009	ug/l	0.83	1,347,819.60	5.948E-01	Pulse	0.15	3
Ca			1	505.906	ug/l	0.56	500,424.63	1.709E-01	Pulse	0.10	3
Sr			1	0.024	ug/l	6.68	1,516.79	4.452E-04	Pulse	0.10	3
Mo			1	0.127	ug/l	6.13	1,130.08	3.318E-04	Pulse	0.10	3
Ag			1	0.022	ug/l	12.09	483.36	1.449E-04	Pulse	0.10	3
Sn			1	0.580	ug/l	3.66	10,814.11	3.238E-03	Pulse	0.10	3
Sb			1	1.011	ug/l	2.93	16,786.09	3.815E-03	Pulse	0.10	3
Ba			1	0.045	ug/l	28.33	300.01	6.833E-05	Pulse	0.10	3
Tl			1	0.044	ug/l	9.67	1,783.52	7.163E-04	Pulse	0.10	3
Pb			1	0.057	ug/l	14.14	776.71	3.120E-04	Pulse	0.10	3
Pb			1	0.052	ug/l	22.44	650.04	2.611E-04	Pulse	0.10	3
Pb			1	0.051	ug/l	9.74	2,963.56	1.190E-03	Pulse	0.10	3
Na			2	493.039	ug/l	0.82	455,990.12	5.511E+00	Pulse	0.30	3
Mg			2	503.285	ug/l	0.35	207,412.40	2.507E+00	Pulse	0.30	3
Al			2	504.266	ug/l	0.74	61,910.76	7.483E-01	Pulse	0.30	3
K			2	495.603	ug/l	0.37	125,326.41	1.515E+00	Pulse	0.30	3
Ca			2	493.928	ug/l	3.95	6,423.54	7.764E-02	Pulse	0.30	3
Ti			2	0.114	ug/l	41.57	12.22	1.476E-04	Pulse	0.30	3
V			2	0.000	ug/l	734.67	123.34	1.492E-03	Pulse	0.30	3
Cr			2	0.037	ug/l	29.08	447.79	5.409E-03	Pulse	0.30	3
Mn			2	0.047	ug/l	42.98	132.22	1.601E-03	Pulse	0.30	3
Fe			2	502.875	ug/l	1.41	1,850,443.89	2.237E+01	Pulse	0.30	3
Co			2	0.039	ug/l	14.55	360.57	4.357E-03	Pulse	0.30	3
Ni			2	0.065	ug/l	29.74	187.78	2.268E-03	Pulse	0.30	3
Cu			2	0.144	ug/l	1.90	1,900.13	2.296E-02	Pulse	0.30	3
Zn			2	0.533	ug/l	17.07	637.80	7.709E-03	Pulse	0.30	3
As			2	0.030	ug/l	27.99	17.33	2.097E-04	Pulse	1.00	3
Cd			2	0.013	ug/l	14.18	17.70	4.343E-05	Pulse	0.30	3
Sn			2	0.688	ug/l	4.81	1,993.48	4.888E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	199.111	ug/l	0.80	23,209.59	1.889E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,265,859.33	0.22	99.1	Pulse	0.10	3
1	Sc		2,928,191.00	0.70	97.3	Pulse	0.10	3
1	Ge		538,825.19	0.54	97.6	Pulse	0.10	3
1	Ge		753,358.53	0.93	98.8	Pulse	0.10	3
1	Rh		3,406,306.93	0.76	98.9	Pulse	0.10	3
1	In		3,340,165.59	1.88	98.8	Pulse	0.10	3
1	Tb		4,399,889.10	1.67	99.6	Pulse	0.10	3
1	Ho		435,306.01	0.73	101.3	Pulse	0.10	3
1	Bi		2,490,959.86	1.16	100.2	Pulse	0.10	3
2	Sc		82,744.03	1.27	99.9	Pulse	0.30	3
2	Ge		48,153.14	0.48	100.4	Pulse	0.30	3
2	Ge		71,856.41	1.20	99.7	Pulse	0.30	3
2	Rh		1,410,239.11	1.43	99.0	Pulse	0.30	3
2	In		407,833.99	1.44	101.0	Pulse	0.30	3
2	Tb		1,645,079.90	0.72	99.7	Pulse	0.30	3
2	Ho		166,689.67	0.96	100.5	Pulse	0.30	3
2	Bi		1,099,823.36	1.54	100.9	Pulse	0.30	3
3	Sc		124,970.14	0.70	99.2	Pulse	0.30	3
3	Ge		80,537.41	1.25	99.9	Pulse	0.30	3
3	Ge		122,881.52	1.63	100.4	Pulse	0.30	3
3	Rh		1,468,849.94	1.39	99.3	Pulse	0.30	3
3	Tb		2,154,641.72	1.25	101.1	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 11:44
Sample Name	STDH
Sample Type	CalStd
Comment	1000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	35.78	57.33	2.495E-05	Pulse	0.25	3
B			1	9.027	ug/l	2.83	65,256.01	2.840E-02	Pulse	0.15	3
Ca			1	985.763	ug/l	1.39	991,151.70	3.300E-01	Pulse	0.10	3
Sr			1	0.012	ug/l	33.09	986.74	2.853E-04	Pulse	0.10	3
Mo			1	0.045	ug/l	0.86	430.03	1.243E-04	Pulse	0.10	3
Ag			1	0.004	ug/l	43.33	116.67	3.419E-05	Pulse	0.10	3
Sn			1	0.418	ug/l	4.59	8,999.55	2.633E-03	Pulse	0.10	3
Sb			1	0.419	ug/l	7.45	8,359.23	1.889E-03	Pulse	0.10	3
Ba			1	0.029	ug/l	25.64	210.01	4.752E-05	Pulse	0.10	3
Tl			1	0.009	ug/l	22.49	643.37	2.584E-04	Pulse	0.10	3
Pb			1	0.042	ug/l	16.52	616.70	2.476E-04	Pulse	0.10	3
Pb			1	0.032	ug/l	27.16	446.69	1.794E-04	Pulse	0.10	3
Pb			1	0.032	ug/l	8.59	2,130.14	8.557E-04	Pulse	0.10	3
Na			2	972.999	ug/l	1.07	922,836.42	1.082E+01	Pulse	0.30	3
Mg			2	992.993	ug/l	1.55	421,695.16	4.945E+00	Pulse	0.30	3
Al			2	1005.755	ug/l	1.03	127,219.74	1.492E+00	Pulse	0.30	3
K			2	994.561	ug/l	1.04	252,480.92	2.961E+00	Pulse	0.30	3
Ca			2	972.377	ug/l	1.95	13,000.77	1.525E-01	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00		Pulse	0.30	3
V			2	-0.011	ug/l	-23.07	83.33	9.779E-04	Pulse	0.30	3
Cr			2	0.027	ug/l	36.03	406.68	4.772E-03	Pulse	0.30	3
Mn			2	0.041	ug/l	24.93	124.45	1.461E-03	Pulse	0.30	3
Fe			2	990.737	ug/l	0.22	3,756,545.41	4.405E+01	Pulse	0.30	3
Co			2	0.046	ug/l	20.32	426.54	4.996E-03	Pulse	0.30	3
Ni			2	0.065	ug/l	31.87	193.34	2.264E-03	Pulse	0.30	3
Cu			2	0.091	ug/l	12.02	1,614.54	1.893E-02	Pulse	0.30	3
Zn			2	0.442	ug/l	17.97	585.57	6.864E-03	Pulse	0.30	3
As			2	0.021	ug/l	68.19	14.33	1.685E-04	Pulse	1.00	3
Cd			2	0.009	ug/l	33.75	13.31	3.182E-05	Pulse	0.30	3
Sn			2	0.474	ug/l	5.24	1,594.55	3.813E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	395.844	ug/l	0.65	46,926.62	3.755E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,297,686.27	0.89	100.4	Pulse	0.10	3
1	Sc		3,003,858.08	1.23	99.8	Pulse	0.10	3
1	Ge		550,174.20	0.90	99.6	Pulse	0.10	3
1	Ge		773,371.34	0.90	101.4	Pulse	0.10	3
1	Rh		3,460,516.72	0.78	100.5	Pulse	0.10	3
1	In		3,417,980.44	0.92	101.1	Pulse	0.10	3
1	Tb		4,424,123.48	0.78	100.2	Pulse	0.10	3
1	Ho		438,041.70	2.08	102.0	Pulse	0.10	3
1	Bi		2,490,379.75	1.47	100.2	Pulse	0.10	3
2	Sc		85,284.24	1.09	103.0	Pulse	0.30	3
2	Ge		49,362.10	0.33	102.9	Pulse	0.30	3
2	Ge		73,396.51	0.70	101.8	Pulse	0.30	3
2	Rh		1,433,289.25	1.10	100.6	Pulse	0.30	3
2	In		418,247.39	0.25	103.6	Pulse	0.30	3
2	Tb		1,678,037.92	0.70	101.7	Pulse	0.30	3
2	Ho		168,648.33	0.51	101.7	Pulse	0.30	3
2	Bi		1,106,032.32	0.40	101.4	Pulse	0.30	3
3	Sc		126,309.35	1.04	100.3	Pulse	0.30	3
3	Ge		81,295.59	0.62	100.8	Pulse	0.30	3
3	Ge		124,973.90	0.90	102.1	Pulse	0.30	3
3	Rh		1,469,357.41	0.21	99.4	Pulse	0.30	3
3	Tb		2,144,686.51	0.67	100.6	Pulse	0.30	3

Quantitation Report

File Name 011CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 11:50
Sample Name STDI
Sample Type CalStd
Comment 5000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	63.62	40.00	1.738E-05	Pulse	0.25	3
B			1	6.307	ug/l	2.26	47,018.70	2.046E-02	Pulse	0.15	3
Ca			1	4889.312	ug/l	0.96	4,991,225.66	1.624E+00	Pulse	0.10	3
Sr			1	0.048	ug/l	6.97	2,583.63	7.626E-04	Pulse	0.10	3
Mo			1	0.029	ug/l	11.26	286.68	8.456E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	40.51	103.34	3.046E-05	Pulse	0.10	3
Sn			1	0.424	ug/l	3.06	8,986.24	2.654E-03	Pulse	0.10	3
Sb			1	0.346	ug/l	5.88	7,358.68	1.651E-03	Pulse	0.10	3
Ba			1	0.051	ug/l	7.32	340.02	7.632E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	17.18	506.70	2.067E-04	Pulse	0.10	3
Pb			1	0.028	ug/l	16.91	446.69	1.821E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	5.64	416.69	1.700E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	16.64	1,936.79	7.898E-04	Pulse	0.10	3
Na			2	4864.869	ug/l	0.92	4,651,733.57	5.388E+01	Pulse	0.30	3
Mg			2	4962.562	ug/l	0.49	2,133,501.10	2.471E+01	Pulse	0.30	3
Al			2	4990.017	ug/l	0.21	638,839.68	7.399E+00	Pulse	0.30	3
K			2	4979.084	ug/l	1.17	1,252,539.57	1.451E+01	Pulse	0.30	3
Ca			2	4844.956	ug/l	1.39	65,456.72	7.581E-01	Pulse	0.30	3
Ti			2	0.030	ug/l	100.58	3.33	3.856E-05	Pulse	0.30	3
V			2	0.000	ug/l	-1526.67	125.56	1.455E-03	Pulse	0.30	3
Cr			2	0.050	ug/l	28.44	527.79	6.116E-03	Pulse	0.30	3
Mn			2	0.095	ug/l	14.32	248.89	2.884E-03	Pulse	0.30	3
Fe			2	5013.569	ug/l	0.84	19,237,627.01	2.228E+02	Analog	0.30	3
Co			2	0.224	ug/l	5.45	1,945.98	2.255E-02	Pulse	0.30	3
Ni			2	0.206	ug/l	11.74	525.57	6.092E-03	Pulse	0.30	3
Cu			2	0.105	ug/l	13.92	1,726.78	2.001E-02	Pulse	0.30	3
Zn			2	0.859	ug/l	3.91	926.70	1.073E-02	Pulse	0.30	3
As			2	0.025	ug/l	53.04	16.33	1.888E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	199.94	4.42	1.054E-05	Pulse	0.30	3
Sn			2	0.448	ug/l	8.16	1,542.31	3.680E-03	Pulse	0.30	3
Se			3	0.187	ug/l	5.12	24.67	2.019E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,298,746.04	1.66	100.5	Pulse	0.10	3
1	Sc		3,073,222.45	0.88	102.1	Pulse	0.10	3
1	Ge		554,220.25	1.07	100.4	Pulse	0.10	3

Quantitation Report

1	Ge		763,469.52	1.71	100.1	Pulse	0.10	3
1	Rh		3,388,236.82	1.25	98.4	Pulse	0.10	3
1	In		3,385,569.39	1.07	100.1	Pulse	0.10	3
1	Tb		4,456,584.62	0.78	100.9	Pulse	0.10	3
1	Ho		440,837.05	1.75	102.6	Pulse	0.10	3
1	Bi		2,451,097.25	0.77	98.6	Pulse	0.10	3
2	Sc		86,338.58	1.03	104.2	Pulse	0.30	3
2	Ge		49,033.45	1.12	102.2	Pulse	0.30	3
2	Ge		74,239.22	1.05	103.0	Pulse	0.30	3
2	Rh		1,426,710.12	0.52	100.1	Pulse	0.30	3
2	In		419,124.78	0.73	103.8	Pulse	0.30	3
2	Tb		1,693,941.43	0.68	102.6	Pulse	0.30	3
2	Ho		169,829.56	0.52	102.4	Pulse	0.30	3
2	Bi		1,088,718.08	0.93	99.8	Pulse	0.30	3
3	Sc		128,215.84	1.17	101.8	Pulse	0.30	3
3	Ge		80,944.89	0.89	100.4	Pulse	0.30	3
3	Ge		122,163.23	0.99	99.8	Pulse	0.30	3
3	Rh		1,444,719.77	0.87	97.7	Pulse	0.30	3
3	Tb		2,127,280.89	0.83	99.8	Pulse	0.30	3

Quantitation Report

File Name 012CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 11:54
Sample Name STDJ
Sample Type CalStd
Comment 10000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	25.29	29.33	1.269E-05	Pulse	0.25	3
B			1	5.043	ug/l	0.99	38,686.58	1.677E-02	Pulse	0.15	3
Ca			1	10056.335	ug/l	0.45	10,132,077.97	3.337E+00	Analog	0.10	3
Sr			1	0.091	ug/l	2.21	4,470.79	1.324E-03	Pulse	0.10	3
Mo			1	0.036	ug/l	12.90	350.02	1.038E-04	Pulse	0.10	3
Ag			1	0.004	ug/l	45.70	100.00	2.987E-05	Pulse	0.10	3
Sn			1	0.271	ug/l	10.44	6,968.48	2.087E-03	Pulse	0.10	3
Sb			1	0.285	ug/l	8.36	6,438.20	1.451E-03	Pulse	0.10	3
Ba			1	0.042	ug/l	10.57	286.68	6.462E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	67.40	523.36	2.210E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	9.03	350.02	1.480E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	26.75	373.36	1.579E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	9.21	1,443.42	6.099E-04	Pulse	0.10	3
Na			2	10070.665	ug/l	1.52	9,685,172.39	1.115E+02	Analog	0.30	3
Mg			2	10035.073	ug/l	0.97	4,341,476.36	4.997E+01	Pulse	0.30	3
Al			2	10161.595	ug/l	1.04	1,309,069.98	1.507E+01	Pulse	0.30	3
K			2	10028.813	ug/l	0.73	2,532,068.37	2.914E+01	Pulse	0.30	3
Ca			2	9897.845	ug/l	1.49	134,520.07	1.548E+00	Pulse	0.30	3
Ti			2	0.010	ug/l	173.21	1.11	1.272E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-311.90	121.11	1.393E-03	Pulse	0.30	3
Cr			2	0.066	ug/l	19.37	612.24	7.050E-03	Pulse	0.30	3
Mn			2	0.160	ug/l	3.09	400.01	4.603E-03	Pulse	0.30	3
Fe			2	10016.184	ug/l	1.53	38,673,894.02	4.451E+02	Analog	0.30	3
Co			2	0.461	ug/l	0.85	3,978.36	4.579E-02	Pulse	0.30	3
Ni			2	0.377	ug/l	10.78	935.59	1.077E-02	Pulse	0.30	3
Cu			2	0.327	ug/l	6.17	3,195.91	3.679E-02	Pulse	0.30	3
Zn			2	0.946	ug/l	11.48	1,002.26	1.154E-02	Pulse	0.30	3
As			2	0.058	ug/l	22.96	30.00	3.454E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	-3864.68	3.31	8.056E-06	Pulse	0.30	3
Sn			2	0.257	ug/l	7.82	1,117.83	2.716E-03	Pulse	0.30	3
Se			3	0.069	ug/l	4.97	10.87	8.976E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,307,320.02	1.74	100.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,036,118.08	0.94	100.8	Pulse	0.10	3
1	Ge		550,514.73	0.25	99.7	Pulse	0.10	3
1	Ge		762,861.66	1.60	100.0	Pulse	0.10	3
1	Rh		3,376,516.51	2.13	98.0	Pulse	0.10	3
1	In		3,340,493.20	1.05	98.8	Pulse	0.10	3
1	Tb		4,435,023.17	1.73	100.4	Pulse	0.10	3
1	Ho		436,523.82	1.49	101.6	Pulse	0.10	3
1	Bi		2,366,088.35	0.68	95.2	Pulse	0.10	3
2	Sc		86,886.11	0.82	104.9	Pulse	0.30	3
2	Ge		48,684.65	1.68	101.5	Pulse	0.30	3
2	Ge		73,468.94	1.26	101.9	Pulse	0.30	3
2	Rh		1,402,325.64	0.15	98.4	Pulse	0.30	3
2	In		411,594.97	0.32	101.9	Pulse	0.30	3
2	Tb		1,681,734.69	0.36	101.9	Pulse	0.30	3
2	Ho		169,409.47	0.25	102.2	Pulse	0.30	3
2	Bi		1,070,374.33	0.78	98.2	Pulse	0.30	3
3	Sc		126,198.71	0.12	100.2	Pulse	0.30	3
3	Ge		80,904.65	0.46	100.3	Pulse	0.30	3
3	Ge		121,090.83	1.08	98.9	Pulse	0.30	3
3	Rh		1,407,765.50	0.53	95.2	Pulse	0.30	3
3	Tb		2,107,461.65	0.74	98.8	Pulse	0.30	3

Quantitation Report

File Name	013SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 11:59
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	18.22	18.67	8.113E-06	Pulse	0.25	3
B			1	3.389	ug/l	0.74	27,442.52	1.193E-02	Pulse	0.15	3
Ca			1	2.060	ug/l	33.57	11,808.00	3.858E-03	Pulse	0.10	3
Sr			1	0.003	ug/l	26.99	593.37	1.675E-04	Pulse	0.10	3
Mo			1	0.003	ug/l	142.96	66.67	1.884E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	80.55	40.00	1.151E-05	Pulse	0.10	3
Sn			1	0.024	ug/l	38.33	4,044.00	1.164E-03	Pulse	0.10	3
Sb			1	0.063	ug/l	3.42	3,250.45	7.302E-04	Pulse	0.10	3
Ba			1	-0.001	ug/l	-297.48	30.00	6.732E-06	Pulse	0.10	3
Tl			1	0.003	ug/l	66.19	450.02	1.794E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	7.03	246.68	9.841E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	94.69	196.68	7.854E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	19.34	893.38	3.563E-04	Pulse	0.10	3
Na			2	1.155	ug/l	8.79	5,993.35	6.902E-02	Pulse	0.30	3
Mg			2	1.173	ug/l	14.63	558.91	6.442E-03	Pulse	0.30	3
Al			2	0.968	ug/l	6.01	174.45	2.008E-03	Pulse	0.30	3
K			2	1.035	ug/l	87.01	7,054.88	8.126E-02	Pulse	0.30	3
Ca			2	2.490	ug/l	60.62	67.78	7.824E-04	Pulse	0.30	3
Ti			2	0.020	ug/l	173.21	2.22	2.549E-05	Pulse	0.30	3
V			2	0.000	ug/l	6096.05	127.78	1.471E-03	Pulse	0.30	3
Cr			2	0.002	ug/l	105.41	290.01	3.338E-03	Pulse	0.30	3
Mn			2	0.013	ug/l	17.03	63.33	7.290E-04	Pulse	0.30	3
Fe			2	1.304	ug/l	9.08	6,574.71	7.574E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-97.51	37.76	4.349E-04	Pulse	0.30	3
Ni			2	0.004	ug/l	239.08	52.22	6.036E-04	Pulse	0.30	3
Cu			2	0.012	ug/l	65.43	1,122.28	1.292E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.033	ug/l	-84.50	214.45	2.470E-03	Pulse	0.30	3
As			2	-0.006	ug/l	-74.02	3.00	3.436E-05	Pulse	1.00	3
Cd			2	-0.001	ug/l	-145.84	2.21	5.186E-06	Pulse	0.30	3
Sn			2	0.023	ug/l	101.66	653.36	1.534E-03	Pulse	0.30	3
Se			3	0.035	ug/l	18.79	7.27	5.814E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,299,549.39	0.89	100.5	Pulse	0.10	3
1	Sc		3,058,825.89	1.60	101.6	Pulse	0.10	3
1	Ge		560,973.97	0.84	101.6	Pulse	0.10	3
1	Ge		772,745.22	0.95	101.3	Pulse	0.10	3
1	Rh		3,545,443.59	1.49	102.9	Pulse	0.10	3
1	In		3,475,991.78	1.94	102.8	Pulse	0.10	3
1	Tb		4,451,500.04	0.51	100.8	Pulse	0.10	3
1	Ho		438,116.18	0.46	102.0	Pulse	0.10	3
1	Bi		2,506,890.85	0.69	100.9	Pulse	0.10	3
2	Sc		86,840.56	1.29	104.8	Pulse	0.30	3
2	Ge		50,484.56	0.93	105.2	Pulse	0.30	3
2	Ge		74,925.66	0.95	104.0	Pulse	0.30	3
2	Rh		1,466,921.26	0.37	103.0	Pulse	0.30	3
2	In		425,756.18	0.44	105.4	Pulse	0.30	3
2	Tb		1,688,219.20	0.30	102.3	Pulse	0.30	3
2	Ho		168,885.50	1.12	101.9	Pulse	0.30	3
2	Bi		1,126,003.74	0.63	103.3	Pulse	0.30	3
3	Sc		128,669.36	0.14	102.1	Pulse	0.30	3
3	Ge		83,171.32	1.11	103.1	Pulse	0.30	3
3	Ge		125,040.15	1.13	102.1	Pulse	0.30	3
3	Rh		1,495,182.96	0.96	101.1	Pulse	0.30	3
3	Tb		2,158,433.73	0.78	101.2	Pulse	0.30	3

Quantitation Report

File Name 014_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 12:05
Sample Name ICVA
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	60.414	ug/l	1.42	544,930.39	2.380E-01	Pulse	0.25	3
B			1	119.329	ug/l	1.63	802,478.10	3.505E-01	Pulse	0.15	3
Ca			1	5539.626	ug/l	0.50	5,530,552.62	1.840E+00	Analog	0.10	3
Sr			1	61.207	ug/l	0.88	2,733,529.33	8.049E-01	Pulse	0.10	3
Mo			1	59.255	ug/l	0.54	507,796.65	1.495E-01	Pulse	0.10	3
Ag			1	60.053	ug/l	0.96	1,229,275.06	3.670E-01	Pulse	0.10	3
Sn			1	60.667	ug/l	1.40	761,132.26	2.272E-01	Pulse	0.10	3
Sb			1	64.387	ug/l	1.01	931,363.87	2.101E-01	Pulse	0.10	3
Ba			1	61.714	ug/l	0.53	372,010.31	8.392E-02	Pulse	0.10	3
Tl			1	63.703	ug/l	1.09	2,043,229.92	8.330E-01	Pulse	0.10	3
Pb			1	63.054	ug/l	1.08	695,934.05	2.837E-01	Pulse	0.10	3
Pb			1	59.221	ug/l	1.30	578,210.76	2.357E-01	Pulse	0.10	3
Pb			1	60.850	ug/l	1.09	2,724,147.55	1.111E+00	Pulse	0.10	3
Na			2	5424.880	ug/l	0.35	5,029,876.05	6.008E+01	Mix	0.30	3
Mg			2	5523.365	ug/l	0.76	2,302,651.65	2.750E+01	Pulse	0.30	3
Al			2	5668.682	ug/l	1.22	703,729.85	8.406E+00	Pulse	0.30	3
K			2	5475.881	ug/l	1.09	1,335,182.03	1.595E+01	Pulse	0.30	3
Ca			2	5728.906	ug/l	1.78	75,048.98	8.963E-01	Pulse	0.30	3
Ti			2	57.276	ug/l	1.64	6,204.57	7.411E-02	Pulse	0.30	3
V			2	62.716	ug/l	1.04	234,438.07	2.800E+00	Pulse	0.30	3
Cr			2	61.534	ug/l	1.33	301,147.11	3.597E+00	Pulse	0.30	3
Mn			2	62.128	ug/l	1.10	137,050.85	1.637E+00	Pulse	0.30	3
Fe			2	5621.181	ug/l	2.55	20,913,164.73	2.498E+02	Analog	0.30	3
Co			2	60.914	ug/l	0.88	501,271.12	5.988E+00	Pulse	0.30	3
Ni			2	60.832	ug/l	1.01	138,686.25	1.657E+00	Pulse	0.30	3
Cu			2	59.301	ug/l	0.74	377,347.16	4.507E+00	Pulse	0.30	3
Zn			2	64.633	ug/l	2.24	50,370.39	6.017E-01	Pulse	0.30	3
As			2	63.651	ug/l	1.12	25,912.50	3.095E-01	Pulse	1.00	3
Cd			2	60.855	ug/l	0.61	65,548.73	1.597E-01	Pulse	0.30	3
Sn			2	60.779	ug/l	1.38	126,437.65	3.080E-01	Pulse	0.30	3
Se			3	265.636	ug/l	0.38	30,797.51	2.520E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,289,443.20	1.01	100.1	Pulse	0.10	3
1	Sc		3,006,058.50	0.52	99.8	Pulse	0.10	3
1	Ge		555,366.64	1.14	100.6	Pulse	0.10	3

Quantitation Report

1	Ge		773,786.29	1.38	101.5	Pulse	0.10	3
1	Rh		3,395,990.78	0.61	98.6	Pulse	0.10	3
1	In		3,350,239.70	1.57	99.1	Pulse	0.10	3
1	Tb		4,432,692.23	0.62	100.4	Pulse	0.10	3
1	Ho		441,130.25	1.37	102.7	Pulse	0.10	3
1	Bi		2,452,861.63	0.97	98.7	Pulse	0.10	3
2	Sc		83,723.30	1.00	101.1	Pulse	0.30	3
2	Ge		48,645.52	0.02	101.4	Pulse	0.30	3
2	Ge		72,558.25	0.60	100.7	Pulse	0.30	3
2	Rh		1,409,695.36	0.55	98.9	Pulse	0.30	3
2	In		410,490.12	0.76	101.6	Pulse	0.30	3
2	Tb		1,670,651.04	0.88	101.2	Pulse	0.30	3
2	Ho		167,766.48	0.78	101.2	Pulse	0.30	3
2	Bi		1,083,333.99	0.74	99.4	Pulse	0.30	3
3	Sc		125,457.56	0.62	99.6	Pulse	0.30	3
3	Ge		80,507.06	1.35	99.8	Pulse	0.30	3
3	Ge		122,214.58	0.20	99.8	Pulse	0.30	3
3	Rh		1,421,863.14	0.24	96.1	Pulse	0.30	3
3	Tb		2,114,254.22	0.36	99.2	Pulse	0.30	3

Quantitation Report

File Name	015_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 12:09
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	7.55	129.33	5.625E-05	Pulse	0.25	3
B			1	5.668	ug/l	0.28	42,740.66	1.859E-02	Pulse	0.15	3
Ca			1	11.418	ug/l	2.69	20,700.30	6.961E-03	Pulse	0.10	3
Sr			1	0.045	ug/l	10.05	2,513.62	7.224E-04	Pulse	0.10	3
Mo			1	0.117	ug/l	3.84	1,070.08	3.073E-04	Pulse	0.10	3
Ag			1	0.026	ug/l	15.56	566.70	1.658E-04	Pulse	0.10	3
Sn			1	0.109	ug/l	18.89	5,060.99	1.482E-03	Pulse	0.10	3
Sb			1	0.113	ug/l	14.55	3,957.31	8.912E-04	Pulse	0.10	3
Ba			1	0.021	ug/l	62.84	160.01	3.606E-05	Pulse	0.10	3
Tl			1	0.028	ug/l	20.86	1,283.43	5.112E-04	Pulse	0.10	3
Pb			1	0.034	ug/l	19.33	523.36	2.086E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	8.44	423.35	1.686E-04	Pulse	0.10	3
Pb			1	0.030	ug/l	7.50	2,026.79	8.075E-04	Pulse	0.10	3
Na			2	4.778	ug/l	2.17	9,343.78	1.091E-01	Pulse	0.30	3
Mg			2	2.717	ug/l	8.47	1,210.06	1.413E-02	Pulse	0.30	3
Al			2	65.446	ug/l	1.07	8,358.81	9.761E-02	Pulse	0.30	3
K			2	4.056	ug/l	21.21	7,707.42	9.002E-02	Pulse	0.30	3
Ca			2	13.248	ug/l	6.53	211.11	2.465E-03	Pulse	0.30	3
Ti			2	0.101	ug/l	35.35	11.11	1.301E-04	Pulse	0.30	3
V			2	-0.005	ug/l	-150.62	106.67	1.246E-03	Pulse	0.30	3
Cr			2	0.050	ug/l	17.13	524.46	6.121E-03	Pulse	0.30	3
Mn			2	0.038	ug/l	34.90	118.89	1.387E-03	Pulse	0.30	3
Fe			2	4.072	ug/l	1.19	17,020.11	1.987E-01	Pulse	0.30	3
Co			2	0.006	ug/l	49.64	93.28	1.090E-03	Pulse	0.30	3
Ni			2	0.032	ug/l	54.15	116.67	1.366E-03	Pulse	0.30	3
Cu			2	0.178	ug/l	2.21	2,185.73	2.553E-02	Pulse	0.30	3
Zn			2	1.588	ug/l	3.76	1,497.86	1.749E-02	Pulse	0.30	3
As			2	0.132	ug/l	9.61	60.33	7.044E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.008	ug/l	45.62	12.16	2.906E-05	Pulse	0.30	3
Sn			2	0.166	ug/l	22.74	945.60	2.256E-03	Pulse	0.30	3
Se			3	0.145	ug/l	4.79	20.13	1.617E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,299,084.97	0.16	100.5	Pulse	0.10	3
1	Sc		2,974,013.60	0.67	98.8	Pulse	0.10	3
1	Ge		550,938.57	0.36	99.8	Pulse	0.10	3
1	Ge		764,233.09	0.69	100.2	Pulse	0.10	3
1	Rh		3,481,718.18	1.09	101.1	Pulse	0.10	3
1	In		3,414,510.58	1.49	101.0	Pulse	0.10	3
1	Tb		4,439,884.10	0.69	100.5	Pulse	0.10	3
1	Ho		437,841.44	1.45	101.9	Pulse	0.10	3
1	Bi		2,510,404.08	0.46	101.0	Pulse	0.10	3
2	Sc		85,636.25	1.04	103.4	Pulse	0.30	3
2	Ge		49,276.41	1.18	102.7	Pulse	0.30	3
2	Ge		73,956.68	1.22	102.6	Pulse	0.30	3
2	Rh		1,447,002.79	0.61	101.6	Pulse	0.30	3
2	In		419,067.41	0.81	103.8	Pulse	0.30	3
2	Tb		1,675,066.08	0.42	101.5	Pulse	0.30	3
2	Ho		168,236.77	0.58	101.5	Pulse	0.30	3
2	Bi		1,118,620.79	0.54	102.6	Pulse	0.30	3
3	Sc		127,875.39	1.22	101.5	Pulse	0.30	3
3	Ge		82,056.87	0.87	101.7	Pulse	0.30	3
3	Ge		124,494.08	0.11	101.7	Pulse	0.30	3
3	Rh		1,495,678.52	0.56	101.1	Pulse	0.30	3
3	Tb		2,159,618.18	0.75	101.3	Pulse	0.30	3

Quantitation Report

File Name	016_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 12:19
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	55.14	25.33	1.097E-05	Pulse	0.25	3
B			1	3.215	ug/l	2.36	26,438.72	1.143E-02	Pulse	0.15	3
Ca			1	-0.436	ug/l	-83.29	9,282.92	3.031E-03	Pulse	0.10	3
Sr			1	0.002	ug/l	115.48	540.03	1.550E-04	Pulse	0.10	3
Mo			1	0.009	ug/l	2.74	120.01	3.438E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	73.03	56.67	1.657E-05	Pulse	0.10	3
Sn			1	0.023	ug/l	44.85	3,983.98	1.162E-03	Pulse	0.10	3
Sb			1	0.003	ug/l	249.47	2,370.27	5.348E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	430.93	36.67	8.301E-06	Pulse	0.10	3
Tl			1	0.001	ug/l	186.33	396.69	1.567E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	24.47	250.01	9.877E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	1938.23	136.67	5.405E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	31.96	856.71	3.384E-04	Pulse	0.10	3
Na			2	0.124	ug/l	306.13	5,081.93	5.763E-02	Pulse	0.30	3
Mg			2	0.046	ug/l	62.19	73.33	8.319E-04	Pulse	0.30	3
Al			2	0.064	ug/l	239.74	58.89	6.675E-04	Pulse	0.30	3
K			2	0.312	ug/l	306.41	6,985.97	7.917E-02	Pulse	0.30	3
Ca			2	0.860	ug/l	193.79	46.67	5.275E-04	Pulse	0.30	3
Ti			2	0.019	ug/l	86.60	2.22	2.503E-05	Pulse	0.30	3
V			2	-0.009	ug/l	-26.76	95.56	1.083E-03	Pulse	0.30	3
Cr			2	0.004	ug/l	285.59	305.56	3.459E-03	Pulse	0.30	3
Mn			2	0.004	ug/l	88.92	42.22	4.780E-04	Pulse	0.30	3
Fe			2	0.142	ug/l	6.45	2,126.83	2.410E-02	Pulse	0.30	3
Co			2	0.000	ug/l	402.23	49.99	5.658E-04	Pulse	0.30	3
Ni			2	0.002	ug/l	266.11	47.78	5.413E-04	Pulse	0.30	3
Cu			2	0.011	ug/l	103.22	1,132.28	1.283E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.101	ug/l	-14.15	162.23	1.838E-03	Pulse	0.30	3
As			2	0.000	ug/l	-3002.69	5.67	6.420E-05	Pulse	1.00	3
Cd			2	0.004	ug/l	46.61	7.77	1.822E-05	Pulse	0.30	3
Sn			2	0.054	ug/l	36.05	723.36	1.694E-03	Pulse	0.30	3
Se			3	0.014	ug/l	60.14	4.67	3.770E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,313,630.02	0.85	101.1	Pulse	0.10	3
1	Sc		3,064,451.62	1.62	101.8	Pulse	0.10	3
1	Ge		561,197.22	2.47	101.6	Pulse	0.10	3
1	Ge		773,719.16	1.85	101.4	Pulse	0.10	3
1	Rh		3,491,929.64	1.79	101.4	Pulse	0.10	3
1	In		3,429,110.07	1.19	101.4	Pulse	0.10	3
1	Tb		4,433,885.97	1.61	100.4	Pulse	0.10	3
1	Ho		438,728.80	1.65	102.1	Pulse	0.10	3
1	Bi		2,530,885.59	0.88	101.8	Pulse	0.10	3
2	Sc		88,226.22	0.92	106.5	Pulse	0.30	3
2	Ge		50,189.17	1.04	104.6	Pulse	0.30	3
2	Ge		75,748.16	0.77	105.1	Pulse	0.30	3
2	Rh		1,464,254.87	0.33	102.8	Pulse	0.30	3
2	In		427,019.99	0.76	105.7	Pulse	0.30	3
2	Tb		1,692,216.08	0.55	102.5	Pulse	0.30	3
2	Ho		169,669.12	0.70	102.3	Pulse	0.30	3
2	Bi		1,129,112.84	0.67	103.6	Pulse	0.30	3
3	Sc		128,838.33	1.71	102.3	Pulse	0.30	3
3	Ge		82,617.17	0.28	102.4	Pulse	0.30	3
3	Ge		123,743.77	0.45	101.1	Pulse	0.30	3
3	Rh		1,491,698.00	0.87	100.9	Pulse	0.30	3
3	Tb		2,149,250.61	0.77	100.8	Pulse	0.30	3

Quantitation Report

File Name	017_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 12:24
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.959	ug/l	0.47	455,452.27	2.008E-01	Pulse	0.25	3
B			1	101.190	ug/l	1.56	674,901.26	2.975E-01	Pulse	0.15	3
Ca			1	5024.885	ug/l	0.23	5,010,114.30	1.669E+00	Pulse	0.10	3
Sr			1	51.425	ug/l	0.53	2,303,910.70	6.763E-01	Pulse	0.10	3
Mo			1	51.451	ug/l	1.07	442,306.91	1.298E-01	Pulse	0.10	3
Ag			1	50.648	ug/l	1.32	1,042,595.97	3.095E-01	Pulse	0.10	3
Sn			1	50.607	ug/l	0.92	639,051.30	1.897E-01	Pulse	0.10	3
Sb			1	53.059	ug/l	1.25	767,532.36	1.732E-01	Pulse	0.10	3
Ba			1	50.573	ug/l	0.48	304,681.33	6.877E-02	Pulse	0.10	3
Tl			1	50.679	ug/l	1.43	1,618,415.39	6.627E-01	Pulse	0.10	3
Pb			1	51.023	ug/l	1.44	560,672.45	2.296E-01	Pulse	0.10	3
Pb			1	50.826	ug/l	1.25	494,141.32	2.023E-01	Pulse	0.10	3
Pb			1	50.742	ug/l	0.83	2,261,890.92	9.262E-01	Pulse	0.10	3
Na			2	4906.185	ug/l	0.86	4,646,172.18	5.434E+01	Pulse	0.30	3
Mg			2	5011.598	ug/l	0.48	2,133,757.55	2.496E+01	Pulse	0.30	3
Al			2	5052.608	ug/l	0.84	640,563.24	7.492E+00	Pulse	0.30	3
K			2	5051.161	ug/l	1.06	1,258,267.59	1.472E+01	Pulse	0.30	3
Ca			2	5194.635	ug/l	1.22	69,489.57	8.128E-01	Pulse	0.30	3
Ti			2	51.337	ug/l	2.02	5,679.94	6.643E-02	Pulse	0.30	3
V			2	50.410	ug/l	0.77	192,469.18	2.251E+00	Pulse	0.30	3
Cr			2	49.875	ug/l	1.37	249,334.68	2.916E+00	Pulse	0.30	3
Mn			2	50.431	ug/l	1.81	113,619.13	1.329E+00	Pulse	0.30	3
Fe			2	5100.544	ug/l	0.61	19,382,409.23	2.267E+02	Analog	0.30	3
Co			2	49.656	ug/l	0.74	417,341.57	4.881E+00	Pulse	0.30	3
Ni			2	49.403	ug/l	0.60	115,033.14	1.345E+00	Pulse	0.30	3
Cu			2	48.778	ug/l	0.36	317,178.79	3.710E+00	Pulse	0.30	3
Zn			2	48.857	ug/l	1.41	38,942.88	4.555E-01	Pulse	0.30	3
As			2	50.884	ug/l	1.38	21,157.01	2.475E-01	Pulse	1.00	3
Cd			2	49.494	ug/l	1.32	53,703.22	1.299E-01	Pulse	0.30	3
Sn			2	50.849	ug/l	0.23	106,656.46	2.579E-01	Pulse	0.30	3
Se			3	199.056	ug/l	0.17	23,000.36	1.888E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,268,409.19	0.20	99.2	Pulse	0.10	3
1	Sc		3,001,677.66	1.31	99.7	Pulse	0.10	3
1	Ge		551,450.58	1.74	99.9	Pulse	0.10	3

Quantitation Report

1	Ge		764,661.99	0.70	100.3	Pulse	0.10	3
1	Rh		3,406,488.18	0.76	98.9	Pulse	0.10	3
1	In		3,368,701.11	0.69	99.6	Pulse	0.10	3
1	Tb		4,430,337.85	0.92	100.3	Pulse	0.10	3
1	Ho		435,840.75	0.94	101.4	Pulse	0.10	3
1	Bi		2,442,388.30	1.34	98.3	Pulse	0.10	3
2	Sc		85,500.05	0.97	103.2	Pulse	0.30	3
2	Ge		48,641.05	0.44	101.4	Pulse	0.30	3
2	Ge		74,370.64	0.99	103.2	Pulse	0.30	3
2	Rh		1,406,686.16	1.42	98.7	Pulse	0.30	3
2	In		413,486.00	0.48	102.4	Pulse	0.30	3
2	Tb		1,677,333.82	0.20	101.6	Pulse	0.30	3
2	Ho		169,025.84	0.15	102.0	Pulse	0.30	3
2	Bi		1,086,961.49	1.26	99.7	Pulse	0.30	3
3	Sc		126,421.19	0.76	100.3	Pulse	0.30	3
3	Ge		80,646.61	0.42	100.0	Pulse	0.30	3
3	Ge		121,798.02	0.53	99.5	Pulse	0.30	3
3	Rh		1,429,874.74	0.23	96.7	Pulse	0.30	3
3	Tb		2,118,278.94	0.33	99.4	Pulse	0.30	3

Quantitation Report

File Name 018_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 12:29
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	44.72	93.33	4.057E-05	Pulse	0.25	3
B			1	5.760	ug/l	4.99	43,244.23	1.886E-02	Pulse	0.15	3
Ca			1	1.684	ug/l	13.73	11,330.96	3.734E-03	Pulse	0.10	3
Sr			1	0.010	ug/l	8.04	893.39	2.573E-04	Pulse	0.10	3
Mo			1	0.066	ug/l	15.40	623.37	1.794E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	24.26	260.01	7.644E-05	Pulse	0.10	3
Sn			1	0.119	ug/l	8.32	5,184.36	1.520E-03	Pulse	0.10	3
Sb			1	0.030	ug/l	38.79	2,757.01	6.214E-04	Pulse	0.10	3
Ba			1	0.011	ug/l	31.08	100.01	2.255E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	10.35	956.73	3.831E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	4.18	436.69	1.748E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	39.07	356.68	1.429E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	22.08	1,616.76	6.475E-04	Pulse	0.10	3
Na			2	0.902	ug/l	8.49	5,752.15	6.623E-02	Pulse	0.30	3
Mg			2	0.700	ug/l	16.07	355.56	4.090E-03	Pulse	0.30	3
Al			2	0.527	ug/l	34.73	117.78	1.354E-03	Pulse	0.30	3
K			2	1.009	ug/l	52.73	7,050.46	8.119E-02	Pulse	0.30	3
Ca			2	1.999	ug/l	76.52	61.11	7.055E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00	0.000E+00	Pulse	0.30	3
V			2	-0.004	ug/l	-103.47	112.23	1.293E-03	Pulse	0.30	3
Cr			2	0.005	ug/l	160.74	305.56	3.521E-03	Pulse	0.30	3
Mn			2	0.015	ug/l	18.97	66.67	7.675E-04	Pulse	0.30	3
Fe			2	0.862	ug/l	7.46	4,871.88	5.609E-02	Pulse	0.30	3
Co			2	0.006	ug/l	28.45	92.21	1.063E-03	Pulse	0.30	3
Ni			2	0.015	ug/l	61.87	78.89	9.097E-04	Pulse	0.30	3
Cu			2	0.035	ug/l	19.28	1,271.18	1.464E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.017	ug/l	112.47	254.45	2.931E-03	Pulse	0.30	3
As			2	0.017	ug/l	50.47	13.00	1.499E-04	Pulse	1.00	3
Cd			2	0.007	ug/l	111.21	11.06	2.617E-05	Pulse	0.30	3
Sn			2	0.174	ug/l	17.49	973.37	2.299E-03	Pulse	0.30	3
Se			3	0.113	ug/l	23.16	16.40	1.320E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,294,041.34	1.55	100.3	Pulse	0.10	3
1	Sc		3,035,183.29	0.72	100.8	Pulse	0.10	3
1	Ge		553,543.52	0.39	100.2	Pulse	0.10	3
1	Ge		764,245.82	1.51	100.2	Pulse	0.10	3
1	Rh		3,472,173.91	0.65	100.8	Pulse	0.10	3
1	In		3,410,178.12	2.07	100.9	Pulse	0.10	3
1	Tb		4,438,954.00	1.12	100.5	Pulse	0.10	3
1	Ho		439,610.97	1.66	102.3	Pulse	0.10	3
1	Bi		2,497,849.65	0.71	100.5	Pulse	0.10	3
2	Sc		86,847.99	1.19	104.8	Pulse	0.30	3
2	Ge		49,918.32	0.58	104.0	Pulse	0.30	3
2	Ge		75,792.73	0.88	105.2	Pulse	0.30	3
2	Rh		1,462,605.98	1.02	102.7	Pulse	0.30	3
2	In		423,494.52	0.52	104.9	Pulse	0.30	3
2	Tb		1,687,775.73	0.80	102.3	Pulse	0.30	3
2	Ho		169,038.88	0.85	102.0	Pulse	0.30	3
2	Bi		1,114,555.79	0.85	102.2	Pulse	0.30	3
3	Sc		126,704.41	0.54	100.6	Pulse	0.30	3
3	Ge		83,048.49	0.77	103.0	Pulse	0.30	3
3	Ge		124,290.08	0.51	101.5	Pulse	0.30	3
3	Rh		1,481,299.39	0.62	100.2	Pulse	0.30	3
3	Tb		2,141,740.05	0.65	100.5	Pulse	0.30	3

Quantitation Report

File Name 019LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 12:34
Sample Name CRI
Sample Type LLCCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.491	ug/l	3.29	4,526.00	1.937E-03	Pulse	0.25	3
B			1	27.133	ug/l	1.27	189,877.37	8.127E-02	Pulse	0.15	3
Ca			1	259.694	ug/l	0.78	271,731.34	8.927E-02	Pulse	0.10	3
Sr			1	4.873	ug/l	0.86	225,210.09	6.421E-02	Pulse	0.10	3
Mo			1	1.019	ug/l	3.97	9,059.55	2.582E-03	Pulse	0.10	3
Ag			1	0.493	ug/l	1.31	10,410.45	3.022E-03	Pulse	0.10	3
Sn			1	4.789	ug/l	0.96	65,182.29	1.893E-02	Pulse	0.10	3
Sb			1	2.071	ug/l	2.83	32,274.00	7.264E-03	Pulse	0.10	3
Ba			1	0.975	ug/l	5.02	5,924.65	1.333E-03	Pulse	0.10	3
Tl			1	0.498	ug/l	0.88	16,563.20	6.649E-03	Pulse	0.10	3
Pb			1	0.507	ug/l	2.42	5,824.69	2.338E-03	Pulse	0.10	3
Pb			1	0.512	ug/l	3.83	5,207.78	2.091E-03	Pulse	0.10	3
Pb			1	0.498	ug/l	2.02	23,284.62	9.345E-03	Pulse	0.10	3
Na			2	249.629	ug/l	1.03	246,593.54	2.818E+00	Pulse	0.30	3
Mg			2	258.517	ug/l	1.28	112,686.87	1.288E+00	Pulse	0.30	3
Al			2	25.017	ug/l	2.99	3,295.92	3.767E-02	Pulse	0.30	3
K			2	258.794	ug/l	0.53	72,477.95	8.283E-01	Pulse	0.30	3
Ca			2	283.466	ug/l	3.51	3,912.73	4.472E-02	Pulse	0.30	3
Ti			2	1.050	ug/l	14.56	118.89	1.359E-03	Pulse	0.30	3
V			2	0.980	ug/l	0.40	3,956.08	4.521E-02	Pulse	0.30	3
Cr			2	1.034	ug/l	2.89	5,565.45	6.361E-02	Pulse	0.30	3
Mn			2	0.994	ug/l	6.23	2,324.64	2.656E-02	Pulse	0.30	3
Fe			2	26.435	ug/l	0.67	104,353.30	1.193E+00	Pulse	0.30	3
Co			2	0.511	ug/l	3.18	4,438.15	5.071E-02	Pulse	0.30	3
Ni			2	1.004	ug/l	4.23	2,434.65	2.782E-02	Pulse	0.30	3
Cu			2	2.027	ug/l	2.73	14,492.07	1.656E-01	Pulse	0.30	3
Zn			2	5.076	ug/l	5.10	4,357.29	4.981E-02	Pulse	0.30	3
As			2	0.484	ug/l	2.87	211.67	2.419E-03	Pulse	1.00	3
Cd			2	0.527	ug/l	7.93	596.25	1.391E-03	Pulse	0.30	3
Sn			2	4.769	ug/l	1.97	10,923.88	2.548E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.533	ug/l	2.17	66.13	5.306E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,336,297.37	1.27	102.1	Pulse	0.10	3
1	Sc		3,043,841.83	0.47	101.1	Pulse	0.10	3
1	Ge		556,092.40	0.49	100.7	Pulse	0.10	3
1	Ge		776,084.60	1.37	101.8	Pulse	0.10	3
1	Rh		3,507,470.47	0.92	101.8	Pulse	0.10	3
1	In		3,444,541.02	1.45	101.9	Pulse	0.10	3
1	Tb		4,443,624.00	1.37	100.6	Pulse	0.10	3
1	Ho		439,256.31	2.27	102.2	Pulse	0.10	3
1	Bi		2,491,237.15	1.24	100.2	Pulse	0.10	3
2	Sc		87,504.80	0.88	105.6	Pulse	0.30	3
2	Ge		49,666.41	0.12	103.5	Pulse	0.30	3
2	Ge		75,875.38	0.26	105.3	Pulse	0.30	3
2	Rh		1,466,141.30	0.56	102.9	Pulse	0.30	3
2	In		428,756.96	0.23	106.2	Pulse	0.30	3
2	Tb		1,699,130.83	0.65	103.0	Pulse	0.30	3
2	Ho		170,416.88	0.16	102.8	Pulse	0.30	3
2	Bi		1,123,451.73	0.44	103.0	Pulse	0.30	3
3	Sc		127,619.17	0.52	101.3	Pulse	0.30	3
3	Ge		83,242.95	0.10	103.2	Pulse	0.30	3
3	Ge		124,623.91	0.94	101.8	Pulse	0.30	3
3	Rh		1,488,533.38	0.62	100.6	Pulse	0.30	3
3	Tb		2,149,967.97	0.65	100.8	Pulse	0.30	3

Quantitation Report

File Name	020ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 12:39
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	104.44	16.00	7.848E-06	Pulse	0.25	3
B			1	4.475	ug/l	3.56	30,765.96	1.511E-02	Pulse	0.15	3
Ca			1	92111.627	ug/l	0.93	83,962,223.75	3.054E+01	Analog	0.10	3
Sr			1	1902.983	ug/l	1.08	74,000,502.23	2.502E+01	Analog	0.10	3
Mo			1	1981.332	ug/l	1.19	14,784,138.11	4.999E+00	Analog	0.10	3
Ag			1	0.015	ug/l	26.72	306.68	1.011E-04	Pulse	0.10	3
Sn			1	1758.924	ug/l	0.65	19,857,860.12	6.557E+00	Analog	0.10	3
Sb			1	0.149	ug/l	3.40	4,190.70	1.010E-03	Pulse	0.10	3
Ba			1	0.205	ug/l	13.68	1,186.76	2.860E-04	Pulse	0.10	3
Tl			1	0.002	ug/l	47.82	360.02	1.639E-04	Pulse	0.10	3
Pb			1	0.098	ug/l	11.59	1,100.08	5.003E-04	Pulse	0.10	3
Pb			1	0.082	ug/l	8.84	836.72	3.810E-04	Pulse	0.10	3
Pb			1	0.090	ug/l	3.49	4,173.72	1.899E-03	Pulse	0.10	3
Na			2	89105.081	ug/l	2.25	76,619,965.84	9.859E+02	Analog	0.30	3
Mg			2	90170.682	ug/l	1.43	34,893,927.50	4.490E+02	Analog	0.30	3
Al			2	94413.955	ug/l	1.47	10,879,225.12	1.400E+02	Analog	0.30	3
K			2	94952.604	ug/l	0.28	21,391,626.93	2.753E+02	Analog	0.30	3
Ca			2	98288.134	ug/l	0.84	1,194,572.31	1.537E+01	Pulse	0.30	3
Ti			2	1743.691	ug/l	0.36	175,331.86	2.256E+00	Pulse	0.30	3
V			2	-0.016	ug/l	-0.43	60.00	7.721E-04	Pulse	0.30	3
Cr			2	0.234	ug/l	3.52	1,312.29	1.689E-02	Pulse	0.30	3
Mn			2	0.318	ug/l	4.19	681.13	8.764E-03	Pulse	0.30	3
Fe			2	89590.612	ug/l	1.26	309,404,645.48	3.982E+03	Analog	0.30	3
Co			2	0.187	ug/l	5.14	1,465.90	1.886E-02	Pulse	0.30	3
Ni			2	0.574	ug/l	6.00	1,253.40	1.613E-02	Pulse	0.30	3
Cu			2	0.062	ug/l	22.89	1,302.29	1.676E-02	Pulse	0.30	3
Zn			2	0.173	ug/l	10.86	340.01	4.375E-03	Pulse	0.30	3
As			2	0.073	ug/l	32.40	32.67	4.202E-04	Pulse	1.00	3
Cd			2	-0.457	ug/l	-10.28	-438.95	-1.190E-03	Pulse	0.30	3
Sn			2	1754.851	ug/l	0.21	3,265,905.70	8.854E+00	Pulse	0.30	3
Se			3	0.104	ug/l	20.04	13.33	1.236E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,036,867.46	0.65	89.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,749,310.17	1.48	91.3	Pulse	0.10	3
1	Ge		500,763.59	1.78	90.7	Pulse	0.10	3
1	Ge		669,169.86	1.81	87.7	Pulse	0.10	3
1	Rh		2,957,739.33	2.33	85.9	Pulse	0.10	3
1	In		3,028,582.73	1.53	89.6	Pulse	0.10	3
1	Tb		4,151,231.29	0.95	94.0	Pulse	0.10	3
1	Ho		407,893.43	1.03	94.9	Pulse	0.10	3
1	Bi		2,197,167.83	1.25	88.4	Pulse	0.10	3
2	Sc		77,712.12	0.39	93.8	Pulse	0.30	3
2	Ge		44,361.31	0.62	92.5	Pulse	0.30	3
2	Ge		65,694.94	1.20	91.2	Pulse	0.30	3
2	Rh		1,227,939.99	0.23	86.2	Pulse	0.30	3
2	In		368,847.29	0.28	91.3	Pulse	0.30	3
2	Tb		1,548,343.27	0.28	93.8	Pulse	0.30	3
2	Ho		156,470.03	0.36	94.4	Pulse	0.30	3
2	Bi		958,250.80	0.31	87.9	Pulse	0.30	3
3	Sc		116,572.61	1.15	92.5	Pulse	0.30	3
3	Ge		73,037.97	2.07	90.6	Pulse	0.30	3
3	Ge		108,030.15	0.99	88.2	Pulse	0.30	3
3	Rh		1,219,705.96	0.66	82.5	Pulse	0.30	3
3	Tb		1,956,607.98	0.54	91.8	Pulse	0.30	3

Quantitation Report

File Name	021ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 12:44
Sample Name	ICSAB
Sample Type	ICSB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	26.89	20.00	1.032E-05	Pulse	0.25	3
B			1	52.934	ug/l	0.55	303,342.42	1.566E-01	Pulse	0.15	3
Ca			1	95674.480	ug/l	1.03	84,443,510.41	3.172E+01	Analog	0.10	3
Sr			1	2007.704	ug/l	0.43	76,524,825.53	2.640E+01	Analog	0.10	3
Mo			1	2057.377	ug/l	0.17	15,047,679.36	5.191E+00	Analog	0.10	3
Ag			1	17.828	ug/l	1.17	329,233.95	1.089E-01	Pulse	0.10	3
Sn			1	1835.567	ug/l	1.06	20,678,048.86	6.843E+00	Analog	0.10	3
Sb			1	0.150	ug/l	0.33	4,210.71	1.014E-03	Pulse	0.10	3
Ba			1	0.195	ug/l	2.23	1,130.09	2.720E-04	Pulse	0.10	3
Tl			1	0.004	ug/l	106.56	433.36	1.978E-04	Pulse	0.10	3
Pb			1	0.094	ug/l	8.45	1,050.08	4.802E-04	Pulse	0.10	3
Pb			1	0.092	ug/l	6.97	920.07	4.214E-04	Pulse	0.10	3
Pb			1	0.088	ug/l	5.21	4,097.04	1.876E-03	Pulse	0.10	3
Na			2	91725.990	ug/l	1.95	77,377,523.59	1.015E+03	Analog	0.30	3
Mg			2	92406.849	ug/l	1.48	35,080,315.27	4.601E+02	Analog	0.30	3
Al			2	95201.550	ug/l	1.21	10,762,045.13	1.412E+02	Analog	0.30	3
K			2	98408.064	ug/l	1.38	21,749,719.13	2.853E+02	Analog	0.30	3
Ca			2	102097.565	ug/l	0.79	1,217,395.02	1.597E+01	Pulse	0.30	3
Ti			2	1803.928	ug/l	0.71	177,963.53	2.334E+00	Pulse	0.30	3
V			2	20.722	ug/l	1.65	70,617.56	9.263E-01	Pulse	0.30	3
Cr			2	18.933	ug/l	0.68	84,560.92	1.109E+00	Pulse	0.30	3
Mn			2	19.149	ug/l	1.48	38,487.05	5.048E-01	Pulse	0.30	3
Fe			2	92181.148	ug/l	1.60	312,339,854.25	4.097E+03	Analog	0.30	3
Co			2	18.689	ug/l	1.40	140,082.08	1.837E+00	Pulse	0.30	3
Ni			2	18.078	ug/l	3.11	37,555.10	4.926E-01	Pulse	0.30	3
Cu			2	17.206	ug/l	0.63	100,362.64	1.316E+00	Pulse	0.30	3
Zn			2	16.242	ug/l	2.57	11,686.49	1.533E-01	Pulse	0.30	3
As			2	19.048	ug/l	0.74	7,065.88	9.267E-02	Pulse	1.00	3
Cd			2	17.341	ug/l	1.39	16,411.23	4.551E-02	Pulse	0.30	3
Sn			2	1852.260	ug/l	0.26	3,370,137.37	9.346E+00	Pulse	0.30	3
Se			3	20.311	ug/l	0.96	2,114.61	1.929E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,936,941.70	0.69	84.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,661,874.13	1.30	88.4	Pulse	0.10	3
1	Ge		495,452.87	2.02	89.7	Pulse	0.10	3
1	Ge		668,254.65	1.10	87.6	Pulse	0.10	3
1	Rh		2,898,657.56	1.01	84.2	Pulse	0.10	3
1	In		3,022,204.63	1.71	89.4	Pulse	0.10	3
1	Tb		4,153,016.81	1.80	94.0	Pulse	0.10	3
1	Ho		410,390.08	1.29	95.5	Pulse	0.10	3
1	Bi		2,184,919.18	1.76	87.9	Pulse	0.10	3
2	Sc		76,248.02	1.17	92.1	Pulse	0.30	3
2	Ge		43,861.07	0.63	91.4	Pulse	0.30	3
2	Ge		64,734.63	0.39	89.8	Pulse	0.30	3
2	Rh		1,217,990.12	0.61	85.5	Pulse	0.30	3
2	In		360,607.72	0.17	89.3	Pulse	0.30	3
2	Tb		1,533,148.90	0.39	92.9	Pulse	0.30	3
2	Ho		155,361.89	0.68	93.7	Pulse	0.30	3
2	Bi		955,362.91	0.20	87.6	Pulse	0.30	3
3	Sc		117,855.58	1.17	93.6	Pulse	0.30	3
3	Ge		73,511.01	0.38	91.1	Pulse	0.30	3
3	Ge		109,625.02	0.93	89.5	Pulse	0.30	3
3	Rh		1,236,405.85	1.02	83.6	Pulse	0.30	3
3	Tb		1,952,471.86	0.79	91.6	Pulse	0.30	3

Quantitation Report

File Name	022SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 12:49
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	160.42	13.33	6.752E-06	Pulse	0.25	3
B			1	2.378	ug/l	1.92	17,754.08	8.982E-03	Pulse	0.15	3
Ca			1	14.640	ug/l	11.82	21,601.41	8.029E-03	Pulse	0.10	3
Sr			1	0.278	ug/l	7.61	12,698.91	3.778E-03	Pulse	0.10	3
Mo			1	0.823	ug/l	1.40	7,021.79	2.088E-03	Pulse	0.10	3
Ag			1	0.005	ug/l	29.72	126.67	3.804E-05	Pulse	0.10	3
Sn			1	0.530	ug/l	9.85	10,150.25	3.052E-03	Pulse	0.10	3
Sb			1	-0.040	ug/l	-4.17	1,753.50	3.944E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	7.64	40.00	8.997E-06	Pulse	0.10	3
Tl			1	-0.001	ug/l	-229.67	330.01	1.291E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	68.94	260.01	1.021E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	113.84	193.34	7.572E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	62.58	900.05	3.529E-04	Pulse	0.10	3
Na			2	12.339	ug/l	12.36	14,694.30	1.928E-01	Pulse	0.30	3
Mg			2	9.185	ug/l	16.43	3,531.57	4.634E-02	Pulse	0.30	3
Al			2	9.289	ug/l	15.87	1,093.39	1.435E-02	Pulse	0.30	3
K			2	9.933	ug/l	20.59	8,161.00	1.070E-01	Pulse	0.30	3
Ca			2	12.959	ug/l	8.63	184.45	2.420E-03	Pulse	0.30	3
Ti			2	0.316	ug/l	63.22	31.11	4.087E-04	Pulse	0.30	3
V			2	-0.011	ug/l	-51.11	74.45	9.759E-04	Pulse	0.30	3
Cr			2	-0.003	ug/l	-51.26	231.12	3.031E-03	Pulse	0.30	3
Mn			2	0.005	ug/l	138.46	37.78	4.958E-04	Pulse	0.30	3
Fe			2	11.812	ug/l	8.48	41,371.55	5.427E-01	Pulse	0.30	3
Co			2	0.000	ug/l	-207.90	36.55	4.796E-04	Pulse	0.30	3
Ni			2	0.010	ug/l	49.65	58.89	7.728E-04	Pulse	0.30	3
Cu			2	0.051	ug/l	40.58	1,208.95	1.586E-02	Pulse	0.30	3
Zn			2	-0.022	ug/l	-244.35	195.56	2.566E-03	Pulse	0.30	3
As			2	-0.003	ug/l	-181.79	4.00	5.247E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.002	ug/l	269.91	5.17	1.306E-05	Pulse	0.30	3
Sn			2	0.421	ug/l	9.47	1,400.08	3.543E-03	Pulse	0.30	3
Se			3	0.021	ug/l	54.78	5.47	4.498E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,976,464.21	0.60	86.4	Pulse	0.10	3
1	Sc		2,692,036.63	1.71	89.4	Pulse	0.10	3
1	Ge		509,567.17	1.34	92.3	Pulse	0.10	3
1	Ge		706,433.24	0.41	92.6	Pulse	0.10	3
1	Rh		3,363,143.28	1.63	97.6	Pulse	0.10	3
1	In		3,327,799.23	1.26	98.4	Pulse	0.10	3
1	Tb		4,446,329.83	1.30	100.7	Pulse	0.10	3
1	Ho		442,836.23	1.15	103.1	Pulse	0.10	3
1	Bi		2,553,360.27	1.23	102.7	Pulse	0.10	3
2	Sc		76,247.79	0.45	92.1	Pulse	0.30	3
2	Ge		45,409.62	0.92	94.7	Pulse	0.30	3
2	Ge		67,694.27	0.81	93.9	Pulse	0.30	3
2	Rh		1,384,217.62	0.33	97.2	Pulse	0.30	3
2	In		395,081.09	0.29	97.8	Pulse	0.30	3
2	Tb		1,602,984.48	0.04	97.1	Pulse	0.30	3
2	Ho		161,714.50	0.37	97.5	Pulse	0.30	3
2	Bi		1,094,991.38	1.23	100.4	Pulse	0.30	3
3	Sc		121,545.50	0.74	96.5	Pulse	0.30	3
3	Ge		79,928.65	0.54	99.1	Pulse	0.30	3
3	Ge		121,626.82	0.44	99.3	Pulse	0.30	3
3	Rh		1,477,996.23	0.70	99.9	Pulse	0.30	3
3	Tb		2,145,885.54	0.82	100.7	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 12:54
Sample Name	jc92874-9fundigconf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	38.38	54.67	2.828E-05	Pulse	0.25	3
B			1	184.607	ug/l	0.81	524,799.41	2.716E-01	Pulse	0.15	3
Ca			1	98469.690	ug/l	1.48	44,520,827.67	1.633E+01	Analog	0.10	3
Sr			1	802.016	ug/l	0.65	16,643,906.00	5.273E+00	Analog	0.10	3
Mo			1	2.876	ug/l	2.18	11,487.95	3.640E-03	Pulse	0.10	3
Ag			1	0.005	ug/l	79.36	76.67	2.367E-05	Pulse	0.10	3
Sn			1	-0.081	ug/l	-30.25	2,990.41	9.236E-04	Pulse	0.10	3
Sb			1	-0.109	ug/l	-8.57	1,560.13	3.476E-04	Pulse	0.10	3
Ba			1	180.264	ug/l	0.55	550,070.84	1.226E-01	Pulse	0.10	3
Tl			1	-0.008	ug/l	-76.98	213.35	8.850E-05	Pulse	0.10	3
Pb			1	0.403	ug/l	3.99	2,323.61	9.640E-04	Pulse	0.10	3
Pb			1	0.382	ug/l	10.57	1,963.54	8.147E-04	Pulse	0.10	3
Pb			1	0.385	ug/l	2.76	9,101.45	3.776E-03	Pulse	0.10	3
Na			2	147628.805	ug/l	1.42	64,451,884.10	8.167E+02	Analog	0.30	3
Mg			2	62869.850	ug/l	0.95	12,352,427.29	1.565E+02	Analog	0.30	3
Al			2	11.668	ug/l	5.15	727.80	9.223E-03	Pulse	0.30	3
K			2	4783.389	ug/l	1.17	553,160.36	7.010E+00	Pulse	0.30	3
Ca			2	99367.597	ug/l	1.46	613,212.77	7.770E+00	Pulse	0.30	3
Ti			2	0.346	ug/l	64.53	17.78	2.241E-04	Pulse	0.30	3
V			2	1.178	ug/l	5.05	2,189.07	2.775E-02	Pulse	0.30	3
Cr			2	0.081	ug/l	33.39	441.12	5.586E-03	Pulse	0.30	3
Mn			2	777.962	ug/l	0.87	808,675.59	1.025E+01	Pulse	0.30	3
Fe			2	33674.300	ug/l	1.38	59,046,068.77	7.483E+02	Analog	0.30	3
Co			2	0.478	ug/l	4.99	1,894.06	2.400E-02	Pulse	0.30	3
Ni			2	0.167	ug/l	24.46	218.89	2.768E-03	Pulse	0.30	3
Cu			2	0.043	ug/l	30.73	1,076.72	1.364E-02	Pulse	0.30	3
Zn			2	0.699	ug/l	17.74	474.46	6.010E-03	Pulse	0.30	3
As			2	6.580	ug/l	3.68	1,267.05	1.606E-02	Pulse	1.00	3
Cd			2	0.001	ug/l	349.65	3.85	9.707E-06	Pulse	0.30	3
Sn			2	-0.124	ug/l	-13.74	438.90	1.106E-03	Pulse	0.30	3
Se			3	0.914	ug/l	9.07	54.20	4.582E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,932,398.24	0.29	84.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,727,105.89	1.35	90.6	Pulse	0.10	3
1	Ge		507,408.30	0.15	91.9	Pulse	0.10	3
1	Ge		694,646.24	1.47	91.1	Pulse	0.10	3
1	Rh		3,156,500.37	0.41	91.6	Pulse	0.10	3
1	In		3,239,327.27	1.49	95.8	Pulse	0.10	3
1	Tb		4,488,083.48	0.34	101.6	Pulse	0.10	3
1	Ho		441,675.61	0.91	102.8	Pulse	0.10	3
1	Bi		2,410,384.03	0.09	97.0	Pulse	0.10	3
2	Sc		78,920.10	1.51	95.3	Pulse	0.30	3
2	Ge		46,341.09	1.03	96.6	Pulse	0.30	3
2	Ge		69,774.99	1.33	96.8	Pulse	0.30	3
2	Rh		1,321,944.81	0.13	92.8	Pulse	0.30	3
2	In		396,654.28	1.32	98.2	Pulse	0.30	3
2	Tb		1,651,100.46	0.39	100.0	Pulse	0.30	3
2	Ho		167,157.43	0.27	100.8	Pulse	0.30	3
2	Bi		1,045,986.90	0.56	95.9	Pulse	0.30	3
3	Sc		121,777.13	0.77	96.7	Pulse	0.30	3
3	Ge		78,583.38	2.03	97.4	Pulse	0.30	3
3	Ge		118,224.41	1.27	96.6	Pulse	0.30	3
3	Rh		1,364,808.80	0.65	92.3	Pulse	0.30	3
3	Tb		2,121,925.61	0.50	99.5	Pulse	0.30	3

Quantitation Report

File Name 024_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 12:59
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.864	ug/l	0.88	402,239.50	1.925E-01	Pulse	0.25	3
B			1	99.884	ug/l	1.77	613,636.47	2.937E-01	Pulse	0.15	3
Ca			1	5052.939	ug/l	0.03	4,796,038.16	1.678E+00	Pulse	0.10	3
Sr			1	52.091	ug/l	1.06	2,320,971.68	6.851E-01	Pulse	0.10	3
Mo			1	51.450	ug/l	1.02	439,871.27	1.298E-01	Pulse	0.10	3
Ag			1	50.152	ug/l	0.35	1,035,449.33	3.065E-01	Pulse	0.10	3
Sn			1	51.213	ug/l	0.67	648,562.37	1.920E-01	Pulse	0.10	3
Sb			1	53.035	ug/l	1.14	785,516.76	1.732E-01	Pulse	0.10	3
Ba			1	50.420	ug/l	1.00	311,040.11	6.857E-02	Pulse	0.10	3
Tl			1	50.098	ug/l	0.78	1,678,233.26	6.551E-01	Pulse	0.10	3
Pb			1	50.442	ug/l	0.15	581,445.03	2.270E-01	Pulse	0.10	3
Pb			1	50.666	ug/l	0.98	516,696.79	2.017E-01	Pulse	0.10	3
Pb			1	50.363	ug/l	0.25	2,354,873.10	9.192E-01	Pulse	0.10	3
Na			2	4811.895	ug/l	1.00	4,294,790.24	5.330E+01	Pulse	0.30	3
Mg			2	4867.598	ug/l	1.11	1,953,232.56	2.424E+01	Pulse	0.30	3
Al			2	4872.194	ug/l	1.43	582,171.07	7.225E+00	Pulse	0.30	3
K			2	4988.597	ug/l	1.51	1,171,327.14	1.454E+01	Pulse	0.30	3
Ca			2	5187.906	ug/l	2.00	65,408.70	8.117E-01	Pulse	0.30	3
Ti			2	50.859	ug/l	0.83	5,303.12	6.581E-02	Pulse	0.30	3
V			2	51.717	ug/l	1.29	186,105.66	2.309E+00	Pulse	0.30	3
Cr			2	50.708	ug/l	1.30	238,923.14	2.965E+00	Pulse	0.30	3
Mn			2	50.517	ug/l	0.68	107,273.45	1.331E+00	Pulse	0.30	3
Fe			2	5156.424	ug/l	1.77	18,467,010.93	2.292E+02	Analog	0.30	3
Co			2	51.430	ug/l	1.11	407,382.72	5.055E+00	Pulse	0.30	3
Ni			2	50.654	ug/l	0.31	111,165.92	1.379E+00	Pulse	0.30	3
Cu			2	50.174	ug/l	1.05	307,462.43	3.815E+00	Pulse	0.30	3
Zn			2	51.440	ug/l	2.01	38,633.28	4.794E-01	Pulse	0.30	3
As			2	52.539	ug/l	0.34	20,589.95	2.555E-01	Pulse	1.00	3
Cd			2	50.129	ug/l	1.40	53,379.27	1.315E-01	Pulse	0.30	3
Sn			2	51.568	ug/l	0.66	106,147.27	2.616E-01	Pulse	0.30	3
Se			3	199.782	ug/l	0.33	23,373.55	1.895E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,089,343.17	0.66	91.3	Pulse	0.10	3
1	Sc		2,857,466.00	0.68	94.9	Pulse	0.10	3
1	Ge		533,261.80	1.02	96.6	Pulse	0.10	3

Quantitation Report

1	Ge		742,781.63	1.97	97.4	Pulse	0.10	3
1	Rh		3,387,903.07	0.52	98.4	Pulse	0.10	3
1	In		3,378,814.71	0.94	99.9	Pulse	0.10	3
1	Tb		4,536,596.70	0.71	102.7	Pulse	0.10	3
1	Ho		449,295.83	1.58	104.6	Pulse	0.10	3
1	Bi		2,561,747.52	0.74	103.1	Pulse	0.10	3
2	Sc		80,588.93	0.96	97.3	Pulse	0.30	3
2	Ge		47,913.49	0.64	99.9	Pulse	0.30	3
2	Ge		71,202.45	1.21	98.8	Pulse	0.30	3
2	Rh		1,396,031.82	0.83	98.0	Pulse	0.30	3
2	In		405,794.63	0.67	100.5	Pulse	0.30	3
2	Tb		1,661,909.79	0.50	100.7	Pulse	0.30	3
2	Ho		167,290.47	1.08	100.9	Pulse	0.30	3
2	Bi		1,095,250.27	0.77	100.4	Pulse	0.30	3
3	Sc		126,860.89	0.51	100.7	Pulse	0.30	3
3	Ge		82,018.86	0.38	101.7	Pulse	0.30	3
3	Ge		123,325.24	0.76	100.7	Pulse	0.30	3
3	Rh		1,465,204.11	0.12	99.1	Pulse	0.30	3
3	Tb		2,173,552.69	0.37	101.9	Pulse	0.30	3

Quantitation Report

File Name	025_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 13:04
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	17.22	73.33	3.410E-05	Pulse	0.25	3
B			1	5.885	ug/l	1.90	41,299.42	1.922E-02	Pulse	0.15	3
Ca			1	2.999	ug/l	15.06	11,978.03	4.169E-03	Pulse	0.10	3
Sr			1	0.030	ug/l	7.34	1,800.18	5.175E-04	Pulse	0.10	3
Mo			1	0.103	ug/l	21.37	946.73	2.718E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	5.20	256.68	7.470E-05	Pulse	0.10	3
Sn			1	0.121	ug/l	17.21	5,241.05	1.526E-03	Pulse	0.10	3
Sb			1	0.033	ug/l	20.78	2,897.03	6.332E-04	Pulse	0.10	3
Ba			1	0.015	ug/l	79.23	130.01	2.849E-05	Pulse	0.10	3
Tl			1	0.014	ug/l	22.50	863.39	3.287E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	12.34	376.68	1.434E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	22.33	336.68	1.283E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	4.09	1,410.08	5.371E-04	Pulse	0.10	3
Na			2	5.998	ug/l	5.42	9,980.81	1.226E-01	Pulse	0.30	3
Mg			2	1.702	ug/l	9.75	738.92	9.078E-03	Pulse	0.30	3
Al			2	0.810	ug/l	40.45	144.45	1.774E-03	Pulse	0.30	3
K			2	2.887	ug/l	30.29	7,050.44	8.663E-02	Pulse	0.30	3
Ca			2	3.760	ug/l	76.38	80.00	9.809E-04	Pulse	0.30	3
Ti			2	0.053	ug/l	91.44	5.56	6.844E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-146.26	107.78	1.325E-03	Pulse	0.30	3
Cr			2	-0.004	ug/l	-77.14	242.23	2.976E-03	Pulse	0.30	3
Mn			2	0.020	ug/l	30.63	73.33	9.007E-04	Pulse	0.30	3
Fe			2	1.976	ug/l	1.76	8,594.65	1.056E-01	Pulse	0.30	3
Co			2	0.005	ug/l	46.81	82.20	1.010E-03	Pulse	0.30	3
Ni			2	0.014	ug/l	23.17	72.22	8.877E-04	Pulse	0.30	3
Cu			2	0.056	ug/l	18.01	1,323.40	1.626E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.013	ug/l	-116.73	215.56	2.649E-03	Pulse	0.30	3
As			2	0.025	ug/l	35.77	15.33	1.885E-04	Pulse	1.00	3
Cd			2	0.007	ug/l	152.41	11.05	2.701E-05	Pulse	0.30	3
Sn			2	0.215	ug/l	23.20	1,018.93	2.503E-03	Pulse	0.30	3
Se			3	0.095	ug/l	12.65	14.47	1.143E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,148,365.36	1.06	93.9	Pulse	0.10	3
1	Sc		2,873,327.46	0.73	95.4	Pulse	0.10	3
1	Ge		537,726.23	1.45	97.4	Pulse	0.10	3
1	Ge		742,736.76	1.19	97.4	Pulse	0.10	3
1	Rh		3,479,451.62	0.92	101.0	Pulse	0.10	3
1	In		3,434,805.60	1.46	101.6	Pulse	0.10	3
1	Tb		4,576,175.98	1.02	103.6	Pulse	0.10	3
1	Ho		449,012.14	1.41	104.5	Pulse	0.10	3
1	Bi		2,625,613.40	0.73	105.6	Pulse	0.10	3
2	Sc		81,390.83	0.70	98.3	Pulse	0.30	3
2	Ge		47,582.65	0.37	99.2	Pulse	0.30	3
2	Ge		72,678.79	1.45	100.8	Pulse	0.30	3
2	Rh		1,439,163.90	1.13	101.0	Pulse	0.30	3
2	In		407,277.70	0.60	100.8	Pulse	0.30	3
2	Tb		1,656,997.99	0.24	100.4	Pulse	0.30	3
2	Ho		166,937.03	0.51	100.7	Pulse	0.30	3
2	Bi		1,121,622.38	0.20	102.9	Pulse	0.30	3
3	Sc		126,831.08	0.50	100.7	Pulse	0.30	3
3	Ge		83,159.04	0.94	103.1	Pulse	0.30	3
3	Ge		126,502.38	0.63	103.3	Pulse	0.30	3
3	Rh		1,511,110.05	1.17	102.2	Pulse	0.30	3
3	Tb		2,197,226.99	0.51	103.1	Pulse	0.30	3

Quantitation Report

File Name 026SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 13:09
Sample Name mp16780a-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	21.76	46.67	2.067E-05	Pulse	0.25	3
B			1	10.921	ug/l	2.26	40,642.14	1.798E-02	Pulse	0.15	3
Ca			1	19.000	ug/l	5.35	18,774.54	6.325E-03	Pulse	0.10	3
Sr			1	0.119	ug/l	8.08	3,212.12	9.066E-04	Pulse	0.10	3
Mo			1	0.234	ug/l	4.40	1,090.08	3.075E-04	Pulse	0.10	3
Ag			1	0.026	ug/l	4.51	303.35	8.676E-05	Pulse	0.10	3
Sn			1	0.739	ug/l	6.94	8,569.29	2.452E-03	Pulse	0.10	3
Sb			1	0.350	ug/l	5.50	5,137.67	1.095E-03	Pulse	0.10	3
Ba			1	0.057	ug/l	18.59	216.68	4.621E-05	Pulse	0.10	3
Tl			1	0.023	ug/l	10.87	806.72	2.935E-04	Pulse	0.10	3
Pb			1	0.092	ug/l	17.94	723.38	2.633E-04	Pulse	0.10	3
Pb			1	0.107	ug/l	23.25	733.39	2.666E-04	Pulse	0.10	3
Pb			1	0.103	ug/l	2.25	3,303.62	1.202E-03	Pulse	0.10	3
Na			2	21.028	ug/l	5.36	14,425.12	1.726E-01	Pulse	0.30	3
Mg			2	6.531	ug/l	11.46	1,410.08	1.686E-02	Pulse	0.30	3
Al			2	3.963	ug/l	14.75	293.34	3.511E-03	Pulse	0.30	3
K			2	9.565	ug/l	2.00	7,701.84	9.212E-02	Pulse	0.30	3
Ca			2	16.731	ug/l	3.62	142.22	1.701E-03	Pulse	0.30	3
Ti			2	0.493	ug/l	22.44	26.66	3.193E-04	Pulse	0.30	3
V			2	0.080	ug/l	18.25	271.12	3.244E-03	Pulse	0.30	3
Cr			2	0.295	ug/l	3.56	988.38	1.182E-02	Pulse	0.30	3
Mn			2	0.209	ug/l	15.34	261.12	3.125E-03	Pulse	0.30	3
Fe			2	9.145	ug/l	1.11	18,474.90	2.210E-01	Pulse	0.30	3
Co			2	0.023	ug/l	29.68	137.73	1.649E-03	Pulse	0.30	3
Ni			2	0.138	ug/l	21.11	198.89	2.380E-03	Pulse	0.30	3
Cu			2	0.512	ug/l	2.20	2,628.02	3.144E-02	Pulse	0.30	3
Zn			2	4.089	ug/l	8.75	1,815.67	2.172E-02	Pulse	0.30	3
As			2	0.109	ug/l	21.06	27.67	3.309E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.000	ug/l	-2568.48	3.26	7.948E-06	Pulse	0.30	3
Sn			2	0.922	ug/l	6.79	1,528.98	3.744E-03	Pulse	0.30	3
Se			3	0.101	ug/l	48.61	9.53	7.258E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,260,209.97	0.81	98.8	Pulse	0.10	3
1	Sc		2,969,030.48	1.24	98.6	Pulse	0.10	3
1	Ge		572,407.82	1.54	103.6	Pulse	0.10	3
1	Ge		777,901.65	1.35	102.0	Pulse	0.10	3
1	Rh		3,544,178.80	1.38	102.9	Pulse	0.10	3
1	In		3,495,548.00	1.27	103.4	Pulse	0.10	3
1	Tb		4,693,118.99	0.98	106.3	Pulse	0.10	3
1	Ho		466,517.98	1.20	108.6	Pulse	0.10	3
1	Bi		2,748,811.83	0.52	110.6	Pulse	0.10	3
2	Sc		83,602.62	0.80	100.9	Pulse	0.30	3
2	Ge		50,025.25	0.95	104.3	Pulse	0.30	3
2	Ge		75,129.74	0.36	104.2	Pulse	0.30	3
2	Rh		1,463,416.75	0.73	102.7	Pulse	0.30	3
2	In		408,334.30	0.65	101.1	Pulse	0.30	3
2	Tb		1,669,918.58	0.48	101.2	Pulse	0.30	3
2	Ho		169,799.91	1.32	102.4	Pulse	0.30	3
2	Bi		1,161,723.43	1.51	106.5	Pulse	0.30	3
3	Sc		134,670.53	0.25	106.9	Pulse	0.30	3
3	Ge		86,192.66	0.13	106.9	Pulse	0.30	3
3	Ge		131,440.79	0.41	107.4	Pulse	0.30	3
3	Rh		1,559,739.11	0.37	105.5	Pulse	0.30	3
3	Tb		2,270,129.08	0.83	106.5	Pulse	0.30	3

Quantitation Report

File Name 027SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 13:14
Sample Name mp16780a-b2conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	72.849	ug/l	1.77	323,157.00	1.435E-01	Pulse	0.25	3
B			1	86.659	ug/l	1.63	289,501.12	1.286E-01	Pulse	0.15	3
Ca			1	4022.089	ug/l	0.63	1,976,070.96	6.699E-01	Pulse	0.10	3
Sr			1	80.227	ug/l	1.01	1,819,239.61	5.276E-01	Pulse	0.10	3
Mo			1	77.447	ug/l	1.32	336,970.36	9.772E-02	Pulse	0.10	3
Ag			1	81.218	ug/l	0.68	864,078.14	2.481E-01	Pulse	0.10	3
Sn			1	78.611	ug/l	1.87	513,831.02	1.476E-01	Pulse	0.10	3
Sb			1	78.454	ug/l	0.52	598,558.26	1.282E-01	Pulse	0.10	3
Ba			1	78.237	ug/l	0.87	248,353.53	5.320E-02	Pulse	0.10	3
Tl			1	77.464	ug/l	0.51	1,351,805.86	5.065E-01	Pulse	0.10	3
Pb			1	79.126	ug/l	0.81	475,142.27	1.780E-01	Pulse	0.10	3
Pb			1	79.756	ug/l	0.47	423,684.77	1.588E-01	Pulse	0.10	3
Pb			1	79.176	ug/l	0.46	1,928,559.22	7.226E-01	Pulse	0.10	3
Na			2	3929.937	ug/l	0.39	1,791,936.59	2.180E+01	Pulse	0.30	3
Mg			2	3953.444	ug/l	0.19	809,257.75	9.844E+00	Pulse	0.30	3
Al			2	3774.157	ug/l	0.82	230,071.42	2.799E+00	Pulse	0.30	3
K			2	3962.291	ug/l	0.36	478,459.46	5.820E+00	Pulse	0.30	3
Ca			2	4273.212	ug/l	1.76	27,500.64	3.345E-01	Pulse	0.30	3
Ti			2	75.387	ug/l	2.92	4,009.42	4.877E-02	Pulse	0.30	3
V			2	80.524	ug/l	0.73	147,842.33	1.798E+00	Pulse	0.30	3
Cr			2	79.411	ug/l	1.44	190,920.54	2.322E+00	Pulse	0.30	3
Mn			2	78.375	ug/l	0.62	84,901.77	1.033E+00	Pulse	0.30	3
Fe			2	4143.237	ug/l	0.11	7,570,230.53	9.208E+01	Analog	0.30	3
Co			2	80.148	ug/l	0.74	323,856.69	3.939E+00	Pulse	0.30	3
Ni			2	79.514	ug/l	0.41	89,017.36	1.083E+00	Pulse	0.30	3
Cu			2	78.413	ug/l	0.47	245,324.89	2.984E+00	Pulse	0.30	3
Zn			2	83.042	ug/l	0.78	31,859.99	3.875E-01	Pulse	0.30	3
As			2	73.705	ug/l	1.33	14,735.32	1.792E-01	Pulse	1.00	3
Cd			2	76.166	ug/l	0.20	39,566.96	9.993E-02	Pulse	0.30	3
Sn			2	79.919	ug/l	0.38	80,375.73	2.030E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	352.890	ug/l	0.10	22,112.54	1.674E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,251,758.13	0.37	98.4	Pulse	0.10	3
1	Sc		2,949,836.41	1.72	98.0	Pulse	0.10	3
1	Ge		573,515.63	1.74	103.8	Pulse	0.10	3
1	Ge		796,393.01	1.60	104.4	Pulse	0.10	3
1	Rh		3,448,307.55	0.89	100.1	Pulse	0.10	3
1	In		3,482,185.32	1.09	103.0	Pulse	0.10	3
1	Tb		4,668,587.74	0.67	105.7	Pulse	0.10	3
1	Ho		464,774.95	1.16	108.2	Pulse	0.10	3
1	Bi		2,668,736.84	0.58	107.4	Pulse	0.10	3
2	Sc		82,211.55	0.54	99.3	Pulse	0.30	3
2	Ge		50,736.32	0.81	105.8	Pulse	0.30	3
2	Ge		76,454.82	0.81	106.1	Pulse	0.30	3
2	Rh		1,428,745.50	0.84	100.3	Pulse	0.30	3
2	In		395,928.98	0.57	98.0	Pulse	0.30	3
2	Tb		1,647,074.79	0.18	99.8	Pulse	0.30	3
2	Ho		166,000.77	0.91	100.1	Pulse	0.30	3
2	Bi		1,113,630.89	1.08	102.1	Pulse	0.30	3
3	Sc		136,545.96	1.02	108.4	Pulse	0.30	3
3	Ge		87,003.44	0.51	107.9	Pulse	0.30	3
3	Ge		132,099.42	0.35	107.9	Pulse	0.30	3
3	Rh		1,535,501.15	0.92	103.8	Pulse	0.30	3
3	Tb		2,252,105.88	0.70	105.6	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 13:19
Sample Name jc92960-6 4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.036	ug/l	12.08	129.33	7.315E-05	Pulse	0.25	3
B			1	321.551	ug/l	1.42	834,073.53	4.715E-01	Pulse	0.15	3
Ca			1	128571.318	ug/l	0.72	52,530,105.89	2.132E+01	Analog	0.10	3
Sr			1	318.280	ug/l	1.00	5,754,174.08	2.093E+00	Analog	0.10	3
Mo			1	71.418	ug/l	0.37	247,798.71	9.011E-02	Pulse	0.10	3
Ag			1	0.040	ug/l	24.65	376.69	1.298E-04	Pulse	0.10	3
Sn			1	0.792	ug/l	7.85	7,408.72	2.551E-03	Pulse	0.10	3
Sb			1	1.664	ug/l	4.34	13,452.87	3.233E-03	Pulse	0.10	3
Ba			1	21.930	ug/l	1.39	62,064.74	1.492E-02	Pulse	0.10	3
Tl			1	0.047	ug/l	24.50	980.07	4.538E-04	Pulse	0.10	3
Pb			1	4.894	ug/l	3.00	23,893.35	1.106E-02	Pulse	0.10	3
Pb			1	4.658	ug/l	0.93	20,131.16	9.322E-03	Pulse	0.10	3
Pb			1	4.721	ug/l	2.20	93,595.24	4.334E-02	Pulse	0.10	3
Na			2	734481.296	ug/l	1.73	265,715,678.33	4.063E+03	Analog	0.30	3
Mg			2	10383.395	ug/l	0.33	1,690,758.06	2.585E+01	Pulse	0.30	3
Al			2	386.266	ug/l	1.12	18,765.09	2.869E-01	Pulse	0.30	3
K			2	17388.747	ug/l	0.39	1,653,056.84	2.528E+01	Pulse	0.30	3
Ca			2	128472.580	ug/l	0.94	657,004.84	1.005E+01	Pulse	0.30	3
Ti			2	35.420	ug/l	10.45	1,497.86	2.292E-02	Pulse	0.30	3
V			2	10.262	ug/l	2.61	15,073.65	2.304E-01	Pulse	0.30	3
Cr			2	91697.095	ug/l	0.47	175,136,828.60	2.678E+03	Analog	0.30	3
Mn			2	76.771	ug/l	1.82	66,163.90	1.012E+00	Pulse	0.30	3
Fe			2	749.502	ug/l	0.75	1,090,380.83	1.667E+01	Pulse	0.30	3
Co			2	19.655	ug/l	1.77	63,203.02	9.664E-01	Pulse	0.30	3
Ni			2	45.856	ug/l	2.15	40,849.53	6.247E-01	Pulse	0.30	3
Cu			2	66.366	ug/l	0.89	165,291.35	2.527E+00	Pulse	0.30	3
Zn			2	50.763	ug/l	1.13	15,563.06	2.380E-01	Pulse	0.30	3
As			2	7.214	ug/l	3.02	1,151.38	1.760E-02	Pulse	1.00	3
Cd			2	1.407	ug/l	6.48	605.25	1.854E-03	Pulse	0.30	3
Sn			2	0.843	ug/l	3.72	1,157.83	3.547E-03	Pulse	0.30	3
Se			3	6.684	ug/l	1.41	334.67	3.195E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,769,013.19	0.90	77.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,464,239.55	0.62	81.8	Pulse	0.10	3
1	Ge		463,250.03	0.66	83.9	Pulse	0.10	3
1	Ge		640,646.27	1.14	84.0	Pulse	0.10	3
1	Rh		2,749,891.10	1.03	79.8	Pulse	0.10	3
1	In		2,904,751.96	0.72	85.9	Pulse	0.10	3
1	Tb		4,161,055.35	1.18	94.2	Pulse	0.10	3
1	Ho		417,488.48	1.36	97.2	Pulse	0.10	3
1	Bi		2,159,618.72	0.47	86.9	Pulse	0.10	3
2	Sc		65,402.13	0.98	79.0	Pulse	0.30	3
2	Ge		39,845.20	2.29	83.1	Pulse	0.30	3
2	Ge		59,690.96	1.33	82.8	Pulse	0.30	3
2	Rh		1,101,792.84	1.22	77.3	Pulse	0.30	3
2	In		326,410.45	0.17	80.8	Pulse	0.30	3
2	Tb		1,441,508.45	1.21	87.3	Pulse	0.30	3
2	Ho		147,925.47	1.03	89.2	Pulse	0.30	3
2	Bi		887,223.26	0.47	81.4	Pulse	0.30	3
3	Sc		108,483.49	0.50	86.1	Pulse	0.30	3
3	Ge		68,718.20	0.19	85.2	Pulse	0.30	3
3	Ge		104,764.44	1.02	85.6	Pulse	0.30	3
3	Rh		1,193,039.33	0.61	80.7	Pulse	0.30	3
3	Tb		1,956,747.84	0.77	91.8	Pulse	0.30	3

Quantitation Report

File Name 029SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 13:24
Sample Name jc92960-8
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.042	ug/l	16.98	153.33	8.612E-05	Pulse	0.25	3
B			1	307.872	ug/l	1.41	804,682.45	4.515E-01	Pulse	0.15	3
Ca			1	36533.226	ug/l	0.73	14,944,142.28	6.059E+00	Analog	0.10	3
Sr			1	105.638	ug/l	0.25	1,934,196.74	6.946E-01	Pulse	0.10	3
Mo			1	2.715	ug/l	3.47	9,573.20	3.437E-03	Pulse	0.10	3
Ag			1	0.016	ug/l	41.03	163.34	5.565E-05	Pulse	0.10	3
Sn			1	0.563	ug/l	2.39	6,248.24	2.125E-03	Pulse	0.10	3
Sb			1	0.412	ug/l	8.75	5,027.64	1.195E-03	Pulse	0.10	3
Ba			1	12.812	ug/l	0.31	36,697.65	8.718E-03	Pulse	0.10	3
Tl			1	0.038	ug/l	9.34	856.73	3.923E-04	Pulse	0.10	3
Pb			1	0.318	ug/l	4.51	1,690.16	7.736E-04	Pulse	0.10	3
Pb			1	0.279	ug/l	5.86	1,330.11	6.095E-04	Pulse	0.10	3
Pb			1	0.294	ug/l	1.45	6,427.46	2.944E-03	Pulse	0.10	3
Na			2	734549.224	ug/l	0.92	279,962,779.99	4.064E+03	Analog	0.30	3
Mg			2	11040.862	ug/l	0.73	1,893,906.38	2.749E+01	Pulse	0.30	3
Al			2	53.749	ug/l	1.77	2,784.71	4.042E-02	Pulse	0.30	3
K			2	18721.418	ug/l	0.66	1,874,472.01	2.721E+01	Pulse	0.30	3
Ca			2	35670.674	ug/l	1.75	192,188.09	2.790E+00	Pulse	0.30	3
Ti			2	89.949	ug/l	3.17	4,009.41	5.819E-02	Pulse	0.30	3
V			2	36.521	ug/l	0.75	56,246.09	8.164E-01	Pulse	0.30	3
Cr			2	227.490	ug/l	0.34	457,942.97	6.647E+00	Pulse	0.30	3
Mn			2	112.329	ug/l	0.44	101,964.04	1.480E+00	Pulse	0.30	3
Fe			2	114.234	ug/l	0.39	176,107.21	2.556E+00	Pulse	0.30	3
Co			2	3.109	ug/l	4.07	10,560.79	1.533E-01	Pulse	0.30	3
Ni			2	11.561	ug/l	2.05	10,877.02	1.579E-01	Pulse	0.30	3
Cu			2	4.407	ug/l	0.70	12,336.94	1.791E-01	Pulse	0.30	3
Zn			2	6.826	ug/l	4.49	2,370.20	3.440E-02	Pulse	0.30	3
As			2	10.697	ug/l	2.71	1,796.11	2.607E-02	Pulse	1.00	3
Cd			2	0.021	ug/l	107.69	11.76	3.533E-05	Pulse	0.30	3
Sn			2	0.597	ug/l	18.33	977.82	2.926E-03	Pulse	0.30	3
Se			3	0.366	ug/l	12.66	21.93	1.982E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,781,935.52	0.72	77.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,466,385.85	1.29	81.9	Pulse	0.10	3
1	Ge		481,609.39	2.04	87.2	Pulse	0.10	3
1	Ge		664,159.57	1.96	87.1	Pulse	0.10	3
1	Rh		2,784,398.71	1.57	80.8	Pulse	0.10	3
1	In		2,940,940.09	2.10	87.0	Pulse	0.10	3
1	Tb		4,209,103.06	2.63	95.3	Pulse	0.10	3
1	Ho		421,991.92	2.36	98.2	Pulse	0.10	3
1	Bi		2,183,595.07	1.89	87.9	Pulse	0.10	3
2	Sc		68,897.25	0.40	83.2	Pulse	0.30	3
2	Ge		42,353.68	0.84	88.3	Pulse	0.30	3
2	Ge		64,566.98	0.65	89.6	Pulse	0.30	3
2	Rh		1,163,698.77	0.23	81.7	Pulse	0.30	3
2	In		334,315.66	0.81	82.8	Pulse	0.30	3
2	Tb		1,480,259.25	0.60	89.7	Pulse	0.30	3
2	Ho		152,006.45	0.22	91.7	Pulse	0.30	3
2	Bi		902,950.83	0.58	82.8	Pulse	0.30	3
3	Sc		114,243.46	1.14	90.7	Pulse	0.30	3
3	Ge		72,646.10	1.02	90.1	Pulse	0.30	3
3	Ge		110,611.63	0.87	90.3	Pulse	0.30	3
3	Rh		1,250,059.05	0.42	84.5	Pulse	0.30	3
3	Tb		2,003,948.53	0.94	94.0	Pulse	0.30	3

Quantitation Report

File Name 030SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 13:29
Sample Name mp16784a-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	82.44	13.33	6.693E-06	Pulse	0.25	3
B			1	14.710	ug/l	0.75	46,962.76	2.352E-02	Pulse	0.15	3
Ca			1	16.702	ug/l	4.83	15,868.15	5.944E-03	Pulse	0.10	3
Sr			1	0.033	ug/l	18.24	1,116.75	3.396E-04	Pulse	0.10	3
Mo			1	0.268	ug/l	18.33	1,150.09	3.498E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	28.30	163.34	4.935E-05	Pulse	0.10	3
Sn			1	0.399	ug/l	14.71	6,028.07	1.819E-03	Pulse	0.10	3
Sb			1	0.101	ug/l	40.60	3,103.74	6.883E-04	Pulse	0.10	3
Ba			1	0.035	ug/l	37.74	140.01	3.104E-05	Pulse	0.10	3
Tl			1	0.008	ug/l	79.52	510.03	1.955E-04	Pulse	0.10	3
Pb			1	0.060	ug/l	36.75	500.03	1.923E-04	Pulse	0.10	3
Pb			1	0.064	ug/l	20.73	470.03	1.802E-04	Pulse	0.10	3
Pb			1	0.058	ug/l	4.84	2,073.47	7.961E-04	Pulse	0.10	3
Na			2	105.025	ug/l	2.74	45,035.87	6.372E-01	Pulse	0.30	3
Mg			2	2.172	ug/l	11.81	424.45	6.011E-03	Pulse	0.30	3
Al			2	1.711	ug/l	13.04	130.00	1.841E-03	Pulse	0.30	3
K			2	10.895	ug/l	26.40	6,646.95	9.405E-02	Pulse	0.30	3
Ca			2	15.073	ug/l	10.72	111.11	1.572E-03	Pulse	0.30	3
Ti			2	0.390	ug/l	22.85	17.78	2.521E-04	Pulse	0.30	3
V			2	0.125	ug/l	24.45	301.12	4.263E-03	Pulse	0.30	3
Cr			2	1.559	ug/l	5.14	3,444.85	4.876E-02	Pulse	0.30	3
Mn			2	0.119	ug/l	20.88	137.78	1.948E-03	Pulse	0.30	3
Fe			2	5.776	ug/l	2.00	10,324.43	1.461E-01	Pulse	0.30	3
Co			2	0.021	ug/l	42.96	111.08	1.568E-03	Pulse	0.30	3
Ni			2	0.058	ug/l	45.98	91.11	1.287E-03	Pulse	0.30	3
Cu			2	0.319	ug/l	10.46	1,702.33	2.410E-02	Pulse	0.30	3
Zn			2	3.002	ug/l	5.93	1,178.94	1.668E-02	Pulse	0.30	3
As			2	0.190	ug/l	29.13	37.33	5.271E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.010	ug/l	146.90	7.73	2.132E-05	Pulse	0.30	3
Sn			2	0.445	ug/l	7.78	924.48	2.541E-03	Pulse	0.30	3
Se			3	0.122	ug/l	20.43	10.13	8.234E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,997,052.46	0.82	87.3	Pulse	0.10	3
1	Sc		2,669,979.02	0.97	88.7	Pulse	0.10	3
1	Ge		537,616.94	1.01	97.3	Pulse	0.10	3
1	Ge		736,876.08	0.06	96.6	Pulse	0.10	3
1	Rh		3,288,239.54	0.70	95.5	Pulse	0.10	3
1	In		3,313,620.24	0.73	98.0	Pulse	0.10	3
1	Tb		4,510,407.54	0.38	102.1	Pulse	0.10	3
1	Ho		448,510.75	1.09	104.4	Pulse	0.10	3
1	Bi		2,604,954.13	1.47	104.8	Pulse	0.10	3
2	Sc		70,662.15	1.43	85.3	Pulse	0.30	3
2	Ge		45,292.72	1.41	94.4	Pulse	0.30	3
2	Ge		68,997.38	0.56	95.7	Pulse	0.30	3
2	Rh		1,331,162.52	0.82	93.4	Pulse	0.30	3
2	In		363,872.68	0.71	90.1	Pulse	0.30	3
2	Tb		1,545,530.46	0.58	93.6	Pulse	0.30	3
2	Ho		157,598.63	0.55	95.1	Pulse	0.30	3
2	Bi		1,057,508.54	0.42	97.0	Pulse	0.30	3
3	Sc		122,735.47	0.23	97.4	Pulse	0.30	3
3	Ge		81,818.00	0.34	101.4	Pulse	0.30	3
3	Ge		122,991.16	0.92	100.4	Pulse	0.30	3
3	Rh		1,485,403.90	0.74	100.4	Pulse	0.30	3
3	Tb		2,211,798.80	0.86	103.7	Pulse	0.30	3

Quantitation Report

File Name 031SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 13:34
Sample Name mp16784a-b2conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	72.992	ug/l	0.53	290,631.26	1.438E-01	Pulse	0.25	3
B			1	90.563	ug/l	0.35	271,367.87	1.343E-01	Pulse	0.15	3
Ca			1	4094.190	ug/l	0.69	1,813,406.33	6.819E-01	Pulse	0.10	3
Sr			1	81.004	ug/l	0.96	1,723,013.88	5.327E-01	Pulse	0.10	3
Mo			1	77.170	ug/l	0.26	314,959.28	9.737E-02	Pulse	0.10	3
Ag			1	81.924	ug/l	0.54	827,579.62	2.503E-01	Pulse	0.10	3
Sn			1	80.296	ug/l	0.58	498,321.44	1.507E-01	Pulse	0.10	3
Sb			1	78.010	ug/l	0.42	577,674.92	1.275E-01	Pulse	0.10	3
Ba			1	77.324	ug/l	0.83	238,237.52	5.258E-02	Pulse	0.10	3
Tl			1	80.214	ug/l	0.10	1,339,002.27	5.245E-01	Pulse	0.10	3
Pb			1	83.491	ug/l	1.02	479,571.87	1.879E-01	Pulse	0.10	3
Pb			1	83.338	ug/l	0.68	423,504.43	1.659E-01	Pulse	0.10	3
Pb			1	82.933	ug/l	0.48	1,932,351.21	7.569E-01	Pulse	0.10	3
Na			2	4082.522	ug/l	1.09	1,637,285.98	2.264E+01	Pulse	0.30	3
Mg			2	4049.751	ug/l	1.66	729,162.99	1.008E+01	Pulse	0.30	3
Al			2	3818.672	ug/l	2.41	204,740.52	2.832E+00	Pulse	0.30	3
K			2	3985.926	ug/l	2.36	423,301.38	5.854E+00	Pulse	0.30	3
Ca			2	4327.499	ug/l	2.53	24,495.97	3.388E-01	Pulse	0.30	3
Ti			2	76.905	ug/l	4.08	3,597.10	4.975E-02	Pulse	0.30	3
V			2	83.538	ug/l	1.41	134,902.37	1.866E+00	Pulse	0.30	3
Cr			2	83.485	ug/l	1.32	176,539.19	2.441E+00	Pulse	0.30	3
Mn			2	79.825	ug/l	1.73	76,059.23	1.052E+00	Pulse	0.30	3
Fe			2	4280.564	ug/l	2.23	6,879,054.03	9.513E+01	Analog	0.30	3
Co			2	83.567	ug/l	2.10	296,995.63	4.107E+00	Pulse	0.30	3
Ni			2	82.138	ug/l	1.15	80,887.20	1.119E+00	Pulse	0.30	3
Cu			2	81.939	ug/l	1.26	225,453.08	3.118E+00	Pulse	0.30	3
Zn			2	77.526	ug/l	3.10	26,173.21	3.620E-01	Pulse	0.30	3
As			2	76.131	ug/l	1.02	13,388.17	1.851E-01	Pulse	1.00	3
Cd			2	78.560	ug/l	1.01	36,986.24	1.031E-01	Pulse	0.30	3
Sn			2	82.351	ug/l	1.80	75,046.48	2.091E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	359.542	ug/l	0.31	21,184.38	1.705E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,021,137.63	0.30	88.4	Pulse	0.10	3
1	Sc		2,659,535.27	0.69	88.3	Pulse	0.10	3
1	Ge		525,495.63	0.99	95.2	Pulse	0.10	3
1	Ge		732,463.30	0.46	96.0	Pulse	0.10	3
1	Rh		3,234,655.78	0.32	93.9	Pulse	0.10	3
1	In		3,306,314.34	0.10	97.8	Pulse	0.10	3
1	Tb		4,531,145.87	0.09	102.6	Pulse	0.10	3
1	Ho		453,064.26	0.88	105.5	Pulse	0.10	3
1	Bi		2,552,936.16	0.27	102.7	Pulse	0.10	3
2	Sc		72,322.73	1.39	87.3	Pulse	0.30	3
2	Ge		45,420.78	1.11	94.7	Pulse	0.30	3
2	Ge		67,854.67	0.64	94.2	Pulse	0.30	3
2	Rh		1,315,136.41	0.82	92.3	Pulse	0.30	3
2	In		358,824.56	0.17	88.8	Pulse	0.30	3
2	Tb		1,543,590.98	0.84	93.5	Pulse	0.30	3
2	Ho		156,963.03	2.19	94.7	Pulse	0.30	3
2	Bi		1,032,081.66	0.78	94.7	Pulse	0.30	3
3	Sc		126,399.00	1.66	100.3	Pulse	0.30	3
3	Ge		81,214.00	1.00	100.7	Pulse	0.30	3
3	Ge		124,215.18	0.69	101.4	Pulse	0.30	3
3	Rh		1,474,507.34	0.30	99.7	Pulse	0.30	3
3	Tb		2,210,914.08	0.59	103.7	Pulse	0.30	3

Quantitation Report

File Name 032SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 13:39
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.079	ug/l	16.95	66.67	3.405E-05	Pulse	0.25	3
B			1	103.939	ug/l	1.10	63,447.31	3.239E-02	Pulse	0.15	3
Ca			1	58218.922	ug/l	0.95	5,017,807.94	1.933E+00	Pulse	0.10	3
Sr			1	355.180	ug/l	0.83	1,488,478.00	4.672E-01	Pulse	0.10	3
Mo			1	2.843	ug/l	6.15	2,323.57	7.291E-04	Pulse	0.10	3
Ag			1	0.107	ug/l	43.90	240.01	7.354E-05	Pulse	0.10	3
Sn			1	-1.649	ug/l	-3.94	1,496.79	4.604E-04	Pulse	0.10	3
Sb			1	0.966	ug/l	16.82	3,723.95	8.389E-04	Pulse	0.10	3
Ba			1	105.342	ug/l	2.34	63,648.42	1.433E-02	Pulse	0.10	3
Tl			1	0.159	ug/l	3.95	900.06	3.509E-04	Pulse	0.10	3
Pb			1	1.398	ug/l	7.55	1,760.18	6.861E-04	Pulse	0.10	3
Pb			1	1.339	ug/l	9.43	1,503.47	5.864E-04	Pulse	0.10	3
Pb			1	1.364	ug/l	2.02	7,060.96	2.753E-03	Pulse	0.10	3
Na			2	20408.430	ug/l	0.99	1,644,380.98	2.264E+01	Pulse	0.30	3
Mg			2	7077.181	ug/l	0.89	256,044.51	3.525E+00	Pulse	0.30	3
Al			2	26.883	ug/l	16.90	331.13	4.559E-03	Pulse	0.30	3
K			2	4992.821	ug/l	0.36	110,804.14	1.525E+00	Pulse	0.30	3
Ca			2	58507.157	ug/l	1.32	66,495.14	9.154E-01	Pulse	0.30	3
Ti			2	0.828	ug/l	25.15	7.78	1.072E-04	Pulse	0.30	3
V			2	2.752	ug/l	1.36	998.94	1.375E-02	Pulse	0.30	3
Cr			2	5.484	ug/l	5.70	2,561.34	3.525E-02	Pulse	0.30	3
Mn			2	43.587	ug/l	3.31	8,367.75	1.152E-01	Pulse	0.30	3
Fe			2	449.183	ug/l	0.73	146,305.62	2.014E+00	Pulse	0.30	3
Co			2	1.262	ug/l	5.39	938.54	1.292E-02	Pulse	0.30	3
Ni			2	70.053	ug/l	1.71	13,890.45	1.912E-01	Pulse	0.30	3
Cu			2	38.272	ug/l	0.27	21,949.19	3.021E-01	Pulse	0.30	3
Zn			2	2277.916	ug/l	1.45	153,540.18	2.114E+00	Pulse	0.30	3
As			2	3.378	ug/l	10.81	124.00	1.707E-03	Pulse	1.00	3
Cd			2	2.914	ug/l	17.22	286.56	7.729E-04	Pulse	0.30	3
Sn			2	-1.383	ug/l	-11.10	267.78	7.222E-04	Pulse	0.30	3
Se			3	1.385	ug/l	9.87	19.07	1.560E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,958,966.69	0.91	85.6	Pulse	0.10	3
1	Sc		2,595,307.56	1.00	86.2	Pulse	0.10	3
1	Ge		495,734.46	0.63	89.8	Pulse	0.10	3

Quantitation Report

1	Ge		683,711.81	1.07	89.6	Pulse	0.10	3
1	Rh		3,186,524.22	1.39	92.5	Pulse	0.10	3
1	In		3,252,632.54	1.90	96.2	Pulse	0.10	3
1	Tb		4,440,768.37	0.81	100.6	Pulse	0.10	3
1	Ho		442,528.16	2.48	103.0	Pulse	0.10	3
1	Bi		2,564,742.98	0.68	103.2	Pulse	0.10	3
2	Sc		72,646.14	0.57	87.7	Pulse	0.30	3
2	Ge		44,013.70	1.41	91.7	Pulse	0.30	3
2	Ge		65,813.09	0.56	91.3	Pulse	0.30	3
2	Rh		1,327,143.21	0.39	93.2	Pulse	0.30	3
2	In		370,828.83	0.26	91.8	Pulse	0.30	3
2	Tb		1,549,952.51	0.43	93.9	Pulse	0.30	3
2	Ho		155,433.95	1.07	93.8	Pulse	0.30	3
2	Bi		1,054,605.58	0.32	96.7	Pulse	0.30	3
3	Sc		122,993.16	1.19	97.6	Pulse	0.30	3
3	Ge		80,929.30	0.58	100.3	Pulse	0.30	3
3	Ge		122,240.04	0.42	99.8	Pulse	0.30	3
3	Rh		1,465,034.81	0.78	99.1	Pulse	0.30	3
3	Tb		2,178,098.53	0.17	102.2	Pulse	0.30	3

Quantitation Report

File Name 033SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 13:44
Sample Name mp16806-mb1 5
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	28.36	34.67	1.681E-05	Pulse	0.25	3
B			1	9.951	ug/l	2.68	34,147.89	1.657E-02	Pulse	0.15	3
Ca			1	98.427	ug/l	2.74	53,246.03	1.949E-02	Pulse	0.10	3
Sr			1	0.175	ug/l	6.37	4,217.37	1.277E-03	Pulse	0.10	3
Mo			1	0.220	ug/l	8.62	953.39	2.891E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	16.71	156.68	4.662E-05	Pulse	0.10	3
Sn			1	0.359	ug/l	13.60	5,854.63	1.744E-03	Pulse	0.10	3
Sb			1	0.074	ug/l	64.08	2,953.74	6.440E-04	Pulse	0.10	3
Ba			1	0.081	ug/l	26.33	286.68	6.262E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	31.28	673.37	2.568E-04	Pulse	0.10	3
Pb			1	0.053	ug/l	6.42	460.02	1.756E-04	Pulse	0.10	3
Pb			1	0.037	ug/l	17.87	333.35	1.272E-04	Pulse	0.10	3
Pb			1	0.042	ug/l	3.17	1,696.77	6.475E-04	Pulse	0.10	3
Na			2	37.028	ug/l	2.40	20,055.37	2.611E-01	Pulse	0.30	3
Mg			2	6.361	ug/l	4.61	1,262.29	1.644E-02	Pulse	0.30	3
Al			2	131.565	ug/l	3.43	7,533.99	9.811E-02	Pulse	0.30	3
K			2	4.223	ug/l	18.73	6,480.21	8.438E-02	Pulse	0.30	3
Ca			2	105.237	ug/l	3.74	662.25	8.622E-03	Pulse	0.30	3
Ti			2	0.224	ug/l	35.02	11.11	1.448E-04	Pulse	0.30	3
V			2	0.079	ug/l	13.00	247.78	3.227E-03	Pulse	0.30	3
Cr			2	0.609	ug/l	6.41	1,613.43	2.100E-02	Pulse	0.30	3
Mn			2	0.258	ug/l	9.75	290.00	3.773E-03	Pulse	0.30	3
Fe			2	6.523	ug/l	2.17	12,498.18	1.627E-01	Pulse	0.30	3
Co			2	0.029	ug/l	34.09	148.86	1.935E-03	Pulse	0.30	3
Ni			2	0.095	ug/l	28.37	137.78	1.794E-03	Pulse	0.30	3
Cu			2	0.446	ug/l	1.65	2,221.29	2.892E-02	Pulse	0.30	3
Zn			2	3.778	ug/l	5.97	1,557.87	2.028E-02	Pulse	0.30	3
As			2	0.093	ug/l	37.09	22.33	2.907E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.009	ug/l	41.97	7.73	2.055E-05	Pulse	0.30	3
Sn			2	0.344	ug/l	19.51	860.04	2.287E-03	Pulse	0.30	3
Se			3	0.117	ug/l	23.16	10.27	8.005E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,061,149.41	0.94	90.1	Pulse	0.10	3
1	Sc		2,732,251.62	1.18	90.7	Pulse	0.10	3
1	Ge		548,308.51	1.37	99.3	Pulse	0.10	3
1	Ge		753,671.34	2.03	98.8	Pulse	0.10	3
1	Rh		3,300,518.39	2.72	95.8	Pulse	0.10	3
1	In		3,353,501.46	2.66	99.2	Pulse	0.10	3
1	Tb		4,583,450.35	0.80	103.8	Pulse	0.10	3
1	Ho		453,825.99	1.33	105.6	Pulse	0.10	3
1	Bi		2,620,187.15	0.86	105.4	Pulse	0.10	3
2	Sc		76,804.65	1.25	92.7	Pulse	0.30	3
2	Ge		47,676.15	1.06	99.4	Pulse	0.30	3
2	Ge		72,424.43	0.96	100.5	Pulse	0.30	3
2	Rh		1,375,791.72	0.46	96.6	Pulse	0.30	3
2	In		376,134.93	0.21	93.1	Pulse	0.30	3
2	Tb		1,572,835.35	0.25	95.3	Pulse	0.30	3
2	Ho		160,058.12	0.86	96.5	Pulse	0.30	3
2	Bi		1,066,657.56	0.36	97.8	Pulse	0.30	3
3	Sc		130,194.31	0.44	103.3	Pulse	0.30	3
3	Ge		86,034.10	0.78	106.7	Pulse	0.30	3
3	Ge		128,271.41	0.82	104.8	Pulse	0.30	3
3	Rh		1,536,314.49	0.48	103.9	Pulse	0.30	3
3	Tb		2,264,021.44	0.94	106.2	Pulse	0.30	3

Quantitation Report

File Name	034_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 13:49
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.725	ug/l	1.11	382,732.88	1.880E-01	Pulse	0.25	3
B			1	99.209	ug/l	0.67	593,818.85	2.917E-01	Pulse	0.15	3
Ca			1	5033.117	ug/l	0.43	4,547,551.18	1.672E+00	Pulse	0.10	3
Sr			1	52.032	ug/l	1.00	2,220,663.98	6.843E-01	Pulse	0.10	3
Mo			1	50.971	ug/l	0.54	417,405.87	1.286E-01	Pulse	0.10	3
Ag			1	49.792	ug/l	0.45	995,089.73	3.043E-01	Pulse	0.10	3
Sn			1	51.442	ug/l	0.32	630,605.50	1.928E-01	Pulse	0.10	3
Sb			1	52.333	ug/l	1.57	764,976.08	1.709E-01	Pulse	0.10	3
Ba			1	49.654	ug/l	0.36	302,346.30	6.752E-02	Pulse	0.10	3
Tl			1	51.403	ug/l	1.10	1,690,502.47	6.722E-01	Pulse	0.10	3
Pb			1	51.443	ug/l	0.83	582,123.86	2.315E-01	Pulse	0.10	3
Pb			1	51.674	ug/l	0.32	517,354.57	2.057E-01	Pulse	0.10	3
Pb			1	51.254	ug/l	0.57	2,352,684.43	9.355E-01	Pulse	0.10	3
Na			2	4927.235	ug/l	1.02	4,134,062.89	5.457E+01	Pulse	0.30	3
Mg			2	4952.518	ug/l	1.15	1,868,216.25	2.466E+01	Pulse	0.30	3
Al			2	4761.878	ug/l	1.31	534,899.22	7.061E+00	Pulse	0.30	3
K			2	4923.886	ug/l	1.13	1,086,987.59	1.435E+01	Pulse	0.30	3
Ca			2	5144.932	ug/l	2.07	60,977.63	8.050E-01	Pulse	0.30	3
Ti			2	50.475	ug/l	4.44	4,947.47	6.531E-02	Pulse	0.30	3
V			2	52.356	ug/l	1.24	177,114.14	2.338E+00	Pulse	0.30	3
Cr			2	51.643	ug/l	1.26	228,741.20	3.020E+00	Pulse	0.30	3
Mn			2	49.947	ug/l	1.11	99,709.89	1.316E+00	Pulse	0.30	3
Fe			2	5218.586	ug/l	0.32	17,571,583.75	2.319E+02	Analog	0.30	3
Co			2	52.072	ug/l	1.28	387,744.48	5.118E+00	Pulse	0.30	3
Ni			2	51.467	ug/l	1.37	106,173.53	1.402E+00	Pulse	0.30	3
Cu			2	51.063	ug/l	1.57	294,133.07	3.883E+00	Pulse	0.30	3
Zn			2	50.861	ug/l	1.28	35,914.95	4.741E-01	Pulse	0.30	3
As			2	52.966	ug/l	2.55	19,509.96	2.576E-01	Pulse	1.00	3
Cd			2	51.389	ug/l	0.71	50,543.10	1.348E-01	Pulse	0.30	3
Sn			2	51.481	ug/l	0.62	97,877.63	2.611E-01	Pulse	0.30	3
Se			3	196.782	ug/l	0.69	22,805.42	1.867E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,035,455.18	0.41	89.0	Pulse	0.10	3
1	Sc		2,720,004.33	1.00	90.3	Pulse	0.10	3
1	Ge		515,862.52	0.36	93.4	Pulse	0.10	3

Quantitation Report

1	Ge		711,118.66	0.13	93.2	Pulse	0.10	3
1	Rh		3,245,169.85	0.36	94.2	Pulse	0.10	3
1	In		3,270,594.14	0.67	96.7	Pulse	0.10	3
1	Tb		4,477,469.10	1.48	101.4	Pulse	0.10	3
1	Ho		444,451.63	1.64	103.4	Pulse	0.10	3
1	Bi		2,514,994.86	1.50	101.2	Pulse	0.10	3
2	Sc		75,762.24	1.34	91.5	Pulse	0.30	3
2	Ge		45,262.55	0.47	94.3	Pulse	0.30	3
2	Ge		68,094.61	1.08	94.5	Pulse	0.30	3
2	Rh		1,334,695.57	0.46	93.7	Pulse	0.30	3
2	In		374,818.83	0.88	92.8	Pulse	0.30	3
2	Tb		1,556,829.49	0.45	94.3	Pulse	0.30	3
2	Ho		158,322.27	1.08	95.5	Pulse	0.30	3
2	Bi		1,040,676.80	1.21	95.4	Pulse	0.30	3
3	Sc		125,847.83	1.28	99.9	Pulse	0.30	3
3	Ge		80,388.77	0.85	99.7	Pulse	0.30	3
3	Ge		122,161.67	0.24	99.8	Pulse	0.30	3
3	Rh		1,441,902.72	0.47	97.5	Pulse	0.30	3
3	Tb		2,152,558.04	0.77	101.0	Pulse	0.30	3

Quantitation Report

File Name	035_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 13:54
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	42.90	93.33	4.575E-05	Pulse	0.25	3
B			1	5.774	ug/l	1.43	38,499.58	1.890E-02	Pulse	0.15	3
Ca			1	2.278	ug/l	12.95	10,560.47	3.931E-03	Pulse	0.10	3
Sr			1	0.013	ug/l	16.07	960.07	2.929E-04	Pulse	0.10	3
Mo			1	0.065	ug/l	22.74	576.70	1.760E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	27.92	270.01	8.166E-05	Pulse	0.10	3
Sn			1	0.097	ug/l	16.77	4,744.21	1.436E-03	Pulse	0.10	3
Sb			1	-0.018	ug/l	-11.83	2,063.55	4.657E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	101.54	50.00	1.127E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	9.79	1,006.74	3.946E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	50.92	416.69	1.635E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	33.25	300.01	1.175E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	16.59	1,346.74	5.281E-04	Pulse	0.10	3
Na			2	5.428	ug/l	11.34	8,737.92	1.163E-01	Pulse	0.30	3
Mg			2	0.740	ug/l	23.45	322.23	4.287E-03	Pulse	0.30	3
Al			2	0.642	ug/l	24.76	114.45	1.524E-03	Pulse	0.30	3
K			2	2.502	ug/l	46.36	6,425.75	8.551E-02	Pulse	0.30	3
Ca			2	3.066	ug/l	10.64	65.55	8.725E-04	Pulse	0.30	3
Ti			2	0.057	ug/l	125.17	5.55	7.374E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-407.01	100.00	1.329E-03	Pulse	0.30	3
Cr			2	0.072	ug/l	20.55	560.02	7.449E-03	Pulse	0.30	3
Mn			2	0.023	ug/l	6.72	73.33	9.759E-04	Pulse	0.30	3
Fe			2	1.086	ug/l	8.22	4,963.15	6.604E-02	Pulse	0.30	3
Co			2	0.010	ug/l	20.21	109.99	1.464E-03	Pulse	0.30	3
Ni			2	0.014	ug/l	79.43	65.56	8.738E-04	Pulse	0.30	3
Cu			2	0.042	ug/l	26.89	1,141.16	1.519E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.025	ug/l	-160.70	191.11	2.544E-03	Pulse	0.30	3
As			2	0.029	ug/l	36.34	15.67	2.082E-04	Pulse	1.00	3
Cd			2	0.012	ug/l	15.28	15.51	4.099E-05	Pulse	0.30	3
Sn			2	0.188	ug/l	10.63	896.70	2.370E-03	Pulse	0.30	3
Se			3	0.106	ug/l	3.66	15.27	1.254E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,036,923.83	0.60	89.0	Pulse	0.10	3
1	Sc		2,686,727.35	1.01	89.2	Pulse	0.10	3
1	Ge		508,905.12	1.52	92.1	Pulse	0.10	3
1	Ge		707,036.53	0.58	92.7	Pulse	0.10	3
1	Rh		3,279,460.68	0.68	95.2	Pulse	0.10	3
1	In		3,303,258.43	1.09	97.7	Pulse	0.10	3
1	Tb		4,430,989.73	1.04	100.3	Pulse	0.10	3
1	Ho		439,336.60	1.02	102.3	Pulse	0.10	3
1	Bi		2,550,942.82	0.43	102.6	Pulse	0.10	3
2	Sc		75,136.17	0.83	90.7	Pulse	0.30	3
2	Ge		44,698.87	0.67	93.2	Pulse	0.30	3
2	Ge		67,580.34	1.15	93.8	Pulse	0.30	3
2	Rh		1,359,671.16	0.02	95.4	Pulse	0.30	3
2	In		378,380.95	0.40	93.7	Pulse	0.30	3
2	Tb		1,561,679.10	0.58	94.6	Pulse	0.30	3
2	Ho		159,245.87	0.52	96.1	Pulse	0.30	3
2	Bi		1,067,162.08	0.28	97.9	Pulse	0.30	3
3	Sc		123,397.25	0.69	97.9	Pulse	0.30	3
3	Ge		80,494.70	1.19	99.8	Pulse	0.30	3
3	Ge		121,764.65	0.59	99.4	Pulse	0.30	3
3	Rh		1,479,283.69	0.17	100.0	Pulse	0.30	3
3	Tb		2,182,895.68	0.44	102.4	Pulse	0.30	3

Quantitation Report

File Name	036SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 13:59
Sample Name	mp16806-b1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	71.527	ug/l	1.48	297,972.45	1.409E-01	Pulse	0.25	3
B			1	89.579	ug/l	0.86	280,888.83	1.328E-01	Pulse	0.15	3
Ca			1	3920.644	ug/l	0.49	1,826,690.50	6.531E-01	Pulse	0.10	3
Sr			1	78.083	ug/l	0.53	1,713,174.77	5.135E-01	Pulse	0.10	3
Mo			1	75.014	ug/l	0.31	315,824.10	9.465E-02	Pulse	0.10	3
Ag			1	80.566	ug/l	1.00	827,907.62	2.462E-01	Pulse	0.10	3
Sn			1	77.394	ug/l	1.12	488,752.34	1.453E-01	Pulse	0.10	3
Sb			1	75.523	ug/l	1.02	567,008.40	1.234E-01	Pulse	0.10	3
Ba			1	75.182	ug/l	0.04	234,810.42	5.112E-02	Pulse	0.10	3
Tl			1	76.209	ug/l	1.80	1,298,034.88	4.983E-01	Pulse	0.10	3
Pb			1	79.468	ug/l	1.58	465,755.86	1.788E-01	Pulse	0.10	3
Pb			1	79.680	ug/l	0.92	413,141.19	1.586E-01	Pulse	0.10	3
Pb			1	79.090	ug/l	1.21	1,880,269.93	7.219E-01	Pulse	0.10	3
Na			2	3855.193	ug/l	1.49	1,660,836.84	2.138E+01	Pulse	0.30	3
Mg			2	3828.474	ug/l	0.97	740,411.52	9.532E+00	Pulse	0.30	3
Al			2	3644.542	ug/l	1.81	209,896.61	2.702E+00	Pulse	0.30	3
K			2	3772.979	ug/l	0.84	430,748.30	5.546E+00	Pulse	0.30	3
Ca			2	4093.206	ug/l	1.52	24,890.97	3.205E-01	Pulse	0.30	3
Ti			2	73.791	ug/l	4.39	3,707.13	4.774E-02	Pulse	0.30	3
V			2	79.880	ug/l	0.97	138,564.76	1.784E+00	Pulse	0.30	3
Cr			2	78.866	ug/l	1.25	179,142.21	2.306E+00	Pulse	0.30	3
Mn			2	76.663	ug/l	1.93	78,462.83	1.010E+00	Pulse	0.30	3
Fe			2	4023.601	ug/l	1.40	6,945,641.53	8.942E+01	Analog	0.30	3
Co			2	79.618	ug/l	1.02	303,949.46	3.913E+00	Pulse	0.30	3
Ni			2	78.347	ug/l	1.27	82,867.81	1.067E+00	Pulse	0.30	3
Cu			2	77.813	ug/l	1.57	230,001.36	2.961E+00	Pulse	0.30	3
Zn			2	70.970	ug/l	2.01	25,755.90	3.316E-01	Pulse	0.30	3
As			2	72.852	ug/l	1.61	13,760.15	1.772E-01	Pulse	1.00	3
Cd			2	75.659	ug/l	1.68	37,604.35	9.927E-02	Pulse	0.30	3
Sn			2	78.911	ug/l	0.86	75,934.98	2.005E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	343.494	ug/l	0.17	20,629.95	1.629E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,114,624.04	0.59	92.4	Pulse	0.10	3
1	Sc		2,796,947.88	1.46	92.9	Pulse	0.10	3
1	Ge		548,627.23	1.21	99.3	Pulse	0.10	3
1	Ge		758,058.06	0.80	99.4	Pulse	0.10	3
1	Rh		3,336,644.22	2.11	96.9	Pulse	0.10	3
1	In		3,363,608.68	1.28	99.5	Pulse	0.10	3
1	Tb		4,593,212.64	1.88	104.0	Pulse	0.10	3
1	Ho		456,834.99	1.92	106.3	Pulse	0.10	3
1	Bi		2,604,693.14	0.46	104.8	Pulse	0.10	3
2	Sc		77,678.79	1.16	93.8	Pulse	0.30	3
2	Ge		47,323.87	1.54	98.6	Pulse	0.30	3
2	Ge		71,885.18	1.52	99.7	Pulse	0.30	3
2	Rh		1,358,678.39	0.22	95.4	Pulse	0.30	3
2	In		378,799.89	0.43	93.8	Pulse	0.30	3
2	Tb		1,575,324.24	0.80	95.4	Pulse	0.30	3
2	Ho		160,584.45	0.54	96.9	Pulse	0.30	3
2	Bi		1,052,469.40	0.32	96.5	Pulse	0.30	3
3	Sc		130,986.22	0.97	104.0	Pulse	0.30	3
3	Ge		83,563.61	0.67	103.6	Pulse	0.30	3
3	Ge		126,612.97	0.27	103.4	Pulse	0.30	3
3	Rh		1,492,917.72	0.70	100.9	Pulse	0.30	3
3	Tb		2,223,098.31	0.31	104.3	Pulse	0.30	3

Quantitation Report

File Name 037SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 14:04
Sample Name mp16806-s1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.495	ug/l	0.51	305,047.36	1.448E-01	Pulse	0.25	3
B			1	130.147	ug/l	1.38	404,655.62	1.921E-01	Pulse	0.15	3
Ca			1	57279.943	ug/l	1.39	26,861,946.27	9.498E+00	Analog	0.10	3
Sr			1	222.344	ug/l	0.79	4,751,534.72	1.462E+00	Pulse	0.10	3
Mo			1	79.241	ug/l	0.99	324,981.72	9.998E-02	Pulse	0.10	3
Ag			1	79.744	ug/l	1.16	807,493.04	2.436E-01	Pulse	0.10	3
Sn			1	79.210	ug/l	0.37	492,832.16	1.487E-01	Pulse	0.10	3
Sb			1	75.591	ug/l	0.24	567,475.70	1.236E-01	Pulse	0.10	3
Ba			1	343.562	ug/l	0.92	1,072,762.33	2.336E-01	Pulse	0.10	3
Tl			1	80.183	ug/l	0.60	1,302,548.10	5.243E-01	Pulse	0.10	3
Pb			1	83.265	ug/l	0.82	465,441.80	1.873E-01	Pulse	0.10	3
Pb			1	82.864	ug/l	1.31	409,818.05	1.649E-01	Pulse	0.10	3
Pb			1	82.655	ug/l	0.80	1,874,211.38	7.544E-01	Pulse	0.10	3
Na			2	39647.225	ug/l	2.17	17,466,470.42	2.194E+02	Analog	0.30	3
Mg			2	16164.152	ug/l	2.47	3,203,820.15	4.024E+01	Pulse	0.30	3
Al			2	4794.815	ug/l	2.63	283,021.73	3.555E+00	Pulse	0.30	3
K			2	5332.914	ug/l	2.51	621,435.66	7.806E+00	Pulse	0.30	3
Ca			2	54639.953	ug/l	1.57	340,209.31	4.273E+00	Pulse	0.30	3
Ti			2	109.185	ug/l	3.15	5,624.55	7.064E-02	Pulse	0.30	3
V			2	90.576	ug/l	2.61	161,012.66	2.023E+00	Pulse	0.30	3
Cr			2	82.325	ug/l	1.41	191,688.00	2.407E+00	Pulse	0.30	3
Mn			2	492.599	ug/l	1.94	516,606.23	6.489E+00	Pulse	0.30	3
Fe			2	23475.665	ug/l	2.03	41,531,176.13	5.217E+02	Analog	0.30	3
Co			2	80.289	ug/l	1.82	314,180.95	3.946E+00	Pulse	0.30	3
Ni			2	82.539	ug/l	2.28	89,480.00	1.124E+00	Pulse	0.30	3
Cu			2	77.661	ug/l	1.60	235,319.53	2.956E+00	Pulse	0.30	3
Zn			2	73.979	ug/l	1.20	27,513.19	3.455E-01	Pulse	0.30	3
As			2	79.456	ug/l	2.10	15,382.92	1.932E-01	Pulse	1.00	3
Cd			2	75.362	ug/l	2.90	37,334.18	9.888E-02	Pulse	0.30	3
Sn			2	79.646	ug/l	0.87	76,378.17	2.023E-01	Pulse	0.30	3
Se			3	348.521	ug/l	0.50	21,115.30	1.653E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,106,866.11	0.46	92.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,828,229.85	0.80	93.9	Pulse	0.10	3
1	Ge		552,552.71	1.35	100.1	Pulse	0.10	3
1	Ge		770,157.46	1.81	101.0	Pulse	0.10	3
1	Rh		3,250,209.95	0.76	94.4	Pulse	0.10	3
1	In		3,314,537.69	1.16	98.0	Pulse	0.10	3
1	Tb		4,593,114.41	1.92	104.0	Pulse	0.10	3
1	Ho		456,708.65	1.43	106.3	Pulse	0.10	3
1	Bi		2,484,496.58	1.24	100.0	Pulse	0.10	3
2	Sc		79,637.03	2.18	96.1	Pulse	0.30	3
2	Ge		49,673.08	0.62	103.5	Pulse	0.30	3
2	Ge		73,147.47	0.59	101.5	Pulse	0.30	3
2	Rh		1,345,494.29	0.37	94.4	Pulse	0.30	3
2	In		377,529.43	1.02	93.5	Pulse	0.30	3
2	Tb		1,588,377.47	0.74	96.2	Pulse	0.30	3
2	Ho		162,348.78	0.82	97.9	Pulse	0.30	3
2	Bi		1,024,884.02	0.57	94.0	Pulse	0.30	3
3	Sc		131,533.36	0.44	104.4	Pulse	0.30	3
3	Ge		84,448.74	1.12	104.7	Pulse	0.30	3
3	Ge		127,726.08	0.75	104.3	Pulse	0.30	3
3	Rh		1,459,140.57	0.27	98.7	Pulse	0.30	3
3	Tb		2,192,782.48	0.58	102.8	Pulse	0.30	3

Quantitation Report

File Name 038SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 14:09
Sample Name mp16806-s2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	72.574	ug/l	0.68	306,541.66	1.430E-01	Pulse	0.25	3
B			1	129.570	ug/l	1.45	410,003.53	1.912E-01	Pulse	0.15	3
Ca			1	55364.957	ug/l	0.76	26,555,375.44	9.181E+00	Analog	0.10	3
Sr			1	215.610	ug/l	0.33	4,704,482.85	1.418E+00	Pulse	0.10	3
Mo			1	77.721	ug/l	1.28	325,391.78	9.807E-02	Pulse	0.10	3
Ag			1	79.413	ug/l	0.93	817,943.30	2.426E-01	Pulse	0.10	3
Sn			1	77.525	ug/l	0.44	490,645.54	1.456E-01	Pulse	0.10	3
Sb			1	74.496	ug/l	0.78	562,697.14	1.218E-01	Pulse	0.10	3
Ba			1	337.576	ug/l	0.39	1,060,637.59	2.295E-01	Pulse	0.10	3
Tl			1	78.198	ug/l	0.72	1,283,917.97	5.113E-01	Pulse	0.10	3
Pb			1	82.375	ug/l	1.14	465,387.57	1.853E-01	Pulse	0.10	3
Pb			1	81.177	ug/l	0.74	405,793.73	1.616E-01	Pulse	0.10	3
Pb			1	81.199	ug/l	0.19	1,861,001.45	7.411E-01	Pulse	0.10	3
Na			2	37935.114	ug/l	0.82	17,160,213.21	2.099E+02	Analog	0.30	3
Mg			2	15692.619	ug/l	1.56	3,193,796.61	3.907E+01	Pulse	0.30	3
Al			2	4755.299	ug/l	0.48	288,252.90	3.526E+00	Pulse	0.30	3
K			2	5251.034	ug/l	0.68	628,445.44	7.687E+00	Pulse	0.30	3
Ca			2	53130.271	ug/l	1.05	339,662.24	4.155E+00	Pulse	0.30	3
Ti			2	106.334	ug/l	5.03	5,622.30	6.879E-02	Pulse	0.30	3
V			2	88.946	ug/l	1.58	162,360.04	1.986E+00	Pulse	0.30	3
Cr			2	79.830	ug/l	1.50	190,837.12	2.335E+00	Pulse	0.30	3
Mn			2	481.153	ug/l	1.49	518,109.93	6.338E+00	Pulse	0.30	3
Fe			2	22777.710	ug/l	0.93	41,379,962.80	5.062E+02	Analog	0.30	3
Co			2	78.094	ug/l	1.33	313,766.25	3.838E+00	Pulse	0.30	3
Ni			2	79.633	ug/l	1.05	88,651.18	1.084E+00	Pulse	0.30	3
Cu			2	75.587	ug/l	0.96	235,184.90	2.877E+00	Pulse	0.30	3
Zn			2	71.221	ug/l	2.16	27,200.45	3.328E-01	Pulse	0.30	3
As			2	77.400	ug/l	1.96	15,384.91	1.882E-01	Pulse	1.00	3
Cd			2	73.253	ug/l	2.52	36,880.87	9.611E-02	Pulse	0.30	3
Sn			2	77.822	ug/l	1.44	75,872.40	1.977E-01	Pulse	0.30	3
Se			3	337.825	ug/l	0.78	20,936.13	1.602E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,144,003.01	0.86	93.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,892,384.75	0.27	96.1	Pulse	0.10	3
1	Ge		556,649.67	1.09	100.8	Pulse	0.10	3
1	Ge		774,361.27	1.10	101.5	Pulse	0.10	3
1	Rh		3,318,418.08	1.21	96.3	Pulse	0.10	3
1	In		3,371,033.29	1.10	99.7	Pulse	0.10	3
1	Tb		4,621,130.56	0.82	104.6	Pulse	0.10	3
1	Ho		454,855.89	0.82	105.9	Pulse	0.10	3
1	Bi		2,511,117.51	1.22	101.0	Pulse	0.10	3
2	Sc		81,754.47	1.24	98.7	Pulse	0.30	3
2	Ge		50,098.84	1.05	104.4	Pulse	0.30	3
2	Ge		74,773.53	1.12	103.8	Pulse	0.30	3
2	Rh		1,362,474.29	0.34	95.6	Pulse	0.30	3
2	In		383,744.14	0.56	95.0	Pulse	0.30	3
2	Tb		1,603,888.06	0.66	97.2	Pulse	0.30	3
2	Ho		163,890.32	0.56	98.9	Pulse	0.30	3
2	Bi		1,030,813.64	0.57	94.5	Pulse	0.30	3
3	Sc		135,325.49	0.42	107.4	Pulse	0.30	3
3	Ge		85,924.49	0.46	106.5	Pulse	0.30	3
3	Ge		130,649.15	0.18	106.7	Pulse	0.30	3
3	Rh		1,475,946.50	0.87	99.8	Pulse	0.30	3
3	Tb		2,227,079.98	0.53	104.5	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 14:14
Sample Name	jc92907-15
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.094	ug/l	16.78	412.01	1.884E-04	Pulse	0.25	3
B			1	49.886	ug/l	1.03	163,891.33	7.487E-02	Pulse	0.15	3
Ca			1	52089.506	ug/l	0.98	25,466,027.12	8.638E+00	Analog	0.10	3
Sr			1	138.551	ug/l	0.30	3,065,446.21	9.110E-01	Pulse	0.10	3
Mo			1	1.036	ug/l	5.83	4,437.45	1.319E-03	Pulse	0.10	3
Ag			1	0.069	ug/l	11.62	746.72	2.190E-04	Pulse	0.10	3
Sn			1	0.957	ug/l	4.08	9,750.13	2.859E-03	Pulse	0.10	3
Sb			1	0.164	ug/l	22.57	3,660.60	7.920E-04	Pulse	0.10	3
Ba			1	270.248	ug/l	0.64	848,731.11	1.837E-01	Pulse	0.10	3
Tl			1	0.048	ug/l	8.51	1,143.42	4.541E-04	Pulse	0.10	3
Pb			1	0.793	ug/l	6.72	4,640.92	1.841E-03	Pulse	0.10	3
Pb			1	0.767	ug/l	1.63	3,980.71	1.580E-03	Pulse	0.10	3
Pb			1	0.762	ug/l	0.84	18,178.42	7.216E-03	Pulse	0.10	3
Na			2	35310.400	ug/l	0.95	16,247,444.35	1.954E+02	Analog	0.30	3
Mg			2	12292.158	ug/l	1.07	2,544,594.83	3.060E+01	Pulse	0.30	3
Al			2	1154.233	ug/l	1.66	71,192.79	8.563E-01	Pulse	0.30	3
K			2	1525.065	ug/l	0.23	190,263.91	2.288E+00	Pulse	0.30	3
Ca			2	50546.836	ug/l	1.12	328,657.06	3.953E+00	Pulse	0.30	3
Ti			2	33.802	ug/l	6.35	1,818.01	2.187E-02	Pulse	0.30	3
V			2	9.546	ug/l	1.39	17,833.07	2.145E-01	Pulse	0.30	3
Cr			2	3.506	ug/l	2.69	8,781.31	1.056E-01	Pulse	0.30	3
Mn			2	412.516	ug/l	0.81	451,814.06	5.434E+00	Pulse	0.30	3
Fe			2	19611.814	ug/l	1.01	36,235,175.23	4.358E+02	Analog	0.30	3
Co			2	1.512	ug/l	7.27	6,217.89	7.481E-02	Pulse	0.30	3
Ni			2	4.653	ug/l	0.53	5,307.58	6.383E-02	Pulse	0.30	3
Cu			2	1.977	ug/l	2.24	7,230.55	8.695E-02	Pulse	0.30	3
Zn			2	6.419	ug/l	3.20	2,703.59	3.251E-02	Pulse	0.30	3
As			2	9.104	ug/l	2.51	1,845.44	2.220E-02	Pulse	1.00	3
Cd			2	0.013	ug/l	152.59	9.79	2.514E-05	Pulse	0.30	3
Sn			2	0.983	ug/l	7.31	1,513.43	3.898E-03	Pulse	0.30	3
Se			3	0.480	ug/l	4.89	33.27	2.522E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,188,731.23	1.00	95.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,948,302.25	1.11	97.9	Pulse	0.10	3
1	Ge		574,332.88	0.87	104.0	Pulse	0.10	3
1	Ge		792,061.99	1.40	103.9	Pulse	0.10	3
1	Rh		3,364,867.87	0.60	97.7	Pulse	0.10	3
1	In		3,411,070.61	0.89	100.9	Pulse	0.10	3
1	Tb		4,619,421.49	1.19	104.6	Pulse	0.10	3
1	Ho		459,477.83	1.05	106.9	Pulse	0.10	3
1	Bi		2,519,098.97	1.26	101.4	Pulse	0.10	3
2	Sc		83,149.20	0.82	100.4	Pulse	0.30	3
2	Ge		50,665.05	0.65	105.6	Pulse	0.30	3
2	Ge		76,086.36	0.91	105.6	Pulse	0.30	3
2	Rh		1,388,084.01	0.43	97.4	Pulse	0.30	3
2	In		388,354.53	1.04	96.2	Pulse	0.30	3
2	Tb		1,600,304.17	1.01	97.0	Pulse	0.30	3
2	Ho		164,322.72	1.13	99.1	Pulse	0.30	3
2	Bi		1,039,543.64	0.65	95.3	Pulse	0.30	3
3	Sc		138,072.26	0.77	109.6	Pulse	0.30	3
3	Ge		87,343.85	0.97	108.3	Pulse	0.30	3
3	Ge		131,976.43	1.46	107.8	Pulse	0.30	3
3	Rh		1,495,027.26	0.36	101.1	Pulse	0.30	3
3	Tb		2,239,039.98	0.88	105.0	Pulse	0.30	3

Quantitation Report

File Name 040SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 14:19
Sample Name mp16806-sd1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.128	ug/l	7.80	122.67	5.343E-05	Pulse	0.25	3
B			1	74.147	ug/l	1.18	54,400.37	2.369E-02	Pulse	0.15	3
Ca			1	53942.922	ug/l	1.07	5,437,425.96	1.792E+00	Analog	0.10	3
Sr			1	135.184	ug/l	0.75	633,994.31	1.779E-01	Pulse	0.10	3
Mo			1	1.334	ug/l	13.35	1,240.09	3.483E-04	Pulse	0.10	3
Ag			1	0.116	ug/l	50.03	280.01	7.907E-05	Pulse	0.10	3
Sn			1	-1.683	ug/l	-4.72	1,593.48	4.477E-04	Pulse	0.10	3
Sb			1	-0.649	ug/l	-18.98	1,483.46	3.130E-04	Pulse	0.10	3
Ba			1	273.181	ug/l	0.25	176,046.14	3.715E-02	Pulse	0.10	3
Tl			1	0.207	ug/l	12.46	1,093.42	4.143E-04	Pulse	0.10	3
Pb			1	0.840	ug/l	21.03	1,146.76	4.350E-04	Pulse	0.10	3
Pb			1	0.811	ug/l	10.93	993.40	3.765E-04	Pulse	0.10	3
Pb			1	0.831	ug/l	5.59	4,703.83	1.781E-03	Pulse	0.10	3
Na			2	34335.906	ug/l	1.03	3,299,985.49	3.805E+01	Pulse	0.30	3
Mg			2	12525.531	ug/l	0.64	541,046.86	6.238E+00	Pulse	0.30	3
Al			2	1212.999	ug/l	0.86	15,649.86	1.804E-01	Pulse	0.30	3
K			2	1568.818	ug/l	1.64	46,224.86	5.329E-01	Pulse	0.30	3
Ca			2	51644.996	ug/l	1.23	70,088.66	8.081E-01	Pulse	0.30	3
Ti			2	29.290	ug/l	14.81	328.90	3.790E-03	Pulse	0.30	3
V			2	9.902	ug/l	1.03	3,960.52	4.566E-02	Pulse	0.30	3
Cr			2	3.908	ug/l	1.45	2,259.08	2.604E-02	Pulse	0.30	3
Mn			2	427.924	ug/l	0.67	97,814.62	1.128E+00	Pulse	0.30	3
Fe			2	20073.624	ug/l	0.47	7,739,556.36	8.923E+01	Analog	0.30	3
Co			2	1.509	ug/l	3.71	1,331.40	1.535E-02	Pulse	0.30	3
Ni			2	4.918	ug/l	5.46	1,204.50	1.388E-02	Pulse	0.30	3
Cu			2	1.913	ug/l	5.46	2,300.19	2.652E-02	Pulse	0.30	3
Zn			2	7.898	ug/l	10.17	875.59	1.009E-02	Pulse	0.30	3
As			2	9.619	ug/l	2.93	411.34	4.742E-03	Pulse	1.00	3
Cd			2	0.049	ug/l	234.74	8.83	2.112E-05	Pulse	0.30	3
Sn			2	-1.582	ug/l	-6.88	258.90	6.219E-04	Pulse	0.30	3
Se			3	1.147	ug/l	21.41	17.20	1.334E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,296,370.48	0.61	100.4	Pulse	0.10	3
1	Sc		3,035,103.60	1.04	100.8	Pulse	0.10	3
1	Ge		564,898.79	0.97	102.3	Pulse	0.10	3

Quantitation Report

1	Ge		784,093.61	0.93	102.8	Pulse	0.10	3
1	Rh		3,564,427.03	1.76	103.5	Pulse	0.10	3
1	In		3,557,540.47	1.61	105.2	Pulse	0.10	3
1	Tb		4,738,380.03	0.83	107.3	Pulse	0.10	3
1	Ho		464,245.07	0.53	108.1	Pulse	0.10	3
1	Bi		2,640,391.94	1.91	106.2	Pulse	0.10	3
2	Sc		86,741.81	0.67	104.7	Pulse	0.30	3
2	Ge		50,824.45	1.59	105.9	Pulse	0.30	3
2	Ge		76,082.83	0.75	105.6	Pulse	0.30	3
2	Rh		1,469,952.76	0.92	103.2	Pulse	0.30	3
2	In		416,444.04	0.46	103.1	Pulse	0.30	3
2	Tb		1,672,409.80	0.70	101.3	Pulse	0.30	3
2	Ho		168,461.29	0.65	101.6	Pulse	0.30	3
2	Bi		1,121,432.18	1.09	102.8	Pulse	0.30	3
3	Sc		129,844.01	6.39	103.1	Pulse	0.30	3
3	Ge		84,939.65	3.36	105.3	Pulse	0.30	3
3	Ge		128,845.35	3.01	105.2	Pulse	0.30	3
3	Rh		1,495,697.93	5.70	101.1	Pulse	0.30	3
3	Tb		2,154,825.33	5.24	101.1	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 14:24
Sample Name mp16806-ps1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	76.781	ug/l	0.16	337,062.14	1.513E-01	Pulse	0.25	3
B			1	128.234	ug/l	1.06	421,761.61	1.893E-01	Pulse	0.15	3
Ca			1	52184.762	ug/l	1.56	26,026,065.45	8.654E+00	Analog	0.10	3
Sr			1	210.633	ug/l	0.50	4,675,737.01	1.385E+00	Pulse	0.10	3
Mo			1	85.010	ug/l	1.08	362,121.00	1.073E-01	Pulse	0.10	3
Ag			1	77.728	ug/l	0.35	813,909.18	2.375E-01	Pulse	0.10	3
Sn			1	82.853	ug/l	0.87	532,879.68	1.555E-01	Pulse	0.10	3
Sb			1	79.151	ug/l	0.51	604,626.23	1.293E-01	Pulse	0.10	3
Ba			1	324.657	ug/l	0.71	1,031,817.17	2.207E-01	Pulse	0.10	3
Tl			1	82.092	ug/l	0.38	1,347,639.82	5.368E-01	Pulse	0.10	3
Pb			1	82.092	ug/l	0.63	463,730.07	1.847E-01	Pulse	0.10	3
Pb			1	80.823	ug/l	0.59	403,895.75	1.609E-01	Pulse	0.10	3
Pb			1	81.076	ug/l	0.33	1,857,717.23	7.400E-01	Pulse	0.10	3
Na			2	35722.511	ug/l	1.13	16,701,957.11	1.977E+02	Analog	0.30	3
Mg			2	15175.141	ug/l	1.19	3,192,322.72	3.778E+01	Pulse	0.30	3
Al			2	4908.945	ug/l	1.83	307,513.65	3.640E+00	Pulse	0.30	3
K			2	5428.462	ug/l	1.70	671,209.47	7.945E+00	Pulse	0.30	3
Ca			2	50111.577	ug/l	1.74	331,089.54	3.919E+00	Pulse	0.30	3
Ti			2	109.680	ug/l	3.98	5,993.43	7.096E-02	Pulse	0.30	3
V			2	91.393	ug/l	1.10	172,434.77	2.041E+00	Pulse	0.30	3
Cr			2	83.397	ug/l	1.78	206,059.05	2.439E+00	Pulse	0.30	3
Mn			2	453.898	ug/l	1.39	505,175.14	5.979E+00	Pulse	0.30	3
Fe			2	22020.985	ug/l	0.55	41,348,568.36	4.893E+02	Analog	0.30	3
Co			2	82.109	ug/l	2.10	340,942.96	4.036E+00	Pulse	0.30	3
Ni			2	82.874	ug/l	2.42	95,337.81	1.129E+00	Pulse	0.30	3
Cu			2	78.401	ug/l	1.25	252,085.42	2.984E+00	Pulse	0.30	3
Zn			2	74.436	ug/l	1.38	29,375.38	3.477E-01	Pulse	0.30	3
As			2	82.515	ug/l	0.56	16,955.13	2.006E-01	Pulse	1.00	3
Cd			2	77.304	ug/l	0.80	39,961.27	1.014E-01	Pulse	0.30	3
Sn			2	83.655	ug/l	0.50	83,702.63	2.124E-01	Pulse	0.30	3
Se			3	356.829	ug/l	0.59	22,416.15	1.693E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,228,344.65	1.43	97.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,007,113.81	1.48	99.9	Pulse	0.10	3
1	Ge		570,957.00	0.68	103.4	Pulse	0.10	3
1	Ge		789,714.03	0.94	103.5	Pulse	0.10	3
1	Rh		3,376,127.87	0.89	98.0	Pulse	0.10	3
1	In		3,427,353.90	1.41	101.4	Pulse	0.10	3
1	Tb		4,674,594.20	1.57	105.9	Pulse	0.10	3
1	Ho		463,512.92	1.48	107.9	Pulse	0.10	3
1	Bi		2,510,560.22	1.27	101.0	Pulse	0.10	3
2	Sc		84,504.82	1.89	102.0	Pulse	0.30	3
2	Ge		50,366.28	1.66	105.0	Pulse	0.30	3
2	Ge		76,185.84	1.07	105.7	Pulse	0.30	3
2	Rh		1,390,248.77	1.69	97.6	Pulse	0.30	3
2	In		394,006.43	1.05	97.6	Pulse	0.30	3
2	Tb		1,618,814.00	0.91	98.1	Pulse	0.30	3
2	Ho		164,991.21	1.69	99.5	Pulse	0.30	3
2	Bi		1,039,882.35	0.98	95.4	Pulse	0.30	3
3	Sc		138,092.00	0.72	109.6	Pulse	0.30	3
3	Ge		87,083.56	0.85	108.0	Pulse	0.30	3
3	Ge		132,438.02	0.53	108.2	Pulse	0.30	3
3	Rh		1,497,330.36	0.40	101.2	Pulse	0.30	3
3	Tb		2,223,562.48	0.80	104.3	Pulse	0.30	3

Quantitation Report

File Name	042SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 14:29
Sample Name	jc92874-12
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.056	ug/l	19.73	252.01	1.124E-04	Pulse	0.25	3
B			1	72.546	ug/l	0.72	242,019.11	1.080E-01	Pulse	0.15	3
Ca			1	57522.677	ug/l	0.82	28,878,538.74	9.539E+00	Analog	0.10	3
Sr			1	496.807	ug/l	0.52	10,921,670.26	3.266E+00	Analog	0.10	3
Mo			1	0.738	ug/l	2.38	3,153.76	9.430E-04	Pulse	0.10	3
Ag			1	0.055	ug/l	8.93	603.37	1.761E-04	Pulse	0.10	3
Sn			1	0.417	ug/l	10.54	6,348.19	1.853E-03	Pulse	0.10	3
Sb			1	0.860	ug/l	5.11	8,926.21	1.924E-03	Pulse	0.10	3
Ba			1	123.232	ug/l	1.67	388,748.99	8.379E-02	Pulse	0.10	3
Tl			1	0.025	ug/l	15.47	756.71	3.071E-04	Pulse	0.10	3
Pb			1	1.205	ug/l	5.38	6,821.81	2.767E-03	Pulse	0.10	3
Pb			1	1.141	ug/l	0.65	5,731.35	2.324E-03	Pulse	0.10	3
Pb			1	1.159	ug/l	2.46	26,723.74	1.084E-02	Pulse	0.10	3
Na			2	120527.568	ug/l	2.42	56,375,621.09	6.668E+02	Analog	0.30	3
Mg			2	37430.119	ug/l	1.16	7,879,475.24	9.319E+01	Analog	0.30	3
Al			2	102.336	ug/l	4.43	6,465.90	7.644E-02	Pulse	0.30	3
K			2	6808.120	ug/l	1.59	840,733.60	9.944E+00	Pulse	0.30	3
Ca			2	57358.617	ug/l	1.39	379,244.73	4.485E+00	Pulse	0.30	3
Ti			2	2.805	ug/l	7.69	153.34	1.815E-03	Pulse	0.30	3
V			2	3.280	ug/l	5.62	6,312.38	7.467E-02	Pulse	0.30	3
Cr			2	2.149	ug/l	2.27	5,579.90	6.599E-02	Pulse	0.30	3
Mn			2	1005.296	ug/l	1.79	1,119,581.97	1.324E+01	Pulse	0.30	3
Fe			2	24661.503	ug/l	1.91	46,331,594.83	5.480E+02	Analog	0.30	3
Co			2	0.394	ug/l	3.86	1,682.80	1.990E-02	Pulse	0.30	3
Ni			2	1.793	ug/l	6.22	2,104.60	2.490E-02	Pulse	0.30	3
Cu			2	2.768	ug/l	4.03	9,884.19	1.169E-01	Pulse	0.30	3
Zn			2	5.996	ug/l	6.69	2,584.68	3.055E-02	Pulse	0.30	3
As			2	21.554	ug/l	1.66	4,436.61	5.246E-02	Pulse	1.00	3
Cd			2	0.022	ug/l	16.97	14.28	3.658E-05	Pulse	0.30	3
Sn			2	0.449	ug/l	23.70	996.71	2.553E-03	Pulse	0.30	3
Se			3	1.103	ug/l	2.81	71.20	5.475E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,241,801.48	0.49	98.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,027,418.81	0.73	100.5	Pulse	0.10	3
1	Ge		574,442.49	1.56	104.0	Pulse	0.10	3
1	Ge		786,455.53	1.78	103.1	Pulse	0.10	3
1	Rh		3,343,692.34	1.27	97.1	Pulse	0.10	3
1	In		3,424,661.30	1.86	101.3	Pulse	0.10	3
1	Tb		4,639,831.49	0.62	105.1	Pulse	0.10	3
1	Ho		462,468.38	1.00	107.6	Pulse	0.10	3
1	Bi		2,466,061.01	1.51	99.2	Pulse	0.10	3
2	Sc		84,559.63	1.34	102.1	Pulse	0.30	3
2	Ge		50,287.19	2.02	104.8	Pulse	0.30	3
2	Ge		75,492.37	0.53	104.7	Pulse	0.30	3
2	Rh		1,366,870.71	0.42	95.9	Pulse	0.30	3
2	In		390,243.80	0.84	96.6	Pulse	0.30	3
2	Tb		1,614,710.49	0.80	97.8	Pulse	0.30	3
2	Ho		165,493.59	1.18	99.8	Pulse	0.30	3
2	Bi		1,014,279.20	0.74	93.0	Pulse	0.30	3
3	Sc		136,076.96	0.43	108.0	Pulse	0.30	3
3	Ge		86,178.96	0.30	106.9	Pulse	0.30	3
3	Ge		130,036.08	0.36	106.2	Pulse	0.30	3
3	Rh		1,476,997.65	0.82	99.9	Pulse	0.30	3
3	Tb		2,217,158.94	0.59	104.0	Pulse	0.30	3

Quantitation Report

File Name 043SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 14:34
Sample Name jc92874-12f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.039	ug/l	7.87	180.00	8.021E-05	Pulse	0.25	3
B			1	71.469	ug/l	2.03	238,721.34	1.064E-01	Pulse	0.15	3
Ca			1	57441.363	ug/l	0.56	28,729,487.91	9.525E+00	Analog	0.10	3
Sr			1	501.923	ug/l	1.11	11,004,858.17	3.300E+00	Analog	0.10	3
Mo			1	0.461	ug/l	3.22	1,976.86	5.928E-04	Pulse	0.10	3
Ag			1	0.017	ug/l	36.20	203.34	5.976E-05	Pulse	0.10	3
Sn			1	0.323	ug/l	9.31	5,684.61	1.677E-03	Pulse	0.10	3
Sb			1	0.431	ug/l	12.80	5,724.60	1.225E-03	Pulse	0.10	3
Ba			1	121.476	ug/l	1.07	386,212.47	8.260E-02	Pulse	0.10	3
Tl			1	0.010	ug/l	52.91	506.69	2.060E-04	Pulse	0.10	3
Pb			1	0.318	ug/l	3.61	1,900.18	7.722E-04	Pulse	0.10	3
Pb			1	0.273	ug/l	2.48	1,466.80	5.963E-04	Pulse	0.10	3
Pb			1	0.284	ug/l	3.39	7,037.60	2.861E-03	Pulse	0.10	3
Na			2	124513.932	ug/l	3.27	57,433,195.50	6.889E+02	Analog	0.30	3
Mg			2	38824.979	ug/l	2.12	8,060,258.85	9.666E+01	Analog	0.30	3
Al			2	11.165	ug/l	8.14	737.81	8.851E-03	Pulse	0.30	3
K			2	6997.252	ug/l	1.98	852,027.10	1.022E+01	Pulse	0.30	3
Ca			2	58485.059	ug/l	2.15	381,364.20	4.574E+00	Pulse	0.30	3
Ti			2	1.050	ug/l	9.14	56.66	6.790E-04	Pulse	0.30	3
V			2	2.547	ug/l	1.21	4,861.88	5.830E-02	Pulse	0.30	3
Cr			2	1.869	ug/l	4.06	4,821.86	5.781E-02	Pulse	0.30	3
Mn			2	1037.549	ug/l	1.96	1,139,669.68	1.367E+01	Pulse	0.30	3
Fe			2	23749.859	ug/l	1.80	44,008,751.58	5.278E+02	Analog	0.30	3
Co			2	0.219	ug/l	1.93	942.34	1.130E-02	Pulse	0.30	3
Ni			2	0.720	ug/l	3.30	858.92	1.029E-02	Pulse	0.30	3
Cu			2	0.387	ug/l	9.07	2,225.73	2.667E-02	Pulse	0.30	3
Zn			2	3.851	ug/l	3.21	1,719.00	2.062E-02	Pulse	0.30	3
As			2	19.004	ug/l	2.20	3,857.47	4.626E-02	Pulse	1.00	3
Cd			2	0.028	ug/l	15.58	17.71	4.556E-05	Pulse	0.30	3
Sn			2	0.435	ug/l	6.60	980.04	2.517E-03	Pulse	0.30	3
Se			3	0.494	ug/l	14.11	34.13	2.589E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,243,611.50	0.90	98.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,016,308.91	1.41	100.2	Pulse	0.10	3
1	Ge		574,820.00	0.79	104.1	Pulse	0.10	3
1	Ge		787,741.08	1.93	103.3	Pulse	0.10	3
1	Rh		3,335,338.80	2.21	96.8	Pulse	0.10	3
1	In		3,390,735.15	1.70	100.3	Pulse	0.10	3
1	Tb		4,676,058.37	1.56	105.9	Pulse	0.10	3
1	Ho		464,288.76	1.67	108.1	Pulse	0.10	3
1	Bi		2,460,271.58	1.31	99.0	Pulse	0.10	3
2	Sc		83,406.28	1.85	100.7	Pulse	0.30	3
2	Ge		50,710.73	1.62	105.7	Pulse	0.30	3
2	Ge		75,201.33	1.49	104.3	Pulse	0.30	3
2	Rh		1,360,158.17	1.30	95.5	Pulse	0.30	3
2	In		389,226.01	1.73	96.4	Pulse	0.30	3
2	Tb		1,614,511.39	2.27	97.8	Pulse	0.30	3
2	Ho		163,837.49	2.12	98.8	Pulse	0.30	3
2	Bi		1,014,060.55	1.00	93.0	Pulse	0.30	3
3	Sc		138,176.33	0.62	109.7	Pulse	0.30	3
3	Ge		87,940.53	1.04	109.0	Pulse	0.30	3
3	Ge		131,714.25	1.19	107.6	Pulse	0.30	3
3	Rh		1,486,752.51	1.07	100.5	Pulse	0.30	3
3	Tb		2,252,258.52	1.38	105.6	Pulse	0.30	3

Quantitation Report

File Name 044_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 14:39
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.004	ug/l	1.16	440,743.58	1.931E-01	Pulse	0.25	3
B			1	101.875	ug/l	1.84	683,716.69	2.995E-01	Pulse	0.15	3
Ca			1	5081.677	ug/l	1.33	5,179,847.32	1.688E+00	Mix	0.10	3
Sr			1	51.618	ug/l	0.71	2,398,368.82	6.788E-01	Pulse	0.10	3
Mo			1	51.468	ug/l	1.63	458,811.06	1.299E-01	Pulse	0.10	3
Ag			1	49.529	ug/l	0.99	1,071,931.31	3.027E-01	Pulse	0.10	3
Sn			1	50.718	ug/l	0.28	673,368.45	1.901E-01	Pulse	0.10	3
Sb			1	53.601	ug/l	1.09	817,670.66	1.750E-01	Pulse	0.10	3
Ba			1	50.635	ug/l	0.36	321,755.47	6.886E-02	Pulse	0.10	3
Tl			1	50.682	ug/l	0.70	1,704,667.06	6.628E-01	Pulse	0.10	3
Pb			1	51.070	ug/l	0.23	591,113.52	2.298E-01	Pulse	0.10	3
Pb			1	51.184	ug/l	0.43	524,114.37	2.038E-01	Pulse	0.10	3
Pb			1	50.877	ug/l	0.51	2,388,600.94	9.286E-01	Pulse	0.10	3
Na			2	4841.745	ug/l	0.40	4,684,105.78	5.363E+01	Pulse	0.30	3
Mg			2	4850.235	ug/l	0.78	2,109,719.36	2.415E+01	Pulse	0.30	3
Al			2	4768.238	ug/l	0.47	617,589.53	7.070E+00	Pulse	0.30	3
K			2	4959.544	ug/l	0.97	1,262,310.89	1.445E+01	Pulse	0.30	3
Ca			2	5178.462	ug/l	1.67	70,779.30	8.102E-01	Pulse	0.30	3
Ti			2	49.585	ug/l	0.49	5,604.34	6.416E-02	Pulse	0.30	3
V			2	51.213	ug/l	0.59	199,766.14	2.287E+00	Pulse	0.30	3
Cr			2	50.239	ug/l	1.07	256,588.98	2.938E+00	Pulse	0.30	3
Mn			2	49.371	ug/l	1.19	113,635.66	1.301E+00	Pulse	0.30	3
Fe			2	5072.538	ug/l	0.74	19,692,929.77	2.254E+02	Analog	0.30	3
Co			2	50.127	ug/l	0.95	430,375.58	4.927E+00	Pulse	0.30	3
Ni			2	49.563	ug/l	0.65	117,896.36	1.350E+00	Pulse	0.30	3
Cu			2	48.801	ug/l	0.14	324,180.30	3.711E+00	Pulse	0.30	3
Zn			2	48.618	ug/l	0.79	39,594.41	4.533E-01	Pulse	0.30	3
As			2	50.997	ug/l	0.59	21,662.66	2.480E-01	Pulse	1.00	3
Cd			2	50.724	ug/l	1.74	55,027.39	1.331E-01	Pulse	0.30	3
Sn			2	51.071	ug/l	0.69	107,108.26	2.591E-01	Pulse	0.30	3
Se			3	196.931	ug/l	1.24	24,219.18	1.868E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,282,860.09	0.91	99.8	Pulse	0.10	3
1	Sc		3,068,794.12	1.37	101.9	Pulse	0.10	3
1	Ge		569,400.23	0.93	103.1	Pulse	0.10	3

Quantitation Report

1	Ge		784,571.19	0.92	102.9	Pulse	0.10	3
1	Rh		3,533,049.01	1.06	102.6	Pulse	0.10	3
1	In		3,541,945.19	0.98	104.7	Pulse	0.10	3
1	Tb		4,672,847.12	1.39	105.8	Pulse	0.10	3
1	Ho		460,289.64	1.60	107.1	Pulse	0.10	3
1	Bi		2,572,310.43	1.70	103.5	Pulse	0.10	3
2	Sc		87,349.23	0.70	105.5	Pulse	0.30	3
2	Ge		50,545.84	0.85	105.4	Pulse	0.30	3
2	Ge		75,484.80	0.25	104.7	Pulse	0.30	3
2	Rh		1,452,609.32	0.65	102.0	Pulse	0.30	3
2	In		413,434.45	0.60	102.4	Pulse	0.30	3
2	Tb		1,666,408.30	0.67	101.0	Pulse	0.30	3
2	Ho		168,721.54	0.58	101.8	Pulse	0.30	3
2	Bi		1,087,485.10	0.83	99.7	Pulse	0.30	3
3	Sc		133,970.28	0.53	106.3	Pulse	0.30	3
3	Ge		85,415.08	0.81	105.9	Pulse	0.30	3
3	Ge		129,650.03	1.40	105.9	Pulse	0.30	3
3	Rh		1,514,557.61	0.41	102.4	Pulse	0.30	3
3	Tb		2,200,163.87	0.98	103.2	Pulse	0.30	3

Quantitation Report

File Name	045_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 14:44
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	23.27	90.67	4.085E-05	Pulse	0.25	3
B			1	5.986	ug/l	2.01	43,291.05	1.952E-02	Pulse	0.15	3
Ca			1	3.326	ug/l	28.24	12,562.01	4.278E-03	Pulse	0.10	3
Sr			1	0.018	ug/l	12.07	1,263.44	3.665E-04	Pulse	0.10	3
Mo			1	0.059	ug/l	5.87	553.36	1.604E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	13.46	296.68	8.583E-05	Pulse	0.10	3
Sn			1	0.086	ug/l	51.93	4,837.61	1.395E-03	Pulse	0.10	3
Sb			1	-0.018	ug/l	-111.85	2,123.57	4.665E-04	Pulse	0.10	3
Ba			1	0.024	ug/l	46.43	183.34	4.023E-05	Pulse	0.10	3
Tl			1	0.020	ug/l	24.31	1,026.74	4.003E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	19.31	326.68	1.274E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	12.37	393.36	1.534E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	12.16	1,606.77	6.264E-04	Pulse	0.10	3
Na			2	5.416	ug/l	2.11	9,690.65	1.162E-01	Pulse	0.30	3
Mg			2	1.147	ug/l	10.86	526.68	6.313E-03	Pulse	0.30	3
Al			2	0.530	ug/l	46.42	113.34	1.358E-03	Pulse	0.30	3
K			2	1.492	ug/l	67.93	6,889.28	8.259E-02	Pulse	0.30	3
Ca			2	5.239	ug/l	15.89	101.11	1.212E-03	Pulse	0.30	3
Ti			2	0.031	ug/l	100.03	3.33	3.993E-05	Pulse	0.30	3
V			2	-0.008	ug/l	-23.21	92.22	1.106E-03	Pulse	0.30	3
Cr			2	0.018	ug/l	42.00	356.68	4.276E-03	Pulse	0.30	3
Mn			2	0.038	ug/l	8.16	115.56	1.385E-03	Pulse	0.30	3
Fe			2	1.316	ug/l	2.76	6,362.42	7.627E-02	Pulse	0.30	3
Co			2	0.007	ug/l	14.46	103.31	1.238E-03	Pulse	0.30	3
Ni			2	0.004	ug/l	105.50	51.11	6.128E-04	Pulse	0.30	3
Cu			2	0.032	ug/l	20.86	1,203.39	1.443E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.005	ug/l	-1033.26	227.78	2.730E-03	Pulse	0.30	3
As			2	0.025	ug/l	40.73	15.67	1.878E-04	Pulse	1.00	3
Cd			2	0.007	ug/l	65.83	11.06	2.723E-05	Pulse	0.30	3
Sn			2	0.145	ug/l	8.54	873.37	2.150E-03	Pulse	0.30	3
Se			3	0.086	ug/l	10.34	13.47	1.057E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,218,129.42	0.88	97.0	Pulse	0.10	3
1	Sc		2,937,916.52	1.72	97.6	Pulse	0.10	3
1	Ge		545,900.42	1.00	98.8	Pulse	0.10	3
1	Ge		749,406.50	2.29	98.3	Pulse	0.10	3
1	Rh		3,447,631.82	1.49	100.1	Pulse	0.10	3
1	In		3,461,930.26	1.90	102.4	Pulse	0.10	3
1	Tb		4,548,517.43	0.93	103.0	Pulse	0.10	3
1	Ho		453,335.60	1.04	105.5	Pulse	0.10	3
1	Bi		2,567,246.63	1.65	103.3	Pulse	0.10	3
2	Sc		83,417.10	0.13	100.7	Pulse	0.30	3
2	Ge		48,832.78	0.97	101.8	Pulse	0.30	3
2	Ge		74,090.76	2.22	102.8	Pulse	0.30	3
2	Rh		1,428,704.60	0.60	100.3	Pulse	0.30	3
2	In		406,231.27	0.42	100.6	Pulse	0.30	3
2	Tb		1,622,249.97	0.82	98.3	Pulse	0.30	3
2	Ho		163,565.58	1.40	98.7	Pulse	0.30	3
2	Bi		1,091,853.57	0.85	100.1	Pulse	0.30	3
3	Sc		131,080.29	1.14	104.0	Pulse	0.30	3
3	Ge		84,472.36	0.42	104.7	Pulse	0.30	3
3	Ge		127,349.86	0.30	104.0	Pulse	0.30	3
3	Rh		1,528,820.70	0.65	103.4	Pulse	0.30	3
3	Tb		2,176,518.80	0.63	102.1	Pulse	0.30	3

Quantitation Report

File Name	046SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 14:49
Sample Name	jc93066-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.052	ug/l	6.53	245.34	1.057E-04	Pulse	0.25	3
B			1	79.394	ug/l	0.13	273,856.46	1.180E-01	Pulse	0.15	3
Ca			1	40487.099	ug/l	1.10	20,524,283.03	6.715E+00	Analog	0.10	3
Sr			1	245.379	ug/l	0.71	5,579,163.67	1.613E+00	Analog	0.10	3
Mo			1	3.961	ug/l	2.24	17,323.27	5.008E-03	Pulse	0.10	3
Ag			1	0.046	ug/l	4.65	516.69	1.495E-04	Pulse	0.10	3
Sn			1	0.665	ug/l	10.58	7,999.00	2.314E-03	Pulse	0.10	3
Sb			1	0.351	ug/l	8.88	5,094.35	1.095E-03	Pulse	0.10	3
Ba			1	69.017	ug/l	1.04	218,348.69	4.693E-02	Pulse	0.10	3
Tl			1	0.024	ug/l	18.11	770.05	2.972E-04	Pulse	0.10	3
Pb			1	2.144	ug/l	2.40	12,639.22	4.880E-03	Pulse	0.10	3
Pb			1	1.982	ug/l	1.79	10,350.68	3.997E-03	Pulse	0.10	3
Pb			1	2.044	ug/l	2.19	48,983.73	1.891E-02	Pulse	0.10	3
Na			2	5285.244	ug/l	1.20	2,559,431.84	2.929E+01	Pulse	0.30	3
Mg			2	20045.681	ug/l	1.26	4,360,492.19	4.991E+01	Pulse	0.30	3
Al			2	1110.480	ug/l	0.83	71,980.48	8.238E-01	Pulse	0.30	3
K			2	1044.283	ug/l	1.36	139,051.39	1.592E+00	Pulse	0.30	3
Ca			2	39269.302	ug/l	0.44	268,327.01	3.071E+00	Pulse	0.30	3
Ti			2	16.471	ug/l	17.82	930.17	1.066E-02	Pulse	0.30	3
V			2	5.327	ug/l	1.52	10,514.55	1.203E-01	Pulse	0.30	3
Cr			2	2.059	ug/l	3.14	5,533.21	6.334E-02	Pulse	0.30	3
Mn			2	33.908	ug/l	1.22	39,055.02	4.470E-01	Pulse	0.30	3
Fe			2	942.183	ug/l	1.36	1,830,698.82	2.095E+01	Pulse	0.30	3
Co			2	0.351	ug/l	4.40	1,554.05	1.779E-02	Pulse	0.30	3
Ni			2	1.764	ug/l	3.96	2,141.28	2.450E-02	Pulse	0.30	3
Cu			2	5.473	ug/l	1.08	19,174.66	2.195E-01	Pulse	0.30	3
Zn			2	19.796	ug/l	1.26	8,256.62	9.450E-02	Pulse	0.30	3
As			2	1.234	ug/l	2.74	267.67	3.064E-03	Pulse	1.00	3
Cd			2	0.041	ug/l	85.97	24.74	6.158E-05	Pulse	0.30	3
Sn			2	0.769	ug/l	2.75	1,352.30	3.359E-03	Pulse	0.30	3
Se			3	0.496	ug/l	12.76	35.20	2.597E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,321,614.85	0.68	101.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,056,525.47	1.62	101.5	Pulse	0.10	3
1	Ge		587,754.22	1.30	106.4	Pulse	0.10	3
1	Ge		811,686.05	1.22	106.4	Pulse	0.10	3
1	Rh		3,458,066.83	1.45	100.4	Pulse	0.10	3
1	In		3,459,082.43	2.13	102.3	Pulse	0.10	3
1	Tb		4,652,197.33	1.48	105.4	Pulse	0.10	3
1	Ho		465,287.41	2.85	108.3	Pulse	0.10	3
1	Bi		2,590,201.94	1.66	104.2	Pulse	0.10	3
2	Sc		87,376.40	0.95	105.5	Pulse	0.30	3
2	Ge		52,866.35	0.33	110.2	Pulse	0.30	3
2	Ge		79,422.19	0.44	110.2	Pulse	0.30	3
2	Rh		1,426,917.27	0.23	100.2	Pulse	0.30	3
2	In		402,596.43	0.45	99.7	Pulse	0.30	3
2	Tb		1,657,902.02	0.88	100.5	Pulse	0.30	3
2	Ho		166,917.12	1.27	100.7	Pulse	0.30	3
2	Bi		1,078,268.05	0.19	98.9	Pulse	0.30	3
3	Sc		140,549.67	0.98	111.6	Pulse	0.30	3
3	Ge		89,291.28	0.87	110.7	Pulse	0.30	3
3	Ge		135,616.82	0.83	110.8	Pulse	0.30	3
3	Rh		1,535,170.95	0.79	103.8	Pulse	0.30	3
3	Tb		2,267,254.84	0.56	106.3	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 14:54
Sample Name jc93074-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	52.31	52.00	2.283E-05	Pulse	0.25	3
B			1	119.625	ug/l	1.19	401,185.76	1.767E-01	Pulse	0.15	3
Ca			1	41040.161	ug/l	0.67	20,556,129.28	6.806E+00	Analog	0.10	3
Sr			1	314.667	ug/l	2.77	7,033,139.06	2.069E+00	Analog	0.10	3
Mo			1	0.452	ug/l	5.84	1,980.21	5.825E-04	Pulse	0.10	3
Ag			1	0.047	ug/l	8.19	526.69	1.517E-04	Pulse	0.10	3
Sn			1	0.751	ug/l	9.21	8,599.33	2.475E-03	Pulse	0.10	3
Sb			1	0.022	ug/l	153.69	2,620.31	5.601E-04	Pulse	0.10	3
Ba			1	15.214	ug/l	1.02	48,433.04	1.035E-02	Pulse	0.10	3
Tl			1	0.004	ug/l	60.73	430.02	1.688E-04	Pulse	0.10	3
Pb			1	0.158	ug/l	6.02	1,050.07	4.125E-04	Pulse	0.10	3
Pb			1	0.157	ug/l	21.58	930.07	3.655E-04	Pulse	0.10	3
Pb			1	0.160	ug/l	2.56	4,387.11	1.723E-03	Pulse	0.10	3
Na			2	23823.321	ug/l	0.64	11,300,839.83	1.318E+02	Analog	0.30	3
Mg			2	5570.141	ug/l	0.74	1,188,716.52	1.387E+01	Pulse	0.30	3
Al			2	5.436	ug/l	104.25	394.81	4.603E-03	Pulse	0.30	3
K			2	7465.361	ug/l	0.60	933,940.14	1.090E+01	Pulse	0.30	3
Ca			2	40219.109	ug/l	1.02	269,601.23	3.145E+00	Pulse	0.30	3
Ti			2	0.381	ug/l	59.97	21.11	2.467E-04	Pulse	0.30	3
V			2	0.128	ug/l	23.69	371.12	4.329E-03	Pulse	0.30	3
Cr			2	0.706	ug/l	6.73	2,044.60	2.385E-02	Pulse	0.30	3
Mn			2	27.613	ug/l	0.79	31,206.24	3.641E-01	Pulse	0.30	3
Fe			2	679.183	ug/l	0.74	1,295,069.74	1.511E+01	Pulse	0.30	3
Co			2	0.607	ug/l	3.21	2,601.19	3.035E-02	Pulse	0.30	3
Ni			2	5.404	ug/l	0.76	6,346.86	7.405E-02	Pulse	0.30	3
Cu			2	13.029	ug/l	1.72	43,356.01	5.058E-01	Pulse	0.30	3
Zn			2	6.141	ug/l	8.13	2,675.81	3.122E-02	Pulse	0.30	3
As			2	25.310	ug/l	1.98	5,278.86	6.159E-02	Pulse	1.00	3
Cd			2	0.006	ug/l	103.31	6.57	1.632E-05	Pulse	0.30	3
Sn			2	0.769	ug/l	11.37	1,352.30	3.359E-03	Pulse	0.30	3
Se			3	0.116	ug/l	19.99	10.67	7.940E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,270,681.39	1.30	99.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,020,221.00	1.51	100.3	Pulse	0.10	3
1	Ge		583,072.35	1.13	105.6	Pulse	0.10	3
1	Ge		798,257.98	0.62	104.7	Pulse	0.10	3
1	Rh		3,399,615.99	0.50	98.7	Pulse	0.10	3
1	In		3,472,535.67	1.42	102.7	Pulse	0.10	3
1	Tb		4,678,899.41	1.06	106.0	Pulse	0.10	3
1	Ho		462,508.65	0.63	107.7	Pulse	0.10	3
1	Bi		2,546,502.78	1.01	102.5	Pulse	0.10	3
2	Sc		85,713.50	0.46	103.5	Pulse	0.30	3
2	Ge		51,900.98	0.82	108.2	Pulse	0.30	3
2	Ge		77,887.14	2.11	108.1	Pulse	0.30	3
2	Rh		1,414,470.85	0.77	99.3	Pulse	0.30	3
2	In		402,761.49	0.84	99.7	Pulse	0.30	3
2	Tb		1,641,568.48	1.16	99.5	Pulse	0.30	3
2	Ho		165,343.49	0.45	99.7	Pulse	0.30	3
2	Bi		1,067,391.83	0.10	97.9	Pulse	0.30	3
3	Sc		138,482.17	0.31	109.9	Pulse	0.30	3
3	Ge		88,342.44	0.29	109.5	Pulse	0.30	3
3	Ge		134,185.02	1.34	109.6	Pulse	0.30	3
3	Rh		1,528,168.90	0.95	103.3	Pulse	0.30	3
3	Tb		2,269,433.94	1.64	106.4	Pulse	0.30	3

Quantitation Report

File Name 048SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 14:59
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	152.91	14.67	6.338E-06	Pulse	0.25	3
B			1	105.729	ug/l	0.28	75,754.99	3.291E-02	Pulse	0.15	3
Ca			1	57580.034	ug/l	0.09	5,762,473.87	1.912E+00	Analog	0.10	3
Sr			1	349.623	ug/l	0.26	1,603,052.27	4.598E-01	Pulse	0.10	3
Mo			1	2.553	ug/l	8.79	2,286.92	6.560E-04	Pulse	0.10	3
Ag			1	0.056	ug/l	9.82	150.01	4.246E-05	Pulse	0.10	3
Sn			1	-1.859	ug/l	-9.48	1,353.44	3.824E-04	Pulse	0.10	3
Sb			1	0.425	ug/l	44.55	3,080.43	6.628E-04	Pulse	0.10	3
Ba			1	102.526	ug/l	0.39	64,786.25	1.395E-02	Pulse	0.10	3
Tl			1	0.046	ug/l	51.19	536.70	2.039E-04	Pulse	0.10	3
Pb			1	1.212	ug/l	9.21	1,590.15	6.026E-04	Pulse	0.10	3
Pb			1	1.235	ug/l	13.87	1,436.80	5.449E-04	Pulse	0.10	3
Pb			1	1.163	ug/l	5.44	6,294.11	2.387E-03	Pulse	0.10	3
Na			2	19473.457	ug/l	0.75	1,868,159.51	2.160E+01	Pulse	0.30	3
Mg			2	6835.967	ug/l	0.18	294,434.11	3.405E+00	Pulse	0.30	3
Al			2	19.367	ug/l	13.10	297.78	3.445E-03	Pulse	0.30	3
K			2	4875.908	ug/l	1.15	128,974.74	1.491E+00	Pulse	0.30	3
Ca			2	55799.905	ug/l	1.22	75,502.17	8.730E-01	Pulse	0.30	3
Ti			2	0.992	ug/l	75.61	11.11	1.284E-04	Pulse	0.30	3
V			2	2.763	ug/l	4.67	1,193.39	1.380E-02	Pulse	0.30	3
Cr			2	0.705	ug/l	9.37	634.47	7.335E-03	Pulse	0.30	3
Mn			2	43.188	ug/l	1.48	9,871.93	1.141E-01	Pulse	0.30	3
Fe			2	417.270	ug/l	1.02	161,912.66	1.872E+00	Pulse	0.30	3
Co			2	1.175	ug/l	8.26	1,044.05	1.207E-02	Pulse	0.30	3
Ni			2	66.065	ug/l	0.79	15,596.40	1.803E-01	Pulse	0.30	3
Cu			2	34.771	ug/l	1.50	23,834.06	2.756E-01	Pulse	0.30	3
Zn			2	2088.452	ug/l	0.50	167,613.52	1.938E+00	Pulse	0.30	3
As			2	2.578	ug/l	11.35	114.00	1.318E-03	Pulse	1.00	3
Cd			2	2.824	ug/l	20.66	309.91	7.492E-04	Pulse	0.30	3
Sn			2	-1.637	ug/l	-3.72	245.56	5.938E-04	Pulse	0.30	3
Se			3	0.859	ug/l	6.39	13.73	1.061E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,301,716.14	1.21	100.6	Pulse	0.10	3
1	Sc		3,013,549.54	0.70	100.1	Pulse	0.10	3
1	Ge		564,266.01	0.94	102.2	Pulse	0.10	3

Quantitation Report

1	Ge		777,896.92	0.69	102.0	Pulse	0.10	3
1	Rh		3,486,115.16	0.65	101.2	Pulse	0.10	3
1	In		3,535,231.03	1.61	104.5	Pulse	0.10	3
1	Tb		4,644,975.14	1.91	105.2	Pulse	0.10	3
1	Ho		457,668.72	1.95	106.5	Pulse	0.10	3
1	Bi		2,636,400.59	1.59	106.1	Pulse	0.10	3
2	Sc		86,483.60	0.55	104.4	Pulse	0.30	3
2	Ge		50,084.32	0.21	104.4	Pulse	0.30	3
2	Ge		75,627.76	1.64	104.9	Pulse	0.30	3
2	Rh		1,448,117.27	1.06	101.6	Pulse	0.30	3
2	In		413,574.04	0.09	102.4	Pulse	0.30	3
2	Tb		1,665,067.54	0.51	100.9	Pulse	0.30	3
2	Ho		167,396.02	0.93	101.0	Pulse	0.30	3
2	Bi		1,113,216.59	1.13	102.1	Pulse	0.30	3
3	Sc		132,675.71	0.68	105.3	Pulse	0.30	3
3	Ge		85,325.74	0.98	105.8	Pulse	0.30	3
3	Ge		129,475.42	0.33	105.7	Pulse	0.30	3
3	Rh		1,506,088.24	1.11	101.8	Pulse	0.30	3
3	Tb		2,203,245.81	0.89	103.3	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 15:04
Sample Name jc92907-12
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.151	ug/l	11.02	676.02	3.003E-04	Pulse	0.25	3
B			1	159.769	ug/l	1.45	529,731.53	2.353E-01	Pulse	0.15	3
Ca			1	5383.250	ug/l	0.57	2,666,117.25	8.956E-01	Pulse	0.10	3
Sr			1	46.615	ug/l	0.24	1,022,970.82	3.066E-01	Pulse	0.10	3
Mo			1	1.562	ug/l	7.29	6,614.96	1.982E-03	Pulse	0.10	3
Ag			1	0.051	ug/l	4.84	550.03	1.632E-04	Pulse	0.10	3
Sn			1	0.653	ug/l	3.70	7,728.82	2.293E-03	Pulse	0.10	3
Sb			1	0.433	ug/l	12.21	5,607.87	1.229E-03	Pulse	0.10	3
Ba			1	337.456	ug/l	1.11	1,047,531.47	2.294E-01	Pulse	0.10	3
Tl			1	0.040	ug/l	15.90	1,023.41	4.021E-04	Pulse	0.10	3
Pb			1	1.808	ug/l	2.05	10,484.12	4.123E-03	Pulse	0.10	3
Pb			1	1.683	ug/l	1.21	8,649.48	3.403E-03	Pulse	0.10	3
Pb			1	1.744	ug/l	1.63	41,120.62	1.617E-02	Pulse	0.10	3
Na			2	26606.537	ug/l	1.53	12,374,840.90	1.472E+02	Analog	0.30	3
Mg			2	6033.976	ug/l	0.97	1,262,588.18	1.502E+01	Pulse	0.30	3
Al			2	2755.428	ug/l	1.98	171,718.46	2.043E+00	Pulse	0.30	3
K			2	1949.749	ug/l	1.16	244,019.11	2.904E+00	Pulse	0.30	3
Ca			2	5411.360	ug/l	1.57	35,598.06	4.235E-01	Pulse	0.30	3
Ti			2	34.613	ug/l	7.04	1,881.35	2.239E-02	Pulse	0.30	3
V			2	7.971	ug/l	2.13	15,070.29	1.793E-01	Pulse	0.30	3
Cr			2	17.417	ug/l	0.35	43,018.35	5.119E-01	Pulse	0.30	3
Mn			2	44.388	ug/l	0.84	49,169.56	5.850E-01	Pulse	0.30	3
Fe			2	55096.052	ug/l	1.76	102,885,627.03	1.224E+03	Analog	0.30	3
Co			2	2.447	ug/l	1.20	10,150.06	1.208E-01	Pulse	0.30	3
Ni			2	23.667	ug/l	1.77	27,114.61	3.226E-01	Pulse	0.30	3
Cu			2	10.410	ug/l	0.63	34,171.13	4.066E-01	Pulse	0.30	3
Zn			2	44.259	ug/l	3.36	17,464.99	2.078E-01	Pulse	0.30	3
As			2	7.653	ug/l	3.08	1,568.75	1.867E-02	Pulse	1.00	3
Cd			2	0.110	ug/l	23.57	59.68	1.530E-04	Pulse	0.30	3
Sn			2	0.648	ug/l	4.94	1,192.28	3.055E-03	Pulse	0.30	3
Se			3	5.710	ug/l	2.35	355.07	2.733E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,251,515.85	1.48	98.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,977,096.00	0.47	98.9	Pulse	0.10	3
1	Ge		565,967.04	0.91	102.5	Pulse	0.10	3
1	Ge		770,486.29	0.34	101.0	Pulse	0.10	3
1	Rh		3,336,543.91	0.51	96.9	Pulse	0.10	3
1	In		3,370,565.31	0.63	99.7	Pulse	0.10	3
1	Tb		4,565,519.20	0.69	103.4	Pulse	0.10	3
1	Ho		460,825.54	1.78	107.3	Pulse	0.10	3
1	Bi		2,542,269.39	1.59	102.3	Pulse	0.10	3
2	Sc		84,044.97	0.76	101.5	Pulse	0.30	3
2	Ge		49,812.43	0.30	103.8	Pulse	0.30	3
2	Ge		75,820.65	0.94	105.2	Pulse	0.30	3
2	Rh		1,397,649.88	0.88	98.1	Pulse	0.30	3
2	In		390,249.97	1.09	96.6	Pulse	0.30	3
2	Tb		1,604,925.32	0.16	97.2	Pulse	0.30	3
2	Ho		166,025.52	0.30	100.1	Pulse	0.30	3
2	Bi		1,053,369.40	1.66	96.6	Pulse	0.30	3
3	Sc		137,286.42	0.37	109.0	Pulse	0.30	3
3	Ge		86,410.25	0.53	107.1	Pulse	0.30	3
3	Ge		129,936.30	0.56	106.1	Pulse	0.30	3
3	Rh		1,500,732.06	0.13	101.5	Pulse	0.30	3
3	Tb		2,225,115.81	0.59	104.4	Pulse	0.30	3

Quantitation Report

File Name	050SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 15:09
Sample Name	jc92907-13
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.036	ug/l	23.91	169.33	7.392E-05	Pulse	0.25	3
B			1	35.753	ug/l	0.86	124,477.62	5.424E-02	Pulse	0.15	3
Ca			1	6150.474	ug/l	0.23	3,070,763.91	1.023E+00	Pulse	0.10	3
Sr			1	39.577	ug/l	0.35	893,035.90	2.603E-01	Pulse	0.10	3
Mo			1	0.334	ug/l	9.61	1,486.79	4.332E-04	Pulse	0.10	3
Ag			1	0.094	ug/l	2.80	1,026.74	2.964E-04	Pulse	0.10	3
Sn			1	0.495	ug/l	18.26	6,918.44	1.998E-03	Pulse	0.10	3
Sb			1	-0.042	ug/l	-23.78	2,113.56	4.559E-04	Pulse	0.10	3
Ba			1	312.935	ug/l	1.50	986,595.14	2.128E-01	Pulse	0.10	3
Tl			1	0.018	ug/l	22.73	666.71	2.630E-04	Pulse	0.10	3
Pb			1	0.264	ug/l	7.39	1,650.15	6.519E-04	Pulse	0.10	3
Pb			1	0.283	ug/l	11.85	1,563.48	6.166E-04	Pulse	0.10	3
Pb			1	0.278	ug/l	0.67	7,090.94	2.799E-03	Pulse	0.10	3
Na			2	29513.791	ug/l	0.34	13,930,012.78	1.633E+02	Analog	0.30	3
Mg			2	7909.977	ug/l	0.82	1,679,524.97	1.969E+01	Pulse	0.30	3
Al			2	626.424	ug/l	0.83	39,653.22	4.650E-01	Pulse	0.30	3
K			2	1024.323	ug/l	2.17	133,242.00	1.563E+00	Pulse	0.30	3
Ca			2	6212.824	ug/l	0.69	41,463.72	4.862E-01	Pulse	0.30	3
Ti			2	12.992	ug/l	9.38	716.69	8.405E-03	Pulse	0.30	3
V			2	2.624	ug/l	2.31	5,117.51	6.001E-02	Pulse	0.30	3
Cr			2	2.945	ug/l	2.98	7,611.84	8.923E-02	Pulse	0.30	3
Mn			2	35.423	ug/l	1.65	39,823.53	4.670E-01	Pulse	0.30	3
Fe			2	36041.863	ug/l	1.62	68,295,908.40	8.009E+02	Analog	0.30	3
Co			2	1.213	ug/l	2.30	5,125.41	6.011E-02	Pulse	0.30	3
Ni			2	15.163	ug/l	2.52	17,640.68	2.069E-01	Pulse	0.30	3
Cu			2	1.763	ug/l	1.24	6,724.78	7.885E-02	Pulse	0.30	3
Zn			2	9.032	ug/l	3.89	3,804.94	4.462E-02	Pulse	0.30	3
As			2	7.312	ug/l	6.02	1,520.74	1.784E-02	Pulse	1.00	3
Cd			2	0.021	ug/l	104.47	14.38	3.618E-05	Pulse	0.30	3
Sn			2	0.736	ug/l	28.71	1,295.70	3.275E-03	Pulse	0.30	3
Se			3	0.239	ug/l	8.29	18.20	1.378E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,294,990.70	1.36	100.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,002,550.58	1.24	99.7	Pulse	0.10	3
1	Ge		577,456.47	1.80	104.6	Pulse	0.10	3
1	Ge		795,690.59	1.26	104.3	Pulse	0.10	3
1	Rh		3,430,506.41	0.87	99.6	Pulse	0.10	3
1	In		3,463,392.60	1.08	102.4	Pulse	0.10	3
1	Tb		4,637,336.70	1.48	105.0	Pulse	0.10	3
1	Ho		460,084.67	1.35	107.1	Pulse	0.10	3
1	Bi		2,533,134.49	1.58	101.9	Pulse	0.10	3
2	Sc		85,286.64	1.42	103.0	Pulse	0.30	3
2	Ge		51,586.82	1.60	107.5	Pulse	0.30	3
2	Ge		77,414.86	0.22	107.4	Pulse	0.30	3
2	Rh		1,400,950.15	0.44	98.3	Pulse	0.30	3
2	In		395,586.40	1.10	98.0	Pulse	0.30	3
2	Tb		1,636,111.60	0.93	99.1	Pulse	0.30	3
2	Ho		165,514.75	1.06	99.8	Pulse	0.30	3
2	Bi		1,057,167.22	1.18	97.0	Pulse	0.30	3
3	Sc		137,627.36	1.28	109.2	Pulse	0.30	3
3	Ge		87,642.09	0.81	108.7	Pulse	0.30	3
3	Ge		132,084.84	0.76	107.9	Pulse	0.30	3
3	Rh		1,525,403.10	1.07	103.1	Pulse	0.30	3
3	Tb		2,237,774.43	0.58	105.0	Pulse	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 15:14
Sample Name	jc92907-14
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.253	ug/l	2.25	1,168.06	5.009E-04	Pulse	0.25	3
B			1	34.572	ug/l	1.01	122,456.29	5.252E-02	Pulse	0.15	3
Ca			1	8321.489	ug/l	0.26	4,302,783.06	1.383E+00	Pulse	0.10	3
Sr			1	37.708	ug/l	0.25	844,709.05	2.480E-01	Pulse	0.10	3
Mo			1	4.226	ug/l	1.79	18,197.61	5.344E-03	Pulse	0.10	3
Ag			1	0.068	ug/l	9.94	736.71	2.146E-04	Pulse	0.10	3
Sn			1	0.834	ug/l	2.23	9,032.89	2.629E-03	Pulse	0.10	3
Sb			1	0.286	ug/l	14.11	4,597.50	9.902E-04	Pulse	0.10	3
Ba			1	341.775	ug/l	0.47	1,078,976.62	2.324E-01	Pulse	0.10	3
Tl			1	0.079	ug/l	9.55	1,656.82	6.575E-04	Pulse	0.10	3
Pb			1	4.625	ug/l	0.69	26,374.28	1.046E-02	Pulse	0.10	3
Pb			1	4.219	ug/l	3.07	21,299.32	8.450E-03	Pulse	0.10	3
Pb			1	4.390	ug/l	0.57	101,633.28	4.031E-02	Pulse	0.10	3
Na			2	27931.040	ug/l	0.42	13,428,700.30	1.546E+02	Analog	0.30	3
Mg			2	9896.102	ug/l	0.62	2,140,552.42	2.464E+01	Pulse	0.30	3
Al			2	5740.676	ug/l	1.34	369,782.91	4.256E+00	Pulse	0.30	3
K			2	1547.802	ug/l	0.83	201,648.71	2.321E+00	Pulse	0.30	3
Ca			2	8245.010	ug/l	0.37	56,045.07	6.451E-01	Pulse	0.30	3
Ti			2	71.304	ug/l	6.04	4,007.36	4.613E-02	Pulse	0.30	3
V			2	17.131	ug/l	0.87	33,336.89	3.837E-01	Pulse	0.30	3
Cr			2	28.560	ug/l	1.68	72,732.17	8.373E-01	Pulse	0.30	3
Mn			2	169.713	ug/l	1.32	194,227.84	2.236E+00	Pulse	0.30	3
Fe			2	29386.677	ug/l	1.50	56,729,153.30	6.530E+02	Analog	0.30	3
Co			2	2.983	ug/l	2.28	12,779.80	1.471E-01	Pulse	0.30	3
Ni			2	22.000	ug/l	2.04	26,057.45	2.999E-01	Pulse	0.30	3
Cu			2	17.150	ug/l	1.12	57,514.59	6.621E-01	Pulse	0.30	3
Zn			2	41.029	ug/l	2.61	16,753.14	1.929E-01	Pulse	0.30	3
As			2	5.586	ug/l	8.28	1,184.71	1.364E-02	Pulse	1.00	3
Cd			2	0.116	ug/l	14.37	63.60	1.605E-04	Pulse	0.30	3
Sn			2	0.888	ug/l	8.17	1,451.20	3.661E-03	Pulse	0.30	3
Se			3	0.472	ug/l	9.93	33.13	2.485E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,331,739.61	0.50	101.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,111,981.93	1.44	103.4	Pulse	0.10	3
1	Ge		585,398.64	1.39	106.0	Pulse	0.10	3
1	Ge		807,024.80	2.55	105.8	Pulse	0.10	3
1	Rh		3,405,707.14	2.26	98.9	Pulse	0.10	3
1	In		3,436,770.98	2.04	101.6	Pulse	0.10	3
1	Tb		4,643,577.75	1.37	105.2	Pulse	0.10	3
1	Ho		460,567.08	1.41	107.2	Pulse	0.10	3
1	Bi		2,521,109.70	0.95	101.4	Pulse	0.10	3
2	Sc		86,880.52	1.28	104.9	Pulse	0.30	3
2	Ge		51,793.10	0.22	108.0	Pulse	0.30	3
2	Ge		78,452.94	1.20	108.9	Pulse	0.30	3
2	Rh		1,414,558.69	0.67	99.3	Pulse	0.30	3
2	In		396,458.95	0.89	98.2	Pulse	0.30	3
2	Tb		1,640,223.03	1.26	99.4	Pulse	0.30	3
2	Ho		167,234.63	1.83	100.9	Pulse	0.30	3
2	Bi		1,046,115.76	0.99	95.9	Pulse	0.30	3
3	Sc		141,354.84	0.69	112.2	Pulse	0.30	3
3	Ge		88,476.80	1.19	109.7	Pulse	0.30	3
3	Ge		133,367.24	0.61	108.9	Pulse	0.30	3
3	Rh		1,518,587.16	0.43	102.7	Pulse	0.30	3
3	Tb		2,233,577.13	0.90	104.8	Pulse	0.30	3

Quantitation Report

File Name 052SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 15:19
Sample Name mp16784a-sd1 4
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.020	ug/l	79.86	24.00	1.066E-05	Pulse	0.25	3
B			1	97.367	ug/l	1.99	68,830.72	3.047E-02	Pulse	0.15	3
Ca			1	57328.928	ug/l	1.07	5,651,097.62	1.904E+00	Analog	0.10	3
Sr			1	343.746	ug/l	0.50	1,549,880.29	4.521E-01	Pulse	0.10	3
Mo			1	2.562	ug/l	2.03	2,256.90	6.583E-04	Pulse	0.10	3
Ag			1	0.020	ug/l	23.83	70.00	2.006E-05	Pulse	0.10	3
Sn			1	-1.864	ug/l	-7.07	1,326.78	3.803E-04	Pulse	0.10	3
Sb			1	0.360	ug/l	66.77	2,950.39	6.417E-04	Pulse	0.10	3
Ba			1	102.587	ug/l	1.64	64,193.59	1.396E-02	Pulse	0.10	3
Tl			1	0.043	ug/l	68.44	516.69	1.997E-04	Pulse	0.10	3
Pb			1	1.286	ug/l	12.87	1,643.48	6.358E-04	Pulse	0.10	3
Pb			1	1.177	ug/l	12.04	1,350.11	5.218E-04	Pulse	0.10	3
Pb			1	1.188	ug/l	7.78	6,294.08	2.434E-03	Pulse	0.10	3
Na			2	19480.111	ug/l	1.29	1,816,570.76	2.161E+01	Pulse	0.30	3
Mg			2	6754.855	ug/l	1.72	282,803.62	3.364E+00	Pulse	0.30	3
Al			2	22.062	ug/l	12.92	323.34	3.844E-03	Pulse	0.30	3
K			2	4851.304	ug/l	1.40	124,773.39	1.484E+00	Pulse	0.30	3
Ca			2	56100.354	ug/l	0.19	73,792.29	8.777E-01	Pulse	0.30	3
Ti			2	0.715	ug/l	24.84	7.78	9.256E-05	Pulse	0.30	3
V			2	2.581	ug/l	7.38	1,092.27	1.299E-02	Pulse	0.30	3
Cr			2	0.703	ug/l	20.01	615.58	7.323E-03	Pulse	0.30	3
Mn			2	42.919	ug/l	3.52	9,535.08	1.134E-01	Pulse	0.30	3
Fe			2	464.938	ug/l	1.44	175,191.64	2.084E+00	Pulse	0.30	3
Co			2	1.180	ug/l	7.78	1,018.46	1.211E-02	Pulse	0.30	3
Ni			2	64.887	ug/l	3.01	14,890.17	1.771E-01	Pulse	0.30	3
Cu			2	34.351	ug/l	1.36	22,900.52	2.724E-01	Pulse	0.30	3
Zn			2	2085.696	ug/l	1.31	162,709.47	1.936E+00	Pulse	0.30	3
As			2	2.200	ug/l	12.73	95.33	1.135E-03	Pulse	1.00	3
Cd			2	2.856	ug/l	1.75	308.80	7.575E-04	Pulse	0.30	3
Sn			2	-1.804	ug/l	-4.20	207.78	5.097E-04	Pulse	0.30	3
Se			3	0.823	ug/l	20.05	12.93	1.027E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,258,660.79	0.94	98.7	Pulse	0.10	3
1	Sc		2,968,103.60	0.70	98.6	Pulse	0.10	3
1	Ge		551,440.14	1.87	99.8	Pulse	0.10	3

Quantitation Report

1	Ge		758,184.02	1.71	99.4	Pulse	0.10	3
1	Rh		3,427,963.91	0.93	99.5	Pulse	0.10	3
1	In		3,489,694.76	0.55	103.2	Pulse	0.10	3
1	Tb		4,599,322.43	1.50	104.2	Pulse	0.10	3
1	Ho		453,459.36	1.12	105.5	Pulse	0.10	3
1	Bi		2,586,522.15	0.92	104.1	Pulse	0.10	3
2	Sc		84,071.64	0.90	101.5	Pulse	0.30	3
2	Ge		48,240.97	1.16	100.6	Pulse	0.30	3
2	Ge		73,450.06	0.38	101.9	Pulse	0.30	3
2	Rh		1,424,371.89	0.29	100.0	Pulse	0.30	3
2	In		407,642.01	0.09	100.9	Pulse	0.30	3
2	Tb		1,642,633.34	0.79	99.5	Pulse	0.30	3
2	Ho		165,305.53	0.68	99.7	Pulse	0.30	3
2	Bi		1,093,767.25	1.52	100.3	Pulse	0.30	3
3	Sc		130,446.35	1.82	103.5	Pulse	0.30	3
3	Ge		83,715.09	1.12	103.8	Pulse	0.30	3
3	Ge		125,891.05	0.34	102.8	Pulse	0.30	3
3	Rh		1,487,852.27	0.57	100.6	Pulse	0.30	3
3	Tb		2,185,331.51	0.23	102.5	Pulse	0.30	3

Quantitation Report

File Name	053SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 15:24
Sample Name	jc92907-16 5
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.143	ug/l	9.97	628.02	2.850E-04	Pulse	0.25	3
B			1	81.294	ug/l	1.35	265,889.29	1.207E-01	Pulse	0.15	3
Ca			1	68636.460	ug/l	0.66	33,259,948.67	1.138E+01	Analog	0.10	3
Sr			1	210.063	ug/l	1.33	4,453,348.47	1.381E+00	Pulse	0.10	3
Mo			1	1.185	ug/l	2.43	4,857.56	1.507E-03	Pulse	0.10	3
Ag			1	0.086	ug/l	4.37	896.73	2.705E-04	Pulse	0.10	3
Sn			1	0.420	ug/l	21.08	6,154.76	1.857E-03	Pulse	0.10	3
Sb			1	0.188	ug/l	18.20	3,750.61	8.301E-04	Pulse	0.10	3
Ba			1	143.325	ug/l	0.28	440,451.31	9.745E-02	Pulse	0.10	3
Tl			1	0.081	ug/l	8.49	1,643.49	6.758E-04	Pulse	0.10	3
Pb			1	2.988	ug/l	3.70	16,483.09	6.779E-03	Pulse	0.10	3
Pb			1	2.722	ug/l	0.84	13,299.71	5.471E-03	Pulse	0.10	3
Pb			1	2.854	ug/l	1.73	63,959.82	2.631E-02	Pulse	0.10	3
Na			2	41646.409	ug/l	1.54	19,022,193.69	2.304E+02	Analog	0.30	3
Mg			2	43042.300	ug/l	1.94	8,845,777.43	1.072E+02	Analog	0.30	3
Al			2	3888.430	ug/l	1.54	238,007.79	2.883E+00	Pulse	0.30	3
K			2	3708.299	ug/l	1.81	450,025.09	5.452E+00	Pulse	0.30	3
Ca			2	67716.642	ug/l	1.08	437,141.33	5.295E+00	Pulse	0.30	3
Ti			2	55.350	ug/l	5.64	2,954.83	3.581E-02	Pulse	0.30	3
V			2	11.692	ug/l	0.01	21,659.89	2.624E-01	Pulse	0.30	3
Cr			2	9.046	ug/l	2.04	22,072.70	2.674E-01	Pulse	0.30	3
Mn			2	323.016	ug/l	1.47	351,241.88	4.255E+00	Pulse	0.30	3
Fe			2	18691.536	ug/l	1.58	34,285,463.08	4.154E+02	Analog	0.30	3
Co			2	4.013	ug/l	2.19	16,326.86	1.978E-01	Pulse	0.30	3
Ni			2	14.166	ug/l	4.22	15,955.63	1.933E-01	Pulse	0.30	3
Cu			2	7.096	ug/l	3.08	23,189.79	2.810E-01	Pulse	0.30	3
Zn			2	15.766	ug/l	2.89	6,259.04	7.582E-02	Pulse	0.30	3
As			2	5.762	ug/l	4.42	1,161.38	1.407E-02	Pulse	1.00	3
Cd			2	0.117	ug/l	49.99	61.99	1.619E-04	Pulse	0.30	3
Sn			2	0.484	ug/l	12.70	1,012.27	2.640E-03	Pulse	0.30	3
Se			3	0.462	ug/l	11.56	31.60	2.439E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,202,250.74	0.81	96.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,922,501.21	1.27	97.1	Pulse	0.10	3
1	Ge		553,177.82	1.80	100.2	Pulse	0.10	3
1	Ge		759,410.80	0.62	99.6	Pulse	0.10	3
1	Rh		3,224,491.10	0.91	93.6	Pulse	0.10	3
1	In		3,315,899.92	0.79	98.1	Pulse	0.10	3
1	Tb		4,519,836.28	0.67	102.4	Pulse	0.10	3
1	Ho		449,720.89	1.71	104.7	Pulse	0.10	3
1	Bi		2,430,962.15	1.04	97.8	Pulse	0.10	3
2	Sc		82,556.53	1.30	99.7	Pulse	0.30	3
2	Ge		50,047.54	1.10	104.3	Pulse	0.30	3
2	Ge		74,663.05	0.47	103.6	Pulse	0.30	3
2	Rh		1,333,490.16	0.88	93.6	Pulse	0.30	3
2	In		383,487.06	0.69	95.0	Pulse	0.30	3
2	Tb		1,579,806.15	0.26	95.7	Pulse	0.30	3
2	Ho		162,177.74	0.77	97.8	Pulse	0.30	3
2	Bi		1,000,938.36	0.41	91.8	Pulse	0.30	3
3	Sc		136,422.85	0.15	108.3	Pulse	0.30	3
3	Ge		85,575.03	0.56	106.1	Pulse	0.30	3
3	Ge		129,541.15	0.42	105.8	Pulse	0.30	3
3	Rh		1,458,683.93	0.40	98.6	Pulse	0.30	3
3	Tb		2,192,524.29	0.75	102.8	Pulse	0.30	3

Quantitation Report

File Name 054_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File
Method Path
Acq Time 8/14/2019 15:29
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 8/14/2019 11:57
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.831	ug/l	0.84	437,810.90	1.963E-01	Pulse	0.25	3
B			1	103.542	ug/l	0.74	678,764.14	3.044E-01	Pulse	0.15	3
Ca			1	5147.327	ug/l	1.54	5,172,584.82	1.710E+00	Mix	0.10	3
Sr			1	52.537	ug/l	0.71	2,372,444.71	6.909E-01	Pulse	0.10	3
Mo			1	51.953	ug/l	1.41	450,177.92	1.311E-01	Pulse	0.10	3
Ag			1	49.977	ug/l	1.05	1,046,104.10	3.054E-01	Pulse	0.10	3
Sn			1	51.198	ug/l	0.19	657,375.75	1.919E-01	Pulse	0.10	3
Sb			1	53.675	ug/l	0.78	797,571.06	1.752E-01	Pulse	0.10	3
Ba			1	51.199	ug/l	1.45	316,851.08	6.962E-02	Pulse	0.10	3
Tl			1	51.417	ug/l	0.43	1,683,533.46	6.724E-01	Pulse	0.10	3
Pb			1	51.507	ug/l	0.18	580,323.26	2.318E-01	Pulse	0.10	3
Pb			1	51.700	ug/l	0.56	515,319.95	2.058E-01	Pulse	0.10	3
Pb			1	51.419	ug/l	0.55	2,349,929.45	9.385E-01	Pulse	0.10	3
Na			2	4849.144	ug/l	0.65	4,629,580.65	5.371E+01	Pulse	0.30	3
Mg			2	4908.725	ug/l	0.27	2,107,112.07	2.444E+01	Pulse	0.30	3
Al			2	4859.054	ug/l	0.96	621,093.38	7.205E+00	Pulse	0.30	3
K			2	4999.923	ug/l	1.11	1,255,822.00	1.457E+01	Pulse	0.30	3
Ca			2	5179.504	ug/l	1.17	69,857.87	8.104E-01	Pulse	0.30	3
Ti			2	50.476	ug/l	2.54	5,629.91	6.531E-02	Pulse	0.30	3
V			2	50.822	ug/l	1.80	195,624.18	2.270E+00	Pulse	0.30	3
Cr			2	49.965	ug/l	1.62	251,827.49	2.922E+00	Pulse	0.30	3
Mn			2	49.792	ug/l	2.54	113,089.66	1.312E+00	Pulse	0.30	3
Fe			2	5111.651	ug/l	1.62	19,582,381.44	2.272E+02	Analog	0.30	3
Co			2	49.987	ug/l	0.81	423,546.18	4.914E+00	Pulse	0.30	3
Ni			2	49.840	ug/l	0.67	116,996.72	1.357E+00	Pulse	0.30	3
Cu			2	48.875	ug/l	0.34	320,404.32	3.717E+00	Pulse	0.30	3
Zn			2	48.792	ug/l	1.09	39,212.44	4.549E-01	Pulse	0.30	3
As			2	50.725	ug/l	0.13	21,264.48	2.467E-01	Pulse	1.00	3
Cd			2	50.958	ug/l	0.77	54,310.74	1.337E-01	Pulse	0.30	3
Sn			2	51.693	ug/l	1.47	106,496.28	2.622E-01	Pulse	0.30	3
Se			3	194.637	ug/l	0.80	23,781.80	1.846E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,230,088.45	1.66	97.5	Pulse	0.10	3
1	Sc		3,025,073.39	1.24	100.5	Pulse	0.10	3
1	Ge		556,819.71	1.12	100.8	Pulse	0.10	3

Quantitation Report

1	Ge		773,319.68	1.16	101.4	Pulse	0.10	3
1	Rh		3,433,864.22	0.96	99.7	Pulse	0.10	3
1	In		3,425,538.70	0.89	101.3	Pulse	0.10	3
1	Tb		4,551,485.24	1.50	103.1	Pulse	0.10	3
1	Ho		448,037.84	2.06	104.3	Pulse	0.10	3
1	Bi		2,503,888.29	0.63	100.7	Pulse	0.10	3
2	Sc		86,203.48	0.85	104.1	Pulse	0.30	3
2	Ge		49,113.66	1.21	102.4	Pulse	0.30	3
2	Ge		74,168.81	1.21	102.9	Pulse	0.30	3
2	Rh		1,409,856.82	0.31	99.0	Pulse	0.30	3
2	In		406,167.58	0.55	100.6	Pulse	0.30	3
2	Tb		1,627,337.12	0.91	98.6	Pulse	0.30	3
2	Ho		163,071.08	0.87	98.4	Pulse	0.30	3
2	Bi		1,058,158.57	0.47	97.0	Pulse	0.30	3
3	Sc		132,895.30	1.91	105.5	Pulse	0.30	3
3	Ge		84,289.48	1.58	104.5	Pulse	0.30	3
3	Ge		128,797.94	0.50	105.2	Pulse	0.30	3
3	Rh		1,491,743.28	0.59	100.9	Pulse	0.30	3
3	Tb		2,172,877.07	0.83	101.9	Pulse	0.30	3

Quantitation Report

File Name	055_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 15:34
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	31.94	98.67	4.514E-05	Pulse	0.25	3
B			1	5.749	ug/l	1.46	41,105.42	1.883E-02	Pulse	0.15	3
Ca			1	3.029	ug/l	15.95	11,988.06	4.180E-03	Pulse	0.10	3
Sr			1	0.013	ug/l	22.54	1,016.74	3.007E-04	Pulse	0.10	3
Mo			1	0.078	ug/l	18.27	703.38	2.079E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	18.56	283.35	8.410E-05	Pulse	0.10	3
Sn			1	0.102	ug/l	14.85	4,900.98	1.455E-03	Pulse	0.10	3
Sb			1	-0.038	ug/l	-13.69	1,786.84	3.997E-04	Pulse	0.10	3
Ba			1	0.018	ug/l	36.46	143.34	3.215E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	14.72	923.40	3.672E-04	Pulse	0.10	3
Pb			1	0.023	ug/l	39.16	400.02	1.589E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	55.30	273.35	1.085E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	34.51	1,436.75	5.708E-04	Pulse	0.10	3
Na			2	2.972	ug/l	4.47	7,393.92	8.914E-02	Pulse	0.30	3
Mg			2	1.218	ug/l	14.60	553.35	6.669E-03	Pulse	0.30	3
Al			2	0.391	ug/l	52.82	95.56	1.152E-03	Pulse	0.30	3
K			2	1.760	ug/l	48.15	6,914.84	8.336E-02	Pulse	0.30	3
Ca			2	2.887	ug/l	50.21	70.00	8.444E-04	Pulse	0.30	3
Ti			2	0.010	ug/l	173.21	1.11	1.334E-05	Pulse	0.30	3
V			2	-0.005	ug/l	-70.27	103.33	1.245E-03	Pulse	0.30	3
Cr			2	0.011	ug/l	61.46	318.90	3.845E-03	Pulse	0.30	3
Mn			2	0.012	ug/l	93.35	57.78	6.960E-04	Pulse	0.30	3
Fe			2	1.278	ug/l	6.74	6,187.91	7.459E-02	Pulse	0.30	3
Co			2	0.005	ug/l	82.28	86.65	1.045E-03	Pulse	0.30	3
Ni			2	-0.001	ug/l	-580.47	38.89	4.686E-04	Pulse	0.30	3
Cu			2	0.018	ug/l	49.02	1,107.83	1.336E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.004	ug/l	-295.47	226.67	2.733E-03	Pulse	0.30	3
As			2	0.004	ug/l	106.44	7.00	8.435E-05	Pulse	1.00	3
Cd			2	0.006	ug/l	49.41	9.96	2.486E-05	Pulse	0.30	3
Sn			2	0.134	ug/l	18.08	837.81	2.095E-03	Pulse	0.30	3
Se			3	0.092	ug/l	11.03	14.07	1.116E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,183,303.08	0.60	95.4	Pulse	0.10	3
1	Sc		2,868,551.00	0.61	95.3	Pulse	0.10	3
1	Ge		531,738.51	0.48	96.3	Pulse	0.10	3
1	Ge		738,492.28	1.03	96.8	Pulse	0.10	3
1	Rh		3,384,937.34	1.54	98.3	Pulse	0.10	3
1	In		3,369,638.28	1.48	99.7	Pulse	0.10	3
1	Tb		4,473,675.14	2.20	101.3	Pulse	0.10	3
1	Ho		439,422.95	0.45	102.3	Pulse	0.10	3
1	Bi		2,512,647.36	1.49	101.1	Pulse	0.10	3
2	Sc		82,951.84	0.38	100.1	Pulse	0.30	3
2	Ge		48,090.65	1.24	100.2	Pulse	0.30	3
2	Ge		72,103.90	0.48	100.0	Pulse	0.30	3
2	Rh		1,416,365.22	0.89	99.4	Pulse	0.30	3
2	In		400,059.31	0.55	99.1	Pulse	0.30	3
2	Tb		1,609,270.49	0.12	97.5	Pulse	0.30	3
2	Ho		161,833.08	1.19	97.6	Pulse	0.30	3
2	Bi		1,072,929.78	0.96	98.4	Pulse	0.30	3
3	Sc		128,681.07	0.40	102.1	Pulse	0.30	3
3	Ge		83,009.67	0.97	102.9	Pulse	0.30	3
3	Ge		126,132.06	0.92	103.0	Pulse	0.30	3
3	Rh		1,504,515.25	0.76	101.7	Pulse	0.30	3
3	Tb		2,163,081.37	0.36	101.5	Pulse	0.30	3

Quantitation Report

File Name	056SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Method File	
Method Path	
Acq Time	8/14/2019 15:39
Sample Name	jc92907-17
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	8/14/2019 11:57
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

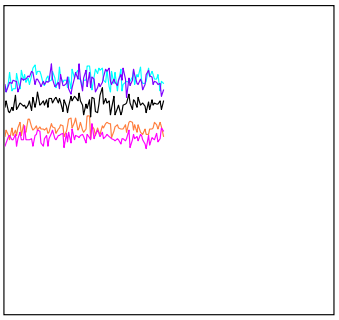
Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.138	ug/l	5.40	609.36	2.753E-04	Pulse	0.25	3
B			1	81.911	ug/l	1.29	269,188.11	1.216E-01	Pulse	0.15	3
Ca			1	68793.631	ug/l	0.89	33,843,577.00	1.141E+01	Analog	0.10	3
Sr			1	208.670	ug/l	1.00	4,503,635.97	1.372E+00	Pulse	0.10	3
Mo			1	1.128	ug/l	1.65	4,710.87	1.435E-03	Pulse	0.10	3
Ag			1	0.102	ug/l	5.03	1,056.74	3.182E-04	Pulse	0.10	3
Sn			1	0.684	ug/l	14.11	7,805.58	2.350E-03	Pulse	0.10	3
Sb			1	0.079	ug/l	36.52	2,960.38	6.531E-04	Pulse	0.10	3
Ba			1	133.408	ug/l	0.84	411,015.12	9.071E-02	Pulse	0.10	3
Tl			1	0.078	ug/l	12.44	1,586.82	6.546E-04	Pulse	0.10	3
Pb			1	2.720	ug/l	2.52	14,961.41	6.175E-03	Pulse	0.10	3
Pb			1	2.624	ug/l	3.82	12,779.30	5.276E-03	Pulse	0.10	3
Pb			1	2.623	ug/l	1.26	58,620.73	2.419E-02	Pulse	0.10	3
Na			2	41033.267	ug/l	0.83	19,002,453.69	2.271E+02	Analog	0.30	3
Mg			2	42494.786	ug/l	0.96	8,854,569.92	1.058E+02	Analog	0.30	3
Al			2	3607.260	ug/l	0.81	223,863.11	2.675E+00	Pulse	0.30	3
K			2	3642.954	ug/l	0.36	448,365.55	5.357E+00	Pulse	0.30	3
Ca			2	66849.137	ug/l	0.31	437,520.07	5.228E+00	Pulse	0.30	3
Ti			2	53.639	ug/l	8.47	2,904.98	3.470E-02	Pulse	0.30	3
V			2	10.940	ug/l	1.72	20,552.96	2.456E-01	Pulse	0.30	3
Cr			2	8.557	ug/l	1.40	21,183.68	2.531E-01	Pulse	0.30	3
Mn			2	311.922	ug/l	1.15	343,881.72	4.109E+00	Pulse	0.30	3
Fe			2	18083.910	ug/l	1.52	33,631,025.33	4.019E+02	Analog	0.30	3
Co			2	3.889	ug/l	1.18	16,040.55	1.917E-01	Pulse	0.30	3
Ni			2	13.677	ug/l	3.34	15,619.78	1.867E-01	Pulse	0.30	3
Cu			2	6.330	ug/l	1.50	21,084.80	2.519E-01	Pulse	0.30	3
Zn			2	14.596	ug/l	0.75	5,892.24	7.040E-02	Pulse	0.30	3
As			2	5.617	ug/l	3.20	1,148.38	1.372E-02	Pulse	1.00	3
Cd			2	0.083	ug/l	20.19	45.33	1.172E-04	Pulse	0.30	3
Sn			2	0.806	ug/l	10.67	1,335.63	3.453E-03	Pulse	0.30	3
Se			3	0.437	ug/l	8.23	29.60	2.317E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,213,271.34	0.87	96.8	Pulse	0.10	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	3747	3824.4	2.95
59	5000	3634	3784.0	2.86
89	10000	5755	6030.0	2.77
140	10000	5933	5723.4	2.74
205	5000	3464	3412.8	2.73
156/140	1	0.792 %	0.596 %	19.08
70/140	20	8.428 %	8.315 %	23.14
9	20	0	1.6	90.94
11	1000	780	779.6	4.30
88	50	40	26.3	24.68
95	20	3	4.7	54.72
107	20	1	1.2	98.00
121	500	179	183.4	7.60
137	20	8	5.3	47.51
208	50	8	15.3	29.40
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-30	V
Extract 2	-160.0	V	Cell Exit	-60	V
Omega Bias	-70	V	Deflect	15.8	V
Omega Lens	7.9	V	Plate Bias	-45	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.56E+2	Pa	Internal Temp	26.2	℃
Water Temp	23.0	℃	Carrier Gas(BP)	1.37E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

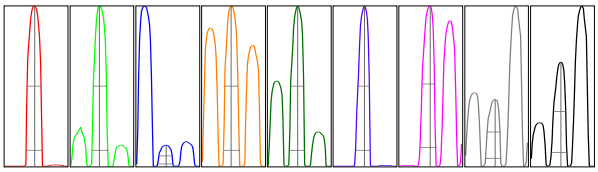
Batch Folder C:\Agilent\ICPMH\1\DATA\xa081419m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	117371	0.62	5.00	
24	398548	0.35	5.00	
25	53094	0.91	5.00	
26	60831	0.54	5.00	
59	454983	0.70	5.00	
115	574333	0.49	5.00	
206	128412	0.22	5.00	
207	119132	0.76	5.00	
208	278865	0.60	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	117628	116909	117574	116418	118323
24	397315	398813	397086	399028	400498
25	52312	52951	53447	53474	53284
26	60347	60746	60844	61233	60985
59	451823	455219	459664	455948	452260
115	577157	571561	572050	573402	577497
206	127954	128611	128409	128384	128700
207	119957	118352	118269	118876	120207
208	278127	279523	280726	279605	276344

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	18688	8.95	8.9 - 9.1		0.773	0.900	
24	67320	23.90	23.9 - 24.1		0.756	0.900	
25	8791	24.95	24.9 - 25.1		0.733	0.900	
26	10173	25.90	25.9 - 26.1		0.758	0.900	
59	77939	58.95	58.9 - 59.1		0.720	0.900	
115	104840	115.00	114.9 - 115.1		0.696	0.900	
206	22270	206.00	205.9 - 206.1		0.751	0.900	
207	20271	206.95	206.9 - 207.1		0.723	0.900	
208	48614	207.95	207.9 - 208.1		0.753	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

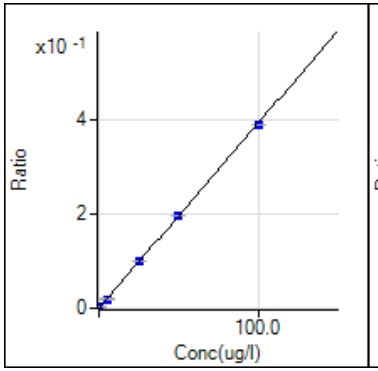
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.8	V			
Extract 2	-165.0	V	Cell Entrance	-32	V			
Omega Bias	-85	V	Cell Exit	-60	V			
Deflect	15.6	V						

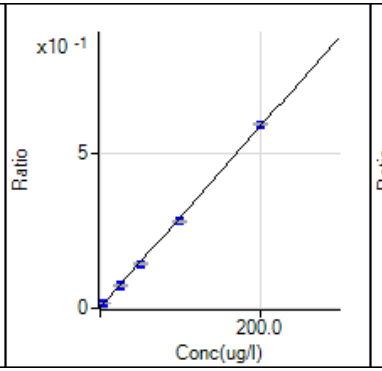
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

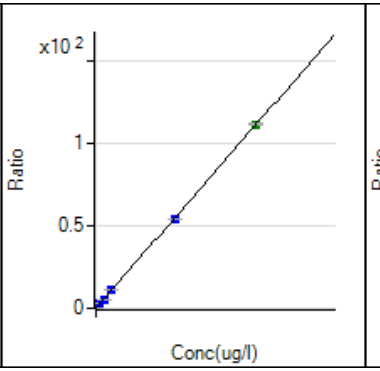
Calibration for C:\Agilent\ICPMH\1\DATA\xa081419m1.b\022SMPL.d



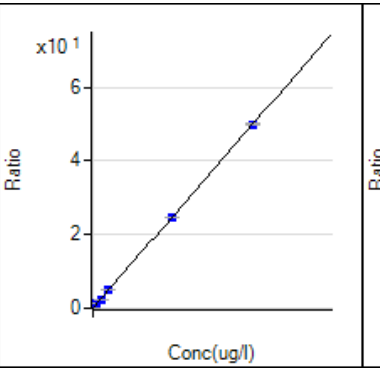
9 Be [1] / ISTD: 6 Li
y = 3.940E-3 x + 2.904E-6
R 1.0000
DL 0.0007454
BEC 0.0007372



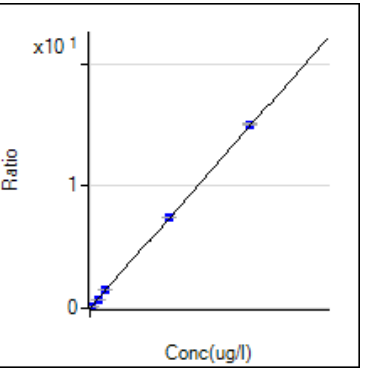
11 B [1] / ISTD: 6 Li
y = 2.920E-3 x + 2.039E-3
R 0.9995
DL 0.04606
BEC 0.6982



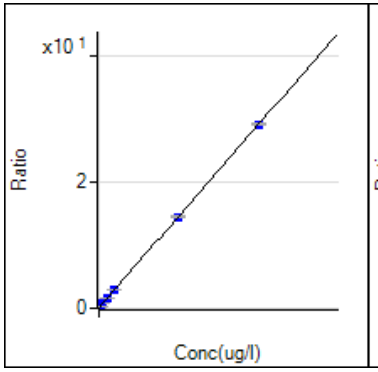
23 Na [2] / ISTD: 45 Sc
y = 1.106E-2 x + 5.625E-2
R 0.9999
DL 0.3261
BEC 5.084



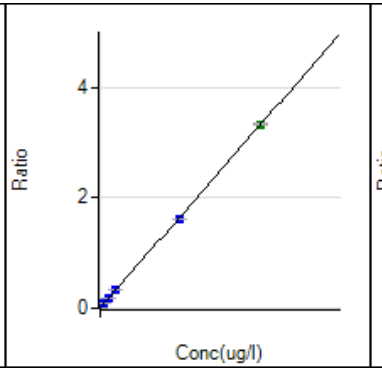
24 Mg [2] / ISTD: 45 Sc
y = 4.979E-3 x + 6.033E-4
R 1.0000
DL 0.1483
BEC 0.1212



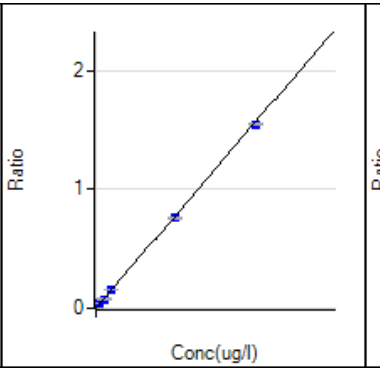
27 Al [2] / ISTD: 45 Sc
y = 1.483E-3 x + 5.730E-4
R 1.0000
DL 0.2626
BEC 0.3865



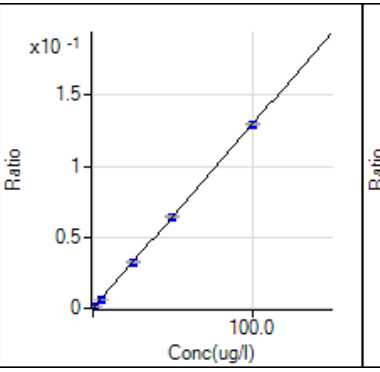
39 K [2] / ISTD: 45 Sc
y = 2.898E-3 x + 7.826E-2
R 1.0000
DL 3.517
BEC 27



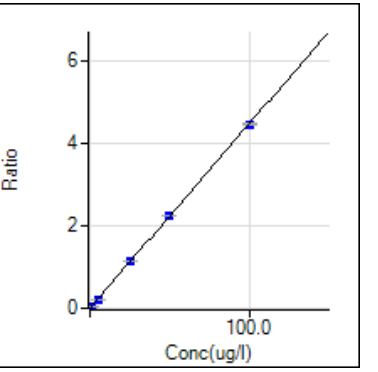
44 Ca [1] / ISTD: 45 Sc
y = 3.315E-4 x + 3.175E-3
R 0.9999
DL 0.9126
BEC 9.577



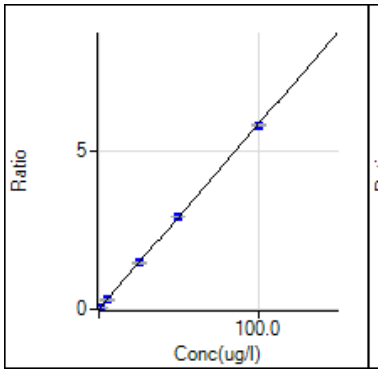
44 Ca [2] / ISTD: 45 Sc
y = 1.564E-4 x + 3.930E-4
R 0.9999
DL 0.4588
BEC 2.513



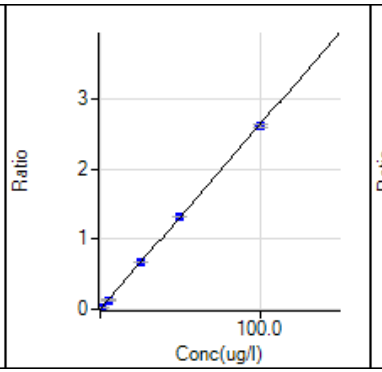
47 Ti [2] / ISTD: 45 Sc
y = 1.294E-3 x
R 1.0000
DL 0
BEC 0



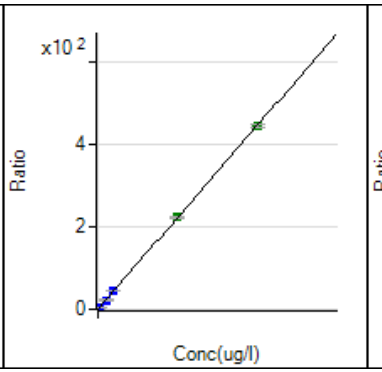
51 V [2] / ISTD: 45 Sc
y = 4.463E-2 x + 1.470E-3
R 1.0000
DL 0.01593
BEC 0.03294



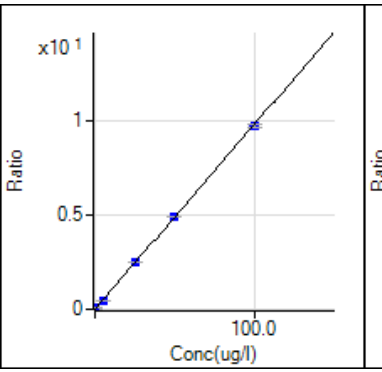
52 Cr [2] / ISTD: 45 Sc
y = 5.841E-2 x + 3.219E-3
R 1.0000
DL 0.01505
BEC 0.05512



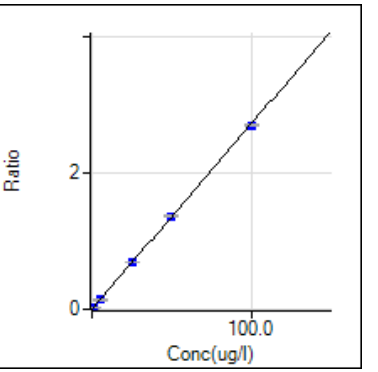
55 Mn [2] / ISTD: 45 Sc
y = 2.634E-2 x + 3.754E-4
R 1.0000
DL 0.01141
BEC 0.01425



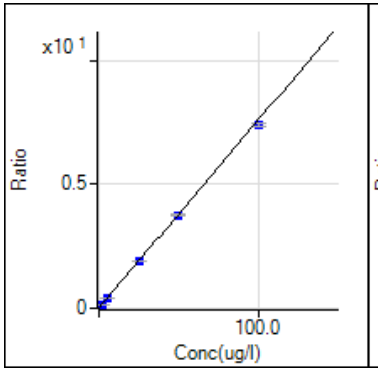
56 Fe [2] / ISTD: 45 Sc
y = 4.444E-2 x + 1.778E-2
R 1.0000
DL 0.01061
BEC 0.4001



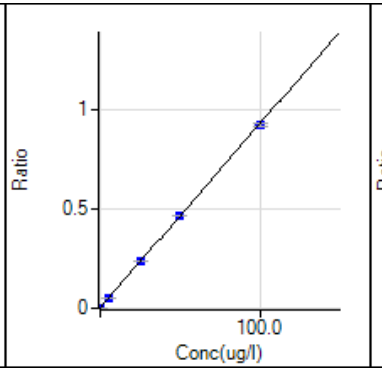
59 Co [2] / ISTD: 45 Sc
y = 9.829E-2 x + 5.170E-4
R 1.0000
DL 0.004985
BEC 0.005261



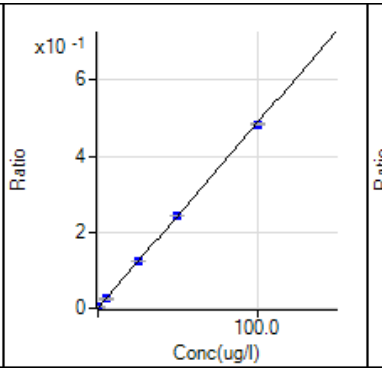
60 Ni [2] / ISTD: 45 Sc
y = 2.722E-2 x + 4.964E-4
R 1.0000
DL 0.02699
BEC 0.01823



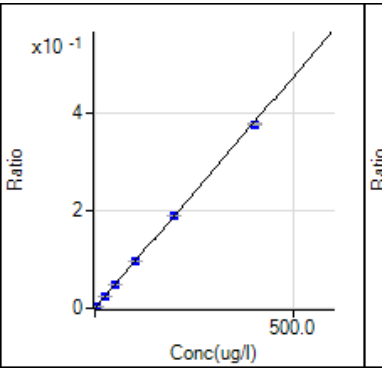
63 Cu [2] / ISTD: 45 Sc
y = 7.580E-2 x + 1.202E-2
R 1.0000
DL 0.02661
BEC 0.1586



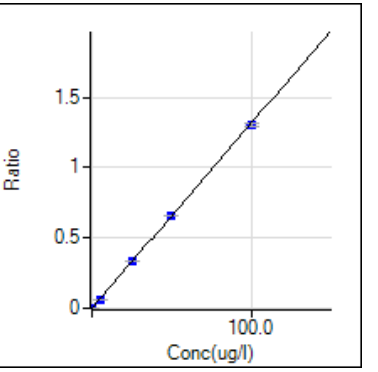
66 Zn [2] / ISTD: 45 Sc
y = 9.267E-3 x + 2.772E-3
R 1.0000
DL 0.08772
BEC 0.2992



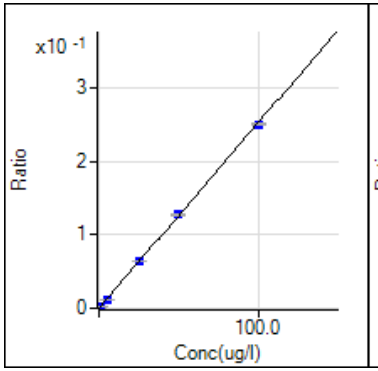
75 As [2] / ISTD: 45 Sc
y = 4.862E-3 x + 6.498E-5
R 1.0000
DL 0.01536
BEC 0.01337



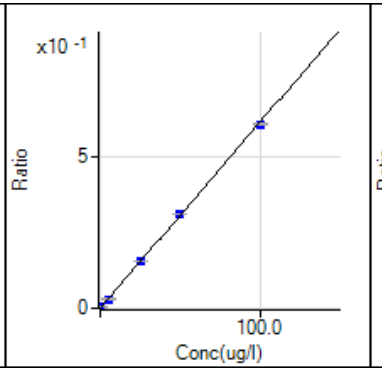
78 Se [3] / ISTD: 74 Ge
y = 9.486E-4 x + 2.460E-5
R 1.0000
DL 0.02077
BEC 0.02593



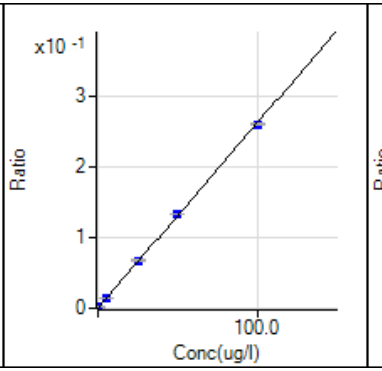
88 Sr [1] / ISTD: 103 Rh
y = 1.315E-2 x + 1.254E-4
R 1.0000
DL 0.00865
BEC 0.009539



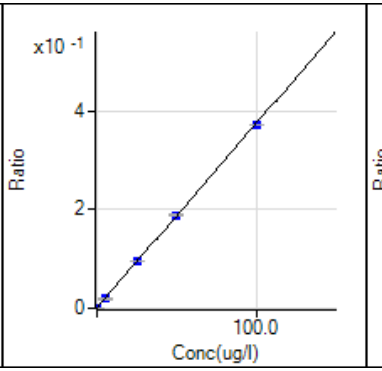
95 Mo [1] / ISTD: 103 Rh
y = 2.523E-3 x + 1.179E-5
R 0.9999
DL 0.004048
BEC 0.004674



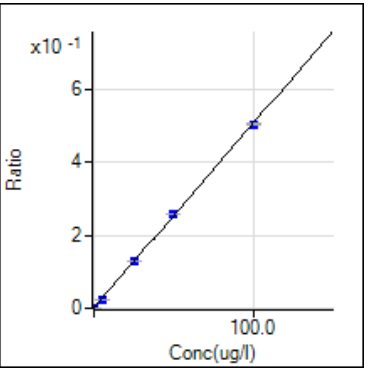
107 Ag [1] / ISTD: 115 In
y = 6.110E-3 x + 7.945E-6
R 0.9999
DL 0.004527
BEC 0.0013



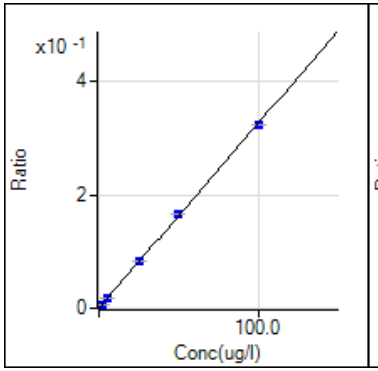
111 Cd [2] / ISTD: 115 In
y = 2.624E-3 x + 8.266E-6
R 0.9999
DL 0.009461
BEC 0.00315



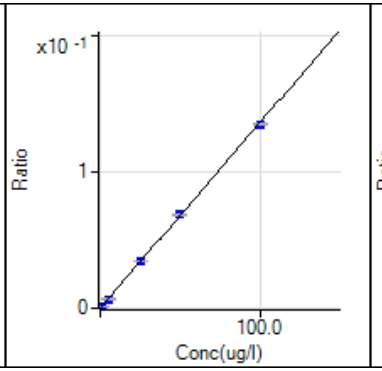
118 Sn [1] / ISTD: 115 In
y = 3.727E-3 x + 1.075E-3
R 1.0000
DL 0.04313
BEC 0.2885



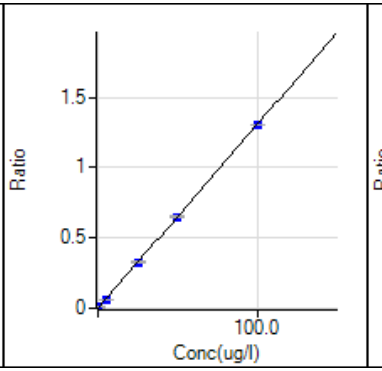
118 Sn [2] / ISTD: 115 In
y = 5.045E-3 x + 1.420E-3
R 1.0000
DL 0.05632
BEC 0.2814



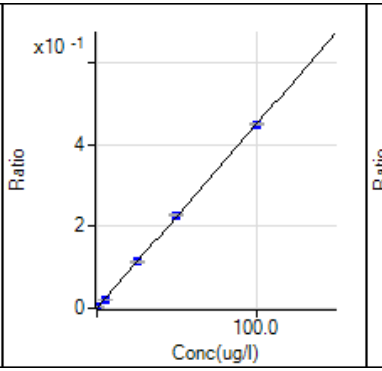
121 Sb [1] / ISTD: 159 Tb
y = 3.255E-3 x + 5.243E-4
R 0.9999
DL 0.05671
BEC 0.1611



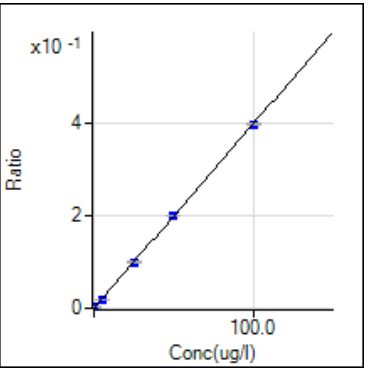
137 Ba [1] / ISTD: 159 Tb
y = 1.360E-3 x + 7.476E-6
R 1.0000
DL 0.007684
BEC 0.005498



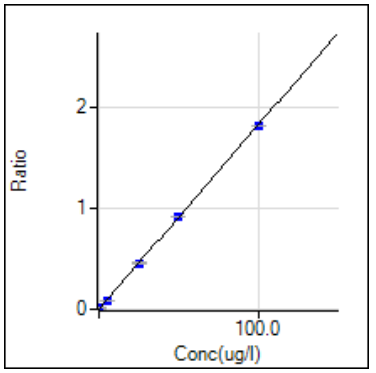
205 Tl [1] / ISTD: 209 Bi
y = 1.307E-2 x + 1.435E-4
R 1.0000
DL 0.004566
BEC 0.01098



206 Pb [1] / ISTD: 209 Bi
y = 4.499E-3 x + 5.727E-5
R 1.0000
DL 0.01557
BEC 0.01273



207 Pb [1] / ISTD: 209 Bi
y = 3.980E-3 x + 5.352E-5
R 1.0000
DL 0.01738
BEC 0.01345



208 Pb [1] / ISTD: 209 Bi

y = 1.825E-2 x + 2.650E-4

R	1.0000
DL	0.001629
BEC	0.01452

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP16806	8/13/2019	10:00	8/13/2019	15:30	JC92907-15	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	8	4156601	93	0	93
1	End	8	4156601	95	0	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1902243	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP16806-MB1	N/A	N	50	50	AB		*
MP16806-B1	N/A	N	50	50	AB	ABCDE	*
MP16806-S1	20	Y	50	50	AB	ABCDE	*
MP16806-S2	20	Y	50	50	AB	ABCDE	*
MP16806-SD1	20	Y	50	50	AB		*
JC92874-12	1	Y	50	50	AB		
JC92874-12F	2	Y	50	50	AB		
JC92907-12	1	Y	50	50	AB		*
JC92907-13	1	Y	50	50	AB		
JC92907-14	4	Y	50	50	AB		*
JC92907-15	20	Y	50	50	AB		*
JC92907-16	7	Y	50	50	AB		*
JC92907-17	7	Y	50	50	AB		*
JC92907-18	2	Y	50	50	AB		*
JC93066-1	1	Y	50	50	AB		*
JC93074-1	1	Y	50	50	AB		*

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13B REV-1	0.2
B	ACCUTEST 14B REV-1	0.2
C	AG 20PPM	0.2
D	MINERALS 1000PPM	0.2
E	SE 20PPM	0.8
F	MINERALS 1000PPM	0.2
G		
H		

Comments: * FILTERED AFTER DIGESTION

Analyst BHOOMAP **Approved by** Wendyz **Approved on** 8/13/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 16806 **Date:** 8/13/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	1/23/2020	MP-015-1200
Spiking Solution - (ACCUTEST-14A REV1)	1/23/2020	MP-015-1201
Spiking Solution - 5000 mg/l Minerals	6/13/2020	P2-MEB680008 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	9/25/2021	LOT: 092518 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	5/30/2020	P2-SI676242 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	6/18/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	1/11/2020	MP-015-1199
Spiking Solution - Li 1000ppm	6/18/2020	P2-LI675235 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	1/23/2020	MP-015-1202
Spiking Solution - (ACCUTEST-13B REV1)	12/26/2019	MP-015-1190
Spiking Solution - (ACCUTEST-14B REV1)	1/23/2019	MP-015-1204
Spiking Solution - 1000ppm Minerals	10/29/2019	MP-015-1164
Spiking Solution- P		
Nitric Acid	8/12/2021	LOT: 221802 MFG: J.T. BAKER
Nitric Acid (1:1)	2/6/2020	MP-018-42-273 1:1 HNO3
Hydrochloric Acid	8/9/2021	LOT:229504 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	2/6/2020	MP-018-42-274 1:1 HCL
Hydrogen Peroxide	8/9/2021	LOT: 191365 MFG: FISHER
Soil Lab Control/Soil LC	10/31/2021	LOT: D101-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24635764 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1902243 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: TG

Validated By:

Validated On:

Metals Prep Reagent
1/17/18

7.2.1

7

SGS

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report



Technical Report for

Sovereign Consulting

Shepley's Hill (SHL), Devens, MA

AC001.M01.05

SGS Job Number: JC94537

Sampling Date: 09/06/19

Report to:

Sovereign Consulting
9 Payson Road Suite 150
Foxborough, MA 02035
SPassafaro@SovCon.com

ATTN: Steve Passafaro

Total number of pages in report: **857**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp
General Manager

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: JC94537

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01.05

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC94537-1	09/06/19	09:51	LAP	09/06/19	AQ	Effluent	EFFLUENT
JC94537-1A	09/06/19	09:51	LAP	09/06/19	AQ	Effluent	EFFLUENT

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Sovereign Consulting	**Job No**	JC94537
Site:	Shepley's Hill (SHL), Devens, MA	**Report Date**	9/23/2019 9:54:58 AM

On 09/06/2019, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 5.9 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC94537 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

Metals Analysis By Method SW846 6010D

Matrix: AQ **Batch ID:** MP17232

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC94613-1AMS, JC94613-1AMSD, JC94613-1APS, JC94613-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Chromium, Silver are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP17232-SD1 for Barium: Serial dilution indicates possible matrix interference.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP17232A

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC94613-1MS, JC94613-1MSD, JC94613-1SDL were used as the QC samples for metals.

Metals Analysis By Method SW846 7470A

Matrix: AQ **Batch ID:** MP17235

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC94537-1AMS, JC94537-1AMSD were used as the QC samples for metals.

General Chemistry By Method EPA 1664A

Matrix: AQ **Batch ID:** GP23804

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC94537-1AMS, JC94554-2DUP were used as the QC samples for HEM Petroleum Hydrocarbons.

General Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP23538

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC94517-1DUP, JC94517-1MS, JC94517-1DUP were used as the QC samples for Chloride, Sulfate.

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** GP23681

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC94299-2DUP, JC94299-2MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.
- Matrix Spike Recovery(s) for Nitrogen, Nitrate + Nitrite are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** R181128

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JC94537-1A for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ **Batch ID:** GN99662

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC94537-1ADUP, JC94537-1AMS were used as the QC samples for Nitrogen, Nitrite.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC94537
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 09/06/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC94537-1	**EFFLUENT**					
Arsenic		24.8	3.0	2.0	ug/l	SW846 6020B
JC94537-1A	**EFFLUENT**					
Barium		15.4 J	200	100	ug/l	SW846 6010D
Magnesium		5400	5000	500	ug/l	SW846 6010D
Manganese		25.9	15	5.0	ug/l	SW846 6010D
Chloride		34.0	2.0	1.0	mg/l	EPA 300/SW846 9056A
HEM Petroleum Hydrocarbons		1.0 J	5.0	0.86 [a]	mg/l	EPA 1664A
Nitrogen, Nitrate [b]		0.14	0.11	0.10	mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite		0.14	0.10	0.095	mg/l	EPA 353.2/LACHAT
Sulfate		6.06	2.0	1.0	mg/l	EPA 300/SW846 9056A

(a) Value reported is laboratory DL (MDL).
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	JC94537-1	**Date Sampled:**	09/06/19
Matrix:	AQ - Effluent	**Date Received:**	09/06/19
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL), Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	24.8	3.0	2.0	0.94	ug/l	2	09/10/19	09/11/19	SN	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA47431
(2) Prep QC Batch: MP17232A

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: EFFLUENT
Lab Sample ID: JC94537-1A
Matrix: AQ - Effluent
Project: Shepley's Hill (SHL), Devens, MA

Date Sampled: 09/06/19
Date Received: 09/06/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Barium	15.4 J	200	100	13	ug/l	1	09/10/19	09/11/19	GT	SW846 6010D [2]	SW846 3010A [3]
Cadmium	2.0 U	3.0	2.0	1.0	ug/l	1	09/10/19	09/11/19	GT	SW846 6010D [2]	SW846 3010A [3]
Chromium	5.0 U	10	5.0	2.0	ug/l	1	09/10/19	09/11/19	GT	SW846 6010D [2]	SW846 3010A [3]
Copper	8.0 U	10	8.0	5.9	ug/l	1	09/10/19	09/11/19	GT	SW846 6010D [2]	SW846 3010A [3]
Lead	3.0 U	5.0	3.0	1.8	ug/l	1	09/10/19	09/11/19	GT	SW846 6010D [2]	SW846 3010A [3]
Magnesium	5400	5000	500	140	ug/l	1	09/10/19	09/11/19	GT	SW846 6010D [2]	SW846 3010A [3]
Manganese	25.9	15	5.0	1.4	ug/l	1	09/10/19	09/11/19	GT	SW846 6010D [2]	SW846 3010A [3]
Mercury	0.15 U	0.20	0.15	0.095	ug/l	1	09/10/19	09/10/19	LL	SW846 7470A [1]	SW846 7470A [4]
Selenium	8.0 U	10	8.0	4.9	ug/l	1	09/10/19	09/11/19	GT	SW846 6010D [2]	SW846 3010A [3]
Silver	4.0 U	10	4.0	1.9	ug/l	1	09/10/19	09/11/19	GT	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA47421
(2) Instrument QC Batch: MA47429
(3) Prep QC Batch: MP17232
(4) Prep QC Batch: MP17235

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	JC94537-1A	**Date Sampled:**	09/06/19
Matrix:	AQ - Effluent	**Date Received:**	09/06/19
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL), Devens, MA		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chloride	34.0	2.0	1.0	0.83	mg/l	1	09/11/19 04:43	NV	EPA 300/SW846 9056A
HEM Petroleum Hydrocarbons	1.0 J	5.0	0.86 [a]	0.86	mg/l	1	09/20/19 10:30	JOO	EPA 1664A
Nitrogen, Nitrate [b]	0.14	0.11	0.10	0.093	mg/l	1	09/16/19 16:05	KI	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.14	0.10	0.095	0.090	mg/l	1	09/16/19 16:05	KI	EPA 353.2/LACHAT
Nitrogen, Nitrite	0.0050 U	0.010	0.0050	0.0030	mg/l	1	09/07/19 13:10	JOO	SM4500NO2 B-11
Sulfate	6.06	2.0	1.0	0.89	mg/l	1	09/11/19 04:43	NV	EPA 300/SW846 9056A

(a) Value reported is laboratory DL (MDL).
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

FedEx Tracking # 1063 6339 2790 | Bottle Order Control # | SGS Quote # | SGS Job # JC94537

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Street Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steve Passafaro (spassafaro@sovcon.com) E-mail
Phone #: (508) 339-3200 Fax #
Sampler(s) Name(s): LOUIS A. PIESCIUTTA Phone #
Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street
City: Devens State: MA
Project #: AC001.M01
Client Purchase Order #
Project Manager: Steve Passafaro

Billing Information (If different from Report to)

Company Name
Street Address
City State Zip
Attention:

Requested Analysis (see TEST CODE sheet)

Lab Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Total As - 6020A	Total Metals List - 6010C	Total Mercury - 7470A	Chloride 300.0	Nitrate - 353.2	Sulfate - 300.0	VOCs - 624	SVOCs - 625	PCBs - 608	Pesticides - 608	TPH - 1664A
1	Effluent		9/6/19	9:51		GW	14	2		2		6				X	X	X	X	X	X	X	X	X	X	X

INITIAL ASESSMENT
LABEL VERIFICATION

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

LAB USE ONLY: A31, L23, G51

Turnaround Time (Business days)

- [X] Std. 10 Business Days
- [X] 5 Day RUSH - Arsenic Only
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Approved by (SGS Project Manager)/Date:

Emergency & Rush T/A data available via LabLink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [X] Other See QAPP

Commercial "A" = Results Only; Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

See Project QAPP for all specfic project requirements
5 - Day rush on Arsenic
6010 Metals List = Ba, Cd, Cr, Cu, Pb, Mg, Mn, Se, Ag

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	9/6/19 1440	1 Thelma Frederick	2 Theodore Ley	9.6.19 19:40	2 FEDEX
Relinquished by Sampler: 3	9/7/19 0945	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # 23332 Intact Not intact	Preserved where applicable	On Ice X Cooler Temp 6.0°C IP

IR7

Form:SM088-03C (revised 2/12/18)

SGS Sample Receipt Summary

Job Number: JC94537 **Client:** SOVEREIGN CONSULTING **Project:** SHEPLEY'S HILL (SHL), DEVENS, MA

Date / Time Received: 9/6/2019 2:00:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (6.0);

Cooler Temps (Corrected) °C: Cooler 1: (5.9);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

Sovereign Consulting

Job No: JC94537

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01.05

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC94537-1 EFFLUENT	Collected: 06-SEP-19 09:51 By: LAP		Received: 06-SEP-19 By: DG			
JC94537-1	SW846 6020B	11-SEP-19 20:17	SN	10-SEP-19	MR	ASMS
JC94537-1A EFFLUENT	Collected: 06-SEP-19 09:51 By: LAP		Received: 06-SEP-19 By: DG			
JC94537-1A	SM4500NO2 B-11	07-SEP-19 13:10	JOO			NO2
JC94537-1A	SW846 7470A	10-SEP-19 11:14	LL	10-SEP-19	LL	HG
JC94537-1A	EPA 300/SW846 9056A	11-SEP-19 04:43	NV	10-SEP-19	NV	CHL,SO4
JC94537-1A	SW846 6010D	11-SEP-19 13:38	GT	10-SEP-19	MR	AG,BA,CD,CR,CU,MG,MN,PB,SE
JC94537-1A	EPA353.2/SM4500NO2B	16-SEP-19 16:05	KI			NO3O
JC94537-1A	EPA 353.2/LACHAT	16-SEP-19 16:05	KI	16-SEP-19	KI	NO32
JC94537-1A	EPA 1664A	20-SEP-19 10:30	JOO	20-SEP-19	BM	PHC1664

SGS Internal Chain of Custody

Job Number: JC94537
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Received: 09/06/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC94537-1.1	Secured Storage	Dwayne Johnson	09/10/19 11:55	Retrieve from Storage
JC94537-1.1	Dwayne Johnson	Secured Staging Area	09/10/19 11:55	Return to Storage
JC94537-1.1	Secured Staging Area	Moustafa Ramadan	09/10/19 14:33	Retrieve from Storage
JC94537-1.1	Moustafa Ramadan	Secured Storage	09/10/19 18:45	Return to Storage
JC94537-1.1.1	Moustafa Ramadan	Metals Digestion	09/10/19 14:40	Digestate from JC94537-1.1
JC94537-1.1.1	Metals Digestion	Moustafa Ramadan	09/10/19 14:40	Digestate from JC94537-1.1
JC94537-1.1.1	Moustafa Ramadan	Metals Digestate Storage	09/10/19 14:40	Return to Storage
JC94537-1.2	Secured Storage	Matthew Robbins	09/09/19 21:43	Retrieve from Storage
JC94537-1.2	Matthew Robbins	Secured Staging Area	09/09/19 21:43	Return to Storage
JC94537-1.2	Secured Staging Area	Lindsey Lee	09/10/19 07:46	Retrieve from Storage
JC94537-1.2	Lindsey Lee	Secured Storage	09/10/19 11:37	Return to Storage
JC94537-1.3	Secured Storage	Todd Shoemaker	09/20/19 10:45	Retrieve from Storage
JC94537-1.3	Todd Shoemaker	Secured Staging Area	09/20/19 10:45	Return to Storage
JC94537-1.3	Secured Staging Area	Beatrice Marcelino	09/20/19 16:55	Retrieve from Storage
JC94537-1.3	Beatrice Marcelino		09/20/19 16:55	Depleted
JC94537-1.4	Secured Storage	Todd Shoemaker	09/20/19 10:45	Retrieve from Storage
JC94537-1.4	Todd Shoemaker	Secured Staging Area	09/20/19 10:45	Return to Storage
JC94537-1.4	Secured Staging Area	Beatrice Marcelino	09/20/19 16:55	Retrieve from Storage
JC94537-1.4	Beatrice Marcelino		09/20/19 16:55	Depleted
JC94537-1.5	Secured Storage	Sahara Feliciano	09/07/19 13:02	Retrieve from Storage
JC94537-1.5	Sahara Feliciano	Secured Staging Area	09/07/19 13:02	Return to Storage
JC94537-1.5	Secured Staging Area	Jared O. Onindo	09/07/19 13:36	Retrieve from Storage
JC94537-1.5	Jared O. Onindo	Secured Storage	09/07/19 19:01	Return to Storage
JC94537-1.5	Secured Storage	Todd Shoemaker	09/10/19 13:15	Retrieve from Storage
JC94537-1.5	Todd Shoemaker	Secured Staging Area	09/10/19 13:15	Return to Storage
JC94537-1.5	Secured Staging Area	Natasha Verma	09/10/19 13:21	Retrieve from Storage
JC94537-1.5	Natasha Verma	Secured Storage	09/10/19 14:32	Return to Storage
JC94537-1.6	Secured Storage	Todd Shoemaker	09/13/19 11:01	Retrieve from Storage
JC94537-1.6	Todd Shoemaker	Secured Staging Area	09/13/19 11:01	Return to Storage
JC94537-1.6	Secured Staging Area	Kimberly Ignace	09/13/19 12:41	Retrieve from Storage
JC94537-1.6	Kimberly Ignace	Secured Storage	09/13/19 17:12	Return to Storage
JC94537-1.6	Secured Storage	Dwayne Johnson	09/16/19 10:10	Retrieve from Storage
JC94537-1.6	Dwayne Johnson	Secured Staging Area	09/16/19 10:10	Return to Storage
JC94537-1.6	Secured Staging Area	Kimberly Ignace	09/16/19 10:23	Retrieve from Storage
JC94537-1.6	Kimberly Ignace	Secured Storage	09/16/19 17:18	Return to Storage

QC Evaluation: DOD QSM5.x Limits

Job Number: JC94537
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 09/06/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP17232	SW846 6010D						
MP17232-B1	7440-39-3	Barium	BSP	REC	101	%	88-113
MP17232-B1	7440-43-9	Cadmium	BSP	REC	99.5	%	88-113
MP17232-B1	7440-47-3	Chromium	BSP	REC	98	%	90-113
MP17232-B1	7440-50-8	Copper	BSP	REC	98.5	%	86-114
MP17232-B1	7439-92-1	Lead	BSP	REC	102.5	%	86-113
MP17232-B1	7439-95-4	Magnesium	BSP	REC	96.8	%	85-113
MP17232-B1	7439-96-5	Manganese	BSP	REC	100	%	90-114
MP17232-B1	7782-49-2	Selenium	BSP	REC	101	%	83-114
MP17232-B1	7440-22-4	Silver	BSP	REC	95.2	%	84-115
MP17232-S1*	7440-39-3	Barium	MS	REC	99.4	%	88-113
MP17232-S1*	7440-43-9	Cadmium	MS	REC	99	%	88-113
MP17232-S1*	7440-47-3	Chromium	MS	REC	98.5	%	90-113
MP17232-S1*	7440-50-8	Copper	MS	REC	100	%	86-114
MP17232-S1*	7439-92-1	Lead	MS	REC	99.5	%	86-113
MP17232-S1*	7439-95-4	Magnesium	MS	REC	94.4	%	85-113
MP17232-S1*	7439-96-5	Manganese	MS	REC	97.5	%	90-114
MP17232-S1*	7782-49-2	Selenium	MS	REC	100	%	83-114
MP17232-S1*	7440-22-4	Silver	MS	REC	97.4	%	84-115
MP17232-S2*	7440-39-3	Barium	MSD	REC	102.9	%	88-113
MP17232-S2*	7440-39-3	Barium	MSD	RPD	3.4	%	20
MP17232-S2*	7440-43-9	Cadmium	MSD	REC	99.5	%	88-113
MP17232-S2*	7440-43-9	Cadmium	MSD	RPD	.5	%	20
MP17232-S2*	7440-47-3	Chromium	MSD	REC	98.5	%	90-113
MP17232-S2*	7440-47-3	Chromium	MSD	RPD	0	%	20
MP17232-S2*	7440-50-8	Copper	MSD	REC	100	%	86-114
MP17232-S2*	7440-50-8	Copper	MSD	RPD	0	%	20
MP17232-S2*	7439-92-1	Lead	MSD	REC	99.5	%	86-113
MP17232-S2*	7439-92-1	Lead	MSD	RPD	0	%	20
MP17232-S2*	7439-95-4	Magnesium	MSD	REC	98	%	85-113
MP17232-S2*	7439-95-4	Magnesium	MSD	RPD	2.9	%	20
MP17232-S2*	7439-96-5	Manganese	MSD	REC	99.5	%	90-114
MP17232-S2*	7439-96-5	Manganese	MSD	RPD	1	%	20
MP17232-S2*	7782-49-2	Selenium	MSD	REC	100.5	%	83-114
MP17232-S2*	7782-49-2	Selenium	MSD	RPD	.5	%	20
MP17232-S2*	7440-22-4	Silver	MSD	REC	97.8	%	84-115
MP17232-S2*	7440-22-4	Silver	MSD	RPD	.4	%	20
MP17232A	SW846 6020B						
MP17232A-B2	7440-38-2	Arsenic	BSP	REC	86.6	%	84-116
MP17232A-S3*	7440-38-2	Arsenic	MS	REC	100	%	84-116
MP17232A-S4*	7440-38-2	Arsenic	MSD	REC	175 [a]	%	84-116

* Sample used for QC is not from job JC94537

QC Evaluation: DOD QSM5.x Limits

Job Number: JC94537
Account: Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA
Collected: 09/06/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP17232A-S4*	7440-38-2	Arsenic	MSD	RPD	3.4	%	20
MP17235	SW846 7470A						
MP17235-B1	7439-97-6	Mercury	BSP	REC	110	%	82-119
MP17235-S1	7439-97-6	Mercury	MS	REC	104	%	82-119
MP17235-S2	7439-97-6	Mercury	MSD	REC	104	%	82-119
MP17235-S2	7439-97-6	Mercury	MSD	RPD	0	%	20
GP23538	EPA 300/SW846 9056A						
GP23538-B2	16887-00-6	Chloride	BSP	REC	106.9	%	87-111
GP23538-B2	14808-79-8	Sulfate	BSP	REC	109.4	%	87-112
GP23538-S1*	16887-00-6	Chloride	MS	REC	102.1	%	87-111
GP23538-S1*	14808-79-8	Sulfate	MS	REC	111.1	%	87-112
GP23538-D1*	16887-00-6	Chloride	DUP	RPD	1.1	%	15
GP23538-D1*	14808-79-8	Sulfate	DUP	RPD	3.6	%	15

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

* Sample used for QC is not from job JC94537

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: H9091019W1.CSV Date Analyzed: 09/10/19 Methods: SW846 7470A
Analyst: LL Run ID: MA47421
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:44	MA47421-STD1	1		B=2.2157E-004, C=1.6454E-002, RHO=0.9997438
10:45	MA47421-STD2	1		STDB
10:47	MA47421-STD3	1		STDC
10:48	MA47421-STD4	1		STDD
10:50	MA47421-STD5	1		STDE
10:52	MA47421-STD6	1		STDF
10:56	MA47421-ICV1	1		
10:57	MA47421-ICB1	1		
10:59	MA47421-CCV1	1		
11:00	MA47421-CCB1	1		
11:02	MA47421-CRI1	1		
11:05	MA47421-CCV2	1		
11:06	MA47421-CCB2	1		
11:08	MP17235-MB1	1		
11:10	MP17235-B1	1		
11:11	MP17235-S1	1		
11:13	MP17235-S2	1		
11:14	JC94537-1A	1		
---------->	Last reportable sample/prep for job JC94537			
11:16	MP17236-MB1	1		
11:17	MA47421-CCV3	1		
11:19	MA47421-CCB3	1		
---------->	Last reportable CCB for job JC94537			
11:21	MP17236-B1	1		
11:22	MP17236-S1	1		
11:24	MP17236-S2	1		
11:26	JC94459-1	1		(sample used for QC only; not part of login JC94537)
11:27	ZZZZZZ	1		
11:29	ZZZZZZ	1		
11:30	ZZZZZZ	1		
11:31	ZZZZZZ	1		
11:33	ZZZZZZ	1		
11:34	MA47421-CCV4	1		
11:35	MA47421-CCB4	1		
11:37	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: H9091019W1.CSV Date Analyzed: 09/10/19 Methods: SW846 7470A
Analyst: LL Run ID: MA47421
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:38	ZZZZZZ	1		
11:40	ZZZZZZ	1		
11:41	ZZZZZZ	1		
11:42	ZZZZZZ	1		
11:44	ZZZZZZ	1		
11:45	ZZZZZZ	1		
11:46	ZZZZZZ	1		
11:48	ZZZZZZ	1		
11:49	MA47421-CCV5	1		
11:50	MA47421-CCB5	1		
11:52	ZZZZZZ	1		
11:53	ZZZZZZ	1		
11:55	ZZZZZZ	1		
11:56	ZZZZZZ	1		
11:57	ZZZZZZ	1		
11:59	MP17237-MB1	1		
12:00	MA47421-CCV6	1		
12:01	MA47421-CCB6	1		
12:03	MP17237-B1	1		
12:05	MP17237-S1	1		
12:06	MP17237-S2	1		
12:08	JC94499-17	1		(sample used for QC only; not part of login JC94537)
12:10	ZZZZZZ	1		
12:11	ZZZZZZ	1		
12:12	ZZZZZZ	1		
12:14	ZZZZZZ	1		
12:15	ZZZZZZ	1		
12:16	MA47421-CCV7	1		
12:18	MA47421-CCB7	1		
12:20	ZZZZZZ	1		
12:21	ZZZZZZ	1		
12:22	ZZZZZZ	1		
12:24	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: H9091019W1.CSV Date Analyzed: 09/10/19 Methods: SW846 7470A
Analyst: LL Run ID: MA47421
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:25	ZZZZZZ	1		
12:26	ZZZZZZ	1		
12:28	MP17238-MB1	1		
12:29	MP17238-B1	1		
12:30	MP17238-S1	1		
12:32	MA47421-CCV8	1		
12:34	MA47421-CCB8	1		
12:36	MP17238-S2	1		
12:37	JC94639-1	1		(sample used for QC only; not part of login JC94537)
12:39	ZZZZZZ	1		
12:40	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:43	ZZZZZZ	1		
12:44	ZZZZZZ	1		
12:45	ZZZZZZ	1		
12:47	ZZZZZZ	1		
12:48	MA47421-CCV9	1		
12:49	MA47421-CCB9	1		
12:51	ZZZZZZ	1		
12:52	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:56	ZZZZZZ	1		
12:58	MA47421-CCV10	1		
12:59	MA47421-CCB10	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: H9091019W1.CSV Date Analyzed: 09/10/19 Methods: SW846 7470A
Analyst: LL Run ID: MA47421
Parameters: Hg

Time	Sample Description	Element: Dilution	Hg	
10:56	MA47421-ICV1	1	X	
10:57	MA47421-ICB1	1	X	
10:59	MA47421-CCV1	1	X	
11:00	MA47421-CCB1	1	X	
11:02	MA47421-CRI1	1	X	
11:05	MA47421-CCV2	1	X	
11:06	MA47421-CCB2	1	X	
11:08	MP17235-MB1	1	X	
11:10	MP17235-B1	1	X	
11:11	MP17235-S1	1	X	
11:13	MP17235-S2	1	X	
11:14	JC94537-1A	1	X	
11:16	MP17236-MB1	1	X	
11:17	MA47421-CCV3	1	X	
11:19	MA47421-CCB3	1	X	
11:21	MP17236-B1	1	X	
11:22	MP17236-S1	1	X	
11:24	MP17236-S2	1	X	
11:26	JC94459-1	1	X	(a)
11:27	ZZZZZZ	1		
11:29	ZZZZZZ	1		
11:30	ZZZZZZ	1		
11:31	ZZZZZZ	1		
11:33	ZZZZZZ	1		
11:34	MA47421-CCV4	1	X	
11:35	MA47421-CCB4	1	X	
11:37	ZZZZZZ	1		
11:38	ZZZZZZ	1		
11:40	ZZZZZZ	1		
11:41	ZZZZZZ	1		
11:42	ZZZZZZ	1		
11:44	ZZZZZZ	1		
11:45	ZZZZZZ	1		
		Element:	Hg	

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: H9091019W1.CSV Date Analyzed: 09/10/19 Methods: SW846 7470A
Analyst: LL Run ID: MA47421
Parameters: Hg

Time	Sample Description	Element: Dilution	Hg	
11:46	ZZZZZZ	1		
11:48	ZZZZZZ	1		
11:49	MA47421-CCV5	1	X	
11:50	MA47421-CCB5	1	X	
11:52	ZZZZZZ	1		
11:53	ZZZZZZ	1		
11:55	ZZZZZZ	1		
11:56	ZZZZZZ	1		
11:57	ZZZZZZ	1		
11:59	MP17237-MB1	1	X	
12:00	MA47421-CCV6	1	X	
12:01	MA47421-CCB6	1	X	
12:03	MP17237-B1	1	X	
12:05	MP17237-S1	1	X	
12:06	MP17237-S2	1	X	
12:08	JC94499-17	1	X	(a)
12:10	ZZZZZZ	1		
12:11	ZZZZZZ	1		
12:12	ZZZZZZ	1		
12:14	ZZZZZZ	1		
12:15	ZZZZZZ	1		
12:16	MA47421-CCV7	1	X	
12:18	MA47421-CCB7	1	X	
12:20	ZZZZZZ	1		
12:21	ZZZZZZ	1		
12:22	ZZZZZZ	1		
12:24	ZZZZZZ	1		
12:25	ZZZZZZ	1		
12:26	ZZZZZZ	1		
12:28	MP17238-MB1	1	X	
12:29	MP17238-B1	1	X	
12:30	MP17238-S1	1	X	
12:32	MA47421-CCV8	1	X	
		Element:	Hg	

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: H9091019W1.CSV Date Analyzed: 09/10/19 Methods: SW846 7470A
Analyst: LL Run ID: MA47421
Parameters: Hg

Time	Sample Description	Dilution	Element: Hg
12:34	MA47421-CCB8	1	X
12:36	MP17238-S2	1	X
12:37	JC94639-1	1	X (a)
12:39	ZZZZZZ	1	
12:40	ZZZZZZ	1	
12:41	ZZZZZZ	1	
12:43	ZZZZZZ	1	
12:44	ZZZZZZ	1	
12:45	ZZZZZZ	1	
12:47	ZZZZZZ	1	
12:48	MA47421-CCV9	1	X
12:49	MA47421-CCB9	1	X
12:51	ZZZZZZ	1	
12:52	ZZZZZZ	1	
12:54	ZZZZZZ	1	
12:55	ZZZZZZ	1	
12:56	ZZZZZZ	1	
12:58	MA47421-CCV10	1	X
12:59	MA47421-CCB10	1	X

(a) Sample used for QC only; not part of login JC94537.

Element: Hg

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: H9091019W1.CSV Date Analyzed: 09/10/19 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA47421 Units: ug/l

Time:			10:57		11:00		11:06		11:19	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.014	-0.0345	<0.20	-0.0385	<0.20	-0.0369	<0.20	-0.0230	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: H9091019W1.CSV Date Analyzed: 09/10/19 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA47421 Units: ug/l

Time:		10:56			10:59			11:05	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.02	100.7	2.5	2.43	97.2	2.5	2.52	100.8

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: H9091019W1.CSV Date Analyzed: 09/10/19 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA47421 Units: ug/l

Time:		11:17	
Sample ID:	CCV	CCV3	
Metal	True	Results	% Rec
Mercury	2.5	2.49	99.6

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: H9091019W1.CSV Date Analyzed: 09/10/19 Methods: SW846 7470A
QC Limits: 70 to 130 % Recovery Run ID: MA47421 Units: ug/l

Time:			11:02	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Mercury	0.20		0.226	113.0

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: GT Run ID: MA47429
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:56	MA47429-STD1	1		STDA
09:00	MA47429-STD2	1		STDB
09:06	ZZZZZZ	1		
09:11	ZZZZZZ	1		
09:16	MA47429-ICV1	1		
09:21	MA47429-ICB1	1		
09:26	MA47429-CCV1	1		
09:31	MA47429-CCB1	1		
09:36	MA47429-CRID1	1		
09:41	MA47429-CRI1	1		
09:46	MA47429-ICSA1	1		
09:52	MA47429-ICSAB1	1		
09:57	MA47429-HSTD1	1		
10:03	MA47429-HSTD2	1		
10:09	ZZZZZZ	1		
10:14	ZZZZZZ	1		
10:26	ZZZZZZ	1		
10:31	MA47429-CCV2	1		
10:36	MA47429-CCB2	1		
10:41	MP17228-MB1	1		
10:46	MP17228-B1	1		
10:51	MP17228-S1	1		
10:56	MP17228-S2	1		
11:01	JC94464-2	1		(sample used for QC only; not part of login JC94537)
11:06	MP17228-SD1	5		
11:11	ZZZZZZ	1		
11:16	MA47429-CCV3	1		
11:21	MA47429-CCB3	1		
11:26	ZZZZZZ	1		
11:31	ZZZZZZ	1		
11:37	MP17250-MB1	5		
11:42	MP17250-B1	5		
11:47	MP17250-S1	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: GT Run ID: MA47429
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:52	MP17250-S2	5		
11:57	JC94464-1A	5		(sample used for QC only; not part of login JC94537)
12:02	MP17250-SD1	25		
12:07	ZZZZZZ	5		
12:12	MA47429-CCV4	1		
12:17	MA47429-CCB4	1		
12:22	MP17250-PS1	5		
12:27	MP17228-PS1	1		
12:32	ZZZZZZ	1		
12:57	MP17232-MB1	1		
13:02	MP17232-B1	1		
13:07	MP17232-S1	1		
13:12	MP17232-S2	1		
13:18	JC94613-1A	1		(sample used for QC only; not part of login JC94537)
13:23	MP17232-SD1	5		
13:28	MA47429-CCV5	1		
13:33	MA47429-CCB5	1		
13:38	JC94537-1A	1		
13:43	ZZZZZZ	1		
13:48	MP17232-PS1	1		
13:53	MP17228-S1	5		Al and FE
13:58	MP17228-S2	5		Al and FE
14:03	JC94464-2	5		(sample used for QC only; not part of login JC94537)
14:08	MP17228-SD1	25		Not needed
14:13	MP17228-PS1	5		Al and Fe
14:18	MA47429-CCV6	1		
14:23	MA47429-CCB6	1		
14:28	MP17232-S1	5		Fe
14:32	MP17232-S2	5		Fe
14:37	JC94613-1A	5		(sample used for QC only; not part of login JC94537)
14:42	MP17232-SD1	25		Not needed
14:47	MP17232-PS1	5		
---------->	Last reportable sample/prep for job JC94537			
14:52	MA47429-CCV7	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: GT Run ID: MA47429
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:57	MA47429-CCB7	1		
---------->	Last reportable CCB for job JC94537			
	Refer to raw data for calibration curve and standards.			

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: GT Run ID: MA47429
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Element: Dilution	B a	C d	C r	C u	P b	M g	M n	S e	A g	
09:06	ZZZZZZ	1										
09:11	ZZZZZZ	1										
09:16	MA47429-ICV1	1	X	X	X	X	X	X	X	X	X	
09:21	MA47429-ICB1	1	X	X	X	X	X	X	X	X	X	
09:26	MA47429-CCV1	1	X	X	X	X	X	X	X	X	X	
09:31	MA47429-CCB1	1	X	X	X	X	X	X	X	X	X	
09:36	MA47429-CRID1	1	X	X	X	X	X	X	X	X	X	
09:41	MA47429-CRI1	1	X	X	X	X	X	X	X	X	X	
09:46	MA47429-ICSA1	1	X	X	X	X	X	X	X	X	X	
09:52	MA47429-ICSAB1	1	X	X	X	X	X	X	X	X	X	
09:57	MA47429-HSTD1	1	X	X	X	X	X		X	X	X	
10:03	MA47429-HSTD2	1						X				
10:09	ZZZZZZ	1										
10:14	ZZZZZZ	1										
10:26	ZZZZZZ	1										
10:31	MA47429-CCV2	1	X	X	X	X	X	X	X	X	X	
10:36	MA47429-CCB2	1	X	X	X	X	X	X	X	X	X	
10:41	MP17228-MB1	1	X	X	X	X	X	X	X	X	X	
10:46	MP17228-B1	1	X	X	X	X	X	X	X	X	X	
10:51	MP17228-S1	1	X	X	X	X	X	X	X	X	X	
10:56	MP17228-S2	1	X	X	X	X	X	X	X	X	X	
11:01	JC94464-2	1	X	X	X	X	X	X	X	X	X	(a)
11:06	MP17228-SD1	5	X	X	X	X	X	X	X	X	X	
11:11	ZZZZZZ	1										
11:16	MA47429-CCV3	1	X	X	X	X	X	X	X	X	X	
11:21	MA47429-CCB3	1	X	X	X	X	X	X	X	X	X	
11:26	ZZZZZZ	1										
11:31	ZZZZZZ	1										
11:37	MP17250-MB1	5	X	X	X	X	X			X	X	
11:42	MP17250-B1	5	X	X	X	X	X			X	X	
11:47	MP17250-S1	5	X	X	X	X	X			X	X	
11:52	MP17250-S2	5	X	X	X	X	X			X	X	
11:57	JC94464-1A	5	X	X	X	X	X			X	X	(a)
		Element:	B a	C d	C r	C u	P b	M g	M n	S e	A g	

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: GT Run ID: MA47429
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Element: Dilution	B a	C d	C r	C u	P b	M g	M n	S e	A g	
12:02	MP17250-SD1	25	X	X	X	X	X			X	X	
12:07	ZZZZZZ	5										
12:12	MA47429-CCV4	1	X	X	X	X	X	X	X	X	X	
12:17	MA47429-CCB4	1	X	X	X	X	X	X	X	X	X	
12:22	MP17250-PS1	5	X	X	X	X	X			X	X	
12:27	MP17228-PS1	1	X	X	X	X	X	X	X	X	X	
12:32	ZZZZZZ	1										
12:57	MP17232-MB1	1	X	X	X	X	X	X	X	X	X	
13:02	MP17232-B1	1	X	X	X	X	X	X	X	X	X	
13:07	MP17232-S1	1	X	X	X	X	X	X	X	X	X	
13:12	MP17232-S2	1	X	X	X	X	X	X	X	X	X	
13:18	JC94613-1A	1							X			(a)
13:23	MP17232-SD1	5	X	X	X	X	X	X	X	X	X	
13:28	MA47429-CCV5	1	X	X	X	X	X	X	X	X	X	
13:33	MA47429-CCB5	1	X	X	X	X	X	X	X	X	X	
13:38	JC94537-1A	1	X	X	X	X	X	X	X	X	X	
13:43	ZZZZZZ	1										
13:48	MP17232-PS1	1	X	X	X	X	X	X	X	X	X	
13:53	MP17228-S1	5										
13:58	MP17228-S2	5										
14:03	JC94464-2	5	Not needed									
14:08	MP17228-SD1	25	Not needed									
14:13	MP17228-PS1	5										
14:18	MA47429-CCV6	1	X	X	X	X	X	X	X	X	X	
14:23	MA47429-CCB6	1	X	X	X	X	X	X	X	X	X	
14:28	MP17232-S1	5										
14:32	MP17232-S2	5										
14:37	JC94613-1A	5	Not needed									
14:42	MP17232-SD1	25	Not needed									
14:47	MP17232-PS1	5										
14:52	MA47429-CCV7	1	X	X	X	X	X	X	X	X	X	
14:57	MA47429-CCB7	1	X	X	X	X	X	X	X	X	X	

(a) Sample used for QC only; not part of login JC94537.

Element:	B a	C d	C r	C u	P b	M g	M n	S e	A g

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: GT Run ID: MA47429
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
08:56	MA47429-STD1	9033 R	188840 R	35163 R	12919 R
09:00	MA47429-STD2	8634	180070	34012	11683
09:06	ZZZZZZ	8896	185630	35072	12065
09:11	ZZZZZZ	9269	193570	35157	13201
09:16	MA47429-ICV1	8890	185810	35345	12046
09:21	MA47429-ICB1	9248	195580	35871	13172
09:26	MA47429-CCV1	8902	185750	35110	12057
09:31	MA47429-CCB1	9298	197160	35669	13228
09:36	MA47429-CRID1	9207	195450	35545	13063
09:41	MA47429-CRI1	9172	194620	35693	12888
09:46	MA47429-ICSA1	8270	173110	34234	10881
09:52	MA47429-ICSAB1	8288	171340	34468	10937
09:57	MA47429-HSTD1	9024	194630	36126	12931
10:03	MA47429-HSTD2	8449	176060	34960	11056
10:09	ZZZZZZ	9256	196100	35986	13378
10:14	ZZZZZZ	9128	197900	36427	13227
10:26	ZZZZZZ	9355	196320	36667	13285
10:31	MA47429-CCV2	8957	188540	35391	12104
10:36	MA47429-CCB2	9321	196110	36003	13222
10:41	MP17228-MB1	9326	198090	36611	13216
10:46	MP17228-B1	9076	191830	35863	12397
10:51	MP17228-S1	9039	189960	36735	12101
10:56	MP17228-S2	9014	189530	35995	12052
11:01	JC94464-2	9372	197540	37168	12663
11:06	MP17228-SD1	9284	197650	36749	12920
11:11	ZZZZZZ	9194	200300	37250	12541
11:16	MA47429-CCV3	8866	187910	35303	11991
11:21	MA47429-CCB3	9197	192580	35358	13051
11:26	ZZZZZZ	8470	179750	35694	11279
11:31	ZZZZZZ	8361	180090	35614	11170
11:37	MP17250-MB1	8778	184180	35852	11725
11:42	MP17250-B1	8812	183960	35802	11649
11:47	MP17250-S1	8785	182760	35370	11609

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: GT Run ID: MA47429
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:52	MP17250-S2	8784	183680	36105	11604
11:57	JC94464-1A	8761	185000	35379	11684
12:02	MP17250-SD1	9140	190900	36018	12569
12:07	ZZZZZZ	8899	184480	35663	11800
12:12	MA47429-CCV4	8824	187580	35478	11913
12:17	MA47429-CCB4	9276	199120	36130	13135
12:22	MP17250-PS1	8839	185100	35777	11700
12:27	MP17228-PS1	9194	196040	36696	12269
12:32	ZZZZZZ	9231	197010	35764	13088
12:57	MP17232-MB1	9285	197510	35760	13105
13:02	MP17232-B1	8993	193750	35938	12202
13:07	MP17232-S1	8879	187920	35847	12103
13:12	MP17232-S2	8868	188130	35115	12092
13:18	JC94613-1A	9104	194860	35849	12557
13:23	MP17232-SD1	9225	196660	35752	12904
13:28	MA47429-CCV5	8924	191100	35244	11984
13:33	MA47429-CCB5	9301	199730	35866	13104
13:38	JC94537-1A	8980	193400	35855	12338
13:43	ZZZZZZ	9124	194820	36000	12661
13:48	MP17232-PS1	8850	189520	35365	12048
13:53	MP17228-S1	9276	197360	36270	12671
13:58	MP17228-S2	9183	203410	36158	12558
14:03	JC94464-2	No results reported for the elements associated with this internal standard.			
14:08	MP17228-SD1	No results reported for the elements associated with this internal standard.			
14:13	MP17228-PS1	9235	196680	36359	12631
14:18	MA47429-CCV6	8809	186380	35258	11859
14:23	MA47429-CCB6	8945	193550	35362	12661
14:28	MP17232-S1	9093	194030	35676	12530
14:32	MP17232-S2	9029	190090	35547	12463
14:37	JC94613-1A	No results reported for the elements associated with this internal standard.			
14:42	MP17232-SD1	No results reported for the elements associated with this internal standard.			
14:47	MP17232-PS1	9149	195840	36473	12602
14:52	MA47429-CCV7	8740	182480	35114	11771

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: GT Run ID: MA47429
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:57	MA47429-CCB7	9215	195910	35832	12998

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA47429 Units: ug/l

Time: / Sample ID:				09:21 ICB1		09:31 CCB1		10:36 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	200	14	100						
Antimony	6.0	1.4	5.0						
Arsenic	5.0	1.5	3.0						
Barium	200	.5	100	0.300	<200	0.200	<200	0.400	<200
Beryllium	2.0	.1	1.0						
Bismuth	20	1.8	10						
Boron	200	.8	100						
Cadmium	3.0	.3	2.0	0.100	<3.0	0.200	<3.0	0.300	<3.0
Calcium	5000	3.9	200						
Chromium	10	.3	5.0	0.300	<10	0.200	<10	0.300	<10
Cobalt	50	.3	10						
Copper	10	.6	8.0	-0.300	<10	-0.500	<10	-0.300	<10
Iron	100	2.6	50						
Lead	5.0	1.6	3.0	-0.400	<5.0	-0.800	<5.0	-0.100	<5.0
Lithium	50	2.1	20						
Magnesium	5000	16	500	9.70	<5000	2.20	<5000	4.30	<5000
Manganese	15	.1	5.0	0.200	<15	0.200	<15	0.300	<15
Molybdenum	20	.4	8.0						
Nickel	10	.5	8.0						
Phosphorus	50	1.9	25						
Potassium	10000	79	500						
Selenium	10	3	8.0	2.20	<10	0.00	<10	1.60	<10
Silicon	200	1.2	150						
Silver	10	.5	4.0	-0.300	<10	-0.200	<10	-0.400	<10
Sodium	10000	9.9	1000						
Strontium	10	.3	2.0						
Sulfur	100	3.5	50						
Thallium	10	1.3	5.0						
Tin	10	.7	8.0						
Titanium	10	.5	4.0						
Tungsten	100	1.7	50						
Vanadium	50	.5	4.0						
Zinc	20	.2	10						

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA47429 Units: ug/l

Time:				09:21		09:31		10:36	
Sample ID:				ICB1		CCB1		CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Zirconium	10	.3	5.0						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA47429 Units: ug/l

Time: / Sample ID:				11:21 CCB3		12:17 CCB4		13:33 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	200	14	100						
Antimony	6.0	1.4	5.0						
Arsenic	5.0	1.5	3.0						
Barium	200	.5	100	0.700	<200	0.400	<200	0.200	<200
Beryllium	2.0	.1	1.0						
Bismuth	20	1.8	10						
Boron	200	.8	100						
Cadmium	3.0	.3	2.0	0.300	<3.0	0.200	<3.0	0.200	<3.0
Calcium	5000	3.9	200						
Chromium	10	.3	5.0	0.300	<10	0.200	<10	0.00	<10
Cobalt	50	.3	10						
Copper	10	.6	8.0	-0.300	<10	-0.400	<10	-0.800	<10
Iron	100	2.6	50						
Lead	5.0	1.6	3.0	-0.800	<5.0	0.100	<5.0	-0.300	<5.0
Lithium	50	2.1	20						
Magnesium	5000	16	500	10.5	<5000	9.40	<5000	3.40	<5000
Manganese	15	.1	5.0	0.300	<15	0.300	<15	0.100	<15
Molybdenum	20	.4	8.0						
Nickel	10	.5	8.0						
Phosphorus	50	1.9	25						
Potassium	10000	79	500						
Selenium	10	3	8.0	2.00	<10	1.20	<10	1.90	<10
Silicon	200	1.2	150						
Silver	10	.5	4.0	-0.200	<10	-0.300	<10	-0.800	<10
Sodium	10000	9.9	1000						
Strontium	10	.3	2.0						
Sulfur	100	3.5	50						
Thallium	10	1.3	5.0						
Tin	10	.7	8.0						
Titanium	10	.5	4.0						
Tungsten	100	1.7	50						
Vanadium	50	.5	4.0						
Zinc	20	.2	10						

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA47429 Units: ug/l

Time:				11:21		12:17		13:33	
Sample ID:				CCB3		CCB4		CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Zirconium	10	.3	5.0						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA47429 Units: ug/l

Time: / Sample ID:				14:23 CCB6		14:57 CCB7	
Metal	RL	IDL	LOD	raw	final	raw	final
Aluminum	200	14	100				
Antimony	6.0	1.4	5.0				
Arsenic	5.0	1.5	3.0				
Barium	200	.5	100	0.600	<200	0.200	<200
Beryllium	2.0	.1	1.0				
Bismuth	20	1.8	10				
Boron	200	.8	100				
Cadmium	3.0	.3	2.0	0.300	<3.0	0.300	<3.0
Calcium	5000	3.9	200				
Chromium	10	.3	5.0	0.00	<10	0.100	<10
Cobalt	50	.3	10				
Copper	10	.6	8.0	-0.400	<10	-0.400	<10
Iron	100	2.6	50				
Lead	5.0	1.6	3.0	-0.600	<5.0	0.00	<5.0
Lithium	50	2.1	20				
Magnesium	5000	16	500	2.20	<5000	4.30	<5000
Manganese	15	.1	5.0	0.200	<15	0.200	<15
Molybdenum	20	.4	8.0				
Nickel	10	.5	8.0				
Phosphorus	50	1.9	25				
Potassium	10000	79	500				
Selenium	10	3	8.0	2.10	<10	-0.200	<10
Silicon	200	1.2	150				
Silver	10	.5	4.0	-0.700	<10	-0.700	<10
Sodium	10000	9.9	1000				
Strontium	10	.3	2.0				
Sulfur	100	3.5	50				
Thallium	10	1.3	5.0				
Tin	10	.7	8.0				
Titanium	10	.5	4.0				
Tungsten	100	1.7	50				
Vanadium	50	.5	4.0				
Zinc	20	.2	10				

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA47429 Units: ug/l

Time:				14:23		14:57	
Sample ID:				CCB6		CCB7	
Metal	RL	IDL	LOD	raw	final	raw	final
Zirconium	10	.3	5.0				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47429 Units: ug/l

Time:		09:16			09:26			10:31	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2020	101.0	2000	2040	102.0	2000	2030	101.5
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2000	100.0	2000	2020	101.0	2000	1990	99.5
Calcium	anr								
Chromium	2000	1990	99.5	2000	2020	101.0	2000	1980	99.0
Cobalt	anr								
Copper	2000	2010	100.5	2000	2000	100.0	2000	1970	98.5
Iron	anr								
Lead	2000	2000	100.0	2000	2040	102.0	2000	2020	101.0
Lithium									
Magnesium	40000	39700	99.3	40000	40100	100.3	40000	39800	99.5
Manganese	2000	2030	101.5	2000	2060	103.0	2000	2020	101.0
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	1990	99.5	2000	2030	101.5	2000	2010	100.5
Silicon									
Silver	250	244	97.6	250	249	99.6	250	245	98.0
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47429 Units: ug/l

Time:		09:16			09:26			10:31	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47429 Units: ug/l

Time:		11:16			12:12			13:28	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	1990	99.5	2000	2000	100.0	2000	2020	101.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2000	100.0	2000	2010	100.5	2000	1990	99.5
Calcium	anr								
Chromium	2000	1960	98.0	2000	1980	99.0	2000	1950	97.5
Cobalt	anr								
Copper	2000	1950	97.5	2000	1970	98.5	2000	1950	97.5
Iron	anr								
Lead	2000	2020	101.0	2000	2040	102.0	2000	2030	101.5
Lithium									
Magnesium	40000	39000	97.5	40000	39000	97.5	40000	39100	97.8
Manganese	2000	1990	99.5	2000	2000	100.0	2000	2000	100.0
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	2020	101.0	2000	2040	102.0	2000	2020	101.0
Silicon									
Silver	250	242	96.8	250	244	97.6	250	241	96.4
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47429 Units: ug/l

Time:		11:16			12:12			13:28	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47429 Units: ug/l

Time:		14:18			14:52	
Sample ID:	CCV	CCV6		CCV	CCV7	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	2000	2040	102.0	2000	2060	103.0
Beryllium	anr					
Bismuth						
Boron						
Cadmium	2000	2030	101.5	2000	2040	102.0
Calcium	anr					
Chromium	2000	2010	100.5	2000	2060	103.0
Cobalt	anr					
Copper	2000	2010	100.5	2000	2070	103.5
Iron	anr					
Lead	2000	2060	103.0	2000	2070	103.5
Lithium						
Magnesium	40000	39300	98.3	40000	39700	99.3
Manganese	2000	2040	102.0	2000	2070	103.5
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	anr					
Selenium	2000	2070	103.5	2000	2070	103.5
Silicon						
Silver	250	249	99.6	250	255	102.0
Sodium	anr					
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47429 Units: ug/l

Time:		14:18			14:52	
Sample ID:	CCV	CCV6		CCV	CCV7	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA47429 Units: ug/l

Time:		09:57			10:03	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	8000	8100	101.3			
Beryllium	anr					
Bismuth						
Boron						
Cadmium	8000	8100	101.3			
Calcium						
Chromium	8000	8080	101.0			
Cobalt	anr					
Copper	8000	8000	100.0			
Iron						
Lead	8000	8030	100.4			
Lithium						
Magnesium				300000	289000	96.3
Manganese	8000	7980	99.8			
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium						
Selenium	8000	8190	102.4			
Silicon						
Silver	625	578	92.5			
Sodium						
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

HIGH STANDARD CHECK SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA47429 Units: ug/l

Time:		09:57			10:03	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA47429 Units: ug/l

Time:				09:36		09:41	
Sample ID:	CRI	CRIA	CRID	CRID1		CRI1	
Metal	True	True	True	Results	% Rec	Results	% Rec
Aluminum	200	500	100	anr			
Antimony	6.0	20	3.0	anr			
Arsenic	8.0	20	3.0	anr			
Barium	200		4.0	4.30	107.5	198	99.0
Beryllium	2.0		1.0	anr			
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0	1.00	100.0	3.10	103.3
Calcium	5000	2000	1000	anr			
Chromium	10		2.0	2.10	105.0	10.3	103.0
Cobalt	50		3.0	anr			
Copper	10		2.0	-0.600	0.0* (a)	9.30	93.0
Iron	100	500					
Lead	3.0	20	2.5	-0.100U	0.0* (a)	2.60	86.7
Lithium	50						
Magnesium	5000	2000	100	107	107.0	5120	102.4
Manganese	15		3.0	3.10	103.3	15.4	102.7
Molybdenum	20						
Nickel	10		4.0	anr			
Phosphorus	50						
Potassium	5000		2000	anr			
Selenium	10	20	5.0	6.90	138.0*(a	11.7	117.0
Silicon	200						
Silver	5.0		2.0	-0.200U	0.0* (a)	4.30	86.0
Sodium	5000		1000	anr			
Strontium	10						
Sulfur	50						
Thallium	10		2.0	anr			
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0	anr			
Zinc	20		10	anr			

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA47429 Units: ug/l

Time:				09:36		09:41	
Sample ID:	CRI	CRIA	CRID	CRID1		CRI1	
Metal	True	True	True	Results	% Rec	Results	% Rec
Zirconium	10						

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element at this RL in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA47429 Units: ug/l

Time:			09:46		09:52	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	502000	100.4	500000	100.0
Antimony		1000	1.20		1020	102.0
Arsenic		1000	0.900		1060	106.0
Barium		500	0.500		507	101.4
Beryllium		500	-0.200		495	99.0
Bismuth		500	1.30		521	104.2
Boron		500	-1.70		498	99.6
Cadmium		1000	1.10		1010	101.0
Calcium	400000	400000	386000	96.5	381000	95.3
Chromium		500	0.700		484	96.8
Cobalt		500	-0.200		493	98.6
Copper		500	-0.500		508	101.6
Iron	200000	200000	186000	93.0	188000	94.0
Lead		1000	-0.300		925	92.5
Lithium		500	-8.30		509	101.8
Magnesium	500000	500000	497000	99.4	497000	99.4
Manganese		500	0.100		505	101.0
Molybdenum		500	1.00		487	97.4
Nickel		1000	0.00		976	97.6
Phosphorus		500	-6.80		475	95.0
Potassium			154		93.6	
Selenium		1000	0.400		1010	101.0
Silicon		500	6.10		516	103.2
Silver		1000	-0.400		1020	102.0
Sodium			234		164	
Strontium		500	-2.40		501	100.2
Sulfur		500	6.00		501	100.2
Thallium		1000	0.500		985	98.5
Tin		500	-2.70		467	93.4
Titanium		500	-1.10		501	100.2
Tungsten		500	0.900		477	95.4
Vanadium		500	-0.900		491	98.2
Zinc		1000	3.60		955	95.5

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: SC091119M1L.ICP Date Analyzed: 09/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA47429 Units: ug/l

Time:			09:46		09:52	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Zirconium		500	7.60*(a)		525	105.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:58	MA47431-STD1	1		See rerun, sample intro not stable.
10:03	MA47431-STD2	1		See rerun, sample intro not stable.
10:08	MA47431-STD3	1		STDA
10:13	MA47431-STD4	1		STDB
10:19	MA47431-STD5	1		STDC
10:24	MA47431-STD6	1		STDD
10:29	MA47431-STD7	1		STDE
10:34	MA47431-STD8	1		STDF
10:39	MA47431-STD9	1		STDG
10:45	MA47431-STD10	1		STDH
10:50	MA47431-STD11	1		STDI
10:55	MA47431-STD12	1		STDJ
11:00	ZZZZZZ	1		
11:10	MA47431-ICVA1	1		
11:15	MA47431-ICV1	1		60ppb Al.
11:26	MA47431-ICB1	1		
11:31	MA47431-CCVA1	1		
11:36	MA47431-CCB1	1		
11:41	MA47431-CRI1	1		
11:47	MA47431-ICSA1	1		
11:51	MA47431-ICSAB1	1		
11:56	ZZZZZZ	1		
12:01	MA47431-CCVA2	1		
12:06	MA47431-CCB2	1		
12:11	MP17220-MB1	2		
12:16	MP17220-B1	2		
12:23	ZZZZZZ	2		
12:27	ZZZZZZ	2		
12:32	ZZZZZZ	2		
12:37	ZZZZZZ	2		
12:42	ZZZZZZ	2		
12:47	ZZZZZZ	2		
12:52	MA47431-CCVA3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:57	MA47431-CCB3	1		
13:02	ZZZZZZ	2		
13:07	ZZZZZZ	2		
13:12	ZZZZZZ	2		
13:17	ZZZZZZ	10		
13:22	ZZZZZZ	2		
13:27	ZZZZZZ	2		
13:32	ZZZZZZ	2		
13:37	ZZZZZZ	2		
13:42	MA47431-CCVA4	1		
13:47	MA47431-CCB4	1		
13:52	ZZZZZZ	2		
13:57	ZZZZZZ	2		
14:02	MA47431-CCVA5	1		Sb and Ba high RSD
14:07	MA47431-CCB5	1		
14:12	MP17220-S1	2		
14:17	MP17220-S2	2		
14:22	JC94229-1	2		(sample used for QC only; not part of login JC94537)
14:27	MP17220-SD1	10		
14:32	ZZZZZZ	2		
14:37	ZZZZZZ	2		
14:42	ZZZZZZ	2		
14:47	ZZZZZZ	2		
14:52	MA47431-CCVA6	1		
14:57	MA47431-CCB6	1		
15:02	ZZZZZZ	2		
15:07	ZZZZZZ	2		
15:12	ZZZZZZ	2		
15:17	ZZZZZZ	2		
15:22	ZZZZZZ	2		
15:27	ZZZZZZ	2		
15:32	ZZZZZZ	1		
15:37	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:42	MA47431-CCVA7	1		
15:47	MA47431-CCB7	1		
15:52	ZZZZZZ	50		
15:57	ZZZZZZ	1		
16:02	ZZZZZZ	2		
16:07	ZZZZZZ	2		
16:12	MP17203-S1	5		
16:17	MP17203-S2	5		
16:22	ZZZZZZ	5		
16:27	ZZZZZZ	5		
16:32	MA47431-CCVA8	1		
16:37	MA47431-CCB8	1		
16:42	ZZZZZZ	5		
16:47	ZZZZZZ	5		
16:52	ZZZZZZ	5		
16:57	ZZZZZZ	5		
17:02	ZZZZZZ	5		
17:07	ZZZZZZ	2		
17:12	ZZZZZZ	1		
17:17	ZZZZZZ	1		
17:22	MA47431-CCVA9	1		
17:27	MA47431-CCB9	1		
17:32	MP17187-S1	2		
17:37	MP17187-S2	2		
17:42	JC94351-5	2		(sample used for QC only; not part of login JC94537)
17:47	MP17229-MB1	5		
17:52	MP17229-B1	5		
17:57	MP17229-S1	5		Need PS for Sb. Ba and Pb overrange
18:02	MP17229-S2	5		Need PS for Sb. Ba and Pb overrange
18:07	JC94207-16AR	5		(sample used for QC only; not part of login JC94537)
18:12	MA47431-CCVA10	1		
18:17	MA47431-CCB10	1		
18:22	MP17229-SD1	25		See rerun, analytical problems

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:27	ZZZZZZ	5		
18:32	ZZZZZZ	5		
18:37	ZZZZZZ	5		
18:42	ZZZZZZ	5		
18:47	ZZZZZZ	5		
18:52	ZZZZZZ	5		
18:57	ZZZZZZ	5		
19:02	MP17229-SD1	25		
19:07	ZZZZZZ	1		
19:12	MA47431-CCVA11	1		
19:17	MA47431-CCB11	1		
19:22	ZZZZZZ	5		
19:27	ZZZZZZ	5		
19:32	MP17232A-MB1	2		
19:37	MP17232A-B2	2		
19:42	MP17232A-S3	2		Overrange
19:47	MP17232A-S4	2		Overrange
19:52	JC94613-1	2		(sample used for QC only; not part of login JC94537)
19:57	MP17232A-SD1	10		Overrange
20:02	MP17232A-PS1	2		Overrange
20:07	MA47431-CCVA12	1		
20:12	MA47431-CCB12	1		
20:17	JC94537-1	2		
---------->	Last reportable sample/prep for job JC94537			
20:22	ZZZZZZ	2		
20:27	MP17239-MB1	2		As>1/2 of RL. Batch to reanalysis.
20:32	ZZZZZZ	2		
20:37	ZZZZZZ	2		
20:42	ZZZZZZ	2		
20:47	ZZZZZZ	2		
20:52	MP17239-B1	2		CCV high RSD
20:57	MA47431-CCVA13	1		High RSD.
21:02	MA47431-CCB13	1		
---------->	Last reportable CCB for job JC94537			
21:07	MP17239-S1	2		To reanalysis on higher dilution. Na>6000ppm

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:12	MP17239-S2	2		To reanalysis on higher dilution. Na>6000ppm
21:17	JC94499-17	2		(sample used for QC only; not part of login JC94537)
21:22	MP17239-SD1	10		To reanalysis on higher dilution. Na>6000ppm
21:27	ZZZZZZ	2		
21:32	ZZZZZZ	2		
21:37	ZZZZZZ	2		
21:42	ZZZZZZ	2		
21:47	MA47431-CCVA14	1		Li and Sc out
21:52	MA47431-CCB14	1		
21:57	ZZZZZZ	2		
22:02	ZZZZZZ	2		
22:07	ZZZZZZ	2		
22:12	ZZZZZZ	2		
22:17	ZZZZZZ	2		
22:22	ZZZZZZ	2		
22:27	MA47431-CCVA15	1		Li and Sc out
22:32	MA47431-CCB15	1		
22:37	ZZZZZZ	2		
22:42	ZZZZZZ	2		
22:47	ZZZZZZ	2		
22:52	ZZZZZZ	1		
22:57	ZZZZZZ	1		
23:02	ZZZZZZ	1		
23:07	MA47431-CCVA16	1		Hgih RSD. Ag,Sb,Ba, Pb and Tl out
23:12	MA47431-CCB16	1		
23:17	ZZZZZZ	1		
23:22	ZZZZZZ	1		
23:27	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Element: Dilution	As
11:00	ZZZZZZ	1	
11:10	MA47431-ICVA1	1	X
11:15	MA47431-ICV1	1	
11:26	MA47431-ICB1	1	X
11:31	MA47431-CCVA1	1	X
11:36	MA47431-CCB1	1	X
11:41	MA47431-CRI1	1	X
11:47	MA47431-ICSA1	1	X
11:51	MA47431-ICSAB1	1	X
11:56	ZZZZZZ	1	
12:01	MA47431-CCVA2	1	X
12:06	MA47431-CCB2	1	X
12:11	MP17220-MB1	2	X
12:16	MP17220-B1	2	X
12:23	ZZZZZZ	2	
12:27	ZZZZZZ	2	
12:32	ZZZZZZ	2	
12:37	ZZZZZZ	2	
12:42	ZZZZZZ	2	
12:47	ZZZZZZ	2	
12:52	MA47431-CCVA3	1	X
12:57	MA47431-CCB3	1	X
13:02	ZZZZZZ	2	
13:07	ZZZZZZ	2	
13:12	ZZZZZZ	2	
13:17	ZZZZZZ	10	
13:22	ZZZZZZ	2	
13:27	ZZZZZZ	2	
13:32	ZZZZZZ	2	
13:37	ZZZZZZ	2	
13:42	MA47431-CCVA4	1	X
13:47	MA47431-CCB4	1	X
13:52	ZZZZZZ	2	
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
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Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Element: Dilution	As	
13:57	ZZZZZZ	2		
14:02	MA47431-CCVA5	1	X	
14:07	MA47431-CCB5	1	X	
14:12	MP17220-S1	2	X	
14:17	MP17220-S2	2	X	
14:22	JC94229-1	2	X	(a)
14:27	MP17220-SD1	10	X	
14:32	ZZZZZZ	2		
14:37	ZZZZZZ	2		
14:42	ZZZZZZ	2		
14:47	ZZZZZZ	2		
14:52	MA47431-CCVA6	1	X	
14:57	MA47431-CCB6	1	X	
15:02	ZZZZZZ	2		
15:07	ZZZZZZ	2		
15:12	ZZZZZZ	2		
15:17	ZZZZZZ	2		
15:22	ZZZZZZ	2		
15:27	ZZZZZZ	2		
15:32	ZZZZZZ	1		
15:37	ZZZZZZ	1		
15:42	MA47431-CCVA7	1	X	
15:47	MA47431-CCB7	1	X	
15:52	ZZZZZZ	50		
15:57	ZZZZZZ	1		
16:02	ZZZZZZ	2		
16:07	ZZZZZZ	2		
16:12	MP17203-S1	5		
16:17	MP17203-S2	5		
16:22	ZZZZZZ	5		
16:27	ZZZZZZ	5		
16:32	MA47431-CCVA8	1	X	
16:37	MA47431-CCB8	1	X	
		Element: Dilution	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
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File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Element: Dilution	As	
16:42	ZZZZZZ	5		
16:47	ZZZZZZ	5		
16:52	ZZZZZZ	5		
16:57	ZZZZZZ	5		
17:02	ZZZZZZ	5		
17:07	ZZZZZZ	2		
17:12	ZZZZZZ	1		
17:17	ZZZZZZ	1		
17:22	MA47431-CCVA9	1	X	
17:27	MA47431-CCB9	1	X	
17:32	MP17187-S1	2		
17:37	MP17187-S2	2		
17:42	JC94351-5	2		(a)
17:47	MP17229-MB1	5	X	
17:52	MP17229-B1	5	X	
17:57	MP17229-S1	5	X	
18:02	MP17229-S2	5	X	
18:07	JC94207-16AR	5		(a)
18:12	MA47431-CCVA10	1	X	
18:17	MA47431-CCB10	1	X	
18:22	MP17229-SD1	25	See rerun, analytical problems	
18:27	ZZZZZZ	5		
18:32	ZZZZZZ	5		
18:37	ZZZZZZ	5		
18:42	ZZZZZZ	5		
18:47	ZZZZZZ	5		
18:52	ZZZZZZ	5		
18:57	ZZZZZZ	5		
19:02	MP17229-SD1	25	X	
19:07	ZZZZZZ	1		
19:12	MA47431-CCVA11	1	X	
19:17	MA47431-CCB11	1	X	
19:22	ZZZZZZ	5		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
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File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Element: Dilution	As
19:27	ZZZZZZ	5	
19:32	MP17232A-MB1	2	X
19:37	MP17232A-B2	2	X
19:42	MP17232A-S3	2	Overrange
19:47	MP17232A-S4	2	Overrange
19:52	JC94613-1	2	Overrange
19:57	MP17232A-SD1	10	Overrange
20:02	MP17232A-PS1	2	Overrange
20:07	MA47431-CCVA12	1	X
20:12	MA47431-CCB12	1	X
20:17	JC94537-1	2	X
20:22	ZZZZZZ	2	
20:27	MP17239-MB1	2	
20:32	ZZZZZZ	2	
20:37	ZZZZZZ	2	
20:42	ZZZZZZ	2	
20:47	ZZZZZZ	2	
20:52	MP17239-B1	2	
20:57	MA47431-CCVA13	1	X
21:02	MA47431-CCB13	1	X
21:07	MP17239-S1	2	To reanalysis on higher dilution. Na>6000ppm
21:12	MP17239-S2	2	To reanalysis on higher dilution. Na>6000ppm
21:17	JC94499-17	2	To reanalysis on higher dilution. Na>6000ppm
21:22	MP17239-SD1	10	To reanalysis on higher dilution. Na>6000ppm
21:27	ZZZZZZ	2	
21:32	ZZZZZZ	2	
21:37	ZZZZZZ	2	
21:42	ZZZZZZ	2	
21:47	MA47431-CCVA14	1	X
21:52	MA47431-CCB14	1	X
21:57	ZZZZZZ	2	
22:02	ZZZZZZ	2	
22:07	ZZZZZZ	2	
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
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File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Element: Dilution	As
22:12	ZZZZZZ	2	
22:17	ZZZZZZ	2	
22:22	ZZZZZZ	2	
22:27	MA47431-CCVA15	1	X
22:32	MA47431-CCB15	1	X
22:37	ZZZZZZ	2	
22:42	ZZZZZZ	2	
22:47	ZZZZZZ	2	
22:52	ZZZZZZ	1	
22:57	ZZZZZZ	1	
23:02	ZZZZZZ	1	
23:07	MA47431-CCVA16	1	X
23:12	MA47431-CCB16	1	X
23:17	ZZZZZZ	1	
23:22	ZZZZZZ	1	
23:27	ZZZZZZ	1	

(a) Sample used for QC only; not part of login JC94537.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
09:58	MA47431-STD1	No results reported for the elements associated with this internal standard.							
10:03	MA47431-STD2	No results reported for the elements associated with this internal standard.							
10:08	MA47431-STD3	100	100	100	100	100	100	100	100
10:13	MA47431-STD4	102.798	101.892	102.022	107.641	100.578	101.488	105.712	101.029
10:19	MA47431-STD5	102.267	101.265	102.738	101.587	99.911	101.831	100.433	100.193
10:24	MA47431-STD6	103.672	101.168	102.205	100.745	100.359	101.175	100.08	101.25
10:29	MA47431-STD7	102.663	100.023	101.907	99.787	100.518	100.902	99.272	100.249
10:34	MA47431-STD8	101.071	98.244	100.09	88.646	97.779	97.95	87.439	97.57
10:39	MA47431-STD9	100.53	97.951	100.443	108.141	97.457	100.499	104.646	97.962
10:45	MA47431-STD10	103.143	100.159	102.83	99.68	99.016	101.965	99.26	100.98
10:50	MA47431-STD11	101.675	99.265	101.079	97.831	98.786	99.525	97.319	98.219
10:55	MA47431-STD12	99.867	97.183	101.352	98.308	96.572	98.215	96.499	96.033
11:00	ZZZZZZ	99.772	95.458	98.31	96.856	95.981	97.463	96.824	96.913
11:10	MA47431-ICVA1	99.865	96.611	100.763	96.192	97.603	99.244	95.758	97.645
11:15	MA47431-ICV1	99.352	95.498	98.721	95.755	95.366	99.582	95.564	95.481
11:26	MA47431-ICB1	95.538	97.44	105.065	101.224	98.379	104.086	100.117	98.623
11:31	MA47431-CCVA1	101.304	98.514	103.941	99.955	98.768	102.262	97.89	99.046
11:36	MA47431-CCB1	97.945	95.151	97.945	96.056	95.573	98.675	96.078	95.389
11:41	MA47431-CRI1	100.502	97.254	100.292	97.125	97.83	99.728	96.969	97.316
11:47	MA47431-ICSA1	92.804	93.414	98.021	95.105	92.388	94.398	92.929	89.584
11:51	MA47431-ICSAB1	87.798	90.029	96.375	95.302	90.521	93.461	92.927	87.595
11:56	ZZZZZZ	84.388	86.335	90.29	94.826	89.86	91.955	95.623	90.352
12:01	MA47431-CCVA2	89.351	93.836	91.077	96.185	95.178	91.245	95.95	95.471
12:06	MA47431-CCB2	88.778	90.769	94.714	94.984	92.738	95.479	96.134	93.054
12:11	MP17220-MB1	87.206	89.042	92.203	97.337	94.027	97.051	98.723	94.306
12:16	MP17220-B1	87.384	90.287	92.012	102.834	97.53	99.004	103.063	97.983
12:23	ZZZZZZ	89.483	94.303	97.514	102.486	100.897	103.116	100.792	100.569
12:27	ZZZZZZ	92.515	97.706	99.767	104.113	105.319	105.126	102.492	103.23
12:32	ZZZZZZ	93.405	98.666	99.666	101.581	104.133	102.858	98.57	102.061
12:37	ZZZZZZ	88.804	93.443	94.677	102.463	98.872	100.268	101.209	98.765
12:42	ZZZZZZ	91.09	97.386	100.474	106.36	102.399	104.225	103.401	101.805
12:47	ZZZZZZ	96.565	99.323	100.586	105.439	108.276	109.167	107.11	108.319
12:52	MA47431-CCVA3	100.698	102.982	104.717	105.418	103.686	104.49	104.381	104.504

INTERNAL STANDARD SUMMARY

Login Number: JC94537
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Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
12:57	MA47431-CCB3	102.464	102.298	104.516	107.108	103.607	104.96	106.798	103.592
13:02	ZZZZZZ	91.867	96.636	99.662	103.759	100.695	101.733	98.939	101.628
13:07	ZZZZZZ	89.572	92.8	97.001	101.468	98.243	99.096	97.833	97.983
13:12	ZZZZZZ	90.047	93.851	97.092	101.539	98.67	99.773	98.526	98.107
13:17	ZZZZZZ	104.307	101.897	103.604	101.33	102.017	102.55	99.903	101.803
13:22	ZZZZZZ	90.099	90.709	93.516	97.7	95.979	97.559	97.027	95.955
13:27	ZZZZZZ	90.482	92.063	93.639	99.446	98.483	99.58	100.132	97.695
13:32	ZZZZZZ	89.505	90.423	92.533	100.214	98.66	99.849	100.664	97.798
13:37	ZZZZZZ	87.763	92.075	94.753	99.596	94.106	95.73	95.003	93.13
13:42	MA47431-CCVA4	101.209	98.07	94.741	99.54	98.079	93.331	96.892	99.241
13:47	MA47431-CCB4	101.39	95.81	98.177	97.21	96.965	97.989	97.102	96.303
13:52	ZZZZZZ	92.997	92.209	93.092	95.91	94.885	95.14	91.792	94.176
13:57	ZZZZZZ	90.925	89.363	92.131	94.774	94.501	95.518	93.647	94.951
14:02	MA47431-CCVA5	96.474	88.035	95.453	95.262	90.68	94.92	94.365	91.125
14:07	MA47431-CCB5	101.037	94.406	97.374	94.819	95.252	98.512	95.411	96.025
14:12	MP17220-S1	91.256	88.136	91.98	93.95	93.903	94.933	89.777	94.222
14:17	MP17220-S2	89.551	87.336	89.655	93.435	92.596	93.612	89.582	92.433
14:22	JC94229-1	91.071	89.824	88.366	93.951	95.045	92.305	90.383	94.164
14:27	MP17220-SD1	103.267	95.141	97.856	95.327	95.056	96.933	93.479	95.934
14:32	ZZZZZZ	91.283	86.065	88.617	90.697	91.567	93.179	90.652	91.102
14:37	ZZZZZZ	92.13	87.077	88.685	92.908	94.569	94.064	93.243	93.333
14:42	ZZZZZZ	90.728	85.651	86.572	90.414	94.472	94.041	91.837	93.694
14:47	ZZZZZZ	87.71	87.525	89.042	91.195	89.633	89.704	87.557	88.746
14:52	MA47431-CCVA6	95.785	89.837	93.12	90.83	90.987	91.726	90.396	91.15
14:57	MA47431-CCB6	98.037	90.986	94.519	90.67	91.865	93.759	90.989	92.235
15:02	ZZZZZZ	90.02	86.898	91.553	91.92	89.188	90.755	88.02	88.562
15:07	ZZZZZZ	88.873	84.445	88.293	87.475	89.599	90.365	86.206	89.662
15:12	ZZZZZZ	88.292	84.626	88.125	88.806	89.582	91.147	87.912	89.565
15:17	ZZZZZZ	92.121	85.612	92.269	87.65	96.415	99.297	89.455	95.39
15:22	ZZZZZZ	85.943	83.301	85.991	86.184	86.093	87.007	82.875	85.881
15:27	ZZZZZZ	87.359	84.02	90.913	88.8	89.395	93.025	87.099	88.935
15:32	ZZZZZZ	101.91	92.651	95.229	91.776	93.624	95.047	90.946	93.322
15:37	ZZZZZZ	99.382	90.478	93.348	88.699	91.678	93.281	88.606	91.289

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
15:42	MA47431-CCVA7	94.791	86.357	90.142	85.738	86.182	88.316	84.694	87.478
15:47	MA47431-CCB7	98.13	88.858	91.625	86.712	89.186	91.921	85.92	89.153
15:52	ZZZZZZ	99.588	90.09	92.421	87.198	91	91.74	87.854	91.565
15:57	ZZZZZZ	100.209	91.423	96.392	86.193	90.859	93.917	86	90.779
16:02	ZZZZZZ	91.942	83.479	87.851	86.699	91.732	94.12	87.314	90.963
16:07	ZZZZZZ	90.914	82.184	85.537	87.062	88.396	89.705	86.408	88.749
16:12	MP17203-S1	91.876	84.856	86.264	85.721	87.72	88.571	85.525	86.855
16:17	MP17203-S2	90.824	83.995	87.572	85.093	87.088	88.604	84.271	86.334
16:22	ZZZZZZ	92.288	85.945	88.854	83.352	83.413	85.049	78.379	82.805
16:27	ZZZZZZ	91.553	85.82	89.704	81.786	83.419	86.05	77.093	83.038
16:32	MA47431-CCVA8	93.848	84.256	87.776	83.284	83.95	87.581	82.76	85.26
16:37	MA47431-CCB8	95.865	86.08	89.871	85.253	86.882	88.585	84.306	87.052
16:42	ZZZZZZ	89.398	81.672	86.362	83.632	82.731	86.037	81.371	82.097
16:47	ZZZZZZ	90.934	86.454	84.695	86.546	84.649	80.758	82.363	84.739
16:52	ZZZZZZ	93.421	86.062	90.064	85.865	86.628	89.082	84.782	87.724
16:57	ZZZZZZ	92.097	86.69	89.956	85.751	87.258	88.224	82.715	86.322
17:02	ZZZZZZ	92.116	86.278	90.387	86.556	85.713	88.242	83.055	86.267
17:07	ZZZZZZ	86.076	80.044	84.443	83.177	87.916	90.992	82.171	87.914
17:12	ZZZZZZ	101.89	89.342	94.064	85.891	90.116	93.365	85.498	90.253
17:17	ZZZZZZ	96.591	85.837	89.632	82.69	85.896	89.007	81.425	86.632
17:22	MA47431-CCVA9	94.256	84.284	88.686	82.504	84.357	86.323	81.003	84.816
17:27	MA47431-CCB9	95.365	85.299	89.041	82.643	85.208	88.603	82.103	85.48
17:32	MP17187-S1	87.574	84.548	88.854	80.361	81.265	85.739	77.35	81.649
17:37	MP17187-S2	86.418	81.454	86.057	78.876	79.377	83.108	75.127	79.804
17:42	JC94351-5	85.094	79.731	83.125	72.452	77.72	80.931	71.219	78.001
17:47	MP17229-MB1	89.782	81.417	88.56	79.514	82.261	88.366	79.02	82.988
17:52	MP17229-B1	90.686	81.688	85.19	78.347	82.515	84.434	78.292	82.418
17:57	MP17229-S1	88.006	85.701	90.29	84.492	82.538	86.271	80.247	81.851
18:02	MP17229-S2	88.754	84.34	87.5	84.023	82.051	84.805	79.163	81.797
18:07	JC94207-16AR	88.603	85.385	85.536	84.181	81.976	83.841	80.556	81.82
18:12	MA47431-CCVA10	87.289	78.864	84.57	80.889	80.306	84.214	79.742	80.988
18:17	MA47431-CCB10	87.764	78.804	83.689	81.363	80.54	84.035	80.641	80.94
18:22	MP17229-SD1	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
18:27	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:32	ZZZZZZ	89.945	89.321	91.77	89.337	85.853	87.551	83.857	84.478
18:37	ZZZZZZ	90.706	90.835	94.393	89.29	86.365	89.121	83.759	86.138
18:42	ZZZZZZ	90.96	91.997	96.235	92.549	87.567	90.73	86.491	87.084
18:47	ZZZZZZ	92.903	90.311	94.793	90.967	87.926	90.31	85.851	87.172
18:52	ZZZZZZ	91.258	91.797	96.561	92.561	87.543	91.535	86.999	86.787
18:57	ZZZZZZ	91.187	90.503	94.587	91.712	87.058	91.515	85.655	86.213
19:02	MP17229-SD1	99.267	92.077	96.757	92.196	92.203	96.151	90.807	92.278
19:07	ZZZZZZ	95.259	86.489	91.481	81.458	87.624	91.922	82.595	87.584
19:12	MA47431-CCVA11	95.627	88.14	92.271	88.705	88.968	91.467	86.669	88.795
19:17	MA47431-CCB11	94.592	86.422	89.895	86.422	87.84	90.489	86.184	87.785
19:22	ZZZZZZ	95.123	95.51	99.486	94.655	90.484	94.104	88.225	89.549
19:27	ZZZZZZ	88.465	88.458	93.618	92.516	82.391	85.746	83.818	80.865
19:32	MP17232A-MB1	83.422	75.549	79.517	84.084	83.207	86.553	84.407	83.254
19:37	MP17232A-B2	86.652	79.146	82.644	86.618	86.636	88.156	85.002	86.483
19:42	MP17232A-S3	No results reported for the elements associated with this internal standard.							
19:47	MP17232A-S4	No results reported for the elements associated with this internal standard.							
19:52	JC94613-1	No results reported for the elements associated with this internal standard.							
19:57	MP17232A-SD1	No results reported for the elements associated with this internal standard.							
20:02	MP17232A-PS1	No results reported for the elements associated with this internal standard.							
20:07	MA47431-CCVA12	98.205	90.323	93.232	91.096	89.838	91.797	88.605	90.449
20:12	MA47431-CCB12	99.387	90.119	96.594	90.274	90.765	94.357	88.453	90.668
20:17	JC94537-1	88.283	82.038	85.131	86.14	88.622	89.518	85.708	88.064
20:22	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:27	MP17239-MB1	88.074	81.493	84.02	86.069	89.277	90.263	85.892	89.395
20:32	ZZZZZZ	87.07	79.797	82.917	84.471	87.347	89.635	85.264	87.239
20:37	ZZZZZZ	87.481	79.714	82.961	84.565	86.62	88.864	84.294	86.247
20:42	ZZZZZZ	88.525	79.834	81.977	82.528	86.871	89.004	83.484	86.352
20:47	ZZZZZZ	87.681	79.737	81.627	81.846	86.738	87.781	82.853	86.014
20:52	MP17239-B1	90.168	81.251	83.413	83.813	86.3	87.642	83.318	86.195
20:57	MA47431-CCVA13	97.847	89.077	88.235	83.379	87.552	86.34	81.646	87.618
21:02	MA47431-CCB13	91.99	81.633	84.171	79.061	81.49	82.507	78.321	81.443
21:07	MP17239-S1	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
21:12	MP17239-S2	No results reported for the elements associated with this internal standard.							
21:17	JC94499-17	No results reported for the elements associated with this internal standard.							
21:22	MP17239-SD1	No results reported for the elements associated with this internal standard.							
21:27	ZZZZZZ	149.655	!a131.383	!a131.596	!a110.847	128.001	129.753	105.117	125.766
21:32	ZZZZZZ	88.809	100.584	118.615	93.945	89.678	102.859	78.459	88.922
21:37	ZZZZZZ	85.541	109.471	129.462	100.104	95.246	110.271	83.281	94.209
21:42	ZZZZZZ	83.248	111.274	134.762	!a101.178	97.602	113.515	85.728	95.728
21:47	MA47431-CCVA14	146.229 !	129.919	134.478 !	114.274	114.081	119.172	103.805	113.662
21:52	MA47431-CCB14	134.798 !	117.921	123.867	103.679	105.324	112.572	96.96	105.15
21:57	ZZZZZZ	86.36	105.558	124.704	97.169	92.561	106.749	83.017	91.429
22:02	ZZZZZZ	84.477	113.325	136.91	!a 102.445	100.164	116.623	87.644	99.103
22:07	ZZZZZZ	81.849	114.284	140.811	!a104.629	102.87	124.987	90.367	101.623
22:12	ZZZZZZ	84.664	119.129	143.07	!a 101.973	110.633	128.554	89.688	109.094
22:17	ZZZZZZ	84.19	117.422	142.169	!a108.349	100.83	118.325	93.079	99.272
22:22	ZZZZZZ	84.521	120.64	145.742	!a109.403	105.083	122.423	92.735	103.988
22:27	MA47431-CCVA15	151.281	!a142.044	!a147.691	!a125.791	122.819	128.48	112.399	122.951
22:32	MA47431-CCB15	145.052 !	134.93 !	135.674 !	117.751	119.566	121.614	107.299	118.054
22:37	ZZZZZZ	85.813	112.41	132.295	!a100.379	95.628	113.171	94.369	94.737
22:42	ZZZZZZ	151.637	!a146.242	!a148.549	!a126.838	137.58	!a 141.609	!a125.776	133.745 !a
22:47	ZZZZZZ	124.68	123.987	129.378	113.391	110.17	115.962	102.25	108.65
22:52	ZZZZZZ	133.922 !	122.652	123.22	109.581	111.704	113.27	101.576	110.734
22:57	ZZZZZZ	123.091	111.429	113.898	103.062	102.523	106.377	97.236	102.295
23:02	ZZZZZZ	118.932	106.024	108.501	97.694	99.578	101.893	93.506	98.609
23:07	MA47431-CCVA16	110.622	97.842	107.008	92.064	92.38	99.789	87.401	92.291
23:12	MA47431-CCB16	111.233	99.044	101.171	92.518	94.374	96.353	88.115	94.074
23:17	ZZZZZZ	107.002	95.82	97.969	89.758	92.234	95.251	87.022	91.539
23:22	ZZZZZZ	106.299	93.363	100.204	86.556	91.388	96.989	84.693	90.609
23:27	ZZZZZZ	103.168	91.695	94.536	87.228	89.578	92.053	84.543	88.92

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Lithium	60-125 %
Istd#2	Scandium (45-1)	60-125 %
Istd#3	Scandium (45-2)	60-125 %
Istd#4	Scandium (45-3)	60-125 %
Istd#5	Germanium (72-1)	60-125 %
Istd#6	Germanium (72-2)	60-125 %
Istd#7	Germanium (72-3)	60-125 %

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8

Istd#8 Germanium (74-1) 60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC94537
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File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
09:58	MA47431-STD1	No results reported for the elements associated with this internal standard.							
10:03	MA47431-STD2	No results reported for the elements associated with this internal standard.							
10:08	MA47431-STD3	100	100	100	100	100	100	100	100
10:13	MA47431-STD4	101.34	105.378	100.7	101.081	106.885	100.921	101.252	102.337
10:19	MA47431-STD5	100.85	100.099	100.157	101.002	100.622	99.851	101.762	100.473
10:24	MA47431-STD6	101.676	100.197	100.629	101.073	100.74	100.022	101.337	101.918
10:29	MA47431-STD7	101.205	100.283	99.132	100.143	99.796	98.866	101.053	99.959
10:34	MA47431-STD8	98.271	88.328	97.749	97.579	87.732	97.886	98.556	99.333
10:39	MA47431-STD9	99.763	105.779	97.601	99.23	108.075	98.586	100.446	100.121
10:45	MA47431-STD10	101.511	100.291	99.692	99.921	98.65	99.397	101.36	101.107
10:50	MA47431-STD11	100.092	97.207	96.634	97.26	96.085	98.029	99.116	101.856
10:55	MA47431-STD12	97.584	96.452	95.048	95.757	93.935	95.999	97.909	99.751
11:00	ZZZZZZ	98.155	97.032	97.069	97.229	97.748	97.629	98.227	99.214
11:10	MA47431-ICVA1	99.641	96.483	95.767	96.265	93.712	96.42	98.34	98.896
11:15	MA47431-ICV1	98.535	95.885	96.988	97.743	95.448	96.998	99.205	99.037
11:26	MA47431-ICB1	103.859	100.056	98.683	100.917	96.51	98.342	103.962	100.4
11:31	MA47431-CCVA1	102.323	98.274	97.486	98.438	95.638	98.389	101.373	101.391
11:36	MA47431-CCB1	97.966	96.176	95.888	97.321	96.309	97.232	98.934	98.643
11:41	MA47431-CRI1	100.022	96.891	97.781	98.453	97.383	97.836	100.35	100.292
11:47	MA47431-ICSA1	92.372	89.145	85.189	85.89	84.805	89.711	91.047	96.073
11:51	MA47431-ICSAB1	91.326	90.131	84.633	85.508	84.528	89.055	90.141	96.497
11:56	ZZZZZZ	92.637	95.523	93.886	94.804	96.433	96.235	96.229	100.703
12:01	MA47431-CCVA2	91.937	96.825	97.892	91.308	95.221	100.222	93.263	105.961
12:06	MA47431-CCB2	96.11	97.427	96.281	96.648	97.761	97.644	98.023	101.628
12:11	MP17220-MB1	96.346	99.625	95.973	96.426	100.153	97.324	96.185	101.844
12:16	MP17220-B1	99.403	103.716	95.068	95.494	102.987	97.587	95.133	102.922
12:23	ZZZZZZ	102.384	101.061	91.924	92.816	95.027	96.388	95.545	104.575
12:27	ZZZZZZ	104.543	102.43	94.334	95.215	96.297	98.264	96.858	107.586
12:32	ZZZZZZ	103.152	98.761	92.421	92.186	91.762	97.757	94.602	105.461
12:37	ZZZZZZ	99.455	101.413	92.201	92.734	96.581	95.973	93.312	105.865
12:42	ZZZZZZ	102.996	103.156	93.424	95.165	97.331	98.839	97.385	107.787
12:47	ZZZZZZ	109.029	107.167	104.564	104.213	106.702	106.338	102.334	112.114
12:52	MA47431-CCVA3	105.125	104.707	103.771	103.031	102.911	106.02	102.571	111.287

INTERNAL STANDARD SUMMARY

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File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
12:57	MA47431-CCB3	104.95	106.513	105.332	105.455	107.19	105.932	104.59	110.28
13:02	ZZZZZZ	102.265	99.898	93.342	93.033	93.252	98.119	95.853	107.034
13:07	ZZZZZZ	99.352	98.019	90.185	90.979	92.273	95.493	93.44	106.272
13:12	ZZZZZZ	99.343	98.244	91.372	90.787	92.926	96.696	94.237	106.631
13:17	ZZZZZZ	102.39	100.213	100.825	100.134	98.832	103.86	101.853	108.796
13:22	ZZZZZZ	97.17	97.686	90.595	91.488	94.659	95.929	92.641	105.169
13:27	ZZZZZZ	99.772	100.411	94.911	95.577	99.34	98.498	95.644	105.996
13:32	ZZZZZZ	99.753	100.406	94.976	95.173	99.584	98.029	94.631	106.391
13:37	ZZZZZZ	95.422	94.748	87.909	88.277	89.933	93.814	90.948	103.757
13:42	MA47431-CCVA4	94.403	97.672	100.779	92.782	95.914	103.976	93.381	108.362
13:47	MA47431-CCB4	98.174	97.522	98.49	98.79	97.257	100.236	98.29	105.431
13:52	ZZZZZZ	95.262	91.548	88.407	87.997	88.021	93.821	91.704	102.734
13:57	ZZZZZZ	95.77	93.318	89.633	88.568	90.521	94.163	90.908	103.198
14:02	MA47431-CCVA5	95.133	94.677	89.89	94.227	93.145	92.602	94.962	97.504
14:07	MA47431-CCB5	97.921	95.493	97.621	97.85	95.654	99.03	97.677	103.144
14:12	MP17220-S1	93.808	90.792	86.132	85.414	86.07	91.61	88.829	101.398
14:17	MP17220-S2	93.152	90.047	84.92	84.385	85.163	90.201	87.627	100.947
14:22	JC94229-1	91.828	91.156	87.771	82.217	85.977	93.152	86.886	104.329
14:27	MP17220-SD1	96.813	94.22	95.614	94.409	91.384	98.048	97.535	103.78
14:32	ZZZZZZ	93.119	91.03	86.304	87.257	88.343	90.763	89.162	97.93
14:37	ZZZZZZ	94.017	93.291	90.994	90.323	92.925	94.287	90.942	102.459
14:42	ZZZZZZ	92.924	91.807	89.877	89.245	91.996	92.803	89.344	101.871
14:47	ZZZZZZ	89.148	87.941	83.836	82.598	83.091	89.162	86.588	100.455
14:52	MA47431-CCVA6	92.129	90.802	91.002	91.245	88.584	94.268	92.295	102.275
14:57	MA47431-CCB6	93.923	91.229	94.549	93.8	91.115	96.473	94.955	101.273
15:02	ZZZZZZ	91.213	88.133	84.039	84.768	83.838	89.657	89.319	95.31
15:07	ZZZZZZ	89.829	86.232	84.663	84.176	82.477	88.504	87.392	95.469
15:12	ZZZZZZ	90.876	88.492	85.229	84.148	83.566	89.491	88.496	95.885
15:17	ZZZZZZ	99.871	89.701	91.457	94.811	87.253	93.74	95.239	98.661
15:22	ZZZZZZ	86.447	82.745	80.12	79.234	78.321	85.427	83.272	91.92
15:27	ZZZZZZ	93.647	87.236	81.971	84.905	81.474	86.854	89.231	92.221
15:32	ZZZZZZ	95.263	91.009	95.142	94.096	90.93	95.874	95.742	99.471
15:37	ZZZZZZ	92.283	88.745	92.767	92.137	87.909	94.537	93.977	94.305

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
15:42	MA47431-CCVA7	88.845	84.971	87.35	86.977	83.547	89.63	89.595	91.81
15:47	MA47431-CCB7	91.385	86.473	91.2	91.157	86.97	91.975	92.24	92.164
15:52	ZZZZZZ	91.531	87.211	91.658	90.709	86.829	93.223	92.851	92.915
15:57	ZZZZZZ	94.091	85.376	88.222	87.797	81.733	90.932	93.24	93.336
16:02	ZZZZZZ	94.078	87.137	87.086	87.425	86.352	88.975	89.313	90.214
16:07	ZZZZZZ	89.333	86.177	85.804	85.743	86.155	87.335	86.76	91.393
16:12	MP17203-S1	88.611	84.607	83.703	82.228	80.99	87.391	85.91	91.437
16:17	MP17203-S2	87.957	83.805	83.635	82.927	80.392	87.773	86.932	91.719
16:22	ZZZZZZ	84.521	78.568	77.756	76.705	73.506	82.389	82.393	86.986
16:27	ZZZZZZ	86.043	77.508	77.215	77.663	72.74	81.31	83.395	86.564
16:32	MA47431-CCVA8	86.784	83.063	85.052	85.102	81.525	87.231	87.87	88.811
16:37	MA47431-CCB8	89.321	84.886	88.385	88.164	85.438	89.372	90.372	89.576
16:42	ZZZZZZ	85.529	81.222	80.93	80.778	78.335	84.16	84.635	87.69
16:47	ZZZZZZ	80.529	82.091	80.162	73.825	77.663	84.045	79.668	87.978
16:52	ZZZZZZ	89.801	84.555	84.103	83.984	81.096	87.06	87.52	89.874
16:57	ZZZZZZ	88.027	82.626	83.159	81.281	78.493	86.291	86.924	89.542
17:02	ZZZZZZ	88.126	82.875	81.724	82.141	79.403	85.376	87.21	88.369
17:07	ZZZZZZ	91.573	81.991	78.937	79.277	77.269	82.007	83.098	86.481
17:12	ZZZZZZ	93.073	85.501	91.758	91.036	85.239	92.436	93.592	91.029
17:17	ZZZZZZ	88.294	81.931	86.354	85.952	81.444	88.233	88.945	88.748
17:22	MA47431-CCVA9	86.525	81.201	84.728	84.396	79.795	86.366	87.717	88.058
17:27	MA47431-CCB9	88.454	82.531	87.559	87.65	83.108	88.295	89.706	87.747
17:32	MP17187-S1	84.964	76.916	78.317	78.142	72.07	82.576	84.832	85.825
17:37	MP17187-S2	82.161	75.856	76.756	76.363	71.374	80.895	82.813	84.63
17:42	JC94351-5	80.365	71.087	75.569	75.116	66.106	79.867	81.592	83.74
17:47	MP17229-MB1	87.607	79.796	84.891	87.889	79.923	86.169	90.725	85.685
17:52	MP17229-B1	84.141	77.613	83.404	82.772	78.011	84.682	85.688	85.596
17:57	MP17229-S1	84.941	78.297	81.969	81.701	76.795	84.155	85.652	86.527
18:02	MP17229-S2	83.575	78.496	82.015	80.993	76.678	85.009	84.852	87.342
18:07	JC94207-16AR	81.954	78.677	83.178	79.819	77.899	86.043	83.289	90.408
18:12	MA47431-CCVA10	84.227	79.73	81.642	82.402	78.495	83.686	85.155	86.039
18:17	MA47431-CCB10	84.054	81.017	83.855	84.098	80.7	84.84	86.357	86.319
18:22	MP17229-SD1	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
18:27	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:32	ZZZZZZ	86.142	82.676	84.36	83.237	80.543	86.616	86.376	89.082
18:37	ZZZZZZ	88.109	83.426	85.427	85.166	80.647	87.02	88.629	89.528
18:42	ZZZZZZ	89.021	84.681	86.315	85.655	81.282	88.827	89.424	90.874
18:47	ZZZZZZ	89.375	84.654	87.246	85.928	82.66	89.157	89.265	90.612
18:52	ZZZZZZ	90.193	85.299	86.258	86.802	82.639	88.643	90.24	90.12
18:57	ZZZZZZ	89.284	84.992	86.393	86.381	82.556	89.407	90.396	90.372
19:02	MP17229-SD1	94.55	90.74	92.951	92.405	88.426	94.083	95.615	100.109
19:07	ZZZZZZ	91.107	82.622	89.982	90.493	80.845	91.121	92.303	90.249
19:12	MA47431-CCVA11	91.812	86.872	88.759	88.57	84.724	90.289	91.191	91.106
19:17	MA47431-CCB11	90.584	86.835	89.69	88.921	86.469	90.072	91.244	89.961
19:22	ZZZZZZ	92.201	86.305	88.568	87.836	84.038	90.852	91.721	95.037
19:27	ZZZZZZ	83.065	81.29	80.261	80.564	78.781	84.685	85.187	88.186
19:32	MP17232A-MB1	86.448	84.676	81.75	82.643	84.409	83.575	83.476	86.207
19:37	MP17232A-B2	88.093	85.702	83.971	83.384	84.452	85.89	84.814	88.658
19:42	MP17232A-S3	No results reported for the elements associated with this internal standard.							
19:47	MP17232A-S4	No results reported for the elements associated with this internal standard.							
19:52	JC94613-1	No results reported for the elements associated with this internal standard.							
19:57	MP17232A-SD1	No results reported for the elements associated with this internal standard.							
20:02	MP17232A-PS1	No results reported for the elements associated with this internal standard.							
20:07	MA47431-CCVA12	91.878	88.34	90.228	88.301	86.966	90.795	91.155	91.434
20:12	MA47431-CCB12	93.619	88.347	91.54	93.002	88.277	91.851	94.763	90.394
20:17	JC94537-1	90.418	85.565	82.922	82.952	82.591	86.055	85.631	86.766
20:22	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:27	MP17239-MB1	90.321	85.926	85.272	84.865	85.179	86.18	85.041	86.378
20:32	ZZZZZZ	88.618	84.906	83.238	82.94	83.45	84.322	83.67	85.014
20:37	ZZZZZZ	88.651	84.059	82.897	83.11	83.776	83.569	83.367	84.191
20:42	ZZZZZZ	88.692	83.461	83.495	82.68	82.888	83.666	83.115	83.889
20:47	ZZZZZZ	87.928	82.686	82.825	82.443	82.879	83.495	82.833	83.943
20:52	MP17239-B1	87.157	83.738	83.061	82.519	83.45	84.071	82.784	85.16
20:57	MA47431-CCVA13	87.192	82.214	90.071	83.03	80.393	91.261	85.851	90.787
21:02	MA47431-CCB13	82.757	78.315	81.577	81.386	79.067	81.938	82.982	80.003
21:07	MP17239-S1	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
21:12	MP17239-S2	No results reported for the elements associated with this internal standard.							
21:17	JC94499-17	No results reported for the elements associated with this internal standard.							
21:22	MP17239-SD1	No results reported for the elements associated with this internal standard.							
21:27	ZZZZZZ	128.172	104.371	104.882	103.68	94.682	101.339	106.195	96.976
21:32	ZZZZZZ	101.748	78.036	66.133 !a	67.405 !a	59.077 !a	68.778 !a	79.049	67.171 !a
21:37	ZZZZZZ	108.327	82.825	69.711 !a	70.612	61.151 !a	72.162	82.959	68.704 !a
21:42	ZZZZZZ	111.305	84.662	70.471	72.164	61.575 !a	72.562	85.209	68.692 !a
21:47	MA47431-CCVA14	118.822	104.64	101.518	101.562	92.753	98.457	105.343	92.711
21:52	MA47431-CCB14	111.79	96.255	98.075	99.113	88.381	94.92	101.698	86.098
21:57	ZZZZZZ	105.329	81.974	68.38 !a	69.54 !a	59.376 !a	71.258	81.612	69.477 !a
22:02	ZZZZZZ	115.247	86.703	70.945	72.554	60.661 !a	73.523	85.964	70.187
22:07	ZZZZZZ	123.332	88.919	71.279	73.995	61.589 !a	74.333	87.82	70.29
22:12	ZZZZZZ	125.521	88.698	73.309	74.272	59.585 !a	75.805	88.422	71.393
22:17	ZZZZZZ	115.426	92.161	73.06	74.417	62.839 !a	75.893	87.586	70.985
22:22	ZZZZZZ	120.86	92.112	74.515	74.362	62.795 !a	77.077	88.129	71.844
22:27	MA47431-CCVA15	127.408	112.338	108.25	107.478	98.086	105.48	110.888	103.008
22:32	MA47431-CCB15	120.069	107.373	107.522	104.288	96.379	104.578	106.645	98.976
22:37	ZZZZZZ	112.132	92.629	71.689	71.793	59.912 !a	74.939	83.764	72.167
22:42	ZZZZZZ	140.023 !a	125.351	113.195	112.045	101.873	108.359	114.336	104.783
22:47	ZZZZZZ	113.609	101.231	90.347	90.141	82.247	92.547	96.731	95.072
22:52	ZZZZZZ	113.28	101.221	103.284	101.618	94.08	100.708	103.323	98.005
22:57	ZZZZZZ	105.941	97.355	97.29	96.576	89.799	95.553	97.77	91.49
23:02	ZZZZZZ	101.767	92.674	94.098	93.195	86.735	93.257	94.249	89.369
23:07	MA47431-CCVA16	99.85	87.966	85.502	90.502	80.256	88.903	93.331	85.627
23:12	MA47431-CCB16	97.18	88.075	90.568	89.905	84.719	89.304	90.881	84.61
23:17	ZZZZZZ	93.406	86.525	88.602	88.017	82.858	88.383	89.608	83.544
23:22	ZZZZZZ	96.023	85.249	88.331	90.067	81.577	88.033	92.288	86.485
23:27	ZZZZZZ	91.53	84.636	87.046	86.555	81.954	86.358	87.855	83.408

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#9	Germanium (74-2)	60-125 %
Istd#10	Germanium (74-3)	60-125 %
Istd#11	Rhodium (103-1)	60-125 %
Istd#12	Rhodium (103-2)	60-125 %
Istd#13	Rhodium (103-3)	60-125 %
Istd#14	Indium (115-1)	60-125 %
Istd#15	Indium (115-2)	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16

Istd#16 Terbium (159-1) 60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
09:58	MA47431-STD1	No results reported for the elements associated with this internal standard.					
10:03	MA47431-STD2	No results reported for the elements associated with this internal standard.					
10:08	MA47431-STD3	100	100	100	100	100	100
10:13	MA47431-STD4	100.15	107.189	101.141	100.147	101.036	99.62
10:19	MA47431-STD5	101.198	100.318	99.915	100.799	99.881	100.206
10:24	MA47431-STD6	100.175	100.682	100.291	100.109	100.043	100.216
10:29	MA47431-STD7	101.181	100.567	98.905	100.77	99.931	100.638
10:34	MA47431-STD8	98.316	88.47	98.429	98.301	99.451	98.653
10:39	MA47431-STD9	99.462	108.83	97.881	99.486	98.523	99.018
10:45	MA47431-STD10	100.206	100.406	100.801	100.635	99.048	99.199
10:50	MA47431-STD11	99	98.667	99.892	99.762	97.582	96.852
10:55	MA47431-STD12	98.865	98.226	98.275	98.949	94.82	95.013
11:00	ZZZZZZ	98.006	98.694	97.877	97.577	98.508	98.421
11:10	MA47431-ICVA1	98.941	96.564	97.854	98.914	96.496	96.577
11:15	MA47431-ICV1	97.888	95.911	97.381	97.927	98.643	98.595
11:26	MA47431-ICB1	101.21	97.362	99.026	100.509	100.27	101.381
11:31	MA47431-CCVA1	100.427	98.015	100.049	100.859	97.931	97.99
11:36	MA47431-CCB1	97.508	96.941	97.353	96.764	98.273	97.584
11:41	MA47431-CRI1	98.996	97.831	98.118	98.65	99.457	98.512
11:47	MA47431-ICSA1	95.38	93.824	94.931	95.771	88.284	87.501
11:51	MA47431-ICSAB1	95.499	93.559	95.878	96.095	87.971	87.448
11:56	ZZZZZZ	96.506	97.106	97.963	97.28	99.668	98.356
12:01	MA47431-CCVA2	94.671	97.958	103.587	95.029	102.892	93.886
12:06	MA47431-CCB2	98.047	97.728	99.356	98.316	101.176	98.869
12:11	MP17220-MB1	97.605	100.75	100.3	97.785	105.777	101.988
12:16	MP17220-B1	98.818	105.165	101.017	98.981	104.291	100.322
12:23	ZZZZZZ	99.269	100.959	102.984	99.709	96.346	93.106
12:27	ZZZZZZ	101.183	103.098	106.549	101.676	97.707	94.681
12:32	ZZZZZZ	99.226	99.794	103.324	100.44	93.852	90.051
12:37	ZZZZZZ	99.523	103.858	104.254	100.175	96.941	92.936
12:42	ZZZZZZ	101.708	104.821	105.874	102.739	96.851	93.597
12:47	ZZZZZZ	104.774	107.376	109.159	104.591	110.007	105.286
12:52	MA47431-CCVA3	104.528	104.777	108.616	104.838	106.09	102.807

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
12:57	MA47431-CCB3	103.561	106.27	106.563	103.366	107.759	103.859
13:02	ZZZZZZ	100.983	101.524	104.713	101.548	97.928	93.029
13:07	ZZZZZZ	99.196	100.885	103.135	99.515	95.649	91.662
13:12	ZZZZZZ	99.877	100.968	104.446	100.135	95.99	91.487
13:17	ZZZZZZ	101.751	101.691	105.183	102.455	104.137	99.83
13:22	ZZZZZZ	97.258	101.235	102.359	98.632	98.785	94.284
13:27	ZZZZZZ	98.995	103.051	104.37	99.72	103.128	98.649
13:32	ZZZZZZ	98.876	103.7	103.33	99.81	104.028	98.991
13:37	ZZZZZZ	96.483	98.282	102.286	98.128	94.091	89.79
13:42	MA47431-CCVA4	94.917	99.015	106.525	95.537	105.112	93.532
13:47	MA47431-CCB4	97.676	97.531	101.974	97.932	102.758	98.989
13:52	ZZZZZZ	96.261	96.554	99.941	96.445	94.473	89.295
13:57	ZZZZZZ	95.02	96.89	100.097	95.578	95.131	90.704
14:02	MA47431-CCVA5	96.443	96.313	95.414	96.619	95.129	95.021
14:07	MA47431-CCB5	97.297	95.65	99.711	97.498	100.6	98.03
14:12	MP17220-S1	93.399	94.972	97.571	94.704	91.294	87.464
14:17	MP17220-S2	92.756	94.279	97.851	93.576	90.674	86.19
14:22	JC94229-1	90.99	94.587	100.103	91.209	93.185	84.132
14:27	MP17220-SD1	97.515	95.201	100.336	96.909	97.832	94.67
14:32	ZZZZZZ	92.999	95.625	97.714	94.453	93.91	90.23
14:37	ZZZZZZ	93.782	96.981	98.869	94.872	98.727	93.857
14:42	ZZZZZZ	93.027	96.113	98.716	94.293	98.001	93.101
14:47	ZZZZZZ	91.458	91.891	97.838	93.255	90.414	84.808
14:52	MA47431-CCVA6	93.329	92.5	98.11	93.028	95.706	91.65
14:57	MA47431-CCB6	94.463	90.859	96.962	93.399	97.6	94.312
15:02	ZZZZZZ	91.993	91.815	96.295	92.798	88.905	85.886
15:07	ZZZZZZ	90.606	89.369	94.738	91.294	88.748	86.173
15:12	ZZZZZZ	91.428	90.453	94.453	91.532	89.259	86.063
15:17	ZZZZZZ	96.186	89.51	96.031	96.439	96.882	95.851
15:22	ZZZZZZ	87.309	87.07	92.402	87.845	83.636	80.327
15:27	ZZZZZZ	91.226	88.805	91.598	92.488	84.295	84.887
15:32	ZZZZZZ	93.375	91.106	95.201	93.353	95.522	93.176
15:37	ZZZZZZ	91.551	88.898	93.215	91.814	93.769	92.073

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
15:42	MA47431-CCVA7	89.365	87.536	91.649	89.437	89.768	87.39
15:47	MA47431-CCB7	90.558	87.54	91.992	90.469	92.408	90.651
15:52	ZZZZZZ	90.36	87.39	92.227	90.661	92.565	91
15:57	ZZZZZZ	91.705	86.687	92.106	92.311	88.667	87.916
16:02	ZZZZZZ	88.711	88.644	89.891	89.02	93.125	90.28
16:07	ZZZZZZ	88.474	90.111	91.499	88.441	89.813	87.923
16:12	MP17203-S1	87.606	87.625	94.179	91.971	86.596	83.259
16:17	MP17203-S2	88.108	87.496	94.563	92.298	86.295	84.274
16:22	ZZZZZZ	83.712	81.666	87.011	84.262	76.969	74.977
16:27	ZZZZZZ	85.659	80.404	86.085	86.038	76.546	75.859
16:32	MA47431-CCVA8	87.706	85.862	88.25	88.056	86.374	85.812
16:37	MA47431-CCB8	88.857	87.101	89.26	88.863	89.242	88.872
16:42	ZZZZZZ	86.547	85.477	86.989	86.191	82.765	81.838
16:47	ZZZZZZ	80.091	85.237	87.984	80.628	79.338	72.519
16:52	ZZZZZZ	88.577	87.327	89.858	88.849	83.993	83.347
16:57	ZZZZZZ	87.512	85.291	88.895	87.491	81.988	79.85
17:02	ZZZZZZ	88.346	86.142	88.573	88.173	80.878	80.727
17:07	ZZZZZZ	85.579	84.633	85.972	86.126	80.327	79.609
17:12	ZZZZZZ	90.606	86.23	90.91	90.093	91.446	90.751
17:17	ZZZZZZ	88.047	83.868	87.89	87.484	87.294	86.104
17:22	MA47431-CCVA9	86.62	83.627	87.225	87.158	85.43	84.559
17:27	MA47431-CCB9	86.898	84.003	86.891	87.233	87.045	87.475
17:32	MP17187-S1	85.739	79.766	85.872	86.48	79.436	79.237
17:37	MP17187-S2	83.491	79.512	84.88	84.301	77.977	77.796
17:42	JC94351-5	82.373	73.633	83.418	83.071	77.158	76.837
17:47	MP17229-MB1	88.396	81.031	85.478	87.815	86.992	88.857
17:52	MP17229-B1	84.543	80.94	85.31	84.843	83.943	83.664
17:57	MP17229-S1	86.051	81.645	93.04	92.413	83.072	83.133
18:02	MP17229-S2	85.156	81.81	93.064	90.495	84.477	82.745
18:07	JC94207-16AR	84.041	82.532	95.396	91.727	85.732	81.911
18:12	MA47431-CCVA10	85.382	82.094	85.547	85.825	83.752	83.137
18:17	MA47431-CCB10	85.238	82.225	85.868	85.214	85.976	84.822
18:22	MP17229-SD1	No results reported for the elements associated with this internal standard.					

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
18:27	ZZZZZZ	No results reported for the elements associated with this internal standard.					
18:32	ZZZZZZ	86.636	84.912	94.602	92.694	86.448	84.778
18:37	ZZZZZZ	88.392	84.442	94.484	93.883	87.095	85.755
18:42	ZZZZZZ	88.769	85.382	96.691	94.792	87.738	86.823
18:47	ZZZZZZ	89.306	87.333	94.474	93.138	87.262	86.387
18:52	ZZZZZZ	89.176	86.455	95.515	94.866	86.932	86.922
18:57	ZZZZZZ	89.212	87.124	95.603	94.459	88.533	88.278
19:02	MP17229-SD1	92.739	89.25	93.476	94.119	92.22	91.457
19:07	ZZZZZZ	89.051	80.898	88.564	89.007	88.714	88.366
19:12	MA47431-CCVA11	89.499	87.461	90.097	89.221	87.275	86.135
19:17	MA47431-CCB11	88.321	87.113	89.041	87.864	88.602	87.728
19:22	ZZZZZZ	90.5	87.834	98.237	96.665	89.367	88.363
19:27	ZZZZZZ	86.517	85.673	93.029	91.482	82.761	81.628
19:32	MP17232A-MB1	83.855	86.785	85.211	84.383	87.959	85.194
19:37	MP17232A-B2	84.886	88.152	88.618	85.595	86.053	84.014
19:42	MP17232A-S3	No results reported for the elements associated with this internal standard.					
19:47	MP17232A-S4	No results reported for the elements associated with this internal standard.					
19:52	JC94613-1	No results reported for the elements associated with this internal standard.					
19:57	MP17232A-SD1	No results reported for the elements associated with this internal standard.					
20:02	MP17232A-PS1	No results reported for the elements associated with this internal standard.					
20:07	MA47431-CCVA12	89.114	89.386	90.18	88.804	86.008	85.365
20:12	MA47431-CCB12	91.114	87.749	89.441	90.554	87.7	89.155
20:17	JC94537-1	85.075	87.209	87.197	84.948	83.385	81.916
20:22	ZZZZZZ	No results reported for the elements associated with this internal standard.					
20:27	MP17239-MB1	84.389	87.061	85.832	84.467	85.281	82.896
20:32	ZZZZZZ	82.875	84.761	84.719	83.001	83.463	81.45
20:37	ZZZZZZ	82.418	84.976	84.004	82.404	82.712	81.133
20:42	ZZZZZZ	82.197	83.914	83.638	81.878	82.151	80.847
20:47	ZZZZZZ	81.577	84.572	83.309	81.4	81.982	80.523
20:52	MP17239-B1	82.307	86.477	84.463	82.538	81.818	79.816
20:57	MA47431-CCVA13	83.969	83.262	86.863	83.266	82.96	79.931
21:02	MA47431-CCB13	79.315	79.679	79.134	78.988	77.347	77.744
21:07	MP17239-S1	No results reported for the elements associated with this internal standard.					

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
21:12	MP17239-S2	No results reported for the elements associated with this internal standard.					
21:17	JC94499-17	No results reported for the elements associated with this internal standard.					
21:22	MP17239-SD1	No results reported for the elements associated with this internal standard.					
21:27	ZZZZZZ	92.141	88.443	89.417	91.007	84.923	85.123
21:32	ZZZZZZ	69.584 !a	61.729 !a	66.913 !a	68.964 !a	49.699 !a	49.984 !a
21:37	ZZZZZZ	70.394	63.08 !a	67.221 !a	69.813 !a	49.021 !a	49.701 !a
21:42	ZZZZZZ	71.08	62.97 !a	67.494 !a	70.526	48.925 !a	50.04 !a
21:47	MA47431-CCVA14	91.68	87.169	87.897	91.527	80.738	82.606
21:52	MA47431-CCB14	88.388	81.121	84.846	87.157	81.075	83.41
21:57	ZZZZZZ	70.908	61.801 !a	68.377 !a	70.353	51.021 !a	50.997 !a
22:02	ZZZZZZ	71.836	62.102 !a	69.178 !a	71.335	49.932 !a	50.272 !a
22:07	ZZZZZZ	72.991	62.902 !a	69.854 !a	71.89	48.938 !a	50.307 !a
22:12	ZZZZZZ	72.843	60.436 !a	70.485	72.066	49.768 !a	50.37 !a
22:17	ZZZZZZ	72.123	63.425 !a	69.965 !a	71.004	49.266 !a	49.867 !a
22:22	ZZZZZZ	72.168	62.955 !a	70.826	71.483	49.515 !a	49.169 !a
22:27	MA47431-CCVA15	95.418	89.844	92.431	94.538	83.12	83.58
22:32	MA47431-CCB15	90.397	86.764	90.999	89.027	85.313	83.534
22:37	ZZZZZZ	71.609	61.066 !a	71.009	70.745	51.706 !a	50.723 !a
22:42	ZZZZZZ	97.033	91.483	94.274	95.808	87.04	87.774
22:47	ZZZZZZ	88.482	83.44	88.465	88.909	72.938	72.282
22:52	ZZZZZZ	90.746	86.969	90.058	89.912	86.214	84.503
22:57	ZZZZZZ	87.449	83.623	86.728	86.9	83.813	82.802
23:02	ZZZZZZ	85.181	81.226	85.382	84.512	81.865	81.522
23:07	MA47431-CCVA16	87.325	78.386	81.532	86.897	76.486	80.397
23:12	MA47431-CCB16	83.636	80.525	83.525	83.381	81.052	80.194
23:17	ZZZZZZ	82.169	79.22	82.656	82.673	80.263	80.031
23:22	ZZZZZZ	85.336	78.017	82.778	85.058	79.761	82.258
23:27	ZZZZZZ	82.03	79.699	82.152	81.741	79.766	79.243

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#17	Terbium (159-2)	60-125 %
Istd#18	Terbium (159-3)	60-125 %
Istd#19	Holmium (165-1)	60-125 %
Istd#20	Holmium (165-2)	60-125 %
Istd#21	Bismuth (209-1)	60-125 %
Istd#22	Bismuth (209-2)	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47431
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47431 Units: ug/l

Time: / Sample ID:				11:26 ICB1		11:36 CCB1		12:06 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	-0.00453	<1.5	0.0150	<1.5	0.00815	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47431 Units: ug/l

Time: / Sample ID:				12:57 CCB3		13:47 CCB4		14:07 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.0127	<0.50	0.0103	<0.50	0.00846	<0.50
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47431 Units: ug/l

Time: / Sample ID:				14:57 CCB6		15:47 CCB7		16:37 CCB8	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.000771	<0.50	0.0189	<0.50	0.0101	<0.50
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47431 Units: ug/l

Time: / Sample ID:				17:27 CCB9		18:17 CCB10		19:17 CCB11	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.0145	<0.50	0.0178	<0.50	0.00777	<0.50
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47431 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	LOD	20:12 CCB12 raw	final	21:02 CCB13 raw	final
Aluminum	25	.28	20				
Antimony	2.0	.094	1.5				
Arsenic	0.50	.013	1.0	0.0671	<1.5	0.0256	<0.50
Barium	1.0	.008	0.50				
Beryllium	0.50	.004	0.25				
Boron	25	.65	20				
Cadmium	0.50	.004	2.0				
Calcium	250	6.1	50				
Chromium	1.0	.014	3.0				
Cobalt	0.50	.002	0.25				
Copper	2.0	.021	4.0				
Iron	25	.43	13				
Lead	0.50	.009	1.0				
Magnesium	250	.15	130				
Manganese	1.0	.007	1.0				
Molybdenum	1.0	.015	0.50				
Nickel	1.0	.017	3.0				
Potassium	250	.71	50				
Selenium	0.50	.072	0.50				
Silver	0.50	.004	0.50				
Sodium	250	1	100				
Strontium	5.0	.003	5.0				
Thallium	0.50	.004	0.50				
Tin	5.0	.071	2.5				
Titanium	1.0	.035	1.0				
Vanadium	1.0	.009	1.0				
Zinc	5.0	.029	7.5				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47431 Units: ug/l

Time:		11:10			11:15			11:31	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	60	62.4	104.0				50	49.7	99.4
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron									
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47431 Units: ug/l

Time:		12:01			12:52			13:42	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	50	52.4	104.8	50	50.2	100.4	50	52.2	104.4
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron									
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47431 Units: ug/l

Time:		14:02			14:52			15:42	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	50	50.2	100.4	50	49.9	99.8	50	49.5	99.0
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron									
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47431 Units: ug/l

Time:		16:32			17:22			18:12	
Sample ID:	CCVA	CCVA8		CCVA	CCVA9		CCVA	CCVA10	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	50	49.8	99.6	50	49.5	99.0	50	49.9	99.8
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron									
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47431 Units: ug/l

Time:		19:12			20:07			20:57	
Sample ID:	CCVA	CCVA11		CCVA	CCVA12		CCVA	CCVA13	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	50	50.0	100.0	50	50.1	100.2	50	50.3	100.6
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron									
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA47431 Units: ug/l

Time:			11:41	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25		
Antimony	2.0	0.25	anr	
Arsenic	0.50	0.50	0.496	99.2
Barium	1.0	0.50	anr	
Beryllium	0.50	0.25		
Boron	25	2.5		
Cadmium	0.50	0.25	anr	
Calcium	250	125		
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25		
Copper	2.0	2.0		
Iron	25	25		
Lead	0.50	0.25	anr	
Magnesium	250	125		
Manganese	1.0	0.25		
Molybdenum	1.0	0.50		
Nickel	1.0	2.0		
Potassium	250	125		
Selenium	0.50	0.50	anr	
Silver	0.50	1.0	anr	
Sodium	250	125		
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0	anr	
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091119M1L.CSV Date Analyzed: 09/11/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA47431 Units: ug/l

Time:			11:47		11:51	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	95000	95.0	93300	93.3
Antimony			0.188		0.187	
Arsenic		20	0.0645		20.6	103.0
Barium			0.254		0.218	
Beryllium			-0.00124		0.00158	
Boron		50	3.49		52.7	105.4
Cadmium		20	-0.309		19.6	98.0
Calcium	100000	100000	94300	94.3	93900	93.9
Chromium		20	0.225		20.8	104.0
Cobalt		20	0.177		20.2	101.0
Copper		20	1.58		18.3	91.5
Iron	100000	100000	90300	90.3	90600	90.6
Lead			0.0939		0.0877	
Magnesium	100000	100000	92500	92.5	90500	90.5
Manganese		20	0.545		21.2	106.0
Molybdenum	2000	2000	2070	103.5	2040	102.0
Nickel		20	0.487		20.1	100.5
Potassium	100000	100000	96000	96.0	95300	95.3
Selenium		20	0.124		20.1	100.5
Silver		20	0.0190		19.9	99.5
Sodium	100000	100000	92700	92.7	90500	90.5
Strontium	2000	2000	1940	97.0	1950	97.5
Thallium			0.00438		0.00492	
Tin	2000	2000	1830	91.5	1890	94.5
Titanium	2000	2000	1820	91.0	1800	90.0
Vanadium		20	-0.00752		20.2	101.0
Zinc		20	-0.0714		17.8	89.0

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:24	MA47439-STD1	1		See rerun, sample intro not stable.
10:29	MA47439-STD2	1		See rerun, sample intro not stable.
10:37	MA47439-STD3	1		STDA
10:42	MA47439-STD4	1		STDB
10:47	MA47439-STD5	1		STDC
10:52	MA47439-STD6	1		STDD
10:57	MA47439-STD7	1		STDE
11:02	MA47439-STD8	1		STDF
11:07	MA47439-STD9	1		STDG
11:12	MA47439-STD10	1		STDH
11:17	MA47439-STD11	1		STDI
11:22	MA47439-STD12	1		STDJ
11:27	ZZZZZZ	1		
11:32	ZZZZZZ	1		
11:37	MA47439-ICVA1	1		
11:42	MA47439-ICV1	1		60ppb Al.
11:47	MA47439-ICB1	1		
11:52	MA47439-CCVA1	1		
11:57	MA47439-CCB1	1		
12:02	MA47439-CRI1	1		
12:07	MA47439-ICSA1	1		
12:12	MA47439-ICSAB1	1		
12:17	ZZZZZZ	1		
12:22	MA47439-CCVA2	1		
12:27	MA47439-CCB2	1		
12:32	ZZZZZZ	25		
12:37	ZZZZZZ	2		
12:42	ZZZZZZ	2		
12:47	MP17220-S1	10		
12:52	MP17220-S2	10		
12:57	JC94229-1	10		(sample used for QC only; not part of login JC94537)
13:02	MP17220-SD1	50		
13:07	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:12	MA47439-CCVA3	1		
13:17	MA47439-CCB3	1		
13:22	ZZZZZZ	2		
13:27	ZZZZZZ	5		
13:32	ZZZZZZ	5		
13:37	ZZZZZZ	5		
13:42	ZZZZZZ	5		
13:47	MP17229-S1	25		
13:52	MP17229-S2	25		
13:57	JC94207-16AR	25		(sample used for QC only; not part of login JC94537)
14:02	MP17229-SD1	125		
14:06	MA47439-CCVA4	1		
14:11	MA47439-CCB4	1		
14:17	ZZZZZZ	25		
14:21	ZZZZZZ	25		
14:27	ZZZZZZ	10		
14:31	ZZZZZZ	10		
14:37	ZZZZZZ	10		
14:41	ZZZZZZ	10		
14:46	ZZZZZZ	25		
14:51	ZZZZZZ	50		
14:56	MA47439-CCVA5	1		
15:01	MA47439-CCB5	1		
15:06	ZZZZZZ	50		
15:11	MP17229-PS1	5		
15:16	ZZZZZZ	2		
15:21	ZZZZZZ	2		
15:26	MP17232A-S3	25		
15:31	MP17232A-S4	25		
15:36	JC94613-1	25		(sample used for QC only; not part of login JC94537)
15:41	MP17232A-SD1	125		
15:46	MA47439-CCVA6	1		
15:51	MA47439-CCB6	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	15:56	MP17232A-PS1	25		Not needed. Sample high
---------->	Last reportable sample/prep for job JC94537				
	16:01	ZZZZZZ	50		
	16:06	MP17244-MB1	1		
	16:11	MP17244-B1	1		
	16:16	MP17244-S1	1		
	16:21	MP17244-S1	5		
	16:26	MP17244-S2	1		
	16:31	MP17244-S2	5		
	16:36	MA47439-CCVA7	1		
	16:41	MA47439-CCB7	1		
---------->	Last reportable CCB for job JC94537				
	16:46	JC94442-1	1		(sample used for QC only; not part of login JC94537)
	16:51	JC94442-1	5		(sample used for QC only; not part of login JC94537)
	16:56	ZZZZZZ	1		
	17:01	ZZZZZZ	1		
	17:06	ZZZZZZ	1		
	17:11	ZZZZZZ	1		
	17:16	ZZZZZZ	1		
	17:21	ZZZZZZ	1		
	17:26	MA47439-CCVA8	1		Sc-2 out for EPA method.
	17:31	MA47439-CCB8	1		
	17:36	ZZZZZZ	5		
	17:41	MP17239-MB1	2		
	17:46	ZZZZZZ	2		
	17:51	ZZZZZZ	2		
	17:56	ZZZZZZ	2		
	18:01	ZZZZZZ	2		
	18:06	MP17239-B1	2		
	18:11	MP17239-S1	25		To reanalysis for Cd and Ag due to Indium problems.
	18:16	MA47439-CCVA9	1		
	18:21	MA47439-CCB9	1		
	18:26	MP17239-S2	25		To reanalysis for Cd and Ag due to Indium problems.
	18:31	JC94499-17	25		(sample used for QC only; not part of login JC94537)
	18:36	MP17239-SD1	125		To reanalysis for Cd and Ag due to Indium problems.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:41	ZZZZZZ	25		
18:46	JC94499-17	25		(sample used for QC only; not part of login JC94537)
18:51	ZZZZZZ	25		
18:56	ZZZZZZ	25		
19:01	ZZZZZZ	25		
19:06	ZZZZZZ	25		
19:11	MA47439-CCVA10	1		
19:16	MA47439-CCB10	1		
19:21	ZZZZZZ	25		
19:26	ZZZZZZ	25		
19:31	ZZZZZZ	25		
19:36	ZZZZZZ	25		
19:41	ZZZZZZ	25		
19:46	ZZZZZZ	25		
19:51	ZZZZZZ	25		
19:56	ZZZZZZ	1		
20:01	MA47439-CCVA11	1		Se high RSD
20:06	MA47439-CCB11	1		
20:11	ZZZZZZ	2		
20:16	ZZZZZZ	5		
20:21	ZZZZZZ	1		
20:26	ZZZZZZ	1		
20:31	MA47439-CCVA12	1		
20:36	MA47439-CCB12	1		
20:41	ZZZZZZ	1		
20:46	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Element: Dilution	As
11:27	ZZZZZZ	1	
11:32	ZZZZZZ	1	
11:37	MA47439-ICVA1	1	X
11:42	MA47439-ICV1	1	
11:47	MA47439-ICB1	1	X
11:52	MA47439-CCVA1	1	X
11:57	MA47439-CCB1	1	X
12:02	MA47439-CRI1	1	X
12:07	MA47439-ICSA1	1	X
12:12	MA47439-ICSAB1	1	X
12:17	ZZZZZZ	1	
12:22	MA47439-CCVA2	1	X
12:27	MA47439-CCB2	1	X
12:32	ZZZZZZ	25	
12:37	ZZZZZZ	2	
12:42	ZZZZZZ	2	
12:47	MP17220-S1	10	
12:52	MP17220-S2	10	
12:57	JC94229-1	10	(a)
13:02	MP17220-SD1	50	
13:07	ZZZZZZ	2	
13:12	MA47439-CCVA3	1	X
13:17	MA47439-CCB3	1	X
13:22	ZZZZZZ	2	
13:27	ZZZZZZ	5	
13:32	ZZZZZZ	5	
13:37	ZZZZZZ	5	
13:42	ZZZZZZ	5	
13:47	MP17229-S1	25	
13:52	MP17229-S2	25	
13:57	JC94207-16AR	25	(a)
14:02	MP17229-SD1	125	
14:06	MA47439-CCVA4	1	X
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Element: Dilution	As	
14:11	MA47439-CCB4	1	X	
14:17	ZZZZZZ	25		
14:21	ZZZZZZ	25		
14:27	ZZZZZZ	10		
14:31	ZZZZZZ	10		
14:37	ZZZZZZ	10		
14:41	ZZZZZZ	10		
14:46	ZZZZZZ	25		
14:51	ZZZZZZ	50		
14:56	MA47439-CCVA5	1	X	
15:01	MA47439-CCB5	1	X	
15:06	ZZZZZZ	50		
15:11	MP17229-PS1	5		
15:16	ZZZZZZ	2		
15:21	ZZZZZZ	2		
15:26	MP17232A-S3	25	X	
15:31	MP17232A-S4	25	X	
15:36	JC94613-1	25	X	(a)
15:41	MP17232A-SD1	125	X	
15:46	MA47439-CCVA6	1	X	
15:51	MA47439-CCB6	1	X	
15:56	MP17232A-PS1	25		
16:01	ZZZZZZ	50		
16:06	MP17244-MB1	1		
16:11	MP17244-B1	1		
16:16	MP17244-S1	1	X	
16:21	MP17244-S1	5		
16:26	MP17244-S2	1	X	
16:31	MP17244-S2	5		
16:36	MA47439-CCVA7	1	X	
16:41	MA47439-CCB7	1	X	
16:46	JC94442-1	1	CCV8 out on Sc-2	
16:51	JC94442-1	5	CCV8 out on Sc-2	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Element: Dilution	As	
16:56	ZZZZZZ	1		
17:01	ZZZZZZ	1		
17:06	ZZZZZZ	1		
17:11	ZZZZZZ	1		
17:16	ZZZZZZ	1		
17:21	ZZZZZZ	1		
17:26	MA47439-CCVA8	1	X	
17:31	MA47439-CCB8	1	X	
17:36	ZZZZZZ	5		
17:41	MP17239-MB1	2	X	
17:46	ZZZZZZ	2		
17:51	ZZZZZZ	2		
17:56	ZZZZZZ	2		
18:01	ZZZZZZ	2		
18:06	MP17239-B1	2	X	
18:11	MP17239-S1	25	X	
18:16	MA47439-CCVA9	1	X	
18:21	MA47439-CCB9	1	X	
18:26	MP17239-S2	25	X	
18:31	JC94499-17	25	X	(a)
18:36	MP17239-SD1	125	X	
18:41	ZZZZZZ	25		
18:46	JC94499-17	25		confirmation
18:51	ZZZZZZ	25		
18:56	ZZZZZZ	25		
19:01	ZZZZZZ	25		
19:06	ZZZZZZ	25		
19:11	MA47439-CCVA10	1	X	
19:16	MA47439-CCB10	1	X	
19:21	ZZZZZZ	25		
19:26	ZZZZZZ	25		
19:31	ZZZZZZ	25		
19:36	ZZZZZZ	25		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Element: Dilution	As
19:41	ZZZZZZ	25	
19:46	ZZZZZZ	25	
19:51	ZZZZZZ	25	
19:56	ZZZZZZ	1	
20:01	MA47439-CCVA11	1	X
20:06	MA47439-CCB11	1	X
20:11	ZZZZZZ	2	
20:16	ZZZZZZ	5	
20:21	ZZZZZZ	1	
20:26	ZZZZZZ	1	
20:31	MA47439-CCVA12	1	X
20:36	MA47439-CCB12	1	X
20:41	ZZZZZZ	1	
20:46	ZZZZZZ	1	

(a) Sample used for QC only; not part of login JC94537.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
10:24	MA47439-STD1	No results reported for the elements associated with this internal standard.							
10:29	MA47439-STD2	No results reported for the elements associated with this internal standard.							
10:37	MA47439-STD3	100	100	100	100	100	100	100	100
10:42	MA47439-STD4	101.905	101.06	105.722	98.386	101.63	103.963	99.87	101.01
10:47	MA47439-STD5	100.412	98.531	102.538	98.033	98.686	103.487	99.288	99.051
10:52	MA47439-STD6	102.374	100.318	104.383	97.897	100.723	103.441	98.586	99.661
10:57	MA47439-STD7	102.042	99.41	103.335	97.648	100.754	103.036	97.934	99.996
11:02	MA47439-STD8	101.092	98.623	102.546	96.885	99.832	101.151	98.076	99.259
11:07	MA47439-STD9	101.095	99.034	103.386	97.331	100.17	101.948	99.148	99.814
11:12	MA47439-STD10	102.311	100.687	103.78	99.305	100.791	104.008	100.294	101.385
11:17	MA47439-STD11	101.088	99.073	104.082	98.996	99.606	103.86	99.419	99.515
11:22	MA47439-STD12	102.579	101.69	105.558	99.464	101.813	104.008	100.319	100.89
11:27	ZZZZZZ	103.192	100.204	104.405	97.452	100.85	101.86	99.238	100.746
11:32	ZZZZZZ	106.494	105.039	104.75	97.662	103.716	104.464	99.78	104.776
11:37	MA47439-ICVA1	102.486	101.502	105.195	90.043	101.207	103.374	93.44	102.457
11:42	MA47439-ICV1	100.648	99.006	99.105	96.551	100.002	98.999	98.408	99.077
11:47	MA47439-ICB1	103.666	99.802	103.204	96.682	101.678	103.386	98.429	100.211
11:52	MA47439-CCVA1	105.492	103.684	107.168	98.681	103.187	105.635	98.392	103.568
11:57	MA47439-CCB1	103.252	101.012	106.063	98.726	101.391	103.827	100.445	100.939
12:02	MA47439-CRI1	103.647	103.094	107.28	100.093	103.768	106.907	100.793	103.248
12:07	MA47439-ICSA1	100.304	101.305	107.887	103.171	100.614	104.618	100.371	97.476
12:12	MA47439-ICSAB1	94.837	97.726	103.711	101.934	98.304	100.057	98.776	95.152
12:17	ZZZZZZ	87.398	90.796	98.026	94.517	94.641	98.552	98.182	94.824
12:22	MA47439-CCVA2	89.124	93.694	99.883	98.795	97.354	100.096	98.706	97.796
12:27	MA47439-CCB2	90.995	93.728	99.993	96.579	97.109	100.73	97.275	97.831
12:32	ZZZZZZ	97.427	104.433	114.519	104.127	103.446	109.088	100.835	103.645
12:37	ZZZZZZ	94.929	99.263	104.311	103.011	105.378	107.87	105.701	105.005
12:42	ZZZZZZ	87.136	91.75	97.26	102.429	101.642	105.306	104.992	102.002
12:47	MP17220-S1	93.772	98.18	105.481	105.106	101.191	105.63	103.159	101.306
12:52	MP17220-S2	96.042	98.764	104.503	102.593	102.283	103.738	101.729	101.821
12:57	JC94229-1	97.246	99.156	106.318	105.062	103.488	106.078	103.117	102.814
13:02	MP17220-SD1	98.228	99.116	105.488	110.489	102.57	106.385	108.621	102.789
13:07	ZZZZZZ	89.993	93.141	98.404	102.135	105.689	108.908	105.898	104.895

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
13:12	MA47439-CCVA3	94.046	96.81	102.549	100.815	99.993	102.597	99.976	100.101
13:17	MA47439-CCB3	96.494	96.559	102.487	100.545	100.673	103.428	101.286	100.503
13:22	ZZZZZZ	89.105	91.349	97.724	101.474	100.872	104.195	103.784	101.036
13:27	ZZZZZZ	91.658	97.667	103.052	98.687	95.625	98.587	93.807	96.464
13:32	ZZZZZZ	96.467	96.841	102.897	100.44	101.102	104.827	101.582	101.554
13:37	ZZZZZZ	92.48	94.198	98.597	99.112	98.703	101.202	98.507	98.773
13:42	ZZZZZZ	90.153	92.533	98.001	98.767	97.32	100.461	99.871	97.528
13:47	MP17229-S1	94.173	96.254	100.519	100.458	99.578	102.154	99.647	98.767
13:52	MP17229-S2	93.883	96.611	100.512	99.257	100.002	101.522	99.601	99.399
13:57	JC94207-16AR	93.328	96.967	102.801	100.55	100.038	102.923	99.548	99.228
14:02	MP17229-SD1	96.197	97.707	102.16	100.436	100.741	103.745	100.994	100.964
14:06	MA47439-CCVA4	96.416	98.086	104.567	101.412	100.934	103.9	99.742	101.323
14:11	MA47439-CCB4	95.544	98.042	103.309	101.036	100.838	104.163	100.419	100.885
14:17	ZZZZZZ	95.758	99.977	105.781	102.366	101.633	106.095	99.028	101.931
14:21	ZZZZZZ	97.735	103.105	105.531	111.472	105.125	107.226	107.607	104.137
14:27	ZZZZZZ	95.684	103.889	109.582	108.069	104.807	108.031	104.416	103.716
14:31	ZZZZZZ	96.868	104.784	110.364	107.321	105.378	107.929	104.113	104.565
14:37	ZZZZZZ	98.456	104.696	108.142	107.028	105.919	108.701	104.025	104.748
14:41	ZZZZZZ	97.824	105.853	109.25	108.268	107.418	108.721	105.664	106.598
14:46	ZZZZZZ	98.802	103.725	108.811	106.113	105.957	108.947	104.503	105.175
14:51	ZZZZZZ	100.692	103.529	107.751	104.821	106.612	108.649	104.377	106.716
14:56	MA47439-CCVA5	101.21	103.518	107.218	103.269	105.848	107.609	102.625	106.009
15:01	MA47439-CCB5	100.3	101.512	105.016	101.987	104.994	107.092	102.968	104.207
15:06	ZZZZZZ	96.822	99.293	100.909	98.961	102.028	101.781	98.819	100.997
15:11	MP17229-PS1	98.406	106.935	109.427	106.529	105.821	106.52	103.213	104.525
15:16	ZZZZZZ	86.045	86.844	90.546	95.338	101.434	103.657	100.183	101.926
15:21	ZZZZZZ	86.611	87.898	91.576	97.52	99.518	102.846	99.967	100.489
15:26	MP17232A-S3	94.135	94.215	97.957	96.89	98.79	99.508	97.647	98.06
15:31	MP17232A-S4	93.391	94.52	99.096	97.723	98.394	100.089	97.052	97.559
15:36	JC94613-1	94.044	94.245	98.99	99.445	98.554	100.105	99.296	98.037
15:41	MP17232A-SD1	94.762	95.793	100.18	96.926	99.523	101.373	97.893	98.959
15:46	MA47439-CCVA6	97.595	99.066	104.041	99.844	100.59	104.266	98.54	102.027
15:51	MA47439-CCB6	98.421	97.101	102.099	97.264	99.96	102.61	97.698	99.23

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
15:56	MP17232A-PS1	96.192	97.101	101.691	98.7	100.962	103.033	97.695	100.017
16:01	ZZZZZZ	95.187	95.993	102.467	97.71	100.499	103.617	98.046	98.933
16:06	MP17244-MB1	98.212	97.815	103.015	98.46	100.281	102.015	98.996	100.019
16:11	MP17244-B1	99.762	100.273	106.077	101.23	102.587	105.386	99.903	102.078
16:16	MP17244-S1	93.998	99.131	105.63	99.312	96.203	99.44	92.861	96.005
16:21	MP17244-S1	94.832	95.204	100.686	95.461	96.422	99.757	93.778	96.865
16:26	MP17244-S2	90.67	95.672	101.858	95.827	92.181	95.765	90.391	92.279
16:31	MP17244-S2	89.964	91.366	96.961	87.241	93.956	96.13	88.326	94.484
16:36	MA47439-CCVA7	87.155	89.423	95.049	92.831	90.564	95.092	92.193	90.517
16:41	MA47439-CCB7	91.999	92.603	97.975	95.372	95.795	99.569	94.879	95.207
16:46	JC94442-1	No results reported for the elements associated with this internal standard.							
16:51	JC94442-1	No results reported for the elements associated with this internal standard.							
16:56	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:01	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:06	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:11	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:16	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:21	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:26	MA47439-CCVA8	123.708	122.161	127.022	!a116.801	116.524	118.849	111.932	116.367
17:31	MA47439-CCB8	100.179	101.044	108.582	104.23	103.179	107.66	102.724	102.397
17:36	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:41	MP17239-MB1	85.427	89.896	96.372	98.651	105.395	110.985	100.636	104.421
17:46	ZZZZZZ	87.599	90.341	95.31	90.64	103.736	106.292	96.171	102.946
17:51	ZZZZZZ	87.794	90.136	96.024	97.983	102.653	105.956	104.885	102.828
17:56	ZZZZZZ	88.479	90.965	96.675	98.96	104.08	106.727	102.223	103.87
18:01	ZZZZZZ	89.568	91.478	97.833	98.881	105.362	106.901	101.362	103.736
18:06	MP17239-B1	86.416	88.979	94.458	95.556	100.101	102.353	97.474	100.53
18:11	MP17239-S1	97.313	102.301	109.389	99.867	100.672	103.511	93.93	100.69
18:16	MA47439-CCVA9	93.097	93.32	93.85	95.441	95.927	92.31	92.999	96.073
18:21	MA47439-CCB9	94.687	96.285	102.659	96.236	98.736	101.7	95.642	98.333
18:26	MP17239-S2	100.1	104.307	111.004	100.724	102.026	104.907	94.354	101.403
18:31	JC94499-17	102.382	106.234	112.913	101.444	103.852	105.959	95.745	103.588
18:36	MP17239-SD1	105.54	104.884	109.649	99.836	105.559	107.303	97.246	105.601

INTERNAL STANDARD SUMMARY

Login Number: JC94537
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Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
18:41	ZZZZZZ	100.732	99.961	104.07	96.964	101.896	102.878	95.167	101.329
18:46	JC94499-17	No results reported for the elements associated with this internal standard.							
18:51	ZZZZZZ	102.915	105.871	108.311	101.596	102.556	103.444	95.072	102.242
18:56	ZZZZZZ	105.018	106.99	113.049	102.146	103.213	107.428	94.575	103.143
19:01	ZZZZZZ	106.613	110.283	112.918	102.825	106.001	106.13	96.802	104.409
19:06	ZZZZZZ	106.63	108.461	117.624	101.836	105.68	109.322	96.413	104.473
19:11	MA47439-CCVA10	94.545	94.994	99.537	85.388	96.707	97.804	84.713	96.778
19:16	MA47439-CCB10	97.067	95.88	101.319	93.606	98.615	102.139	93.367	97.531
19:21	ZZZZZZ	103.647	106.935	114.082	101.893	103.834	108.034	95.33	103.261
19:26	ZZZZZZ	106.989	109.421	115.857	103.411	105.269	107.823	97.655	104.843
19:31	ZZZZZZ	108.019	110.392	115.94	103.314	106.139	108.076	97.233	104.802
19:36	ZZZZZZ	107.756	109.006	115.318	102.769	105.543	107.765	96.719	104.666
19:41	ZZZZZZ	105.112	106.888	113.875	100.557	103.091	106.251	94.611	101.65
19:46	ZZZZZZ	104.501	108.427	116.606	105.987	104.14	108.171	98.521	103.249
19:51	ZZZZZZ	104.399	104.152	108.094	98.322	105.959	106.128	95.904	105.141
19:56	ZZZZZZ	103.408	100.961	108.744	97.987	102.407	106.619	96.517	101.736
20:01	MA47439-CCVA11	95.596	94.959	99.723	84.89	96.777	98.206	82.559	95.808
20:06	MA47439-CCB11	96.576	95.831	101.711	94.491	97.129	100.916	94.199	97.874
20:11	ZZZZZZ	86.76	89.611	95.032	91.007	100.388	101.39	88.851	99.73
20:16	ZZZZZZ	90.915	94.173	100.307	94.189	96.436	98.936	90.271	95.697
20:21	ZZZZZZ	99.52	101.766	103.92	92.59	103.266	104.462	89.788	103.232
20:26	ZZZZZZ	100.93	100.724	105.086	95.498	103.254	104.874	94.412	102.592
20:31	MA47439-CCVA12	95.29	94.052	100.414	92.052	95.896	99.569	91.34	96.597
20:36	MA47439-CCB12	97.544	98.172	103.263	93.764	99.799	103.051	94.176	98.879
20:41	ZZZZZZ	97.938	98.71	103.384	93.792	100.148	101.766	92.698	100.451
20:46	ZZZZZZ	97.436	96.205	100.235	92.505	97.841	100.394	91.391	97.294

! = Outside limits.

LEGEND: Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	60-125 %	60-125 %
Istd#2	Scandium (45-1)	60-125 %	60-125 %
Istd#3	Scandium (45-2)	60-125 %	60-125 %
Istd#4	Scandium (45-3)	60-125 %	60-125 %
Istd#5	Germanium (72-1)	60-125 %	60-125 %
Istd#6	Germanium (72-2)	60-125 %	60-125 %
Istd#7	Germanium (72-3)	60-125 %	60-125 %
Istd#8	Germanium (74-1)	60-125 %	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC94537
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File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
10:24	MA47439-STD1	No results reported for the elements associated with this internal standard.							
10:29	MA47439-STD2	No results reported for the elements associated with this internal standard.							
10:37	MA47439-STD3	100	100	100	100	100	100	100	100
10:42	MA47439-STD4	102.549	99.938	101.236	104.833	100.453	102.318	104.366	101.239
10:47	MA47439-STD5	101.305	99.593	98.178	102.746	100.666	98.689	103.16	98.665
10:52	MA47439-STD6	102.954	100.538	100.169	103.291	100.961	100.796	103.168	100.543
10:57	MA47439-STD7	101.518	99.122	99.759	102.807	100.534	100.487	102.819	100.464
11:02	MA47439-STD8	100.284	98.484	99.373	102.224	99.658	100.064	102.625	100.333
11:07	MA47439-STD9	101.091	99.994	99.62	102.357	100.883	100.333	103.342	100.267
11:12	MA47439-STD10	102.766	102.399	99.83	103.362	102.793	101.478	104.574	101.453
11:17	MA47439-STD11	102.043	99.72	98.005	102.677	100.05	99.564	103.309	100.406
11:22	MA47439-STD12	103.214	99.499	98.761	101.961	99.757	100.36	103.157	101.399
11:27	ZZZZZZ	102.44	100.062	100.8	104.054	101.891	100.991	103.208	100.193
11:32	ZZZZZZ	103.379	99.738	103.494	102.147	99.644	105.151	103.283	106.776
11:37	MA47439-ICVA1	103.292	94.791	99.815	102.328	92.159	101.955	103.504	102.32
11:42	MA47439-ICV1	97.17	98.241	99.42	99.041	100.545	100.695	98.644	99.58
11:47	MA47439-ICB1	102.386	99.496	100.945	102.86	102.256	101.182	103.396	100.626
11:52	MA47439-CCVA1	105.205	100.18	101.628	103.671	99.924	103.234	104.462	103.208
11:57	MA47439-CCB1	103.495	100.482	102.097	105.089	102.425	101.918	105.569	99.694
12:02	MA47439-CRI1	105.862	102.109	103.244	106.074	102.955	103.794	107.12	103.027
12:07	MA47439-ICSA1	99.693	97.094	92.04	95.248	92.144	97.204	98.989	100.357
12:12	MA47439-ICSAB1	98.252	95.429	91.487	93.994	91.923	96.612	96.982	100.672
12:17	ZZZZZZ	97.044	98.134	98.12	102.608	99.63	101.454	102.85	101.981
12:22	MA47439-CCVA2	99.937	99.842	98.902	101.095	99.755	101.776	102.185	103.826
12:27	MA47439-CCB2	100.193	98.341	100.816	103.56	100.614	102.445	103.872	103.669
12:32	ZZZZZZ	108.504	100.975	99.759	103.365	95.715	104.797	108.37	107.685
12:37	ZZZZZZ	107.517	106.381	106.669	108.368	106.118	108.349	108.239	109.657
12:42	ZZZZZZ	103.481	106.421	98.901	102.952	103.664	103.62	103.119	107.769
12:47	MP17220-S1	104.752	103.824	102.257	105.062	102.831	107.03	107.192	110.762
12:52	MP17220-S2	103.12	103.476	101.886	104.16	103.115	107.475	106.394	110.887
12:57	JC94229-1	104.67	103.715	102.808	105.678	103.203	108.02	107.91	110.503
13:02	MP17220-SD1	106.123	110.011	104.826	108.349	112.8	108.524	108.324	110.777
13:07	ZZZZZZ	107.179	106.98	102.311	105.228	106.364	105.47	103.952	110.833

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
13:12	MA47439-CCVA3	101.257	101.9	101.828	103.73	101.839	105.81	104.008	110.409
13:17	MA47439-CCB3	102.889	102.066	103.499	106.431	105.306	106.647	106.261	108.777
13:22	ZZZZZZ	103.577	104.332	99.404	102.078	104.042	103.274	102.183	108.532
13:27	ZZZZZZ	97.4	95.73	92.839	94.274	91.007	99.86	98.778	106.257
13:32	ZZZZZZ	103.907	102.421	104.047	108.156	105.403	106.698	107.612	109.46
13:37	ZZZZZZ	100.057	100.268	100.176	102.286	101.434	103.559	101.964	106.796
13:42	ZZZZZZ	99.38	99.82	95.61	99.087	98.875	101.015	100.809	106.103
13:47	MP17229-S1	100.592	99.643	101.662	103.105	102.814	103.905	102.448	108.111
13:52	MP17229-S2	101.373	99.837	101.452	104.131	101.899	104.709	103.494	108.252
13:57	JC94207-16AR	102.021	100.668	102.351	106.171	102.685	105.562	105.965	108.596
14:02	MP17229-SD1	103.016	101.209	103.678	106.04	103.369	106.203	105.766	108.671
14:06	MA47439-CCVA4	103.629	100.745	101.283	105.11	100.681	105.382	105.373	109.022
14:11	MA47439-CCB4	104.446	100.36	104.509	107.074	103.778	106.96	107.482	108.533
14:17	ZZZZZZ	105.213	101.209	103.774	105.953	102.473	106.609	106.967	109.077
14:21	ZZZZZZ	106.095	108.724	106.609	106.121	111.217	109.725	106.477	113.15
14:27	ZZZZZZ	106.812	104.009	103.654	106.888	103.542	107.576	108.223	110.212
14:31	ZZZZZZ	106.345	103.834	105.384	106.155	103.821	108.115	107.011	110.868
14:37	ZZZZZZ	106.679	104.246	105.344	107.869	104.59	108.282	107.925	111.053
14:41	ZZZZZZ	106.506	106.077	106.67	105.932	105.02	110.183	106.922	112.323
14:46	ZZZZZZ	106.888	104.159	107.529	108.756	107.048	110.562	109.218	113.781
14:51	ZZZZZZ	106.989	104.395	107.833	109.692	107.439	110.307	108.518	112.223
14:56	MA47439-CCVA5	107.398	103.132	104.864	107.197	104.32	108.708	107.318	111.511
15:01	MA47439-CCB5	105.996	102.775	106.172	108.515	106.725	108.23	107.759	109.451
15:06	ZZZZZZ	100.466	98.307	103.04	103.202	101.251	105.849	102.761	107.677
15:11	MP17229-PS1	104.227	101.221	103.13	103.478	102.202	107.179	104.492	109.521
15:16	ZZZZZZ	102.352	101.314	95.57	98.705	102.877	99.909	97.143	105.056
15:21	ZZZZZZ	102.041	101.137	95.822	98.136	101.831	100.595	97.109	106.572
15:26	MP17232A-S3	99.094	98.921	100.2	101.256	101.754	103.028	101.505	106.918
15:31	MP17232A-S4	99.737	98.166	99.484	101.875	101.589	103.132	101.58	105.792
15:36	JC94613-1	99.046	99.792	98.895	101.594	103.277	102.708	101.252	104.961
15:41	MP17232A-SD1	100.35	98.201	100.413	102.549	100.736	103.712	103.291	106.31
15:46	MA47439-CCVA6	103.186	99.681	101.628	102.994	100.616	104.081	103.735	106.071
15:51	MA47439-CCB6	102.191	98.406	101.989	104.359	102.553	103.16	104.397	105.227

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
15:56	MP17232A-PS1	100.973	99.011	101.733	102.682	100.938	103.888	103.598	105.153
16:01	ZZZZZZ	102.246	98.665	101.065	103.068	101.131	104.099	104.947	104.466
16:06	MP17244-MB1	101.8	99.013	102.384	103.719	102.126	104.972	104.456	104.901
16:11	MP17244-B1	104.341	100.47	102.283	104.391	101.578	104.51	105.256	105.67
16:16	MP17244-S1	98.169	94.3	90.365	92.976	88.786	97.472	99.717	103.138
16:21	MP17244-S1	99.171	94.562	95.753	97.211	93.091	100.419	100.338	102.683
16:26	MP17244-S2	95.444	91.54	88.503	90.593	86.618	95.639	97.063	101.095
16:31	MP17244-S2	96.18	88.444	92.768	94.333	86.445	98.131	97.843	101.286
16:36	MA47439-CCVA7	94.892	93.104	92.892	95.331	94.265	96.976	97.366	101.081
16:41	MA47439-CCB7	99.457	95.964	98.565	100.466	98.92	101.062	101.302	101.72
16:46	JC94442-1	No results reported for the elements associated with this internal standard.							
16:51	JC94442-1	No results reported for the elements associated with this internal standard.							
16:56	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:01	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:06	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:11	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:16	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:21	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:26	MA47439-CCVA8	119.116	112.124	111.684	114.272	108.113	113.951	115.524	114.918
17:31	MA47439-CCB8	106.969	103.267	103.876	108.66	105.071	106.547	109.336	105.237
17:36	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:41	MP17239-MB1	109.86	102.379	99.383	101.883	101.032	102.755	102.301	105.4
17:46	ZZZZZZ	105.15	96.67	99.384	101.094	93.543	102.93	100.526	106.312
17:51	ZZZZZZ	105.365	104.562	99.22	101.696	101.351	103.432	101.094	105.413
17:56	ZZZZZZ	106.496	103.366	100.096	101.762	101.353	103.553	101.776	106.509
18:01	ZZZZZZ	106.379	101.87	100.176	102.442	101.035	103.922	101.899	109.221
18:06	MP17239-B1	101.507	99.391	96.025	98.064	98.003	100.585	98.613	104.664
18:11	MP17239-S1	102.468	95.303	95.512	97.804	91.259	1519.14 !a	1550.734 !a	104.382
18:16	MA47439-CCVA9	91.599	94.621	95.401	91.626	94.268	99.466	93.728	101.093
18:21	MA47439-CCB9	101.207	96.349	100.767	102.107	97.934	103.116	103.62	102.519
18:26	MP17239-S2	104.169	95.324	95.948	96.644	90.573	1525.046 !a	1595.83 !a	102.547
18:31	JC94499-17	105.403	95.526	97.014	97.914	90.934	1523.303 !a	1597.763 !a	104.474
18:36	MP17239-SD1	105.335	98.005	101.283	102.441	96.136	417.381 !a	395.491 !a	104.034

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Parameters: As

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
18:41	ZZZZZZ	102.024	96.422	102.511	103.562	99.153	1569.118	!a1608.092	!a102.46
18:46	JC94499-17	No results reported for the elements associated with this internal standard.							
18:51	ZZZZZZ	101.916	95.938	96.202	93.409	90.288	1509.523	!a1591.164	!a101.205
18:56	ZZZZZZ	105.942	96.053	96.48	98.272	90.202	1543.509	!a1595.509	!a101.582
19:01	ZZZZZZ	104.498	95.987	98.656	97.705	90.477	1553.734	!a1593.484	!a103.034
19:06	ZZZZZZ	109.103	96.147	97.082	101.575	91.161	2852.341	!a2934.284	!a102.776
19:11	MA47439-CCVA10	98.414	86.06	95.214	96.79	84.424	99.054	99.141	99.162
19:16	MA47439-CCB10	100.19	93.782	99.308	101.482	96.119	101.658	102.663	100.288
19:21	ZZZZZZ	106.235	95.53	97.149	98.431	90.935	2827.205	!a2936.346	!a102.588
19:26	ZZZZZZ	106.194	97.34	97.828	98.702	92.143	2879.079	!a2963.62	!a102.943
19:31	ZZZZZZ	107.093	96.975	98.27	98.937	91.563	2866.98	!a2995.853	!a103.141
19:36	ZZZZZZ	106.16	96.244	96.888	97.988	90.572	2841.81	!a2948.565	!a101.962
19:41	ZZZZZZ	104.843	95.801	96.149	97.595	89.595	2836.765	!a2940.275	!a100.237
19:46	ZZZZZZ	106.167	99.175	96.482	98.335	93.228	2845.314	!a2943.029	!a100.427
19:51	ZZZZZZ	105.272	96.931	105.006	105.857	98.554	2976.633	!a3045.259	!a103.146
19:56	ZZZZZZ	105.25	97.021	103.366	107.41	99.732	106.157	108.76	102.577
20:01	MA47439-CCVA11	96.864	83.185	95.821	97.457	83.493	100.108	99.113	100.132
20:06	MA47439-CCB11	100.206	94.219	98.906	101.43	96.6	102.458	102.61	100.721
20:11	ZZZZZZ	100.094	89.138	82.958	84.038	80.221	90.28	89.605	94.427
20:16	ZZZZZZ	97.411	91.049	90.14	91.415	86.913	96.16	96.927	98.009
20:21	ZZZZZZ	103.362	90.635	103.981	103.145	93.099	105.379	103.484	102.751
20:26	ZZZZZZ	103.667	93.779	104.182	104.475	96.901	105.007	105.622	102.469
20:31	MA47439-CCVA12	97.764	91.606	96.358	97.22	90.89	99.035	98.694	98.85
20:36	MA47439-CCB12	101.536	94.036	100.499	102.889	96.358	102.969	103.865	101.575
20:41	ZZZZZZ	101.013	94.127	102.578	101.794	95.847	103.313	101.984	102.273
20:46	ZZZZZZ	98.643	91.924	99.761	100.223	93.757	101.928	101.104	101.278

! = Outside limits.

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#9	Germanium (74-2)	60-125 %	60-125 %
Istd#10	Germanium (74-3)	60-125 %	60-125 %
Istd#11	Rhodium (103-1)	60-125 %	60-125 %
Istd#12	Rhodium (103-2)	60-125 %	60-125 %
Istd#13	Rhodium (103-3)	60-125 %	60-125 %
Istd#14	Indium (115-1)	60-125 %	60-125 %
Istd#15	Indium (115-2)	60-125 %	60-125 %
Istd#16	Terbium (159-1)	60-125 %	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
10:24	MA47439-STD1	No results reported for the elements associated with this internal standard.					
10:29	MA47439-STD2	No results reported for the elements associated with this internal standard.					
10:37	MA47439-STD3	100	100	100	100	100	100
10:42	MA47439-STD4	104.734	100.63	101.87	105.151	100.919	103.426
10:47	MA47439-STD5	103.32	100.833	98.482	103.267	99.079	102.401
10:52	MA47439-STD6	103.979	101.537	100.084	104.789	100.593	103.405
10:57	MA47439-STD7	103.827	101.313	100.327	104.833	100.624	102.888
11:02	MA47439-STD8	103.798	101.205	100.39	104.108	100.033	103.464
11:07	MA47439-STD9	104.153	101.695	100.66	104.189	100.996	102.734
11:12	MA47439-STD10	105.518	104.586	102.383	106.014	101.712	103.397
11:17	MA47439-STD11	104.525	103.168	100.284	105.165	98.347	101.633
11:22	MA47439-STD12	105.797	102.583	101.602	105.618	98.014	100.202
11:27	ZZZZZZ	103.932	101.875	100.29	104.207	100.596	103.068
11:32	ZZZZZZ	104.553	102.228	106.027	104.33	102.698	101.258
11:37	MA47439-ICVA1	104.665	94.69	101.509	104.755	99.815	101.755
11:42	MA47439-ICV1	99.309	100.84	99.252	98.96	99.849	97.91
11:47	MA47439-ICB1	103.106	101.858	101.287	103.614	101.012	102.429
11:52	MA47439-CCVA1	105.606	102.516	103.384	106.035	100.854	102.284
11:57	MA47439-CCB1	105.175	102.173	100.78	105.112	100.835	104.124
12:02	MA47439-CRI1	106.422	102.809	102.045	106.088	102.809	104.92
12:07	MA47439-ICSA1	103.077	99.311	100.414	103.947	93.748	94.881
12:12	MA47439-ICSAB1	101.826	99.709	100.934	102.4	94.003	93.431
12:17	ZZZZZZ	104.814	100.002	102.35	105.284	102.844	104.517
12:22	MA47439-CCVA2	105.339	102.798	104.207	105.219	102.756	102.82
12:27	MA47439-CCB2	105.5	100.358	104.223	106.096	104.162	105.832
12:32	ZZZZZZ	110.508	100.693	108.006	111.416	98.406	99.485
12:37	ZZZZZZ	111.097	107.192	110.793	112.064	113.676	112.719
12:42	ZZZZZZ	108.433	107.519	109.229	109.811	109.2	109.804
12:47	MP17220-S1	110.762	106.793	111.096	111.496	108.17	107.154
12:52	MP17220-S2	110.608	107.646	111.457	110.804	108.222	106.232
12:57	JC94229-1	111.398	107.153	110.307	112.095	109.194	107.798
13:02	MP17220-SD1	111.193	113.706	110.353	111.525	109.763	110.386
13:07	ZZZZZZ	109.426	108.353	111.159	110.064	113.794	111.198

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
13:12	MA47439-CCVA3	108.562	105.205	110.209	109.673	108.613	106.722
13:17	MA47439-CCB3	108.141	105.233	107.698	108.481	109.492	109.279
13:22	ZZZZZZ	107.914	107.437	109.001	108.584	109.883	107.419
13:27	ZZZZZZ	105.223	100.169	106.804	106.459	98.335	96.448
13:32	ZZZZZZ	109.55	105.156	109.383	110.195	112.298	111.13
13:37	ZZZZZZ	105.932	104.321	107.212	107.433	107.537	106.472
13:42	ZZZZZZ	106.498	103.892	106.997	106.606	104.362	102.43
13:47	MP17229-S1	107.086	105.242	109.488	109.6	109.326	107.425
13:52	MP17229-S2	107.409	104.214	109.827	109.449	108.989	108.238
13:57	JC94207-16AR	109.801	104.382	110.491	111.909	109.742	109.922
14:02	MP17229-SD1	108.822	104.286	109.713	109.498	110.682	110.05
14:06	MA47439-CCVA4	108.59	103.722	108.559	109.048	106.866	105.763
14:11	MA47439-CCB4	108.363	103.654	109.434	108.937	109.841	108.955
14:17	ZZZZZZ	109.49	103.884	110.794	111.592	109.734	109.129
14:21	ZZZZZZ	109.932	112.834	113.779	112.453	112.457	109.36
14:27	ZZZZZZ	111.175	106.113	115.302	114.309	110.482	109.195
14:31	ZZZZZZ	110.292	105.626	115.071	114.673	110.632	108.996
14:37	ZZZZZZ	111.029	106.325	115.041	114.118	110.717	108.945
14:41	ZZZZZZ	109.842	107.249	116.074	113.339	111.256	107.966
14:46	ZZZZZZ	111.364	106.839	114.396	112.954	112.544	111.277
14:51	ZZZZZZ	110.476	106.898	112.833	111.824	112.887	111.081
14:56	MA47439-CCVA5	110.276	106.073	110.832	110.674	108.172	106.908
15:01	MA47439-CCB5	108.96	106.034	109.989	109.295	110.26	109.089
15:06	ZZZZZZ	106.262	104.214	108.573	107.386	108.051	105.895
15:11	MP17229-PS1	108.342	106.385	118.885	117.354	107.78	104.933
15:16	ZZZZZZ	103.213	105.622	105.636	104.601	109.591	106.373
15:21	ZZZZZZ	104.063	106.064	107.252	105.06	107.342	103.288
15:26	MP17232A-S3	105.551	103.736	106.933	106.057	107.194	105.509
15:31	MP17232A-S4	105.061	103.326	106.236	105.621	106.212	105.404
15:36	JC94613-1	104.9	106.384	104.502	105.031	106.486	105.467
15:41	MP17232A-SD1	104.672	102.022	105.77	105.409	106.744	105.308
15:46	MA47439-CCVA6	106.999	103.097	106.099	107.86	104.499	104.338
15:51	MA47439-CCB6	105.195	101.773	104.946	105.103	105.898	104.905

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
15:56	MP17232A-PS1	105.718	102.126	105.716	105.733	105.667	105.147
16:01	ZZZZZZ	106.185	102.027	104.203	106.617	105.774	105.813
16:06	MP17244-MB1	105.354	102.118	105.517	105.771	107.163	106.432
16:11	MP17244-B1	107.446	102.77	105.756	107.333	104.752	104.668
16:16	MP17244-S1	104.332	96.92	103.273	104.707	93.64	93.115
16:21	MP17244-S1	103.104	97.836	102.947	104.531	99.976	99.8
16:26	MP17244-S2	101.586	95.783	101.607	102.393	92.068	91.882
16:31	MP17244-S2	101.801	91.79	102.048	102.536	98.733	98.667
16:36	MA47439-CCVA7	100.798	97.859	99.727	102.156	97.362	98.465
16:41	MA47439-CCB7	102.816	99.419	101.641	102.711	102.932	102.906
16:46	JC94442-1	No results reported for the elements associated with this internal standard.					
16:51	JC94442-1	No results reported for the elements associated with this internal standard.					
16:56	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:01	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:06	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:11	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:16	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:21	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:26	MA47439-CCVA8	113.359	107.504	112.862	113.433	109.411	108.176
17:31	MA47439-CCB8	108.983	103.489	105.432	108.905	105.851	107.844
17:36	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:41	MP17239-MB1	105.428	102.541	105.726	106.441	109.061	107.586
17:46	ZZZZZZ	104.822	95.435	106.789	105.335	106.686	105.151
17:51	ZZZZZZ	105.523	103.098	106.406	105.637	106.051	105.757
17:56	ZZZZZZ	105.429	102.834	106.614	106.626	105.917	105.624
18:01	ZZZZZZ	106.136	103.023	106.876	106.966	107.335	105.391
18:06	MP17239-B1	102.836	101.562	105.841	104.21	103.561	101.99
18:11	MP17239-S1	104.471	96.476	104.925	104.999	94.146	92.834
18:16	MA47439-CCVA9	95.653	97.389	101.269	96.012	98.619	92.855
18:21	MA47439-CCB9	103.705	98.124	102.761	103.452	102.026	102.82
18:26	MP17239-S2	103.48	95.796	102.158	103.815	92.595	92.225
18:31	JC94499-17	103.473	95.517	102.396	104.302	92.654	92.654
18:36	MP17239-SD1	105.348	98.407	102.831	105.241	98.742	99.044

INTERNAL STANDARD SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA47439
Parameters: As

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
18:41	ZZZZZZ	103.051	98.738	102.617	103.52	101.709	101.843
18:46	JC94499-17	No results reported for the elements associated with this internal standard.					
18:51	ZZZZZZ	98.551	94.309	102.054	98.698	91.016	87.532
18:56	ZZZZZZ	103.276	94.401	102.301	103.169	90.871	91.113
19:01	ZZZZZZ	101.731	94.484	102.794	102.397	92.674	90.11
19:06	ZZZZZZ	106.422	95.532	102.167	106.722	91.764	93.957
19:11	MA47439-CCVA10	99.624	86.915	99.624	100.501	96.021	96.353
19:16	MA47439-CCB10	101.46	95.643	100.212	102.355	99.816	100.642
19:21	ZZZZZZ	103.935	95.255	102.436	104.397	91.635	91.739
19:26	ZZZZZZ	103.773	96.468	103.393	104.386	92.176	91.517
19:31	ZZZZZZ	103.827	95.925	103.413	104.67	91.494	91.443
19:36	ZZZZZZ	102.671	94.742	101.538	102.913	90.683	90.433
19:41	ZZZZZZ	101.74	93.435	100.282	102.132	88.8	89.619
19:46	ZZZZZZ	102.001	96.692	100.416	103.28	89.456	90.303
19:51	ZZZZZZ	104.2	97.292	103.832	105.282	101.877	102.139
19:56	ZZZZZZ	106.447	99.046	102.33	106.183	101.034	104.497
20:01	MA47439-CCVA11	99.979	85.9	100.134	100.372	96.828	96.626
20:06	MA47439-CCB11	101.369	95.915	100.774	101.633	99.867	100.614
20:11	ZZZZZZ	93.659	88.805	95.433	94.903	85.229	84.299
20:16	ZZZZZZ	98.483	93.249	98.547	99.042	90.169	90.073
20:21	ZZZZZZ	101.6	92.289	103.081	101.054	101.103	99.784
20:26	ZZZZZZ	103.485	95.545	102.994	103.379	101.291	102.469
20:31	MA47439-CCVA12	99.541	93.722	98.491	99.876	96.155	96.38
20:36	MA47439-CCB12	102.63	95.379	100.764	103.089	100.189	101.496
20:41	ZZZZZZ	101.517	94.948	101.956	101.721	101.537	100.664
20:46	ZZZZZZ	101	93.227	101.431	101.258	100.611	100.606

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Terbium (159-2)	60-125 %	60-125 %
Istd#18	Terbium (159-3)	60-125 %	60-125 %
Istd#19	Holmium (165-1)	60-125 %	60-125 %
Istd#20	Holmium (165-2)	60-125 %	60-125 %
Istd#21	Bismuth (209-1)	60-125 %	60-125 %
Istd#22	Bismuth (209-2)	60-125 %	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47439 Units: ug/l

Time: / Sample ID:				11:47 ICB1		11:57 CCB1		12:27 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.0129	<1.5	0.00657	<1.5	0.0134	<1.5
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47439 Units: ug/l

Time: / Sample ID:				13:17 CCB3		14:11 CCB4		15:01 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.00908	<0.50	0.00626	<0.50	0.0143	<0.50
Barium	1.0	.008	0.50						
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA47439 Units: ug/l

Time: / Sample ID:				15:51 CCB6		16:41 CCB7	
Metal	RL	IDL	LOD	raw	final	raw	final
Aluminum	25	.28	20				
Antimony	2.0	.094	1.5				
Arsenic	0.50	.013	1.0	0.0128	<1.5	0.0104	<1.0
Barium	1.0	.008	0.50				
Beryllium	0.50	.004	0.25				
Boron	25	.65	20				
Cadmium	0.50	.004	2.0				
Calcium	250	6.1	50				
Chromium	1.0	.014	3.0				
Cobalt	0.50	.002	0.25				
Copper	2.0	.021	4.0				
Iron	25	.43	13				
Lead	0.50	.009	1.0				
Magnesium	250	.15	130				
Manganese	1.0	.007	1.0				
Molybdenum	1.0	.015	0.50				
Nickel	1.0	.017	3.0				
Potassium	250	.71	50				
Selenium	0.50	.072	0.50				
Silver	0.50	.004	0.50				
Sodium	250	1	100				
Strontium	5.0	.003	5.0				
Thallium	0.50	.004	0.50				
Tin	5.0	.071	2.5				
Titanium	1.0	.035	1.0				
Vanadium	1.0	.009	1.0				
Zinc	5.0	.029	7.5				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47439 Units: ug/l

Time:		11:37			11:42			11:52	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	60	61.9	103.2				50	49.8	99.6
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47439 Units: ug/l

Time:		12:22			13:12			14:06	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	50	50.9	101.8	50	50.7	101.4	50	50.9	101.8
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA47439 Units: ug/l

Time:		14:56			15:46			16:36	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	50	51.1	102.2	50	50.3	100.6	50	50.6	101.2
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA47439 Units: ug/l

Time:			12:02	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25		
Antimony	2.0	0.25	anr	
Arsenic	0.50	0.50	0.523	104.6
Barium	1.0	0.50	anr	
Beryllium	0.50	0.25		
Boron	25	2.5		
Cadmium	0.50	0.25	anr	
Calcium	250	125		
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25		
Copper	2.0	2.0	anr	
Iron	25	25	anr	
Lead	0.50	0.25	anr	
Magnesium	250	125		
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50		
Nickel	1.0	2.0	anr	
Potassium	250	125		
Selenium	0.50	0.50	anr	
Silver	0.50	1.0	anr	
Sodium	250	125		
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0	anr	
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: XA091219M1L.CSV Date Analyzed: 09/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA47439 Units: ug/l

Time:			12:07		12:12	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	97900	97.9	96500	96.5
Antimony			0.218		0.189	
Arsenic		20	0.0727		20.9	104.5
Barium			0.233		0.225	
Beryllium			0.000541		0.00160	
Boron		50	3.14		52.6	105.2
Cadmium		20	-0.304		19.9	99.5
Calcium	100000	100000	95200	95.2	95300	95.3
Chromium		20	0.278		21.2	106.0
Cobalt		20	0.180		20.4	102.0
Copper		20	1.96		19.0	95.0
Iron	100000	100000	91700	91.7	90800	90.8
Lead			0.114		0.0894	
Magnesium	100000	100000	92900	92.9	91700	91.7
Manganese		20	0.529		21.3	106.5
Molybdenum	2000	2000	2090	104.5	2060	103.0
Nickel		20	0.511		20.4	102.0
Potassium	100000	100000	98800	98.8	96800	96.8
Selenium		20	0.112		20.3	101.5
Silver		20	0.0300		20.1	100.5
Sodium	100000	100000	94000	94.0	92000	92.0
Strontium	2000	2000	1970	98.5	1960	98.0
Thallium			0.00593		0.00359	
Tin	2000	2000	1870	93.5	1880	94.0
Titanium	2000	2000	1870	93.5	1830	91.5
Vanadium		20	-0.0129		20.5	102.5
Zinc		20	0.172		18.0	90.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 09/10/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	46		
Antimony	6.0	1.4	4.7		
Arsenic	5.0	1.5	2.8		
Barium	200	.5	13	0.0	<200
Beryllium	2.0	.1	.5		
Bismuth	20	1.8	4		
Boron	200	.8	63		
Cadmium	3.0	.3	1	0.0	<3.0
Calcium	5000	3.9	99		
Chromium	10	.3	2	0.40	<10
Cobalt	50	.3	2.6		
Copper	10	.6	5.9	-0.30	<10
Iron	100	2.6	32		
Lead	5.0	1.6	1.8	-0.20	<5.0
Lithium	50	2.1	7.3		
Magnesium	5000	16	140	4.4	<5000
Manganese	15	.1	1.4	0.0	<15
Molybdenum	20	.4	3.6		
Nickel	10	.5	1.7		
Phosphorus	50	1.9	18		
Potassium	10000	79	200		
Selenium	10	3	4.9	1.7	<10
Silicon	200	1.2	100		
Silver	10	.5	1.9	-0.70	<10
Sodium	10000	9.9	570		
Strontium	10	.3	1		
Sulfur	100	3.5	45		
Thallium	10	1.3	1.8		
Tin	10	.7	3.7		
Titanium	10	.5	2.5		
Tungsten	100	1.7	40		
Vanadium	50	.5	1.8		
Zinc	20	.2	6.9		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 09/10/19

Metal	RL	IDL	MDL	MB raw	final
Zirconium	10	.3	4.1		

Associated samples MP17232: JC94537-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 09/10/19

Metal	JC94613-1A Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium	51.1	2040	2000	99.4	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.0	1980	2000	99.0	75-125
Calcium					
Chromium	0.70	1970	2000	98.5	75-125
Cobalt					
Copper	0.0	2000	2000	100.0	75-125
Iron	anr				
Lead	0.0	1990	2000	99.5	75-125
Lithium					
Magnesium	6800	30400	25000	94.4	75-125
Manganese	2090	4040	2000	97.5	75-125
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium	0.0	2000	2000	100.0	75-125
Silicon					
Silver	0.60	244	250	97.4	75-125
Sodium					
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 09/10/19

Metal	JC94613-1A Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP17232: JC94537-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 09/10/19

Metal	JC94613-1A Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium	51.1	2110	2000	102.9	3.4	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.0	1990	2000	99.5	0.5	20
Calcium						
Chromium	0.70	1970	2000	98.5	0.0	20
Cobalt						
Copper	0.0	2000	2000	100.0	0.0	20
Iron	anr					
Lead	0.0	1990	2000	99.5	0.0	20
Lithium						
Magnesium	6800	31300	25000	98.0	2.9	20
Manganese	2090	4080	2000	99.5	1.0	20
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium	0.0	2010	2000	100.5	0.5	20
Silicon						
Silver	0.60	245	250	97.8	0.4	20
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 09/10/19

Metal	JC94613-1A Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zirconium					

Associated samples MP17232: JC94537-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 09/10/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium	2020	2000	101.0	80-120
Beryllium				
Bismuth				
Boron				
Cadmium	1990	2000	99.5	80-120
Calcium				
Chromium	1960	2000	98.0	80-120
Cobalt				
Copper	1970	2000	98.5	80-120
Iron	anr			
Lead	2050	2000	102.5	80-120
Lithium				
Magnesium	24200	25000	96.8	80-120
Manganese	2000	2000	100.0	80-120
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium	2020	2000	101.0	80-120
Silicon				
Silver	238	250	95.2	80-120
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 09/10/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP17232: JC94537-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 09/10/19

Metal	JC94613-1A Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium	51.1	56.4	10.4*(a)	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.700	0.00	100.0(b)	0-10
Cobalt				
Copper	0.00	0.00	NC	0-10
Iron	anr			
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium	6800	7410	8.9	0-10
Manganese	2090	2280	8.6	0-10
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.600	0.00	100.0(b)	0-10
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 09/10/19

	JC94613-1A		QC
Metal	Original SDL 1:5	%DIF	Limits
Zirconium			

Associated samples MP17232: JC94537-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.
(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 09/10/19

Metal	Sample ml	Final ml	JC94613-1A Raw	JC94613-1A Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium	19.25	20	51.1	49.18375	2110	0.2	200	2000	103.0	80-120
Beryllium										
Bismuth										
Boron										
Cadmium	19.25	20			2023	0.2	200	2000	101.2	80-120
Calcium										
Chromium	19.25	20	.7	.67375	1986	0.2	200	2000	99.3	80-120
Cobalt										
Copper	19.25	20			2019	0.2	200	2000	101.0	80-120
Iron										
Lead	19.25	20			2151	0.2	200	2000	107.6	80-120
Lithium										
Magnesium	19.25	20	6801	6545.963	31250	0.1	5000	25000	98.8	80-120
Manganese	19.25	20	2094	2015.475	3991	0.2	200	2000	98.8	80-120
Molybdenum										
Nickel										
Phosphorus										
Potassium										
Selenium	19.25	20			2045	0.2	200	2000	102.3	80-120
Silicon										
Silver	19.25	20	.6	.5775	256	0.25	20	250	102.2	80-120
Sodium										
Strontium										
Sulfur										
Thallium										
Tin										
Titanium										
Tungsten										
Vanadium										
Zinc										

POST DIGESTATE SPIKE SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 09/10/19

Metal	Sample ml	Final ml	JC94613-1A Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Zirconium										

Associated samples MP17232: JC94537-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232A
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 09/10/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.55	32		
Antimony	4.0	.19	1.7		
Arsenic	3.0	.026	.94	0.088	<3.0
Barium	2.0	.016	.73		
Beryllium	1.0	.008	.15		
Boron	50	1.3	14		
Cadmium	6.0	.008	.17		
Calcium	500	12	64		
Chromium	8.0	.028	.62		
Cobalt	1.0	.004	.17		
Copper	10	.042	1.9		
Iron	50	.86	19		
Lead	3.0	.018	.52		
Magnesium	500	.3	46		
Manganese	4.0	.014	.63		
Molybdenum	2.0	.03	.45		
Nickel	8.0	.034	.95		
Potassium	500	1.4	68		
Selenium	2.0	.14	.55		
Silver	2.0	.008	.16		
Sodium	500	2.1	140		
Strontium	20	.006	2.4		
Thallium	2.0	.008	.17		
Tin	10	.14	2.6		
Titanium	4.0	.07	1.6		
Vanadium	3.0	.018	1.8		
Zinc	20	.058	5.4		

Associated samples MP17232A: JC94537-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232A
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 09/10/19

Metal	JC94613-1 Original	MS	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum					
Antimony					
Arsenic	1630	1710	80	100.0	75-125
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP17232A: JC94537-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232A
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 09/10/19

Metal	JC94613-1 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	1630	1770	80	175.0(a)	3.4	20
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP17232A: JC94537-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232A
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 09/10/19

Metal	BSP Result	Spikelot MP6020AQ3% Rec	QC Limits
Aluminum			
Antimony			
Arsenic	69.3	80 86.6	80-120
Barium			
Beryllium			
Boron			
Cadmium			
Calcium			
Chromium			
Cobalt			
Copper			
Iron			
Lead			
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium			
Silver			
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

Associated samples MP17232A: JC94537-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17232A
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 09/10/19

Metal	JC94613-1 Original	SDL 25:125%DIF		QC Limits
Aluminum				
Antimony				
Arsenic	1630	1510	7.6	0-10
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP17232A: JC94537-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17235 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 09/10/19

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.014	.095	0.066	<0.20

Associated samples MP17235: JC94537-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17235 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 09/10/19

Metal	JC94537-1A Original	MS	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.020	2.1	2	104.0	75-125

Associated samples MP17235: JC94537-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17235 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 09/10/19

Metal	JC94537-1A Original	MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.020	2.1	2	104.0	0.0	20

Associated samples MP17235: JC94537-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

QC Batch ID: MP17235
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 09/10/19

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	2.2	2	110.0	80-120

Associated samples MP17235: JC94537-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Instrument Detection Limits

Job Number: JC94537
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Aluminum	.045
Aluminum	.276
Antimony	.094
Arsenic	.12
Arsenic	.013
Barium	.008
Beryllium	.004
Boron	.648
Cadmium	.007
Cadmium	.004
Calcium	6.11
Chromium	.036
Chromium	.014
Cobalt	.0041
Cobalt	.002
Copper	.1044
Copper	.021
Iron	1.21
Iron	.432
Lead	.009
Magnesium	.033
Magnesium	.152
Manganese	.006
Manganese	.007
Molybdenum	.015
Nickel	.046
Nickel	.017
Potassium	.506
Potassium	.707
Selenium	.503
Selenium	.072
Silver	.004
Sodium	.357
Sodium	1.037
Strontium	.003
Thallium	.004
Tin	.025
Tin	.071
Titanium	.035
Titanium	.035
Vanadium	.112
Vanadium	.009
Zinc	.041
Zinc	.029

Instrument Detection Limits

Job Number: JC94537
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l

The above applies to the following instrument runs:
MA47431,MA47439

Instrument Detection Limits

Job Number: JC94537
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: LEEMANHG9 **Effective Date:** 08/01/19

Analyte	IDL ug/l
Mercury	.0136

The above applies to the following instrument runs:
MA47421

Instrument Detection Limits

Job Number: JC94537
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: SSTRACE3 **Effective Date:** 02/18/19

Analyte	IDL ug/l
Aluminum	14.3
Antimony	1.4
Arsenic	1.5
Barium	.5
Beryllium	.1
Bismuth	1.8
Boron	.8
Cadmium	.3
Calcium	3.9
Chromium	.3
Cobalt	.3
Copper	.6
Iron	2.6
Lead	1.6
Lithium	2.1
Magnesium	16.3
Manganese	.1
Molybdenum	.4
Nickel	.5
Phosphorus	1.9
Potassium	79
Selenium	3
Silicon	1.2
Silver	.5
Sodium	9.9
Sulfur	3.5
Strontium	.3
Thallium	1.3
Tin	.7
Titanium	.5
Tungsten	1.7
Vanadium	.5
Yttrium	5
Zinc	.2
Zirconium	.3

The above applies to the following instrument runs:
MA47429

Instrument Linear Ranges

Job Number: JC94537
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC94537
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA47431,MA47439

Instrument Linear Ranges

Job Number: JC94537
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: LEEMANHG9 **Effective Date:** 02/26/18

Analyte	Linear Range ug/l
Mercury	5

The above applies to the following instrument runs:
MA47421

Instrument Linear Ranges

Job Number: JC94537
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Instrument ID: SSTRACE3 **Effective Date:** 08/22/19

Analyte	Linear Range ug/l
Aluminum	300000
Antimony	8000
Arsenic	8000
Barium	8000
Beryllium	8000
Bismuth	8000
Boron	8000
Cadmium	8000
Calcium	200000
Cerium	8000
Chromium	8000
Cobalt	8000
Copper	8000
Iron	200000
Lead	8000
Lithium	8000
Magnesium	300000
Manganese	8000
Molybdenum	8000
Nickel	8000
Palladium	8000
Phosphorus	8000
Potassium	200000
Selenium	8000
Silicon	25000
Silver	625
Sodium	200000
Sulfur	100000
Strontium	8000
Thallium	8000
Tin	8000
Titanium	8000
Tungsten	8000
Vanadium	8000
Zinc	8000
Zirconium	8000

The above applies to the following instrument runs:
MA47429

Metals Analysis

Raw Data

MA47421

Method: Accutest Operator: Admin Date of Analysis: 10 Sep 2019 10:43:37

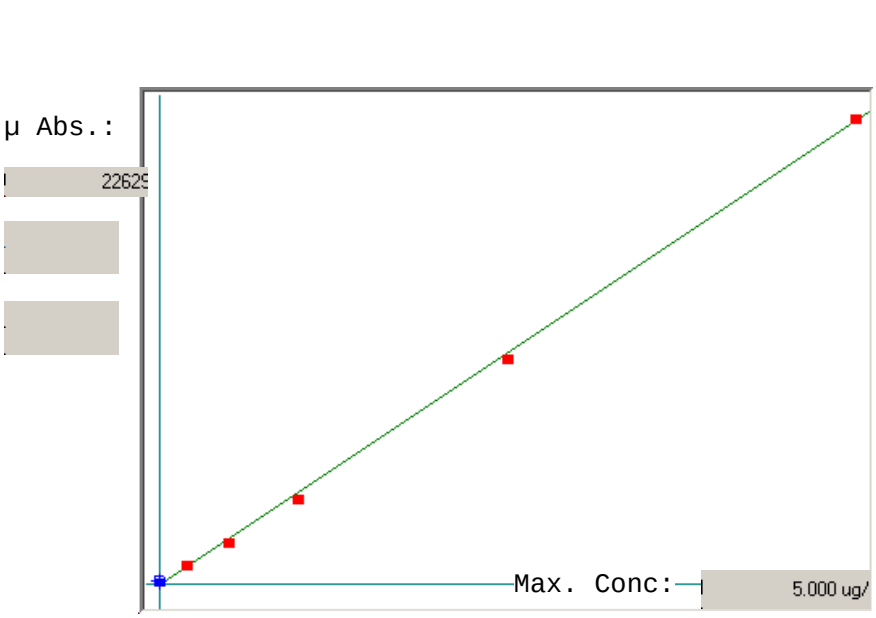
Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
STDA - 1	10 Sep 2019 10:44:41	Std	ug/l	-	182	1.000	1.000
STDB - 1	10 Sep 2019 10:45:59	Std	ug/l	-	946	1.000	1.000
STDC - 1	10 Sep 2019 10:47:19	Std	ug/l	-	2081	1.000	1.000
STDD - 1	10 Sep 2019 10:48:46	Std	ug/l	-	4223	1.000	1.000
STDE - 1	10 Sep 2019 10:50:22	Std	ug/l	-	11016	1.000	1.000
STDF - 1	10 Sep 2019 10:52:08	Std	ug/l	-	22629	1.000	1.000
ICV - 1	10 Sep 2019 10:56:14	CK STND	ug/l	100.7% 3.0224	13567	1.000	1.000
ICB - 1	10 Sep 2019 10:57:30	CK STND	ug/l	-0.0345	-230	1.000	1.000
CCV - 1	10 Sep 2019 10:59:27	CK STND	ug/l	97.4% 2.4344	10913	1.000	1.000
CCB - 1	10 Sep 2019 11:00:46	CK STND	ug/l	-0.0385	-248	1.000	1.000
CRI - 1	10 Sep 2019 11:02:41	CK STND	ug/l	112.9% 0.2258	945	1.000	1.000
CCV - 1	10 Sep 2019 11:05:07	CK STND	ug/l	100.7% 2.5168	11285	1.000	1.000
CCB - 1	10 Sep 2019 11:06:25	CK STND	ug/l	-0.0369	-241	1.000	1.000
MP17235-MB1 - 1	10 Sep 2019 11:08:48	SMPL	ug/l	0.0659	223	1.000	1.000
MP17235-B1 - 1	10 Sep 2019 11:10:04	SMPL	ug/l	2.2419	10044	1.000	1.000
MP17235-S1 - 1	10 Sep 2019 11:11:31	SMPL	ug/l	2.1229	9507	1.000	1.000
MP17235-S2 - 1	10 Sep 2019 11:13:07	SMPL	ug/l	2.1459	9611	1.000	1.000
JC94537-1A - 1	10 Sep 2019 11:14:52	SMPL	ug/l	0.0202	17	1.000	1.000
MP17236-MB1 - 1	10 Sep 2019 11:16:36	SMPL	ug/l	0.0477	141	1.000	1.000
CCV - 1	10 Sep 2019 11:17:54	CK STND	ug/l	99.4% 2.4860	11146	1.000	1.000
CCB - 1	10 Sep 2019 11:19:14	CK STND	ug/l	-0.0230	-178	1.000	1.000
MP17236-B1 - 1	10 Sep 2019 11:21:08	SMPL	ug/l	2.0110	9002	1.000	1.000
MP17236-S1 - 1	10 Sep 2019 11:22:27	SMPL	ug/l	2.0715	9275	1.000	1.000
MP17236-S2 - 1	10 Sep 2019 11:24:13	SMPL	ug/l	2.0770	9300	1.000	1.000
JC94459-1 - 1	10 Sep 2019 11:26:00	SMPL	ug/l	0.0118	-21	1.000	1.000
JC94459-2 - 1	10 Sep 2019 11:27:46	SMPL	ug/l	0.0406	109	1.000	1.000
JC94459-3 - 1	10 Sep 2019 11:29:06	SMPL	ug/l	0.0036	-58	1.000	1.000
JC94459-4 - 1	10 Sep 2019 11:30:27	SMPL	ug/l	0.0499	151	1.000	1.000
JC94459-5 - 1	10 Sep 2019 11:31:46	SMPL	ug/l	0.0014	-68	1.000	1.000
JC94459-6 - 1	10 Sep 2019 11:33:04	SMPL	ug/l	0.0654	221	1.000	1.000
CCV - 1	10 Sep 2019 11:34:23	CK STND	ug/l	95.2% 2.3801	10668	1.000	1.000
CCB - 1	10 Sep 2019 11:35:42	CK STND	ug/l	-0.0454	-279	1.000	1.000
JC94459-7 - 1	10 Sep 2019 11:37:34	SMPL	ug/l	0.0492	148	1.000	1.000
JC94459-8 - 1	10 Sep 2019 11:38:52	SMPL	ug/l	0.0238	33	1.000	1.000
JC94459-9 - 1	10 Sep 2019 11:40:11	SMPL	ug/l	0.0510	156	1.000	1.000
JC94459-10 - 1	10 Sep 2019 11:41:30	SMPL	ug/l	0.0074	-41	1.000	1.000
JC94459-11 - 1	10 Sep 2019 11:42:49	SMPL	ug/l	0.0362	89	1.000	1.000
JC94459-12 - 1	10 Sep 2019 11:44:08	SMPL	ug/l	0.0165	0	1.000	1.000
JC94611-5 - 1	10 Sep 2019 11:45:25	SMPL	ug/l	0.0364	90	1.000	1.000
JC94611-6 - 1	10 Sep 2019 11:46:45	SMPL	ug/l	0.0373	94	1.000	1.000
JC94365-8 - 1	10 Sep 2019 11:48:05	SMPL	ug/l	0.0362	89	1.000	1.000
CCV - 1	10 Sep 2019 11:49:25	CK STND	ug/l	104.6% 2.6139	11723	1.000	1.000
CCB - 1	10 Sep 2019 11:50:44	CK STND	ug/l	-0.0336	-226	1.000	1.000
JC94365-9 - 1	10 Sep 2019 11:52:36	SMPL	ug/l	0.0211	21	1.000	1.000
JC94365-10 - 1	10 Sep 2019 11:53:55	SMPL	ug/l	0.0393	103	1.000	1.000
JC94365-11 - 1	10 Sep 2019 11:55:14	SMPL	ug/l	0.0384	99	1.000	1.000
JC94365-12 - 1	10 Sep 2019 11:56:32	SMPL	ug/l	0.0404	108	1.000	1.000
JC94650-1 - 1	10 Sep 2019 11:57:51	SMPL	ug/l	0.0517	159	1.000	1.000
MP17237-MB1 - 1	10 Sep 2019 11:59:10	SMPL	ug/l	0.0271	48	1.000	1.000
CCV - 1	10 Sep 2019 12:00:29	CK STND	ug/l	106.3% 2.6582	11923	1.000	1.000
CCB - 1	10 Sep 2019 12:01:48	CK STND	ug/l	-0.0219	-173	1.000	1.000
MP17237-B1 - 1	10 Sep 2019 12:03:42	SMPL	ug/l	1.9654	8796	1.000	1.000
MP17237-S1 - 1	10 Sep 2019 12:05:00	SMPL	ug/l	2.1098	9448	1.000	1.000
MP17237-S2 - 1	10 Sep 2019 12:06:47	SMPL	ug/l	2.1100	9449	1.000	1.000
JC94499-17 - 1	10 Sep 2019 12:08:32	SMPL	ug/l	0.0182	8	1.000	1.000
JC94499-18 - 1	10 Sep 2019 12:10:17	SMPL	ug/l	0.0450	129	1.000	1.000
JC94499-19 - 1	10 Sep 2019 12:11:37	SMPL	ug/l	0.0373	94	1.000	1.000
JC94499-20 - 1	10 Sep 2019 12:12:59	SMPL	ug/l	0.0342	80	1.000	1.000
JC94499-21 - 1	10 Sep 2019 12:14:17	SMPL	ug/l	0.0322	71	1.000	1.000
JC94499-22 - 1	10 Sep 2019 12:15:36	SMPL	ug/l	0.0344	81	1.000	1.000
CCV - 1	10 Sep 2019 12:16:55	CK STND	ug/l	103.7% 2.5928	11628	1.000	1.000
CCB - 1	10 Sep 2019 12:18:15	CK STND	ug/l	-0.0179	-155	1.000	1.000
JC94499-23 - 1	10 Sep 2019 12:20:08	SMPL	ug/l	0.0264	45	1.000	1.000
JC94499-24 - 1	10 Sep 2019 12:21:26	SMPL	ug/l	0.0340	79	1.000	1.000
JC94499-25 - 1	10 Sep 2019 12:22:44	SMPL	ug/l	0.0346	82	1.000	1.000
JC94499-26 - 1	10 Sep 2019 12:24:03	SMPL	ug/l	0.0355	86	1.000	1.000
JC94499-27 - 1	10 Sep 2019 12:25:21	SMPL	ug/l	0.0382	98	1.000	1.000
JC94499-28 - 1	10 Sep 2019 12:26:40	SMPL	ug/l	0.0362	89	1.000	1.000
MP17238-MB1 - 1	10 Sep 2019 12:28:00	SMPL	ug/l	0.0366	91	1.000	1.000
MP17238-B1 - 1	10 Sep 2019 12:29:20	SMPL	ug/l	2.1430	9598	1.000	1.000
MP17238-S1 - 1	10 Sep 2019 12:30:40	SMPL	ug/l	2.1052	9427	1.000	1.000
CCV - 1	10 Sep 2019 12:32:27	CK STND	ug/l	105.4% 2.6356	11821	1.000	1.000
CCB - 1	10 Sep 2019 12:34:12	CK STND	ug/l	-0.0241	-183	1.000	1.000

MA47421

Method: Accutest Operator: Admin Date of Analysis: 10 Sep 2019 10:43:37

Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
MP17238-S2 - 1	10 Sep 2019 12:36:05	SMPL	ug/l	1.9961	8935	1.000	1.000
JC94639-1 - 1	10 Sep 2019 12:37:24	SMPL	ug/l	-0.0079	-110	1.000	1.000
JC94639-2 - 1	10 Sep 2019 12:39:10	SMPL	ug/l	0.0253	40	1.000	1.000
JC94639-3 - 1	10 Sep 2019 12:40:29	SMPL	ug/l	0.0282	53	1.000	1.000
JC94639-4 - 1	10 Sep 2019 12:41:46	SMPL	ug/l	0.0304	63	1.000	1.000
JC94639-5 - 1	10 Sep 2019 12:43:04	SMPL	ug/l	0.0348	83	1.000	1.000
JC94639-6 - 1	10 Sep 2019 12:44:23	SMPL	ug/l	0.0388	101	1.000	1.000
JC94639-7 - 1	10 Sep 2019 12:45:42	SMPL	ug/l	0.0322	71	1.000	1.000
JC94639-8 - 1	10 Sep 2019 12:47:01	SMPL	ug/l	0.0251	39	1.000	1.000
CCV - 1	10 Sep 2019 12:48:21	CK STND	ug/l	103.5% 2.5877	11605	1.000	1.000
CCB - 1	10 Sep 2019 12:49:40	CK STND	ug/l	-0.0017	-82	1.000	1.000
JC94639-9 - 1	10 Sep 2019 12:51:35	SMPL	ug/l	0.0216	23	1.000	1.000
JC94639-10 - 1	10 Sep 2019 12:52:54	SMPL	ug/l	0.0355	86	1.000	1.000
JC94639-11 - 1	10 Sep 2019 12:54:13	SMPL	ug/l	0.0322	71	1.000	1.000
JC94639-12 - 1	10 Sep 2019 12:55:34	SMPL	ug/l	0.0426	118	1.000	1.000
JC94639-13 - 1	10 Sep 2019 12:56:51	SMPL	ug/l	0.0329	74	1.000	1.000
CCV - 1	10 Sep 2019 12:58:24	CK STND	ug/l	103.3% 2.5833	11585	1.000	1.000
CCB - 1	10 Sep 2019 12:59:41	CK STND	ug/l	-0.0252	-188	1.000	1.000

Accutest



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
STDA	0.000	0.057	0.057	182	0.000	182				
STDB	0.200	0.226	0.026	946	0.0 %	946				
STDC	0.500	0.478	-0.022	2081	0.0 %	2081				
STDD	1.000	0.952	-0.048	4223	0.0 %	4223				
STDE	2.500	2.457	-0.043	11016	0.0 %	11016				
STDF	5.000	5.030	0.030	22629	0.0 %	22629				

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 9/11/2019 8:56:00 Type: Cal
Method: SGS 3 NO Valve(v193) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0094**	**-.0012**	**.0002**	**.0001**	**-.0000**	**.0031**	**.0004**	**-.0002**	**-.0003**
Stddev	.0002	.0000	.0001	.0000	.0000	.0001	.0000	.0001	.0000
%RSD	1.707	2.197	51.60	29.42	86.67	3.252	2.590	27.31	11.13
#1	.0092	-.0012	.0001	.0001	-.0001	.0030	.0004	-.0001	-.0002
#2	.0096	-.0012	.0003	.0001	-.0000	.0031	.0004	-.0002	-.0002
#3	.0094	-.0012	.0003	.0001	-.0000	.0032	.0004	-.0002	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0004**	**.0003**	**-.0001**	**-.0001**	**.0002**	**-.0001**	**.0001**	**.0006**	**.0050**
Stddev	.0000	.0001	.0000	.0001	.0002	.0000	.0001	.0003	.0002
%RSD	6.951	37.90	15.66	71.50	70.66	51.84	81.17	53.12	3.572
#1	.0004	.0003	-.0001	-.0001	.0001	-.0001	.0000	.0007	.0049
#2	.0005	.0002	-.0001	-.0000	.0004	-.0001	.0002	.0009	.0053
#3	.0004	.0003	-.0001	-.0002	.0002	-.0000	.0001	.0002	.0050

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**-.0000**	**.0019**	**.0398**	**.0002**	**-.0004**	**.0012**	**.0002**	**-.0001**
Stddev	.0001	.0001	.0002	.0006	.0001	.0001	.0000	.0001	.0000
%RSD	43.71	259.0	12.62	1.612	26.69	22.10	1.947	46.13	39.28
#1	.0001	.0001	.0017	.0393	.0002	-.0003	.0012	.0002	-.0001
#2	.0001	-.0001	.0018	.0406	.0003	-.0004	.0012	.0002	-.0001
#3	.0002	-.0001	.0022	.0396	.0002	-.0005	.0012	.0001	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.0015**	**-.0005**	**-.0018**	**.0002**	**.0018**	**-.0050**	**.0006**
Stddev	.0000	.0002	.0001	.0001	.0001	.0009	.0001	.0000
%RSD	623.2	14.19	17.15	6.917	66.11	48.50	1.996	4.904
#1	.0000	.0015	-.0004	-.0019	.0003	.0027	-.0051	.0006
#2	-.0000	.0016	-.0006	-.0017	.0001	.0010	-.0049	.0007
#3	.0000	.0012	-.0006	-.0017	.0003	.0016	-.0049	.0006

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 9/11/2019 8:56:00 Type: Cal
Method: SGS 3 NO Valve(v193) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**188840.**	**35163.**	**9032.7**	**12919.**
Stddev	1894.	141.	24.0	23.
%RSD	1.0027	.40052	.26551	.17754
#1	190790.	35174.	9023.2	12926.
#2	188720.	35018.	9060.0	12938.
#3	187010.	35299.	9015.0	12894.

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 9/11/2019 9:00:59 Type: Cal
Method: SGS 3 NO Valve(v193) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.820**	**13.03**	**4.121**	**2.681**	**.6528**	**1.056**	**2.966**	**2.193**	**.0771**
Stddev	.046	.12	.013	.007	.0019	.002	.015	.006	.0001
%RSD	.6731	.8827	.3240	.2494	.2855	.1754	.5102	.2726	.1874
#1	6.799	12.96	4.106	2.673	.6540	1.058	2.949	2.186	.0770
#2	6.872	13.16	4.129	2.686	.6537	1.056	2.976	2.197	.0772
#3	6.788	12.98	4.129	2.683	.6507	1.054	2.974	2.195	.0769

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.8916**	**5.877**	**.4461**	**.3441**	**1.016**	**.3477**	**.5720**	**3.309**	**8.623**
Stddev	.0028	.020	.0015	.0006	.003	.0012	.0017	.018	.058
%RSD	.3183	.3428	.3368	.1877	.2455	.3326	.2933	.5337	.6682
#1	.8931	5.853	.4443	.3434	1.013	.3466	.5705	3.325	8.649
#2	.8933	5.889	.4469	.3447	1.017	.3477	.5738	3.313	8.557
#3	.8883	5.887	.4470	.3443	1.017	.3489	.5718	3.290	8.663

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.363**	**.9577**	**1.607**	**4.893**	**.8899**	**2.921**	**1.956**	**.9093**	**11.95**
Stddev	.025	.0054	.010	.032	.0026	.010	.005	.0035	.10
%RSD	.4602	.5675	.6123	.6539	.2867	.3441	.2619	.3851	.8447
#1	5.387	.9636	1.614	4.917	.8869	2.909	1.950	.9053	12.03
#2	5.364	.9564	1.612	4.905	.8912	2.928	1.959	.9112	11.99
#3	5.338	.9530	1.596	4.857	.8914	2.925	1.959	.9114	11.84

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7046**	**1.409**	**2.076**	**.2332**	**.6080**	**1.980**	**.5153**	**.1545**
Stddev	.0024	.004	.016	.0009	.0020	.011	.0021	.0005
%RSD	.3460	.2964	.7560	.3787	.3210	.5562	.3990	.3307
#1	.7072	1.404	2.068	.2321	.6058	1.989	.5130	.1550
#2	.7043	1.411	2.094	.2336	.6092	1.982	.5164	.1544
#3	.7023	1.411	2.066	.2337	.6092	1.968	.5166	.1540

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 9/11/2019 9:00:59 Type: Cal
Method: SGS 3 NO Valve(v193) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**180070.**	**34012.**	**8634.4**	**11683.**
Stddev	524.	272.	26.8	29.
%RSD	.29078	.79989	.30988	.25104
#1	180150.	33701.	8664.3	11716.
#2	179510.	34131.	8612.6	11658.
#3	180550.	34205.	8626.4	11676.

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 9/11/2019 9:06:38 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.997**	**2.013**	**2.009**	**2.039**	**2.012**	**1.992**	**2.026**	**2.042**	**.2477**
Stddev	.008	.007	.015	.016	.034	.035	.026	.015	.0042
%RSD	.3913	.3662	.7388	.7965	1.708	1.778	1.303	.7401	1.679
#1	1.994	2.011	2.026	2.058	2.009	1.991	2.032	2.060	.2468
#2	2.006	2.021	2.002	2.029	1.979	1.957	1.998	2.034	.2440
#3	1.992	2.007	1.999	2.030	2.048	2.028	2.049	2.034	.2522
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.008**	**2.040**	**1.994**	**2.079**	**2.031**	**2.019**	**1.998**	**39.19**	**39.75**
Stddev	.035	.014	.013	.014	.015	.012	.019	.16	.17
%RSD	1.746	.6910	.6438	.6498	.7296	.5875	.9331	.4165	.4336
#1	2.004	2.056	2.009	2.095	2.048	2.033	2.019	39.16	39.73
#2	1.975	2.036	1.986	2.069	2.025	2.011	1.984	39.36	39.94
#3	2.045	2.029	1.987	2.075	2.020	2.014	1.990	39.03	39.59
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.70**	**39.51**	**39.24**	**39.39**	**2.031**	**2.011**	**5.193**	**2.037**	**1.981**
Stddev	.12	.14	.18	.18	.016	.014	.036	.017	.005
%RSD	.2904	.3431	.4576	.4632	.7632	.6929	.7023	.8214	.2694
#1	39.69	39.57	39.26	39.36	2.049	2.027	5.235	2.055	1.979
#2	39.82	39.60	39.41	39.58	2.021	2.005	5.173	2.033	1.987
#3	39.59	39.35	39.05	39.22	2.023	2.001	5.171	2.023	1.976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 9/11/2019 9:06:38 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.985**	**1.970**	**2.026**	**1.989**	**2.019**	**1.949**	**2.008**	**1.991**
Stddev	.033	.014	.035	.016	.013	.004	.015	.036
%RSD	1.673	.6996	1.712	.7830	.6255	.2215	.7547	1.799
#1	1.986	1.986	2.024	2.007	2.033	1.947	2.026	1.989
#2	1.951	1.964	1.993	1.980	2.008	1.954	1.999	1.956
#3	2.017	1.960	2.062	1.980	2.016	1.947	2.000	2.028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**185630.**	**35072.**	**8895.8**	**12065.**
Stddev	2736.	359.	53.0	70.
%RSD	1.4739	1.0225	.59564	.57706
#1	186450.	34885.	8839.5	11990.
#2	187860.	34845.	8903.3	12079.
#3	182580.	35485.	8944.7	12127.

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 9/11/2019 9:11:36 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0001**	**.0000**	**.0001**	**-.0002**	**.0001**	**.0002**	**-.0002**
Stddev	.0001	.0001	.0001	.0001	.0002	.0002	.0000	.0001	.0001
%RSD	37.81	120.9	217.1	447.1	134.2	95.66	52.81	39.81	29.44
#1	.0002	.0001	.0000	.0002	-.0000	.0000	.0001	.0002	-.0001
#2	.0001	.0001	-.0001	-.0000	.0003	-.0004	.0000	.0003	-.0002
#3	.0001	-.0000	.0002	-.0001	.0001	-.0003	.0001	.0001	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**-.0004**	**.0008**	**.0002**	**.0010**	**.0003**	**-.0043**	**-.0012**
Stddev	.0000	.0000	.0007	.0009	.0003	.0018	.0008	.0019	.0016
%RSD	30.29	77.31	155.5	108.0	170.5	170.5	318.2	44.09	132.9
#1	-.0001	-.0000	-.0007	.0018	.0006	.0024	.0012	-.0063	-.0022
#2	-.0001	-.0001	.0003	.0003	.0001	-.0010	-.0005	-.0025	-.0019
#3	-.0001	-.0001	-.0010	.0003	-.0001	.0017	.0000	-.0041	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**-.0034**	**-.0571**	**-.1874**	**.0030**	**.0006**	**.0004**	**.0000**	**.0000**
Stddev	.0016	.0115	.0197	.0093	.0003	.0001	.0006	.0002	.0001
%RSD	165.0	342.1	34.46	4.986	8.746	12.51	169.9	485.1	2028.
#1	.0028	-.0152	-.0672	-.1905	.0027	.0005	.0011	-.0001	-.0001
#2	.0003	.0078	-.0344	-.1948	.0030	.0007	-.0002	.0002	.0001
#3	-.0002	-.0027	-.0696	-.1769	.0032	.0005	.0003	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 9/11/2019 9:11:36 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0003**	**.0001**	**-.0009**	**.0002**	**.0020**	**.0008**	**.0008**
Stddev	.0001	.0004	.0001	.0023	.0017	.0012	.0003	.0014
%RSD	72.10	154.1	83.53	265.1	922.5	61.32	37.60	171.8
#1	.0002	-.0006	.0000	-.0035	.0003	.0027	.0005	-.0007
#2	.0000	.0002	.0003	-.0002	-.0016	.0027	.0008	.0011
#3	.0003	-.0004	.0002	.0010	.0018	.0006	.0012	.0021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**193570.**	**35157.**	**9268.6**	**13201.**
Stddev	1564.	513.	65.8	83.
%RSD	.80783	1.4588	.71000	.63186
#1	192000.	34586.	9242.5	13162.
#2	195130.	35578.	9219.9	13145.
#3	193590.	35307.	9343.5	13297.

Zoom In Zoom Out

Sample Name: ICV 5 Acquired: 9/11/2019 9:16:39 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.024**	**2.036**	**1.999**	**2.030**	**1.989**	**2.009**	**2.034**	**2.009**
Stddev	.009	.017	.012	.012	.012	.012	.017	.012
%RSD	.4710	.8096	.5877	.6081	.5828	.5719	.8274	.6026
#1	2.034	2.018	1.995	2.026	2.002	2.021	2.045	2.006
#2	2.024	2.050	2.012	2.044	1.982	1.998	2.042	2.022
#3	2.015	2.039	1.990	2.020	1.982	2.009	2.014	1.999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2444**	**2.014**	**2.011**	**2.027**	**2.027**	**1.995**	**1.993**	**2.010**
Stddev	.0015	.012	.013	.012	.010	.012	.009	.014
%RSD	.6113	.6125	.6224	.6042	.4912	.5879	.4705	.6732
#1	.2460	2.028	2.008	2.024	2.021	1.990	1.992	2.005
#2	.2430	2.004	2.025	2.041	2.039	2.008	2.003	2.025
#3	.2442	2.011	2.001	2.017	2.022	1.986	1.984	1.999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.29**	**39.68**	**39.93**	**39.73**	**39.80**	**40.30**	**2.036**	**1.985**
Stddev	.21	.16	.15	.13	.16	.22	.012	.011
%RSD	.5138	.3906	.3744	.3179	.4083	.5515	.5797	.5748
#1	40.49	39.83	40.07	39.84	39.94	40.50	2.032	1.981
#2	40.30	39.69	39.94	39.76	39.83	40.35	2.049	1.998
#3	40.07	39.52	39.77	39.60	39.62	40.06	2.027	1.976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: ICV 5 Acquired: 9/11/2019 9:16:39 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.025**	**2.004**	**1.975**	**1.976**	**1.971**	**2.010**	**1.995**	**1.992**
Stddev	.025	.009	.007	.012	.012	.012	.009	.009
%RSD	.4943	.4573	.3524	.6172	.6258	.6099	.4350	.4356
#1	5.016	2.000	1.983	1.990	1.961	2.022	1.996	1.989
#2	5.053	2.014	1.975	1.970	1.985	1.997	2.003	2.001
#3	5.006	1.997	1.969	1.968	1.967	2.009	1.986	1.985
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**1.974**	**1.975**	F **-.0689**
Stddev	.010	.011	.0005
%RSD	.5259	.5536	.7105
#1	1.984	1.969	-.0695
#2	1.974	1.987	-.0687
#3	1.963	1.968	-.0686
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			2.000
Range			-5.000%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**185810.**	**35345.**	**8890.1**	**12046.**
Stddev	733.	187.	46.1	57.
%RSD	.39423	.52795	.51893	.47381
#1	185100.	35249.	8903.9	12065.
#2	185780.	35226.	8838.6	11982.
#3	186560.	35560.	8927.7	12092.

Zoom In Zoom Out

Sample Name: ICB Acquired: 9/11/2019 9:21:40 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0001**	**.0001**	**.0000**	**.0003**	**-.0003**	**.0002**	**.0001**	**-.0003**
Stddev	.0001	.0000	.0001	.0002	.0002	.0003	.0000	.0003	.0001
%RSD	38.59	24.69	79.55	5139.	77.06	96.20	14.15	195.1	40.65
#1	.0002	.0002	.0002	-.0000	.0005	-.0002	.0002	-.0002	-.0003
#2	.0004	.0001	.0000	.0002	.0003	-.0005	.0002	.0002	-.0003
#3	.0002	.0002	.0002	-.0001	.0001	-.0000	.0002	.0004	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**-.0002**	**.0005**	**-.0004**	**.0022**	**.0004**	**-.0014**	**.0019**
Stddev	.0001	.0001	.0008	.0005	.0004	.0008	.0002	.0051	.0016
%RSD	96.13	125.1	480.1	110.0	102.5	36.10	54.16	356.1	84.40
#1	.0000	.0001	-.0004	-.0000	-.0002	.0021	.0006	-.0072	.0036
#2	-.0002	-.0000	.0007	.0011	-.0008	.0030	.0004	.0025	.0014
#3	-.0002	.0001	-.0009	.0004	-.0001	.0014	.0002	.0004	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035**	**.0097**	**-.0819**	**-.2379**	**.0024**	**.0010**	**.0001**	**-.0002**	**.0001**
Stddev	.0009	.0092	.0151	.0030	.0002	.0001	.0008	.0002	.0001
%RSD	25.48	94.80	18.47	1.259	9.627	12.74	567.4	84.47	53.54
#1	.0045	.0161	-.0911	-.2352	.0026	.0011	.0002	-.0001	.0001
#2	.0032	-.0008	-.0644	-.2411	.0023	.0010	.0009	-.0001	.0000
#3	.0028	.0138	-.0900	-.2373	.0022	.0009	-.0007	-.0004	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICB Acquired: 9/11/2019 9:21:40 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	F **.0156**	F **.0012**	**-.0029**	**-.0001**	**.0000**	**.0014**	**.0002**
Stddev	.0003	.0023	.0002	.0014	.0014	.0009	.0001	.0032
%RSD	101.2	14.68	15.54	49.18	2336.	4632.	8.166	1662.
#1	.0003	.0177	.0011	-.0025	-.0017	-.0010	.0013	-.0032
#2	.0000	.0160	.0014	-.0045	.0011	.0006	.0015	.0031
#3	.0007	.0132	.0010	-.0017	.0004	.0004	.0014	.0007
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0050	.0010					
Low Limit		-.0050	-.0010					

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**195580.**	**35871.**	**9248.0**	**13172.**
Stddev	1124.	134.	45.0	55.
%RSD	.57444	.37452	.48624	.41404
#1	196380.	35900.	9248.7	13193.
#2	196070.	35724.	9202.8	13110.
#3	194300.	35988.	9292.7	13213.

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/11/2019 9:26:46 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.036**	**2.039**	**2.015**	**2.045**	**2.016**	**2.000**	**2.064**	**2.048**	**.2488**
Stddev	.012	.021	.015	.012	.015	.014	.016	.012	.0015
%RSD	.6093	1.056	.7229	.6007	.7252	.6879	.7579	.5598	.6157
#1	2.049	2.061	2.032	2.059	2.000	1.984	2.053	2.061	.2471
#2	2.035	2.019	2.009	2.039	2.029	2.011	2.058	2.044	.2502
#3	2.024	2.038	2.005	2.036	2.019	2.004	2.082	2.039	.2490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.015**	**2.043**	**1.997**	**2.087**	**2.037**	**2.027**	**2.009**	**39.87**	**40.46**
Stddev	.013	.016	.015	.007	.012	.014	.011	.23	.22
%RSD	.6190	.7711	.7605	.3315	.5854	.6957	.5543	.5825	.5530
#1	2.002	2.061	2.014	2.095	2.051	2.043	2.021	40.11	40.69
#2	2.027	2.035	1.989	2.082	2.030	2.017	2.006	39.86	40.44
#3	2.015	2.032	1.987	2.084	2.030	2.022	1.999	39.64	40.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.35**	**40.12**	**39.79**	**39.99**	**2.033**	**2.014**	**5.204**	**2.042**	**2.014**
Stddev	.20	.21	.26	.27	.014	.016	.041	.014	.009
%RSD	.5008	.5192	.6548	.6733	.6828	.7962	.7829	.7008	.4498
#1	40.55	40.31	40.05	40.26	2.049	2.032	5.251	2.058	2.023
#2	40.35	40.15	39.78	39.99	2.026	2.005	5.184	2.034	2.012
#3	40.14	39.89	39.53	39.73	2.024	2.003	5.177	2.033	2.005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/11/2019 9:26:46 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.992**	**1.983**	**2.035**	**2.001**	**2.022**	**1.982**	**2.013**	**2.002**
Stddev	.019	.015	.012	.014	.014	.013	.015	.014
%RSD	.9501	.7391	.5871	.7009	.6732	.6614	.7421	.6937
#1	1.971	2.000	2.022	2.017	2.037	1.995	2.030	1.986
#2	2.009	1.973	2.046	1.990	2.018	1.983	2.007	2.012
#3	1.996	1.976	2.036	1.996	2.011	1.969	2.002	2.007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**185750.**	**35110.**	**8901.7**	**12057.**
Stddev	1042.	269.	55.6	54.
%RSD	.56098	.76631	.62446	.44462
#1	186930.	34895.	8837.5	11995.
#2	184960.	35024.	8935.8	12087.
#3	185350.	35412.	8931.7	12089.

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/11/2019 9:31:47 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0002**	**.0001**	**.0002**	**-.0005**	**.0002**	**.0002**	**-.0002**
Stddev	.0001	.0000	.0001	.0002	.0002	.0002	.0000	.0001	.0003
%RSD	49.80	16.75	33.94	284.8	109.4	54.54	20.65	23.63	191.4
#1	.0001	.0001	.0002	.0000	.0000	-.0007	.0002	.0003	.0001
#2	.0002	.0001	.0001	.0003	.0003	-.0005	.0002	.0002	-.0005
#3	.0003	.0002	.0003	-.0001	.0001	-.0002	.0002	.0002	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0000**	**.0001**	**.0009**	**-.0008**	**-.0000**	**.0013**	**.0021**	**.0035**
Stddev	.0002	.0000	.0006	.0003	.0003	.0012	.0007	.0023	.0007
%RSD	83.05	68.79	420.3	40.36	30.76	6324.	51.50	109.8	19.85
#1	-.0000	.0000	.0008	.0012	-.0010	.0013	.0020	.0047	.0041
#2	-.0004	.0001	-.0004	.0009	-.0005	-.0008	.0009	.0001	.0028
#3	-.0003	.0000	.0001	.0005	-.0009	-.0005	.0008	.0016	.0038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045**	**.0022**	**-.0763**	**-.2525**	**.0028**	**.0007**	**.0004**	**.0001**	**.0002**
Stddev	.0001	.0011	.0049	.0170	.0006	.0001	.0009	.0005	.0001
%RSD	1.655	50.40	6.408	6.743	21.75	14.95	220.3	524.4	41.73
#1	.0045	.0017	-.0715	-.2373	.0030	.0007	-.0006	.0005	.0001
#2	.0044	.0035	-.0813	-.2709	.0033	.0007	.0012	.0002	.0002
#3	.0044	.0015	-.0762	-.2493	.0021	.0005	.0007	-.0005	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/11/2019 9:31:47 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0030**	**.0005**	**-.0010**	**.0002**	**.0013**	**.0008**	**.0009**
Stddev	.0002	.0005	.0000	.0002	.0012	.0015	.0005	.0003
%RSD	89.02	15.04	3.902	20.70	627.8	113.9	66.57	38.25
#1	.0002	.0026	.0005	-.0012	-.0006	.0013	.0002	.0010
#2	.0000	.0031	.0005	-.0008	-.0004	.0027	.0010	.0012
#3	.0004	.0035	.0004	-.0009	.0015	-.0002	.0012	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**197160.**	**35669.**	**9297.5**	**13228.**
Stddev	1980.	293.	30.8	39.
%RSD	1.0044	.82175	.33122	.29801
#1	196330.	35578.	9316.5	13254.
#2	199420.	35433.	9262.0	13183.
#3	195730.	35997.	9314.0	13248.

Zoom In Zoom Out

Sample Name: CRID Acquired: 9/11/2019 9:36:51 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0043**	**.0010**	**.0010**	**.0030**	**.0021**	F **-.0006**	**.0031**	**.0043**
Stddev	.0001	.0000	.0001	.0000	.0001	.0003	.0001	.0001
%RSD	3.437	2.349	5.222	.7535	2.987	60.05	1.603	2.469
#1	.0044	.0010	.0011	.0030	.0021	-.0007	.0032	.0043
#2	.0042	.0010	.0010	.0031	.0020	-.0002	.0032	.0042
#3	.0045	.0010	.0011	.0030	.0020	-.0008	.0031	.0044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-20.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0002**	F **.0014**	**.0107**	**.0028**	F **.0032**	F **-.0001**	F **.0069**	F **.0012**
Stddev	.0004	.0000	.0000	.0004	.0003	.0007	.0017	.0003
%RSD	206.6	1.001	.1658	13.88	8.213	1410.	24.36	23.57
#1	-.0001	.0014	.0107	.0032	.0029	.0005	.0061	.0009
#2	.0002	.0013	.0106	.0028	.0033	.0003	.0058	.0015
#3	-.0007	.0014	.0107	.0024	.0033	-.0009	.0088	.0013
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	.0020	.0020			.0020	.0025	.0050	.0030
Range	-20.00%	-20.00%			20.00%	-20.00%	20.00%	-20.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1013**	**1.047**	**.0049**	**.1072**	**1.908**	F **.7724**	**.0018**	**.0002**
Stddev	.0073	.006	.0010	.0072	.025	.0094	.0002	.0001
%RSD	7.174	.5412	21.62	6.687	1.283	1.215	8.748	58.50
#1	.1002	1.047	.0036	.0999	1.936	.7728	.0019	.0002
#2	.0946	1.042	.0055	.1076	1.893	.7628	.0019	.0001
#3	.1090	1.053	.0054	.1142	1.895	.7815	.0016	.0003
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	None	None
Value						1.000		
Range						-20.00%		

Zoom In Zoom Out

Sample Name: CRID Acquired: 9/11/2019 9:36:51 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0021**	**.0080**	**-.0001**	**-.0001**	**.0013**	**.0004**	**.0017**	**.0004**
Stddev	.0003	.0001	.0001	.0004	.0003	.0000	.0010	.0001
%RSD	15.61	1.011	89.48	288.6	20.15	4.592	58.98	21.16
#1	.0024	.0079	-.0001	-.0004	.0015	.0004	.0029	.0004
#2	.0018	.0081	-.0000	-.0004	.0012	.0004	.0011	.0004
#3	.0021	.0080	-.0001	.0003	.0010	.0004	.0012	.0006
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0004**	**.0014**	**.0012**
Stddev	.0010	.0004	.0014
%RSD	240.6	26.90	115.3
#1	-.0003	.0011	-.0004
#2	-.0000	.0013	.0021
#3	.0015	.0018	.0019
Check ?	None	None	None
Value			
Range			

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**195450.**	**35545.**	**9207.1**	**13063.**
Stddev	2463.	171.	22.6	31.
%RSD	1.2601	.48160	.24566	.23571
#1	193540.	35472.	9211.1	13073.
#2	194570.	35741.	9182.7	13028.
#3	198230.	35423.	9227.4	13087.

Zoom In Zoom Out

Sample Name: CRI Acquired: 9/11/2019 9:41:54 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1981**	**.0020**	**.0031**	**.0511**	**.0103**	**.0093**	**.0154**	**.0103**	**.0043**
Stddev	.0005	.0001	.0002	.0003	.0002	.0001	.0001	.0001	.0003
%RSD	.2348	3.213	5.385	.4915	1.975	1.027	.7038	.8314	6.677
#1	.1987	.0019	.0030	.0511	.0101	.0093	.0153	.0104	.0040
#2	.1978	.0020	.0033	.0508	.0104	.0094	.0155	.0103	.0044
#3	.1980	.0019	.0032	.0513	.0104	.0092	.0155	.0102	.0046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0496**	**.0220**	**.0076**	**.0114**	**.0026**	**.0117**	**.0066**	**.1937**	**5.031**
Stddev	.0004	.0001	.0007	.0002	.0010	.0014	.0005	.0033	.010
%RSD	.7975	.6739	9.121	1.726	38.94	11.68	7.033	1.724	.2037
#1	.0491	.0222	.0074	.0113	.0033	.0104	.0064	.1976	5.041
#2	.0497	.0220	.0070	.0117	.0014	.0131	.0063	.1913	5.032
#3	.0499	.0219	.0083	.0113	.0031	.0115	.0072	.1924	5.021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1057**	**5.121**	**4.832**	**4.741**	**.1052**	**.0208**	F **.2968**	**.0113**	**.0097**
Stddev	.0014	.018	.024	.021	.0004	.0002	.0010	.0002	.0001
%RSD	1.370	.3490	.5049	.4511	.3941	.8483	.3372	2.110	1.453
#1	.1056	5.133	4.859	4.766	.1054	.0210	.2979	.0114	.0099
#2	.1072	5.100	4.811	4.733	.1055	.0206	.2963	.0115	.0097
#3	.1044	5.129	4.827	4.725	.1048	.0209	.2961	.0111	.0096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value							.2000		
Range							20.00%		

Zoom In Zoom Out

Sample Name: CRI Acquired: 9/11/2019 9:41:54 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0100**	**.0505**	F **.0122**	**.0596**	**.0237**	**.0548**	**.0505**	**.0005**
Stddev	.0002	.0005	.0000	.0011	.0005	.0009	.0002	.0021
%RSD	2.285	.9950	.1646	1.863	2.135	1.641	.4647	394.9
#1	.0102	.0510	.0122	.0608	.0241	.0559	.0504	-.0019
#2	.0097	.0505	.0122	.0586	.0239	.0543	.0508	.0019
#3	.0100	.0500	.0122	.0594	.0231	.0544	.0504	.0015
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value			.0100					
Range			20.00%					

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**194620.**	**35693.**	**9171.7**	**12888.**
Stddev	689.	142.	28.0	33.
%RSD	.35392	.39657	.30568	.25949
#1	195380.	35547.	9141.3	12854.
#2	194040.	35830.	9177.5	12888.
#3	194440.	35702.	9196.4	12921.

Zoom In Zoom Out

Sample Name: ICSA Acquired: 9/11/2019 9:46:51 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0002**	**.0011**	**-.0002**	**.0007**	**-.0005**	**.0001**	**.0000**	**-.0004**
Stddev	.0000	.0001	.0001	.0002	.0003	.0011	.0000	.0002	.0006
%RSD	7.839	37.88	8.356	109.3	40.39	218.0	75.95	551.1	161.8
#1	.0005	-.0002	.0011	.0001	.0006	-.0015	.0001	.0003	-.0010
#2	.0005	-.0002	.0011	-.0004	.0010	.0006	.0001	-.0001	.0002
#3	.0005	-.0001	.0010	-.0004	.0004	-.0006	.0000	-.0001	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0036**	**.0009**	**.0005**	**-.0003**	**.0004**	**.0012**	**501.5**	**385.7**
Stddev	.0002	.0001	.0012	.0004	.0010	.0046	.0030	5.1	5.5
%RSD	24.71	3.986	140.8	87.30	337.4	1266.	246.5	1.019	1.417
#1	-.0012	.0037	.0002	.0002	-.0015	-.0044	-.0022	503.3	388.4
#2	-.0008	.0034	.0023	.0009	.0004	.0048	.0023	495.7	389.2
#3	-.0008	.0037	.0001	.0002	.0002	.0008	.0035	505.5	379.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**185.9**	**496.5**	**.1535**	**.2337**	**-.0017**	**.0010**	**.0061**	**-.0027**	**-.0024**
Stddev	2.4	1.1	.0255	.0230	.0010	.0002	.0007	.0010	.0001
%RSD	1.271	.2148	16.62	9.858	56.03	24.29	12.00	37.96	5.649
#1	183.2	495.7	.1561	.2071	-.0028	.0009	.0057	-.0038	-.0025
#2	187.7	497.7	.1776	.2485	-.0012	.0008	.0070	-.0019	-.0025
#3	186.7	496.1	.1268	.2455	-.0011	.0013	.0057	-.0024	-.0022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 9/11/2019 9:46:51 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0011**	**.0009**	**.0076**	**.0060**	**.0013**	**-.0083**	**-.0068**	**.0129**
Stddev	.0005	.0006	.0003	.0017	.0012	.0007	.0009	.0047
%RSD	41.76	68.83	4.080	28.82	92.23	8.147	13.24	36.08
#1	-.0014	.0003	.0072	.0072	.0005	-.0091	-.0078	.0174
#2	-.0015	.0009	.0077	.0067	.0026	-.0081	-.0065	.0081
#3	-.0006	.0016	.0078	.0040	.0007	-.0079	-.0060	.0134
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**173110.**	**34234.**	**8270.1**	**10881.**
Stddev	508.	131.	31.7	31.
%RSD	.29342	.38306	.38375	.28929
#1	172590.	34383.	8233.5	10845.
#2	173610.	34139.	8289.6	10901.
#3	173130.	34179.	8287.2	10898.

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 9/11/2019 9:52:10 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5070**	**.4952**	**1.013**	**.4927**	**.4842**	**.5080**	**.5049**	**.9761**	**1.020**
Stddev	.0029	.0028	.001	.0008	.0035	.0043	.0033	.0015	.009
%RSD	.5643	.5664	.1036	.1636	.7325	.8480	.6444	.1517	.9234
#1	.5046	.4931	1.012	.4924	.4804	.5035	.5015	.9756	1.011
#2	.5102	.4984	1.014	.4922	.4875	.5121	.5080	.9748	1.030
#3	.5063	.4942	1.013	.4937	.4847	.5084	.5052	.9777	1.021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4910**	**.9554**	**1.064**	**.9848**	**.9245**	**1.008**	**1.024**	**499.5**	**381.4**
Stddev	.0041	.0010	.002	.0024	.0045	.003	.002	2.4	1.1
%RSD	.8422	.1067	.1839	.2469	.4833	.2469	.1922	.4733	.2934
#1	.4871	.9542	1.064	.9820	.9203	1.005	1.022	499.8	381.8
#2	.4953	.9561	1.062	.9864	.9239	1.010	1.024	501.6	380.2
#3	.4905	.9558	1.066	.9859	.9292	1.008	1.026	496.9	382.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**187.5**	**497.0**	**.0936**	**.1641**	**.4979**	**.4868**	**.5164**	**.4669**	**.5009**
Stddev	2.2	2.9	.0308	.0116	.0014	.0008	.0007	.0016	.0033
%RSD	1.159	.5858	32.92	7.097	.2767	.1679	.1264	.3327	.6621
#1	185.0	494.2	.0673	.1534	.4972	.4861	.5157	.4652	.4976
#2	188.9	500.0	.0861	.1765	.4995	.4866	.5168	.4682	.5042
#3	188.7	496.7	.1275	.1623	.4971	.4877	.5168	.4673	.5010
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 9/11/2019 9:52:10 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5007**	**.4772**	**.5246**	**.5014**	**.5206**	**.5094**	**.4753**	**-.0047**
Stddev	.0030	.0024	.0047	.0033	.0020	.0022	.0020	.0015
%RSD	.6021	.5118	.8941	.6674	.3837	.4341	.4194	32.69
#1	.4977	.4745	.5199	.5024	.5191	.5080	.4732	-.0052
#2	.5037	.4779	.5292	.4977	.5199	.5119	.4756	-.0058
#3	.5007	.4792	.5247	.5043	.5229	.5082	.4771	-.0029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**171340.**	**34468.**	**8287.5**	**10937.**
Stddev	1484.	170.	12.4	10.
%RSD	.86609	.49343	.14949	.09559
#1	173030.	34500.	8291.8	10942.
#2	170240.	34284.	8273.5	10925.
#3	170740.	34619.	8297.2	10944.

Zoom In Zoom Out

Sample Name: HSTD Acquired: 9/11/2019 9:57:25 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.101**	**8.027**	**8.101**	**8.086**	**8.083**	**8.003**	**7.975**	**8.120**	**.5779**
Stddev	.170	.109	.101	.094	.143	.110	.096	.097	.0064
%RSD	2.096	1.361	1.251	1.163	1.775	1.377	1.202	1.199	1.104
#1	8.279	8.152	8.214	8.191	8.016	7.976	7.936	8.229	.5744
#2	8.082	7.978	8.073	8.057	7.986	7.909	7.904	8.091	.5741
#3	7.941	7.951	8.017	8.010	8.248	8.124	8.084	8.040	.5853
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.904**	**8.322**	**7.956**	**8.337**	**8.025**	**8.186**	**8.114**	**.0860**	**-.0231**
Stddev	.127	.123	.099	.086	.097	.100	.098	.0049	.0011
%RSD	1.605	1.473	1.247	1.035	1.210	1.227	1.204	5.718	4.897
#1	7.770	8.459	8.067	8.434	8.133	8.297	8.223	.0804	-.0218
#2	7.918	8.285	7.927	8.306	7.999	8.158	8.082	.0898	-.0237
#3	8.023	8.223	7.875	8.270	7.944	8.102	8.035	.0876	-.0239
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0186**	**-.0350**	**.3356**	**-.2174**	**8.189**	**8.103**	**25.27**	**8.352**	**8.017**
Stddev	.0013	.0073	.0212	.0023	.103	.106	.29	.103	.072
%RSD	6.912	20.82	6.322	1.050	1.253	1.310	1.164	1.229	.9013
#1	-.0200	-.0267	.3470	-.2195	8.303	8.221	25.59	8.465	8.100
#2	-.0175	-.0380	.3111	-.2150	8.161	8.074	25.18	8.327	7.967
#3	-.0182	-.0403	.3486	-.2178	8.103	8.015	25.02	8.264	7.985
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 9/11/2019 9:57:25 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.783**	**8.295**	**7.850**	**96.27**	**8.233**	**7.764**	**8.111**	**-.3003**
Stddev	.130	.111	.140	1.17	.081	.009	.094	.0046
%RSD	1.664	1.343	1.779	1.218	.9879	.1197	1.153	1.531
#1	7.686	8.418	7.790	97.57	8.325	7.774	8.215	-.2977
#2	7.734	8.263	7.751	95.97	8.204	7.756	8.084	-.2977
#3	7.930	8.203	8.010	95.28	8.170	7.762	8.033	-.3056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**194630.**	**36126.**	**9024.4**	**12931.**
Stddev	2731.	163.	122.2	160.
%RSD	1.4034	.44997	1.3539	1.2394
#1	195840.	35953.	8886.9	12749.
#2	196550.	36149.	9065.9	12992.
#3	191500.	36276.	9120.5	13052.

Zoom In Zoom Out

Sample Name: HSTD Acquired: 9/11/2019 10:03:32 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0004**	**.0009**	**.0000**	**.0004**	**.0001**	**.0007**	**.0006**	**.0006**
Stddev	.0003	.0000	.0001	.0001	.0002	.0010	.0001	.0001	.0014
%RSD	55.39	4.979	8.878	181.7	40.40	1012.	11.38	16.53	246.5
#1	.0009	.0004	.0009	.0001	.0002	-.0010	.0008	.0005	-.0010
#2	.0007	.0003	.0010	-.0000	.0004	.0010	.0007	.0005	.0014
#3	.0002	.0004	.0008	.0000	.0005	.0003	.0007	.0007	.0013
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0035**	**.0010**	**.0034**	**-.0006**	**.0026**	**.0014**	**293.9**	**188.5**
Stddev	.0003	.0001	.0009	.0019	.0003	.0010	.0026	6.0	1.6
%RSD	169.8	3.968	86.96	54.64	47.79	37.30	188.5	2.051	.8591
#1	-.0004	.0037	.0010	.0036	-.0007	.0032	.0008	293.3	186.7
#2	.0002	.0034	.0002	.0052	-.0008	.0015	-.0009	300.2	189.5
#3	-.0003	.0035	.0019	.0015	-.0003	.0031	.0043	288.2	189.4
Check ?	None	None	None	None	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**187.9**	**289.3**	**197.2**	**196.0**	**.0039**	**.0024**	**.0158**	**-.0025**	**-.0009**
Stddev	3.8	3.6	2.3	1.6	.0006	.0001	.0017	.0004	.0001
%RSD	2.001	1.234	1.173	.8088	14.43	5.681	10.91	15.93	8.974
#1	186.2	288.9	196.6	197.8	.0041	.0023	.0162	-.0028	-.0010
#2	192.2	293.1	199.7	195.4	.0032	.0026	.0172	-.0027	-.0008
#3	185.3	286.0	195.2	194.9	.0043	.0023	.0139	-.0021	-.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 9/11/2019 10:03:32 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0020**	**.0083**	**-.0013**	**.0038**	**-.0114**	**-.0012**	**.0126**
Stddev	.0001	.0010	.0003	.0010	.0006	.0006	.0006	.0034
%RSD	22.46	48.60	3.124	77.68	14.44	5.603	49.81	27.21
#1	-.0007	.0012	.0080	-.0004	.0045	-.0107	-.0019	.0165
#2	-.0005	.0031	.0085	-.0011	.0035	-.0118	-.0008	.0101
#3	-.0004	.0016	.0083	-.0023	.0035	-.0116	-.0010	.0112
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**176060.**	**34960.**	**8449.1**	**11056.**
Stddev	3929.	423.	36.7	29.
%RSD	2.2318	1.2112	.43460	.25821
#1	172680.	34973.	8409.4	11028.
#2	175140.	34531.	8481.8	11085.
#3	180370.	35377.	8456.1	11056.

Zoom In Zoom Out

Sample Name: FECONF Acquired: 9/11/2019 10:09:01 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0002**	**.0007**	**.0002**	**.0001**	**-.0017**	**-.0004**	**-.0000**	**.0018**
Stddev	.0001	.0001	.0001	.0002	.0002	.0007	.0001	.0002	.0004
%RSD	408.8	23.77	16.96	112.5	357.9	41.29	23.11	998.5	23.96
#1	-.0001	.0003	.0006	.0002	-.0002	-.0017	-.0005	.0002	.0020
#2	.0001	.0002	.0009	-.0000	.0003	-.0010	-.0003	-.0003	.0022
#3	-.0001	.0002	.0007	.0005	.0001	-.0024	-.0003	.0000	.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0008**	**.0007**	**.0029**	**-.0010**	**-.0005**	**.0005**	**-.0095**	**.0045**
Stddev	.0001	.0000	.0002	.0013	.0003	.0014	.0006	.0037	.0005
%RSD	20.99	5.012	31.72	44.72	27.39	298.3	118.0	39.08	11.80
#1	.0005	-.0008	.0004	.0043	-.0012	.0011	.0002	-.0060	.0046
#2	.0007	-.0009	.0008	.0019	-.0007	-.0010	.0011	-.0133	.0039
#3	.0005	-.0008	.0008	.0023	-.0012	-.0016	.0001	-.0091	.0050

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**198.9**	**-.0251**	**-.0529**	**-.2943**	**.0016**	**.0012**	**.0062**	**.0009**	**-.0000**
Stddev	2.4	.0072	.0411	.0073	.0002	.0001	.0012	.0004	.0001
%RSD	1.230	28.51	77.80	2.498	13.03	5.691	20.21	48.49	148.0
#1	199.4	-.0248	-.0057	-.2995	.0019	.0012	.0073	.0010	-.0000
#2	201.1	-.0324	-.0812	-.2859	.0015	.0012	.0063	.0012	.0000
#3	196.3	-.0181	-.0718	-.2974	.0015	.0011	.0048	.0004	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0006**	**.0082**	**-.0272**	**.0074**	**-.0168**	**.0033**	**.0107**
Stddev	.0003	.0004	.0000	.0008	.0012	.0006	.0004	.0030
%RSD	388.3	58.92	.4780	2.804	16.05	3.604	13.42	28.10
#1	.0003	-.0003	.0082	-.0279	.0061	-.0174	.0038	.0087
#2	-.0004	-.0010	.0083	-.0273	.0083	-.0166	.0029	.0093
#3	-.0001	-.0006	.0082	-.0264	.0078	-.0163	.0033	.0142

Zoom In Zoom Out

Sample Name: FECONF Acquired: 9/11/2019 10:09:01 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**196100.**	**35986.**	**9255.7**	**13378.**
Stddev	777.	176.	36.7	51.
%RSD	.39602	.48896	.39691	.38135
#1	196990.	36133.	9213.4	13321.
#2	195570.	35791.	9274.8	13395.
#3	195750.	36035.	9279.0	13418.

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 9/11/2019 10:14:10 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0000**	**-.0007**	F **10.18**	**.0011**	**.0002**	**.0002**
Stddev	.0001	.0000	.0000	.0002	.16	.0003	.0000	.0001
%RSD	94.72	121.2	121.7	21.89	1.586	24.63	20.90	35.54
#1	.0001	.0001	.0000	-.0009	10.15	.0009	.0002	.0003
#2	.0000	-.0000	.0001	-.0006	10.36	.0015	.0003	.0001
#3	.0003	.0001	-.0000	-.0006	10.04	.0010	.0002	.0003

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0012**	**.0390**	**-.0017**	**.0010**	**-.0009**	**.0004**	F **-.0038**
Stddev	.0001	.0003	.0006	.0007	.0003	.0003	.0011	.0027
%RSD	11.09	22.26	1.424	41.15	30.28	31.94	260.7	70.29
#1	-.0006	.0010	.0389	-.0013	.0007	-.0008	-.0004	-.0030
#2	-.0007	.0015	.0396	-.0024	.0009	-.0012	.0000	-.0069
#3	-.0008	.0011	.0385	-.0012	.0013	-.0006	.0016	-.0016

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0135**	**.1439**	**.0218**	**.0133**	**-.1185**	**-.3504**	**.0029**	**.0018**
Stddev	.0052	.0017	.0006	.0115	.0227	.0067	.0005	.0000
%RSD	38.41	1.168	2.816	86.22	19.15	1.925	17.06	2.475
#1	.0100	.1454	.0224	.0235	-.0986	-.3427	.0028	.0018
#2	.0111	.1442	.0212	.0009	-.1432	-.3531	.0034	.0018
#3	.0194	.1421	.0218	.0157	-.1137	-.3553	.0024	.0018

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0111**	**-.0002**	**.0002**	**-.0012**	**.0040**	**.0036**	**.0073**	**.0002**
Stddev	.0004	.0002	.0000	.0002	.0005	.0002	.0007	.0002
%RSD	3.225	112.5	7.551	18.82	11.47	5.809	9.034	76.45
#1	.0114	.0000	.0003	-.0014	.0045	.0035	.0074	.0002
#2	.0107	-.0002	.0002	-.0012	.0039	.0038	.0079	.0001
#3	.0113	-.0004	.0002	-.0010	.0036	.0034	.0066	.0004

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 9/11/2019 10:14:10 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0003**	**.0023**	**.0009**
Stddev	.0018	.0002	.0007
%RSD	615.5	10.20	81.83
#1	-.0021	.0025	.0009
#2	-.0002	.0025	.0001
#3	.0015	.0020	.0016

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**197900.**	**36427.**	**9127.5**	**13227.**
Stddev	2124.	210.	51.2	60.
%RSD	1.0733	.57560	.56064	.45059
#1	198960.	36187.	9175.4	13284.
#2	195450.	36514.	9073.6	13165.
#3	199280.	36579.	9133.6	13230.

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 9/11/2019 10:26:03 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0000**	**.0001**	**.0001**	**-.0000**	**-.0003**	**.0000**	**.0004**	**-.0002**
Stddev	.0002	.0001	.0003	.0001	.0002	.0003	.0000	.0001	.0002
%RSD	238.3	2413.	200.1	190.1	1036.	93.50	123.5	35.83	88.51
#1	-.0003	-.0001	.0001	.0002	.0000	-.0002	-.0000	.0002	-.0002
#2	.0001	.0000	-.0001	-.0000	.0001	-.0001	.0000	.0005	-.0000
#3	-.0001	.0000	.0004	.0000	-.0002	-.0006	.0000	.0004	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0001**	**5.063**	**-.0005**	**-.0002**	**.0010**	**.0010**	**.0010**	**-.0421**
Stddev	.0002	.0000	.053	.0006	.0003	.0007	.0016	.0095	.0012
%RSD	72.92	35.26	1.050	115.1	171.3	71.41	167.9	943.8	2.888
#1	-.0002	.0002	5.003	-.0004	-.0005	.0008	.0002	.0060	-.0408
#2	-.0001	.0001	5.079	-.0011	-.0000	.0004	-.0002	.0069	-.0432
#3	-.0004	.0001	5.106	.0000	.0000	.0017	.0028	-.0099	-.0423

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0027**	**.0038**	**-.1774**	**-.4188**	**.0018**	**.0001**	**.0025**	**-.0005**	**.0000**
Stddev	.0015	.0042	.0576	.0025	.0006	.0000	.0004	.0002	.0001
%RSD	57.66	111.0	32.48	.5938	31.70	32.46	14.25	37.91	400.6
#1	.0036	.0084	-.1922	-.4211	.0024	.0001	.0023	-.0007	.0001
#2	.0009	.0029	-.1138	-.4192	.0017	.0000	.0023	-.0003	.0000
#3	.0035	.0001	-.2261	-.4162	.0012	.0000	.0029	-.0005	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0013**	**.0001**	**.0032**	**-.0002**	**.0002**	**.0010**	**-.0007**
Stddev	.0001	.0004	.0001	.0014	.0008	.0016	.0004	.0010
%RSD	45.85	31.16	93.58	45.67	394.0	828.7	43.55	147.9
#1	.0002	-.0009	.0003	.0037	-.0009	-.0012	.0005	-.0018
#2	.0004	-.0017	.0001	.0015	-.0004	.0019	.0013	-.0004
#3	.0002	-.0014	.0000	.0043	.0007	-.0001	.0011	.0001

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 9/11/2019 10:26:03 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**196320.**	**36667.**	**9355.2**	**13285.**
Stddev	1259.	17.	71.8	97.
%RSD	.64130	.04745	.76794	.72773
#1	194890.	36679.	9437.7	13396.
#2	197250.	36647.	9306.9	13230.
#3	196830.	36674.	9320.9	13228.

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/11/2019 10:31:06 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.028**	**2.039**	**1.990**	**2.024**	**1.984**	**1.972**	**2.019**	**2.031**	**.2452**
Stddev	.005	.011	.006	.007	.015	.020	.007	.009	.0022
%RSD	.2662	.5192	.3144	.3529	.7317	1.022	.3673	.4418	.8997
#1	2.031	2.041	1.997	2.032	2.001	1.993	2.013	2.041	.2478
#2	2.031	2.048	1.989	2.019	1.974	1.954	2.027	2.024	.2439
#3	2.022	2.027	1.985	2.020	1.978	1.968	2.017	2.027	.2439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.975**	**2.017**	**1.981**	**2.064**	**2.019**	**2.005**	**1.985**	**39.57**	**40.15**
Stddev	.016	.009	.006	.012	.007	.008	.004	.11	.08
%RSD	.7914	.4498	.3048	.5640	.3723	.3931	.1935	.2812	.1876
#1	1.993	2.028	1.988	2.076	2.027	2.014	1.987	39.63	40.16
#2	1.965	2.013	1.977	2.053	2.015	2.002	1.987	39.64	40.22
#3	1.967	2.011	1.978	2.065	2.014	2.000	1.981	39.44	40.07
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.20**	**39.79**	**39.48**	**39.51**	**2.017**	**1.988**	**5.152**	**2.011**	**2.002**
Stddev	.11	.10	.11	.09	.006	.008	.015	.009	.005
%RSD	.2624	.2532	.2833	.2292	.3170	.3933	.2988	.4532	.2478
#1	40.23	39.80	39.52	39.51	2.024	1.997	5.170	2.020	2.005
#2	40.28	39.88	39.57	39.59	2.012	1.983	5.145	2.010	2.005
#3	40.08	39.68	39.35	39.41	2.014	1.983	5.141	2.002	1.996
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/11/2019 10:31:06 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.963**	**1.956**	**1.996**	**1.973**	**2.008**	**1.959**	**1.984**	**1.972**
Stddev	.015	.007	.017	.006	.005	.006	.010	.013
%RSD	.7445	.3692	.8516	.3253	.2567	.2883	.5093	.6604
#1	1.979	1.964	2.016	1.980	2.013	1.960	1.995	1.987
#2	1.950	1.954	1.985	1.967	2.003	1.964	1.978	1.962
#3	1.961	1.950	1.988	1.974	2.008	1.953	1.977	1.968
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**188540.**	**35391.**	**8957.3**	**12104.**
Stddev	996.	96.	19.4	30.
%RSD	.52815	.26993	.21694	.24774
#1	187440.	35406.	8936.3	12075.
#2	188800.	35289.	8974.7	12135.
#3	189380.	35478.	8960.9	12101.

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/11/2019 10:36:11 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0002**	**.0003**	**.0002**	**.0003**	**-.0003**	**.0003**	**.0004**	**-.0004**
Stddev	.0001	.0001	.0002	.0001	.0002	.0003	.0000	.0002	.0001
%RSD	19.74	24.22	58.88	39.42	66.32	84.22	8.720	36.80	28.13
#1	.0004	.0002	.0003	.0001	.0004	-.0002	.0003	.0005	-.0003
#2	.0004	.0003	.0001	.0002	.0001	-.0007	.0003	.0005	-.0004
#3	.0005	.0002	.0005	.0003	.0003	-.0002	.0003	.0002	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0000**	**-.0006**	**.0011**	**-.0001**	**.0016**	**.0005**	**.0050**	**.0030**
Stddev	.0003	.0000	.0002	.0004	.0003	.0022	.0017	.0044	.0003
%RSD	153.4	84.25	37.63	40.13	482.2	132.8	319.0	88.10	10.68
#1	-.0000	-.0000	-.0008	.0010	.0001	-.0002	.0016	.0001	.0028
#2	-.0005	-.0000	-.0003	.0016	-.0005	.0040	.0014	.0084	.0034
#3	-.0000	-.0000	-.0006	.0007	.0001	.0011	-.0014	.0064	.0030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0058**	**.0043**	**-.1607**	**-.4405**	**.0028**	**.0004**	**.0009**	**.0005**	**.0001**
Stddev	.0006	.0048	.0305	.0220	.0001	.0001	.0001	.0002	.0000
%RSD	10.29	110.9	18.96	4.996	2.240	27.22	11.71	36.69	30.63
#1	.0063	.0097	-.1439	-.4561	.0028	.0006	.0007	.0004	.0002
#2	.0051	.0005	-.1958	-.4153	.0029	.0005	.0009	.0004	.0001
#3	.0058	.0027	-.1423	-.4501	.0027	.0003	.0009	.0007	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/11/2019 10:36:11 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0008**	**.0005**	**-.0011**	**-.0006**	**-.0008**	**.0026**	**.0012**
Stddev	.0001	.0003	.0003	.0017	.0013	.0008	.0005	.0002
%RSD	10.76	39.78	54.27	151.7	234.6	95.27	18.87	19.02
#1	.0006	-.0005	.0006	.0008	.0001	-.0017	.0032	.0011
#2	.0005	-.0008	.0002	-.0017	.0003	-.0002	.0025	.0015
#3	.0005	-.0011	.0006	-.0025	-.0021	-.0006	.0022	.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**196110.**	**36003.**	**9320.9**	**13222.**
Stddev	1526.	86.	35.5	50.
%RSD	.77805	.23994	.38077	.38098
#1	197290.	35907.	9280.2	13163.
#2	196650.	36027.	9337.6	13251.
#3	194380.	36075.	9345.0	13251.

Zoom In Zoom Out

Sample Name: mp17228-mb1 5 Acquired: 9/11/2019 10:41:14 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0001**	**.0002**	**.0001**	**.0008**	**.0005**	**.0003**	**.0006**	**-.0005**
Stddev	.0003	.0000	.0001	.0001	.0002	.0003	.0000	.0001	.0002
%RSD	75.07	39.28	48.38	70.41	22.70	69.72	11.36	17.57	37.26
#1	.0001	.0001	.0001	.0001	.0010	.0001	.0003	.0005	-.0003
#2	.0004	.0001	.0002	.0000	.0008	.0007	.0003	.0007	-.0005
#3	.0006	.0001	.0002	.0002	.0007	.0007	.0004	.0008	-.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0087**	**-.0002**	**.0009**	**-.0001**	**.0012**	**.0001**	**.0088**	**.0634**
Stddev	.0003	.0002	.0007	.0008	.0000	.0007	.0009	.0087	.0005
%RSD	53.94	1.799	308.3	89.95	10.84	56.75	1537.	99.43	.8503
#1	-.0002	.0086	-.0011	.0008	-.0001	.0020	-.0006	.0189	.0640
#2	-.0005	.0087	.0003	.0018	-.0001	.0007	-.0003	.0038	.0630
#3	-.0007	.0089	.0001	.0002	-.0001	.0010	.0011	.0037	.0632

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0210**	**.0196**	**-.1378**	**-.4114**	**.0033**	**.0005**	**.0103**	**.0151**	**.0003**
Stddev	.0004	.0029	.0182	.0118	.0003	.0001	.0006	.0003	.0001
%RSD	1.787	15.03	13.23	2.869	8.598	23.06	5.654	1.725	25.61
#1	.0214	.0178	-.1581	-.4039	.0030	.0007	.0107	.0149	.0003
#2	.0208	.0230	-.1326	-.4250	.0036	.0005	.0096	.0154	.0002
#3	.0208	.0179	-.1228	-.4053	.0033	.0004	.0105	.0150	.0004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**-.0017**	**.0010**	**.0136**	**-.0011**	**-.0019**	**.0178**	**.0015**
Stddev	.0002	.0007	.0001	.0010	.0004	.0013	.0009	.0033
%RSD	25.47	41.48	6.446	7.247	34.28	72.51	4.890	220.2
#1	.0006	-.0017	.0010	.0129	-.0013	-.0031	.0177	.0052
#2	.0009	-.0010	.0010	.0147	-.0007	-.0004	.0169	-.0010
#3	.0007	-.0023	.0009	.0131	-.0013	-.0020	.0187	.0002

Zoom In Zoom Out

Sample Name: mp17228-mb1 5 Acquired: 9/11/2019 10:41:14 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**198090.**	**36611.**	**9325.8**	**13216.**
Stddev	1367.	306.	56.6	71.
%RSD	.69012	.83704	.60672	.53631
#1	196550.	36334.	9389.4	13293.
#2	198550.	36560.	9307.0	13202.
#3	199170.	36940.	9281.0	13153.

Zoom In Zoom Out

Sample Name: mp17228-b1 Acquired: 9/11/2019 10:46:15 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.007**	**2.008**	**1.961**	**1.986**	**1.954**	**1.964**	**1.982**	**1.993**
Stddev	.007	.018	.009	.010	.021	.020	.024	.009
%RSD	.3281	.8879	.4631	.4874	1.059	1.022	1.188	.4715
#1	2.014	2.025	1.968	1.994	1.971	1.981	2.005	2.001
#2	2.005	1.989	1.965	1.989	1.958	1.970	1.982	1.994
#3	2.001	2.009	1.951	1.975	1.931	1.942	1.958	1.982

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2364**	**1.936**	**1.983**	**1.971**	**2.060**	**2.004**	**1.969**	**1.991**
Stddev	.0026	.019	.013	.008	.012	.010	.011	.011
%RSD	1.116	1.000	.6358	.4076	.5654	.4788	.5661	.5608
#1	.2386	1.955	1.992	1.976	2.069	2.013	1.980	2.002
#2	.2370	1.937	1.988	1.974	2.064	2.006	1.970	1.993
#3	.2335	1.916	1.968	1.961	2.047	1.994	1.958	1.979

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.28**	**24.72**	**24.76**	**24.42**	**24.17**	**24.18**	**1.944**	**1.971**
Stddev	.07	.07	.07	.06	.07	.09	.009	.009
%RSD	.2840	.2730	.2652	.2369	.2748	.3701	.4663	.4605
#1	24.35	24.79	24.83	24.48	24.24	24.27	1.950	1.978
#2	24.28	24.72	24.75	24.41	24.16	24.18	1.949	1.975
#3	24.22	24.66	24.70	24.37	24.11	24.09	1.934	1.961

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020**	**2.046**	**1.979**	**1.969**	**1.289**	**2.001**	**.0054**	**.0492**
Stddev	.0010	.010	.006	.024	.011	.020	.0015	.0014
%RSD	51.53	.5064	.3134	1.194	.8458	.9881	28.90	2.808
#1	.0027	2.052	1.985	1.988	1.276	2.021	.0056	.0499
#2	.0008	2.051	1.978	1.975	1.295	2.002	.0037	.0500
#3	.0025	2.034	1.973	1.943	1.296	1.981	.0068	.0476

Zoom In Zoom Out

Sample Name: mp17228-b1 Acquired: 9/11/2019 10:46:15 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0013**	**1.940**	W **-.0744**
Stddev	.0001	.010	.0013
%RSD	11.01	.5383	1.723
#1	-.0012	1.948	-.0750
#2	-.0012	1.945	-.0754
#3	-.0014	1.928	-.0730

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**191830.**	**35863.**	**9075.9**	**12397.**
Stddev	2105.	141.	53.0	62.
%RSD	1.0971	.39299	.58365	.50368
#1	190160.	35750.	9044.6	12351.
#2	191130.	35819.	9046.0	12371.
#3	194190.	36021.	9137.1	12468.

Zoom In Zoom Out

Sample Name: mp17228-s1 Acquired: 9/11/2019 10:51:16 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.184**	**1.952**	**1.945**	**1.985**	**2.073**	**2.097**	**2.980**	**2.024**	**.2397**
Stddev	.013	.012	.002	.004	.008	.006	.035	.002	.0005
%RSD	.5851	.6221	.0963	.1860	.3709	.2756	1.190	.0834	.2018
#1	2.172	1.940	1.944	1.981	2.082	2.104	3.019	2.022	.2402
#2	2.182	1.950	1.947	1.988	2.068	2.094	2.949	2.025	.2396
#3	2.197	1.964	1.944	1.987	2.071	2.094	2.974	2.024	.2392

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.052**	**2.474**	**1.959**	**2.001**	**2.144**	**1.919**	**1.401**	**103.2**	**41.37**
Stddev	.006	.002	.004	.000	.001	.002	.002	.5	.20
%RSD	.3074	.0659	.1990	.0127	.0651	.1155	.1219	.5247	.4898
#1	2.059	2.473	1.955	2.001	2.142	1.917	1.403	102.6	41.20
#2	2.049	2.476	1.963	2.001	2.145	1.921	1.400	103.1	41.33
#3	2.047	2.473	1.960	2.002	2.144	1.918	1.401	103.7	41.59

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**107.4**	**34.00**	**29.29**	**24.74**	**1.923**	**1.892**	**3.072**	**1.924**	**2.032**
Stddev	.7	.14	.14	.14	.002	.003	.018	.004	.007
%RSD	.6357	.3971	.4841	.5661	.1171	.1756	.5751	.1812	.3363
#1	108.0	33.88	29.15	24.61	1.921	1.888	3.057	1.920	2.025
#2	107.4	33.98	29.29	24.72	1.924	1.894	3.092	1.926	2.032
#3	106.6	34.15	29.43	24.89	1.925	1.893	3.068	1.925	2.038

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.177**	**1.032**	**1.655**	**.8925**	**.1493**	**.0434**	**3.568**	**.1611**
Stddev	.013	.003	.004	.0017	.0015	.0011	.002	.0006
%RSD	.2988	.2456	.2578	.1866	1.019	2.629	.0580	.3874
#1	4.191	1.032	1.660	.8939	.1495	.0426	3.570	.1618
#2	4.167	1.035	1.654	.8907	.1507	.0447	3.569	.1606
#3	4.172	1.030	1.652	.8931	.1477	.0430	3.566	.1609

Zoom In Zoom Out

Sample Name: mp17228-s1 Acquired: 9/11/2019 10:51:16 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**189960.**	**36735.**	**9038.9**	**12101.**
Stddev	586.	168.	3.4	4.
%RSD	.30850	.45864	.03778	.03588
#1	189620.	36901.	9036.2	12097.
#2	190640.	36740.	9037.7	12101.
#3	189620.	36564.	9042.7	12105.

Zoom In Zoom Out

Sample Name: mp17228-s2 Acquired: 9/11/2019 10:56:19 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.192**	**1.935**	**1.947**	**1.992**	**2.087**	**2.150**	**3.155**	**2.037**	**.2408**
Stddev	.006	.023	.003	.004	.026	.022	.021	.004	.0025
%RSD	.2575	1.192	.1434	.1802	1.244	1.011	.6697	.1813	1.050
#1	2.197	1.952	1.944	1.988	2.089	2.151	3.153	2.033	.2413
#2	2.193	1.909	1.950	1.994	2.061	2.128	3.134	2.038	.2381
#3	2.186	1.945	1.947	1.993	2.113	2.171	3.176	2.040	.2430

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.067**	**2.566**	**1.966**	**2.012**	**2.153**	**1.924**	**1.372**	**110.7**	**42.20**
Stddev	.025	.003	.002	.004	.002	.002	.002	.3	.15
%RSD	1.229	.1025	.0782	.1960	.0808	.0802	.1549	.2816	.3671
#1	2.066	2.565	1.964	2.007	2.152	1.922	1.372	111.1	42.37
#2	2.042	2.569	1.967	2.015	2.155	1.925	1.375	110.6	42.15
#3	2.093	2.564	1.966	2.012	2.153	1.923	1.371	110.5	42.07

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**120.7**	**34.80**	**29.83**	**24.81**	**1.910**	**1.890**	**3.278**	**1.928**	**2.032**
Stddev	1.3	.11	.12	.10	.001	.002	.037	.004	.005
%RSD	1.054	.3056	.4068	.4091	.0541	.0943	1.135	.1911	.2456
#1	121.9	34.92	29.96	24.92	1.909	1.888	3.304	1.928	2.037
#2	119.4	34.72	29.73	24.80	1.911	1.891	3.236	1.932	2.031
#3	120.8	34.76	29.80	24.72	1.911	1.890	3.295	1.925	2.027

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.194**	**1.017**	**1.670**	**.9767**	**.1505**	**.0457**	**3.720**	**.1818**
Stddev	.051	.001	.020	.0028	.0050	.0012	.006	.0026
%RSD	1.226	.0899	1.190	.2872	3.307	2.529	.1551	1.423
#1	4.201	1.017	1.670	.9743	.1516	.0452	3.714	.1842
#2	4.139	1.018	1.650	.9798	.1451	.0470	3.725	.1790
#3	4.241	1.017	1.690	.9760	.1549	.0449	3.721	.1821

Zoom In Zoom Out

Sample Name: mp17228-s2 Acquired: 9/11/2019 10:56:19 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**189530.**	**35995.**	**9013.5**	**12052.**
Stddev	2672.	238.	11.1	9.
%RSD	1.4096	.66241	.12306	.07261
#1	189270.	35734.	9010.1	12051.
#2	192330.	36201.	9004.5	12044.
#3	187000.	36051.	9025.9	12062.

Zoom In Zoom Out

Sample Name: jc94464-2 Acquired: 9/11/2019 11:01:25 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1855**	**.0021**	**.0113**	**.0276**	**.1465**	**.1593**	**1.119**	**.0585**	**.0066**
Stddev	.0004	.0000	.0001	.0000	.0006	.0008	.005	.0002	.0001
%RSD	.2370	.3710	.7008	.1503	.3971	.5201	.4786	.3009	2.202
#1	.1858	.0021	.0113	.0277	.1459	.1584	1.113	.0587	.0067
#2	.1856	.0021	.0114	.0276	.1466	.1594	1.122	.0585	.0065
#3	.1850	.0021	.0112	.0276	.1471	.1600	1.122	.0584	.0067

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1280**	**.4934**	**.0329**	**.0025**	**.1583**	**.0025**	**.0025**	**58.66**	**19.74**
Stddev	.0009	.0017	.0006	.0003	.0009	.0010	.0003	.24	.09
%RSD	.7209	.3501	1.878	11.67	.5862	40.88	13.72	.4061	.4375
#1	.1271	.4946	.0327	.0023	.1593	.0018	.0022	58.85	19.81
#2	.1280	.4942	.0324	.0028	.1580	.0037	.0024	58.73	19.76
#3	.1290	.4914	.0336	.0025	.1575	.0020	.0029	58.39	19.65

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**74.62**	**9.119**	**3.268**	**.3339**	**.0311**	**.0056**	**2.479**	**.0263**	**.1029**
Stddev	.37	.052	.020	.0051	.0005	.0002	.040	.0003	.0004
%RSD	.4908	.5676	.6216	1.525	1.635	3.804	1.612	1.029	.3533
#1	74.93	9.165	3.290	.3396	.0316	.0058	2.507	.0262	.1033
#2	74.72	9.129	3.266	.3298	.0310	.0055	2.433	.0260	.1028
#3	74.21	9.063	3.249	.3324	.0305	.0054	2.496	.0266	.1026

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.713**	**.0107**	**.0115**	**.9400**	**.0703**	**.0364**	**1.739**	**.2097**
Stddev	.007	.0007	.0004	.0041	.0010	.0006	.005	.0004
%RSD	.3924	6.085	3.317	.4350	1.358	1.619	.3043	.2068
#1	1.705	.0113	.0119	.9438	.0711	.0366	1.743	.2095
#2	1.718	.0109	.0114	.9406	.0706	.0369	1.742	.2094
#3	1.715	.0100	.0112	.9356	.0692	.0358	1.733	.2102

Zoom In Zoom Out

Sample Name: jc94464-2 Acquired: 9/11/2019 11:01:25 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**197540.**	**37168.**	**9371.7**	**12663.**
Stddev	748.	370.	28.6	45.
%RSD	.37887	.99652	.30532	.35646
#1	198330.	37018.	9343.1	12613.
#2	197470.	36896.	9371.7	12677.
#3	196840.	37590.	9400.3	12700.

Zoom In Zoom Out

Sample Name: mp17228-sd1 Acquired: 9/11/2019 11:06:19 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1832**	**.0020**	**.0110**	**.0267**	**.1472**	**.1538**	**1.119**	**.0573**	**.0033**
Stddev	.0004	.0001	.0006	.0006	.0010	.0012	.006	.0003	.0019
%RSD	.2348	3.255	5.852	2.358	.6974	.7956	.5203	.5015	58.65
#1	.1834	.0019	.0107	.0260	.1483	.1541	1.125	.0572	.0019
#2	.1835	.0019	.0105	.0273	.1462	.1549	1.116	.0571	.0055
#3	.1827	.0020	.0117	.0267	.1471	.1525	1.114	.0576	.0025

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1271**	**.4969**	**.0334**	**.0070**	**.1531**	**.0056**	**.0023**	**57.95**	**19.73**
Stddev	.0024	.0011	.0057	.0024	.0063	.0008	.0026	.19	.06
%RSD	1.857	.2122	16.95	33.76	4.117	14.71	111.8	.3298	.2858
#1	.1282	.4976	.0279	.0046	.1593	.0061	.0017	58.10	19.77
#2	.1288	.4973	.0392	.0073	.1467	.0061	.0051	57.74	19.66
#3	.1244	.4957	.0331	.0093	.1533	.0047	.0001	58.03	19.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**74.58**	**9.176**	**2.421**	**-1.727**	**.0412**	**.0072**	**2.612**	**.0265**	**.1026**
Stddev	.17	.042	.084	.034	.0028	.0000	.061	.0016	.0005
%RSD	.2321	.4604	3.486	1.951	6.709	.2867	2.338	5.868	.4923
#1	74.73	9.130	2.516	-1.746	.0382	.0072	2.680	.0283	.1031
#2	74.39	9.185	2.355	-1.688	.0437	.0072	2.595	.0256	.1021
#3	74.60	9.213	2.393	-1.746	.0416	.0072	2.562	.0257	.1024

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.677**	**.0436**	**.0118**	**.9287**	**.0632**	**.0325**	**1.721**	**.2065**
Stddev	.006	.0032	.0005	.0060	.0019	.0058	.003	.0044
%RSD	.3419	7.305	4.102	.6489	2.967	18.00	.1764	2.148
#1	1.683	.0472	.0123	.9246	.0621	.0317	1.719	.2033
#2	1.677	.0425	.0113	.9356	.0621	.0270	1.720	.2116
#3	1.672	.0412	.0118	.9257	.0654	.0386	1.725	.2046

Zoom In Zoom Out

Sample Name: mp17228-sd1 Acquired: 9/11/2019 11:06:19 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**197650.**	**36749.**	**9284.0**	**12920.**
Stddev	1383.	199.	14.9	12.
%RSD	.69994	.54115	.16030	.08926
#1	196060.	36657.	9295.1	12926.
#2	198310.	36978.	9267.1	12907.
#3	198570.	36614.	9289.8	12928.

Zoom In Zoom Out

Sample Name: jc94464-1 Acquired: 9/11/2019 11:11:17 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1949**	**.0023**	**.0128**	**.0223**	**.1850**	**.2897**	**1.020**	**.0561**	**.0421**
Stddev	.0002	.0001	.0000	.0003	.0021	.0032	.012	.0006	.0003
%RSD	.0836	3.900	.3191	1.134	1.129	1.108	1.202	1.096	.8068
#1	.1949	.0024	.0129	.0224	.1866	.2918	1.029	.0562	.0424
#2	.1951	.0023	.0128	.0220	.1827	.2860	1.006	.0554	.0417
#3	.1947	.0022	.0128	.0224	.1859	.2914	1.024	.0566	.0422

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1241**	**.3584**	**.0564**	**.0024**	**.2005**	**.0037**	**.0019**	**57.92**	**14.48**
Stddev	.0017	.0014	.0004	.0003	.0027	.0010	.0016	.04	.02
%RSD	1.360	.3954	.6303	12.09	1.333	26.71	85.41	.0762	.1107
#1	.1255	.3594	.0563	.0022	.2024	.0048	.0038	57.93	14.50
#2	.1222	.3568	.0562	.0021	.1974	.0035	.0011	57.95	14.48
#3	.1246	.3591	.0568	.0027	.2016	.0029	.0008	57.87	14.47

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**74.92**	**7.195**	**2.922**	**.0724**	**.0161**	**.0052**	**1.905**	**.0325**	**.0844**
Stddev	.07	.016	.048	.0035	.0003	.0002	.017	.0001	.0001
%RSD	.0970	.2239	1.629	4.806	2.061	3.352	.9088	.3219	.1579
#1	74.98	7.177	2.933	.0745	.0163	.0052	1.885	.0324	.0843
#2	74.94	7.204	2.963	.0744	.0163	.0050	1.911	.0325	.0846
#3	74.84	7.205	2.870	.0684	.0157	.0053	1.918	.0325	.0843

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.642**	**.0055**	**.0079**	**1.019**	**.0672**	**.0367**	**2.105**	**.1840**
Stddev	.020	.0006	.0001	.005	.0013	.0006	.006	.0020
%RSD	1.196	10.45	1.880	.4476	1.885	1.513	.2952	1.060
#1	1.656	.0060	.0080	1.014	.0681	.0364	2.103	.1850
#2	1.620	.0049	.0078	1.024	.0658	.0374	2.099	.1817
#3	1.651	.0055	.0078	1.019	.0678	.0364	2.111	.1852

Zoom In Zoom Out

Sample Name: jc94464-1 Acquired: 9/11/2019 11:11:17 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**200300.**	**37250.**	**9194.2**	**12541.**
Stddev	2689.	181.	228.6	247.
%RSD	1.3426	.48692	2.4863	1.9694
#1	198050.	37329.	9353.7	12722.
#2	203280.	37379.	8932.3	12260.
#3	199580.	37043.	9296.7	12642.

Zoom In Zoom Out

Sample Name: ccv Acquired: 9/11/2019 11:16:13 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.994**	**1.980**	**1.998**	**2.022**	**1.960**	**1.950**	**1.992**	**2.031**	**.2422**
Stddev	.005	.031	.014	.010	.015	.015	.017	.008	.0014
%RSD	.2339	1.549	.6971	.4781	.7411	.7707	.8357	.3968	.5714
#1	1.990	1.944	1.982	2.011	1.976	1.967	1.987	2.022	.2435
#2	2.000	2.001	2.002	2.026	1.948	1.939	1.979	2.034	.2408
#3	1.993	1.994	2.009	2.029	1.956	1.945	2.011	2.037	.2423
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.949**	**2.021**	**1.981**	**2.068**	**2.020**	**2.016**	**1.988**	**38.89**	**39.38**
Stddev	.013	.014	.011	.007	.011	.011	.013	.08	.09
%RSD	.6800	.6692	.5472	.3412	.5557	.5572	.6467	.2004	.2349
#1	1.964	2.005	1.970	2.061	2.007	2.003	1.975	38.83	39.34
#2	1.939	2.026	1.982	2.070	2.024	2.020	1.988	38.98	39.49
#3	1.945	2.031	1.992	2.074	2.028	2.024	2.000	38.87	39.31
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.52**	**39.01**	**38.83**	**38.75**	**2.023**	**1.987**	**5.159**	**2.018**	**1.961**
Stddev	.07	.11	.10	.09	.013	.012	.033	.017	.005
%RSD	.1764	.2914	.2643	.2328	.6410	.6194	.6483	.8531	.2650
#1	39.47	38.95	38.71	38.69	2.009	1.973	5.123	1.999	1.959
#2	39.60	39.14	38.91	38.85	2.026	1.991	5.167	2.021	1.967
#3	39.50	38.94	38.85	38.70	2.035	1.997	5.188	2.033	1.957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 9/11/2019 11:16:13 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.937**	**1.975**	**1.975**	**1.982**	**2.013**	**1.923**	**1.985**	**1.945**
Stddev	.017	.013	.013	.015	.011	.003	.011	.016
%RSD	.8673	.6373	.6394	.7652	.5485	.1481	.5517	.8127
#1	1.956	1.961	1.989	1.965	2.001	1.923	1.973	1.961
#2	1.923	1.978	1.965	1.990	2.016	1.925	1.987	1.930
#3	1.933	1.986	1.971	1.992	2.022	1.920	1.994	1.943
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**187910.**	**35303.**	**8865.6**	**11991.**
Stddev	1512.	39.	54.5	51.
%RSD	.80435	.10928	.61485	.42694
#1	186960.	35331.	8928.6	12050.
#2	189660.	35259.	8833.9	11955.
#3	187130.	35319.	8834.4	11968.

Zoom In Zoom Out

Sample Name: ccb Acquired: 9/11/2019 11:21:14 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0002**	**.0003**	**.0002**	**.0003**	**-.0003**	**.0003**	**.0002**	**-.0002**
Stddev	.0001	.0000	.0001	.0002	.0001	.0002	.0000	.0000	.0000
%RSD	21.10	8.181	18.18	81.22	29.49	52.08	13.43	26.12	10.96
#1	.0006	.0002	.0003	.0002	.0003	-.0001	.0003	.0001	-.0002
#2	.0009	.0003	.0003	.0000	.0002	-.0003	.0003	.0001	-.0001
#3	.0006	.0002	.0002	.0003	.0003	-.0005	.0002	.0002	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0004**	**.0016**	**-.0008**	**.0020**	**.0005**	**.0016**	**.0025**
Stddev	.0001	.0001	.0011	.0002	.0003	.0011	.0003	.0063	.0017
%RSD	382.2	336.6	296.8	13.68	42.07	52.60	51.38	387.6	68.73
#1	.0000	.0000	.0008	.0015	-.0004	.0023	.0006	-.0020	.0044
#2	.0002	-.0001	.0013	.0014	-.0011	.0009	.0008	-.0020	.0012
#3	-.0001	.0001	-.0009	.0018	-.0008	.0030	.0002	.0088	.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0058**	**.0105**	**-.1881**	**-.4985**	**.0036**	**.0008**	**.0017**	**.0001**	**.0002**
Stddev	.0005	.0084	.0377	.0143	.0005	.0002	.0001	.0002	.0001
%RSD	9.433	79.80	20.04	2.860	12.53	20.24	7.950	401.9	33.67
#1	.0064	.0039	-.1942	-.4820	.0040	.0010	.0016	.0001	.0001
#2	.0056	.0200	-.2224	-.5061	.0037	.0008	.0018	.0002	.0003
#3	.0053	.0077	-.1478	-.5073	.0031	.0007	.0016	-.0002	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 9/11/2019 11:21:14 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	F **.0054**	**.0005**	**-.0030**	**-.0008**	**-.0008**	**.0026**	**.0002**
Stddev	.0003	.0005	.0002	.0016	.0012	.0012	.0008	.0030
%RSD	69.71	9.096	38.90	55.20	162.5	150.8	31.23	1292.
#1	.0007	.0055	.0005	-.0026	.0000	.0005	.0016	-.0021
#2	.0001	.0049	.0007	-.0047	-.0022	-.0010	.0029	-.0008
#3	.0006	.0059	.0003	-.0015	-.0001	-.0019	.0031	.0036
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0050						
Low Limit		-.0050						

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**192580.**	**35358.**	**9196.8**	**13051.**
Stddev	1342.	239.	67.7	81.
%RSD	.69664	.67591	.73587	.62000
#1	191540.	35467.	9170.0	13027.
#2	194090.	35084.	9146.5	12984.
#3	192100.	35523.	9273.7	13141.

Zoom In Zoom Out

Sample Name: jc94443-2fund Acquired: 9/11/2019 11:26:17 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7239**	F **-.0023**	**.0002**	**.0001**	**.0212**	**.0014**	**.2655**	**.0033**
Stddev	.0014	.0000	.0000	.0001	.0003	.0002	.0026	.0003
%RSD	.1981	2.083	23.31	89.32	1.209	15.24	.9622	9.751
#1	.7224	-.0024	.0002	.0002	.0215	.0013	.2667	.0036
#2	.7242	-.0023	.0002	.0000	.0212	.0016	.2672	.0030
#3	.7252	-.0024	.0002	.0001	.0210	.0012	.2626	.0034

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0015**	**.1855**	**.0030**	**.0017**	F **-.0032**	**-.0007**	**.0006**
Stddev	.0003	.0002	.0011	.0007	.0006	.0004	.0009	.0007
%RSD	37.22	16.56	.6122	22.53	35.38	13.69	139.5	125.6
#1	-.0012	.0013	.1862	.0022	.0013	-.0028	-.0003	.0003
#2	-.0010	.0014	.1861	.0033	.0015	-.0037	-.0017	.0001
#3	-.0005	.0017	.1842	.0034	.0024	-.0031	.0000	.0013

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0101**	F **321.9**	**.0177**	**8.247**	**33.67**	**188.0**	**.1367**	**.0011**
Stddev	.0128	2.1	.0012	.006	.07	.3	.0007	.0001
%RSD	126.6	.6518	6.834	.0778	.2214	.1616	.4920	10.80
#1	.0086	321.6	.0171	8.243	33.59	188.1	.1362	.0010
#2	-.0019	320.0	.0170	8.254	33.72	188.3	.1375	.0012
#3	.0236	324.2	.0191	8.244	33.71	187.7	.1365	.0012

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.45**	**-.0019**	**2.896**	**-.0018**	**.0041**	**-.0008**	**2.727**	**.0005**
Stddev	.06	.0003	.018	.0002	.0003	.0002	.012	.0009
%RSD	.5008	15.70	.6297	10.17	6.444	21.69	.4226	189.0
#1	11.46	-.0019	2.899	-.0018	.0038	-.0008	2.730	.0015
#2	11.51	-.0017	2.912	-.0017	.0043	-.0010	2.736	.0002
#3	11.39	-.0023	2.876	-.0020	.0043	-.0007	2.714	-.0002

Zoom In Zoom Out

Sample Name: jc94443-2fund Acquired: 9/11/2019 11:26:17 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0097**	**.0353**	**.0028**
Stddev	.0004	.0008	.0012
%RSD	3.895	2.137	44.94
#1	.0100	.0353	.0041
#2	.0093	.0360	.0016
#3	.0098	.0345	.0026

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**179750.**	**35694.**	**8470.3**	**11279.**
Stddev	1449.	92.	36.0	40.
%RSD	.80590	.25780	.42484	.35721
#1	178670.	35649.	8459.9	11266.
#2	179170.	35632.	8440.6	11248.
#3	181390.	35799.	8510.3	11325.

Zoom In Zoom Out

Sample Name: jc94443-3fund Acquired: 9/11/2019 11:31:38 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7226**	F **-.0023**	**.0003**	**-.0002**	**.0211**	**.0014**	**.2604**	**.0031**
Stddev	.0008	.0001	.0003	.0002	.0002	.0002	.0022	.0002
%RSD	.1143	2.540	88.02	62.62	.8331	16.39	.8545	7.282
#1	.7217	-.0023	.0001	-.0003	.0212	.0014	.2629	.0030
#2	.7233	-.0024	.0006	-.0004	.0209	.0011	.2596	.0033
#3	.7228	-.0024	.0002	-.0001	.0213	.0016	.2586	.0029

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0011**	**.0013**	**.1877**	**.0027**	**.0012**	F **-.0039**	**-.0008**	**.0014**
Stddev	.0003	.0002	.0054	.0005	.0010	.0005	.0006	.0009
%RSD	28.44	16.87	2.877	18.91	90.00	12.93	82.71	63.59
#1	-.0012	.0015	.1845	.0021	.0023	-.0044	-.0004	.0023
#2	-.0013	.0011	.1939	.0027	.0007	-.0034	-.0015	.0005
#3	-.0007	.0012	.1846	.0032	.0004	-.0040	-.0004	.0014

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	F **318.0**	**.0176**	**8.189**	**33.65**	**184.4**	**.1379**	**.0006**
Stddev	.0084	2.9	.0016	.028	.10	1.5	.0047	.0000
%RSD	433.4	.9204	9.207	.3362	.2863	.8379	3.403	6.421
#1	.0116	315.7	.0157	8.166	33.54	186.1	.1347	.0006
#2	-.0040	316.9	.0184	8.220	33.70	183.1	.1433	.0006
#3	-.0018	321.3	.0187	8.181	33.71	184.0	.1358	.0005

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.55**	**-.0019**	**2.911**	**-.0020**	**.0029**	**-.0009**	**2.746**	**.0011**
Stddev	.37	.0002	.028	.0000	.0002	.0001	.089	.0016
%RSD	3.245	10.75	.9711	1.226	7.146	17.02	3.238	152.0
#1	11.28	-.0020	2.890	-.0020	.0027	-.0010	2.679	.0005
#2	11.98	-.0016	2.900	-.0020	.0030	-.0009	2.847	.0029
#3	11.39	-.0020	2.943	-.0020	.0031	-.0007	2.712	-.0002

Zoom In Zoom Out

Sample Name: jc94443-3fund Acquired: 9/11/2019 11:31:38 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**.0107**	**.0363**	**.0016**
Stddev	.0007	.0008	.0020
%RSD	6.564	2.116	121.3
#1	.0114	.0355	.0003
#2	.0100	.0370	.0039
#3	.0107	.0364	.0007

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**180090.**	**35614.**	**8360.8**	**11170.**
Stddev	1524.	276.	226.8	246.
%RSD	.84645	.77360	2.7131	2.1981
#1	178350.	35905.	8503.8	11333.
#2	180760.	35357.	8099.3	10887.
#3	181170.	35580.	8479.4	11288.

Zoom In Zoom Out

Sample Name: mp17250-mb1 5 Acquired: 9/11/2019 11:37:01 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0023**	**.0002**	**.0004**	**.0001**	**.0012**	**.0058**	**.0009**	**.0034**	**-.0025**
Stddev	.0003	.0001	.0008	.0004	.0005	.0011	.0003	.0005	.0012
%RSD	11.35	97.03	175.6	318.1	38.90	19.29	27.93	16.00	47.23
#1	.0020	.0002	.0007	-.0003	.0015	.0063	.0007	.0028	-.0025
#2	.0024	-.0000	-.0004	.0003	.0014	.0045	.0012	.0035	-.0036
#3	.0025	.0002	.0010	.0004	.0006	.0067	.0008	.0039	-.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**.0306**	**.0009**	**.0012**	**-.0023**	**.0088**	**-.0024**	**.0148**	**.2635**
Stddev	.0014	.0007	.0021	.0066	.0024	.0050	.0041	.0012	.0054
%RSD	166.1	2.152	234.3	551.3	101.7	56.57	173.4	7.819	2.051
#1	-.0010	.0298	-.0012	.0088	-.0007	.0034	.0018	.0135	.2672
#2	-.0022	.0307	.0010	-.0031	-.0050	.0133	-.0065	.0157	.2573
#3	.0006	.0311	.0030	-.0022	-.0012	.0099	-.0025	.0151	.2660

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0269**	**.0534**	**-.0059**	F **1302.**	**.0125**	**.0003**	**.0861**	**.0020**	**.0014**
Stddev	.0030	.0448	.0999	23.	.0032	.0007	.0067	.0010	.0006
%RSD	11.02	84.01	1689.	1.745	25.32	255.5	7.799	51.48	42.17
#1	.0270	.0597	-.0983	1295.	.0127	.0011	.0854	.0016	.0010
#2	.0298	.0948	.1001	1327.	.0155	-.0000	.0798	.0012	.0011
#3	.0239	.0057	-.0196	1283.	.0092	-.0002	.0931	.0031	.0021

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0166**	**.0013**	**.0130**	**.0019**	**.0102**	**.0219**	**.0040**
Stddev	.0008	.0045	.0009	.0137	.0109	.0060	.0017	.0069
%RSD	95.67	27.44	63.19	105.6	581.8	58.88	7.835	172.9
#1	.0012	.0218	.0009	.0111	.0139	.0033	.0203	.0102
#2	-.0001	.0146	.0009	.0003	-.0012	.0131	.0218	-.0034
#3	.0013	.0133	.0023	.0276	-.0071	.0142	.0237	.0052

Zoom In Zoom Out

Sample Name: mp17250-mb1 5 Acquired: 9/11/2019 11:37:01 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**184180.**	**35852.**	**8777.7**	**11725.**
Stddev	2638.	237.	14.4	19.
%RSD	1.4321	.66218	.16360	.16052
#1	184440.	35935.	8774.7	11715.
#2	186670.	35584.	8765.1	11713.
#3	181420.	36036.	8793.3	11746.

Zoom In Zoom Out

Sample Name: mp17250-b1 Acquired: 9/11/2019 11:42:12 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.988**	**2.011**	**1.993**	**2.056**	**1.997**	**1.903**	**2.041**	**2.080**	**.2448**
Stddev	.018	.016	.004	.006	.023	.027	.028	.008	.0044
%RSD	.9051	.7928	.2063	.2800	1.150	1.406	1.391	.3843	1.812
#1	2.009	2.029	1.996	2.061	2.023	1.934	2.073	2.088	.2497
#2	1.977	1.999	1.995	2.057	1.991	1.891	2.030	2.079	.2413
#3	1.979	2.005	1.988	2.050	1.978	1.884	2.020	2.072	.2433

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.986**	**2.090**	**2.039**	**2.055**	**2.060**	**2.055**	**2.025**	**24.19**	**24.76**
Stddev	.026	.012	.013	.014	.008	.007	.013	.14	.19
%RSD	1.304	.5540	.6403	.6975	.4059	.3524	.6300	.5905	.7612
#1	2.014	2.101	2.050	2.065	2.069	2.054	2.037	24.35	24.97
#2	1.983	2.091	2.043	2.060	2.057	2.063	2.027	24.09	24.61
#3	1.962	2.078	2.025	2.038	2.053	2.049	2.012	24.12	24.69

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.91**	**24.30**	**24.72**	F **1296.**	**2.013**	**2.024**	**.1046**	**2.044**	**1.952**
Stddev	.16	.13	.16	21.	.010	.008	.0037	.010	.010
%RSD	.6380	.5468	.6557	1.586	.4786	.3900	3.506	.5013	.4977
#1	25.09	24.41	24.89	1273.	2.023	2.031	.1080	2.052	1.963
#2	24.80	24.15	24.57	1302.	2.013	2.027	.1050	2.049	1.948
#3	24.82	24.33	24.70	1313.	2.004	2.016	.1007	2.033	1.945

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.995**	**1.931**	**2.026**	**.0007**	**.0284**	**.0118**	**2.017**	**-.0749**
Stddev	.024	.010	.024	.0023	.0035	.0064	.010	.0079
%RSD	1.188	.5099	1.192	309.1	12.43	54.71	.4900	10.52
#1	2.022	1.942	2.053	.0032	.0324	.0179	2.028	-.0669
#2	1.988	1.923	2.019	.0005	.0256	.0050	2.013	-.0826
#3	1.976	1.929	2.006	-.0014	.0273	.0124	2.010	-.0751

Zoom In Zoom Out

Sample Name: mp17250-b1 Acquired: 9/11/2019 11:42:12 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**183960.**	**35802.**	**8811.8**	**11649.**
Stddev	2115.	19.	17.4	14.
%RSD	1.1498	.05202	.19724	.12147
#1	181580.	35811.	8814.3	11651.
#2	184720.	35813.	8793.3	11633.
#3	185600.	35780.	8827.8	11661.

Zoom In Zoom Out

Sample Name: mp17250-s1 Acquired: 9/11/2019 11:47:10 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.124**	**1.973**	**1.962**	**1.988**	**1.945**	**1.869**	**2.266**	**2.017**	**.2387**
Stddev	.036	.033	.012	.008	.009	.009	.013	.007	.0019
%RSD	1.706	1.679	.6218	.4206	.4686	.4611	.5788	.3658	.8032
#1	2.103	1.953	1.972	1.993	1.941	1.872	2.260	2.021	.2400
#2	2.166	2.011	1.966	1.993	1.955	1.875	2.282	2.021	.2397
#3	2.103	1.955	1.948	1.979	1.938	1.859	2.258	2.008	.2365

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.939**	**2.127**	**2.001**	**1.994**	**2.012**	**2.003**	**1.987**	**24.44**	**105.7**
Stddev	.006	.009	.008	.015	.011	.009	.016	.39	1.8
%RSD	.3341	.4399	.4066	.7376	.5629	.4615	.7925	1.611	1.730
#1	1.938	2.133	2.007	2.000	2.015	2.008	2.000	24.19	104.5
#2	1.946	2.132	2.005	2.005	2.021	2.010	1.990	24.90	107.8
#3	1.934	2.116	1.992	1.977	1.999	1.993	1.969	24.24	104.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.65**	**42.46**	**33.49**	F **1320.**	**2.014**	**1.989**	**4.326**	**1.997**	**2.119**
Stddev	.42	.78	.44	38.	.011	.009	.023	.012	.036
%RSD	1.718	1.841	1.300	2.880	.5659	.4624	.5293	.6077	1.703
#1	24.38	41.87	33.21	1289.	2.023	1.995	4.347	2.006	2.094
#2	25.14	43.34	33.99	1363.	2.017	1.993	4.329	2.001	2.160
#3	24.43	42.15	33.27	1309.	2.001	1.978	4.302	1.983	2.103

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.967**	**1.913**	**1.995**	**1.052**	**.0396**	**.0130**	**2.046**	**-.0568**
Stddev	.013	.019	.009	.012	.0020	.0007	.012	.0164
%RSD	.6834	.9729	.4618	1.172	5.015	5.415	.5686	28.95
#1	1.965	1.918	1.998	1.060	.0373	.0134	2.052	-.0725
#2	1.981	1.928	2.002	1.058	.0406	.0121	2.053	-.0581
#3	1.954	1.892	1.985	1.038	.0409	.0133	2.032	-.0397

Zoom In Zoom Out

Sample Name: mp17250-s1 Acquired: 9/11/2019 11:47:10 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**182760.**	**35370.**	**8785.0**	**11609.**
Stddev	1037.	703.	28.2	37.
%RSD	.56764	1.9870	.32115	.32300
#1	183950.	36115.	8783.8	11624.
#2	182020.	34718.	8757.5	11567.
#3	182320.	35277.	8813.8	11637.

Zoom In Zoom Out

Sample Name: mp17250-s2 Acquired: 9/11/2019 11:52:08 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.158**	**2.005**	**2.003**	**2.029**	**1.985**	**1.908**	**2.317**	**2.055**	**.2425**
Stddev	.012	.012	.008	.012	.002	.004	.004	.009	.0016
%RSD	.5649	.5790	.4057	.6054	.0989	.1818	.1643	.4392	.6702
#1	2.171	2.018	2.009	2.042	1.987	1.912	2.314	2.065	.2432
#2	2.156	2.003	2.005	2.027	1.983	1.905	2.315	2.055	.2406
#3	2.147	1.995	1.993	2.017	1.983	1.906	2.321	2.047	.2436

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.976**	**2.159**	**2.028**	**2.036**	**2.052**	**2.052**	**2.002**	**24.61**	**105.3**
Stddev	.002	.013	.002	.011	.010	.006	.014	.18	.6
%RSD	.0815	.6058	.1144	.5350	.5039	.2725	.7092	.7442	.5858
#1	1.977	2.173	2.031	2.045	2.064	2.055	2.013	24.82	106.0
#2	1.974	2.159	2.027	2.038	2.049	2.045	2.007	24.54	105.2
#3	1.977	2.146	2.027	2.024	2.044	2.055	1.986	24.47	104.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.82**	**42.41**	**33.74**	F **1322.**	**2.052**	**2.015**	**4.301**	**2.020**	**2.152**
Stddev	.13	.23	.28	6.	.006	.007	.015	.004	.013
%RSD	.5249	.5409	.8264	.4896	.2980	.3576	.3365	.1999	.6171
#1	24.95	42.67	34.04	1326.	2.058	2.024	4.311	2.025	2.165
#2	24.81	42.33	33.70	1326.	2.051	2.011	4.308	2.019	2.152
#3	24.69	42.23	33.49	1315.	2.045	2.011	4.285	2.017	2.138

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.996**	**1.938**	**2.015**	**1.058**	**.0338**	**.0097**	**2.079**	**-.0696**
Stddev	.004	.003	.002	.008	.0040	.0016	.009	.0044
%RSD	.1790	.1760	.1104	.7946	11.76	16.32	.4075	6.314
#1	1.992	1.941	2.018	1.068	.0366	.0079	2.088	-.0650
#2	1.998	1.937	2.014	1.055	.0292	.0109	2.075	-.0737
#3	1.997	1.935	2.014	1.052	.0356	.0103	2.073	-.0701

Zoom In Zoom Out

Sample Name: mp17250-s2 Acquired: 9/11/2019 11:52:08 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**183680.**	**36105.**	**8784.1**	**11604.**
Stddev	502.	78.	6.6	14.
%RSD	.27348	.21574	.07465	.11997
#1	184100.	36094.	8776.7	11589.
#2	183820.	36187.	8786.1	11609.
#3	183120.	36032.	8789.4	11615.

Zoom In Zoom Out

Sample Name: jc94464-1a Acquired: 9/11/2019 11:57:06 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1921**	**-.0002**	**.0193**	**.0070**	**.0047**	**.0096**	**.5598**	**.0070**	**-.0024**
Stddev	.0017	.0002	.0002	.0003	.0008	.0017	.0054	.0009	.0013
%RSD	.8647	113.9	1.201	4.274	16.59	18.09	.9633	13.46	55.38
#1	.1916	-.0001	.0191	.0071	.0039	.0099	.5660	.0061	-.0031
#2	.1940	-.0004	.0193	.0072	.0055	.0113	.5573	.0070	-.0009
#3	.1908	-.0001	.0195	.0067	.0048	.0078	.5562	.0079	-.0034

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.5174**	**.0029**	**.0024**	**.0324**	**.0090**	**.0019**	**.6319**	**64.23**
Stddev	.0006	.0101	.0020	.0013	.0037	.0076	.0057	.0184	.29
%RSD	76.56	1.959	68.82	51.54	11.39	84.15	295.5	2.911	.4583
#1	.0012	.5073	.0030	.0036	.0356	.0030	.0059	.6243	64.47
#2	.0001	.5172	.0009	.0026	.0333	.0175	-.0046	.6528	64.32
#3	.0012	.5276	.0049	.0011	.0283	.0065	.0045	.6185	63.90

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1227**	**9.149**	**7.176**	F **1133.**	**.0460**	**.0011**	**4.970**	**.0001**	**.2369**
Stddev	.0089	.086	.091	7.	.0009	.0002	.025	.0012	.0013
%RSD	7.243	.9392	1.262	.6285	1.967	18.60	.5009	1576.	.5436
#1	.1125	9.237	7.281	1137.	.0464	.0011	4.994	.0012	.2372
#2	.1277	9.145	7.123	1138.	.0467	.0014	4.973	-.0012	.2379
#3	.1280	9.065	7.124	1125.	.0450	.0009	4.944	.0002	.2354

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0033**	**.0159**	**.0052**	**1.022**	**-.0056**	**.0111**	**.0706**	**.0098**
Stddev	.0016	.0020	.0007	.001	.0089	.0080	.0021	.0141
%RSD	48.52	12.31	12.76	.0710	160.3	72.17	2.938	144.9
#1	.0016	.0148	.0050	1.021	.0023	.0203	.0683	-.0042
#2	.0036	.0148	.0060	1.022	-.0152	.0056	.0711	.0241
#3	.0047	.0182	.0047	1.021	-.0038	.0074	.0723	.0094

Zoom In Zoom Out

Sample Name: jc94464-1a Acquired: 9/11/2019 11:57:06 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**185000.**	**35379.**	**8761.0**	**11684.**
Stddev	1488.	179.	21.5	24.
%RSD	.80457	.50665	.24536	.20136
#1	183290.	35282.	8762.8	11686.
#2	185680.	35268.	8738.7	11659.
#3	186020.	35586.	8781.6	11706.

Zoom In Zoom Out

Sample Name: mp17250-sd1 Acquired: 9/11/2019 12:02:14 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1812**	**-.0011**	**.0183**	**.0091**	**.0028**	**.0048**	**.5402**	**.0139**	**-.0209**
Stddev	.0092	.0013	.0038	.0044	.0031	.0051	.0037	.0066	.0059
%RSD	5.054	110.3	20.88	48.36	107.9	107.2	.6853	47.36	28.07
#1	.1852	.0002	.0213	.0127	.0062	-.0003	.5380	.0197	-.0275
#2	.1707	-.0023	.0196	.0104	.0001	.0100	.5445	.0068	-.0191
#3	.1877	-.0014	.0140	.0042	.0023	.0046	.5381	.0152	-.0162

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0099**	**.5127**	**.0027**	**.0157**	**.0351**	**.0169**	**.0195**	**.5671**	**61.73**
Stddev	.0095	.0024	.0164	.0037	.0247	.0191	.0089	.1329	.13
%RSD	95.59	.4773	616.7	23.57	70.31	113.6	45.58	23.43	.2120
#1	-.0100	.5135	.0209	.0150	.0283	.0377	.0297	.6887	61.59
#2	-.0004	.5099	-.0019	.0197	.0626	.0001	.0133	.4253	61.73
#3	-.0193	.5146	-.0110	.0124	.0146	.0127	.0156	.5873	61.85

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1756**	**8.907**	**4.338**	**1104.**	**.0648**	**.0020**	**4.935**	**-.0015**	**.2248**
Stddev	.0436	.216	.806	2.	.0134	.0024	.079	.0134	.0018
%RSD	24.81	2.427	18.57	.2186	20.61	121.1	1.608	899.3	.8074
#1	.1818	9.144	5.261	1104.	.0578	.0048	4.890	.0138	.2228
#2	.1293	8.720	3.775	1101.	.0803	.0012	4.889	-.0071	.2264
#3	.2157	8.857	3.978	1105.	.0564	.0001	5.027	-.0112	.2252

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0113**	**.0636**	**.0084**	**.9461**	**-.0374**	**.0178**	**.1406**	**-.0111**
Stddev	.0034	.0041	.0042	.0265	.0319	.0124	.0072	.0718
%RSD	30.17	6.514	50.33	2.805	85.12	69.63	5.109	648.0
#1	.0119	.0661	.0081	.9260	-.0038	.0050	.1374	.0224
#2	.0076	.0659	.0043	.9360	-.0671	.0185	.1356	-.0935
#3	.0143	.0589	.0127	.9761	-.0415	.0297	.1488	.0378

Zoom In Zoom Out

Sample Name: mp17250-sd1 Acquired: 9/11/2019 12:02:14 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**190900.**	**36018.**	**9139.5**	**12569.**
Stddev	1686.	96.	9.5	9.
%RSD	.88316	.26665	.10399	.07211
#1	190000.	35946.	9132.5	12568.
#2	189850.	36127.	9135.7	12560.
#3	192840.	35982.	9150.3	12578.

Zoom In Zoom Out

Sample Name: jc94464-2a Acquired: 9/11/2019 12:07:13 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6129**	**.0005**	**.0011**	**.0078**	**.0018**	**.0056**	**4.989**	**.0237**	**-.0019**
Stddev	.0014	.0002	.0003	.0004	.0009	.0007	.054	.0009	.0008
%RSD	.2356	34.71	28.74	4.748	48.30	13.05	1.075	3.614	43.30
#1	.6120	.0004	.0007	.0079	.0008	.0047	4.955	.0229	-.0015
#2	.6145	.0004	.0013	.0080	.0020	.0059	5.050	.0246	-.0014
#3	.6121	.0007	.0013	.0074	.0025	.0060	4.960	.0235	-.0028

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0094**	**.1132**	**.0053**	**.0036**	**.0051**	**.0023**	**.0089**	**.9320**	**101.3**
Stddev	.0001	.0024	.0042	.0025	.0063	.0053	.0066	.0323	.2
%RSD	.9621	2.163	80.43	69.59	123.1	230.8	73.94	3.462	.1688
#1	.0093	.1149	.0041	.0027	.0103	-.0009	.0013	.9019	101.4
#2	.0094	.1143	.0100	.0017	.0069	-.0007	.0131	.9280	101.4
#3	.0095	.1104	.0017	.0065	-.0019	.0085	.0123	.9661	101.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4783**	**13.11**	**8.448**	**F 1230.**	**.0414**	**.0002**	**7.701**	**-.0024**	**.3390**
Stddev	.0052	.05	.115	21.	.0031	.0001	.118	.0009	.0008
%RSD	1.091	.3663	1.367	1.728	7.448	42.55	1.535	38.42	.2501
#1	.4839	13.17	8.517	1238.	.0422	.0002	7.774	-.0034	.3393
#2	.4736	13.08	8.512	1206.	.0380	.0004	7.763	-.0020	.3397
#3	.4774	13.09	8.315	1247.	.0439	.0002	7.564	-.0017	.3380

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0226**	**.0074**	**.0033**	**2.564**	**-.0042**	**.0131**	**.0963**	**.0189**
Stddev	.0010	.0035	.0008	.037	.0027	.0092	.0030	.0029
%RSD	4.227	46.71	25.31	1.463	64.38	70.07	3.132	15.31
#1	.0215	.0106	.0024	2.594	-.0054	.0129	.0973	.0223
#2	.0228	.0079	.0041	2.574	-.0011	.0040	.0929	.0171
#3	.0234	.0037	.0033	2.522	-.0061	.0223	.0987	.0174

Zoom In Zoom Out

Sample Name: jc94464-2a Acquired: 9/11/2019 12:07:13 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**184480.**	**35663.**	**8898.7**	**11800.**
Stddev	1589.	132.	98.3	111.
%RSD	.86140	.37002	1.1045	.94408
#1	185870.	35522.	8847.4	11733.
#2	182750.	35783.	8836.6	11738.
#3	184830.	35686.	9012.0	11929.

Zoom In Zoom Out

Sample Name: ccv Acquired: 9/11/2019 12:12:21 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.997**	**1.997**	**2.014**	**2.045**	**1.978**	**1.970**	**1.998**	**2.057**	**.2442**
Stddev	.003	.005	.022	.020	.017	.015	.010	.022	.0017
%RSD	.1468	.2480	1.099	.9797	.8584	.7807	.4908	1.082	.6975
#1	1.999	2.000	2.040	2.068	1.962	1.953	1.990	2.082	.2424
#2	1.997	2.000	1.998	2.030	1.977	1.972	1.995	2.039	.2445
#3	1.993	1.991	2.005	2.038	1.996	1.984	2.009	2.050	.2457
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.967**	**2.039**	**2.006**	**2.092**	**2.043**	**2.035**	**2.012**	**38.94**	**39.35**
Stddev	.015	.022	.024	.021	.019	.025	.023	.05	.06
%RSD	.7614	1.096	1.199	1.009	.9214	1.253	1.130	.1244	.1507
#1	1.952	2.064	2.034	2.116	2.064	2.064	2.038	38.99	39.41
#2	1.967	2.021	1.988	2.074	2.028	2.015	1.995	38.95	39.36
#3	1.982	2.033	1.997	2.087	2.036	2.027	2.002	38.90	39.29
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.59**	**39.03**	**38.92**	**38.66**	**2.045**	**2.004**	**5.215**	**2.030**	**1.959**
Stddev	.06	.03	.10	.03	.019	.022	.057	.019	.003
%RSD	.1549	.0680	.2569	.0877	.9488	1.125	1.100	.9573	.1436
#1	39.64	39.06	38.97	38.67	2.067	2.030	5.281	2.053	1.961
#2	39.60	39.01	38.97	38.69	2.032	1.988	5.176	2.018	1.960
#3	39.52	39.03	38.80	38.62	2.036	1.995	5.189	2.020	1.956
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 9/11/2019 12:12:21 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.958**	**1.988**	**1.993**	**1.993**	**2.041**	**1.922**	**2.000**	**1.959**
Stddev	.019	.024	.014	.025	.019	.003	.022	.018
%RSD	.9610	1.191	.6900	1.237	.9138	.1300	1.102	.8949
#1	1.939	2.015	1.979	2.021	2.061	1.925	2.026	1.941
#2	1.959	1.970	1.995	1.979	2.025	1.922	1.988	1.960
#3	1.977	1.980	2.006	1.979	2.036	1.920	1.988	1.976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**187580.**	**35478.**	**8823.5**	**11913.**
Stddev	1720.	117.	76.8	93.
%RSD	.91678	.32849	.87052	.78072
#1	188600.	35344.	8737.3	11810.
#2	188540.	35537.	8884.5	11992.
#3	185590.	35554.	8848.9	11936.

Zoom In Zoom Out

Sample Name: ccb Acquired: 9/11/2019 12:17:19 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0002**	**.0002**	**.0004**	**.0002**	**-.0004**	**.0003**	**.0003**	**-.0003**
Stddev	.0003	.0000	.0001	.0002	.0002	.0001	.0000	.0001	.0003
%RSD	75.63	5.595	55.44	43.66	90.72	14.86	16.63	20.20	90.12
#1	.0007	.0002	.0002	.0003	.0003	-.0004	.0003	.0004	-.0006
#2	.0004	.0002	.0001	.0002	.0002	-.0004	.0003	.0004	.0000
#3	.0001	.0002	.0003	.0005	.0000	-.0003	.0002	.0002	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0000**	**-.0001**	**.0008**	**.0001**	**.0012**	**.0010**	**.0106**	**.0026**
Stddev	.0001	.0000	.0006	.0010	.0004	.0023	.0006	.0056	.0002
%RSD	32.48	140.8	504.9	123.6	580.5	183.1	63.98	52.47	7.269
#1	-.0005	-.0000	-.0007	.0017	.0002	.0006	.0014	.0052	.0025
#2	-.0003	.0000	.0004	-.0003	-.0004	.0037	.0013	.0104	.0024
#3	-.0002	.0001	-.0001	.0010	.0004	-.0006	.0003	.0163	.0028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057**	**.0094**	**-.1489**	**-.3785**	**.0021**	**.0007**	**.0006**	**.0002**	**.0002**
Stddev	.0003	.0061	.0315	.0046	.0002	.0001	.0006	.0000	.0000
%RSD	4.668	64.55	21.14	1.206	10.27	19.52	90.48	10.24	13.06
#1	.0055	.0114	-.1583	-.3836	.0023	.0005	-.0000	.0002	.0002
#2	.0060	.0143	-.1747	-.3747	.0021	.0007	.0009	.0002	.0002
#3	.0055	.0026	-.1138	-.3773	.0019	.0008	.0010	.0002	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 9/11/2019 12:17:19 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0011**	**.0007**	**-.0023**	**-.0012**	**-.0009**	**.0032**	**.0006**
Stddev	.0003	.0003	.0001	.0012	.0012	.0012	.0003	.0014
%RSD	76.52	30.37	11.50	51.93	99.60	142.1	8.705	224.0
#1	.0002	.0010	.0007	-.0036	-.0008	-.0002	.0034	.0005
#2	.0002	.0008	.0008	-.0013	-.0003	-.0023	.0032	.0020
#3	.0007	.0015	.0006	-.0020	-.0026	-.0001	.0029	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**199120.**	**36130.**	**9275.6**	**13135.**
Stddev	265.	188.	77.8	96.
%RSD	.13293	.51911	.83930	.72741
#1	198840.	36290.	9254.2	13103.
#2	199360.	35923.	9210.7	13060.
#3	199160.	36176.	9361.9	13243.

Zoom In Zoom Out

Sample Name: mp17250-ps1 Acquired: 9/11/2019 12:22:23 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.248**	**2.098**	**2.142**	**2.193**	**2.106**	**2.006**	**2.690**	**2.214**	**.2653**
Stddev	.007	.006	.009	.006	.024	.025	.035	.005	.0045
%RSD	.3179	.2689	.3978	.2932	1.115	1.260	1.299	.2091	1.703
#1	2.249	2.102	2.146	2.192	2.080	1.977	2.652	2.209	.2602
#2	2.255	2.100	2.148	2.200	2.113	2.013	2.699	2.219	.2686
#3	2.240	2.091	2.133	2.187	2.125	2.026	2.720	2.214	.2672

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.082**	**2.664**	**2.279**	**2.196**	**2.356**	**2.177**	**2.217**	**26.23**	**87.28**
Stddev	.022	.013	.008	.008	.007	.014	.009	.07	.11
%RSD	1.058	.4841	.3424	.3767	.3111	.6248	.3985	.2502	.1312
#1	2.057	2.666	2.283	2.193	2.349	2.171	2.224	26.30	87.33
#2	2.089	2.675	2.285	2.205	2.364	2.192	2.220	26.21	87.35
#3	2.099	2.650	2.270	2.190	2.355	2.166	2.207	26.18	87.14

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.27**	**34.42**	**32.27**	F **1105.**	**2.184**	**2.211**	**4.894**	**2.242**	**2.253**
Stddev	.04	.06	.09	4.	.010	.010	.016	.009	.002
%RSD	.1343	.1819	.2750	.3682	.4514	.4338	.3208	.3827	.0980
#1	26.27	34.47	32.33	1106.	2.181	2.205	4.886	2.238	2.251
#2	26.30	34.45	32.31	1109.	2.195	2.222	4.913	2.252	2.255
#3	26.23	34.35	32.17	1101.	2.176	2.206	4.885	2.236	2.252

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.189**	**2.071**	**2.201**	**.9889**	**.0432**	**.0082**	**2.187**	**-.0707**
Stddev	.030	.011	.026	.0029	.0043	.0044	.005	.0061
%RSD	1.367	.5134	1.179	.2908	9.987	53.64	.2498	8.641
#1	2.156	2.062	2.172	.9884	.0385	.0052	2.191	-.0665
#2	2.198	2.083	2.210	.9920	.0470	.0061	2.190	-.0777
#3	2.214	2.068	2.222	.9863	.0441	.0133	2.181	-.0679

Zoom In Zoom Out

Sample Name: mp17250-ps1 Acquired: 9/11/2019 12:22:23 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**185100.**	**35777.**	**8839.4**	**11700.**
Stddev	1454.	112.	50.2	56.
%RSD	.78567	.31398	.56807	.48240
#1	186660.	35688.	8842.2	11699.
#2	184860.	35741.	8787.8	11645.
#3	183780.	35903.	8888.2	11758.

Zoom In Zoom Out

Sample Name: mp17228-ps1 Acquired: 9/11/2019 12:27:19 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.200**	**2.016**	**2.025**	**2.073**	**2.099**	**2.159**	**2.967**	**2.114**	**.2624**
Stddev	.013	.010	.007	.005	.028	.029	.062	.005	.0032
%RSD	.6032	.4749	.3574	.2455	1.348	1.343	2.096	.2567	1.213
#1	2.203	2.017	2.028	2.075	2.092	2.153	2.930	2.116	.2617
#2	2.186	2.007	2.029	2.076	2.075	2.134	2.932	2.118	.2597
#3	2.212	2.026	2.016	2.067	2.130	2.191	3.038	2.108	.2659

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.058**	**2.469**	**2.174**	**2.103**	**2.335**	**2.037**	**2.128**	**80.78**	**43.64**
Stddev	.026	.011	.008	.004	.007	.005	.009	.39	.21
%RSD	1.273	.4346	.3707	.1658	.3121	.2252	.4188	.4877	.4842
#1	2.051	2.476	2.178	2.103	2.336	2.034	2.131	80.90	43.69
#2	2.036	2.475	2.179	2.106	2.342	2.042	2.135	80.34	43.41
#3	2.087	2.457	2.164	2.100	2.328	2.034	2.118	81.09	43.82

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**94.99**	**33.24**	**28.18**	**25.39**	**2.070**	**2.064**	**2.448**	**2.145**	**2.075**
Stddev	.83	.10	.12	.17	.007	.008	.053	.007	.011
%RSD	.8773	.2972	.4343	.6664	.3304	.3989	2.171	.3204	.5172
#1	94.12	33.20	28.23	25.50	2.073	2.067	2.494	2.150	2.067
#2	95.05	33.17	28.04	25.19	2.074	2.070	2.460	2.147	2.070
#3	95.79	33.35	28.27	25.47	2.062	2.054	2.390	2.137	2.087

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.677**	**1.920**	**2.111**	**.8878**	**.1093**	**.0345**	**3.604**	**.1176**
Stddev	.048	.002	.028	.0038	.0029	.0013	.012	.0026
%RSD	1.314	.1033	1.344	.4329	2.660	3.812	.3404	2.184
#1	3.661	1.919	2.101	.8900	.1074	.0359	3.612	.1168
#2	3.639	1.922	2.089	.8901	.1079	.0332	3.611	.1155
#3	3.731	1.919	2.143	.8834	.1127	.0345	3.590	.1204

Zoom In Zoom Out

Sample Name: mp17228-ps1 Acquired: 9/11/2019 12:27:19 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**196040.**	**36696.**	**9194.1**	**12269.**
Stddev	2476.	28.	42.0	39.
%RSD	1.2629	.07683	.45703	.32066
#1	196680.	36694.	9173.0	12254.
#2	198140.	36669.	9166.7	12239.
#3	193310.	36726.	9242.5	12313.

Zoom In Zoom Out

Sample Name: 13aconf Acquired: 9/11/2019 12:32:23 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.992**	**1.962**	**1.947**	**1.963**	**1.965**	**1.962**	**2.014**	**1.983**	**.0008**
Stddev	.008	.017	.009	.007	.027	.027	.032	.006	.0001
%RSD	.4083	.8838	.4545	.3782	1.356	1.363	1.602	.3091	14.42
#1	2.000	1.977	1.957	1.972	1.950	1.945	1.982	1.990	.0007
#2	1.984	1.943	1.944	1.961	1.949	1.948	2.014	1.981	.0009
#3	1.992	1.965	1.941	1.958	1.996	1.993	2.047	1.978	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.926**	**2.002**	**-.0002**	**2.088**	**2.016**	**1.926**	**-.0009**	**.0025**	**.0222**
Stddev	.028	.008	.0006	.008	.009	.009	.0015	.0066	.0002
%RSD	1.434	.3958	250.0	.3680	.4273	.4467	170.8	266.5	.7896
#1	1.909	2.011	-.0009	2.096	2.026	1.935	.0002	.0085	.0224
#2	1.912	2.000	.0003	2.083	2.011	1.925	-.0002	.0034	.0222
#3	1.958	1.996	-.0002	2.083	2.011	1.918	-.0025	-.0046	.0220

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0012**	**.0057**	**-.0645**	**-.4111**	**1.959**	**.0033**	**-.0150**	**-.0006**	**1.950**
Stddev	.0013	.0012	.0188	.0075	.011	.0006	.0002	.0002	.007
%RSD	107.9	21.67	29.15	1.814	.5762	17.27	1.411	38.92	.3832
#1	-.0021	.0044	-.0726	-.4037	1.972	.0039	-.0147	-.0003	1.957
#2	.0003	.0069	-.0779	-.4111	1.954	.0033	-.0152	-.0007	1.942
#3	-.0020	.0057	-.0430	-.4186	1.951	.0027	-.0150	-.0008	1.952

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0279**	**.0018**	**.0010**	**-.0046**	**.0003**	**1.877**	**.0022**
Stddev	.0001	.0018	.0001	.0002	.0007	.0010	.008	.0002
%RSD	70.43	6.452	3.074	25.38	14.27	307.7	.4173	10.33
#1	-.0001	.0295	.0018	.0011	-.0043	-.0008	1.884	.0020
#2	-.0001	.0283	.0017	.0011	-.0042	.0008	1.879	.0025
#3	-.0002	.0259	.0018	.0007	-.0054	.0009	1.869	.0023

Zoom In Zoom Out

Sample Name: 13aconf Acquired: 9/11/2019 12:32:23 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**197010.**	**35764.**	**9231.0**	**13088.**
Stddev	2583.	41.	28.4	33.
%RSD	1.3112	.11572	.30814	.25244
#1	198860.	35733.	9202.1	13051.
#2	198120.	35811.	9232.0	13097.
#3	194060.	35748.	9258.9	13116.

Zoom In Zoom Out

Sample Name: mp17232-mb1 Acquired: 9/11/2019 12:57:35 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0000**	**.0000**	**-.0001**	**.0004**	**-.0003**	**-.0000**	**-.0002**	**-.0007**
Stddev	.0002	.0000	.0001	.0001	.0001	.0003	.0001	.0001	.0004
%RSD	816.8	30.73	194.6	135.8	37.09	90.08	334.4	31.67	61.30
#1	-.0001	-.0000	-.0000	-.0001	.0005	-.0001	.0001	-.0003	-.0009
#2	-.0001	-.0000	.0001	-.0002	.0004	-.0003	-.0001	-.0002	-.0009
#3	.0002	-.0000	.0000	.0001	.0002	-.0007	-.0001	-.0001	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0039**	**-.0002**	**.0003**	**-.0002**	**.0017**	**.0010**	**-.0018**	**.0065**
Stddev	.0002	.0001	.0008	.0006	.0002	.0004	.0007	.0040	.0008
%RSD	159.4	3.672	496.7	179.9	62.61	26.00	69.13	217.9	12.55
#1	.0001	.0038	-.0010	.0010	-.0003	.0021	.0017	-.0046	.0058
#2	-.0001	.0039	.0003	.0001	-.0004	.0012	.0005	-.0036	.0063
#3	-.0003	.0040	.0002	-.0001	-.0001	.0017	.0007	.0027	.0074

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031**	**.0044**	**-.1395**	**-.4558**	**.0011**	**.0005**	**.0081**	**-.0001**	**.0000**
Stddev	.0003	.0020	.0276	.0083	.0004	.0001	.0003	.0002	.0001
%RSD	8.718	44.94	19.75	1.816	37.13	18.65	3.501	272.6	157.5
#1	.0028	.0041	-.1336	-.4556	.0015	.0005	.0079	-.0002	.0001
#2	.0032	.0065	-.1695	-.4641	.0007	.0006	.0084	.0001	.0000
#3	.0032	.0026	-.1154	-.4476	.0011	.0004	.0080	-.0002	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0024**	**.0005**	**.0029**	**-.0016**	**.0003**	**.0041**	**.0006**
Stddev	.0003	.0008	.0001	.0002	.0002	.0002	.0003	.0015
%RSD	185.3	34.87	21.27	8.280	14.86	72.62	8.175	264.0
#1	.0001	.0029	.0006	.0031	-.0014	.0006	.0039	.0004
#2	.0005	.0029	.0004	.0029	-.0019	.0001	.0045	.0022
#3	-.0001	.0014	.0006	.0026	-.0016	.0003	.0039	-.0009

Zoom In Zoom Out

Sample Name: mp17232-mb1 Acquired: 9/11/2019 12:57:35 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**197510.**	**35760.**	**9284.6**	**13105.**
Stddev	3356.	689.	22.7	31.
%RSD	1.6990	1.9272	.24469	.23295
#1	193640.	35013.	9258.8	13078.
#2	199180.	36372.	9293.4	13098.
#3	199700.	35895.	9301.5	13138.

Zoom In Zoom Out

Sample Name: mp17232-b1 Acquired: 9/11/2019 13:02:37 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.017**	**2.010**	**1.991**	**2.026**	**1.955**	**1.968**	**2.000**	**2.044**
Stddev	.001	.046	.008	.007	.004	.007	.007	.007
%RSD	.0364	2.276	.3922	.3539	.1876	.3581	.3640	.3600
#1	2.018	2.019	1.982	2.018	1.954	1.965	2.008	2.036
#2	2.017	2.050	1.996	2.032	1.952	1.962	1.997	2.050
#3	2.018	1.960	1.994	2.026	1.959	1.976	1.994	2.046

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2380**	**1.932**	**2.027**	**2.011**	**2.099**	**2.046**	**2.017**	**2.028**
Stddev	.0006	.006	.007	.007	.009	.005	.007	.011
%RSD	.2646	.2964	.3707	.3508	.4325	.2327	.3545	.5549
#1	.2376	1.932	2.019	2.003	2.088	2.041	2.010	2.015
#2	.2376	1.926	2.034	2.017	2.104	2.050	2.024	2.032
#3	.2387	1.937	2.026	2.012	2.104	2.046	2.019	2.036

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.30**	**24.49**	**24.71**	**24.19**	**24.18**	**24.04**	**2.033**	**2.017**
Stddev	.03	.03	.04	.09	.01	.02	.010	.010
%RSD	.1264	.1352	.1622	.3599	.0357	.0647	.4805	.4840
#1	24.29	24.50	24.70	24.18	24.18	24.03	2.022	2.006
#2	24.34	24.52	24.75	24.29	24.17	24.03	2.040	2.024
#3	24.29	24.45	24.67	24.11	24.19	24.06	2.037	2.021

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0503**	**2.045**	**1.958**	**1.978**	**1.937**	**1.982**	**-.0027**	**.0364**
Stddev	.0005	.010	.005	.003	.014	.007	.0014	.0021
%RSD	1.040	.4920	.2677	.1729	.7111	.3646	52.61	5.776
#1	.0506	2.034	1.962	1.978	1.921	1.981	-.0029	.0387
#2	.0497	2.054	1.960	1.974	1.944	1.975	-.0040	.0355
#3	.0507	2.046	1.952	1.981	1.945	1.990	-.0012	.0348

Zoom In Zoom Out

Sample Name: mp17232-b1 Acquired: 9/11/2019 13:02:37 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0014**	**1.951**	W **-.0715**
Stddev	.0002	.007	.0006
%RSD	17.43	.3829	.8733
#1	-.0017	1.943	-.0710
#2	-.0013	1.957	-.0722
#3	-.0013	1.953	-.0714

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**193750.**	**35938.**	**8993.1**	**12202.**
Stddev	227.	211.	28.0	28.
%RSD	.11723	.58609	.31081	.23189
#1	194000.	35888.	9023.4	12231.
#2	193550.	35757.	8968.4	12175.
#3	193690.	36170.	8987.5	12201.

Zoom In Zoom Out

Sample Name: mp17232-s1 Acquired: 9/11/2019 13:07:40 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.044**	**1.994**	**1.980**	**1.995**	**1.968**	**2.000**	**4.042**	**2.002**
Stddev	.024	.022	.004	.005	.037	.034	.096	.004
%RSD	1.160	1.096	.1860	.2359	1.865	1.716	2.385	.2208
#1	2.061	2.008	1.984	1.999	1.968	1.998	4.030	2.006
#2	2.053	2.005	1.978	1.995	2.005	2.035	4.144	2.001
#3	2.017	1.968	1.977	1.990	1.932	1.966	3.953	1.998

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2439**	**1.959**	**1.989**	**3.611**	**2.025**	**1.985**	**2.004**	**2.022**
Stddev	.0038	.034	.002	.011	.007	.005	.007	.006
%RSD	1.564	1.736	.0891	.2976	.3698	.2612	.3342	.2850
#1	.2431	1.960	1.991	3.621	2.031	1.988	2.008	2.027
#2	.2480	1.992	1.988	3.614	2.027	1.987	2.007	2.016
#3	.2406	1.924	1.987	3.600	2.017	1.979	1.996	2.021

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.13**	**72.45**	**88.39**	**30.39**	**32.84**	**36.67**	**2.157**	**2.001**
Stddev	.26	.88	.79	.21	.29	.40	.006	.005
%RSD	1.073	1.210	.8968	.6806	.8816	1.088	.2871	.2537
#1	24.30	72.14	88.89	30.49	33.00	36.94	2.164	2.006
#2	24.26	71.76	88.80	30.52	33.00	36.86	2.155	1.999
#3	23.83	73.43	87.47	30.15	32.50	36.22	2.153	1.997

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.439**	**2.008**	**2.273**	**2.004**	**2.002**	**2.011**	**1.649**	**.0399**
Stddev	.025	.003	.015	.040	.007	.034	.003	.0025
%RSD	.2663	.1374	.6426	1.974	.3445	1.698	.1581	6.160
#1	9.468	2.010	2.264	2.003	2.010	2.012	1.652	.0401
#2	9.428	2.009	2.264	2.044	1.998	2.045	1.647	.0422
#3	9.421	2.005	2.289	1.964	1.999	1.977	1.648	.0373

Zoom In Zoom Out

Sample Name: mp17232-s1 Acquired: 9/11/2019 13:07:40 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0046**	**2.016**	W **-.0680**
Stddev	.0005	.004	.0004
%RSD	9.811	.1750	.6056
#1	-.0041	2.018	-.0684
#2	-.0049	2.018	-.0676
#3	-.0048	2.012	-.0681

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**187920.**	**35847.**	**8878.5**	**12103.**
Stddev	3439.	103.	11.9	14.
%RSD	1.8298	.28717	.13362	.11182
#1	188070.	35917.	8868.8	12087.
#2	184400.	35729.	8891.7	12111.
#3	191270.	35895.	8875.0	12110.

Zoom In Zoom Out

Sample Name: mp17232-s2 Acquired: 9/11/2019 13:12:53 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.108**	**2.048**	**1.990**	**2.003**	**1.969**	**1.999**	**4.080**	**2.008**
Stddev	.015	.028	.008	.008	.057	.055	.103	.007
%RSD	.6957	1.366	.4021	.4045	2.871	2.750	2.514	.3404
#1	2.113	2.061	1.984	1.997	2.026	2.055	4.188	2.002
#2	2.091	2.015	1.988	2.001	1.913	1.945	3.984	2.007
#3	2.119	2.066	1.999	2.012	1.967	1.998	4.067	2.016

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2446**	**1.959**	**1.993**	**3.637**	**2.035**	**1.991**	**2.012**	**2.031**
Stddev	.0060	.056	.010	.015	.003	.008	.006	.011
%RSD	2.469	2.835	.5069	.4048	.1599	.4083	.3104	.5467
#1	.2506	2.017	1.982	3.627	2.032	1.983	2.007	2.024
#2	.2385	1.907	1.995	3.630	2.034	1.993	2.010	2.026
#3	.2447	1.953	2.002	3.654	2.038	1.999	2.019	2.044

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.88**	**73.38**	**91.42**	**31.34**	**33.87**	**37.95**	**2.169**	**2.013**
Stddev	.17	1.23	.73	.24	.18	.27	.010	.008
%RSD	.6747	1.669	.7987	.7579	.5323	.7179	.4595	.3775
#1	24.97	74.49	91.83	31.51	33.96	38.02	2.162	2.006
#2	24.68	72.07	90.57	31.07	33.66	37.65	2.165	2.010
#3	24.98	73.57	91.85	31.44	33.98	38.18	2.180	2.021

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.538**	**2.016**	**2.376**	**2.004**	**2.003**	**2.011**	**1.663**	**.0391**
Stddev	.046	.008	.016	.058	.006	.055	.006	.0052
%RSD	.4849	.4092	.6814	2.901	.3085	2.736	.3691	13.39
#1	9.506	2.009	2.365	2.062	1.997	2.068	1.658	.0447
#2	9.517	2.013	2.395	1.946	2.002	1.959	1.661	.0344
#3	9.591	2.025	2.370	2.005	2.009	2.005	1.670	.0381

Zoom In Zoom Out

Sample Name: mp17232-s2 Acquired: 9/11/2019 13:12:53 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0045**	**2.025**	W **-.0686**
Stddev	.0003	.009	.0019
%RSD	6.941	.4179	2.713
#1	-.0044	2.021	-.0678
#2	-.0048	2.020	-.0673
#3	-.0042	2.035	-.0707

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**188130.**	**35115.**	**8867.5**	**12092.**
Stddev	4882.	183.	44.8	58.
%RSD	2.5951	.52008	.50491	.47589
#1	183100.	35013.	8919.1	12158.
#2	192850.	35326.	8838.2	12052.
#3	188460.	35006.	8845.3	12066.

Zoom In Zoom Out

Sample Name: jc94613-1a Acquired: 9/11/2019 13:18:09 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0511**	**-.0003**	W **-.0010**	**.0177**	**.0007**	**.0001**	**2.094**	**.0062**
Stddev	.0002	.0000	.0001	.0002	.0001	.0003	.021	.0001
%RSD	.3486	11.84	10.11	1.092	10.37	352.7	1.025	2.380
#1	.0513	-.0003	-.0010	.0177	.0007	.0005	2.112	.0064
#2	.0510	-.0003	-.0010	.0178	.0008	-.0001	2.098	.0063
#3	.0510	-.0003	-.0012	.0175	.0007	-.0001	2.070	.0061

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0037**	**.0065**	**1.595**	**.0019**	**-.0016**	**.0003**	**.0021**
Stddev	.0004	.0001	.0002	.001	.0009	.0001	.0005	.0011
%RSD	72.45	2.960	2.537	.0853	45.68	4.121	137.3	54.89
#1	.0004	.0038	.0063	1.595	.0029	-.0015	.0004	.0022
#2	.0003	.0037	.0065	1.597	.0012	-.0016	.0008	.0009
#3	.0011	.0036	.0066	1.594	.0018	-.0015	-.0001	.0031

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031**	**48.05**	**65.28**	**6.801**	**8.559**	**12.58**	**.1476**	**.0024**
Stddev	.0056	.38	.52	.050	.085	.09	.0003	.0002
%RSD	180.7	.7926	.8039	.7371	.9895	.7394	.2043	8.147
#1	.0087	48.46	65.84	6.852	8.643	12.68	.1478	.0026
#2	-.0025	47.96	65.21	6.798	8.560	12.59	.1478	.0022
#3	.0032	47.72	64.79	6.752	8.474	12.49	.1472	.0024

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.370**	**-.0016**	**.3667**	**-.0003**	**.0042**	**.0036**	**1.632**	**.0003**
Stddev	.018	.0001	.0029	.0002	.0006	.0002	.005	.0008
%RSD	.1932	8.986	.7840	57.00	14.15	5.123	.3370	285.0
#1	9.360	-.0015	.3699	-.0004	.0043	.0038	1.629	-.0004
#2	9.390	-.0017	.3660	-.0001	.0048	.0035	1.639	.0001
#3	9.358	-.0015	.3643	-.0004	.0036	.0035	1.629	.0012

Zoom In Zoom Out

Sample Name: jc94613-1a Acquired: 9/11/2019 13:18:09 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0039**	**.0729**	**.0044**
Stddev	.0009	.0007	.0025
%RSD	23.16	.9185	56.91
#1	-.0044	.0730	.0048
#2	-.0043	.0735	.0017
#3	-.0028	.0721	.0066

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**194860.**	**35849.**	**9104.0**	**12557.**
Stddev	1696.	234.	18.6	35.
%RSD	.87039	.65323	.20437	.27687
#1	193350.	35766.	9089.1	12532.
#2	194550.	35668.	9098.1	12541.
#3	196700.	36114.	9124.9	12596.

Zoom In Zoom Out

Sample Name: mp17232-sd1 Acquired: 9/11/2019 13:23:12 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0564**	**-.0004**	**-.0002**	**.0181**	**.0010**	**-.0029**	**2.275**	**.0071**	**-.0021**
Stddev	.0012	.0002	.0005	.0003	.0018	.0011	.017	.0010	.0009
%RSD	2.204	45.68	277.2	1.618	192.3	38.71	.7640	14.39	41.58
#1	.0565	-.0003	.0001	.0182	.0024	-.0038	2.292	.0076	-.0016
#2	.0576	-.0003	.0001	.0184	-.0011	-.0033	2.275	.0077	-.0031
#3	.0551	-.0006	-.0007	.0178	.0015	-.0016	2.258	.0059	-.0016

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**.0176**	**1.610**	**.0038**	**-.0039**	**.0036**	**.0053**	**-.0083**	**51.53**
Stddev	.0005	.0002	.030	.0009	.0022	.0017	.0053	.0451	.17
%RSD	10.70	1.108	1.841	22.43	57.47	47.92	100.9	541.6	.3397
#1	.0039	.0174	1.639	.0035	-.0064	.0051	-.0008	.0369	51.70
#2	.0040	.0178	1.610	.0048	-.0022	.0040	.0090	-.0086	51.35
#3	.0047	.0176	1.580	.0031	-.0031	.0017	.0076	-.0533	51.54

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**70.14**	**7.405**	**8.545**	**11.52**	**.1585**	**.0036**	**9.531**	**-.0014**	**.3915**
Stddev	.27	.047	.303	.03	.0029	.0006	.179	.0017	.0010
%RSD	.3910	.6370	3.545	.2698	1.834	17.48	1.884	118.2	.2675
#1	70.41	7.451	8.839	11.48	.1607	.0043	9.718	.0002	.3925
#2	69.86	7.407	8.234	11.54	.1597	.0031	9.515	-.0032	.3904
#3	70.14	7.357	8.562	11.53	.1552	.0033	9.360	-.0012	.3916

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0103**	**.0039**	**1.637**	**-.0093**	**-.0076**	**.0918**	**-.0017**
Stddev	.0007	.0035	.0010	.027	.0063	.0046	.0020	.0084
%RSD	182.2	33.53	26.35	1.676	67.20	60.34	2.134	503.9
#1	-.0011	.0137	.0040	1.663	-.0043	-.0123	.0936	.0080
#2	-.0002	.0105	.0028	1.639	-.0074	-.0031	.0920	-.0061
#3	.0002	.0068	.0048	1.608	-.0164	-.0074	.0897	-.0069

Zoom In Zoom Out

Sample Name: mp17232-sd1 Acquired: 9/11/2019 13:23:12 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**196660.**	**35752.**	**9224.9**	**12904.**
Stddev	800.	212.	26.2	36.
%RSD	.40692	.59274	.28447	.28260
#1	197500.	35537.	9194.6	12862.
#2	195910.	35960.	9239.2	12928.
#3	196570.	35759.	9240.9	12922.

Zoom In Zoom Out

Sample Name: ccv Acquired: 9/11/2019 13:28:11 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.024**	**1.993**	**1.989**	**2.024**	**1.953**	**1.949**	**1.996**	**2.046**	**.2412**
Stddev	.010	.024	.024	.021	.019	.021	.013	.022	.0027
%RSD	.4939	1.182	1.199	1.037	.9639	1.072	.6626	1.056	1.131
#1	2.013	1.976	1.961	2.001	1.971	1.970	2.010	2.022	.2442
#2	2.027	2.020	2.000	2.031	1.934	1.928	1.985	2.054	.2388
#3	2.032	1.984	2.005	2.041	1.954	1.949	1.992	2.062	.2407
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.925**	**2.015**	**1.996**	**2.070**	**2.028**	**2.022**	**1.991**	**39.40**	**39.54**
Stddev	.021	.021	.023	.022	.022	.024	.028	.18	.15
%RSD	1.083	1.058	1.155	1.042	1.100	1.194	1.390	.4552	.3755
#1	1.946	1.991	1.971	2.046	2.003	1.994	1.959	39.20	39.37
#2	1.904	2.026	2.003	2.075	2.034	2.030	2.001	39.45	39.60
#3	1.925	2.030	2.015	2.088	2.046	2.040	2.012	39.55	39.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.97**	**39.13**	**39.35**	**38.98**	**2.036**	**1.972**	**5.169**	**1.993**	**1.964**
Stddev	.20	.18	.16	.19	.022	.022	.067	.024	.009
%RSD	.4909	.4593	.4042	.4842	1.087	1.131	1.301	1.209	.4539
#1	39.75	38.94	39.17	38.76	2.011	1.947	5.093	1.965	1.954
#2	40.03	39.16	39.40	39.08	2.046	1.981	5.193	2.002	1.966
#3	40.13	39.29	39.48	39.10	2.051	1.989	5.220	2.010	1.971
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 9/11/2019 13:28:11 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.946**	**1.977**	**1.953**	**1.971**	**2.029**	**1.933**	**1.970**	**1.944**
Stddev	.019	.023	.022	.021	.025	.009	.021	.018
%RSD	.9652	1.151	1.135	1.063	1.215	.4388	1.084	.9223
#1	1.961	1.951	1.976	1.948	2.001	1.924	1.946	1.957
#2	1.925	1.987	1.932	1.976	2.038	1.938	1.978	1.923
#3	1.951	1.993	1.952	1.989	2.048	1.939	1.987	1.950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**191100.**	**35244.**	**8923.8**	**11984.**
Stddev	1612.	33.	82.1	92.
%RSD	.84356	.09500	.92032	.76881
#1	189560.	35272.	9018.6	12089.
#2	192780.	35254.	8878.4	11939.
#3	190950.	35207.	8874.4	11922.

Zoom In Zoom Out

Sample Name: ccb Acquired: 9/11/2019 13:33:16 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0002**	**.0001**	**-.0000**	**-.0008**	**.0001**	**.0003**	**-.0008**
Stddev	.0004	.0001	.0001	.0002	.0004	.0003	.0000	.0001	.0002
%RSD	255.8	60.90	44.02	106.2	1080.	42.11	24.59	50.50	27.37
#1	-.0003	.0002	.0002	-.0000	-.0005	-.0004	.0002	.0001	-.0008
#2	.0004	.0001	.0001	.0002	.0004	-.0011	.0001	.0004	-.0011
#3	.0004	.0001	.0003	.0003	-.0001	-.0010	.0001	.0003	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0002**	**-.0006**	**-.0000**	**-.0003**	**.0019**	**.0007**	**.0031**	**.0010**
Stddev	.0001	.0001	.0002	.0002	.0004	.0011	.0013	.0058	.0008
%RSD	79.27	36.71	35.01	366.6	101.1	58.96	169.6	189.2	83.43
#1	-.0001	.0001	-.0008	.0001	-.0007	.0006	.0021	-.0035	.0005
#2	-.0001	.0002	-.0004	-.0000	-.0004	.0022	.0004	.0076	.0020
#3	-.0003	.0001	-.0005	-.0002	.0000	.0028	-.0003	.0052	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0034**	**.0034**	**-.1754**	**-.5208**	**.0029**	**.0006**	**.0011**	**.0002**	**.0001**
Stddev	.0011	.0148	.0058	.0026	.0003	.0001	.0006	.0001	.0000
%RSD	33.24	438.1	3.301	.4941	10.90	14.36	60.76	43.89	39.09
#1	.0021	-.0129	-.1687	-.5192	.0032	.0007	.0016	.0001	.0001
#2	.0041	.0161	-.1790	-.5195	.0027	.0006	.0003	.0003	.0001
#3	.0041	.0070	-.1785	-.5238	.0027	.0006	.0012	.0003	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 9/11/2019 13:33:16 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0023**	**.0003**	**-.0016**	**-.0008**	**-.0006**	**.0040**	**.0024**
Stddev	.0002	.0002	.0001	.0011	.0006	.0014	.0003	.0025
%RSD	58.54	8.975	15.89	68.19	78.02	211.2	8.728	103.2
#1	.0005	.0024	.0003	-.0019	-.0016	.0009	.0043	.0005
#2	.0001	.0021	.0004	-.0026	-.0006	-.0013	.0036	.0014
#3	.0003	.0025	.0004	-.0004	-.0003	-.0016	.0040	.0052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**199730.**	**35866.**	**9300.7**	**13104.**
Stddev	906.	224.	28.0	39.
%RSD	.45336	.62398	.30156	.30085
#1	199070.	35728.	9269.4	13059.
#2	199370.	36124.	9323.6	13122.
#3	200760.	35745.	9309.0	13132.

Zoom In Zoom Out

Sample Name: jc94537-1a Acquired: 9/11/2019 13:38:20 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0154**	**-.0003**	**.0000**	**.0003**	**.0005**	**.0027**	**.0259**	**.0055**	**-.0003**
Stddev	.0004	.0001	.0001	.0000	.0003	.0002	.0001	.0000	.0002
%RSD	2.909	16.02	973.3	12.83	62.82	8.462	.3160	.7087	47.11
#1	.0157	-.0004	-.0000	.0003	.0003	.0029	.0260	.0055	-.0002
#2	.0149	-.0003	.0001	.0003	.0003	.0024	.0258	.0055	-.0003
#3	.0156	-.0003	-.0001	.0003	.0008	.0027	.0259	.0055	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0078**	**.0262**	**.0005**	**-.0014**	**.0007**	**.0020**	**-.0014**	**38.94**
Stddev	.0002	.0001	.0012	.0003	.0003	.0003	.0010	.0069	.15
%RSD	305.1	1.401	4.506	58.31	23.99	44.20	51.10	481.0	.3797
#1	-.0000	.0077	.0275	.0003	-.0018	.0010	.0017	.0065	39.11
#2	.0001	.0078	.0254	.0003	-.0012	.0007	.0012	-.0060	38.88
#3	-.0003	.0079	.0256	.0008	-.0012	.0004	.0032	-.0048	38.83

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6620**	**5.396**	**7.123**	**21.98**	**.1120**	**.0005**	**8.143**	**-.0015**	**.2795**
Stddev	.0013	.023	.040	.11	.0004	.0000	.013	.0001	.0006
%RSD	.2017	.4309	.5634	.5112	.3905	5.232	.1576	8.902	.2226
#1	.6634	5.422	7.159	22.11	.1124	.0005	8.135	-.0015	.2802
#2	.6617	5.378	7.131	21.89	.1115	.0005	8.135	-.0014	.2791
#3	.6608	5.387	7.080	21.95	.1120	.0005	8.158	-.0017	.2792

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0011**	**.0002**	**1.710**	**-.0019**	**.0021**	**.0200**	**.0018**
Stddev	.0001	.0004	.0001	.004	.0014	.0007	.0005	.0017
%RSD	14.27	33.00	56.57	.2035	72.06	34.89	2.580	99.89
#1	-.0004	.0013	.0001	1.707	-.0035	.0020	.0206	.0027
#2	-.0005	.0007	.0003	1.709	-.0009	.0014	.0196	-.0003
#3	-.0004	.0013	.0002	1.714	-.0014	.0028	.0199	.0028

Zoom In Zoom Out

Sample Name: jc94537-1a Acquired: 9/11/2019 13:38:20 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**193400.**	**35855.**	**8980.2**	**12338.**
Stddev	913.	210.	25.2	22.
%RSD	.47219	.58514	.28056	.17901
#1	192420.	35620.	8961.2	12324.
#2	194220.	36024.	9008.8	12363.
#3	193570.	35920.	8970.6	12325.

Zoom In Zoom Out

Sample Name: jc94613-2a Acquired: 9/11/2019 13:43:16 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0152**	**-.0002**	W **-.0024**	**.0136**	**.0005**	**-.0002**	**2.294**	**.0060**
Stddev	.0001	.0001	.0001	.0001	.0003	.0002	.027	.0002
%RSD	.8166	33.31	4.649	.4887	65.33	106.6	1.181	3.894
#1	.0153	-.0002	-.0023	.0135	.0005	-.0003	2.323	.0063
#2	.0151	-.0001	-.0025	.0136	.0002	-.0001	2.269	.0058
#3	.0151	-.0001	-.0024	.0136	.0008	-.0000	2.290	.0060

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0035**	**.0067**	**3.146**	**.0006**	**-.0008**	**.0003**	**.0024**
Stddev	.0003	.0001	.0000	.007	.0005	.0001	.0009	.0007
%RSD	326.1	3.810	.5923	.2383	82.14	19.19	305.5	31.36
#1	-.0000	.0034	.0068	3.155	.0009	-.0007	.0001	.0017
#2	.0005	.0037	.0067	3.142	.0010	-.0009	-.0005	.0032
#3	-.0001	.0034	.0067	3.142	.0000	-.0007	.0012	.0023

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0047**	**25.57**	**40.08**	**2.948**	**3.505**	**5.763**	**.0468**	**.0024**
Stddev	.0051	.04	.06	.005	.009	.018	.0009	.0002
%RSD	108.8	.1507	.1519	.1868	.2418	.3088	1.821	6.271
#1	.0014	25.59	40.14	2.954	3.512	5.780	.0478	.0026
#2	.0021	25.59	40.07	2.943	3.506	5.763	.0462	.0023
#3	.0106	25.52	40.02	2.949	3.495	5.745	.0465	.0025

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.936**	**-.0017**	**.1736**	**-.0003**	**.0001**	**.0015**	**1.707**	**-.0007**
Stddev	.028	.0004	.0001	.0001	.0002	.0001	.005	.0013
%RSD	.3506	20.55	.0408	38.31	178.0	6.186	.3131	187.0
#1	7.965	-.0014	.1736	-.0004	.0004	.0016	1.713	-.0022
#2	7.934	-.0016	.1736	-.0003	.0001	.0014	1.703	.0004
#3	7.910	-.0021	.1737	-.0002	-.0001	.0014	1.706	-.0003

Zoom In Zoom Out

Sample Name: jc94613-2a Acquired: 9/11/2019 13:43:16 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0027**	**.0572**	**.0035**
Stddev	.0010	.0010	.0032
%RSD	35.63	1.669	92.81
#1	-.0035	.0561	.0070
#2	-.0016	.0579	.0006
#3	-.0031	.0577	.0029

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**194820.**	**36000.**	**9123.9**	**12661.**
Stddev	937.	209.	23.2	23.
%RSD	.48072	.57970	.25398	.18302
#1	193750.	36173.	9097.1	12635.
#2	195470.	35768.	9136.7	12667.
#3	195250.	36060.	9137.8	12681.

Zoom In Zoom Out

Sample Name: mp17232-ps1 Acquired: 9/11/2019 13:48:20 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.110**	**2.044**	**2.023**	**2.038**	**1.986**	**2.019**	**3.991**	**2.045**
Stddev	.004	.029	.008	.006	.033	.033	.091	.008
%RSD	.1826	1.404	.4051	.2934	1.640	1.632	2.287	.3697
#1	2.108	2.067	2.027	2.042	2.021	2.053	4.091	2.048
#2	2.114	2.053	2.013	2.032	1.982	2.016	3.970	2.036
#3	2.107	2.012	2.028	2.042	1.956	1.987	3.912	2.050

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2560**	**1.961**	**2.021**	**3.731**	**2.069**	**2.151**	**2.045**	**2.161**
Stddev	.0040	.032	.008	.015	.006	.005	.009	.007
%RSD	1.568	1.642	.3813	.4007	.3152	.2345	.4574	.3042
#1	.2599	1.995	2.026	3.737	2.072	2.154	2.049	2.162
#2	.2563	1.958	2.012	3.715	2.061	2.146	2.034	2.154
#3	.2519	1.931	2.025	3.743	2.073	2.154	2.052	2.167

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.16**	**71.50**	**87.79**	**31.25**	**33.62**	**37.39**	**2.201**	**2.108**
Stddev	.05	.41	.15	.02	.02	.07	.009	.008
%RSD	.2028	.5797	.1731	.0608	.0711	.1899	.4129	.3960
#1	25.10	71.79	87.65	31.23	33.61	37.39	2.206	2.107
#2	25.21	71.02	87.95	31.27	33.65	37.46	2.191	2.100
#3	25.17	71.68	87.78	31.24	33.61	37.32	2.207	2.117

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.152**	**2.139**	**2.307**	**2.130**	**2.033**	**2.122**	**1.595**	**.0452**
Stddev	.035	.006	.037	.034	.016	.034	.006	.0024
%RSD	.3835	.2987	1.612	1.593	.8052	1.609	.3522	5.379
#1	9.169	2.140	2.303	2.166	2.020	2.157	1.596	.0475
#2	9.111	2.132	2.346	2.128	2.027	2.118	1.589	.0453
#3	9.174	2.145	2.272	2.098	2.051	2.089	1.600	.0427

Zoom In Zoom Out

Sample Name: mp17232-ps1 Acquired: 9/11/2019 13:48:20 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	**-.0049**	**2.048**	W **-.0725**
Stddev	.0012	.007	.0006
%RSD	25.53	.3459	.8842
#1	-.0054	2.049	-.0729
#2	-.0034	2.040	-.0727
#3	-.0057	2.054	-.0717

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**189520.**	**35365.**	**8849.9**	**12048.**
Stddev	2837.	116.	29.6	34.
%RSD	1.4969	.32867	.33397	.28280
#1	186490.	35454.	8824.2	12017.
#2	189960.	35234.	8882.2	12084.
#3	192110.	35408.	8843.4	12043.

Zoom In Zoom Out

Sample Name: mp17228-s1 Acquired: 9/11/2019 13:53:37 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.217**	**1.935**	**1.949**	**2.001**	**2.092**	**2.013**	**3.070**	**2.068**	**.2319**
Stddev	.002	.004	.007	.006	.021	.022	.030	.006	.0031
%RSD	.1043	.2145	.3700	.2934	.9876	1.082	.9934	.2835	1.341
#1	2.216	1.931	1.950	2.003	2.077	1.998	3.049	2.071	.2323
#2	2.216	1.936	1.955	2.006	2.116	2.038	3.105	2.071	.2349
#3	2.220	1.939	1.941	1.994	2.083	2.002	3.056	2.061	.2287

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.039**	**2.555**	**1.973**	**2.079**	**2.192**	**1.934**	**1.411**	**103.1**	**41.26**
Stddev	.025	.009	.012	.005	.009	.020	.006	.1	.08
%RSD	1.208	.3516	.5812	.2472	.4242	1.016	.3935	.1292	.1909
#1	2.020	2.557	1.985	2.076	2.188	1.945	1.417	102.9	41.17
#2	2.066	2.563	1.972	2.085	2.202	1.947	1.410	103.1	41.31
#3	2.029	2.546	1.962	2.076	2.184	1.912	1.406	103.2	41.30

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**110.5**	**34.52**	**28.65**	**22.59**	**1.970**	**1.958**	**3.777**	**1.976**	**2.005**
Stddev	.3	.06	.10	.04	.010	.009	.034	.010	.004
%RSD	.2784	.1803	.3468	.1900	.5122	.4626	.9036	.4839	.1768
#1	110.1	34.45	28.75	22.54	1.976	1.965	3.796	1.978	2.002
#2	110.5	34.58	28.56	22.62	1.976	1.961	3.737	1.984	2.004
#3	110.8	34.51	28.63	22.61	1.959	1.948	3.797	1.966	2.009

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.203**	**1.220**	**1.622**	**.8798**	**.1443**	**.0436**	**3.557**	**.1710**
Stddev	.037	.021	.019	.0049	.0020	.0062	.020	.0019
%RSD	.8885	1.759	1.155	.5518	1.411	14.33	.5696	1.092
#1	4.174	1.243	1.608	.8759	.1458	.0389	3.562	.1694
#2	4.245	1.217	1.643	.8852	.1451	.0507	3.574	.1706
#3	4.189	1.201	1.614	.8782	.1420	.0411	3.535	.1731

Zoom In Zoom Out

Sample Name: mp17228-s1 Acquired: 9/11/2019 13:53:37 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**197360.**	**36270.**	**9276.4**	**12671.**
Stddev	1984.	210.	47.3	66.
%RSD	1.0052	.57946	.50935	.52126
#1	198170.	36048.	9244.0	12623.
#2	195100.	36295.	9254.6	12644.
#3	198810.	36466.	9330.6	12746.

Zoom In Zoom Out

Sample Name: mp17228-s2 Acquired: 9/11/2019 13:58:25 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.157**	**1.889**	**1.967**	**2.018**	**1.996**	**1.952**	**3.100**	**2.084**	**.2212**
Stddev	.010	.008	.026	.025	.111	.106	.172	.026	.0094
%RSD	.4671	.4038	1.317	1.218	5.534	5.435	5.536	1.241	4.238
#1	2.148	1.882	1.947	1.999	2.026	1.980	3.147	2.062	.2219
#2	2.168	1.897	1.958	2.010	1.874	1.835	2.909	2.077	.2115
#3	2.156	1.888	1.997	2.046	2.089	2.042	3.243	2.113	.2302

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.938**	**2.669**	**1.986**	**2.087**	**2.223**	**1.954**	**1.389**	**108.0**	**41.21**
Stddev	.105	.037	.029	.025	.023	.027	.017	.4	.17
%RSD	5.432	1.396	1.456	1.202	1.033	1.361	1.221	.4059	.4162
#1	1.962	2.636	1.962	2.069	2.203	1.928	1.374	107.5	41.03
#2	1.823	2.661	1.978	2.076	2.217	1.952	1.386	108.4	41.37
#3	2.029	2.709	2.018	2.115	2.248	1.982	1.408	108.0	41.24

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**120.4**	**34.38**	**28.41**	**22.13**	**1.963**	**1.947**	**3.634**	**1.990**	**1.963**
Stddev	.3	.14	.09	.14	.030	.027	.078	.030	.008
%RSD	.2776	.4014	.3171	.6422	1.523	1.397	2.144	1.498	.4205
#1	120.0	34.26	28.32	21.97	1.942	1.923	3.555	1.966	1.953
#2	120.6	34.34	28.40	22.23	1.949	1.942	3.638	1.980	1.969
#3	120.5	34.53	28.50	22.20	1.997	1.977	3.710	2.023	1.965

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.987**	**1.115**	**1.552**	**.9625**	**.1327**	**.0374**	**3.724**	**.1739**
Stddev	.220	.012	.082	.0186	.0184	.0003	.049	.0121
%RSD	5.510	1.064	5.269	1.931	13.84	.9030	1.324	6.944
#1	4.049	1.109	1.569	.9532	.1476	.0378	3.687	.1754
#2	3.743	1.108	1.463	.9503	.1122	.0372	3.705	.1612
#3	4.169	1.129	1.624	.9839	.1383	.0373	3.780	.1852

Zoom In Zoom Out

Sample Name: mp17228-s2 Acquired: 9/11/2019 13:58:25 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**203410.**	**36158.**	**9182.6**	**12558.**
Stddev	11926.	80.	73.4	80.
%RSD	5.8631	.22056	.79945	.63927
#1	197630.	36250.	9232.9	12615.
#2	217120.	36108.	9216.5	12593.
#3	195460.	36115.	9098.4	12466.

Zoom In Zoom Out

Sample Name: jc94464-2 Acquired: 9/11/2019 14:03:13 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1965**	**.0022**	**.0113**	**.0275**	**.1535**	**.1576**	**1.172**	**.0586**	**.0039**
Stddev	.0018	.0001	.0006	.0011	.0015	.0030	.010	.0013	.0000
%RSD	.9353	3.017	5.498	3.852	1.004	1.931	.8906	2.159	.6619
#1	.1950	.0023	.0108	.0273	.1549	.1589	1.183	.0572	.0039
#2	.1960	.0022	.0120	.0265	.1538	.1598	1.170	.0588	.0039
#3	.1986	.0022	.0112	.0286	.1519	.1541	1.163	.0597	.0039

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1315**	**.5283**	**.0362**	**.0057**	**.1580**	**.0060**	**.0062**	**61.04**	**20.71**
Stddev	.0033	.0027	.0008	.0055	.0029	.0058	.0032	.19	.07
%RSD	2.541	.5134	2.170	97.84	1.843	96.68	50.88	.3171	.3530
#1	.1351	.5312	.0354	.0064	.1611	-.0004	.0055	60.84	20.64
#2	.1308	.5258	.0363	.0108	.1575	.0076	.0034	61.04	20.71
#3	.1285	.5278	.0370	-.0002	.1553	.0109	.0096	61.23	20.78

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**78.53**	**9.448**	**2.762**	**-1.831**	**.0399**	**.0150**	**2.065**	**.0261**	**.1066**
Stddev	.25	.083	.113	.062	.0017	.0006	.010	.0016	.0006
%RSD	.3158	.8732	4.097	3.393	4.355	4.236	.4689	6.195	.6043
#1	78.32	9.373	2.639	-1.829	.0412	.0154	2.070	.0265	.1058
#2	78.48	9.434	2.861	-1.770	.0405	.0142	2.054	.0275	.1070
#3	78.80	9.536	2.787	-1.894	.0379	.0152	2.072	.0243	.1069

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.755**	**.0514**	**.0197**	**.9274**	**.0689**	**.0306**	**1.741**	**.2211**
Stddev	.015	.0028	.0020	.0133	.0037	.0030	.014	.0128
%RSD	.8325	5.523	10.20	1.437	5.331	9.698	.8118	5.801
#1	1.766	.0520	.0216	.9426	.0731	.0272	1.756	.2192
#2	1.760	.0539	.0197	.9176	.0664	.0326	1.728	.2347
#3	1.739	.0483	.0176	.9222	.0672	.0320	1.740	.2093

Zoom In Zoom Out

Sample Name: jc94464-2 Acquired: 9/11/2019 14:03:13 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**194490.**	**35813.**	**9285.4**	**12828.**
Stddev	1858.	153.	40.7	52.
%RSD	.95554	.42712	.43853	.40224
#1	192350.	35920.	9242.9	12781.
#2	195550.	35881.	9324.0	12883.
#3	195580.	35638.	9289.4	12820.

Zoom In Zoom Out

Sample Name: mp17228-sd1 Acquired: 9/11/2019 14:08:10 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1979**	**.0013**	**.0120**	**.0271**	**.1487**	**.1357**	**1.134**	**.0577**	**-.0066**
Stddev	.0087	.0006	.0014	.0065	.0013	.0123	.016	.0082	.0028
%RSD	4.383	44.25	11.21	23.88	.8982	9.091	1.367	14.16	43.09
#1	.2027	.0015	.0120	.0237	.1473	.1470	1.141	.0670	-.0092
#2	.1879	.0018	.0134	.0346	.1488	.1225	1.116	.0545	-.0068
#3	.2030	.0007	.0107	.0231	.1500	.1374	1.144	.0516	-.0036

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1229**	**.5630**	**.0394**	**.0271**	**.1632**	**.0202**	**.0035**	**60.29**	**20.79**
Stddev	.0023	.0013	.0117	.0148	.0121	.0124	.0228	.16	.05
%RSD	1.908	.2320	29.55	54.66	7.442	61.21	642.1	.2628	.2226
#1	.1252	.5643	.0327	.0101	.1539	.0238	-.0226	60.43	20.76
#2	.1229	.5630	.0529	.0340	.1770	.0064	.0145	60.12	20.85
#3	.1205	.5617	.0328	.0372	.1588	.0303	.0188	60.31	20.77

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**78.07**	**9.585**	**-.6852**	**-12.14**	**.0612**	**.0541**	**2.246**	**.0471**	**.1058**
Stddev	.10	.123	.7542	.11	.0040	.0010	.025	.0061	.0019
%RSD	.1308	1.285	110.1	.9106	6.559	1.859	1.098	12.88	1.836
#1	78.18	9.456	-.9509	-12.10	.0600	.0541	2.250	.0402	.1079
#2	78.05	9.702	.1660	-12.27	.0579	.0551	2.220	.0518	.1056
#3	77.97	9.598	-1.271	-12.05	.0657	.0530	2.268	.0491	.1041

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.724**	**.3093**	**.0372**	**.9233**	**.0602**	**.0293**	**1.871**	**.2526**
Stddev	.028	.0168	.0015	.0088	.0357	.0101	.014	.0140
%RSD	1.650	5.433	4.086	.9516	59.40	34.50	.7616	5.532
#1	1.739	.3281	.0378	.9334	.0241	.0391	1.867	.2674
#2	1.692	.3040	.0354	.9174	.0608	.0300	1.886	.2397
#3	1.743	.2958	.0382	.9192	.0956	.0189	1.858	.2507

Zoom In Zoom Out

Sample Name: mp17228-sd1 Acquired: 9/11/2019 14:08:10 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**199700.**	**36137.**	**9214.5**	**12929.**
Stddev	3070.	151.	22.7	17.
%RSD	1.5373	.41870	.24615	.13034
#1	196690.	35998.	9198.1	12919.
#2	202820.	36298.	9240.4	12949.
#3	199600.	36116.	9205.0	12920.

Zoom In Zoom Out

Sample Name: mp17228-ps1 Acquired: 9/11/2019 14:13:10 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.246**	**2.041**	**2.055**	**2.103**	**2.172**	**2.135**	**3.184**	**2.158**	**.2627**
Stddev	.006	.006	.007	.007	.016	.014	.017	.009	.0027
%RSD	.2532	.3126	.3348	.3148	.7375	.6501	.5168	.3916	1.014
#1	2.250	2.047	2.047	2.096	2.178	2.135	3.189	2.148	.2646
#2	2.248	2.041	2.059	2.109	2.154	2.121	3.165	2.164	.2596
#3	2.240	2.035	2.059	2.106	2.185	2.148	3.197	2.162	.2638

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.091**	**2.571**	**2.192**	**2.194**	**2.397**	**2.060**	**2.170**	**81.72**	**44.54**
Stddev	.014	.012	.004	.007	.008	.013	.005	.12	.13
%RSD	.6710	.4665	.1772	.3240	.3420	.6515	.2244	.1476	.2913
#1	2.086	2.557	2.194	2.189	2.387	2.045	2.174	81.85	44.67
#2	2.080	2.577	2.188	2.202	2.403	2.068	2.170	81.63	44.54
#3	2.106	2.579	2.195	2.190	2.400	2.068	2.165	81.66	44.41

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**98.53**	**34.27**	**27.78**	**23.62**	**2.120**	**2.127**	**2.651**	**2.235**	**2.100**
Stddev	.12	.07	.16	.10	.007	.010	.135	.010	.004
%RSD	.1251	.2103	.5583	.4032	.3363	.4596	5.072	.4576	.1675
#1	98.63	34.25	27.76	23.73	2.112	2.118	2.768	2.223	2.102
#2	98.58	34.35	27.94	23.59	2.124	2.125	2.504	2.243	2.103
#3	98.40	34.21	27.64	23.54	2.125	2.138	2.681	2.239	2.097

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.783**	**1.939**	**2.128**	**.8757**	**.1177**	**.0262**	**3.622**	**.1303**
Stddev	.022	.007	.013	.0025	.0053	.0004	.007	.0146
%RSD	.5796	.3884	.6257	.2818	4.483	1.392	.2036	11.21
#1	3.789	1.930	2.130	.8755	.1237	.0262	3.614	.1470
#2	3.758	1.941	2.114	.8782	.1153	.0266	3.627	.1232
#3	3.801	1.945	2.140	.8733	.1140	.0259	3.627	.1205

Zoom In Zoom Out

Sample Name: mp17228-ps1 Acquired: 9/11/2019 14:13:10 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**196680.**	**36359.**	**9235.1**	**12631.**
Stddev	386.	81.	48.2	62.
%RSD	.19639	.22222	.52182	.48876
#1	196360.	36450.	9290.7	12699.
#2	197110.	36328.	9204.5	12579.
#3	196580.	36297.	9210.3	12614.

Zoom In Zoom Out

Sample Name: ccv Acquired: 9/11/2019 14:18:00 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.044**	**2.008**	**2.025**	**2.046**	**2.010**	**2.012**	**2.037**	**2.070**	**.2488**
Stddev	.018	.018	.005	.004	.014	.012	.036	.003	.0017
%RSD	.8621	.8704	.2677	.2212	.7095	.5839	1.752	.1340	.6671
#1	2.037	2.021	2.029	2.048	2.015	2.016	2.022	2.072	.2497
#2	2.030	2.014	2.019	2.040	2.021	2.021	2.078	2.067	.2498
#3	2.064	1.988	2.026	2.048	1.994	1.998	2.012	2.072	.2469
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.982**	**2.045**	**2.027**	**2.103**	**2.059**	**2.068**	**2.023**	**39.59**	**39.84**
Stddev	.012	.006	.006	.003	.001	.009	.002	.37	.31
%RSD	.6239	.2793	.3174	.1318	.0525	.4401	.0840	.9330	.7849
#1	1.987	2.051	2.033	2.106	2.060	2.076	2.022	39.45	39.76
#2	1.992	2.041	2.020	2.100	2.058	2.058	2.025	39.31	39.58
#3	1.968	2.043	2.028	2.104	2.059	2.069	2.022	40.01	40.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.34**	**39.33**	**39.67**	**39.17**	**2.069**	**1.999**	**5.251**	**2.030**	**1.983**
Stddev	.32	.31	.32	.29	.005	.007	.018	.005	.016
%RSD	.7984	.7902	.7975	.7450	.2618	.3394	.3415	.2385	.8165
#1	40.22	39.25	39.62	39.06	2.071	2.006	5.267	2.035	1.978
#2	40.09	39.07	39.38	38.94	2.063	1.993	5.231	2.026	1.971
#3	40.70	39.68	40.01	39.50	2.073	1.999	5.254	2.028	2.002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 9/11/2019 14:18:00 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.002**	**2.020**	**2.020**	**2.016**	**2.066**	**1.943**	**1.998**	**1.998**
Stddev	.016	.006	.012	.005	.003	.015	.006	.014
%RSD	.8174	.2944	.6088	.2334	.1633	.7440	.3059	.6832
#1	2.007	2.025	2.026	2.019	2.069	1.940	2.003	2.007
#2	2.016	2.014	2.029	2.011	2.062	1.931	1.991	2.006
#3	1.984	2.021	2.006	2.018	2.066	1.959	2.000	1.983
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**186380.**	**35258.**	**8808.6**	**11859.**
Stddev	1509.	274.	21.2	9.
%RSD	.80940	.77816	.24028	.07789
#1	186190.	35269.	8787.3	11854.
#2	184970.	35526.	8808.9	11853.
#3	187970.	34978.	8829.6	11870.

Zoom In Zoom Out

Sample Name: ccb Acquired: 9/11/2019 14:23:01 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0001**	**.0003**	**.0001**	**-.0000**	**-.0004**	**.0002**	**.0001**	**-.0007**
Stddev	.0003	.0000	.0000	.0001	.0002	.0000	.0000	.0002	.0003
%RSD	45.82	21.41	.9009	120.5	443.1	8.707	13.95	179.3	44.53
#1	.0006	.0001	.0003	.0000	-.0003	-.0004	.0002	.0002	-.0004
#2	.0008	.0001	.0003	.0000	.0001	-.0004	.0002	.0003	-.0010
#3	.0003	.0002	.0003	.0002	.0001	-.0005	.0002	-.0001	-.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0003**	**.0006**	**-.0006**	**.0021**	**.0009**	**.0023**	**.0038**
Stddev	.0001	.0000	.0001	.0002	.0002	.0005	.0014	.0039	.0011
%RSD	325.1	32.45	43.20	38.10	31.63	22.85	153.3	165.0	29.03
#1	.0000	.0001	.0001	.0008	-.0005	.0026	.0021	-.0004	.0027
#2	.0001	.0001	.0003	.0007	-.0004	.0019	-.0006	.0006	.0039
#3	-.0000	.0001	.0004	.0004	-.0008	.0017	.0012	.0068	.0048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**.0022**	**-.2089**	**-.5156**	**.0033**	**.0018**	**.0015**	**.0003**	**.0001**
Stddev	.0008	.0080	.0233	.0059	.0003	.0002	.0008	.0003	.0001
%RSD	18.93	359.6	11.13	1.144	10.32	9.815	53.87	99.28	68.55
#1	.0044	.0067	-.1961	-.5088	.0037	.0016	.0011	.0001	.0002
#2	.0033	.0069	-.2357	-.5183	.0032	.0020	.0024	.0006	.0000
#3	.0049	-.0070	-.1949	-.5196	.0031	.0017	.0009	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 9/11/2019 14:23:01 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**F .0062**	**.0005**	**-.0020**	**-.0010**	**-.0023**	**.0045**	**.0009**
Stddev	.0000	.0003	.0000	.0012	.0007	.0003	.0006	.0033
%RSD	12.51	4.732	9.056	59.62	68.40	12.78	12.24	349.9
#1	.0003	.0065	.0005	-.0006	-.0002	-.0021	.0051	.0038
#2	.0003	.0059	.0005	-.0028	-.0015	-.0026	.0041	.0018
#3	.0003	.0061	.0006	-.0026	-.0012	-.0021	.0044	-.0027
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0050						
Low Limit		-.0050						

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**193550.**	**35362.**	**8945.4**	**12661.**
Stddev	1310.	108.	14.5	19.
%RSD	.67668	.30658	.16262	.15062
#1	193040.	35358.	8929.3	12648.
#2	195040.	35255.	8957.6	12683.
#3	192570.	35472.	8949.4	12652.

Zoom In Zoom Out

Sample Name: mp17232-s1 Acquired: 9/11/2019 14:28:05 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.128**	**2.063**	**2.035**	**2.075**	**2.038**	**1.990**	**4.325**	**2.090**	**.2459**
Stddev	.007	.005	.008	.011	.022	.020	.045	.015	.0017
%RSD	.3346	.2510	.3788	.5078	1.058	1.021	1.050	.7144	.6765
#1	2.125	2.060	2.028	2.067	2.022	1.980	4.299	2.080	.2470
#2	2.123	2.059	2.043	2.087	2.029	1.976	4.298	2.108	.2440
#3	2.136	2.068	2.033	2.073	2.062	2.013	4.377	2.084	.2467

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.006**	**2.095**	**3.666**	**2.168**	**2.100**	**2.051**	**2.074**	**25.26**	**75.57**
Stddev	.020	.008	.013	.011	.009	.022	.014	.09	.19
%RSD	.9841	.3664	.3591	.5064	.4381	1.065	.6767	.3641	.2457
#1	1.995	2.091	3.651	2.159	2.091	2.026	2.060	25.16	75.45
#2	1.995	2.104	3.676	2.180	2.109	2.066	2.088	25.27	75.48
#3	2.029	2.090	3.671	2.164	2.101	2.059	2.075	25.34	75.79

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**93.67**	**32.51**	**33.36**	**36.34**	**2.228**	**2.075**	**9.702**	**2.122**	**2.402**
Stddev	.38	.17	.25	.07	.012	.011	.046	.012	.009
%RSD	.4062	.5179	.7391	.1949	.5293	.5040	.4772	.5749	.3730
#1	93.46	32.37	33.38	36.36	2.220	2.065	9.668	2.113	2.394
#2	93.45	32.46	33.10	36.26	2.242	2.086	9.755	2.136	2.400
#3	94.11	32.70	33.59	36.39	2.223	2.075	9.684	2.117	2.412

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.040**	**2.072**	**2.056**	**1.705**	**.0338**	**-.0122**	**2.064**	**-.0714**
Stddev	.022	.013	.019	.021	.0021	.0026	.006	.0078
%RSD	1.096	.6145	.9040	1.229	6.281	21.22	.3092	10.96
#1	2.027	2.061	2.045	1.683	.0322	-.0127	2.058	-.0783
#2	2.027	2.086	2.046	1.725	.0329	-.0094	2.070	-.0731
#3	2.066	2.071	2.078	1.707	.0362	-.0145	2.065	-.0629

Zoom In Zoom Out

Sample Name: mp17232-s1 Acquired: 9/11/2019 14:28:05 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**194030.**	**35676.**	**9093.1**	**12530.**
Stddev	2356.	64.	23.1	42.
%RSD	1.2144	.17946	.25401	.33318
#1	196250.	35738.	9109.1	12567.
#2	194280.	35681.	9066.6	12485.
#3	191560.	35611.	9103.5	12537.

Zoom In Zoom Out

Sample Name: mp17232-s2 Acquired: 9/11/2019 14:32:55 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.078**	**2.013**	**1.992**	**2.024**	**2.008**	**1.951**	**4.274**	**2.037**	**.2432**
Stddev	.022	.022	.008	.007	.015	.013	.035	.007	.0023
%RSD	1.046	1.083	.4166	.3543	.7487	.6631	.8087	.3643	.9544
#1	2.053	1.988	1.998	2.027	2.025	1.966	4.314	2.042	.2459
#2	2.091	2.021	1.995	2.029	1.997	1.942	4.249	2.039	.2419
#3	2.091	2.029	1.982	2.016	2.001	1.946	4.261	2.028	.2418

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.970**	**2.043**	**3.598**	**2.113**	**2.049**	**2.003**	**2.021**	**24.69**	**73.85**
Stddev	.016	.004	.011	.005	.010	.008	.011	.28	.73
%RSD	.8275	.1883	.2935	.2369	.4744	.3995	.5294	1.143	.9823
#1	1.989	2.044	3.603	2.117	2.060	2.007	2.030	24.37	73.01
#2	1.961	2.047	3.606	2.116	2.045	2.007	2.025	24.78	74.20
#3	1.960	2.039	3.586	2.108	2.042	1.993	2.009	24.91	74.32

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**91.68**	**31.74**	**32.52**	**35.53**	**2.182**	**2.035**	**9.561**	**2.070**	**2.342**
Stddev	.85	.36	.24	.34	.006	.009	.035	.007	.021
%RSD	.9276	1.126	.7303	.9612	.2549	.4249	.3626	.3452	.8980
#1	90.70	31.34	32.25	35.14	2.184	2.041	9.595	2.068	2.318
#2	92.12	31.89	32.64	35.70	2.187	2.040	9.562	2.078	2.355
#3	92.23	32.01	32.68	35.76	2.176	2.025	9.526	2.064	2.354

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.007**	**2.018**	**2.020**	**1.635**	**.0361**	**-.0123**	**2.019**	**-.0611**
Stddev	.016	.010	.014	.003	.0046	.0035	.007	.0037
%RSD	.7790	.5117	.6808	.1941	12.67	28.45	.3589	6.093
#1	2.025	2.023	2.036	1.633	.0318	-.0158	2.027	-.0569
#2	1.995	2.025	2.012	1.639	.0409	-.0123	2.017	-.0639
#3	2.003	2.007	2.012	1.634	.0356	-.0088	2.013	-.0625

Zoom In Zoom Out

Sample Name: mp17232-s2 Acquired: 9/11/2019 14:32:55 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**190090.**	**35547.**	**9028.5**	**12463.**
Stddev	582.	357.	32.9	45.
%RSD	.30593	1.0046	.36480	.36388
#1	189560.	35932.	9013.7	12433.
#2	190010.	35482.	9005.7	12441.
#3	190710.	35227.	9066.3	12515.

Zoom In Zoom Out

Sample Name: jc94613-1a Acquired: 9/11/2019 14:37:44 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0520**	**-.0005**	**-.0003**	**.0176**	**.0005**	**.0000**	**2.097**	**.0069**	**-.0012**
Stddev	.0012	.0000	.0009	.0012	.0006	.0005	.031	.0009	.0008
%RSD	2.286	7.518	267.0	6.874	131.2	14380.	1.493	13.42	60.40
#1	.0534	-.0005	.0000	.0189	.0007	.0004	2.124	.0079	-.0012
#2	.0515	-.0005	.0003	.0164	.0010	.0002	2.105	.0065	-.0005
#3	.0512	-.0005	-.0013	.0176	-.0002	-.0006	2.062	.0062	-.0020

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0032**	**.0664**	**1.552**	**.0004**	**-.0017**	**.0040**	**.0096**	**.0818**	**49.17**
Stddev	.0002	.0023	.006	.0007	.0021	.0015	.0044	.0152	.06
%RSD	6.796	3.507	.3784	154.2	120.8	38.21	45.39	18.55	.1189
#1	.0035	.0686	1.551	-.0003	-.0014	.0032	.0128	.0664	49.19
#2	.0031	.0665	1.558	.0005	.0002	.0030	.0114	.0821	49.22
#3	.0031	.0640	1.546	.0011	-.0039	.0057	.0047	.0968	49.11

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**65.11**	**6.933**	**7.829**	**10.36**	**.1489**	**.0045**	**9.209**	**-.0001**	**.3646**
Stddev	.05	.013	.224	.12	.0014	.0007	.034	.0007	.0006
%RSD	.0757	.1921	2.860	1.176	.9137	14.88	.3666	449.1	.1720
#1	65.16	6.921	7.590	10.41	.1504	.0053	9.236	.0006	.3651
#2	65.06	6.930	8.034	10.44	.1477	.0041	9.219	-.0004	.3648
#3	65.12	6.948	7.862	10.22	.1486	.0042	9.171	-.0006	.3639

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0134**	**.0074**	**1.607**	**-.0036**	**-.0036**	**.0930**	**.0061**
Stddev	.0012	.0010	.0003	.011	.0014	.0055	.0030	.0072
%RSD	378.3	7.128	4.241	.6961	38.12	153.5	3.229	117.9
#1	-.0017	.0133	.0076	1.600	-.0048	-.0099	.0928	.0073
#2	-.0000	.0125	.0076	1.620	-.0021	-.0009	.0902	-.0016
#3	.0007	.0144	.0071	1.602	-.0039	.0001	.0962	.0127

Zoom In Zoom Out

Sample Name: jc94613-1a Acquired: 9/11/2019 14:37:44 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**200250.**	**35956.**	**9184.2**	**12850.**
Stddev	2862.	160.	22.8	28.
%RSD	1.4294	.44548	.24787	.21689
#1	198090.	35946.	9161.0	12818.
#2	199150.	36121.	9185.1	12866.
#3	203500.	35801.	9206.6	12866.

Zoom In Zoom Out

Sample Name: mp17232-sd1 Acquired: 9/11/2019 14:42:40 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0510**	**-.0008**	**-.0004**	**.0193**	**-.0021**	**-.0099**	**2.082**	**.0093**	**-.0165**
Stddev	.0062	.0008	.0019	.0033	.0013	.0085	.016	.0066	.0062
%RSD	12.05	105.0	458.3	16.93	58.95	86.03	.7583	71.53	37.62
#1	.0480	-.0016	-.0023	.0224	-.0036	-.0046	2.075	.0086	-.0138
#2	.0470	-.0007	.0015	.0159	-.0014	-.0054	2.100	.0162	-.0236
#3	.0581	-.0000	-.0004	.0196	-.0014	-.0198	2.071	.0030	-.0121

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0066**	**.0937**	**1.542**	**.0040**	**-.0199**	**.0516**	**.0325**	**.3489**	**47.89**
Stddev	.0051	.0013	.025	.0145	.0102	.0188	.0284	.1226	.09
%RSD	77.02	1.387	1.588	360.3	51.25	36.47	87.29	35.13	.1837
#1	-.0018	.0952	1.550	.0134	-.0282	.0399	.0056	.2452	47.91
#2	-.0120	.0934	1.514	.0114	-.0085	.0416	.0297	.4842	47.96
#3	-.0061	.0926	1.561	-.0127	-.0231	.0734	.0622	.3173	47.79

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**64.35**	**6.902**	**4.601**	**-.6394**	**.1787**	**.0154**	**9.180**	**-.0014**	**.3590**
Stddev	.16	.254	.732	.4312	.0033	.0060	.020	.0058	.0008
%RSD	.2540	3.687	15.91	67.44	1.870	38.85	.2180	420.3	.2278
#1	64.29	7.085	4.360	-.1626	.1817	.0109	9.196	.0051	.3596
#2	64.54	7.010	5.423	-.7533	.1793	.0222	9.185	-.0061	.3592
#3	64.23	6.611	4.019	-1.002	.1751	.0132	9.157	-.0031	.3580

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0506**	**.0127**	**1.572**	**-.0181**	**-.0294**	**.1660**	**-.0074**
Stddev	.0013	.0174	.0042	.012	.0478	.0206	.0093	.1271
%RSD	135.5	34.46	33.23	.7314	263.6	70.01	5.591	1725.
#1	-.0019	.0523	.0098	1.584	-.0297	-.0506	.1717	-.0680
#2	.0005	.0324	.0108	1.561	.0344	-.0280	.1553	-.0928
#3	-.0014	.0671	.0176	1.571	-.0591	-.0095	.1710	.1387

Zoom In Zoom Out

Sample Name: mp17232-sd1 Acquired: 9/11/2019 14:42:40 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**196990.**	**36065.**	**9198.7**	**12950.**
Stddev	1784.	11.	14.2	21.
%RSD	.90537	.02973	.15453	.16200
#1	198570.	36073.	9183.5	12929.
#2	195050.	36069.	9201.1	12951.
#3	197360.	36053.	9211.6	12971.

Zoom In Zoom Out

Sample Name: mp17232-ps1 Acquired: 9/11/2019 14:47:40 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.097**	**2.031**	**2.041**	**2.080**	**2.026**	**1.965**	**4.169**	**2.092**	**.2570**
Stddev	.026	.024	.006	.003	.021	.017	.037	.001	.0025
%RSD	1.221	1.190	.2842	.1539	1.026	.8811	.8847	.0229	.9745
#1	2.068	2.004	2.034	2.076	2.050	1.985	4.212	2.092	.2597
#2	2.112	2.043	2.045	2.082	2.017	1.956	4.147	2.093	.2568
#3	2.113	2.048	2.043	2.082	2.011	1.955	4.149	2.092	.2547

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.963**	**2.096**	**3.723**	**2.170**	**2.229**	**2.052**	**2.171**	**25.16**	**71.88**
Stddev	.015	.005	.004	.007	.005	.011	.004	.28	.85
%RSD	.7560	.2313	.1207	.3048	.2341	.5491	.1834	1.093	1.178
#1	1.980	2.091	3.718	2.167	2.224	2.042	2.171	24.85	70.90
#2	1.958	2.100	3.723	2.177	2.229	2.049	2.176	25.26	72.37
#3	1.953	2.097	3.727	2.166	2.234	2.064	2.168	25.37	72.36

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**88.70**	**31.80**	**32.60**	**35.29**	**2.228**	**2.084**	**9.189**	**2.219**	**2.342**
Stddev	1.00	.43	.33	.40	.005	.008	.013	.006	.026
%RSD	1.130	1.345	1.004	1.138	.2298	.3691	.1434	.2600	1.124
#1	87.55	31.31	32.22	34.83	2.222	2.075	9.174	2.213	2.312
#2	89.13	31.98	32.77	35.57	2.230	2.090	9.199	2.224	2.354
#3	89.41	32.11	32.80	35.48	2.232	2.086	9.194	2.219	2.361

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.124**	**1.662**	**2.128**	**1.589**	**.0464**	**-.0111**	**2.055**	**-.0764**
Stddev	.019	.011	.017	.004	.0042	.0037	.005	.0002
%RSD	.9077	.6791	.7949	.2646	9.111	33.06	.2491	.2323
#1	2.146	1.650	2.148	1.593	.0504	-.0142	2.050	-.0763
#2	2.111	1.668	2.118	1.584	.0420	-.0121	2.055	-.0765
#3	2.115	1.670	2.119	1.590	.0470	-.0070	2.061	-.0762

Zoom In Zoom Out

Sample Name: mp17232-ps1 Acquired: 9/11/2019 14:47:40 Type: Unk
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**195840.**	**36473.**	**9148.9**	**12602.**
Stddev	1715.	319.	19.4	14.
%RSD	.87588	.87461	.21154	.11335
#1	193880.	36840.	9168.9	12617.
#2	196540.	36320.	9130.2	12589.
#3	197090.	36260.	9147.5	12599.

Zoom In Zoom Out

Sample Name: ccv Acquired: 9/11/2019 14:52:30 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.061**	**2.027**	**2.036**	**2.058**	**2.059**	**2.068**	**2.072**	**2.081**	**.2553**
Stddev	.013	.043	.008	.009	.084	.086	.091	.009	.0096
%RSD	.6350	2.146	.3926	.4403	4.066	4.180	4.374	.4533	3.773
#1	2.050	1.978	2.045	2.069	2.035	2.043	2.027	2.091	.2525
#2	2.075	2.061	2.033	2.053	2.152	2.164	2.177	2.079	.2660
#3	2.057	2.043	2.030	2.054	1.990	1.996	2.013	2.073	.2473
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.036**	**2.055**	**2.035**	**2.116**	**2.070**	**2.074**	**2.036**	**39.94**	**40.22**
Stddev	.082	.010	.010	.008	.009	.009	.011	.23	.23
%RSD	4.004	.4690	.4818	.3702	.4508	.4321	.5254	.5841	.5829
#1	2.010	2.064	2.045	2.120	2.080	2.083	2.049	39.71	39.98
#2	2.128	2.058	2.034	2.121	2.066	2.074	2.030	40.18	40.45
#3	1.972	2.045	2.026	2.107	2.063	2.065	2.030	39.94	40.23
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.72**	**39.69**	**39.91**	**39.46**	**2.077**	**2.012**	**5.274**	**2.042**	**2.003**
Stddev	.23	.26	.27	.30	.009	.009	.022	.008	.009
%RSD	.5549	.6663	.6766	.7600	.4306	.4430	.4139	.3798	.4321
#1	40.48	39.38	39.70	39.22	2.085	2.022	5.299	2.051	1.994
#2	40.92	39.88	40.21	39.80	2.077	2.010	5.266	2.041	2.011
#3	40.77	39.80	39.81	39.37	2.067	2.005	5.257	2.035	2.004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 9/11/2019 14:52:30 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.050**	**2.030**	**2.075**	**2.019**	**2.081**	**1.959**	**2.011**	**2.049**
Stddev	.086	.008	.085	.009	.009	.013	.009	.086
%RSD	4.170	.4002	4.083	.4191	.4286	.6537	.4353	4.212
#1	2.024	2.039	2.049	2.028	2.084	1.948	2.016	2.022
#2	2.146	2.028	2.170	2.017	2.088	1.973	2.017	2.146
#3	1.981	2.023	2.007	2.012	2.070	1.957	2.001	1.980
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**182480.**	**35114.**	**8740.3**	**11771.**
Stddev	6935.	303.	34.5	40.
%RSD	3.8005	.86184	.39446	.33580
#1	184900.	35447.	8728.0	11749.
#2	174660.	35040.	8713.7	11748.
#3	187870.	34855.	8779.3	11817.

Zoom In Zoom Out

Sample Name: ccb Acquired: 9/11/2019 14:57:32 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0003**	**.0001**	**.0001**	**-.0004**	**.0002**	**.0002**	**-.0007**
Stddev	.0001	.0001	.0001	.0000	.0002	.0003	.0000	.0002	.0003
%RSD	59.08	45.17	41.57	28.88	276.1	83.43	13.90	156.7	42.03
#1	.0002	.0002	.0005	.0002	.0001	-.0004	.0002	-.0001	-.0005
#2	.0004	.0001	.0003	.0001	.0003	-.0000	.0002	.0003	-.0007
#3	.0001	.0001	.0002	.0001	-.0002	-.0006	.0002	.0003	-.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0002**	**-.0004**	**.0008**	**.0000**	**-.0002**	**.0003**	**.0040**	**.0042**
Stddev	.0002	.0001	.0005	.0005	.0011	.0002	.0015	.0079	.0006
%RSD	66.15	37.26	128.0	65.18	5761.	123.6	452.4	197.7	14.56
#1	-.0003	.0001	.0000	.0009	-.0002	.0001	-.0008	-.0046	.0036
#2	-.0001	.0002	-.0002	.0002	-.0010	-.0004	.0021	.0055	.0044
#3	-.0004	.0002	-.0009	.0013	.0012	-.0002	-.0003	.0111	.0048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0052**	**.0043**	**-.2008**	**-.5261**	**.0035**	**.0016**	**.0008**	**.0002**	**.0002**
Stddev	.0013	.0071	.0058	.0035	.0003	.0001	.0005	.0007	.0001
%RSD	25.11	163.0	2.897	.6655	9.667	8.402	58.88	352.4	46.79
#1	.0048	-.0038	-.2017	-.5296	.0039	.0017	.0012	.0004	.0001
#2	.0066	.0077	-.1946	-.5226	.0035	.0016	.0003	-.0005	.0003
#3	.0041	.0091	-.2062	-.5262	.0032	.0015	.0010	.0007	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 9/11/2019 14:57:32 Type: QC
Method: SGS 3 NO Valve(v193) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	F **.0056**	**.0006**	**-.0028**	**-.0013**	**-.0010**	**.0043**	**.0002**
Stddev	.0001	.0008	.0001	.0011	.0008	.0021	.0004	.0007
%RSD	167.8	14.05	18.08	39.74	57.17	200.9	10.50	471.6
#1	-.0001	.0065	.0005	-.0027	-.0015	-.0034	.0040	-.0002
#2	.0001	.0052	.0007	-.0039	-.0005	-.0004	.0048	.0010
#3	.0002	.0051	.0006	-.0017	-.0020	.0007	.0040	-.0003
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0050						
Low Limit		-.0050						

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**195910.**	**35832.**	**9215.3**	**12998.**
Stddev	1461.	76.	5.3	10.
%RSD	.74583	.21074	.05733	.07839
#1	196080.	35900.	9221.4	13010.
#2	194380.	35751.	9212.2	12996.
#3	197280.	35846.	9212.2	12989.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	1	Zr	0.001245	0.000000	No
Be 313.042 {108}	☒	10	V	0.000910	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.000271	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
			Fe	-0.000001	0.000000	No
			Al	-0.000001	0.000000	No
			Mg	-0.000004	0.000000	No
			Ca	0.000008	0.000000	No
Cd 228.802 {448}	☒	11	As	0.009200	0.000000	No
			Ni	-0.000478	0.000000	No
			Fe	-0.000003	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.001100	0.000000	No
			Sr	-0.000020	0.000000	No
			Mn	0.000050	0.000000	No
			Cu	-0.000026	0.000000	No
			Zn	-0.000018	0.000000	No
			W	-0.000482	0.000000	No
Co 228.616 {448}	☒	7	Fe	0.000029	0.000000	No
			Mo	-0.000810	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.001890	0.000000	No
			Ba	0.000140	0.000000	No
			W	0.000327	0.000000	No
			Cd	-0.000510	0.000000	No
Cr 267.716 {126}	☒	9	Mn	0.000458	0.000000	No
			V	-0.000010	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000010	0.000000	No
			Ti	0.000060	0.000000	No
			Ba	0.000045	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
			W	0.000404	0.000000	No
Cu 324.754 {104}2	☒	14	Cr	-0.000099	0.000000	No
			V	-0.000306	0.000000	No
			Mo	0.000544	0.000000	No
			Ti	-0.000208	0.000000	No
			Fe	-0.000229	0.000000	No
			Zn	-0.000041	0.000000	No
			Co	-0.000860	0.000000	No
			Si	0.000016	0.000000	No
			Mn	0.000003	0.000000	No
			Se	0.000050	0.000000	No
			Sb	0.000069	0.000000	No
			W	0.000000	0.000000	No
			Al	0.000002	0.000000	No
			Zr	-0.002300	0.000000	No
Mn 257.610 {131}	☒	5	Fe	0.000005	0.000000	No
			Si	0.000010	0.000000	No
			Ba	0.000004	0.000000	No
			Ni	0.000028	0.000000	No
			Al	0.000006	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Ni 231.604 {446}	☒	8	Fe	0.000033	0.000000	No
				Zn	-0.000013	0.000000	No
				Be	0.000213	0.000000	No
				Co	-0.000220	0.000000	No
				Tl	0.000209	0.000000	No
				Mo	0.000026	0.000000	No
				Cu	0.000050	0.000000	No
				Se	0.000100	0.000000	No
	Ag 328.068 {103}	☒	15	Mn	0.000052	0.000000	No
				Mo	0.000012	-0.000003	No
				Ti	-0.000190	0.000000	No
				Fe	-0.000265	0.000000	No
				Zn	-0.000120	0.000000	No
				Ca	0.000001	0.000000	No
				Zr	0.006915	0.000000	No
				Sr	-0.000020	0.000000	No
				Mg	0.000000	0.000000	No
				Ba	0.000071	0.000000	No
				Cr	0.000022	0.000000	No
				V	-0.003480	0.000000	No
				Al	-0.000002	0.000000	No
				W	0.000000	0.000000	No
				Ce	-0.001100	0.000000	No
	V 292.402 {115}	☒	7	Ti	0.000689	0.000000	No
				Mo	-0.000100	0.000000	No
				Fe	0.000014	0.000000	No
				Sr	-0.000100	0.000000	No
				Cr	-0.006400	0.000000	No
				Mn	-0.004150	0.000000	No
				Al	0.000004	0.000000	No
	Zn 206.200 {464}	☒	9	Cr	-0.004225	0.000000	No
				Fe	0.000011	0.000000	No
				Si	0.000015	0.000000	No
				Mn	-0.000045	0.000000	No
				Ba	-0.000060	0.000000	No
				Sn	-0.000023	0.000000	No
				Cu	0.000148	0.000000	No
				As	0.000055	0.000000	No
				Be	0.000058	0.000000	No
	As 189.042 {478}	☒	20	Al	-0.000004	0.000000	No
				Fe	-0.000027	0.000000	No
				Ca	-0.000005	0.000000	No
				Mo	0.002730	0.000000	No
				Cr	-0.005410	0.000000	No
				Ba	-0.000114	0.000000	No
				Sn	-0.000130	0.000000	No
				Cd	-0.000328	0.000000	No
				Si	0.000024	0.000000	No
				Zn	-0.000082	0.000000	No
				Sr	-0.000045	0.000000	No
				W	0.001546	0.000000	No
				Cu	-0.000058	0.000000	No
				Co	-0.000545	0.000000	No
				Zr	0.000036	0.000000	No
				Mn	-0.000158	0.000000	No
				S	-0.000008	0.000000	No
				Ti	0.000100	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Mg	0.000006	0.000000	No
				Ce	-0.000600	0.000000	No
	Tl 190.856 {477}	☒	25	Cr	0.000182	0.000000	No
				Mo	-0.008400	0.000000	No
				Al	-0.000001	0.000000	No
				Fe	-0.000055	0.000000	No
				V	-0.027800	0.000000	No
				Mn	0.001941	0.000000	No
				Si	-0.000018	0.000000	No
				Ca	0.000000	0.000000	No
				Ti	-0.002190	0.000000	No
				Mg	0.000000	0.000000	No
				Co	0.005280	0.000000	No
				Sr	0.000010	0.000000	No
				B	-0.000003	0.000000	No
				Ba	0.000034	0.000000	No
				Zn	-0.000053	0.000000	No
				As	0.000068	0.000000	No
				W	-0.025182	0.000000	No
				Cu	0.000142	0.000000	No
				Pb	-0.000020	0.000000	No
				S	0.000010	0.000000	No
				Sn	-0.000086	0.000000	No
				Li	0.000000	0.000000	No
				K	0.000000	0.000000	No
				Zr	0.000000	0.000000	No
				Ce	-0.000600	0.000000	No
	Pb 220.353 {453}	☒	21	Al	-0.000160	0.000000	No
				Fe	0.000038	0.000000	No
				Ca	0.000008	0.000000	No
				Mn	0.000024	0.000000	No
				Mo	-0.000590	0.000000	No
				Cu	0.000145	0.000000	No
				Co	0.000064	0.000000	No
				Ti	-0.000200	0.000000	No
				Si	0.000133	0.000000	No
				Ba	-0.000022	0.000000	No
				Sb	-0.000084	0.000000	No
				Sr	-0.000033	0.000000	No
				W	0.000000	0.000000	No
				Mg	0.000003	0.000000	No
				Cd	0.000012	0.000000	No
				Cr	-0.000031	0.000000	No
				Zr	-0.000281	0.000000	No
				Ni	0.000371	0.000000	No
				S	0.000010	0.000000	No
				Zn	-0.000106	0.000000	No
				Ce	0.000300	0.000000	No
	Se 196.090 {472}	☒	24	Al	-0.000008	0.000000	No
				Ca	0.000003	0.000000	No
				Mn	0.000924	0.000000	No
				Mo	0.000100	0.000000	No
				Fe	-0.000154	0.000000	No
				Co	0.000127	0.000000	No
				Sr	-0.000011	0.000000	No
				Cu	-0.000087	0.000000	No
				W	0.000000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Si	0.000054	0.000000	No
			Be	-0.000347	0.000000	No
			Zn	0.000050	0.000000	No
			B	0.000028	0.000000	No
			Ti	-0.000020	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000297	0.000000	No
			Ba	-0.000046	0.000000	No
			Mg	-0.000000	0.000000	No
			Pb	-0.000078	0.000000	No
			Ni	-0.000100	0.000000	No
			Cr	-0.000024	0.000000	No
			S	-0.000014	0.000000	No
			V	0.000188	0.000000	No
			Ce	-0.001400	0.000000	No
Sb 206.833 {463}	☒	18	Fe	0.000041	0.000000	No
			Al	-0.000001	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000716	0.000000	No
			Cr	0.020700	0.000000	No
			V	-0.003758	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	0.000796	0.000000	No
			Ti	0.000530	0.000000	No
			Sn	-0.010820	0.000000	No
			Mg	0.000001	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	-0.000142	0.000000	No
			W	0.000000	0.000000	No
			Si	-0.000170	0.000000	No
			Ce	-0.001300	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000652	0.000000	No
			Ca	0.000018	0.000000	No
			Mo	0.043916	0.000000	No
			Zr	0.005268	0.000000	No
			Ti	-0.000583	0.000000	No
Ca 317.933 {106}	☒	14	Fe	0.000012	0.000000	No
			W	0.003960	0.000000	No
			Tl	-0.000152	0.000000	No
			Be	0.001840	0.000000	No
			Ba	-0.001224	0.000000	No
			Cu	-0.000822	0.000000	No
			Cd	-0.007593	0.000000	No
			Ni	0.000667	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.000923	0.000000	No
			Co	-0.000408	0.000000	No
			Cr	0.000640	0.000000	No
			Al	-0.000000	0.000000	No
			As	0.010000	0.000000	No
Fe 259.940 {130}	☒	10	Si	0.000819	0.000000	No
			Tl	-0.000051	0.000000	No
			Cr	0.000310	0.000000	No
			Mn	-0.000196	0.000000	No
			V	-0.000064	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	-0.000015	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	☒	3	Mo	-0.013702	0.000000	No
			W	-0.006578	0.000000	No
			Mn	-0.002445	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000440	0.000000	No
			Al	0.000077	0.000000	No
			Ca	-0.000121	0.000000	No
			Mn	-0.007074	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Ba	-0.010574	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.011483	0.000000	No
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	☒	4	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000180	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.045137	0.000000	No
Mo 202.030 {467}	☒	2	Al	-0.000004	0.000000	No
			Fe	-0.000010	0.000000	No
Si 212.412 {459}	☒	12	Sr	0.000366	0.000000	No
			Ni	0.002092	0.000000	No
			Mo	0.034932	0.000000	No
			V	0.002950	0.000000	No
			Ti	0.004593	0.000000	No
			Al	-0.000010	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.001987	0.000000	No
			Sn	0.007500	0.000000	No
			Zn	0.000385	0.000000	No
			Be	-0.000048	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	☒	4	Ti	-0.002964	0.000000	No
			Fe	0.000004	0.000000	No
			Si	0.000131	0.000000	No
			Zr	0.000908	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	0.000018	0.000000	No
			Si	0.000033	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000189	0.000000	No
			Mo	0.001351	0.000000	No
			Si	0.000035	0.000000	No
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
In 230.606 {446}*	☒	None				
W 207.911 {462}	☒	20	Si	0.000105	0.000000	No
			As	0.000100	0.000000	No
			Mn	0.000066	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.013026	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	0.000061	0.000000	No
			B	0.000009	0.000000	No
			Sb	-0.000300	0.000000	No
			Co	-0.001000	0.000000	No
			Ni	-0.003000	0.000000	No
			Be	-0.000185	0.000000	No
			Se	-0.000105	0.000000	No
			Cu	-0.000138	0.000000	No
			Tl	-0.000220	0.000000	No
Zr 339.198 { 99}	☒	6	Mo	0.001069	0.000000	No
			Ti	0.000203	0.000000	No
			Fe	-0.000075	0.000000	No
			Si	0.000074	0.000000	No
			S	-0.000002	0.000000	No
			Cr	-0.000700	0.000000	No
S 182.034 {485}	☒	7	Mo	0.001779	0.000000	No
			Al	-0.000033	0.000000	No
			Fe	0.000117	0.000000	No
			Mn	0.004620	0.000000	No
			W	-0.032564	0.000000	No
			Ca	-0.000218	0.000000	No
			Mg	0.000005	0.000000	No
Bi 223.061 {451}	☒	10	Ti	-0.072020	0.000000	No
			V	-0.000704	0.000000	No
			Co	-0.002380	0.000000	No
			Ca	-0.000002	0.000000	No
			Mg	-0.000000	0.000000	No
			Fe	0.000187	0.000000	No
			Cr	0.001595	0.000000	No
			Cu	-0.001148	0.000000	No
			W	0.020000	0.000000	No
			Ce	-0.007100	0.000000	No
Li 670.784 { 50}	☒	2	Ca	0.000023	0.000000	No
			Fe	0.000081	0.000000	No
P 177.495 {490}	☒	9	Mn	-0.006184	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.001953	0.000000	No
			Si	-0.001622	0.000000	No
			Ti	0.000000	-0.001185	No
			Mo	-0.001880	0.000000	No
			S	-0.000189	0.000000	No
			Co	-0.002198	0.000000	No
			Cu	-0.023500	0.000000	No
Ce 404.076 { 83}	☒	2	Mn	-0.005600	0.000000	No
			Fe	0.000250	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.009397	1.700500	0.000000	1.000000
Be 313.042 {108}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	-0.001204	3.256067	0.000000	1.000000
Cd 228.802 {448}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000240	1.022919	0.000000	1.000000
Co 228.616 {448}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000085	0.669047	0.000000	1.000000
Cr 267.716 {126}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	-0.000034	0.163104	0.000000	1.000000
Cu 324.754 {104}2	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.003092	0.265234	0.000000	1.000000
Mn 257.610 {131}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000364	0.741281	0.000000	1.000000
Ni 231.604 {446}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	-0.000202	0.547638	0.000000	1.000000
Ag 328.068 {103}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	-0.000258	0.158665	0.000000	1.000000
V 292.402 {115}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000443	0.224964	0.000000	1.000000
Zn 206.200 {464}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000262	1.474724	0.000000	1.000000
As 189.042 {478}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	-0.000133	0.111949	0.000000	1.000000
Tl 190.856 {477}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	-0.000102	0.091339	0.000000	1.000000
Pb 220.353 {453}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000213	0.254513	0.000000	1.000000
Se 196.090 {472}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	-0.000086	0.087293	0.000000	1.000000
Sb 206.833 {463}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000117	0.142255	0.000000	1.000000
Al 396.152 { 85}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000602	0.041251	0.000000	1.000000
Ca 317.933 {106}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.005050	0.107681	0.000000	1.000000
Fe 259.940 {130}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000157	0.067028	0.000000	1.000000
Mg 279.079 {121}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	-0.000026	0.011985	0.000000	1.000000
K 766.490 { 44}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.001910	0.020133	0.000000	1.000000
Na 589.592 { 57}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.039833	0.060701	0.000000	1.000000
B 208.959 {462}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000206	0.212807	0.000000	1.000000
Mo 202.030 {467}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	-0.000403	0.730511	0.000000	1.000000
Si 212.412 {459}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.001228	0.191216	0.000000	1.000000
Sn 189.989 {478}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000157	0.227659	0.000000	1.000000
Sr 407.771 { 83}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	-0.000104	2.986754	0.000000	1.000000
Ti 334.904 {101}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000006	0.175865	0.000000	1.000000
Y 360.073 { 94}*	9/11/2019 15:30:07	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	9/11/2019 15:30:07	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	9/11/2019 15:30:07	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	9/11/2019 15:30:07	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.001474	0.349174	0.000000	1.000000
Zr 339.198 { 99}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	-0.000540	0.519563	0.000000	1.000000
S 182.034 {485}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	-0.001783	0.060473	0.000000	1.000000
Bi 223.061 {451}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.000213	0.161320	0.000000	1.000000
Li 670.784 { 50}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	None	0.001766	0.493434	0.000000	1.000000
P 177.495 {490}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	1/Conc	-0.005002	0.136054	0.000000	1.000000
Ce 404.076 { 83}	9/11/2019 15:30:07	9/11/2019 9:06:32	Linear	1/Conc	0.000639	0.038481	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ba 455.403 { 74}	1.000000	0.000000	0.000232	0.000775	OK.	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000048	0.000162	OK.	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000159	0.000529	OK.	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000199	0.000662	OK.	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000238	0.000794	OK.	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000332	0.001106	OK.	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000052	0.000175	OK.	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000278	0.000925	OK.	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000363	0.001209	OK.	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000285	0.000948	OK.	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000092	0.000307	OK.	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.000912	0.003040	OK.	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.000946	0.003152	OK.	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.000841	0.002804	OK.	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.001624	0.005413	OK.	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001244	0.004148	OK.	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.008089	0.026962	OK.	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.001805	0.006017	OK.	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.001493	0.004978	OK.	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.010380	0.034601	OK.	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.029791	0.099304	OK.	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.009977	0.033256	OK.	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000579	0.001930	OK.	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000213	0.000711	OK.	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.000917	0.003055	OK.	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000455	0.001517	OK.	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000090	0.000301	OK.	1.000000	0.000000	1	0
Ti 334.904 {101}	1.000000	0.000000	0.000287	0.000956	OK.	1.000000	0.000000	1	0
Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
W 207.911 {462}	1.000000	0.000000	0.000867	0.002891	OK.	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000139	0.000463	OK.	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.001835	0.006116	OK.	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001455	0.004850	OK.	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001297	0.004322	OK.	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.000798	0.002659	OK.	1.000000	0.000000	1	0
Ce 404.076 { 83}	1.000000	0.000000	0.002463	0.008212	OK.	1.000000	0.000000	1	0

Quantitation Report

File Name 001CALB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 9:58
Sample Name STDA 4
Sample Type CalBlk
Comment 0
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	43.79	40.00	3.096E-05	Pulse	0.25	3
B			1	0.424	ug/l	8.23	9,267.23	7.164E-03	Pulse	0.15	3
Ca			1	-0.338	ug/l	-111.82	12,338.37	4.200E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-1011.20	396.69	9.945E-05	Pulse	0.10	3
Mo			1	0.004	ug/l	108.64	213.34	5.350E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	159.00	36.67	8.896E-06	Pulse	0.10	3
Sn			1	0.046	ug/l	39.44	3,957.30	9.594E-04	Pulse	0.10	3
Sb			1	0.000	ug/l	1012.36	366.69	6.328E-05	Pulse	0.10	3
Ba			1	-0.006	ug/l	-26.75	46.67	8.064E-06	Pulse	0.10	3
Tl			1	0.001	ug/l	106.19	286.68	8.354E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	148.01	346.68	1.013E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-835.14	253.35	7.395E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-522.25	1,266.74	3.696E-04	Pulse	0.10	3
Na			2	0.186	ug/l	87.07	12,321.23	7.542E-02	Pulse	0.30	3
Mg			2	-0.008	ug/l	-1765.50	326.67	1.994E-03	Pulse	0.30	3
Al			2	-0.887	ug/l	-14.43	512.24	3.133E-03	Pulse	0.30	3
K			2	0.378	ug/l	227.89	14,250.63	8.723E-02	Pulse	0.30	3
Ca			2	0.828	ug/l	36.79	136.67	8.360E-04	Pulse	0.30	3
Ti			2	-0.006	ug/l	-171.41	1.11	6.860E-06	Pulse	0.30	3
V			2	-0.001	ug/l	-843.82	296.67	1.819E-03	Pulse	0.30	3
Cr			2	0.006	ug/l	83.06	1,033.38	6.327E-03	Pulse	0.30	3
Mn			2	0.003	ug/l	273.96	164.45	1.006E-03	Pulse	0.30	3
Fe			2	-0.046	ug/l	-19.83	6,053.42	3.705E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-79.08	36.65	2.236E-04	Pulse	0.30	3
Ni			2	-0.005	ug/l	-116.29	156.67	9.585E-04	Pulse	0.30	3
Cu			2	0.105	ug/l	8.67	9,269.37	5.673E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.857	ug/l	2.96	2,741.37	1.678E-02	Pulse	0.30	3
As			2	0.005	ug/l	165.37	26.67	1.630E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	-8327.64	13.32	1.340E-05	Pulse	0.30	3
Sn			2	0.034	ug/l	22.47	1,307.85	1.324E-03	Pulse	0.30	3
Se			3	0.003	ug/l	231.42	4.67	2.235E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,293,477.86	0.85	100.0	Pulse	0.10	3
1	Sc		2,937,628.29	0.96	100.0	Pulse	0.10	3
1	Ge		590,365.82	0.61	100.0	Pulse	0.10	3
1	Ge		823,440.98	0.20	100.0	Pulse	0.10	3
1	Rh		3,988,223.28	0.14	100.0	Pulse	0.10	3
1	In		4,124,450.35	0.25	100.0	Pulse	0.10	3
1	Tb		5,792,625.12	0.61	100.0	Analog	0.10	3
1	Ho		565,945.28	0.49	100.0	Pulse	0.10	3
1	Bi		3,428,745.78	1.25	100.0	Pulse	0.10	3
2	Sc		163,393.50	1.39	100.0	Pulse	0.30	3
2	Ge		101,541.64	2.19	100.0	Pulse	0.30	3
2	Ge		152,600.55	1.45	100.0	Pulse	0.30	3
2	Rh		2,484,648.86	1.39	100.0	Pulse	0.30	3
2	In		987,770.27	1.73	100.0	Pulse	0.30	3
2	Tb		3,320,080.42	1.95	100.0	Pulse	0.30	3
2	Ho		337,708.41	2.10	100.0	Pulse	0.30	3
2	Bi		2,269,619.70	1.98	100.0	Pulse	0.30	3
3	Sc		215,719.06	8.25	100.0	Pulse	0.30	3
3	Ge		140,000.67	5.43	100.0	Pulse	0.30	3
3	Ge		210,795.79	5.76	100.0	Pulse	0.30	3
3	Rh		2,134,340.05	7.69	100.0	Pulse	0.30	3
3	Tb		3,555,459.16	8.04	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 10:03
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.023	ug/l	33.08	181.34	1.400E-04	Pulse	0.25	3
B			1	0.205	ug/l	24.04	8,208.84	6.337E-03	Pulse	0.15	3
Ca			1	11.534	ug/l	2.36	23,757.80	8.229E-03	Pulse	0.10	3
Sr			1	0.020	ug/l	6.53	1,463.45	3.735E-04	Pulse	0.10	3
Mo			1	0.020	ug/l	58.35	363.35	9.283E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	78.97	60.00	1.482E-05	Pulse	0.10	3
Sn			1	0.065	ug/l	20.94	4,184.05	1.034E-03	Pulse	0.10	3
Sb			1	0.015	ug/l	24.88	620.04	1.096E-04	Pulse	0.10	3
Ba			1	0.024	ug/l	16.90	270.01	4.775E-05	Pulse	0.10	3
Tl			1	0.007	ug/l	16.14	586.70	1.738E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	13.88	690.04	2.043E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	52.81	603.38	1.787E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	6.63	2,830.23	8.383E-04	Pulse	0.10	3
Na			2	2.689	ug/l	4.44	15,864.23	9.698E-02	Pulse	0.30	3
Mg			2	1.249	ug/l	5.16	1,146.72	7.009E-03	Pulse	0.30	3
Al			2	14.548	ug/l	5.13	3,942.73	2.410E-02	Pulse	0.30	3
K			2	0.564	ug/l	134.10	14,371.85	8.785E-02	Pulse	0.30	3
Ca			2	13.734	ug/l	13.98	487.79	2.982E-03	Pulse	0.30	3
Ti			2	0.060	ug/l	56.89	14.45	8.828E-05	Pulse	0.30	3
V			2	0.008	ug/l	132.10	357.79	2.187E-03	Pulse	0.30	3
Cr			2	0.021	ug/l	53.70	1,158.95	7.085E-03	Pulse	0.30	3
Mn			2	0.050	ug/l	15.32	373.34	2.282E-03	Pulse	0.30	3
Fe			2	1.049	ug/l	4.93	13,179.82	8.056E-02	Pulse	0.30	3
Co			2	0.012	ug/l	8.72	207.75	1.270E-03	Pulse	0.30	3
Ni			2	0.073	ug/l	5.24	425.57	2.601E-03	Pulse	0.30	3
Cu			2	0.391	ug/l	9.39	11,970.03	7.317E-02	Pulse	0.30	3
Zn			2	1.856	ug/l	7.61	4,165.03	2.546E-02	Pulse	0.30	3
As			2	0.014	ug/l	26.31	34.33	2.099E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.018	ug/l	8.31	54.42	5.544E-05	Pulse	0.30	3
Sn			2	0.031	ug/l	74.96	1,284.52	1.310E-03	Pulse	0.30	3
Se			3	0.013	ug/l	38.10	7.00	3.284E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,295,644.08	0.70	100.0	Pulse	0.10	3
1	Sc		2,887,277.14	0.54	100.0	Pulse	0.10	3
1	Ge		586,242.66	1.28	100.0	Pulse	0.10	3
1	Ge		806,304.05	0.32	100.0	Pulse	0.10	3
1	Rh		3,918,940.36	0.64	100.0	Pulse	0.10	3
1	In		4,047,374.06	0.30	100.0	Pulse	0.10	3
1	Tb		5,655,954.29	0.24	100.0	Analog	0.10	3
1	Ho		556,204.65	1.09	100.0	Pulse	0.10	3
1	Bi		3,376,045.68	0.84	100.0	Pulse	0.10	3
2	Sc		163,587.77	0.28	100.0	Pulse	0.30	3
2	Ge		100,593.61	1.71	100.0	Pulse	0.30	3
2	Ge		151,689.25	1.06	100.0	Pulse	0.30	3
2	Rh		2,461,342.82	0.69	100.0	Pulse	0.30	3
2	In		981,287.04	1.10	100.0	Pulse	0.30	3
2	Tb		3,296,503.69	0.74	100.0	Pulse	0.30	3
2	Ho		335,281.59	0.64	100.0	Pulse	0.30	3
2	Bi		2,243,924.84	0.44	100.0	Pulse	0.30	3
3	Sc		218,251.14	1.34	100.0	Pulse	0.30	3
3	Ge		140,795.80	1.14	100.0	Pulse	0.30	3
3	Ge		213,122.41	0.69	100.0	Pulse	0.30	3
3	Rh		2,202,525.95	0.96	100.0	Pulse	0.30	3
3	Tb		3,695,392.77	0.86	100.0	Pulse	0.30	3

Quantitation Report

File Name 003CALB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 10:08
Sample Name STDA
Sample Type CalBlk
Comment 0
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	---	22.67	1.820E-05	Pulse	0.25	3
B			1	0.000	ug/l	---	6,941.58	5.559E-03	Pulse	0.15	3
Ca			1	0.000	ug/l	---	12,138.23	4.315E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	2126.64	396.69	1.032E-04	Pulse	0.10	3
Mo			1	0.001	ug/l	555.06	183.34	4.745E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	260.34	30.00	7.547E-06	Pulse	0.10	3
Sn			1	0.040	ug/l	62.10	3,737.27	9.385E-04	Pulse	0.10	3
Sb			1	-0.001	ug/l	-185.52	333.35	6.016E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	-432.90	83.33	1.506E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	1045.57	253.34	7.574E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	292.49	306.68	9.185E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	216.34	273.35	8.197E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	1965.96	1,263.40	3.785E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	11,862.02	7.382E-02	Pulse	0.30	3
Mg			2	0.000	ug/l	---	325.56	2.026E-03	Pulse	0.30	3
Al			2	-0.923	ug/l	-38.28	495.57	3.084E-03	Pulse	0.30	3
K			2	-0.422	ug/l	-149.91	13,594.55	8.460E-02	Pulse	0.30	3
Ca			2	-0.292	ug/l	-210.31	104.45	6.499E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	2.22	1.379E-05	Pulse	0.30	3
V			2	0.000	ug/l	---	301.12	1.874E-03	Pulse	0.30	3
Cr			2	0.000	ug/l	---	967.82	6.023E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	146.67	9.127E-04	Pulse	0.30	3
Fe			2	-0.093	ug/l	-10.00	5,654.36	3.519E-02	Pulse	0.30	3
Co			2	0.000	ug/l	---	54.42	3.386E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	---	171.11	1.065E-03	Pulse	0.30	3
Cu			2	0.007	ug/l	523.59	8,215.46	5.113E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.286	ug/l	-19.65	1,100.05	6.844E-03	Pulse	0.30	3
As			2	0.000	ug/l	---	22.33	1.389E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	3531.27	13.31	1.371E-05	Pulse	0.30	3
Sn			2	0.000	ug/l	---	1,122.28	1.155E-03	Pulse	0.30	3
Se			3	0.000	ug/l	-971.74	4.00	1.893E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,248,868.01	0.62	100.0	Pulse	0.10	3
1	Sc		2,813,136.00	0.22	100.0	Pulse	0.10	3
1	Ge		570,411.27	0.61	100.0	Pulse	0.10	3
1	Ge		793,801.99	0.62	100.0	Pulse	0.10	3
1	Rh		3,849,629.11	1.47	100.0	Pulse	0.10	3
1	In		3,985,265.40	1.24	100.0	Pulse	0.10	3
1	Tb		5,537,504.50	1.15	100.0	Mix	0.10	3
1	Ho		550,088.72	0.88	100.0	Pulse	0.10	3
1	Bi		3,338,570.37	1.32	100.0	Pulse	0.10	3
2	Sc		160,699.22	0.30	100.0	Pulse	0.30	3
2	Ge		99,514.85	0.52	100.0	Pulse	0.30	3
2	Ge		149,961.52	0.92	100.0	Pulse	0.30	3
2	Rh		2,434,141.85	0.90	100.0	Pulse	0.30	3
2	In		971,836.64	0.35	100.0	Pulse	0.30	3
2	Tb		3,274,262.37	0.49	100.0	Pulse	0.30	3
2	Ho		334,271.48	0.69	100.0	Pulse	0.30	3
2	Bi		2,238,867.83	0.34	100.0	Pulse	0.30	3
3	Sc		216,651.46	0.92	100.0	Pulse	0.30	3
3	Ge		140,268.91	1.28	100.0	Pulse	0.30	3
3	Ge		211,535.46	0.99	100.0	Pulse	0.30	3
3	Rh		2,181,319.50	1.47	100.0	Pulse	0.30	3
3	Tb		3,663,227.08	1.50	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 10:13
Sample Name STDB
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.498	ug/l	2.37	3,465.73	2.699E-03	Pulse	0.25	3
B			1	24.295	ug/l	2.81	125,168.79	9.752E-02	Pulse	0.15	3
Ca			1	259.241	ug/l	1.42	264,492.05	9.228E-02	Pulse	0.10	3
Sr			1	4.894	ug/l	1.12	252,914.07	6.524E-02	Pulse	0.10	3
Mo			1	0.949	ug/l	2.75	9,309.68	2.401E-03	Pulse	0.10	3
Ag			1	0.473	ug/l	1.14	11,474.58	2.853E-03	Pulse	0.10	3
Sn			1	4.899	ug/l	0.78	79,447.57	1.975E-02	Pulse	0.10	3
Sb			1	2.090	ug/l	3.54	38,214.18	6.745E-03	Pulse	0.10	3
Ba			1	1.020	ug/l	4.03	7,868.94	1.389E-03	Pulse	0.10	3
Tl			1	0.492	ug/l	1.86	22,380.92	6.635E-03	Pulse	0.10	3
Pb			1	0.485	ug/l	2.85	7,819.06	2.318E-03	Pulse	0.10	3
Pb			1	0.471	ug/l	2.81	6,688.40	1.983E-03	Pulse	0.10	3
Pb			1	0.486	ug/l	2.73	31,734.91	9.408E-03	Pulse	0.10	3
Na			2	256.551	ug/l	0.63	374,412.91	2.284E+00	Pulse	0.30	3
Mg			2	261.341	ug/l	0.12	171,359.74	1.045E+00	Pulse	0.30	3
Al			2	25.062	ug/l	2.19	6,293.46	3.839E-02	Pulse	0.30	3
K			2	254.964	ug/l	1.07	151,851.02	9.262E-01	Pulse	0.30	3
Ca			2	284.252	ug/l	3.05	7,861.96	4.796E-02	Pulse	0.30	3
Ti			2	1.070	ug/l	11.63	218.89	1.335E-03	Pulse	0.30	3
V			2	1.014	ug/l	1.71	6,965.99	4.249E-02	Pulse	0.30	3
Cr			2	0.989	ug/l	0.46	9,218.23	5.623E-02	Pulse	0.30	3
Mn			2	1.008	ug/l	1.52	4,646.28	2.834E-02	Pulse	0.30	3
Fe			2	25.750	ug/l	1.00	174,102.73	1.062E+00	Pulse	0.30	3
Co			2	0.511	ug/l	0.70	6,753.22	4.119E-02	Pulse	0.30	3
Ni			2	0.962	ug/l	0.78	3,508.19	2.140E-02	Pulse	0.30	3
Cu			2	1.960	ug/l	2.40	26,766.31	1.633E-01	Pulse	0.30	3
Zn			2	5.276	ug/l	5.48	9,048.15	5.519E-02	Pulse	0.30	3
As			2	0.481	ug/l	1.15	416.68	2.542E-03	Pulse	1.00	3
Cd			2	0.492	ug/l	5.97	1,113.75	1.132E-03	Pulse	0.30	3
Sn			2	4.933	ug/l	0.95	25,295.94	2.571E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.485	ug/l	14.50	112.73	5.095E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,283,805.80	1.29	102.8	Pulse	0.10	3
1	Sc		2,866,362.67	1.04	101.9	Pulse	0.10	3
1	Ge		573,710.60	0.58	100.6	Pulse	0.10	3
1	Ge		801,967.59	0.81	101.0	Pulse	0.10	3
1	Rh		3,876,561.09	1.01	100.7	Pulse	0.10	3
1	In		4,021,952.43	1.07	100.9	Pulse	0.10	3
1	Tb		5,666,935.96	1.08	102.3	Analog	0.10	3
1	Ho		556,365.48	1.17	101.1	Pulse	0.10	3
1	Bi		3,373,150.89	0.36	101.0	Pulse	0.10	3
2	Sc		163,948.36	0.36	102.0	Pulse	0.30	3
2	Ge		100,996.07	0.94	101.5	Pulse	0.30	3
2	Ge		151,970.69	1.46	101.3	Pulse	0.30	3
2	Rh		2,460,445.46	0.96	101.1	Pulse	0.30	3
2	In		984,003.50	0.62	101.3	Pulse	0.30	3
2	Tb		3,279,182.37	0.45	100.2	Pulse	0.30	3
2	Ho		334,761.97	0.33	100.1	Pulse	0.30	3
2	Bi		2,230,355.67	0.80	99.6	Pulse	0.30	3
3	Sc		233,206.63	10.92	107.6	Pulse	0.30	3
3	Ge		148,281.48	8.78	105.7	Pulse	0.30	3
3	Ge		222,911.74	7.88	105.4	Pulse	0.30	3
3	Rh		2,331,510.39	10.28	106.9	Pulse	0.30	3
3	Tb		3,926,569.01	11.22	107.2	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 10:19
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.095	ug/l	1.09	35,040.03	2.744E-02	Pulse	0.25	3
B			1	5.729	ug/l	3.25	34,791.56	2.724E-02	Pulse	0.15	3
Ca			1	9.148	ug/l	2.99	21,134.17	7.419E-03	Pulse	0.10	3
Sr			1	5.011	ug/l	1.60	257,515.31	6.679E-02	Pulse	0.10	3
Mo			1	4.946	ug/l	1.58	47,554.68	1.233E-02	Pulse	0.10	3
Ag			1	5.026	ug/l	0.52	120,431.32	3.026E-02	Pulse	0.10	3
Sn			1	5.012	ug/l	1.03	80,349.14	2.019E-02	Pulse	0.10	3
Sb			1	4.984	ug/l	3.61	88,995.63	1.600E-02	Pulse	0.10	3
Ba			1	5.200	ug/l	1.78	39,043.57	7.017E-03	Pulse	0.10	3
Tl			1	4.973	ug/l	0.77	221,222.54	6.634E-02	Pulse	0.10	3
Pb			1	4.924	ug/l	1.77	75,844.90	2.275E-02	Pulse	0.10	3
Pb			1	5.031	ug/l	0.96	68,187.79	2.045E-02	Pulse	0.10	3
Pb			1	4.984	ug/l	1.09	310,357.68	9.308E-02	Pulse	0.10	3
Na			2	6.193	ug/l	1.80	20,994.24	1.272E-01	Pulse	0.30	3
Mg			2	5.253	ug/l	5.06	3,796.02	2.300E-02	Pulse	0.30	3
Al			2	4.150	ug/l	17.32	1,646.77	9.975E-03	Pulse	0.30	3
K			2	5.363	ug/l	9.64	17,114.44	1.037E-01	Pulse	0.30	3
Ca			2	26.118	ug/l	6.83	832.26	5.041E-03	Pulse	0.30	3
Ti			2	4.860	ug/l	9.62	993.38	6.018E-03	Pulse	0.30	3
V			2	5.047	ug/l	0.69	33,673.07	2.040E-01	Pulse	0.30	3
Cr			2	4.978	ug/l	1.94	42,724.97	2.588E-01	Pulse	0.30	3
Mn			2	5.098	ug/l	1.21	23,047.32	1.396E-01	Pulse	0.30	3
Fe			2	6.116	ug/l	1.81	46,532.12	2.819E-01	Pulse	0.30	3
Co			2	5.093	ug/l	1.42	67,337.87	4.079E-01	Pulse	0.30	3
Ni			2	5.115	ug/l	0.49	18,025.57	1.092E-01	Pulse	0.30	3
Cu			2	5.004	ug/l	0.31	55,807.55	3.380E-01	Pulse	0.30	3
Zn			2	4.595	ug/l	2.51	8,133.22	4.926E-02	Pulse	0.30	3
As			2	5.138	ug/l	0.98	4,257.90	2.579E-02	Pulse	1.00	3
Cd			2	4.995	ug/l	1.07	11,234.80	1.136E-02	Pulse	0.30	3
Sn			2	4.937	ug/l	1.34	25,445.10	2.573E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	5.225	ug/l	2.76	1,122.71	5.302E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,277,183.65	0.79	102.3	Pulse	0.10	3
1	Sc		2,848,726.62	0.33	101.3	Pulse	0.10	3
1	Ge		569,902.71	0.33	99.9	Pulse	0.10	3
1	Ge		795,330.95	0.38	100.2	Pulse	0.10	3
1	Rh		3,855,678.59	0.69	100.2	Pulse	0.10	3
1	In		3,979,319.72	0.17	99.9	Pulse	0.10	3
1	Tb		5,563,722.00	0.98	100.5	Analog	0.10	3
1	Ho		549,623.88	0.90	99.9	Pulse	0.10	3
1	Bi		3,334,587.66	0.89	99.9	Pulse	0.10	3
2	Sc		165,099.87	0.49	102.7	Pulse	0.30	3
2	Ge		101,337.38	0.32	101.8	Pulse	0.30	3
2	Ge		151,236.24	0.77	100.9	Pulse	0.30	3
2	Rh		2,458,531.64	0.58	101.0	Pulse	0.30	3
2	In		988,964.02	0.58	101.8	Pulse	0.30	3
2	Tb		3,313,487.37	0.47	101.2	Pulse	0.30	3
2	Ho		336,942.11	0.69	100.8	Pulse	0.30	3
2	Bi		2,243,477.69	0.82	100.2	Pulse	0.30	3
3	Sc		220,089.47	0.91	101.6	Pulse	0.30	3
3	Ge		140,876.66	1.08	100.4	Pulse	0.30	3
3	Ge		211,744.81	0.45	100.1	Pulse	0.30	3
3	Rh		2,194,894.36	0.48	100.6	Pulse	0.30	3
3	Tb		3,674,867.91	0.79	100.3	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 10:24
Sample Name STDD
Sample Type CalStd
Comment 25
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	25.007	ug/l	0.50	174,274.82	1.346E-01	Pulse	0.25	3
B			1	24.107	ug/l	1.05	125,335.55	9.680E-02	Pulse	0.15	3
Ca			1	37.884	ug/l	1.99	48,862.45	1.717E-02	Pulse	0.10	3
Sr			1	24.952	ug/l	0.85	1,286,767.25	3.322E-01	Pulse	0.10	3
Mo			1	24.773	ug/l	1.22	238,609.13	6.159E-02	Pulse	0.10	3
Ag			1	25.076	ug/l	1.06	601,728.75	1.510E-01	Pulse	0.10	3
Sn			1	25.089	ug/l	1.28	390,381.15	9.794E-02	Pulse	0.10	3
Sb			1	25.045	ug/l	1.17	452,271.39	8.014E-02	Pulse	0.10	3
Ba			1	24.500	ug/l	1.23	186,271.78	3.301E-02	Pulse	0.10	3
Tl			1	24.960	ug/l	0.50	1,111,091.13	3.327E-01	Pulse	0.10	3
Pb			1	24.954	ug/l	1.26	383,825.99	1.149E-01	Pulse	0.10	3
Pb			1	25.006	ug/l	0.48	338,490.88	1.013E-01	Pulse	0.10	3
Pb			1	25.003	ug/l	0.23	1,554,495.59	4.654E-01	Pulse	0.10	3
Na			2	26.803	ug/l	2.32	50,041.30	3.047E-01	Pulse	0.30	3
Mg			2	25.763	ug/l	1.04	17,222.21	1.049E-01	Pulse	0.30	3
Al			2	27.018	ug/l	2.28	6,740.31	4.104E-02	Pulse	0.30	3
K			2	26.364	ug/l	4.48	28,393.13	1.729E-01	Pulse	0.30	3
Ca			2	119.280	ug/l	2.27	3,371.50	2.053E-02	Pulse	0.30	3
Ti			2	25.042	ug/l	1.76	5,083.04	3.095E-02	Pulse	0.30	3
V			2	24.993	ug/l	1.91	164,656.05	1.003E+00	Pulse	0.30	3
Cr			2	24.986	ug/l	1.72	209,330.36	1.275E+00	Pulse	0.30	3
Mn			2	24.962	ug/l	2.49	111,665.83	6.800E-01	Pulse	0.30	3
Fe			2	26.510	ug/l	1.69	179,356.94	1.092E+00	Pulse	0.30	3
Co			2	25.134	ug/l	0.90	330,364.29	2.012E+00	Pulse	0.30	3
Ni			2	25.103	ug/l	1.87	87,313.85	5.317E-01	Pulse	0.30	3
Cu			2	25.078	ug/l	2.17	244,782.76	1.491E+00	Pulse	0.30	3
Zn			2	25.351	ug/l	1.61	37,715.56	2.297E-01	Pulse	0.30	3
As			2	25.435	ug/l	1.51	20,879.32	1.271E-01	Pulse	1.00	3
Cd			2	25.037	ug/l	1.35	56,021.56	5.689E-02	Pulse	0.30	3
Sn			2	24.739	ug/l	0.63	122,410.03	1.243E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	25.693	ug/l	0.95	5,510.13	2.600E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,294,727.62	0.08	103.7	Pulse	0.10	3
1	Sc		2,845,984.65	1.25	101.2	Pulse	0.10	3
1	Ge		572,459.26	1.10	100.4	Pulse	0.10	3
1	Ge		803,720.74	0.75	101.2	Pulse	0.10	3
1	Rh		3,873,837.23	0.38	100.6	Pulse	0.10	3
1	In		3,986,134.72	1.42	100.0	Pulse	0.10	3
1	Tb		5,643,704.50	0.58	101.9	Analog	0.10	3
1	Ho		551,690.04	0.65	100.3	Pulse	0.10	3
1	Bi		3,339,992.87	0.27	100.0	Pulse	0.10	3
2	Sc		164,243.21	0.83	102.2	Pulse	0.30	3
2	Ge		100,684.29	0.68	101.2	Pulse	0.30	3
2	Ge		152,474.53	0.74	101.7	Pulse	0.30	3
2	Rh		2,460,269.84	0.45	101.1	Pulse	0.30	3
2	In		984,831.92	0.72	101.3	Pulse	0.30	3
2	Tb		3,280,000.29	0.65	100.2	Pulse	0.30	3
2	Ho		334,635.94	0.62	100.1	Pulse	0.30	3
2	Bi		2,243,702.90	0.49	100.2	Pulse	0.30	3
3	Sc		218,264.99	1.20	100.7	Pulse	0.30	3
3	Ge		140,380.99	1.26	100.1	Pulse	0.30	3
3	Ge		211,952.72	0.86	100.2	Pulse	0.30	3
3	Rh		2,197,465.26	0.59	100.7	Pulse	0.30	3
3	Tb		3,688,193.05	0.67	100.7	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 10:29
Sample Name	STDE
Sample Type	CalStd
Comment	50
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.292	ug/l	1.09	347,028.81	2.707E-01	Pulse	0.25	3
B			1	48.663	ug/l	0.82	243,268.05	1.897E-01	Pulse	0.15	3
Ca			1	66.733	ug/l	1.47	75,853.41	2.696E-02	Pulse	0.10	3
Sr			1	50.463	ug/l	1.12	2,562,999.65	6.717E-01	Pulse	0.10	3
Mo			1	49.902	ug/l	1.68	473,294.03	1.240E-01	Pulse	0.10	3
Ag			1	50.036	ug/l	1.83	1,186,747.88	3.012E-01	Pulse	0.10	3
Sn			1	50.183	ug/l	1.05	768,781.58	1.951E-01	Pulse	0.10	3
Sb			1	50.375	ug/l	0.70	891,870.79	1.611E-01	Pulse	0.10	3
Ba			1	50.342	ug/l	1.46	375,282.42	6.780E-02	Pulse	0.10	3
Tl			1	49.962	ug/l	1.67	2,221,127.31	6.658E-01	Pulse	0.10	3
Pb			1	50.058	ug/l	2.38	768,698.16	2.304E-01	Pulse	0.10	3
Pb			1	49.788	ug/l	1.52	672,907.13	2.017E-01	Pulse	0.10	3
Pb			1	49.849	ug/l	1.61	3,094,242.71	9.275E-01	Pulse	0.10	3
Na			2	51.998	ug/l	1.97	85,425.74	5.217E-01	Pulse	0.30	3
Mg			2	50.552	ug/l	1.14	33,379.65	2.038E-01	Pulse	0.30	3
Al			2	51.972	ug/l	1.89	12,271.25	7.494E-02	Pulse	0.30	3
K			2	50.604	ug/l	1.49	41,388.82	2.528E-01	Pulse	0.30	3
Ca			2	233.221	ug/l	3.35	6,462.44	3.947E-02	Pulse	0.30	3
Ti			2	51.573	ug/l	2.99	10,436.72	6.373E-02	Pulse	0.30	3
V			2	50.115	ug/l	0.31	328,906.50	2.008E+00	Pulse	0.30	3
Cr			2	50.181	ug/l	0.52	418,203.48	2.554E+00	Pulse	0.30	3
Mn			2	49.840	ug/l	1.63	222,163.23	1.357E+00	Pulse	0.30	3
Fe			2	51.080	ug/l	0.86	338,692.75	2.068E+00	Pulse	0.30	3
Co			2	49.946	ug/l	0.75	654,528.89	3.997E+00	Pulse	0.30	3
Ni			2	50.361	ug/l	1.77	174,479.97	1.066E+00	Pulse	0.30	3
Cu			2	50.241	ug/l	1.46	480,628.56	2.935E+00	Pulse	0.30	3
Zn			2	49.521	ug/l	0.47	72,005.81	4.397E-01	Pulse	0.30	3
As			2	50.297	ug/l	1.70	41,142.52	2.513E-01	Pulse	1.00	3
Cd			2	49.840	ug/l	0.71	111,197.53	1.132E-01	Pulse	0.30	3
Sn			2	49.486	ug/l	0.22	243,043.07	2.475E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	51.138	ug/l	0.69	10,972.67	5.173E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,282,121.26	0.92	102.7	Pulse	0.10	3
1	Sc		2,813,774.33	0.68	100.0	Pulse	0.10	3
1	Ge		573,367.08	0.11	100.5	Pulse	0.10	3
1	Ge		795,777.41	0.59	100.2	Pulse	0.10	3
1	Rh		3,816,200.36	1.14	99.1	Pulse	0.10	3
1	In		3,940,076.45	0.79	98.9	Pulse	0.10	3
1	Tb		5,535,236.58	0.76	100.0	Mix	0.10	3
1	Ho		544,065.93	1.03	98.9	Pulse	0.10	3
1	Bi		3,336,258.39	0.83	99.9	Pulse	0.10	3
2	Sc		163,763.89	1.34	101.9	Pulse	0.30	3
2	Ge		100,412.38	1.03	100.9	Pulse	0.30	3
2	Ge		151,768.74	0.76	101.2	Pulse	0.30	3
2	Rh		2,437,623.24	0.35	100.1	Pulse	0.30	3
2	In		982,070.81	0.21	101.1	Pulse	0.30	3
2	Tb		3,312,946.53	0.25	101.2	Pulse	0.30	3
2	Ho		336,844.92	0.91	100.8	Pulse	0.30	3
2	Bi		2,253,148.73	1.40	100.6	Pulse	0.30	3
3	Sc		216,190.33	0.35	99.8	Pulse	0.30	3
3	Ge		139,247.97	0.21	99.3	Pulse	0.30	3
3	Ge		212,134.32	0.29	100.3	Pulse	0.30	3
3	Rh		2,176,871.79	1.05	99.8	Pulse	0.30	3
3	Tb		3,684,001.38	0.56	100.6	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 10:34
Sample Name STDF
Sample Type CalStd
Comment 100
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	99.847	ug/l	0.28	678,304.64	5.374E-01	Pulse	0.25	3
B			1	97.279	ug/l	1.70	471,766.72	3.738E-01	Pulse	0.15	3
Ca			1	129.079	ug/l	1.39	132,978.56	4.811E-02	Pulse	0.10	3
Sr			1	100.598	ug/l	0.67	5,038,105.65	1.339E+00	Pulse	0.10	3
Mo			1	100.436	ug/l	0.36	939,162.17	2.496E-01	Pulse	0.10	3
Ag			1	100.453	ug/l	0.42	2,359,144.70	6.047E-01	Pulse	0.10	3
Sn			1	100.335	ug/l	0.34	1,518,893.26	3.894E-01	Pulse	0.10	3
Sb			1	99.517	ug/l	0.11	1,750,591.48	3.183E-01	Pulse	0.10	3
Ba			1	99.959	ug/l	0.84	740,434.68	1.346E-01	Pulse	0.10	3
Tl			1	100.112	ug/l	0.73	4,429,175.98	1.334E+00	Pulse	0.10	3
Pb			1	100.564	ug/l	0.75	1,536,706.33	4.629E-01	Pulse	0.10	3
Pb			1	100.801	ug/l	1.71	1,355,530.19	4.083E-01	Pulse	0.10	3
Pb			1	100.439	ug/l	0.87	6,203,450.95	1.868E+00	Pulse	0.10	3
Na			2	102.097	ug/l	0.68	153,323.38	9.533E-01	Pulse	0.30	3
Mg			2	101.608	ug/l	0.68	65,560.56	4.076E-01	Pulse	0.30	3
Al			2	103.573	ug/l	0.82	23,329.58	1.450E-01	Pulse	0.30	3
K			2	100.619	ug/l	1.39	67,162.71	4.176E-01	Pulse	0.30	3
Ca			2	447.467	ug/l	0.98	12,077.86	7.509E-02	Pulse	0.30	3
Ti			2	99.209	ug/l	0.77	19,716.26	1.226E-01	Pulse	0.30	3
V			2	99.942	ug/l	0.70	643,940.43	4.004E+00	Pulse	0.30	3
Cr			2	99.914	ug/l	0.60	816,891.03	5.079E+00	Pulse	0.30	3
Mn			2	100.085	ug/l	0.73	438,073.64	2.724E+00	Pulse	0.30	3
Fe			2	101.748	ug/l	0.44	656,445.70	4.081E+00	Pulse	0.30	3
Co			2	99.989	ug/l	0.43	1,286,964.04	8.001E+00	Pulse	0.30	3
Ni			2	99.789	ug/l	0.29	339,434.91	2.110E+00	Pulse	0.30	3
Cu			2	99.711	ug/l	0.16	928,946.28	5.775E+00	Pulse	0.30	3
Zn			2	100.138	ug/l	0.45	141,476.08	8.796E-01	Pulse	0.30	3
As			2	99.736	ug/l	0.56	80,116.99	4.981E-01	Pulse	1.00	3
Cd			2	100.983	ug/l	1.18	219,722.79	2.294E-01	Pulse	0.30	3
Sn			2	100.326	ug/l	0.34	479,424.27	5.005E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	114.352	ug/l	10.76	21,420.31	1.156E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,262,241.87	0.48	101.1	Pulse	0.10	3
1	Sc		2,763,731.94	0.36	98.2	Pulse	0.10	3
1	Ge		557,744.48	0.59	97.8	Pulse	0.10	3
1	Ge		774,514.34	0.83	97.6	Pulse	0.10	3
1	Rh		3,762,966.30	0.58	97.7	Pulse	0.10	3
1	In		3,901,035.51	0.34	97.9	Pulse	0.10	3
1	Tb		5,500,545.13	0.56	99.3	Mix	0.10	3
1	Ho		541,448.66	1.48	98.4	Pulse	0.10	3
1	Bi		3,320,250.68	0.99	99.5	Pulse	0.10	3
2	Sc		160,844.33	0.42	100.1	Pulse	0.30	3
2	Ge		97,474.78	0.59	97.9	Pulse	0.30	3
2	Ge		147,369.29	1.82	98.3	Pulse	0.30	3
2	Rh		2,375,213.31	0.30	97.6	Pulse	0.30	3
2	In		957,801.19	0.08	98.6	Pulse	0.30	3
2	Tb		3,219,127.09	0.47	98.3	Pulse	0.30	3
2	Ho		328,593.63	1.12	98.3	Pulse	0.30	3
2	Bi		2,208,706.16	0.71	98.7	Pulse	0.30	3
3	Sc		192,053.75	10.15	88.6	Pulse	0.30	3
3	Ge		122,649.90	12.99	87.4	Pulse	0.30	3
3	Ge		186,845.67	12.04	88.3	Pulse	0.30	3
3	Rh		1,913,720.06	11.29	87.7	Pulse	0.30	3
3	Tb		3,240,862.23	11.24	88.5	Pulse	0.30	3

Quantitation Report

File Name 009CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 10:39
Sample Name STDG
Sample Type CalStd
Comment 500MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.019	ug/l	4.47	149.33	1.189E-04	Pulse	0.25	3
B			1	201.876	ug/l	0.07	966,291.70	7.697E-01	Pulse	0.15	3
Ca			1	506.656	ug/l	0.52	485,632.01	1.762E-01	Pulse	0.10	3
Sr			1	0.024	ug/l	12.43	1,593.47	4.243E-04	Pulse	0.10	3
Mo			1	0.140	ug/l	8.12	1,476.79	3.929E-04	Pulse	0.10	3
Ag			1	0.019	ug/l	17.35	473.36	1.205E-04	Pulse	0.10	3
Sn			1	0.181	ug/l	8.43	5,831.31	1.484E-03	Pulse	0.10	3
Sb			1	0.874	ug/l	6.86	15,851.89	2.858E-03	Pulse	0.10	3
Ba			1	0.024	ug/l	47.91	270.01	4.859E-05	Pulse	0.10	3
Tl			1	0.037	ug/l	11.91	1,850.19	5.629E-04	Pulse	0.10	3
Pb			1	0.038	ug/l	23.65	863.40	2.625E-04	Pulse	0.10	3
Pb			1	0.032	ug/l	5.30	683.38	2.078E-04	Pulse	0.10	3
Pb			1	0.036	ug/l	2.88	3,430.33	1.043E-03	Pulse	0.10	3
Na			2	512.047	ug/l	0.65	723,823.11	4.484E+00	Pulse	0.30	3
Mg			2	505.364	ug/l	1.41	325,904.96	2.019E+00	Pulse	0.30	3
Al			2	501.297	ug/l	0.34	110,622.94	6.853E-01	Pulse	0.30	3
K			2	502.927	ug/l	1.05	281,382.65	1.743E+00	Pulse	0.30	3
Ca			2	513.036	ug/l	1.82	13,879.25	8.599E-02	Pulse	0.30	3
Ti			2	0.050	ug/l	68.53	12.22	7.557E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-175.17	283.34	1.755E-03	Pulse	0.30	3
Cr			2	-0.024	ug/l	-40.93	777.81	4.819E-03	Pulse	0.30	3
Mn			2	0.024	ug/l	19.23	253.34	1.570E-03	Pulse	0.30	3
Fe			2	508.884	ug/l	0.42	3,269,579.31	2.026E+01	Pulse	0.30	3
Co			2	0.031	ug/l	14.50	451.18	2.795E-03	Pulse	0.30	3
Ni			2	0.028	ug/l	66.33	266.67	1.654E-03	Pulse	0.30	3
Cu			2	-0.035	ug/l	-92.94	7,861.97	4.870E-02	Pulse	0.30	3
Zn			2	0.009	ug/l	399.31	1,518.98	9.412E-03	Pulse	0.30	3
As			2	0.024	ug/l	28.89	42.00	2.603E-04	Pulse	1.00	3
Cd			2	0.015	ug/l	53.03	45.41	4.652E-05	Pulse	0.30	3
Sn			2	0.225	ug/l	22.99	2,221.30	2.275E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	188.337	ug/l	11.13	42,259.82	1.904E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,255,490.95	0.49	100.5	Pulse	0.10	3
1	Sc		2,755,499.33	1.06	98.0	Pulse	0.10	3
1	Ge		555,905.81	1.04	97.5	Pulse	0.10	3
1	Ge		777,622.57	1.20	98.0	Pulse	0.10	3
1	Rh		3,757,260.99	0.86	97.6	Pulse	0.10	3
1	In		3,928,896.18	0.51	98.6	Pulse	0.10	3
1	Tb		5,544,179.08	1.18	100.1	Mix	0.10	3
1	Ho		538,433.14	0.81	97.9	Pulse	0.10	3
1	Bi		3,289,274.43	1.12	98.5	Pulse	0.10	3
2	Sc		161,411.79	0.87	100.4	Pulse	0.30	3
2	Ge		100,011.41	0.92	100.5	Pulse	0.30	3
2	Ge		149,605.62	0.95	99.8	Pulse	0.30	3
2	Rh		2,415,402.06	0.33	99.2	Pulse	0.30	3
2	In		976,173.32	0.08	100.4	Pulse	0.30	3
2	Tb		3,256,656.26	0.31	99.5	Pulse	0.30	3
2	Ho		332,553.89	0.38	99.5	Pulse	0.30	3
2	Bi		2,216,871.23	0.27	99.0	Pulse	0.30	3
3	Sc		234,288.25	14.68	108.1	Pulse	0.30	3
3	Ge		146,785.54	11.12	104.6	Pulse	0.30	3
3	Ge		223,760.14	11.22	105.8	Pulse	0.30	3
3	Rh		2,357,459.21	13.75	108.1	Pulse	0.30	3
3	Tb		3,986,689.28	14.09	108.8	Mix	0.30	3

Quantitation Report

File Name 010CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 10:45
Sample Name STDH
Sample Type CalStd
Comment 1000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	90.25	45.33	3.519E-05	Pulse	0.25	3
B			1	9.436	ug/l	2.16	53,169.71	4.127E-02	Pulse	0.15	3
Ca			1	1010.572	ug/l	0.69	978,359.54	3.472E-01	Pulse	0.10	3
Sr			1	0.019	ug/l	13.62	1,370.12	3.572E-04	Pulse	0.10	3
Mo			1	0.031	ug/l	24.49	466.69	1.215E-04	Pulse	0.10	3
Ag			1	0.005	ug/l	21.48	150.01	3.788E-05	Pulse	0.10	3
Sn			1	0.045	ug/l	40.31	3,783.92	9.549E-04	Pulse	0.10	3
Sb			1	0.305	ug/l	4.88	5,821.30	1.040E-03	Pulse	0.10	3
Ba			1	0.028	ug/l	48.96	296.68	5.305E-05	Pulse	0.10	3
Tl			1	0.008	ug/l	41.04	590.03	1.785E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	13.91	583.37	1.764E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	24.27	470.03	1.422E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	16.19	2,323.50	7.027E-04	Pulse	0.10	3
Na			2	994.432	ug/l	0.93	1,427,598.38	8.640E+00	Pulse	0.30	3
Mg			2	993.058	ug/l	0.75	655,332.26	3.966E+00	Pulse	0.30	3
Al			2	987.904	ug/l	0.89	222,480.89	1.346E+00	Pulse	0.30	3
K			2	989.793	ug/l	1.02	553,182.20	3.348E+00	Pulse	0.30	3
Ca			2	1020.719	ug/l	1.05	28,156.05	1.704E-01	Pulse	0.30	3
Ti			2	-0.006	ug/l	-167.93	1.11	6.789E-06	Pulse	0.30	3
V			2	-0.004	ug/l	-105.25	283.34	1.716E-03	Pulse	0.30	3
Cr			2	-0.040	ug/l	-34.93	660.02	3.991E-03	Pulse	0.30	3
Mn			2	0.025	ug/l	32.74	263.34	1.593E-03	Pulse	0.30	3
Fe			2	1017.490	ug/l	0.89	6,686,291.82	4.046E+01	Analog	0.30	3
Co			2	0.046	ug/l	8.35	659.75	3.991E-03	Pulse	0.30	3
Ni			2	0.044	ug/l	10.64	330.01	1.997E-03	Pulse	0.30	3
Cu			2	-0.141	ug/l	-7.79	7,042.70	4.262E-02	Pulse	0.30	3
Zn			2	-0.164	ug/l	-8.42	1,306.74	7.908E-03	Pulse	0.30	3
As			2	0.010	ug/l	25.44	31.33	1.896E-04	Pulse	1.00	3
Cd			2	-0.002	ug/l	-264.41	9.95	1.012E-05	Pulse	0.30	3
Sn			2	0.031	ug/l	48.88	1,288.96	1.308E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	389.879	ug/l	0.58	83,632.44	3.942E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,288,120.03	0.57	103.1	Pulse	0.10	3
1	Sc		2,817,611.52	0.63	100.2	Pulse	0.10	3
1	Ge		564,797.56	0.44	99.0	Pulse	0.10	3
1	Ge		801,581.03	0.19	101.0	Pulse	0.10	3
1	Rh		3,837,773.90	0.81	99.7	Pulse	0.10	3
1	In		3,961,250.85	0.70	99.4	Pulse	0.10	3
1	Tb		5,598,818.88	0.55	101.1	Analog	0.10	3
1	Ho		554,497.00	1.03	100.8	Pulse	0.10	3
1	Bi		3,306,773.49	0.24	99.0	Pulse	0.10	3
2	Sc		165,247.48	0.93	102.8	Pulse	0.30	3
2	Ge		101,470.17	0.58	102.0	Pulse	0.30	3
2	Ge		152,228.05	0.71	101.5	Pulse	0.30	3
2	Rh		2,432,223.79	0.29	99.9	Pulse	0.30	3
2	In		985,056.52	0.75	101.4	Pulse	0.30	3
2	Tb		3,281,022.79	1.15	100.2	Pulse	0.30	3
2	Ho		336,394.91	0.73	100.6	Pulse	0.30	3
2	Bi		2,220,940.88	0.65	99.2	Pulse	0.30	3
3	Sc		215,957.16	0.76	99.7	Pulse	0.30	3
3	Ge		139,231.14	0.80	99.3	Pulse	0.30	3
3	Ge		212,149.97	0.85	100.3	Pulse	0.30	3
3	Rh		2,151,871.23	0.48	98.6	Pulse	0.30	3
3	Tb		3,678,111.24	0.20	100.4	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 10:50
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	63.58	56.00	4.402E-05	Pulse	0.25	3
B			1	5.235	ug/l	1.09	32,217.45	2.537E-02	Pulse	0.15	3
Ca			1	5078.495	ug/l	1.01	4,824,125.76	1.728E+00	Pulse	0.10	3
Sr			1	0.046	ug/l	5.06	2,657.00	7.141E-04	Pulse	0.10	3
Mo			1	0.010	ug/l	75.37	256.68	6.894E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	25.66	106.67	2.730E-05	Pulse	0.10	3
Sn			1	0.024	ug/l	41.07	3,417.19	8.746E-04	Pulse	0.10	3
Sb			1	0.188	ug/l	13.85	3,743.94	6.634E-04	Pulse	0.10	3
Ba			1	0.018	ug/l	61.91	223.35	3.952E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	42.20	460.03	1.411E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	64.55	506.70	1.553E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	15.54	463.36	1.422E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	25.63	2,006.81	6.158E-04	Pulse	0.10	3
Na			2	5184.943	ug/l	1.04	7,266,515.54	4.474E+01	Analog	0.30	3
Mg			2	5012.719	ug/l	0.97	3,250,406.61	2.001E+01	Pulse	0.30	3
Al			2	4994.390	ug/l	1.07	1,102,778.64	6.789E+00	Pulse	0.30	3
K			2	4981.555	ug/l	0.56	2,680,528.64	1.650E+01	Pulse	0.30	3
Ca			2	5039.042	ug/l	0.53	136,193.80	8.385E-01	Pulse	0.30	3
Ti			2	0.000	ug/l	-23707.56	2.22	1.369E-05	Pulse	0.30	3
V			2	0.004	ug/l	19.87	332.23	2.045E-03	Pulse	0.30	3
Cr			2	-0.025	ug/l	-33.03	771.14	4.748E-03	Pulse	0.30	3
Mn			2	0.070	ug/l	9.27	455.57	2.805E-03	Pulse	0.30	3
Fe			2	5075.772	ug/l	1.30	32,762,700.92	2.017E+02	Analog	0.30	3
Co			2	0.215	ug/l	1.71	2,849.61	1.754E-02	Pulse	0.30	3
Ni			2	0.184	ug/l	7.73	805.59	4.960E-03	Pulse	0.30	3
Cu			2	-0.194	ug/l	-10.95	6,422.44	3.954E-02	Pulse	0.30	3
Zn			2	-0.033	ug/l	-135.83	1,468.97	9.043E-03	Pulse	0.30	3
As			2	0.027	ug/l	38.84	44.33	2.730E-04	Pulse	1.00	3
Cd			2	0.007	ug/l	90.75	27.75	2.873E-05	Pulse	0.30	3
Sn			2	0.007	ug/l	148.43	1,146.72	1.191E-03	Pulse	0.30	3
Se			3	0.166	ug/l	13.24	38.53	1.874E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,269,791.88	0.72	101.7	Pulse	0.10	3
1	Sc		2,792,449.13	0.52	99.3	Pulse	0.10	3
1	Ge		563,487.98	1.19	98.8	Pulse	0.10	3

Quantitation Report

1	Ge		779,661.60	0.44	98.2	Pulse	0.10	3
1	Rh		3,720,066.19	0.75	96.6	Pulse	0.10	3
1	In		3,906,726.94	0.30	98.0	Pulse	0.10	3
1	Tb		5,640,294.50	0.89	101.9	Analog	0.10	3
1	Ho		549,493.30	1.09	99.9	Pulse	0.10	3
1	Bi		3,257,837.66	0.75	97.6	Pulse	0.10	3
2	Sc		162,433.27	0.17	101.1	Pulse	0.30	3
2	Ge		99,042.21	0.67	99.5	Pulse	0.30	3
2	Ge		150,100.17	0.94	100.1	Pulse	0.30	3
2	Rh		2,367,457.34	0.63	97.3	Pulse	0.30	3
2	In		963,244.71	0.84	99.1	Pulse	0.30	3
2	Tb		3,241,503.83	0.74	99.0	Pulse	0.30	3
2	Ho		333,476.56	0.62	99.8	Pulse	0.30	3
2	Bi		2,168,390.68	0.36	96.9	Pulse	0.30	3
3	Sc		211,951.85	0.24	97.8	Pulse	0.30	3
3	Ge		136,508.49	0.35	97.3	Pulse	0.30	3
3	Ge		205,627.70	0.16	97.2	Pulse	0.30	3
3	Rh		2,095,929.22	0.14	96.1	Pulse	0.30	3
3	Tb		3,614,379.72	0.04	98.7	Pulse	0.30	3

Quantitation Report

File Name 012CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 10:55
Sample Name STDJ
Sample Type CalStd
Comment 10000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	110.10	42.67	3.420E-05	Pulse	0.25	3
B			1	3.156	ug/l	4.85	21,827.79	1.750E-02	Pulse	0.15	3
Ca			1	9959.132	ug/l	0.09	9,250,621.95	3.384E+00	Analog	0.10	3
Sr			1	0.082	ug/l	5.39	4,364.11	1.193E-03	Pulse	0.10	3
Mo			1	0.021	ug/l	48.78	356.69	9.749E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	23.91	86.67	2.264E-05	Pulse	0.10	3
Sn			1	0.458	ug/l	2.70	9,783.36	2.557E-03	Pulse	0.10	3
Sb			1	0.118	ug/l	5.71	2,433.62	4.406E-04	Pulse	0.10	3
Ba			1	0.025	ug/l	37.90	273.35	4.948E-05	Pulse	0.10	3
Tl			1	0.003	ug/l	69.83	370.02	1.168E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	4.66	723.38	2.285E-04	Pulse	0.10	3
Pb			1	0.032	ug/l	21.25	650.04	2.053E-04	Pulse	0.10	3
Pb			1	0.028	ug/l	22.63	2,843.57	8.978E-04	Pulse	0.10	3
Na			2	9907.319	ug/l	0.39	13,911,469.45	8.541E+01	Analog	0.30	3
Mg			2	9993.783	ug/l	0.86	6,497,609.33	3.989E+01	Analog	0.30	3
Al			2	9752.055	ug/l	0.63	2,158,439.98	1.325E+01	Pulse	0.30	3
K			2	10020.891	ug/l	0.19	5,392,580.34	3.311E+01	Analog	0.30	3
Ca			2	9934.345	ug/l	0.32	269,120.62	1.652E+00	Pulse	0.30	3
Ti			2	0.005	ug/l	530.58	3.33	2.048E-05	Pulse	0.30	3
V			2	-0.001	ug/l	-566.97	300.01	1.842E-03	Pulse	0.30	3
Cr			2	0.016	ug/l	71.95	1,114.50	6.843E-03	Pulse	0.30	3
Mn			2	0.153	ug/l	13.16	824.48	5.063E-03	Pulse	0.30	3
Fe			2	9897.107	ug/l	1.27	64,047,641.90	3.932E+02	Analog	0.30	3
Co			2	0.433	ug/l	1.95	5,698.19	3.499E-02	Pulse	0.30	3
Ni			2	0.384	ug/l	4.58	1,494.53	9.176E-03	Pulse	0.30	3
Cu			2	-0.117	ug/l	-20.43	7,160.53	4.396E-02	Pulse	0.30	3
Zn			2	0.284	ug/l	58.27	1,921.25	1.180E-02	Pulse	0.30	3
As			2	0.047	ug/l	36.59	60.67	3.726E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	234.93	19.97	2.099E-05	Pulse	0.30	3
Sn			2	0.421	ug/l	2.65	3,093.67	3.251E-03	Pulse	0.30	3
Se			3	0.052	ug/l	6.37	14.73	7.221E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,247,208.47	0.75	99.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,733,890.48	0.60	97.2	Pulse	0.10	3
1	Ge		550,859.38	0.16	96.6	Pulse	0.10	3
1	Ge		762,312.28	0.49	96.0	Pulse	0.10	3
1	Rh		3,658,978.59	0.29	95.0	Pulse	0.10	3
1	In		3,825,825.11	0.74	96.0	Pulse	0.10	3
1	Tb		5,523,737.00	0.13	99.8	Analog	0.10	3
1	Ho		540,599.05	0.63	98.3	Pulse	0.10	3
1	Bi		3,165,625.79	0.57	94.8	Pulse	0.10	3
2	Sc		162,872.48	0.24	101.4	Pulse	0.30	3
2	Ge		97,738.67	0.51	98.2	Pulse	0.30	3
2	Ge		146,337.83	0.67	97.6	Pulse	0.30	3
2	Rh		2,330,872.61	0.92	95.8	Pulse	0.30	3
2	In		951,513.69	0.20	97.9	Pulse	0.30	3
2	Tb		3,237,094.10	0.61	98.9	Pulse	0.30	3
2	Ho		330,757.96	0.33	98.9	Pulse	0.30	3
2	Bi		2,127,210.61	0.34	95.0	Pulse	0.30	3
3	Sc		212,985.16	0.10	98.3	Pulse	0.30	3
3	Ge		135,358.25	0.06	96.5	Pulse	0.30	3
3	Ge		204,029.96	0.34	96.5	Pulse	0.30	3
3	Rh		2,049,013.74	0.70	93.9	Pulse	0.30	3
3	Tb		3,598,244.86	0.27	98.2	Pulse	0.30	3

Quantitation Report

File Name 013SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 11:00
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-108.86	13.33	1.073E-05	Pulse	0.25	3
B			1	2.609	ug/l	0.73	19,233.37	1.544E-02	Pulse	0.15	3
Ca			1	0.461	ug/l	161.97	12,008.17	4.471E-03	Pulse	0.10	3
Sr			1	-0.001	ug/l	-17.31	313.35	8.386E-05	Pulse	0.10	3
Mo			1	0.007	ug/l	107.98	226.68	6.068E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	311.02	36.67	9.471E-06	Pulse	0.10	3
Sn			1	0.057	ug/l	2.80	3,907.29	1.004E-03	Pulse	0.10	3
Sb			1	0.062	ug/l	16.64	1,436.80	2.612E-04	Pulse	0.10	3
Ba			1	-0.006	ug/l	-20.72	40.00	7.268E-06	Pulse	0.10	3
Tl			1	0.002	ug/l	97.84	320.02	9.727E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	131.42	340.02	1.035E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	173.89	296.68	9.016E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	142.33	1,346.75	4.095E-04	Pulse	0.10	3
Na			2	0.863	ug/l	29.68	12,834.98	8.125E-02	Pulse	0.30	3
Mg			2	0.685	ug/l	29.45	752.25	4.760E-03	Pulse	0.30	3
Al			2	-0.020	ug/l	-1085.38	681.13	4.311E-03	Pulse	0.30	3
K			2	-0.337	ug/l	-177.22	13,408.81	8.488E-02	Pulse	0.30	3
Ca			2	1.126	ug/l	90.46	140.00	8.857E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	6779.75	2.22	1.415E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-69.41	281.12	1.779E-03	Pulse	0.30	3
Cr			2	0.001	ug/l	54.11	963.37	6.098E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-160.42	134.45	8.511E-04	Pulse	0.30	3
Fe			2	1.181	ug/l	7.39	13,557.93	8.581E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-44.36	39.97	2.531E-04	Pulse	0.30	3
Ni			2	-0.003	ug/l	-147.60	156.67	9.916E-04	Pulse	0.30	3
Cu			2	-0.161	ug/l	-12.48	6,548.05	4.145E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.562	ug/l	-5.03	702.24	4.445E-03	Pulse	0.30	3
As			2	-0.005	ug/l	-84.18	17.67	1.119E-04	Pulse	1.00	3
Cd			2	-0.003	ug/l	-52.44	6.65	6.954E-06	Pulse	0.30	3
Sn			2	0.047	ug/l	39.43	1,324.52	1.387E-03	Pulse	0.30	3
Se			3	0.028	ug/l	39.44	9.87	4.802E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,246,019.86	0.49	99.8	Pulse	0.10	3
1	Sc		2,685,356.31	0.53	95.5	Pulse	0.10	3
1	Ge		547,488.30	0.61	96.0	Pulse	0.10	3
1	Ge		769,295.56	0.71	96.9	Pulse	0.10	3
1	Rh		3,736,804.32	0.35	97.1	Pulse	0.10	3
1	In		3,890,788.91	0.86	97.6	Pulse	0.10	3
1	Tb		5,493,955.54	1.67	99.2	Mix	0.10	3
1	Ho		538,410.32	0.24	97.9	Pulse	0.10	3
1	Bi		3,288,769.01	0.43	98.5	Pulse	0.10	3
2	Sc		157,983.10	0.50	98.3	Pulse	0.30	3
2	Ge		96,989.85	0.85	97.5	Pulse	0.30	3
2	Ge		147,195.19	1.28	98.2	Pulse	0.30	3
2	Rh		2,366,693.03	0.64	97.2	Pulse	0.30	3
2	In		954,601.27	0.71	98.2	Pulse	0.30	3
2	Tb		3,208,964.87	0.47	98.0	Pulse	0.30	3
2	Ho		326,173.25	0.23	97.6	Pulse	0.30	3
2	Bi		2,203,506.37	0.30	98.4	Pulse	0.30	3
3	Sc		209,839.26	0.22	96.9	Pulse	0.30	3
3	Ge		135,813.93	0.55	96.8	Pulse	0.30	3
3	Ge		205,256.94	0.77	97.0	Pulse	0.30	3
3	Rh		2,132,190.96	0.34	97.7	Pulse	0.30	3
3	Tb		3,615,388.05	0.21	98.7	Pulse	0.30	3

Quantitation Report

File Name 014_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 11:10
Sample Name ICVA
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	59.166	ug/l	1.83	397,081.67	3.184E-01	Pulse	0.25	3
B			1	119.587	ug/l	2.51	571,308.88	4.582E-01	Pulse	0.15	3
Ca			1	5547.485	ug/l	0.18	5,127,665.65	1.887E+00	Analog	0.10	3
Sr			1	61.048	ug/l	1.38	2,995,475.37	8.125E-01	Pulse	0.10	3
Mo			1	59.685	ug/l	1.29	546,840.07	1.483E-01	Pulse	0.10	3
Ag			1	59.771	ug/l	1.26	1,382,582.11	3.598E-01	Pulse	0.10	3
Sn			1	60.271	ug/l	0.83	899,973.76	2.342E-01	Pulse	0.10	3
Sb			1	64.254	ug/l	0.55	1,125,429.51	2.055E-01	Pulse	0.10	3
Ba			1	61.343	ug/l	0.63	452,446.82	8.262E-02	Pulse	0.10	3
Tl			1	63.956	ug/l	1.06	2,745,681.73	8.523E-01	Pulse	0.10	3
Pb			1	62.467	ug/l	1.14	926,328.82	2.875E-01	Pulse	0.10	3
Pb			1	59.318	ug/l	0.25	774,171.84	2.403E-01	Pulse	0.10	3
Pb			1	60.948	ug/l	0.38	3,653,120.10	1.134E+00	Pulse	0.10	3
Na			2	5570.971	ug/l	0.82	7,781,700.53	4.806E+01	Analog	0.30	3
Mg			2	5447.227	ug/l	0.85	3,521,059.30	2.175E+01	Pulse	0.30	3
Al			2	5508.458	ug/l	1.09	1,212,377.17	7.488E+00	Pulse	0.30	3
K			2	5468.799	ug/l	0.62	2,932,069.74	1.811E+01	Pulse	0.30	3
Ca			2	5738.120	ug/l	1.15	154,581.14	9.547E-01	Pulse	0.30	3
Ti			2	58.777	ug/l	1.97	11,758.73	7.263E-02	Pulse	0.30	3
V			2	60.956	ug/l	0.13	395,513.79	2.443E+00	Pulse	0.30	3
Cr			2	59.315	ug/l	0.47	488,593.09	3.018E+00	Pulse	0.30	3
Mn			2	60.247	ug/l	1.26	265,507.10	1.640E+00	Pulse	0.30	3
Fe			2	5546.135	ug/l	1.47	35,681,794.14	2.204E+02	Analog	0.30	3
Co			2	59.350	ug/l	0.83	769,011.73	4.750E+00	Pulse	0.30	3
Ni			2	58.658	ug/l	1.24	200,919.74	1.241E+00	Pulse	0.30	3
Cu			2	58.328	ug/l	0.50	550,451.30	3.400E+00	Pulse	0.30	3
Zn			2	58.788	ug/l	1.71	84,225.72	5.202E-01	Pulse	0.30	3
As			2	62.401	ug/l	0.33	50,473.49	3.117E-01	Pulse	1.00	3
Cd			2	59.856	ug/l	0.86	129,949.00	1.360E-01	Pulse	0.30	3
Sn			2	59.910	ug/l	0.68	286,099.06	2.994E-01	Pulse	0.30	3
Se			3	269.976	ug/l	1.55	55,709.29	2.730E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,247,177.32	1.49	99.9	Pulse	0.10	3
1	Sc		2,717,799.96	0.69	96.6	Pulse	0.10	3
1	Ge		556,738.46	1.32	97.6	Pulse	0.10	3

Quantitation Report

1	Ge		775,108.79	1.32	97.6	Pulse	0.10	3
1	Rh		3,686,683.38	0.48	95.8	Pulse	0.10	3
1	In		3,842,577.63	1.06	96.4	Pulse	0.10	3
1	Tb		5,476,374.71	0.62	98.9	Mix	0.10	3
1	Ho		538,281.48	1.97	97.9	Pulse	0.10	3
1	Bi		3,221,587.77	0.18	96.5	Pulse	0.10	3
2	Sc		161,925.43	1.43	100.8	Pulse	0.30	3
2	Ge		98,762.61	0.31	99.2	Pulse	0.30	3
2	Ge		149,422.93	1.49	99.6	Pulse	0.30	3
2	Rh		2,343,233.17	1.05	96.3	Pulse	0.30	3
2	In		955,702.37	0.96	98.3	Pulse	0.30	3
2	Tb		3,239,585.70	1.92	98.9	Pulse	0.30	3
2	Ho		330,642.11	1.06	98.9	Pulse	0.30	3
2	Bi		2,162,236.37	2.14	96.6	Pulse	0.30	3
3	Sc		208,400.88	1.11	96.2	Pulse	0.30	3
3	Ge		134,319.09	1.84	95.8	Pulse	0.30	3
3	Ge		204,095.94	1.25	96.5	Pulse	0.30	3
3	Rh		2,044,154.92	2.43	93.7	Pulse	0.30	3
3	Tb		3,537,344.37	2.10	96.6	Pulse	0.30	3

Quantitation Report

File Name 015_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 11:15
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	73.00	96.00	7.725E-05	Pulse	0.25	3
B			1	4.597	ug/l	3.09	28,482.09	2.296E-02	Pulse	0.15	3
Ca			1	2.311	ug/l	29.37	13,696.06	5.099E-03	Pulse	0.10	3
Sr			1	0.014	ug/l	15.29	1,090.09	2.920E-04	Pulse	0.10	3
Mo			1	0.078	ug/l	9.17	890.06	2.384E-04	Pulse	0.10	3
Ag			1	0.066	ug/l	10.54	1,560.14	4.038E-04	Pulse	0.10	3
Sn			1	0.105	ug/l	3.05	4,597.50	1.189E-03	Pulse	0.10	3
Sb			1	0.137	ug/l	9.80	2,740.34	4.999E-04	Pulse	0.10	3
Ba			1	0.021	ug/l	53.82	243.35	4.440E-05	Pulse	0.10	3
Tl			1	0.028	ug/l	7.06	1,483.46	4.504E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	14.29	580.04	1.761E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	42.19	506.70	1.538E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	13.61	2,350.18	7.137E-04	Pulse	0.10	3
Na			2	1.011	ug/l	2.67	13,091.82	8.252E-02	Pulse	0.30	3
Mg			2	0.655	ug/l	14.45	736.69	4.640E-03	Pulse	0.30	3
Al			2	63.613	ug/l	4.21	14,395.13	9.076E-02	Pulse	0.30	3
K			2	0.399	ug/l	122.72	13,848.08	8.730E-02	Pulse	0.30	3
Ca			2	2.650	ug/l	69.32	181.12	1.139E-03	Pulse	0.30	3
Ti			2	0.023	ug/l	73.92	6.67	4.203E-05	Pulse	0.30	3
V			2	-0.006	ug/l	-38.00	257.78	1.626E-03	Pulse	0.30	3
Cr			2	0.001	ug/l	538.20	962.26	6.068E-03	Pulse	0.30	3
Mn			2	0.018	ug/l	62.25	224.45	1.414E-03	Pulse	0.30	3
Fe			2	1.522	ug/l	3.14	15,758.74	9.935E-02	Pulse	0.30	3
Co			2	0.005	ug/l	29.65	121.07	7.630E-04	Pulse	0.30	3
Ni			2	0.019	ug/l	29.62	233.34	1.471E-03	Pulse	0.30	3
Cu			2	-0.223	ug/l	-6.62	6,011.16	3.790E-02	Pulse	0.30	3
Zn			2	-0.277	ug/l	-10.45	1,097.83	6.922E-03	Pulse	0.30	3
As			2	0.011	ug/l	40.05	30.67	1.935E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.004	ug/l	75.55	22.13	2.293E-05	Pulse	0.30	3
Sn			2	0.121	ug/l	17.42	1,692.34	1.756E-03	Pulse	0.30	3
Se			3	0.124	ug/l	13.92	29.47	1.452E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,240,777.72	0.80	99.4	Pulse	0.10	3
1	Sc		2,686,501.84	0.79	95.5	Pulse	0.10	3
1	Ge		543,979.65	0.26	95.4	Pulse	0.10	3
1	Ge		757,928.74	0.50	95.5	Pulse	0.10	3
1	Rh		3,733,671.51	0.41	97.0	Pulse	0.10	3
1	In		3,865,609.67	0.70	97.0	Pulse	0.10	3
1	Tb		5,484,180.12	0.81	99.0	Mix	0.10	3
1	Ho		535,684.00	0.45	97.4	Pulse	0.10	3
1	Bi		3,293,281.51	0.53	98.6	Pulse	0.10	3
2	Sc		158,643.66	1.33	98.7	Pulse	0.30	3
2	Ge		99,099.05	0.55	99.6	Pulse	0.30	3
2	Ge		147,764.59	0.37	98.5	Pulse	0.30	3
2	Rh		2,379,214.63	0.44	97.7	Pulse	0.30	3
2	In		964,111.62	0.72	99.2	Pulse	0.30	3
2	Tb		3,205,110.64	0.31	97.9	Pulse	0.30	3
2	Ho		327,343.26	0.25	97.9	Pulse	0.30	3
2	Bi		2,207,417.27	0.46	98.6	Pulse	0.30	3
3	Sc		207,455.41	1.09	95.8	Pulse	0.30	3
3	Ge		134,047.25	0.51	95.6	Pulse	0.30	3
3	Ge		202,830.52	0.70	95.9	Pulse	0.30	3
3	Rh		2,082,020.20	1.28	95.4	Pulse	0.30	3
3	Tb		3,513,439.65	0.95	95.9	Pulse	0.30	3

Quantitation Report

File Name 016_ICB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 11:26
Sample Name ICB
Sample Type ICB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	405.03	26.67	2.226E-05	Pulse	0.25	3
B			1	2.336	ug/l	4.55	17,184.61	1.440E-02	Pulse	0.15	3
Ca			1	-0.523	ug/l	-99.72	11,340.93	4.138E-03	Pulse	0.10	3
Sr			1	0.002	ug/l	134.21	470.03	1.236E-04	Pulse	0.10	3
Mo			1	0.008	ug/l	47.83	246.68	6.493E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	84.17	73.34	1.868E-05	Pulse	0.10	3
Sn			1	0.069	ug/l	28.52	4,117.36	1.050E-03	Pulse	0.10	3
Sb			1	0.024	ug/l	24.77	773.39	1.391E-04	Pulse	0.10	3
Ba			1	-0.006	ug/l	-26.37	43.33	7.797E-06	Pulse	0.10	3
Tl			1	0.002	ug/l	15.36	353.35	1.056E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	48.93	356.69	1.065E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	25.32	313.35	9.360E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	87.11	1,303.41	3.894E-04	Pulse	0.10	3
Na			2	-0.246	ug/l	-54.62	12,106.66	7.170E-02	Pulse	0.30	3
Mg			2	0.099	ug/l	31.48	408.90	2.422E-03	Pulse	0.30	3
Al			2	-1.090	ug/l	-15.70	482.23	2.857E-03	Pulse	0.30	3
K			2	1.071	ug/l	36.52	15,113.62	8.952E-02	Pulse	0.30	3
Ca			2	0.313	ug/l	204.95	126.67	7.505E-04	Pulse	0.30	3
Ti			2	0.005	ug/l	336.19	3.33	1.963E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-172.01	298.90	1.770E-03	Pulse	0.30	3
Cr			2	-0.006	ug/l	-109.06	965.60	5.719E-03	Pulse	0.30	3
Mn			2	-0.006	ug/l	-131.53	125.56	7.441E-04	Pulse	0.30	3
Fe			2	-0.001	ug/l	-3595.61	6,558.04	3.885E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-115.11	46.65	2.764E-04	Pulse	0.30	3
Ni			2	0.002	ug/l	475.90	187.78	1.114E-03	Pulse	0.30	3
Cu			2	-0.192	ug/l	-9.89	6,702.55	3.970E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.572	ug/l	-7.94	736.69	4.362E-03	Pulse	0.30	3
As			2	-0.005	ug/l	-145.62	19.67	1.163E-04	Pulse	1.00	3
Cd			2	-0.002	ug/l	-144.29	8.87	8.776E-06	Pulse	0.30	3
Sn			2	0.018	ug/l	44.52	1,255.62	1.243E-03	Pulse	0.30	3
Se			3	0.031	ug/l	34.97	10.67	5.039E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,193,144.21	0.83	95.5	Pulse	0.10	3
1	Sc		2,741,116.83	0.26	97.4	Pulse	0.10	3
1	Ge		561,166.17	0.76	98.4	Pulse	0.10	3
1	Ge		782,867.43	1.67	98.6	Pulse	0.10	3
1	Rh		3,798,946.61	0.68	98.7	Pulse	0.10	3
1	In		3,919,174.64	0.53	98.3	Pulse	0.10	3
1	Tb		5,559,645.54	0.17	100.4	Mix	0.10	3
1	Ho		544,733.47	1.25	99.0	Pulse	0.10	3
1	Bi		3,347,597.87	0.27	100.3	Pulse	0.10	3
2	Sc		168,838.82	0.95	105.1	Pulse	0.30	3
2	Ge		103,580.88	0.65	104.1	Pulse	0.30	3
2	Ge		155,747.97	0.58	103.9	Pulse	0.30	3
2	Rh		2,456,469.76	0.45	100.9	Pulse	0.30	3
2	In		1,010,342.29	0.38	104.0	Pulse	0.30	3
2	Tb		3,313,872.02	0.67	101.2	Pulse	0.30	3
2	Ho		335,972.03	0.37	100.5	Pulse	0.30	3
2	Bi		2,269,791.58	0.27	101.4	Pulse	0.30	3
3	Sc		219,302.77	0.46	101.2	Pulse	0.30	3
3	Ge		140,432.64	1.22	100.1	Pulse	0.30	3
3	Ge		211,654.14	0.28	100.1	Pulse	0.30	3
3	Rh		2,105,197.90	0.11	96.5	Pulse	0.30	3
3	Tb		3,566,585.55	0.35	97.4	Pulse	0.30	3

Quantitation Report

File Name 017_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 11:31
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.200	ug/l	1.03	341,826.00	2.702E-01	Pulse	0.25	3
B			1	97.330	ug/l	1.13	473,096.28	3.740E-01	Pulse	0.15	3
Ca			1	5040.734	ug/l	0.72	4,752,019.93	1.715E+00	Pulse	0.10	3
Sr			1	51.340	ug/l	0.58	2,564,463.14	6.833E-01	Pulse	0.10	3
Mo			1	50.615	ug/l	0.50	472,107.56	1.258E-01	Pulse	0.10	3
Ag			1	49.712	ug/l	0.77	1,173,433.99	2.993E-01	Pulse	0.10	3
Sn			1	49.440	ug/l	0.35	753,813.32	1.922E-01	Pulse	0.10	3
Sb			1	51.989	ug/l	0.28	933,646.08	1.663E-01	Pulse	0.10	3
Ba			1	49.658	ug/l	1.46	375,480.98	6.688E-02	Pulse	0.10	3
Tl			1	50.697	ug/l	0.41	2,208,869.76	6.756E-01	Pulse	0.10	3
Pb			1	50.309	ug/l	0.24	757,194.31	2.316E-01	Pulse	0.10	3
Pb			1	50.429	ug/l	0.69	667,963.17	2.043E-01	Pulse	0.10	3
Pb			1	50.344	ug/l	0.25	3,062,645.32	9.367E-01	Pulse	0.10	3
Na			2	5030.739	ug/l	0.97	7,250,137.49	4.341E+01	Analog	0.30	3
Mg			2	4935.276	ug/l	0.29	3,290,869.38	1.970E+01	Pulse	0.30	3
Al			2	4975.449	ug/l	0.33	1,129,710.30	6.763E+00	Pulse	0.30	3
K			2	5006.050	ug/l	0.64	2,769,973.36	1.658E+01	Pulse	0.30	3
Ca			2	5191.084	ug/l	1.13	144,266.40	8.637E-01	Pulse	0.30	3
Ti			2	49.205	ug/l	2.60	10,155.43	6.080E-02	Pulse	0.30	3
V			2	50.029	ug/l	0.97	334,909.53	2.005E+00	Pulse	0.30	3
Cr			2	49.195	ug/l	1.41	418,220.79	2.504E+00	Pulse	0.30	3
Mn			2	49.861	ug/l	1.46	226,726.27	1.357E+00	Pulse	0.30	3
Fe			2	4977.689	ug/l	0.82	33,039,994.24	1.978E+02	Analog	0.30	3
Co			2	49.037	ug/l	0.80	655,482.78	3.924E+00	Pulse	0.30	3
Ni			2	48.602	ug/l	0.48	171,768.45	1.028E+00	Pulse	0.30	3
Cu			2	48.021	ug/l	0.32	468,991.02	2.808E+00	Pulse	0.30	3
Zn			2	48.361	ug/l	0.15	71,760.34	4.296E-01	Pulse	0.30	3
As			2	49.750	ug/l	0.75	41,512.38	2.485E-01	Pulse	1.00	3
Cd			2	49.199	ug/l	0.66	110,120.48	1.118E-01	Pulse	0.30	3
Sn			2	49.276	ug/l	0.40	242,783.33	2.464E-01	Pulse	0.30	3
Se			3	197.153	ug/l	1.07	41,440.38	1.994E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,265,155.66	0.28	101.3	Pulse	0.10	3
1	Sc		2,771,339.34	0.81	98.5	Pulse	0.10	3
1	Ge		563,386.65	1.12	98.8	Pulse	0.10	3

Quantitation Report

1	Ge		786,229.05	0.53	99.0	Pulse	0.10	3
1	Rh		3,752,861.61	0.41	97.5	Pulse	0.10	3
1	In		3,921,076.25	0.74	98.4	Pulse	0.10	3
1	Tb		5,614,550.12	0.97	101.4	Analog	0.10	3
1	Ho		550,359.28	1.04	100.0	Pulse	0.10	3
1	Bi		3,269,485.06	0.38	97.9	Pulse	0.10	3
2	Sc		167,031.69	0.68	103.9	Pulse	0.30	3
2	Ge		101,766.31	1.00	102.3	Pulse	0.30	3
2	Ge		153,445.59	0.97	102.3	Pulse	0.30	3
2	Rh		2,396,129.42	1.35	98.4	Pulse	0.30	3
2	In		985,176.17	1.00	101.4	Pulse	0.30	3
2	Tb		3,288,239.66	0.33	100.4	Pulse	0.30	3
2	Ho		337,144.28	0.17	100.9	Pulse	0.30	3
2	Bi		2,193,863.04	0.67	98.0	Pulse	0.30	3
3	Sc		216,554.46	1.34	100.0	Pulse	0.30	3
3	Ge		137,309.23	1.05	97.9	Pulse	0.30	3
3	Ge		207,885.13	1.51	98.3	Pulse	0.30	3
3	Rh		2,086,171.10	0.69	95.6	Pulse	0.30	3
3	Tb		3,590,504.02	0.37	98.0	Pulse	0.30	3

Quantitation Report

File Name 018_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 11:36
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	53.94	96.00	7.855E-05	Pulse	0.25	3
B			1	4.180	ug/l	1.42	26,149.43	2.138E-02	Pulse	0.15	3
Ca			1	-0.527	ug/l	-80.52	11,070.70	4.136E-03	Pulse	0.10	3
Sr			1	0.008	ug/l	33.74	790.05	2.141E-04	Pulse	0.10	3
Mo			1	0.084	ug/l	18.98	930.07	2.518E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	24.58	300.01	7.749E-05	Pulse	0.10	3
Sn			1	0.144	ug/l	4.93	5,187.74	1.339E-03	Pulse	0.10	3
Sb			1	0.062	ug/l	15.27	1,420.12	2.599E-04	Pulse	0.10	3
Ba			1	0.009	ug/l	50.10	153.34	2.812E-05	Pulse	0.10	3
Tl			1	0.024	ug/l	2.07	1,280.10	3.901E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	50.18	476.70	1.454E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	70.51	453.36	1.383E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	33.50	1,990.14	6.069E-04	Pulse	0.10	3
Na			2	0.308	ug/l	40.73	12,035.50	7.647E-02	Pulse	0.30	3
Mg			2	0.407	ug/l	33.81	574.46	3.650E-03	Pulse	0.30	3
Al			2	-0.470	ug/l	-29.28	582.24	3.699E-03	Pulse	0.30	3
K			2	-0.084	ug/l	-373.16	13,491.08	8.571E-02	Pulse	0.30	3
Ca			2	0.343	ug/l	449.86	118.89	7.555E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	4047.08	2.22	1.409E-05	Pulse	0.30	3
V			2	0.003	ug/l	100.06	315.56	2.005E-03	Pulse	0.30	3
Cr			2	0.007	ug/l	113.72	1,006.71	6.396E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	870.23	144.45	9.177E-04	Pulse	0.30	3
Fe			2	0.685	ug/l	14.98	10,403.39	6.610E-02	Pulse	0.30	3
Co			2	0.003	ug/l	26.16	85.53	5.434E-04	Pulse	0.30	3
Ni			2	0.008	ug/l	97.41	195.56	1.243E-03	Pulse	0.30	3
Cu			2	-0.226	ug/l	-8.17	5,940.03	3.774E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.482	ug/l	-11.42	810.03	5.146E-03	Pulse	0.30	3
As			2	0.015	ug/l	56.07	33.67	2.139E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	-1089.96	12.13	1.262E-05	Pulse	0.30	3
Sn			2	0.162	ug/l	8.11	1,883.47	1.959E-03	Pulse	0.30	3
Se			3	0.127	ug/l	11.51	30.00	1.475E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,223,202.16	0.52	97.9	Pulse	0.10	3
1	Sc		2,676,740.69	0.37	95.2	Pulse	0.10	3
1	Ge		545,161.14	0.54	95.6	Pulse	0.10	3
1	Ge		757,200.49	1.61	95.4	Pulse	0.10	3
1	Rh		3,691,317.97	0.79	95.9	Pulse	0.10	3
1	In		3,874,958.48	0.63	97.2	Pulse	0.10	3
1	Tb		5,462,372.63	1.64	98.6	Mix	0.10	3
1	Ho		535,528.82	0.68	97.4	Pulse	0.10	3
1	Bi		3,280,915.89	0.72	98.3	Pulse	0.10	3
2	Sc		157,396.59	0.15	97.9	Pulse	0.30	3
2	Ge		98,195.97	0.60	98.7	Pulse	0.30	3
2	Ge		146,910.96	1.04	98.0	Pulse	0.30	3
2	Rh		2,368,920.95	0.41	97.3	Pulse	0.30	3
2	In		961,475.85	0.54	98.9	Pulse	0.30	3
2	Tb		3,192,662.23	0.39	97.5	Pulse	0.30	3
2	Ho		323,454.93	0.83	96.8	Pulse	0.30	3
2	Bi		2,184,781.93	1.06	97.6	Pulse	0.30	3
3	Sc		208,107.14	0.51	96.1	Pulse	0.30	3
3	Ge		134,768.26	0.46	96.1	Pulse	0.30	3
3	Ge		203,446.52	0.63	96.2	Pulse	0.30	3
3	Rh		2,100,798.60	0.35	96.3	Pulse	0.30	3
3	Tb		3,551,176.11	0.31	96.9	Pulse	0.30	3

Quantitation Report

File Name 019LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 11:41
Sample Name CRI
Sample Type LLCCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.478	ug/l	1.96	3,249.70	2.589E-03	Pulse	0.25	3
B			1	24.660	ug/l	1.40	124,123.02	9.889E-02	Pulse	0.15	3
Ca			1	262.590	ug/l	0.36	255,579.38	9.342E-02	Pulse	0.10	3
Sr			1	4.903	ug/l	1.29	246,011.02	6.535E-02	Pulse	0.10	3
Mo			1	0.997	ug/l	1.46	9,486.50	2.520E-03	Pulse	0.10	3
Ag			1	0.462	ug/l	1.95	10,874.10	2.789E-03	Pulse	0.10	3
Sn			1	4.917	ug/l	1.16	77,297.46	1.983E-02	Pulse	0.10	3
Sb			1	2.116	ug/l	0.92	37,926.52	6.829E-03	Pulse	0.10	3
Ba			1	1.006	ug/l	1.32	7,608.84	1.370E-03	Pulse	0.10	3
Tl			1	0.492	ug/l	4.47	22,017.14	6.632E-03	Pulse	0.10	3
Pb			1	0.487	ug/l	10.41	7,718.99	2.325E-03	Pulse	0.10	3
Pb			1	0.487	ug/l	1.46	6,808.53	2.051E-03	Pulse	0.10	3
Pb			1	0.487	ug/l	3.35	31,300.98	9.427E-03	Pulse	0.10	3
Na			2	255.548	ug/l	1.06	366,644.54	2.275E+00	Pulse	0.30	3
Mg			2	258.378	ug/l	1.42	166,535.01	1.033E+00	Pulse	0.30	3
Al			2	23.809	ug/l	3.23	5,912.21	3.668E-02	Pulse	0.30	3
K			2	254.963	ug/l	1.58	149,262.97	9.262E-01	Pulse	0.30	3
Ca			2	280.900	ug/l	2.80	7,639.62	4.740E-02	Pulse	0.30	3
Ti			2	1.149	ug/l	2.79	231.12	1.434E-03	Pulse	0.30	3
V			2	0.968	ug/l	3.06	6,545.79	4.062E-02	Pulse	0.30	3
Cr			2	0.971	ug/l	1.00	8,914.73	5.531E-02	Pulse	0.30	3
Mn			2	1.007	ug/l	3.19	4,560.68	2.830E-02	Pulse	0.30	3
Fe			2	25.874	ug/l	1.22	171,930.09	1.067E+00	Pulse	0.30	3
Co			2	0.496	ug/l	2.96	6,453.10	4.004E-02	Pulse	0.30	3
Ni			2	1.013	ug/l	3.93	3,621.55	2.248E-02	Pulse	0.30	3
Cu			2	1.711	ug/l	1.18	24,005.41	1.490E-01	Pulse	0.30	3
Zn			2	5.029	ug/l	2.15	8,547.88	5.303E-02	Pulse	0.30	3
As			2	0.496	ug/l	1.10	421.34	2.614E-03	Pulse	1.00	3
Cd			2	0.478	ug/l	5.93	1,071.51	1.099E-03	Pulse	0.30	3
Sn			2	4.866	ug/l	1.25	24,747.26	2.538E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.562	ug/l	2.67	120.47	5.879E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,255,140.25	0.80	100.5	Pulse	0.10	3
1	Sc		2,735,875.69	0.35	97.3	Pulse	0.10	3
1	Ge		558,034.57	0.90	97.8	Pulse	0.10	3
1	Ge		772,499.96	1.32	97.3	Pulse	0.10	3
1	Rh		3,764,215.88	0.99	97.8	Pulse	0.10	3
1	In		3,899,010.29	0.62	97.8	Pulse	0.10	3
1	Tb		5,553,678.04	1.05	100.3	Analog	0.10	3
1	Ho		539,736.43	0.58	98.1	Pulse	0.10	3
1	Bi		3,320,439.22	0.43	99.5	Pulse	0.10	3
2	Sc		161,168.29	0.88	100.3	Pulse	0.30	3
2	Ge		99,244.18	0.83	99.7	Pulse	0.30	3
2	Ge		149,994.60	0.81	100.0	Pulse	0.30	3
2	Rh		2,396,485.81	0.92	98.5	Pulse	0.30	3
2	In		975,236.50	0.21	100.3	Pulse	0.30	3
2	Tb		3,241,380.15	1.01	99.0	Pulse	0.30	3
2	Ho		329,758.34	0.96	98.6	Pulse	0.30	3
2	Bi		2,205,545.75	0.44	98.5	Pulse	0.30	3
3	Sc		210,422.16	1.03	97.1	Pulse	0.30	3
3	Ge		136,016.98	0.75	97.0	Pulse	0.30	3
3	Ge		204,958.72	1.57	96.9	Pulse	0.30	3
3	Rh		2,124,242.76	0.28	97.4	Pulse	0.30	3
3	Tb		3,583,763.33	0.45	97.8	Pulse	0.30	3

Quantitation Report

File Name 020ICSA.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 11:47
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-60.16	13.33	1.152E-05	Pulse	0.25	3
B			1	3.487	ug/l	0.26	21,740.95	1.876E-02	Pulse	0.15	3
Ca			1	94348.485	ug/l	0.54	84,141,570.41	3.202E+01	Analog	0.10	3
Sr			1	1942.106	ug/l	1.20	84,752,725.41	2.585E+01	Analog	0.10	3
Mo			1	2065.742	ug/l	0.61	16,831,907.25	5.132E+00	Analog	0.10	3
Ag			1	0.019	ug/l	8.77	433.36	1.212E-04	Pulse	0.10	3
Sn			1	1815.361	ug/l	0.41	25,137,982.12	7.031E+00	Analog	0.10	3
Sb			1	0.188	ug/l	6.78	3,530.52	6.637E-04	Pulse	0.10	3
Ba			1	0.254	ug/l	8.64	1,903.53	3.579E-04	Pulse	0.10	3
Tl			1	0.004	ug/l	56.28	390.02	1.324E-04	Pulse	0.10	3
Pb			1	0.095	ug/l	5.32	1,543.47	5.236E-04	Pulse	0.10	3
Pb			1	0.089	ug/l	2.87	1,290.11	4.377E-04	Pulse	0.10	3
Pb			1	0.094	ug/l	3.19	6,264.13	2.125E-03	Pulse	0.10	3
Na			2	92653.721	ug/l	1.02	125,716,706.12	7.982E+02	Analog	0.30	3
Mg			2	92469.791	ug/l	0.24	58,140,542.14	3.691E+02	Analog	0.30	3
Al			2	95029.204	ug/l	0.41	20,336,514.19	1.291E+02	Analog	0.30	3
K			2	95998.385	ug/l	1.27	49,840,736.91	3.164E+02	Analog	0.30	3
Ca			2	101146.563	ug/l	0.83	2,648,802.53	1.682E+01	Pulse	0.30	3
Ti			2	1823.953	ug/l	0.63	354,940.86	2.253E+00	Pulse	0.30	3
V			2	-0.008	ug/l	-23.11	247.78	1.573E-03	Pulse	0.30	3
Cr			2	0.225	ug/l	2.45	2,750.26	1.746E-02	Pulse	0.30	3
Mn			2	0.545	ug/l	3.60	2,481.33	1.575E-02	Pulse	0.30	3
Fe			2	90294.928	ug/l	1.08	565,050,964.21	3.587E+03	Analog	0.30	3
Co			2	0.177	ug/l	9.81	2,287.07	1.453E-02	Pulse	0.30	3
Ni			2	0.487	ug/l	4.74	1,787.90	1.135E-02	Pulse	0.30	3
Cu			2	1.576	ug/l	2.83	22,235.15	1.412E-01	Pulse	0.30	3
Zn			2	-0.071	ug/l	-59.05	1,372.30	8.711E-03	Pulse	0.30	3
As			2	0.065	ug/l	11.24	72.67	4.610E-04	Pulse	1.00	3
Cd			2	-0.309	ug/l	-13.56	-608.79	-6.879E-04	Pulse	0.30	3
Sn			2	1832.881	ug/l	0.50	8,073,741.62	9.125E+00	Analog	0.30	3
Se			3	0.124	ug/l	16.25	27.27	1.445E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,159,000.87	0.72	92.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,627,875.27	0.56	93.4	Pulse	0.10	3
1	Ge		526,989.70	0.60	92.4	Pulse	0.10	3
1	Ge		711,121.92	0.90	89.6	Pulse	0.10	3
1	Rh		3,279,450.06	1.13	85.2	Pulse	0.10	3
1	In		3,575,223.18	0.63	89.7	Pulse	0.10	3
1	Tb		5,320,066.59	0.65	96.1	Mix	0.10	3
1	Ho		522,206.26	0.60	94.9	Pulse	0.10	3
1	Bi		2,947,428.50	0.43	88.3	Pulse	0.10	3
2	Sc		157,519.59	1.34	98.0	Pulse	0.30	3
2	Ge		93,940.01	0.68	94.4	Pulse	0.30	3
2	Ge		138,522.80	1.10	92.4	Pulse	0.30	3
2	Rh		2,090,680.68	0.42	85.9	Pulse	0.30	3
2	In		884,832.56	0.34	91.0	Pulse	0.30	3
2	Tb		3,122,989.04	0.37	95.4	Pulse	0.30	3
2	Ho		320,134.95	0.52	95.8	Pulse	0.30	3
2	Bi		1,959,039.58	0.39	87.5	Pulse	0.30	3
3	Sc		206,047.36	0.59	95.1	Pulse	0.30	3
3	Ge		130,349.97	1.04	92.9	Pulse	0.30	3
3	Ge		188,574.15	0.55	89.1	Pulse	0.30	3
3	Rh		1,849,873.60	0.09	84.8	Pulse	0.30	3
3	Tb		3,436,996.95	0.71	93.8	Pulse	0.30	3

Quantitation Report

File Name 021ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 11:51
Sample Name ICSAB
Sample Type ICSB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	202.12	29.33	2.670E-05	Pulse	0.25	3
B			1	52.666	ug/l	0.72	224,661.69	2.049E-01	Pulse	0.15	3
Ca			1	93893.578	ug/l	1.03	80,700,247.13	3.186E+01	Analog	0.10	3
Sr			1	1947.755	ug/l	0.73	84,454,863.74	2.592E+01	Analog	0.10	3
Mo			1	2043.163	ug/l	0.36	16,539,223.09	5.076E+00	Analog	0.10	3
Ag			1	19.893	ug/l	0.49	425,064.37	1.198E-01	Pulse	0.10	3
Sn			1	1822.796	ug/l	0.76	25,056,698.79	7.060E+00	Analog	0.10	3
Sb			1	0.187	ug/l	6.14	3,527.20	6.600E-04	Pulse	0.10	3
Ba			1	0.218	ug/l	13.14	1,650.16	3.088E-04	Pulse	0.10	3
Tl			1	0.005	ug/l	35.87	410.02	1.396E-04	Pulse	0.10	3
Pb			1	0.098	ug/l	11.64	1,576.84	5.371E-04	Pulse	0.10	3
Pb			1	0.082	ug/l	14.17	1,200.10	4.083E-04	Pulse	0.10	3
Pb			1	0.088	ug/l	1.37	5,900.73	2.009E-03	Pulse	0.10	3
Na			2	90473.109	ug/l	0.44	120,706,012.98	7.794E+02	Analog	0.30	3
Mg			2	90534.726	ug/l	0.66	55,968,828.89	3.614E+02	Analog	0.30	3
Al			2	93322.158	ug/l	0.05	19,635,218.66	1.268E+02	Analog	0.30	3
K			2	95295.118	ug/l	1.54	48,650,402.51	3.141E+02	Analog	0.30	3
Ca			2	99958.538	ug/l	0.60	2,573,866.36	1.662E+01	Pulse	0.30	3
Ti			2	1798.925	ug/l	0.24	344,197.17	2.222E+00	Pulse	0.30	3
V			2	20.174	ug/l	0.64	125,388.76	8.096E-01	Pulse	0.30	3
Cr			2	20.789	ug/l	1.19	164,403.83	1.062E+00	Pulse	0.30	3
Mn			2	21.152	ug/l	0.85	89,258.88	5.763E-01	Pulse	0.30	3
Fe			2	90562.461	ug/l	0.31	557,238,786.75	3.598E+03	Analog	0.30	3
Co			2	20.165	ug/l	0.53	249,951.52	1.614E+00	Pulse	0.30	3
Ni			2	20.090	ug/l	0.28	65,931.14	4.257E-01	Pulse	0.30	3
Cu			2	18.299	ug/l	0.03	170,560.62	1.101E+00	Pulse	0.30	3
Zn			2	17.807	ug/l	0.54	25,413.14	1.641E-01	Pulse	0.30	3
As			2	20.553	ug/l	0.54	15,914.74	1.028E-01	Pulse	1.00	3
Cd			2	19.636	ug/l	1.24	39,084.82	4.462E-02	Pulse	0.30	3
Sn			2	1890.377	ug/l	0.97	8,244,332.17	9.411E+00	Analog	0.30	3
Se			3	20.103	ug/l	1.15	3,879.19	2.035E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,096,486.22	0.57	87.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,532,631.52	0.23	90.0	Pulse	0.10	3
1	Ge		516,343.54	0.74	90.5	Pulse	0.10	3
1	Ge		695,334.81	0.71	87.6	Pulse	0.10	3
1	Rh		3,258,055.26	0.62	84.6	Pulse	0.10	3
1	In		3,549,076.38	0.57	89.1	Pulse	0.10	3
1	Tb		5,343,551.17	0.48	96.5	Pulse	0.10	3
1	Ho		527,414.24	1.52	95.9	Pulse	0.10	3
1	Bi		2,936,982.25	1.07	88.0	Pulse	0.10	3
2	Sc		154,873.68	0.30	96.4	Pulse	0.30	3
2	Ge		93,008.02	0.54	93.5	Pulse	0.30	3
2	Ge		136,954.04	0.51	91.3	Pulse	0.30	3
2	Rh		2,081,379.71	0.20	85.5	Pulse	0.30	3
2	In		876,024.69	0.29	90.1	Pulse	0.30	3
2	Tb		3,126,895.22	0.56	95.5	Pulse	0.30	3
2	Ho		321,217.86	0.67	96.1	Pulse	0.30	3
2	Bi		1,957,842.35	0.42	87.4	Pulse	0.30	3
3	Sc		206,474.12	0.53	95.3	Pulse	0.30	3
3	Ge		130,347.83	0.76	92.9	Pulse	0.30	3
3	Ge		190,659.21	0.32	90.1	Pulse	0.30	3
3	Rh		1,843,822.15	0.31	84.5	Pulse	0.30	3
3	Tb		3,427,290.00	0.37	93.6	Pulse	0.30	3

Quantitation Report

File Name 022SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 11:56
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.020	ug/l	38.29	132.00	1.254E-04	Pulse	0.25	3
B			1	1.360	ug/l	10.97	11,279.52	1.071E-02	Pulse	0.15	3
Ca			1	23.332	ug/l	5.29	29,704.06	1.223E-02	Pulse	0.10	3
Sr			1	0.283	ug/l	7.76	13,966.65	3.865E-03	Pulse	0.10	3
Mo			1	0.902	ug/l	7.82	8,255.78	2.285E-03	Pulse	0.10	3
Ag			1	0.010	ug/l	31.49	250.01	6.522E-05	Pulse	0.10	3
Sn			1	0.507	ug/l	2.02	10,523.96	2.744E-03	Pulse	0.10	3
Sb			1	0.026	ug/l	22.17	810.05	1.452E-04	Pulse	0.10	3
Ba			1	0.025	ug/l	49.02	273.35	4.897E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	10.95	513.36	1.543E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	27.74	676.71	2.033E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	22.96	553.36	1.662E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	10.65	2,533.51	7.613E-04	Pulse	0.10	3
Na			2	14.541	ug/l	8.07	28,880.31	1.991E-01	Pulse	0.30	3
Mg			2	9.682	ug/l	13.39	5,899.99	4.067E-02	Pulse	0.30	3
Al			2	21.839	ug/l	1.15	4,934.10	3.401E-02	Pulse	0.30	3
K			2	8.475	ug/l	10.99	16,528.30	1.139E-01	Pulse	0.30	3
Ca			2	20.216	ug/l	20.42	588.91	4.059E-03	Pulse	0.30	3
Ti			2	0.348	ug/l	23.77	64.44	4.439E-04	Pulse	0.30	3
V			2	0.000	ug/l	468.83	273.34	1.884E-03	Pulse	0.30	3
Cr			2	0.005	ug/l	59.37	911.15	6.280E-03	Pulse	0.30	3
Mn			2	0.050	ug/l	22.43	328.90	2.266E-03	Pulse	0.30	3
Fe			2	12.023	ug/l	9.06	74,933.77	5.165E-01	Pulse	0.30	3
Co			2	0.013	ug/l	6.82	196.47	1.354E-03	Pulse	0.30	3
Ni			2	0.078	ug/l	5.80	394.45	2.718E-03	Pulse	0.30	3
Cu			2	-0.108	ug/l	-17.07	6,454.68	4.449E-02	Pulse	0.30	3
Zn			2	1.092	ug/l	1.48	2,731.38	1.882E-02	Pulse	0.30	3
As			2	0.012	ug/l	70.93	28.67	1.975E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.018	ug/l	13.05	51.47	5.504E-05	Pulse	0.30	3
Sn			2	0.399	ug/l	12.58	2,936.98	3.141E-03	Pulse	0.30	3
Se			3	0.021	ug/l	81.88	8.27	4.089E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,053,891.55	0.73	84.4	Pulse	0.10	3
1	Sc		2,428,733.71	0.73	86.3	Pulse	0.10	3
1	Ge		512,574.34	0.43	89.9	Pulse	0.10	3
1	Ge		717,213.40	0.81	90.4	Pulse	0.10	3
1	Rh		3,614,273.49	0.41	93.9	Pulse	0.10	3
1	In		3,835,206.16	0.49	96.2	Pulse	0.10	3
1	Tb		5,576,428.88	0.46	100.7	Analog	0.10	3
1	Ho		538,884.29	0.66	98.0	Pulse	0.10	3
1	Bi		3,327,495.27	0.79	99.7	Pulse	0.10	3
2	Sc		145,094.90	0.36	90.3	Pulse	0.30	3
2	Ge		91,508.75	1.39	92.0	Pulse	0.30	3
2	Ge		138,920.10	0.53	92.6	Pulse	0.30	3
2	Rh		2,307,662.41	0.44	94.8	Pulse	0.30	3
2	In		935,190.61	0.08	96.2	Pulse	0.30	3
2	Tb		3,159,859.04	1.11	96.5	Pulse	0.30	3
2	Ho		325,178.84	0.58	97.3	Pulse	0.30	3
2	Bi		2,202,049.70	0.19	98.4	Pulse	0.30	3
3	Sc		205,441.46	0.71	94.8	Pulse	0.30	3
3	Ge		134,129.22	0.40	95.6	Pulse	0.30	3
3	Ge		202,065.02	0.18	95.5	Pulse	0.30	3
3	Rh		2,103,505.68	0.72	96.4	Pulse	0.30	3
3	Tb		3,557,230.69	0.16	97.1	Pulse	0.30	3

Quantitation Report

File Name 023_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 12:01
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.509	ug/l	7.31	284,511.80	2.557E-01	Pulse	0.25	3
B			1	93.031	ug/l	6.05	398,191.78	3.577E-01	Pulse	0.15	3
Ca			1	4790.182	ug/l	8.17	4,284,730.98	1.630E+00	Pulse	0.10	3
Sr			1	48.807	ug/l	8.05	2,438,428.19	6.496E-01	Pulse	0.10	3
Mo			1	48.384	ug/l	8.08	451,387.56	1.203E-01	Pulse	0.10	3
Ag			1	47.104	ug/l	7.80	1,128,324.23	2.836E-01	Pulse	0.10	3
Sn			1	48.085	ug/l	8.28	743,901.97	1.870E-01	Pulse	0.10	3
Sb			1	48.848	ug/l	7.52	913,504.65	1.563E-01	Pulse	0.10	3
Ba			1	46.624	ug/l	8.19	367,020.79	6.280E-02	Pulse	0.10	3
Tl			1	48.613	ug/l	7.62	2,218,354.45	6.478E-01	Pulse	0.10	3
Pb			1	48.264	ug/l	8.00	760,686.19	2.222E-01	Pulse	0.10	3
Pb			1	48.227	ug/l	7.76	669,025.25	1.954E-01	Pulse	0.10	3
Pb			1	48.216	ug/l	7.22	3,072,640.37	8.972E-01	Pulse	0.10	3
Na			2	5146.571	ug/l	3.98	6,493,750.85	4.441E+01	Analog	0.30	3
Mg			2	4969.381	ug/l	3.18	2,901,541.13	1.984E+01	Pulse	0.30	3
Al			2	4957.091	ug/l	3.57	985,508.26	6.739E+00	Pulse	0.30	3
K			2	5073.295	ug/l	3.38	2,457,801.71	1.680E+01	Pulse	0.30	3
Ca			2	5321.921	ug/l	3.81	129,497.08	8.855E-01	Pulse	0.30	3
Ti			2	51.558	ug/l	1.68	9,321.58	6.371E-02	Pulse	0.30	3
V			2	52.050	ug/l	3.50	305,077.47	2.086E+00	Pulse	0.30	3
Cr			2	51.609	ug/l	2.75	384,164.83	2.626E+00	Pulse	0.30	3
Mn			2	51.985	ug/l	2.59	207,006.27	1.415E+00	Pulse	0.30	3
Fe			2	5282.303	ug/l	2.26	30,707,039.89	2.099E+02	Analog	0.30	3
Co			2	51.618	ug/l	3.03	604,203.05	4.131E+00	Pulse	0.30	3
Ni			2	51.357	ug/l	3.66	158,915.85	1.087E+00	Pulse	0.30	3
Cu			2	51.327	ug/l	3.18	438,435.00	2.998E+00	Pulse	0.30	3
Zn			2	51.585	ug/l	2.97	66,939.07	4.576E-01	Pulse	0.30	3
As			2	52.375	ug/l	2.98	38,270.23	2.616E-01	Pulse	1.00	3
Cd			2	51.316	ug/l	2.51	105,598.48	1.166E-01	Pulse	0.30	3
Sn			2	51.745	ug/l	4.17	234,258.14	2.587E-01	Pulse	0.30	3
Se			3	194.442	ug/l	0.80	40,271.55	1.966E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,115,881.72	5.96	89.4	Pulse	0.10	3
1	Sc		2,639,746.16	7.43	93.8	Pulse	0.10	3
1	Ge		542,905.71	5.44	95.2	Pulse	0.10	3

Quantitation Report

1	Ge		757,849.67	5.86	95.5	Pulse	0.10	3
1	Rh		3,768,489.11	7.39	97.9	Pulse	0.10	3
1	In		3,994,128.09	7.36	100.2	Pulse	0.10	3
1	Tb		5,867,611.16	7.22	106.0	Analog	0.10	3
1	Ho		569,820.37	6.52	103.6	Pulse	0.10	3
1	Bi		3,435,128.70	6.21	102.9	Pulse	0.10	3
2	Sc		146,360.26	3.17	91.1	Pulse	0.30	3
2	Ge		90,802.06	4.32	91.2	Pulse	0.30	3
2	Ge		137,870.87	2.73	91.9	Pulse	0.30	3
2	Rh		2,222,571.92	3.49	91.3	Pulse	0.30	3
2	In		906,360.37	3.69	93.3	Pulse	0.30	3
2	Tb		3,099,786.06	4.12	94.7	Pulse	0.30	3
2	Ho		317,655.41	3.56	95.0	Pulse	0.30	3
2	Bi		2,101,984.78	3.90	93.9	Pulse	0.30	3
3	Sc		208,386.74	0.70	96.2	Pulse	0.30	3
3	Ge		134,588.52	0.94	96.0	Pulse	0.30	3
3	Ge		204,819.12	0.11	96.8	Pulse	0.30	3
3	Rh		2,077,069.22	0.45	95.2	Pulse	0.30	3
3	Tb		3,588,420.27	0.89	98.0	Pulse	0.30	3

Quantitation Report

File Name 024_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 12:06
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	40.54	81.33	7.353E-05	Pulse	0.25	3
B			1	3.793	ug/l	1.31	22,079.06	1.992E-02	Pulse	0.15	3
Ca			1	0.153	ug/l	379.55	11,147.47	4.367E-03	Pulse	0.10	3
Sr			1	0.029	ug/l	5.36	1,830.18	4.938E-04	Pulse	0.10	3
Mo			1	0.138	ug/l	12.95	1,433.45	3.866E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	13.83	336.69	8.658E-05	Pulse	0.10	3
Sn			1	0.318	ug/l	69.41	7,846.89	2.012E-03	Pulse	0.10	3
Sb			1	0.060	ug/l	15.21	1,430.12	2.543E-04	Pulse	0.10	3
Ba			1	0.002	ug/l	322.75	106.67	1.891E-05	Pulse	0.10	3
Tl			1	0.020	ug/l	11.13	1,146.76	3.395E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	46.77	483.36	1.431E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	58.62	480.03	1.421E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	46.16	1,923.45	5.695E-04	Pulse	0.10	3
Na			2	3.123	ug/l	7.22	15,329.28	1.007E-01	Pulse	0.30	3
Mg			2	1.464	ug/l	4.71	1,197.84	7.870E-03	Pulse	0.30	3
Al			2	0.444	ug/l	113.95	752.25	4.941E-03	Pulse	0.30	3
K			2	0.658	ug/l	46.95	13,418.84	8.816E-02	Pulse	0.30	3
Ca			2	2.255	ug/l	56.80	163.33	1.073E-03	Pulse	0.30	3
Ti			2	0.042	ug/l	72.52	10.00	6.562E-05	Pulse	0.30	3
V			2	-0.007	ug/l	-106.17	245.56	1.613E-03	Pulse	0.30	3
Cr			2	0.010	ug/l	148.62	997.82	6.554E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-144.27	131.11	8.613E-04	Pulse	0.30	3
Fe			2	1.927	ug/l	1.76	17,571.70	1.154E-01	Pulse	0.30	3
Co			2	0.003	ug/l	39.20	87.73	5.766E-04	Pulse	0.30	3
Ni			2	0.011	ug/l	143.21	196.67	1.292E-03	Pulse	0.30	3
Cu			2	-0.444	ug/l	-5.44	3,832.72	2.518E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.499	ug/l	-9.04	760.03	4.993E-03	Pulse	0.30	3
As			2	0.008	ug/l	68.81	27.33	1.796E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	338.11	15.38	1.615E-05	Pulse	0.30	3
Sn			2	0.210	ug/l	8.17	2,095.72	2.200E-03	Pulse	0.30	3
Se			3	0.103	ug/l	8.10	25.47	1.236E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,108,718.97	1.35	88.8	Pulse	0.10	3
1	Sc		2,553,457.46	1.07	90.8	Pulse	0.10	3
1	Ge		528,987.30	0.33	92.7	Pulse	0.10	3
1	Ge		738,661.08	0.15	93.1	Pulse	0.10	3
1	Rh		3,706,463.38	0.40	96.3	Pulse	0.10	3
1	In		3,891,381.46	0.85	97.6	Pulse	0.10	3
1	Tb		5,627,658.46	0.96	101.6	Analog	0.10	3
1	Ho		546,546.63	1.13	99.4	Pulse	0.10	3
1	Bi		3,377,844.43	0.18	101.2	Pulse	0.10	3
2	Sc		152,205.26	0.41	94.7	Pulse	0.30	3
2	Ge		95,016.05	0.35	95.5	Pulse	0.30	3
2	Ge		144,127.38	0.24	96.1	Pulse	0.30	3
2	Rh		2,352,555.81	0.45	96.6	Pulse	0.30	3
2	In		952,624.67	0.04	98.0	Pulse	0.30	3
2	Tb		3,210,321.54	0.05	98.0	Pulse	0.30	3
2	Ho		328,643.01	0.32	98.3	Pulse	0.30	3
2	Bi		2,213,553.18	0.23	98.9	Pulse	0.30	3
3	Sc		205,784.24	0.49	95.0	Pulse	0.30	3
3	Ge		134,846.35	0.93	96.1	Pulse	0.30	3
3	Ge		206,093.04	0.41	97.4	Pulse	0.30	3
3	Rh		2,132,472.83	0.45	97.8	Pulse	0.30	3
3	Tb		3,580,010.00	0.61	97.7	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 12:11
Sample Name mp17220-mb1 4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	86.49	50.67	4.657E-05	Pulse	0.25	3
B			1	5.511	ug/l	2.67	17,411.48	1.599E-02	Pulse	0.15	3
Ca			1	8.778	ug/l	18.92	14,530.19	5.804E-03	Pulse	0.10	3
Sr			1	0.120	ug/l	4.83	3,317.14	8.976E-04	Pulse	0.10	3
Mo			1	0.280	ug/l	6.80	1,446.79	3.914E-04	Pulse	0.10	3
Ag			1	0.018	ug/l	13.83	230.01	5.934E-05	Pulse	0.10	3
Sn			1	0.711	ug/l	9.53	8,369.26	2.158E-03	Pulse	0.10	3
Sb			1	0.142	ug/l	15.22	1,636.82	2.904E-04	Pulse	0.10	3
Ba			1	0.041	ug/l	33.65	243.35	4.321E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	26.77	666.71	1.886E-04	Pulse	0.10	3
Pb			1	0.036	ug/l	30.11	593.37	1.682E-04	Pulse	0.10	3
Pb			1	0.046	ug/l	15.32	596.71	1.690E-04	Pulse	0.10	3
Pb			1	0.035	ug/l	24.30	2,493.53	7.067E-04	Pulse	0.10	3
Na			2	15.924	ug/l	2.33	21,099.92	1.424E-01	Pulse	0.30	3
Mg			2	5.582	ug/l	5.26	1,951.25	1.317E-02	Pulse	0.30	3
Al			2	5.456	ug/l	17.16	1,192.28	8.044E-03	Pulse	0.30	3
K			2	3.472	ug/l	39.39	13,587.88	9.171E-02	Pulse	0.30	3
Ca			2	10.457	ug/l	9.61	232.23	1.568E-03	Pulse	0.30	3
Ti			2	0.390	ug/l	32.02	37.78	2.547E-04	Pulse	0.30	3
V			2	0.107	ug/l	14.24	595.58	4.019E-03	Pulse	0.30	3
Cr			2	0.221	ug/l	6.98	1,721.78	1.162E-02	Pulse	0.30	3
Mn			2	0.095	ug/l	44.53	326.68	2.207E-03	Pulse	0.30	3
Fe			2	7.773	ug/l	2.45	28,637.14	1.933E-01	Pulse	0.30	3
Co			2	0.016	ug/l	31.86	142.15	9.604E-04	Pulse	0.30	3
Ni			2	0.013	ug/l	170.26	177.78	1.200E-03	Pulse	0.30	3
Cu			2	0.829	ug/l	5.70	11,037.12	7.450E-02	Pulse	0.30	3
Zn			2	0.232	ug/l	51.12	1,532.31	1.034E-02	Pulse	0.30	3
As			2	0.039	ug/l	22.54	35.00	2.363E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.005	ug/l	78.24	17.62	1.885E-05	Pulse	0.30	3
Sn			2	0.656	ug/l	7.76	2,604.69	2.787E-03	Pulse	0.30	3
Se			3	0.092	ug/l	18.28	13.87	6.580E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,089,090.98	0.81	87.2	Pulse	0.10	3
1	Sc		2,504,879.23	1.83	89.0	Pulse	0.10	3
1	Ge		536,339.15	1.36	94.0	Pulse	0.10	3
1	Ge		748,604.83	1.66	94.3	Pulse	0.10	3
1	Rh		3,694,611.09	1.43	96.0	Pulse	0.10	3
1	In		3,878,601.08	0.94	97.3	Pulse	0.10	3
1	Tb		5,639,636.58	1.17	101.8	Analog	0.10	3
1	Ho		551,737.56	1.03	100.3	Pulse	0.10	3
1	Bi		3,531,433.70	1.17	105.8	Pulse	0.10	3
2	Sc		148,169.16	0.78	92.2	Pulse	0.30	3
2	Ge		96,579.73	1.01	97.1	Pulse	0.30	3
2	Ge		144,482.18	0.20	96.3	Pulse	0.30	3
2	Rh		2,347,146.64	0.47	96.4	Pulse	0.30	3
2	In		934,765.46	0.60	96.2	Pulse	0.30	3
2	Tb		3,195,847.44	0.69	97.6	Pulse	0.30	3
2	Ho		326,866.65	0.73	97.8	Pulse	0.30	3
2	Bi		2,283,378.10	0.69	102.0	Pulse	0.30	3
3	Sc		210,881.02	0.47	97.3	Pulse	0.30	3
3	Ge		138,478.15	0.96	98.7	Pulse	0.30	3
3	Ge		210,741.59	0.74	99.6	Pulse	0.30	3
3	Rh		2,184,663.04	0.64	100.2	Pulse	0.30	3
3	Tb		3,690,700.13	0.54	100.7	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 12:16
Sample Name	mp17220-b1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.521	ug/l	0.61	218,858.50	2.005E-01	Pulse	0.25	3
B			1	82.326	ug/l	0.96	176,088.90	1.614E-01	Pulse	0.15	3
Ca			1	4072.621	ug/l	0.29	1,765,953.10	6.953E-01	Pulse	0.10	3
Sr			1	78.084	ug/l	1.26	1,901,813.05	5.197E-01	Pulse	0.10	3
Mo			1	77.191	ug/l	1.05	351,091.23	9.594E-02	Pulse	0.10	3
Ag			1	76.274	ug/l	0.62	892,912.75	2.296E-01	Pulse	0.10	3
Sn			1	78.273	ug/l	1.03	592,496.61	1.523E-01	Pulse	0.10	3
Sb			1	77.153	ug/l	0.42	703,321.42	1.234E-01	Pulse	0.10	3
Ba			1	74.668	ug/l	1.84	286,585.06	5.029E-02	Pulse	0.10	3
Tl			1	75.162	ug/l	0.64	1,743,750.24	5.008E-01	Pulse	0.10	3
Pb			1	77.338	ug/l	0.57	619,852.73	1.780E-01	Pulse	0.10	3
Pb			1	77.657	ug/l	0.66	547,787.95	1.573E-01	Pulse	0.10	3
Pb			1	77.310	ug/l	0.40	2,504,530.97	7.193E-01	Pulse	0.10	3
Na			2	3954.006	ug/l	2.08	2,528,061.15	1.710E+01	Pulse	0.30	3
Mg			2	3896.113	ug/l	2.11	1,149,659.68	7.778E+00	Pulse	0.30	3
Al			2	3808.006	ug/l	2.35	382,951.49	2.591E+00	Pulse	0.30	3
K			2	3943.448	ug/l	2.77	973,037.11	6.584E+00	Pulse	0.30	3
Ca			2	4269.990	ug/l	2.87	52,562.63	3.557E-01	Pulse	0.30	3
Ti			2	75.376	ug/l	2.68	6,883.72	4.657E-02	Pulse	0.30	3
V			2	79.357	ug/l	2.57	235,092.99	1.591E+00	Pulse	0.30	3
Cr			2	78.769	ug/l	3.17	296,404.24	2.006E+00	Pulse	0.30	3
Mn			2	78.398	ug/l	3.44	157,721.67	1.067E+00	Pulse	0.30	3
Fe			2	4214.697	ug/l	2.32	12,380,705.90	8.376E+01	Analog	0.30	3
Co			2	79.106	ug/l	2.19	467,868.38	3.165E+00	Pulse	0.30	3
Ni			2	78.345	ug/l	2.28	122,544.09	8.291E-01	Pulse	0.30	3
Cu			2	80.503	ug/l	2.77	349,047.43	2.362E+00	Pulse	0.30	3
Zn			2	73.106	ug/l	3.87	48,320.92	3.270E-01	Pulse	0.30	3
As			2	74.838	ug/l	1.73	27,637.63	1.870E-01	Pulse	1.00	3
Cd			2	74.231	ug/l	1.79	77,947.92	8.432E-02	Pulse	0.30	3
Sn			2	79.183	ug/l	1.54	183,245.77	1.982E-01	Pulse	0.30	3
Se			3	333.009	ug/l	2.33	36,926.70	1.684E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,091,315.73	0.70	87.4	Pulse	0.10	3
1	Sc		2,539,903.87	0.28	90.3	Pulse	0.10	3
1	Ge		556,323.91	0.31	97.5	Pulse	0.10	3

Quantitation Report

1	Ge		777,793.22	1.03	98.0	Pulse	0.10	3
1	Rh		3,659,765.05	0.62	95.1	Pulse	0.10	3
1	In		3,889,090.70	0.32	97.6	Pulse	0.10	3
1	Tb		5,699,290.75	0.61	102.9	Analog	0.10	3
1	Ho		555,685.75	0.41	101.0	Pulse	0.10	3
1	Bi		3,481,824.64	0.67	104.3	Pulse	0.10	3
2	Sc		147,862.46	2.51	92.0	Pulse	0.30	3
2	Ge		98,523.51	0.62	99.0	Pulse	0.30	3
2	Ge		149,065.69	1.28	99.4	Pulse	0.30	3
2	Rh		2,324,464.70	1.79	95.5	Pulse	0.30	3
2	In		924,533.97	1.33	95.1	Pulse	0.30	3
2	Tb		3,235,562.16	1.45	98.8	Pulse	0.30	3
2	Ho		330,863.89	2.02	99.0	Pulse	0.30	3
2	Bi		2,246,081.51	1.84	100.3	Pulse	0.30	3
3	Sc		222,791.60	2.62	102.8	Pulse	0.30	3
3	Ge		144,565.36	3.02	103.1	Pulse	0.30	3
3	Ge		219,395.59	2.37	103.7	Pulse	0.30	3
3	Rh		2,246,467.69	2.02	103.0	Pulse	0.30	3
3	Tb		3,852,430.68	1.93	105.2	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 12:23
Sample Name	jc94583-1f
Sample Type	Sample
Comment	due
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.025	ug/l	10.21	96.00	8.589E-05	Pulse	0.25	3
B			1	142.599	ug/l	0.44	307,791.89	2.754E-01	Pulse	0.15	3
Ca			1	95314.497	ug/l	1.41	42,914,449.36	1.618E+01	Analog	0.10	3
Sr			1	409.996	ug/l	0.59	9,654,460.48	2.728E+00	Analog	0.10	3
Mo			1	2.282	ug/l	2.30	10,186.92	2.879E-03	Pulse	0.10	3
Ag			1	0.027	ug/l	21.97	340.02	8.847E-05	Pulse	0.10	3
Sn			1	0.592	ug/l	8.91	7,405.35	1.928E-03	Pulse	0.10	3
Sb			1	0.323	ug/l	2.05	3,350.49	5.786E-04	Pulse	0.10	3
Ba			1	145.206	ug/l	0.74	566,253.29	9.778E-02	Pulse	0.10	3
Tl			1	0.088	ug/l	7.39	2,116.91	6.580E-04	Pulse	0.10	3
Pb			1	0.138	ug/l	11.88	1,296.78	4.033E-04	Pulse	0.10	3
Pb			1	0.135	ug/l	25.98	1,126.75	3.502E-04	Pulse	0.10	3
Pb			1	0.132	ug/l	8.81	5,177.24	1.609E-03	Pulse	0.10	3
Na			2	121683.677	ug/l	0.65	82,133,605.63	5.242E+02	Analog	0.30	3
Mg			2	96009.363	ug/l	0.84	30,025,987.70	1.916E+02	Analog	0.30	3
Al			2	82.294	ug/l	5.62	9,436.41	6.024E-02	Pulse	0.30	3
K			2	22567.300	ug/l	0.38	5,840,394.91	3.727E+01	Analog	0.30	3
Ca			2	96860.597	ug/l	0.61	1,261,822.97	8.052E+00	Pulse	0.30	3
Ti			2	1.514	ug/l	17.50	148.89	9.492E-04	Pulse	0.30	3
V			2	1.547	ug/l	3.66	5,146.42	3.284E-02	Pulse	0.30	3
Cr			2	0.527	ug/l	4.77	3,041.43	1.941E-02	Pulse	0.30	3
Mn			2	531.321	ug/l	0.99	1,132,593.08	7.228E+00	Pulse	0.30	3
Fe			2	135.806	ug/l	1.64	428,805.57	2.737E+00	Pulse	0.30	3
Co			2	3.751	ug/l	1.84	23,568.04	1.504E-01	Pulse	0.30	3
Ni			2	2.535	ug/l	1.77	4,365.08	2.786E-02	Pulse	0.30	3
Cu			2	1.944	ug/l	2.50	16,689.69	1.065E-01	Pulse	0.30	3
Zn			2	1.580	ug/l	9.24	2,538.01	1.620E-02	Pulse	0.30	3
As			2	0.674	ug/l	12.47	285.33	1.822E-03	Pulse	1.00	3
Cd			2	0.162	ug/l	16.05	183.66	1.977E-04	Pulse	0.30	3
Sn			2	0.557	ug/l	12.86	2,359.10	2.540E-03	Pulse	0.30	3
Se			3	8.780	ug/l	1.12	953.03	4.458E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,117,529.28	0.29	89.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,652,883.09	0.72	94.3	Pulse	0.10	3
1	Ge		575,528.56	1.17	100.9	Pulse	0.10	3
1	Ge		798,314.96	1.19	100.6	Pulse	0.10	3
1	Rh		3,538,735.68	0.41	91.9	Pulse	0.10	3
1	In		3,841,310.02	1.00	96.4	Pulse	0.10	3
1	Tb		5,790,870.12	1.12	104.6	Analog	0.10	3
1	Ho		566,501.44	0.60	103.0	Pulse	0.10	3
1	Bi		3,216,587.35	0.55	96.3	Pulse	0.10	3
2	Sc		156,704.03	0.92	97.5	Pulse	0.30	3
2	Ge		102,616.14	0.37	103.1	Pulse	0.30	3
2	Ge		153,536.41	0.60	102.4	Pulse	0.30	3
2	Rh		2,259,275.67	0.40	92.8	Pulse	0.30	3
2	In		928,542.10	0.43	95.5	Pulse	0.30	3
2	Tb		3,250,335.49	0.67	99.3	Pulse	0.30	3
2	Ho		333,298.38	0.47	99.7	Pulse	0.30	3
2	Bi		2,084,528.32	0.23	93.1	Pulse	0.30	3
3	Sc		222,037.82	0.49	102.5	Pulse	0.30	3
3	Ge		141,380.07	0.50	100.8	Pulse	0.30	3
3	Ge		213,780.21	0.47	101.1	Pulse	0.30	3
3	Rh		2,072,851.66	0.32	95.0	Pulse	0.30	3
3	Tb		3,698,366.52	0.47	101.0	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 12:27
Sample Name jc94583-2f
Sample Type Sample
Comment due
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.027	ug/l	35.75	104.00	8.991E-05	Pulse	0.25	3
B			1	142.200	ug/l	0.15	317,352.93	2.747E-01	Pulse	0.15	3
Ca			1	93999.662	ug/l	0.35	43,847,611.01	1.595E+01	Analog	0.10	3
Sr			1	402.519	ug/l	1.03	9,726,450.90	2.678E+00	Analog	0.10	3
Mo			1	2.203	ug/l	4.55	10,096.90	2.781E-03	Pulse	0.10	3
Ag			1	0.019	ug/l	34.94	253.35	6.465E-05	Pulse	0.10	3
Sn			1	0.481	ug/l	10.05	6,708.34	1.713E-03	Pulse	0.10	3
Sb			1	0.328	ug/l	3.54	3,493.86	5.864E-04	Pulse	0.10	3
Ba			1	140.777	ug/l	1.36	564,737.50	9.480E-02	Pulse	0.10	3
Tl			1	0.077	ug/l	9.51	1,910.19	5.859E-04	Pulse	0.10	3
Pb			1	0.123	ug/l	4.94	1,200.10	3.679E-04	Pulse	0.10	3
Pb			1	0.113	ug/l	18.58	993.41	3.047E-04	Pulse	0.10	3
Pb			1	0.116	ug/l	7.73	4,747.18	1.456E-03	Pulse	0.10	3
Na			2	121679.011	ug/l	0.70	84,030,016.66	5.241E+02	Analog	0.30	3
Mg			2	94694.743	ug/l	0.55	30,300,167.69	1.890E+02	Analog	0.30	3
Al			2	73.133	ug/l	9.04	8,657.93	5.401E-02	Pulse	0.30	3
K			2	22139.179	ug/l	0.92	5,862,181.99	3.657E+01	Analog	0.30	3
Ca			2	95916.259	ug/l	0.16	1,278,428.73	7.974E+00	Pulse	0.30	3
Ti			2	1.122	ug/l	5.31	113.34	7.070E-04	Pulse	0.30	3
V			2	1.625	ug/l	3.38	5,515.42	3.440E-02	Pulse	0.30	3
Cr			2	0.515	ug/l	4.15	3,062.55	1.910E-02	Pulse	0.30	3
Mn			2	521.334	ug/l	0.47	1,137,035.06	7.092E+00	Pulse	0.30	3
Fe			2	125.800	ug/l	0.95	406,881.90	2.538E+00	Pulse	0.30	3
Co			2	3.743	ug/l	1.53	24,062.14	1.501E-01	Pulse	0.30	3
Ni			2	2.612	ug/l	7.61	4,596.25	2.867E-02	Pulse	0.30	3
Cu			2	32.521	ug/l	0.54	157,804.31	9.843E-01	Pulse	0.30	3
Zn			2	19.376	ug/l	1.13	14,994.77	9.353E-02	Pulse	0.30	3
As			2	0.712	ug/l	7.24	307.33	1.917E-03	Pulse	1.00	3
Cd			2	0.165	ug/l	10.42	189.21	2.010E-04	Pulse	0.30	3
Sn			2	0.460	ug/l	10.45	2,165.73	2.301E-03	Pulse	0.30	3
Se			3	8.509	ug/l	1.86	936.30	4.321E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,155,390.31	0.75	92.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,748,608.71	0.75	97.7	Pulse	0.10	3
1	Ge		600,752.84	0.46	105.3	Pulse	0.10	3
1	Ge		819,444.39	0.52	103.2	Pulse	0.10	3
1	Rh		3,631,495.05	1.02	94.3	Pulse	0.10	3
1	In		3,916,099.36	0.30	98.3	Pulse	0.10	3
1	Tb		5,957,583.87	0.49	107.6	Analog	0.10	3
1	Ho		586,115.59	0.33	106.5	Pulse	0.10	3
1	Bi		3,262,029.64	0.93	97.7	Pulse	0.10	3
2	Sc		160,324.64	0.39	99.8	Pulse	0.30	3
2	Ge		104,615.93	0.62	105.1	Pulse	0.30	3
2	Ge		156,774.92	0.19	104.5	Pulse	0.30	3
2	Rh		2,317,679.84	0.75	95.2	Pulse	0.30	3
2	In		941,298.43	0.39	96.9	Pulse	0.30	3
2	Tb		3,312,994.10	0.71	101.2	Pulse	0.30	3
2	Ho		339,873.03	0.49	101.7	Pulse	0.30	3
2	Bi		2,119,775.61	0.57	94.7	Pulse	0.30	3
3	Sc		225,561.86	0.34	104.1	Pulse	0.30	3
3	Ge		143,764.49	1.48	102.5	Pulse	0.30	3
3	Ge		216,675.04	0.58	102.4	Pulse	0.30	3
3	Rh		2,100,535.06	0.18	96.3	Pulse	0.30	3
3	Tb		3,776,704.57	0.55	103.1	Pulse	0.30	3

Quantitation Report

File Name 029SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 12:32
Sample Name jc94583-3f
Sample Type Sample
Comment due
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	57.87	46.67	3.994E-05	Pulse	0.25	3
B			1	124.994	ug/l	0.25	282,420.37	2.421E-01	Pulse	0.15	3
Ca			1	117509.782	ug/l	0.52	55,349,732.51	1.994E+01	Analog	0.10	3
Sr			1	787.690	ug/l	0.63	18,647,588.89	5.241E+00	Analog	0.10	3
Mo			1	2.941	ug/l	1.42	13,152.54	3.697E-03	Pulse	0.10	3
Ag			1	0.012	ug/l	38.98	170.01	4.369E-05	Pulse	0.10	3
Sn			1	0.421	ug/l	10.61	6,228.14	1.598E-03	Pulse	0.10	3
Sb			1	0.255	ug/l	8.28	2,743.68	4.701E-04	Pulse	0.10	3
Ba			1	265.272	ug/l	0.31	1,043,069.33	1.786E-01	Pulse	0.10	3
Tl			1	0.076	ug/l	10.88	1,813.52	5.786E-04	Pulse	0.10	3
Pb			1	0.126	ug/l	8.47	1,176.76	3.755E-04	Pulse	0.10	3
Pb			1	0.113	ug/l	15.31	953.40	3.044E-04	Pulse	0.10	3
Pb			1	0.111	ug/l	3.21	4,413.75	1.409E-03	Pulse	0.10	3
Na			2	379353.440	ug/l	0.50	261,685,465.16	1.634E+03	Analog	0.30	3
Mg			2	86621.027	ug/l	0.55	27,688,460.01	1.729E+02	Analog	0.30	3
Al			2	24.758	ug/l	1.97	3,388.17	2.115E-02	Pulse	0.30	3
K			2	26608.770	ug/l	1.20	7,035,623.06	4.393E+01	Analog	0.30	3
Ca			2	121081.228	ug/l	0.50	1,612,158.69	1.007E+01	Pulse	0.30	3
Ti			2	0.606	ug/l	21.92	62.22	3.883E-04	Pulse	0.30	3
V			2	1.710	ug/l	4.07	5,781.07	3.610E-02	Pulse	0.30	3
Cr			2	0.551	ug/l	3.13	3,207.02	2.002E-02	Pulse	0.30	3
Mn			2	1923.723	ug/l	0.43	4,190,994.28	2.617E+01	Pulse	0.30	3
Fe			2	36.114	ug/l	0.80	121,121.64	7.563E-01	Pulse	0.30	3
Co			2	2.832	ug/l	0.16	18,199.81	1.136E-01	Pulse	0.30	3
Ni			2	1.706	ug/l	6.27	3,057.00	1.909E-02	Pulse	0.30	3
Cu			2	0.941	ug/l	6.76	12,447.02	7.772E-02	Pulse	0.30	3
Zn			2	2.959	ug/l	4.86	3,553.76	2.219E-02	Pulse	0.30	3
As			2	0.632	ug/l	5.34	275.00	1.717E-03	Pulse	1.00	3
Cd			2	0.444	ug/l	9.07	475.68	5.175E-04	Pulse	0.30	3
Sn			2	0.388	ug/l	24.63	1,947.92	2.120E-03	Pulse	0.30	3
Se			3	9.208	ug/l	2.57	976.23	4.674E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,166,501.32	1.01	93.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,775,614.02	1.07	98.7	Pulse	0.10	3
1	Ge		593,986.57	0.73	104.1	Pulse	0.10	3
1	Ge		810,162.91	0.65	102.1	Pulse	0.10	3
1	Rh		3,557,849.74	1.11	92.4	Pulse	0.10	3
1	In		3,895,881.93	1.07	97.8	Pulse	0.10	3
1	Tb		5,839,906.37	1.50	105.5	Analog	0.10	3
1	Ho		568,374.24	0.71	103.3	Pulse	0.10	3
1	Bi		3,133,302.04	0.61	93.9	Pulse	0.10	3
2	Sc		160,163.01	0.78	99.7	Pulse	0.30	3
2	Ge		102,358.79	0.41	102.9	Pulse	0.30	3
2	Ge		154,687.99	0.81	103.2	Pulse	0.30	3
2	Rh		2,243,929.08	0.36	92.2	Pulse	0.30	3
2	In		919,380.80	0.58	94.6	Pulse	0.30	3
2	Tb		3,248,925.64	0.16	99.2	Pulse	0.30	3
2	Ho		335,742.87	0.87	100.4	Pulse	0.30	3
2	Bi		2,016,130.48	0.83	90.1	Pulse	0.30	3
3	Sc		220,076.93	2.16	101.6	Pulse	0.30	3
3	Ge		138,263.55	2.65	98.6	Pulse	0.30	3
3	Ge		208,914.16	2.63	98.8	Pulse	0.30	3
3	Rh		2,001,631.93	2.34	91.8	Pulse	0.30	3
3	Tb		3,655,683.74	2.45	99.8	Pulse	0.30	3

Quantitation Report

File Name 030SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 12:37
Sample Name jc94583-4f
Sample Type Sample
Comment due
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	47.41	37.33	3.363E-05	Pulse	0.25	3
B			1	154.333	ug/l	1.38	330,054.01	2.976E-01	Pulse	0.15	3
Ca			1	104538.008	ug/l	1.10	46,631,172.64	1.774E+01	Analog	0.10	3
Sr			1	779.725	ug/l	0.78	18,415,893.06	5.188E+00	Analog	0.10	3
Mo			1	3.190	ug/l	3.13	14,223.62	4.007E-03	Pulse	0.10	3
Ag			1	0.013	ug/l	40.71	180.01	4.710E-05	Pulse	0.10	3
Sn			1	0.542	ug/l	2.07	7,005.15	1.832E-03	Pulse	0.10	3
Sb			1	0.175	ug/l	6.95	2,003.56	3.419E-04	Pulse	0.10	3
Ba			1	170.614	ug/l	0.53	673,485.64	1.149E-01	Pulse	0.10	3
Tl			1	0.134	ug/l	6.94	3,123.78	9.652E-04	Pulse	0.10	3
Pb			1	0.265	ug/l	3.80	2,253.60	6.963E-04	Pulse	0.10	3
Pb			1	0.264	ug/l	12.83	1,976.89	6.111E-04	Pulse	0.10	3
Pb			1	0.243	ug/l	4.71	8,544.64	2.641E-03	Pulse	0.10	3
Na			2	142613.669	ug/l	0.89	93,456,582.95	6.143E+02	Analog	0.30	3
Mg			2	52245.197	ug/l	0.43	15,864,644.92	1.043E+02	Analog	0.30	3
Al			2	71.846	ug/l	2.42	8,084.35	5.314E-02	Pulse	0.30	3
K			2	23648.683	ug/l	0.97	5,941,422.26	3.905E+01	Analog	0.30	3
Ca			2	106208.831	ug/l	1.11	1,343,318.59	8.830E+00	Pulse	0.30	3
Ti			2	2.319	ug/l	6.85	220.00	1.446E-03	Pulse	0.30	3
V			2	0.984	ug/l	6.75	3,280.37	2.157E-02	Pulse	0.30	3
Cr			2	0.772	ug/l	2.79	3,899.39	2.563E-02	Pulse	0.30	3
Mn			2	1763.285	ug/l	0.86	3,649,059.58	2.399E+01	Pulse	0.30	3
Fe			2	27234.241	ug/l	0.50	82,315,423.40	5.410E+02	Analog	0.30	3
Co			2	0.158	ug/l	6.78	1,011.14	6.645E-03	Pulse	0.30	3
Ni			2	0.442	ug/l	2.28	872.26	5.733E-03	Pulse	0.30	3
Cu			2	0.387	ug/l	8.83	9,403.89	6.181E-02	Pulse	0.30	3
Zn			2	3.463	ug/l	6.97	3,708.25	2.438E-02	Pulse	0.30	3
As			2	20.442	ug/l	2.12	7,786.55	5.117E-02	Pulse	1.00	3
Cd			2	-0.003	ug/l	-160.63	8.95	9.768E-06	Pulse	0.30	3
Sn			2	0.511	ug/l	13.56	2,196.85	2.425E-03	Pulse	0.30	3
Se			3	0.259	ug/l	12.47	32.27	1.504E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,109,044.30	1.11	88.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,628,686.94	0.93	93.4	Pulse	0.10	3
1	Ge		563,976.41	0.95	98.9	Pulse	0.10	3
1	Ge		783,998.35	1.05	98.8	Pulse	0.10	3
1	Rh		3,549,395.05	0.15	92.2	Pulse	0.10	3
1	In		3,824,768.07	0.32	96.0	Pulse	0.10	3
1	Tb		5,862,266.58	0.63	105.9	Analog	0.10	3
1	Ho		573,488.74	0.39	104.3	Pulse	0.10	3
1	Bi		3,236,437.24	0.59	96.9	Pulse	0.10	3
2	Sc		152,145.29	1.02	94.7	Pulse	0.30	3
2	Ge		99,781.32	1.89	100.3	Pulse	0.30	3
2	Ge		149,144.05	2.21	99.5	Pulse	0.30	3
2	Rh		2,257,284.35	1.87	92.7	Pulse	0.30	3
2	In		906,837.48	2.50	93.3	Pulse	0.30	3
2	Tb		3,258,659.04	2.00	99.5	Pulse	0.30	3
2	Ho		334,857.02	2.15	100.2	Pulse	0.30	3
2	Bi		2,080,704.57	1.50	92.9	Pulse	0.30	3
3	Sc		221,987.59	1.42	102.5	Pulse	0.30	3
3	Ge		141,965.13	0.90	101.2	Pulse	0.30	3
3	Ge		214,525.48	1.59	101.4	Pulse	0.30	3
3	Rh		2,106,735.75	1.49	96.6	Pulse	0.30	3
3	Tb		3,804,553.46	0.98	103.9	Pulse	0.30	3

Quantitation Report

File Name 031SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 12:42
Sample Name jc94583-5f
Sample Type Sample
Comment due
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	40.56	66.67	5.870E-05	Pulse	0.25	3
B			1	140.552	ug/l	1.44	308,902.64	2.716E-01	Pulse	0.15	3
Ca			1	124528.989	ug/l	1.74	57,885,257.47	2.113E+01	Analog	0.10	3
Sr			1	1239.714	ug/l	0.90	29,667,986.22	8.249E+00	Analog	0.10	3
Mo			1	1.591	ug/l	7.75	7,261.94	2.021E-03	Pulse	0.10	3
Ag			1	0.010	ug/l	46.41	140.01	3.564E-05	Pulse	0.10	3
Sn			1	0.475	ug/l	4.92	6,701.72	1.702E-03	Pulse	0.10	3
Sb			1	0.113	ug/l	2.27	1,456.79	2.440E-04	Pulse	0.10	3
Ba			1	123.946	ug/l	1.23	498,109.56	8.346E-02	Pulse	0.10	3
Tl			1	0.001	ug/l	107.09	260.01	8.045E-05	Pulse	0.10	3
Pb			1	0.201	ug/l	11.92	1,773.51	5.486E-04	Pulse	0.10	3
Pb			1	0.177	ug/l	6.56	1,403.46	4.340E-04	Pulse	0.10	3
Pb			1	0.189	ug/l	5.08	6,910.92	2.136E-03	Pulse	0.10	3
Na			2	218819.594	ug/l	0.26	152,177,376.18	9.425E+02	Analog	0.30	3
Mg			2	56671.255	ug/l	0.02	18,262,450.39	1.131E+02	Analog	0.30	3
Al			2	45.719	ug/l	1.06	5,714.41	3.539E-02	Pulse	0.30	3
K			2	19892.184	ug/l	1.34	5,305,860.48	3.286E+01	Analog	0.30	3
Ca			2	126393.356	ug/l	1.06	1,696,514.45	1.051E+01	Pulse	0.30	3
Ti			2	1.448	ug/l	12.98	146.67	9.085E-04	Pulse	0.30	3
V			2	1.136	ug/l	6.55	3,973.86	2.462E-02	Pulse	0.30	3
Cr			2	0.595	ug/l	2.54	3,411.51	2.113E-02	Pulse	0.30	3
Mn			2	1703.545	ug/l	0.68	3,741,456.94	2.317E+01	Pulse	0.30	3
Fe			2	4752.030	ug/l	0.77	15,247,741.06	9.444E+01	Analog	0.30	3
Co			2	0.126	ug/l	9.20	870.54	5.392E-03	Pulse	0.30	3
Ni			2	0.377	ug/l	5.30	814.48	5.045E-03	Pulse	0.30	3
Cu			2	0.593	ug/l	12.31	10,934.84	6.773E-02	Pulse	0.30	3
Zn			2	0.406	ug/l	51.83	1,791.24	1.110E-02	Pulse	0.30	3
As			2	1.420	ug/l	2.34	594.68	3.683E-03	Pulse	1.00	3
Cd			2	0.003	ug/l	267.18	16.12	1.705E-05	Pulse	0.30	3
Sn			2	0.444	ug/l	10.22	2,139.07	2.261E-03	Pulse	0.30	3
Se			3	0.147	ug/l	14.38	20.47	9.380E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,137,595.50	1.06	91.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,739,599.13	1.31	97.4	Pulse	0.10	3
1	Ge		584,092.84	1.42	102.4	Pulse	0.10	3
1	Ge		808,130.92	1.64	101.8	Pulse	0.10	3
1	Rh		3,596,490.26	1.53	93.4	Pulse	0.10	3
1	In		3,938,979.57	1.12	98.8	Pulse	0.10	3
1	Tb		5,968,708.25	1.76	107.8	Analog	0.10	3
1	Ho		582,398.25	1.32	105.9	Pulse	0.10	3
1	Bi		3,233,442.77	1.76	96.9	Pulse	0.10	3
2	Sc		161,461.10	0.44	100.5	Pulse	0.30	3
2	Ge		103,719.58	0.06	104.2	Pulse	0.30	3
2	Ge		154,454.34	0.35	103.0	Pulse	0.30	3
2	Rh		2,316,446.78	0.41	95.2	Pulse	0.30	3
2	In		946,420.80	0.62	97.4	Pulse	0.30	3
2	Tb		3,330,199.03	0.58	101.7	Pulse	0.30	3
2	Ho		343,426.29	0.52	102.7	Pulse	0.30	3
2	Bi		2,095,504.85	0.74	93.6	Pulse	0.30	3
3	Sc		230,429.91	0.88	106.4	Pulse	0.30	3
3	Ge		145,039.92	0.76	103.4	Pulse	0.30	3
3	Ge		218,210.87	0.45	103.2	Pulse	0.30	3
3	Rh		2,123,098.74	1.07	97.3	Pulse	0.30	3
3	Tb		3,839,822.63	0.83	104.8	Pulse	0.30	3

Quantitation Report

File Name	032SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 12:47
Sample Name	jc94583-6f
Sample Type	Sample
Comment	due
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	39.28	65.33	5.423E-05	Pulse	0.25	3
B			1	8.703	ug/l	1.08	26,565.62	2.203E-02	Pulse	0.15	3
Ca			1	97.346	ug/l	3.16	58,189.54	2.083E-02	Pulse	0.10	3
Sr			1	1.063	ug/l	0.55	28,873.31	7.173E-03	Pulse	0.10	3
Mo			1	0.176	ug/l	5.51	1,056.75	2.625E-04	Pulse	0.10	3
Ag			1	0.010	ug/l	26.50	160.01	3.772E-05	Pulse	0.10	3
Sn			1	0.443	ug/l	20.78	6,955.19	1.641E-03	Pulse	0.10	3
Sb			1	0.126	ug/l	14.12	1,643.49	2.647E-04	Pulse	0.10	3
Ba			1	0.883	ug/l	2.94	3,787.28	6.100E-04	Pulse	0.10	3
Tl			1	0.002	ug/l	120.25	333.35	9.061E-05	Pulse	0.10	3
Pb			1	0.125	ug/l	14.55	1,373.46	3.743E-04	Pulse	0.10	3
Pb			1	0.108	ug/l	13.88	1,086.75	2.960E-04	Pulse	0.10	3
Pb			1	0.118	ug/l	12.72	5,423.95	1.478E-03	Pulse	0.10	3
Na			2	281.279	ug/l	2.34	207,718.44	1.285E+00	Pulse	0.30	3
Mg			2	17.321	ug/l	2.68	5,914.45	3.660E-02	Pulse	0.30	3
Al			2	2.770	ug/l	13.77	1,005.60	6.220E-03	Pulse	0.30	3
K			2	34.427	ug/l	8.03	23,062.71	1.427E-01	Pulse	0.30	3
Ca			2	94.370	ug/l	6.33	1,381.18	8.543E-03	Pulse	0.30	3
Ti			2	0.122	ug/l	42.10	14.44	8.939E-05	Pulse	0.30	3
V			2	0.383	ug/l	6.72	1,543.43	9.550E-03	Pulse	0.30	3
Cr			2	0.631	ug/l	4.94	3,561.59	2.204E-02	Pulse	0.30	3
Mn			2	0.445	ug/l	6.89	1,125.61	6.966E-03	Pulse	0.30	3
Fe			2	9.660	ug/l	2.15	37,297.73	2.308E-01	Pulse	0.30	3
Co			2	0.040	ug/l	8.86	315.46	1.952E-03	Pulse	0.30	3
Ni			2	0.655	ug/l	10.21	1,290.07	7.983E-03	Pulse	0.30	3
Cu			2	5.033	ug/l	0.60	31,546.96	1.952E-01	Pulse	0.30	3
Zn			2	3.267	ug/l	5.27	3,803.82	2.353E-02	Pulse	0.30	3
As			2	0.170	ug/l	6.64	91.00	5.628E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	93.69	15.48	1.556E-05	Pulse	0.30	3
Sn			2	0.399	ug/l	2.69	2,136.83	2.149E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.043	ug/l	39.20	9.20	4.088E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,205,969.07	0.62	96.6	Pulse	0.10	3
1	Sc		2,794,100.90	1.86	99.3	Pulse	0.10	3
1	Ge		617,620.22	0.67	108.3	Pulse	0.10	3
1	Ge		859,840.01	1.90	108.3	Pulse	0.10	3
1	Rh		4,025,323.27	0.83	104.6	Pulse	0.10	3
1	In		4,237,870.37	1.40	106.3	Pulse	0.10	3
1	Tb		6,208,344.28	0.82	112.1	Analog	0.10	3
1	Ho		600,470.19	0.51	109.2	Pulse	0.10	3
1	Bi		3,672,647.96	1.32	110.0	Pulse	0.10	3
2	Sc		161,640.80	1.27	100.6	Pulse	0.30	3
2	Ge		108,637.75	0.83	109.2	Pulse	0.30	3
2	Ge		163,501.52	0.63	109.0	Pulse	0.30	3
2	Rh		2,536,702.67	1.19	104.2	Pulse	0.30	3
2	In		994,521.59	0.80	102.3	Pulse	0.30	3
2	Tb		3,430,580.83	1.19	104.8	Pulse	0.30	3
2	Ho		349,617.60	1.02	104.6	Pulse	0.30	3
2	Bi		2,357,223.24	0.82	105.3	Pulse	0.30	3
3	Sc		228,434.19	9.29	105.4	Pulse	0.30	3
3	Ge		150,241.66	7.68	107.1	Pulse	0.30	3
3	Ge		226,696.88	7.53	107.2	Pulse	0.30	3
3	Rh		2,327,508.87	9.05	106.7	Pulse	0.30	3
3	Tb		3,933,441.65	9.44	107.4	Pulse	0.30	3

Quantitation Report

File Name 033_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 12:52
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.543	ug/l	1.05	335,332.02	2.666E-01	Pulse	0.25	3
B			1	99.200	ug/l	1.10	479,164.48	3.810E-01	Pulse	0.15	3
Ca			1	5009.644	ug/l	0.82	4,936,973.99	1.704E+00	Pulse	0.10	3
Sr			1	51.247	ug/l	0.95	2,724,749.13	6.821E-01	Pulse	0.10	3
Mo			1	50.744	ug/l	1.18	503,804.20	1.261E-01	Pulse	0.10	3
Ag			1	49.252	ug/l	1.15	1,252,769.51	2.965E-01	Pulse	0.10	3
Sn			1	49.516	ug/l	0.93	813,530.04	1.925E-01	Pulse	0.10	3
Sb			1	51.105	ug/l	0.66	1,007,306.37	1.635E-01	Pulse	0.10	3
Ba			1	48.630	ug/l	0.51	403,630.11	6.550E-02	Pulse	0.10	3
Tl			1	50.832	ug/l	0.81	2,399,184.13	6.774E-01	Pulse	0.10	3
Pb			1	50.693	ug/l	0.60	826,513.22	2.334E-01	Pulse	0.10	3
Pb			1	50.706	ug/l	0.44	727,601.03	2.054E-01	Pulse	0.10	3
Pb			1	50.698	ug/l	0.63	3,341,064.01	9.433E-01	Pulse	0.10	3
Na			2	5047.782	ug/l	1.30	7,328,754.15	4.355E+01	Analog	0.30	3
Mg			2	4854.774	ug/l	1.16	3,261,094.66	1.938E+01	Pulse	0.30	3
Al			2	4729.151	ug/l	0.80	1,081,793.12	6.429E+00	Pulse	0.30	3
K			2	4883.066	ug/l	0.54	2,722,304.75	1.618E+01	Pulse	0.30	3
Ca			2	5052.430	ug/l	1.12	141,460.12	8.407E-01	Pulse	0.30	3
Ti			2	49.431	ug/l	2.44	10,277.73	6.108E-02	Pulse	0.30	3
V			2	50.716	ug/l	0.59	342,037.60	2.033E+00	Pulse	0.30	3
Cr			2	50.322	ug/l	1.25	430,915.96	2.561E+00	Pulse	0.30	3
Mn			2	49.850	ug/l	0.48	228,357.75	1.357E+00	Pulse	0.30	3
Fe			2	5069.744	ug/l	0.94	33,900,480.88	2.015E+02	Analog	0.30	3
Co			2	50.223	ug/l	1.10	676,304.85	4.019E+00	Pulse	0.30	3
Ni			2	49.821	ug/l	1.44	177,385.34	1.054E+00	Pulse	0.30	3
Cu			2	49.567	ug/l	1.01	487,391.37	2.896E+00	Pulse	0.30	3
Zn			2	49.672	ug/l	0.42	74,212.18	4.410E-01	Pulse	0.30	3
As			2	50.219	ug/l	0.97	42,215.52	2.509E-01	Pulse	1.00	3
Cd			2	49.918	ug/l	0.72	113,039.70	1.134E-01	Pulse	0.30	3
Sn			2	49.794	ug/l	1.29	248,204.79	2.490E-01	Pulse	0.30	3
Se			3	197.051	ug/l	0.36	44,132.84	1.993E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,257,580.95	0.32	100.7	Pulse	0.10	3
1	Sc		2,897,025.69	0.72	103.0	Pulse	0.10	3
1	Ge		591,433.78	0.95	103.7	Pulse	0.10	3

Quantitation Report

1	Ge		829,557.93	0.45	104.5	Pulse	0.10	3
1	Rh		3,994,806.92	0.62	103.8	Pulse	0.10	3
1	In		4,225,184.38	0.26	106.0	Pulse	0.10	3
1	Tb		6,162,495.53	1.00	111.3	Analog	0.10	3
1	Ho		597,484.86	0.26	108.6	Pulse	0.10	3
1	Bi		3,541,879.11	0.53	106.1	Pulse	0.10	3
2	Sc		168,279.65	1.07	104.7	Pulse	0.30	3
2	Ge		103,983.50	0.89	104.5	Pulse	0.30	3
2	Ge		157,647.14	0.66	105.1	Pulse	0.30	3
2	Rh		2,507,930.53	0.33	103.0	Pulse	0.30	3
2	In		996,821.15	0.98	102.6	Pulse	0.30	3
2	Tb		3,422,527.16	0.33	104.5	Pulse	0.30	3
2	Ho		350,442.53	0.35	104.8	Pulse	0.30	3
2	Bi		2,301,704.35	0.74	102.8	Pulse	0.30	3
3	Sc		228,389.08	0.66	105.4	Pulse	0.30	3
3	Ge		146,414.59	1.00	104.4	Pulse	0.30	3
3	Ge		221,492.62	1.19	104.7	Pulse	0.30	3
3	Rh		2,244,828.04	0.35	102.9	Pulse	0.30	3
3	Tb		3,838,213.88	0.78	104.8	Pulse	0.30	3

Quantitation Report

File Name 034_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 12:57
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	46.74	97.33	7.616E-05	Pulse	0.25	3
B			1	4.593	ug/l	7.43	29,350.19	2.294E-02	Pulse	0.15	3
Ca			1	0.151	ug/l	208.79	12,565.30	4.366E-03	Pulse	0.10	3
Sr			1	0.020	ug/l	20.13	1,476.78	3.646E-04	Pulse	0.10	3
Mo			1	0.077	ug/l	5.02	953.41	2.351E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	36.21	323.35	7.682E-05	Pulse	0.10	3
Sn			1	0.150	ug/l	10.94	5,751.27	1.362E-03	Pulse	0.10	3
Sb			1	0.050	ug/l	9.24	1,350.11	2.211E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	230.66	100.00	1.637E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	8.75	1,166.76	3.244E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	36.81	550.03	1.528E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	51.10	460.03	1.277E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	8.19	2,113.49	5.874E-04	Pulse	0.10	3
Na			2	5.143	ug/l	4.47	19,838.37	1.181E-01	Pulse	0.30	3
Mg			2	1.317	ug/l	9.90	1,223.39	7.284E-03	Pulse	0.30	3
Al			2	-0.602	ug/l	-25.06	591.13	3.520E-03	Pulse	0.30	3
K			2	-0.415	ug/l	-102.74	14,212.84	8.462E-02	Pulse	0.30	3
Ca			2	1.810	ug/l	105.67	167.78	9.993E-04	Pulse	0.30	3
Ti			2	0.016	ug/l	214.41	5.55	3.309E-05	Pulse	0.30	3
V			2	0.009	ug/l	38.10	376.68	2.243E-03	Pulse	0.30	3
Cr			2	0.001	ug/l	150.48	1,021.15	6.080E-03	Pulse	0.30	3
Mn			2	0.018	ug/l	75.23	235.56	1.403E-03	Pulse	0.30	3
Fe			2	0.973	ug/l	7.60	13,023.07	7.754E-02	Pulse	0.30	3
Co			2	0.003	ug/l	59.15	102.19	6.082E-04	Pulse	0.30	3
Ni			2	0.008	ug/l	112.12	208.89	1.244E-03	Pulse	0.30	3
Cu			2	-0.433	ug/l	-4.45	4,336.18	2.582E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.534	ug/l	-3.02	787.81	4.691E-03	Pulse	0.30	3
As			2	0.013	ug/l	56.59	34.00	2.025E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	198.12	17.67	1.740E-05	Pulse	0.30	3
Sn			2	0.160	ug/l	14.00	1,983.48	1.951E-03	Pulse	0.30	3
Se			3	0.098	ug/l	14.66	26.47	1.184E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,279,642.59	0.75	102.5	Pulse	0.10	3
1	Sc		2,877,783.81	1.08	102.3	Pulse	0.10	3
1	Ge		590,984.90	0.72	103.6	Pulse	0.10	3
1	Ge		822,312.70	0.73	103.6	Pulse	0.10	3
1	Rh		4,054,888.80	1.13	105.3	Pulse	0.10	3
1	In		4,221,681.64	1.48	105.9	Pulse	0.10	3
1	Tb		6,106,747.62	1.04	110.3	Analog	0.10	3
1	Ho		586,190.21	0.54	106.6	Pulse	0.10	3
1	Bi		3,597,621.93	0.80	107.8	Pulse	0.10	3
2	Sc		167,956.01	0.18	104.5	Pulse	0.30	3
2	Ge		104,450.95	0.89	105.0	Pulse	0.30	3
2	Ge		157,384.71	0.91	105.0	Pulse	0.30	3
2	Rh		2,566,919.07	0.27	105.5	Pulse	0.30	3
2	In		1,016,446.59	0.30	104.6	Pulse	0.30	3
2	Tb		3,390,851.19	0.74	103.6	Pulse	0.30	3
2	Ho		345,521.92	0.68	103.4	Pulse	0.30	3
2	Bi		2,325,271.79	0.86	103.9	Pulse	0.30	3
3	Sc		232,051.05	17.82	107.1	Pulse	0.30	3
3	Ge		149,804.91	13.24	106.8	Pulse	0.30	3
3	Ge		225,313.24	13.18	106.5	Pulse	0.30	3
3	Rh		2,338,152.48	16.94	107.2	Pulse	0.30	3
3	Tb		3,892,924.64	17.95	106.3	Mix	0.30	3

Quantitation Report

File Name 035SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 13:02
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.217	ug/l	0.23	226,064.73	1.970E-01	Pulse	0.25	3
B			1	90.236	ug/l	0.53	202,301.66	1.763E-01	Pulse	0.15	3
Ca			1	373477.360	ug/l	0.99	172,272,757.43	6.337E+01	Analog	0.10	3
Sr			1	191.210	ug/l	0.53	4,572,173.47	1.272E+00	Pulse	0.10	3
Mo			1	112.448	ug/l	0.85	502,089.00	1.397E-01	Pulse	0.10	3
Ag			1	71.385	ug/l	1.21	840,156.78	2.149E-01	Pulse	0.10	3
Sn			1	77.843	ug/l	1.48	592,400.93	1.515E-01	Pulse	0.10	3
Sb			1	73.057	ug/l	0.58	692,602.59	1.169E-01	Pulse	0.10	3
Ba			1	747.222	ug/l	0.55	2,981,846.94	5.031E-01	Pulse	0.10	3
Tl			1	77.730	ug/l	0.43	1,693,332.42	5.179E-01	Pulse	0.10	3
Pb			1	80.232	ug/l	0.56	603,827.41	1.847E-01	Pulse	0.10	3
Pb			1	80.601	ug/l	1.11	533,879.64	1.633E-01	Pulse	0.10	3
Pb			1	80.260	ug/l	0.48	2,441,533.93	7.468E-01	Pulse	0.10	3
Na			2	104292.865	ug/l	1.01	71,948,452.70	4.493E+02	Analog	0.30	3
Mg			2	18083.865	ug/l	0.40	5,780,840.19	3.609E+01	Analog	0.30	3
Al			2	3866.374	ug/l	0.49	421,289.16	2.631E+00	Pulse	0.30	3
K			2	6710.757	ug/l	1.40	1,784,547.64	1.114E+01	Pulse	0.30	3
Ca			2	377319.018	ug/l	1.50	5,023,297.44	3.137E+01	Mix	0.30	3
Ti			2	78.091	ug/l	4.80	7,726.33	4.825E-02	Pulse	0.30	3
V			2	77.570	ug/l	0.46	249,023.18	1.555E+00	Pulse	0.30	3
Cr			2	82.393	ug/l	0.18	335,948.20	2.098E+00	Pulse	0.30	3
Mn			2	77.244	ug/l	0.86	168,409.86	1.052E+00	Pulse	0.30	3
Fe			2	3932.809	ug/l	0.78	12,517,731.17	7.816E+01	Analog	0.30	3
Co			2	73.443	ug/l	0.06	470,660.30	2.939E+00	Pulse	0.30	3
Ni			2	70.758	ug/l	0.55	119,936.52	7.489E-01	Pulse	0.30	3
Cu			2	73.989	ug/l	0.67	348,276.47	2.175E+00	Pulse	0.30	3
Zn			2	64.780	ug/l	0.10	46,576.97	2.908E-01	Pulse	0.30	3
As			2	70.408	ug/l	1.22	28,171.52	1.759E-01	Pulse	1.00	3
Cd			2	70.122	ug/l	1.05	74,205.98	7.966E-02	Pulse	0.30	3
Sn			2	78.052	ug/l	1.21	182,021.76	1.954E-01	Pulse	0.30	3
Se			3	333.173	ug/l	0.70	35,596.71	1.685E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,147,295.17	0.40	91.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,718,505.90	0.38	96.6	Pulse	0.10	3
1	Ge		574,375.29	0.42	100.7	Pulse	0.10	3
1	Ge		806,723.92	1.26	101.6	Pulse	0.10	3
1	Rh		3,593,328.59	0.85	93.3	Pulse	0.10	3
1	In		3,910,307.64	1.17	98.1	Pulse	0.10	3
1	Tb		5,927,006.37	0.76	107.0	Analog	0.10	3
1	Ho		576,016.81	0.31	104.7	Pulse	0.10	3
1	Bi		3,269,399.64	0.63	97.9	Pulse	0.10	3
2	Sc		160,156.49	0.95	99.7	Pulse	0.30	3
2	Ge		101,239.77	0.79	101.7	Pulse	0.30	3
2	Ge		153,357.91	0.24	102.3	Pulse	0.30	3
2	Rh		2,264,562.34	0.66	93.0	Pulse	0.30	3
2	In		931,530.17	1.00	95.9	Pulse	0.30	3
2	Tb		3,306,461.68	0.68	101.0	Pulse	0.30	3
2	Ho		339,446.04	0.73	101.5	Pulse	0.30	3
2	Bi		2,082,799.15	1.28	93.0	Pulse	0.30	3
3	Sc		224,795.64	0.88	103.8	Pulse	0.30	3
3	Ge		138,781.06	0.63	98.9	Pulse	0.30	3
3	Ge		211,319.24	0.77	99.9	Pulse	0.30	3
3	Rh		2,034,125.61	0.15	93.3	Pulse	0.30	3
3	Tb		3,719,060.41	0.47	101.5	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 13:07
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.642	ug/l	0.42	221,692.09	1.982E-01	Pulse	0.25	3
B			1	91.092	ug/l	0.39	199,062.80	1.779E-01	Pulse	0.15	3
Ca			1	377254.759	ug/l	0.26	167,104,974.18	6.401E+01	Analog	0.10	3
Sr			1	191.211	ug/l	0.88	4,417,422.85	1.272E+00	Pulse	0.10	3
Mo			1	114.205	ug/l	1.04	492,685.46	1.419E-01	Pulse	0.10	3
Ag			1	71.549	ug/l	0.13	819,623.27	2.154E-01	Pulse	0.10	3
Sn			1	78.910	ug/l	0.56	584,457.51	1.536E-01	Pulse	0.10	3
Sb			1	73.209	ug/l	1.34	689,086.79	1.171E-01	Pulse	0.10	3
Ba			1	743.723	ug/l	0.22	2,946,759.64	5.007E-01	Pulse	0.10	3
Tl			1	79.311	ug/l	0.40	1,687,602.11	5.285E-01	Pulse	0.10	3
Pb			1	81.468	ug/l	1.48	598,809.35	1.875E-01	Pulse	0.10	3
Pb			1	82.156	ug/l	0.99	531,518.17	1.664E-01	Pulse	0.10	3
Pb			1	81.507	ug/l	0.22	2,421,652.97	7.584E-01	Pulse	0.10	3
Na			2	103371.357	ug/l	1.03	69,411,292.80	4.453E+02	Analog	0.30	3
Mg			2	18271.822	ug/l	0.70	5,684,860.47	3.647E+01	Analog	0.30	3
Al			2	3817.274	ug/l	0.77	404,854.30	2.597E+00	Pulse	0.30	3
K			2	6662.134	ug/l	0.38	1,724,549.58	1.106E+01	Pulse	0.30	3
Ca			2	372845.581	ug/l	0.69	4,831,395.78	3.099E+01	Pulse	0.30	3
Ti			2	76.698	ug/l	2.40	7,387.29	4.739E-02	Pulse	0.30	3
V			2	78.450	ug/l	0.10	245,114.40	1.572E+00	Pulse	0.30	3
Cr			2	83.185	ug/l	0.22	330,114.74	2.118E+00	Pulse	0.30	3
Mn			2	77.274	ug/l	0.67	163,984.88	1.052E+00	Pulse	0.30	3
Fe			2	3948.407	ug/l	0.98	12,232,268.68	7.847E+01	Analog	0.30	3
Co			2	73.469	ug/l	0.92	458,255.62	2.940E+00	Pulse	0.30	3
Ni			2	71.383	ug/l	0.96	117,766.22	7.555E-01	Pulse	0.30	3
Cu			2	74.359	ug/l	1.06	340,643.00	2.185E+00	Pulse	0.30	3
Zn			2	62.801	ug/l	1.45	43,992.21	2.822E-01	Pulse	0.30	3
As			2	71.546	ug/l	0.24	27,863.67	1.788E-01	Pulse	1.00	3
Cd			2	71.026	ug/l	0.53	73,264.30	8.068E-02	Pulse	0.30	3
Sn			2	78.980	ug/l	0.32	179,545.92	1.977E-01	Pulse	0.30	3
Se			3	334.693	ug/l	0.48	35,086.67	1.692E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,118,637.00	0.50	89.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,610,592.77	0.52	92.8	Pulse	0.10	3
1	Ge		560,387.79	0.45	98.2	Pulse	0.10	3
1	Ge		777,787.20	0.28	98.0	Pulse	0.10	3
1	Rh		3,471,798.59	0.82	90.2	Pulse	0.10	3
1	In		3,805,651.73	0.80	95.5	Pulse	0.10	3
1	Tb		5,884,812.83	0.65	106.3	Analog	0.10	3
1	Ho		567,332.79	1.76	103.1	Pulse	0.10	3
1	Bi		3,193,304.54	1.14	95.6	Pulse	0.10	3
2	Sc		155,880.11	0.15	97.0	Pulse	0.30	3
2	Ge		98,614.79	0.70	99.1	Pulse	0.30	3
2	Ge		148,989.69	1.41	99.4	Pulse	0.30	3
2	Rh		2,214,549.63	0.38	91.0	Pulse	0.30	3
2	In		908,082.33	1.12	93.4	Pulse	0.30	3
2	Tb		3,247,944.73	0.50	99.2	Pulse	0.30	3
2	Ho		332,651.21	1.18	99.5	Pulse	0.30	3
2	Bi		2,052,186.59	0.85	91.7	Pulse	0.30	3
3	Sc		219,831.14	1.12	101.5	Pulse	0.30	3
3	Ge		137,229.06	0.49	97.8	Pulse	0.30	3
3	Ge		207,345.97	1.09	98.0	Pulse	0.30	3
3	Rh		2,012,758.95	0.94	92.3	Pulse	0.30	3
3	Tb		3,695,663.05	1.56	100.9	Pulse	0.30	3

Quantitation Report

File Name 037SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 13:12
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.031	ug/l	30.54	113.33	1.008E-04	Pulse	0.25	3
B			1	11.853	ug/l	2.02	31,478.36	2.799E-02	Pulse	0.15	3
Ca			1	375259.570	ug/l	0.22	168,102,077.50	6.367E+01	Analog	0.10	3
Sr			1	108.933	ug/l	0.42	2,550,002.20	7.250E-01	Pulse	0.10	3
Mo			1	32.073	ug/l	0.44	140,308.82	3.989E-02	Pulse	0.10	3
Ag			1	0.040	ug/l	21.72	493.36	1.281E-04	Pulse	0.10	3
Sn			1	1.158	ug/l	3.52	11,658.13	3.025E-03	Pulse	0.10	3
Sb			1	0.162	ug/l	4.77	1,896.86	3.212E-04	Pulse	0.10	3
Ba			1	679.247	ug/l	1.25	2,700,081.21	4.573E-01	Pulse	0.10	3
Tl			1	0.054	ug/l	11.21	1,393.47	4.346E-04	Pulse	0.10	3
Pb			1	0.658	ug/l	4.74	5,127.77	1.601E-03	Pulse	0.10	3
Pb			1	0.653	ug/l	6.45	4,477.52	1.398E-03	Pulse	0.10	3
Pb			1	0.645	ug/l	3.70	20,419.65	6.373E-03	Pulse	0.10	3
Na			2	100761.641	ug/l	1.27	67,714,295.08	4.340E+02	Analog	0.30	3
Mg			2	13928.152	ug/l	1.55	4,337,002.05	2.780E+01	Pulse	0.30	3
Al			2	170.077	ug/l	1.74	18,701.59	1.199E-01	Pulse	0.30	3
K			2	2850.433	ug/l	1.02	746,158.16	4.783E+00	Pulse	0.30	3
Ca			2	371844.556	ug/l	1.12	4,822,461.61	3.091E+01	Pulse	0.30	3
Ti			2	0.266	ug/l	7.59	27.78	1.781E-04	Pulse	0.30	3
V			2	0.805	ug/l	4.04	2,805.83	1.799E-02	Pulse	0.30	3
Cr			2	8.886	ug/l	2.21	36,129.44	2.316E-01	Pulse	0.30	3
Mn			2	3.205	ug/l	2.42	6,943.77	4.451E-02	Pulse	0.30	3
Fe			2	22.300	ug/l	2.36	75,171.16	4.819E-01	Pulse	0.30	3
Co			2	0.375	ug/l	5.34	2,396.67	1.535E-02	Pulse	0.30	3
Ni			2	0.469	ug/l	9.31	940.60	6.024E-03	Pulse	0.30	3
Cu			2	4.791	ug/l	1.00	29,370.73	1.882E-01	Pulse	0.30	3
Zn			2	1.998	ug/l	18.33	2,809.17	1.802E-02	Pulse	0.30	3
As			2	0.729	ug/l	10.22	305.34	1.959E-03	Pulse	1.00	3
Cd			2	0.003	ug/l	531.71	15.71	1.710E-05	Pulse	0.30	3
Sn			2	1.070	ug/l	6.49	3,497.10	3.818E-03	Pulse	0.30	3
Se			3	0.548	ug/l	2.32	61.60	2.965E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,124,567.35	0.14	90.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,640,158.87	0.87	93.9	Pulse	0.10	3
1	Ge		562,822.64	0.79	98.7	Pulse	0.10	3
1	Ge		778,773.48	0.72	98.1	Pulse	0.10	3
1	Rh		3,517,490.47	0.73	91.4	Pulse	0.10	3
1	In		3,853,597.49	0.74	96.7	Pulse	0.10	3
1	Tb		5,904,671.58	1.99	106.6	Analog	0.10	3
1	Ho		574,547.57	1.02	104.4	Pulse	0.10	3
1	Bi		3,204,688.60	1.26	96.0	Pulse	0.10	3
2	Sc		156,026.74	1.48	97.1	Pulse	0.30	3
2	Ge		99,289.13	1.25	99.8	Pulse	0.30	3
2	Ge		148,976.50	1.22	99.3	Pulse	0.30	3
2	Rh		2,209,890.95	0.13	90.8	Pulse	0.30	3
2	In		915,829.80	0.62	94.2	Pulse	0.30	3
2	Tb		3,270,219.04	0.13	99.9	Pulse	0.30	3
2	Ho		334,721.43	0.49	100.1	Pulse	0.30	3
2	Bi		2,048,276.79	0.78	91.5	Pulse	0.30	3
3	Sc		219,984.89	1.53	101.5	Pulse	0.30	3
3	Ge		138,201.11	1.01	98.5	Pulse	0.30	3
3	Ge		207,820.41	1.66	98.2	Pulse	0.30	3
3	Rh		2,027,020.34	0.63	92.9	Pulse	0.30	3
3	Tb		3,698,684.85	0.68	101.0	Pulse	0.30	3

Quantitation Report

File Name 038SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 13:17
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.033	ug/l	65.98	46.67	3.582E-05	Pulse	0.25	3
B			1	22.740	ug/l	3.55	18,452.53	1.417E-02	Pulse	0.15	3
Ca			1	373369.750	ug/l	1.31	36,327,888.62	1.267E+01	Analog	0.10	3
Sr			1	103.728	ug/l	0.37	536,185.18	1.381E-01	Pulse	0.10	3
Mo			1	30.013	ug/l	2.50	29,110.75	7.501E-03	Pulse	0.10	3
Ag			1	0.075	ug/l	16.59	213.34	5.152E-05	Pulse	0.10	3
Sn			1	-0.382	ug/l	-43.01	2,625.34	6.338E-04	Pulse	0.10	3
Sb			1	0.202	ug/l	35.09	766.72	1.274E-04	Pulse	0.10	3
Ba			1	688.226	ug/l	0.21	558,416.80	9.269E-02	Pulse	0.10	3
Tl			1	0.039	ug/l	44.29	440.02	1.265E-04	Pulse	0.10	3
Pb			1	0.782	ug/l	16.60	1,550.14	4.457E-04	Pulse	0.10	3
Pb			1	0.626	ug/l	5.10	1,146.77	3.298E-04	Pulse	0.10	3
Pb			1	0.648	ug/l	7.89	5,503.94	1.583E-03	Pulse	0.10	3
Na			2	102522.741	ug/l	0.76	14,716,173.86	8.838E+01	Analog	0.30	3
Mg			2	14213.981	ug/l	0.57	944,924.06	5.676E+00	Pulse	0.30	3
Al			2	227.625	ug/l	1.28	5,871.10	3.526E-02	Pulse	0.30	3
K			2	2836.192	ug/l	1.74	169,906.25	1.021E+00	Pulse	0.30	3
Ca			2	371394.712	ug/l	0.82	1,028,069.06	6.175E+00	Pulse	0.30	3
Ti			2	1.020	ug/l	53.84	23.34	1.398E-04	Pulse	0.30	3
V			2	0.618	ug/l	18.10	724.47	4.348E-03	Pulse	0.30	3
Cr			2	8.328	ug/l	1.56	8,042.04	4.831E-02	Pulse	0.30	3
Mn			2	3.160	ug/l	2.44	1,583.43	9.509E-03	Pulse	0.30	3
Fe			2	24.785	ug/l	2.61	22,864.83	1.373E-01	Pulse	0.30	3
Co			2	0.356	ug/l	13.68	529.96	3.186E-03	Pulse	0.30	3
Ni			2	0.649	ug/l	13.93	405.57	2.438E-03	Pulse	0.30	3
Cu			2	-0.031	ug/l	-852.13	8,410.02	5.052E-02	Pulse	0.30	3
Zn			2	5.555	ug/l	13.77	2,356.87	1.416E-02	Pulse	0.30	3
As			2	0.553	ug/l	18.95	69.00	4.149E-04	Pulse	1.00	3
Cd			2	-0.010	ug/l	-250.48	11.06	1.119E-05	Pulse	0.30	3
Sn			2	-0.731	ug/l	-38.07	782.25	7.907E-04	Pulse	0.30	3
Se			3	1.393	ug/l	23.97	33.93	1.602E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,302,657.10	0.44	104.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,866,490.68	0.34	101.9	Pulse	0.10	3
1	Ge		581,914.87	0.26	102.0	Pulse	0.10	3
1	Ge		808,113.97	0.60	101.8	Pulse	0.10	3
1	Rh		3,881,390.88	0.66	100.8	Pulse	0.10	3
1	In		4,139,088.01	1.03	103.9	Pulse	0.10	3
1	Tb		6,024,592.41	0.98	108.8	Analog	0.10	3
1	Ho		578,601.50	0.84	105.2	Pulse	0.10	3
1	Bi		3,476,703.70	0.51	104.1	Pulse	0.10	3
2	Sc		166,491.49	1.25	103.6	Pulse	0.30	3
2	Ge		102,052.69	1.23	102.6	Pulse	0.30	3
2	Ge		153,545.25	1.41	102.4	Pulse	0.30	3
2	Rh		2,437,408.38	0.63	100.1	Pulse	0.30	3
2	In		989,843.10	0.41	101.9	Pulse	0.30	3
2	Tb		3,331,610.49	0.66	101.8	Pulse	0.30	3
2	Ho		342,477.03	1.27	102.5	Pulse	0.30	3
2	Bi		2,235,051.23	0.92	99.8	Pulse	0.30	3
3	Sc		219,531.93	0.35	101.3	Pulse	0.30	3
3	Ge		140,132.63	0.52	99.9	Pulse	0.30	3
3	Ge		211,986.06	0.61	100.2	Pulse	0.30	3
3	Rh		2,155,847.48	0.43	98.8	Pulse	0.30	3
3	Tb		3,725,176.66	0.49	101.7	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 13:22
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.291	ug/l	9.44	901.37	8.012E-04	Pulse	0.25	3
B			1	80.158	ug/l	1.77	176,953.79	1.573E-01	Pulse	0.15	3
Ca			1	14298.082	ug/l	1.20	6,200,750.74	2.430E+00	Analog	0.10	3
Sr			1	44.863	ug/l	0.28	1,041,456.86	2.986E-01	Pulse	0.10	3
Mo			1	1.215	ug/l	5.60	5,417.79	1.553E-03	Pulse	0.10	3
Ag			1	0.044	ug/l	3.95	526.70	1.378E-04	Pulse	0.10	3
Sn			1	0.715	ug/l	2.47	8,279.17	2.166E-03	Pulse	0.10	3
Sb			1	0.144	ug/l	9.06	1,710.17	2.938E-04	Pulse	0.10	3
Ba			1	88.820	ug/l	0.47	348,343.96	5.982E-02	Pulse	0.10	3
Tl			1	0.032	ug/l	8.43	943.40	2.860E-04	Pulse	0.10	3
Pb			1	1.266	ug/l	0.98	9,887.14	2.998E-03	Pulse	0.10	3
Pb			1	1.194	ug/l	3.13	8,225.94	2.494E-03	Pulse	0.10	3
Pb			1	1.197	ug/l	0.71	37,953.72	1.151E-02	Pulse	0.10	3
Na			2	123850.867	ug/l	1.35	80,165,292.37	5.335E+02	Analog	0.30	3
Mg			2	2342.111	ug/l	1.39	702,702.09	4.676E+00	Pulse	0.30	3
Al			2	2668.662	ug/l	0.99	273,059.39	1.817E+00	Pulse	0.30	3
K			2	2131.161	ug/l	1.11	540,597.27	3.598E+00	Pulse	0.30	3
Ca			2	14204.703	ug/l	0.94	177,541.94	1.182E+00	Pulse	0.30	3
Ti			2	49.755	ug/l	0.86	4,620.88	3.075E-02	Pulse	0.30	3
V			2	13.629	ug/l	2.25	41,280.26	2.747E-01	Pulse	0.30	3
Cr			2	6.285	ug/l	2.93	24,878.79	1.656E-01	Pulse	0.30	3
Mn			2	191.437	ug/l	1.44	391,415.74	2.605E+00	Pulse	0.30	3
Fe			2	3261.676	ug/l	3.31	9,742,009.61	6.483E+01	Analog	0.30	3
Co			2	1.522	ug/l	0.89	9,203.06	6.124E-02	Pulse	0.30	3
Ni			2	5.735	ug/l	4.00	9,264.95	6.167E-02	Pulse	0.30	3
Cu			2	4.299	ug/l	1.89	26,164.31	1.741E-01	Pulse	0.30	3
Zn			2	13.571	ug/l	2.91	10,263.32	6.830E-02	Pulse	0.30	3
As			2	2.345	ug/l	1.50	900.70	5.994E-03	Pulse	1.00	3
Cd			2	0.021	ug/l	17.80	34.05	3.783E-05	Pulse	0.30	3
Sn			2	0.706	ug/l	7.95	2,621.37	2.912E-03	Pulse	0.30	3
Se			3	1.513	ug/l	5.30	162.00	7.841E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,125,217.96	0.37	90.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,551,780.22	0.99	90.7	Pulse	0.10	3
1	Ge		547,474.56	1.25	96.0	Pulse	0.10	3
1	Ge		761,690.09	0.68	96.0	Pulse	0.10	3
1	Rh		3,487,561.30	0.79	90.6	Pulse	0.10	3
1	In		3,823,010.02	1.32	95.9	Pulse	0.10	3
1	Tb		5,823,751.79	1.00	105.2	Analog	0.10	3
1	Ho		563,067.59	0.84	102.4	Pulse	0.10	3
1	Bi		3,298,021.41	0.53	98.8	Pulse	0.10	3
2	Sc		150,279.09	1.29	93.5	Pulse	0.30	3
2	Ge		97,086.18	0.55	97.6	Pulse	0.30	3
2	Ge		145,717.60	0.45	97.2	Pulse	0.30	3
2	Rh		2,226,938.38	1.16	91.5	Pulse	0.30	3
2	In		900,315.46	0.86	92.6	Pulse	0.30	3
2	Tb		3,184,490.64	0.99	97.3	Pulse	0.30	3
2	Ho		329,699.91	0.23	98.6	Pulse	0.30	3
2	Bi		2,110,887.90	0.19	94.3	Pulse	0.30	3
3	Sc		211,668.03	0.99	97.7	Pulse	0.30	3
3	Ge		136,099.40	0.46	97.0	Pulse	0.30	3
3	Ge		206,639.48	0.73	97.7	Pulse	0.30	3
3	Rh		2,064,824.01	0.14	94.7	Pulse	0.30	3
3	Tb		3,708,452.08	0.50	101.2	Pulse	0.30	3

Quantitation Report

File Name 040SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 13:27
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.213	ug/l	11.77	669.36	5.924E-04	Pulse	0.25	3
B			1	15.311	ug/l	3.17	39,025.21	3.454E-02	Pulse	0.15	3
Ca			1	1531.093	ug/l	0.39	683,940.17	2.641E-01	Pulse	0.10	3
Sr			1	7.381	ug/l	0.83	179,825.54	4.922E-02	Pulse	0.10	3
Mo			1	0.588	ug/l	9.36	2,830.37	7.748E-04	Pulse	0.10	3
Ag			1	0.026	ug/l	33.53	330.02	8.391E-05	Pulse	0.10	3
Sn			1	0.422	ug/l	11.35	6,271.50	1.598E-03	Pulse	0.10	3
Sb			1	0.242	ug/l	16.34	2,636.99	4.494E-04	Pulse	0.10	3
Ba			1	42.564	ug/l	1.68	168,277.12	2.867E-02	Pulse	0.10	3
Tl			1	0.073	ug/l	6.07	1,930.20	5.605E-04	Pulse	0.10	3
Pb			1	1.458	ug/l	2.83	11,845.28	3.441E-03	Pulse	0.10	3
Pb			1	1.394	ug/l	4.63	9,980.44	2.898E-03	Pulse	0.10	3
Pb			1	1.418	ug/l	1.45	46,700.80	1.356E-02	Pulse	0.10	3
Na			2	13020.882	ug/l	0.93	8,449,596.33	5.615E+01	Analog	0.30	3
Mg			2	736.900	ug/l	1.19	221,607.16	1.473E+00	Pulse	0.30	3
Al			2	3307.680	ug/l	0.70	338,728.16	2.251E+00	Pulse	0.30	3
K			2	1272.838	ug/l	0.78	328,524.80	2.183E+00	Pulse	0.30	3
Ca			2	1508.326	ug/l	0.89	18,972.02	1.261E-01	Pulse	0.30	3
Ti			2	36.340	ug/l	4.92	3,380.46	2.246E-02	Pulse	0.30	3
V			2	6.719	ug/l	0.49	20,522.83	1.364E-01	Pulse	0.30	3
Cr			2	3.748	ug/l	1.27	15,224.90	1.012E-01	Pulse	0.30	3
Mn			2	94.379	ug/l	1.05	193,314.44	1.285E+00	Pulse	0.30	3
Fe			2	3101.904	ug/l	1.11	9,278,234.08	6.166E+01	Analog	0.30	3
Co			2	1.195	ug/l	1.31	7,245.53	4.815E-02	Pulse	0.30	3
Ni			2	2.782	ug/l	3.41	4,585.14	3.047E-02	Pulse	0.30	3
Cu			2	1.222	ug/l	3.15	12,909.63	8.579E-02	Pulse	0.30	3
Zn			2	6.979	ug/l	2.96	5,967.84	3.966E-02	Pulse	0.30	3
As			2	1.411	ug/l	3.84	551.01	3.662E-03	Pulse	1.00	3
Cd			2	-0.002	ug/l	-569.26	10.87	1.172E-05	Pulse	0.30	3
Sn			2	0.342	ug/l	4.37	1,864.58	2.006E-03	Pulse	0.30	3
Se			3	0.278	ug/l	11.88	33.93	1.597E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,130,005.26	0.49	90.5	Pulse	0.10	3
1	Sc		2,589,860.43	0.24	92.1	Pulse	0.10	3
1	Ge		561,760.29	0.54	98.5	Pulse	0.10	3

Quantitation Report

1	Ge		775,506.03	0.28	97.7	Pulse	0.10	3
1	Rh		3,653,704.63	0.75	94.9	Pulse	0.10	3
1	In		3,925,403.58	1.01	98.5	Pulse	0.10	3
1	Tb		5,869,548.45	1.11	106.0	Analog	0.10	3
1	Ho		574,125.25	0.71	104.4	Pulse	0.10	3
1	Bi		3,443,007.97	0.72	103.1	Pulse	0.10	3
2	Sc		150,476.87	0.56	93.6	Pulse	0.30	3
2	Ge		99,097.07	0.35	99.6	Pulse	0.30	3
2	Ge		149,619.27	0.64	99.8	Pulse	0.30	3
2	Rh		2,326,478.45	0.82	95.6	Pulse	0.30	3
2	In		929,508.08	0.44	95.6	Pulse	0.30	3
2	Tb		3,241,359.73	0.23	99.0	Pulse	0.30	3
2	Ho		333,334.16	0.54	99.7	Pulse	0.30	3
2	Bi		2,208,627.62	0.39	98.6	Pulse	0.30	3
3	Sc		215,450.95	0.69	99.4	Pulse	0.30	3
3	Ge		140,454.67	1.21	100.1	Pulse	0.30	3
3	Ge		212,405.08	0.34	100.4	Pulse	0.30	3
3	Rh		2,166,913.18	0.09	99.3	Pulse	0.30	3
3	Tb		3,774,999.71	0.15	103.1	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 13:32
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.063	ug/l	30.24	209.34	1.871E-04	Pulse	0.25	3
B			1	17.508	ug/l	0.41	43,250.71	3.869E-02	Pulse	0.15	3
Ca			1	6252.760	ug/l	0.46	2,709,458.29	1.065E+00	Pulse	0.10	3
Sr			1	19.192	ug/l	1.09	467,288.81	1.278E-01	Pulse	0.10	3
Mo			1	2.060	ug/l	1.67	9,516.59	2.603E-03	Pulse	0.10	3
Ag			1	0.089	ug/l	9.54	1,070.08	2.740E-04	Pulse	0.10	3
Sn			1	0.973	ug/l	5.33	10,410.54	2.665E-03	Pulse	0.10	3
Sb			1	0.459	ug/l	4.20	4,694.22	7.963E-04	Pulse	0.10	3
Ba			1	110.082	ug/l	0.66	436,703.55	7.413E-02	Pulse	0.10	3
Tl			1	0.015	ug/l	10.48	606.70	1.747E-04	Pulse	0.10	3
Pb			1	2.736	ug/l	3.94	22,160.72	6.380E-03	Pulse	0.10	3
Pb			1	2.644	ug/l	1.73	18,856.10	5.430E-03	Pulse	0.10	3
Pb			1	2.692	ug/l	1.23	88,263.35	2.541E-02	Pulse	0.10	3
Na			2	11300.829	ug/l	1.68	7,247,695.54	4.875E+01	Analog	0.30	3
Mg			2	1887.214	ug/l	1.55	560,327.84	3.769E+00	Pulse	0.30	3
Al			2	1724.592	ug/l	1.99	174,813.57	1.176E+00	Pulse	0.30	3
K			2	1248.904	ug/l	0.98	318,775.42	2.144E+00	Pulse	0.30	3
Ca			2	6189.314	ug/l	1.22	76,604.78	5.152E-01	Pulse	0.30	3
Ti			2	75.809	ug/l	2.69	6,966.04	4.684E-02	Pulse	0.30	3
V			2	10.600	ug/l	1.34	31,832.90	2.141E-01	Pulse	0.30	3
Cr			2	10.827	ug/l	2.02	41,761.45	2.809E-01	Pulse	0.30	3
Mn			2	153.945	ug/l	1.13	311,491.08	2.095E+00	Pulse	0.30	3
Fe			2	5289.507	ug/l	1.51	15,628,878.27	1.051E+02	Analog	0.30	3
Co			2	1.987	ug/l	3.76	11,868.88	7.982E-02	Pulse	0.30	3
Ni			2	6.914	ug/l	0.40	11,023.80	7.414E-02	Pulse	0.30	3
Cu			2	22.363	ug/l	1.34	102,992.73	6.927E-01	Pulse	0.30	3
Zn			2	87.191	ug/l	0.52	57,724.35	3.882E-01	Pulse	0.30	3
As			2	1.908	ug/l	2.41	729.02	4.903E-03	Pulse	1.00	3
Cd			2	0.106	ug/l	16.36	123.68	1.345E-04	Pulse	0.30	3
Sn			2	0.932	ug/l	7.29	3,194.81	3.474E-03	Pulse	0.30	3
Se			3	0.201	ug/l	3.77	25.73	1.211E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,117,797.99	0.58	89.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,543,725.33	0.61	90.4	Pulse	0.10	3
1	Ge		562,766.15	1.37	98.7	Pulse	0.10	3
1	Ge		776,318.97	0.85	97.8	Pulse	0.10	3
1	Rh		3,656,225.26	0.26	95.0	Pulse	0.10	3
1	In		3,906,701.08	0.45	98.0	Pulse	0.10	3
1	Tb		5,891,379.08	2.28	106.4	Analog	0.10	3
1	Ho		568,406.86	1.11	103.3	Pulse	0.10	3
1	Bi		3,473,036.09	0.58	104.0	Pulse	0.10	3
2	Sc		148,700.18	0.99	92.5	Pulse	0.30	3
2	Ge		99,364.09	0.58	99.8	Pulse	0.30	3
2	Ge		149,591.11	1.01	99.8	Pulse	0.30	3
2	Rh		2,316,642.48	0.14	95.2	Pulse	0.30	3
2	In		919,661.94	0.22	94.6	Pulse	0.30	3
2	Tb		3,237,465.91	0.63	98.9	Pulse	0.30	3
2	Ho		333,634.95	0.65	99.8	Pulse	0.30	3
2	Bi		2,216,279.43	0.35	99.0	Pulse	0.30	3
3	Sc		217,114.94	0.24	100.2	Pulse	0.30	3
3	Ge		141,199.98	0.35	100.7	Pulse	0.30	3
3	Ge		212,393.98	0.37	100.4	Pulse	0.30	3
3	Rh		2,172,241.16	0.42	99.6	Pulse	0.30	3
3	Tb		3,798,777.91	0.36	103.7	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 13:37
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.965	ug/l	5.94	2,868.29	2.616E-03	Pulse	0.25	3
B			1	67.545	ug/l	2.21	146,187.91	1.334E-01	Pulse	0.15	3
Ca			1	138515.422	ug/l	0.93	60,878,487.42	2.351E+01	Analog	0.10	3
Sr			1	59.733	ug/l	0.92	1,345,432.11	3.976E-01	Pulse	0.10	3
Mo			1	1.347	ug/l	4.16	5,811.28	1.717E-03	Pulse	0.10	3
Ag			1	0.671	ug/l	1.53	7,572.09	2.025E-03	Pulse	0.10	3
Sn			1	0.618	ug/l	5.69	7,395.35	1.978E-03	Pulse	0.10	3
Sb			1	0.203	ug/l	16.45	2,223.59	3.872E-04	Pulse	0.10	3
Ba			1	210.431	ug/l	1.13	814,065.48	1.417E-01	Pulse	0.10	3
Tl			1	0.067	ug/l	9.26	1,636.82	5.208E-04	Pulse	0.10	3
Pb			1	2.772	ug/l	4.54	20,297.98	6.463E-03	Pulse	0.10	3
Pb			1	2.722	ug/l	0.80	17,550.99	5.587E-03	Pulse	0.10	3
Pb			1	2.743	ug/l	1.93	81,297.43	2.588E-02	Pulse	0.10	3
Na			2	217128.595	ug/l	1.47	142,392,429.90	9.352E+02	Analog	0.30	3
Mg			2	6237.728	ug/l	1.11	1,895,830.41	1.245E+01	Pulse	0.30	3
Al			2	7838.186	ug/l	0.71	811,306.44	5.328E+00	Pulse	0.30	3
K			2	2815.425	ug/l	0.22	719,457.05	4.725E+00	Pulse	0.30	3
Ca			2	138703.023	ug/l	0.35	1,755,712.85	1.153E+01	Pulse	0.30	3
Ti			2	127.446	ug/l	0.34	11,989.02	7.874E-02	Pulse	0.30	3
V			2	18.793	ug/l	2.28	57,568.35	3.781E-01	Pulse	0.30	3
Cr			2	10.618	ug/l	2.41	41,956.36	2.756E-01	Pulse	0.30	3
Mn			2	143.276	ug/l	1.47	296,860.88	1.950E+00	Pulse	0.30	3
Fe			2	7562.514	ug/l	1.03	22,879,445.76	1.503E+02	Analog	0.30	3
Co			2	3.230	ug/l	1.93	19,728.03	1.296E-01	Pulse	0.30	3
Ni			2	8.536	ug/l	0.79	13,899.32	9.128E-02	Pulse	0.30	3
Cu			2	10.537	ug/l	1.29	53,775.27	3.532E-01	Pulse	0.30	3
Zn			2	18.782	ug/l	1.46	13,847.10	9.095E-02	Pulse	0.30	3
As			2	3.366	ug/l	4.98	1,300.39	8.543E-03	Pulse	1.00	3
Cd			2	0.013	ug/l	63.01	25.11	2.839E-05	Pulse	0.30	3
Sn			2	0.570	ug/l	4.78	2,274.64	2.574E-03	Pulse	0.30	3
Se			3	0.880	ug/l	6.67	93.00	4.640E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,096,039.08	0.77	87.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,590,191.16	1.15	92.1	Pulse	0.10	3
1	Ge		536,793.29	1.30	94.1	Pulse	0.10	3
1	Ge		739,269.16	1.25	93.1	Pulse	0.10	3
1	Rh		3,384,178.60	0.49	87.9	Pulse	0.10	3
1	In		3,738,718.09	0.51	93.8	Pulse	0.10	3
1	Tb		5,745,547.83	0.78	103.8	Analog	0.10	3
1	Ho		562,662.24	1.22	102.3	Pulse	0.10	3
1	Bi		3,141,299.64	1.13	94.1	Pulse	0.10	3
2	Sc		152,266.68	0.86	94.8	Pulse	0.30	3
2	Ge		95,265.44	0.59	95.7	Pulse	0.30	3
2	Ge		143,096.25	0.23	95.4	Pulse	0.30	3
2	Rh		2,148,788.60	1.13	88.3	Pulse	0.30	3
2	In		883,866.45	0.61	90.9	Pulse	0.30	3
2	Tb		3,159,096.47	0.49	96.5	Pulse	0.30	3
2	Ho		328,013.12	0.53	98.1	Pulse	0.30	3
2	Bi		2,010,282.42	0.31	89.8	Pulse	0.30	3
3	Sc		215,775.19	0.72	99.6	Pulse	0.30	3
3	Ge		133,259.60	0.91	95.0	Pulse	0.30	3
3	Ge		200,425.07	0.50	94.7	Pulse	0.30	3
3	Rh		1,961,733.33	0.17	89.9	Pulse	0.30	3
3	Tb		3,600,297.22	0.13	98.3	Pulse	0.30	3

Quantitation Report

File Name	043_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 13:42
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.052	ug/l	15.39	315,648.28	2.532E-01	Pulse	0.25	3
B			1	92.555	ug/l	14.88	443,910.61	3.559E-01	Pulse	0.15	3
Ca			1	4997.267	ug/l	20.20	4,569,243.16	1.700E+00	Pulse	0.10	3
Sr			1	50.618	ug/l	19.39	2,545,800.59	6.737E-01	Pulse	0.10	3
Mo			1	49.903	ug/l	19.51	468,630.16	1.240E-01	Pulse	0.10	3
Ag			1	47.821	ug/l	20.36	1,159,744.49	2.879E-01	Pulse	0.10	3
Sn			1	49.034	ug/l	21.52	766,952.69	1.907E-01	Pulse	0.10	3
Sb			1	50.604	ug/l	20.32	945,987.90	1.619E-01	Pulse	0.10	3
Ba			1	48.308	ug/l	19.52	380,631.42	6.506E-02	Pulse	0.10	3
Tl			1	49.584	ug/l	16.79	2,276,053.35	6.608E-01	Pulse	0.10	3
Pb			1	49.645	ug/l	16.45	787,509.03	2.285E-01	Pulse	0.10	3
Pb			1	49.785	ug/l	17.02	694,616.42	2.017E-01	Pulse	0.10	3
Pb			1	49.792	ug/l	16.67	3,191,867.51	9.265E-01	Pulse	0.10	3
Na			2	5239.300	ug/l	8.89	6,848,828.75	4.520E+01	Analog	0.30	3
Mg			2	5062.968	ug/l	9.28	3,061,303.63	2.021E+01	Pulse	0.30	3
Al			2	4993.696	ug/l	9.16	1,028,247.91	6.788E+00	Pulse	0.30	3
K			2	5097.335	ug/l	9.01	2,557,753.99	1.688E+01	Pulse	0.30	3
Ca			2	5346.475	ug/l	9.54	134,720.21	8.896E-01	Pulse	0.30	3
Ti			2	52.631	ug/l	7.43	9,860.80	6.504E-02	Pulse	0.30	3
V			2	52.220	ug/l	9.17	317,010.22	2.093E+00	Pulse	0.30	3
Cr			2	51.616	ug/l	9.41	397,819.67	2.627E+00	Pulse	0.30	3
Mn			2	51.428	ug/l	8.90	212,098.68	1.400E+00	Pulse	0.30	3
Fe			2	5296.257	ug/l	9.54	31,872,737.62	2.105E+02	Analog	0.30	3
Co			2	51.524	ug/l	8.78	624,701.14	4.123E+00	Pulse	0.30	3
Ni			2	51.371	ug/l	9.05	164,649.86	1.087E+00	Pulse	0.30	3
Cu			2	50.665	ug/l	9.01	448,371.28	2.960E+00	Pulse	0.30	3
Zn			2	51.393	ug/l	8.23	69,114.69	4.560E-01	Pulse	0.30	3
As			2	52.182	ug/l	8.52	39,500.08	2.607E-01	Pulse	1.00	3
Cd			2	52.303	ug/l	7.49	107,421.74	1.188E-01	Pulse	0.30	3
Sn			2	52.129	ug/l	8.64	235,494.65	2.606E-01	Pulse	0.30	3
Se			3	198.388	ug/l	0.47	41,446.88	2.006E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,263,966.76	13.57	101.2	Pulse	0.10	3
1	Sc		2,758,840.43	19.35	98.1	Pulse	0.10	3
1	Ge		559,455.19	13.62	98.1	Pulse	0.10	3

Quantitation Report

1	Ge		787,774.26	14.44	99.2	Pulse	0.10	3
1	Rh		3,879,622.34	20.22	100.8	Mix	0.10	3
1	In		4,143,708.28	20.67	104.0	Mix	0.10	3
1	Tb		6,000,554.60	19.35	108.4	Mix	0.10	3
1	Ho		585,980.25	18.58	106.5	Pulse	0.10	3
1	Bi		3,509,250.68	16.53	105.1	Pulse	0.10	3
2	Sc		152,248.18	8.34	94.7	Pulse	0.30	3
2	Ge		92,878.54	6.39	93.3	Pulse	0.30	3
2	Ge		141,568.11	5.90	94.4	Pulse	0.30	3
2	Rh		2,258,453.66	7.39	92.8	Pulse	0.30	3
2	In		907,511.79	7.68	93.4	Pulse	0.30	3
2	Tb		3,107,843.42	8.21	94.9	Pulse	0.30	3
2	Ho		319,352.64	8.08	95.5	Pulse	0.30	3
2	Bi		2,094,053.39	6.21	93.5	Pulse	0.30	3
3	Sc		215,654.91	1.23	99.5	Pulse	0.30	3
3	Ge		135,909.43	0.34	96.9	Pulse	0.30	3
3	Ge		206,610.33	0.77	97.7	Pulse	0.30	3
3	Rh		2,092,199.64	0.56	95.9	Pulse	0.30	3
3	Tb		3,627,131.94	0.72	99.0	Pulse	0.30	3

Quantitation Report

File Name 044_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 13:47
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	19.83	105.33	8.320E-05	Pulse	0.25	3
B			1	3.996	ug/l	0.46	26,191.70	2.068E-02	Pulse	0.15	3
Ca			1	1.049	ug/l	83.92	12,588.53	4.671E-03	Pulse	0.10	3
Sr			1	0.008	ug/l	10.92	813.39	2.146E-04	Pulse	0.10	3
Mo			1	0.088	ug/l	12.61	996.73	2.628E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	29.34	363.35	9.114E-05	Pulse	0.10	3
Sn			1	0.133	ug/l	21.46	5,191.06	1.299E-03	Pulse	0.10	3
Sb			1	0.049	ug/l	11.49	1,276.77	2.187E-04	Pulse	0.10	3
Ba			1	0.008	ug/l	89.76	153.34	2.627E-05	Pulse	0.10	3
Tl			1	0.024	ug/l	9.59	1,343.45	3.917E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	54.51	606.71	1.768E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	59.76	403.36	1.176E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	10.79	2,043.48	5.957E-04	Pulse	0.10	3
Na			2	8.000	ug/l	0.98	22,518.38	1.427E-01	Pulse	0.30	3
Mg			2	0.724	ug/l	16.85	775.59	4.916E-03	Pulse	0.30	3
Al			2	-0.519	ug/l	-71.68	573.35	3.633E-03	Pulse	0.30	3
K			2	-0.624	ug/l	-61.19	13,242.04	8.393E-02	Pulse	0.30	3
Ca			2	1.898	ug/l	40.87	160.01	1.014E-03	Pulse	0.30	3
Ti			2	0.023	ug/l	73.93	6.67	4.222E-05	Pulse	0.30	3
V			2	0.005	ug/l	34.70	330.01	2.092E-03	Pulse	0.30	3
Cr			2	-0.016	ug/l	-54.73	822.25	5.211E-03	Pulse	0.30	3
Mn			2	0.003	ug/l	203.38	155.56	9.861E-04	Pulse	0.30	3
Fe			2	0.952	ug/l	2.68	12,101.28	7.670E-02	Pulse	0.30	3
Co			2	0.005	ug/l	2.95	115.53	7.323E-04	Pulse	0.30	3
Ni			2	-0.002	ug/l	-421.83	162.23	1.028E-03	Pulse	0.30	3
Cu			2	-0.582	ug/l	-0.97	2,729.15	1.730E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.520	ug/l	-3.37	758.91	4.810E-03	Pulse	0.30	3
As			2	0.010	ug/l	75.09	30.00	1.901E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	85.80	18.80	1.967E-05	Pulse	0.30	3
Sn			2	0.141	ug/l	12.11	1,773.45	1.857E-03	Pulse	0.30	3
Se			3	0.095	ug/l	10.15	23.80	1.154E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,266,231.90	0.32	101.4	Pulse	0.10	3
1	Sc		2,695,270.90	0.23	95.8	Pulse	0.10	3
1	Ge		553,097.26	0.74	97.0	Pulse	0.10	3
1	Ge		764,458.11	1.18	96.3	Pulse	0.10	3
1	Rh		3,791,505.67	0.78	98.5	Pulse	0.10	3
1	In		3,994,670.51	1.11	100.2	Pulse	0.10	3
1	Tb		5,838,270.95	0.36	105.4	Analog	0.10	3
1	Ho		560,949.51	1.13	102.0	Pulse	0.10	3
1	Bi		3,430,644.64	0.35	102.8	Pulse	0.10	3
2	Sc		157,768.98	0.28	98.2	Pulse	0.30	3
2	Ge		97,514.03	0.68	98.0	Pulse	0.30	3
2	Ge		147,222.73	1.26	98.2	Pulse	0.30	3
2	Rh		2,404,685.95	1.15	98.8	Pulse	0.30	3
2	In		955,218.57	0.97	98.3	Pulse	0.30	3
2	Tb		3,198,182.79	0.49	97.7	Pulse	0.30	3
2	Ho		327,359.98	0.62	97.9	Pulse	0.30	3
2	Bi		2,216,241.23	0.38	99.0	Pulse	0.30	3
3	Sc		210,607.20	0.89	97.2	Pulse	0.30	3
3	Ge		136,203.78	1.36	97.1	Pulse	0.30	3
3	Ge		206,292.96	0.75	97.5	Pulse	0.30	3
3	Rh		2,121,476.09	0.14	97.3	Pulse	0.30	3
3	Tb		3,572,774.72	1.28	97.5	Pulse	0.30	3

Quantitation Report

File Name 045SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 13:52
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.117	ug/l	8.76	388.01	3.342E-04	Pulse	0.25	3
B			1	13.766	ug/l	2.54	36,708.94	3.161E-02	Pulse	0.15	3
Ca			1	419175.426	ug/l	0.93	184,490,243.92	7.112E+01	Analog	0.10	3
Sr			1	294.276	ug/l	0.40	6,664,556.77	1.958E+00	Analog	0.10	3
Mo			1	0.904	ug/l	3.05	3,973.99	1.168E-03	Pulse	0.10	3
Ag			1	0.032	ug/l	17.79	380.02	1.016E-04	Pulse	0.10	3
Sn			1	0.661	ug/l	3.39	7,712.21	2.063E-03	Pulse	0.10	3
Sb			1	0.155	ug/l	3.03	1,766.83	3.106E-04	Pulse	0.10	3
Ba			1	1114.702	ug/l	0.78	4,269,713.68	7.505E-01	Pulse	0.10	3
Tl			1	0.040	ug/l	2.38	1,076.74	3.414E-04	Pulse	0.10	3
Pb			1	1.105	ug/l	5.18	8,289.26	2.628E-03	Pulse	0.10	3
Pb			1	1.050	ug/l	2.86	6,948.64	2.203E-03	Pulse	0.10	3
Pb			1	1.075	ug/l	1.60	32,729.00	1.038E-02	Pulse	0.10	3
Na			2	48325.381	ug/l	0.76	31,147,362.10	2.082E+02	Analog	0.30	3
Mg			2	19733.676	ug/l	0.44	5,892,243.66	3.939E+01	Analog	0.30	3
Al			2	1833.927	ug/l	0.24	187,002.59	1.250E+00	Pulse	0.30	3
K			2	3867.549	ug/l	0.89	966,196.32	6.459E+00	Pulse	0.30	3
Ca			2	433890.141	ug/l	0.54	5,395,897.70	3.607E+01	Analog	0.30	3
Ti			2	25.494	ug/l	12.40	2,358.03	1.576E-02	Pulse	0.30	3
V			2	3.400	ug/l	0.89	10,463.41	6.994E-02	Pulse	0.30	3
Cr			2	2.333	ug/l	2.58	9,761.89	6.525E-02	Pulse	0.30	3
Mn			2	235.728	ug/l	0.58	479,807.34	3.207E+00	Pulse	0.30	3
Fe			2	1879.738	ug/l	1.50	5,591,841.72	3.738E+01	Analog	0.30	3
Co			2	0.785	ug/l	0.28	4,751.20	3.176E-02	Pulse	0.30	3
Ni			2	2.627	ug/l	3.54	4,312.84	2.883E-02	Pulse	0.30	3
Cu			2	0.955	ug/l	4.07	11,687.61	7.813E-02	Pulse	0.30	3
Zn			2	6.807	ug/l	4.99	5,821.10	3.891E-02	Pulse	0.30	3
As			2	0.981	ug/l	4.69	387.01	2.587E-03	Pulse	1.00	3
Cd			2	0.067	ug/l	21.41	79.69	8.940E-05	Pulse	0.30	3
Sn			2	0.661	ug/l	2.10	2,494.67	2.799E-03	Pulse	0.30	3
Se			3	6.592	ug/l	1.26	649.14	3.352E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,161,404.70	1.05	93.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,593,976.47	1.07	92.2	Pulse	0.10	3
1	Ge		541,232.00	0.61	94.9	Pulse	0.10	3
1	Ge		747,573.22	0.25	94.2	Pulse	0.10	3
1	Rh		3,403,340.57	0.64	88.4	Pulse	0.10	3
1	In		3,739,023.99	0.60	93.8	Pulse	0.10	3
1	Tb		5,688,919.50	0.51	102.7	Analog	0.10	3
1	Ho		549,764.26	1.07	99.9	Pulse	0.10	3
1	Bi		3,154,056.20	0.11	94.5	Pulse	0.10	3
2	Sc		149,598.78	0.17	93.1	Pulse	0.30	3
2	Ge		94,678.67	0.39	95.1	Pulse	0.30	3
2	Ge		142,856.10	0.49	95.3	Pulse	0.30	3
2	Rh		2,141,965.33	0.01	88.0	Pulse	0.30	3
2	In		891,211.89	0.18	91.7	Pulse	0.30	3
2	Tb		3,151,826.61	0.57	96.3	Pulse	0.30	3
2	Ho		322,387.88	0.77	96.4	Pulse	0.30	3
2	Bi		1,999,203.46	0.64	89.3	Pulse	0.30	3
3	Sc		207,790.05	0.79	95.9	Pulse	0.30	3
3	Ge		128,755.44	0.28	91.8	Pulse	0.30	3
3	Ge		193,657.25	0.43	91.5	Pulse	0.30	3
3	Rh		1,920,017.15	0.95	88.0	Pulse	0.30	3
3	Tb		3,536,992.50	0.74	96.6	Pulse	0.30	3

Quantitation Report

File Name 046SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 13:57
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.059	ug/l	15.70	201.33	1.773E-04	Pulse	0.25	3
B			1	65.325	ug/l	0.99	146,698.56	1.292E-01	Pulse	0.15	3
Ca			1	29297.554	ug/l	0.62	12,506,022.73	4.975E+00	Analog	0.10	3
Sr			1	26.614	ug/l	0.12	611,410.94	1.772E-01	Pulse	0.10	3
Mo			1	5.224	ug/l	0.94	22,546.50	6.534E-03	Pulse	0.10	3
Ag			1	0.093	ug/l	9.14	1,073.42	2.862E-04	Pulse	0.10	3
Sn			1	0.591	ug/l	1.40	7,228.64	1.926E-03	Pulse	0.10	3
Sb			1	0.187	ug/l	4.29	2,070.21	3.624E-04	Pulse	0.10	3
Ba			1	51.098	ug/l	0.38	196,695.06	3.442E-02	Pulse	0.10	3
Tl			1	0.133	ug/l	5.68	3,040.45	9.574E-04	Pulse	0.10	3
Pb			1	0.631	ug/l	7.11	4,881.02	1.537E-03	Pulse	0.10	3
Pb			1	0.588	ug/l	8.00	4,024.04	1.267E-03	Pulse	0.10	3
Pb			1	0.617	ug/l	4.63	19,429.28	6.118E-03	Pulse	0.10	3
Na			2	216809.939	ug/l	1.67	138,244,043.39	9.339E+02	Analog	0.30	3
Mg			2	1555.169	ug/l	1.81	459,772.12	3.106E+00	Pulse	0.30	3
Al			2	1384.554	ug/l	6.51	139,851.31	9.448E-01	Pulse	0.30	3
K			2	1708.346	ug/l	1.23	429,442.09	2.901E+00	Pulse	0.30	3
Ca			2	29034.978	ug/l	1.20	357,414.07	2.414E+00	Pulse	0.30	3
Ti			2	18.104	ug/l	30.81	1,662.07	1.120E-02	Pulse	0.30	3
V			2	7.371	ug/l	1.67	22,122.71	1.494E-01	Pulse	0.30	3
Cr			2	10.716	ug/l	2.03	41,159.94	2.780E-01	Pulse	0.30	3
Mn			2	83.390	ug/l	1.73	168,045.44	1.135E+00	Pulse	0.30	3
Fe			2	965.132	ug/l	1.69	2,843,846.55	1.921E+01	Pulse	0.30	3
Co			2	0.525	ug/l	4.23	3,160.45	2.135E-02	Pulse	0.30	3
Ni			2	3.495	ug/l	2.47	5,625.47	3.800E-02	Pulse	0.30	3
Cu			2	1.782	ug/l	5.63	15,078.16	1.019E-01	Pulse	0.30	3
Zn			2	12.642	ug/l	1.41	9,515.07	6.427E-02	Pulse	0.30	3
As			2	3.942	ug/l	2.93	1,477.40	9.981E-03	Pulse	1.00	3
Cd			2	0.186	ug/l	18.25	198.26	2.243E-04	Pulse	0.30	3
Sn			2	0.584	ug/l	16.90	2,304.65	2.609E-03	Pulse	0.30	3
Se			3	0.620	ug/l	2.80	65.73	3.330E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,135,537.12	0.47	90.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,513,903.56	1.27	89.4	Pulse	0.10	3
1	Ge		539,041.57	0.65	94.5	Pulse	0.10	3
1	Ge		753,723.25	1.48	95.0	Pulse	0.10	3
1	Rh		3,450,526.83	1.25	89.6	Pulse	0.10	3
1	In		3,752,657.55	1.31	94.2	Pulse	0.10	3
1	Tb		5,714,597.20	1.33	103.2	Analog	0.10	3
1	Ho		550,624.29	1.65	100.1	Pulse	0.10	3
1	Bi		3,176,004.02	0.34	95.1	Pulse	0.10	3
2	Sc		148,053.63	1.28	92.1	Pulse	0.30	3
2	Ge		95,055.04	0.27	95.5	Pulse	0.30	3
2	Ge		143,618.47	1.06	95.8	Pulse	0.30	3
2	Rh		2,155,875.19	0.65	88.6	Pulse	0.30	3
2	In		883,474.51	0.58	90.9	Pulse	0.30	3
2	Tb		3,111,190.08	0.64	95.0	Pulse	0.30	3
2	Ho		319,489.44	0.68	95.6	Pulse	0.30	3
2	Bi		2,030,750.61	0.82	90.7	Pulse	0.30	3
3	Sc		205,329.90	0.85	94.8	Pulse	0.30	3
3	Ge		131,356.98	1.55	93.6	Pulse	0.30	3
3	Ge		197,400.15	0.69	93.3	Pulse	0.30	3
3	Rh		1,974,544.30	0.70	90.5	Pulse	0.30	3
3	Tb		3,549,287.36	0.94	96.9	Pulse	0.30	3

Quantitation Report

File Name 047_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 14:02
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.958	ug/l	5.75	310,371.12	2.581E-01	Pulse	0.25	3
B			1	93.403	ug/l	4.93	431,914.60	3.591E-01	Pulse	0.15	3
Ca			1	5350.709	ug/l	8.61	4,486,597.64	1.820E+00	Pulse	0.10	3
Sr			1	54.155	ug/l	8.13	2,483,148.66	7.208E-01	Pulse	0.10	3
Mo			1	53.168	ug/l	7.34	455,425.98	1.321E-01	Pulse	0.10	3
Ag			1	51.597	ug/l	8.50	1,140,527.43	3.106E-01	Pulse	0.10	3
Sn			1	52.531	ug/l	9.29	749,498.92	2.042E-01	Pulse	0.10	3
Sb			1	54.079	ug/l	10.16	927,802.25	1.730E-01	Pulse	0.10	3
Ba			1	51.680	ug/l	10.48	373,271.06	6.961E-02	Pulse	0.10	3
Tl			1	53.245	ug/l	6.34	2,247,213.87	7.096E-01	Pulse	0.10	3
Pb			1	52.874	ug/l	6.67	770,743.84	2.434E-01	Pulse	0.10	3
Pb			1	53.192	ug/l	7.18	682,237.57	2.155E-01	Pulse	0.10	3
Pb			1	52.962	ug/l	6.88	3,120,207.32	9.854E-01	Pulse	0.10	3
Na			2	5088.778	ug/l	1.12	6,734,895.15	4.391E+01	Analog	0.30	3
Mg			2	4864.186	ug/l	0.16	2,978,549.19	1.942E+01	Pulse	0.30	3
Al			2	4781.702	ug/l	0.27	997,087.01	6.500E+00	Pulse	0.30	3
K			2	4894.722	ug/l	0.27	2,487,417.06	1.622E+01	Pulse	0.30	3
Ca			2	5102.527	ug/l	0.96	130,229.01	8.490E-01	Pulse	0.30	3
Ti			2	49.407	ug/l	0.39	9,364.95	6.105E-02	Pulse	0.30	3
V			2	50.038	ug/l	0.86	307,604.36	2.005E+00	Pulse	0.30	3
Cr			2	49.511	ug/l	0.08	386,515.84	2.520E+00	Pulse	0.30	3
Mn			2	49.776	ug/l	0.16	207,850.02	1.355E+00	Pulse	0.30	3
Fe			2	5060.434	ug/l	0.71	30,844,784.33	2.011E+02	Analog	0.30	3
Co			2	49.686	ug/l	0.74	609,903.08	3.976E+00	Pulse	0.30	3
Ni			2	49.411	ug/l	1.29	160,360.54	1.045E+00	Pulse	0.30	3
Cu			2	48.812	ug/l	0.50	437,643.60	2.853E+00	Pulse	0.30	3
Zn			2	49.237	ug/l	0.76	67,069.37	4.372E-01	Pulse	0.30	3
As			2	50.212	ug/l	0.97	38,477.71	2.508E-01	Pulse	1.00	3
Cd			2	49.922	ug/l	0.70	104,665.08	1.134E-01	Pulse	0.30	3
Sn			2	49.518	ug/l	0.08	228,541.60	2.476E-01	Pulse	0.30	3
Se			3	197.464	ug/l	0.36	39,989.46	1.997E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,204,827.70	5.19	96.5	Pulse	0.10	3
1	Sc		2,476,542.26	7.99	88.0	Pulse	0.10	3
1	Ge		517,249.04	5.18	90.7	Pulse	0.10	3

Quantitation Report

1	Ge		723,348.77	5.21	91.1	Pulse	0.10	3
1	Rh		3,460,430.78	8.27	89.9	Pulse	0.10	3
1	In		3,690,440.64	8.95	92.6	Pulse	0.10	3
1	Tb		5,399,307.53	9.74	97.5	Mix	0.10	3
1	Ho		524,860.64	8.84	95.4	Pulse	0.10	3
1	Bi		3,175,950.06	6.61	95.1	Pulse	0.10	3
2	Sc		153,391.53	0.56	95.5	Pulse	0.30	3
2	Ge		94,459.90	0.56	94.9	Pulse	0.30	3
2	Ge		142,663.24	0.46	95.1	Pulse	0.30	3
2	Rh		2,293,628.73	0.33	94.2	Pulse	0.30	3
2	In		922,872.78	0.44	95.0	Pulse	0.30	3
2	Tb		3,157,780.78	0.39	96.4	Pulse	0.30	3
2	Ho		322,968.98	0.45	96.6	Pulse	0.30	3
2	Bi		2,127,398.04	0.53	95.0	Pulse	0.30	3
3	Sc		206,386.45	0.59	95.3	Pulse	0.30	3
3	Ge		132,365.02	0.83	94.4	Pulse	0.30	3
3	Ge		200,275.22	0.51	94.7	Pulse	0.30	3
3	Rh		2,031,794.29	0.60	93.1	Pulse	0.30	3
3	Tb		3,528,173.33	0.49	96.3	Pulse	0.30	3

Quantitation Report

File Name 048_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 14:07
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	13.51	90.67	7.190E-05	Pulse	0.25	3
B			1	4.103	ug/l	2.06	26,607.84	2.109E-02	Pulse	0.15	3
Ca			1	3.940	ug/l	19.76	15,010.68	5.652E-03	Pulse	0.10	3
Sr			1	0.009	ug/l	41.62	860.06	2.285E-04	Pulse	0.10	3
Mo			1	0.085	ug/l	20.08	960.08	2.556E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	26.84	376.69	9.554E-05	Pulse	0.10	3
Sn			1	0.165	ug/l	4.38	5,601.23	1.419E-03	Pulse	0.10	3
Sb			1	0.049	ug/l	21.51	1,260.11	2.206E-04	Pulse	0.10	3
Ba			1	0.020	ug/l	36.39	246.68	4.317E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	18.54	1,113.42	3.319E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	4.61	513.36	1.528E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	49.07	390.02	1.163E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	28.43	1,966.80	5.861E-04	Pulse	0.10	3
Na			2	9.255	ug/l	1.31	24,027.15	1.535E-01	Pulse	0.30	3
Mg			2	0.630	ug/l	14.40	710.03	4.540E-03	Pulse	0.30	3
Al			2	-0.205	ug/l	-114.04	635.57	4.060E-03	Pulse	0.30	3
K			2	0.510	ug/l	52.45	13,719.03	8.767E-02	Pulse	0.30	3
Ca			2	3.711	ug/l	30.80	205.56	1.315E-03	Pulse	0.30	3
Ti			2	0.080	ug/l	43.25	17.78	1.132E-04	Pulse	0.30	3
V			2	0.001	ug/l	117.78	297.78	1.903E-03	Pulse	0.30	3
Cr			2	-0.006	ug/l	-88.06	892.26	5.705E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-177.86	133.34	8.531E-04	Pulse	0.30	3
Fe			2	0.687	ug/l	6.51	10,357.83	6.618E-02	Pulse	0.30	3
Co			2	0.005	ug/l	32.16	115.53	7.385E-04	Pulse	0.30	3
Ni			2	0.005	ug/l	185.29	183.34	1.170E-03	Pulse	0.30	3
Cu			2	-0.589	ug/l	-1.33	2,645.81	1.691E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.542	ug/l	-6.62	723.36	4.621E-03	Pulse	0.30	3
As			2	0.008	ug/l	35.47	28.33	1.812E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	179.47	16.59	1.749E-05	Pulse	0.30	3
Sn			2	0.126	ug/l	5.14	1,693.45	1.784E-03	Pulse	0.30	3
Se			3	0.113	ug/l	9.93	27.07	1.340E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,261,815.39	0.90	101.0	Pulse	0.10	3
1	Sc		2,655,767.46	0.41	94.4	Pulse	0.10	3
1	Ge		543,325.89	1.11	95.3	Pulse	0.10	3
1	Ge		762,245.92	0.30	96.0	Pulse	0.10	3
1	Rh		3,758,050.15	1.14	97.6	Pulse	0.10	3
1	In		3,946,626.28	1.24	99.0	Pulse	0.10	3
1	Tb		5,711,617.83	1.48	103.1	Analog	0.10	3
1	Ho		548,501.55	1.78	99.7	Pulse	0.10	3
1	Bi		3,358,599.95	1.47	100.6	Pulse	0.10	3
2	Sc		156,480.01	1.44	97.4	Pulse	0.30	3
2	Ge		98,033.82	0.95	98.5	Pulse	0.30	3
2	Ge		146,843.87	0.86	97.9	Pulse	0.30	3
2	Rh		2,381,816.99	0.36	97.9	Pulse	0.30	3
2	In		949,262.02	0.45	97.7	Pulse	0.30	3
2	Tb		3,185,754.45	0.50	97.3	Pulse	0.30	3
2	Ho		325,907.74	1.04	97.5	Pulse	0.30	3
2	Bi		2,194,755.12	0.70	98.0	Pulse	0.30	3
3	Sc		205,427.69	0.74	94.8	Pulse	0.30	3
3	Ge		133,832.45	0.78	95.4	Pulse	0.30	3
3	Ge		202,001.27	0.48	95.5	Pulse	0.30	3
3	Rh		2,086,522.00	0.19	95.7	Pulse	0.30	3
3	Tb		3,503,859.17	0.59	95.6	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 14:12
Sample Name mp17220-s1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	68.401	ug/l	0.52	209,782.83	1.841E-01	Pulse	0.25	3
B			1	83.508	ug/l	0.64	186,441.43	1.636E-01	Pulse	0.15	3
Ca			1	375395.374	ug/l	0.86	157,924,827.65	6.369E+01	Analog	0.10	3
Sr			1	193.700	ug/l	0.40	4,274,053.58	1.289E+00	Pulse	0.10	3
Mo			1	112.747	ug/l	0.68	464,541.35	1.401E-01	Pulse	0.10	3
Ag			1	70.017	ug/l	0.51	769,455.43	2.108E-01	Pulse	0.10	3
Sn			1	77.238	ug/l	0.45	548,897.41	1.503E-01	Pulse	0.10	3
Sb			1	71.655	ug/l	0.78	643,556.87	1.146E-01	Pulse	0.10	3
Ba			1	737.811	ug/l	0.49	2,789,249.13	4.968E-01	Pulse	0.10	3
Tl			1	76.872	ug/l	0.64	1,561,188.36	5.122E-01	Pulse	0.10	3
Pb			1	84.286	ug/l	0.66	591,361.44	1.940E-01	Pulse	0.10	3
Pb			1	84.567	ug/l	0.74	522,180.75	1.713E-01	Pulse	0.10	3
Pb			1	84.372	ug/l	0.35	2,392,654.51	7.850E-01	Pulse	0.10	3
Na			2	103356.587	ug/l	0.78	65,806,866.27	4.452E+02	Analog	0.30	3
Mg			2	18053.644	ug/l	0.60	5,326,101.59	3.603E+01	Analog	0.30	3
Al			2	3816.141	ug/l	0.76	383,769.54	2.596E+00	Pulse	0.30	3
K			2	6577.103	ug/l	0.71	1,614,520.32	1.092E+01	Pulse	0.30	3
Ca			2	370739.297	ug/l	1.04	4,555,242.46	3.082E+01	Pulse	0.30	3
Ti			2	77.147	ug/l	1.56	7,046.04	4.767E-02	Pulse	0.30	3
V			2	76.575	ug/l	0.32	226,872.86	1.535E+00	Pulse	0.30	3
Cr			2	81.009	ug/l	0.95	304,852.58	2.063E+00	Pulse	0.30	3
Mn			2	76.052	ug/l	0.90	153,033.69	1.035E+00	Pulse	0.30	3
Fe			2	3950.825	ug/l	1.24	11,605,599.82	7.852E+01	Analog	0.30	3
Co			2	71.399	ug/l	1.40	422,278.59	2.857E+00	Pulse	0.30	3
Ni			2	69.752	ug/l	1.43	109,119.03	7.383E-01	Pulse	0.30	3
Cu			2	71.824	ug/l	0.43	312,248.33	2.113E+00	Pulse	0.30	3
Zn			2	63.955	ug/l	1.87	42,453.69	2.872E-01	Pulse	0.30	3
As			2	70.166	ug/l	0.47	25,911.47	1.753E-01	Pulse	1.00	3
Cd			2	69.271	ug/l	0.34	67,931.16	7.869E-02	Pulse	0.30	3
Sn			2	77.449	ug/l	1.18	167,399.81	1.939E-01	Pulse	0.30	3
Se			3	329.306	ug/l	1.04	31,977.09	1.665E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,139,660.98	1.06	91.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,479,390.43	0.69	88.1	Pulse	0.10	3
1	Ge		535,634.73	0.81	93.9	Pulse	0.10	3
1	Ge		747,933.14	0.99	94.2	Pulse	0.10	3
1	Rh		3,315,754.85	0.83	86.1	Pulse	0.10	3
1	In		3,650,917.73	0.82	91.6	Pulse	0.10	3
1	Tb		5,614,897.21	0.81	101.4	Analog	0.10	3
1	Ho		536,729.24	0.61	97.6	Pulse	0.10	3
1	Bi		3,047,918.91	0.79	91.3	Pulse	0.10	3
2	Sc		147,810.68	0.68	92.0	Pulse	0.30	3
2	Ge		94,471.97	1.46	94.9	Pulse	0.30	3
2	Ge		140,675.57	0.75	93.8	Pulse	0.30	3
2	Rh		2,079,098.39	0.52	85.4	Pulse	0.30	3
2	In		863,277.43	0.17	88.8	Pulse	0.30	3
2	Tb		3,058,141.20	0.21	93.4	Pulse	0.30	3
2	Ho		316,568.15	0.52	94.7	Pulse	0.30	3
2	Bi		1,958,200.96	0.16	87.5	Pulse	0.30	3
3	Sc		203,543.71	1.56	93.9	Pulse	0.30	3
3	Ge		125,928.95	0.42	89.8	Pulse	0.30	3
3	Ge		192,058.19	0.65	90.8	Pulse	0.30	3
3	Rh		1,877,468.05	0.27	86.1	Pulse	0.30	3
3	Tb		3,479,030.63	0.92	95.0	Pulse	0.30	3

Quantitation Report

File Name 050SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 14:17
Sample Name mp17220-s2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	69.135	ug/l	0.33	208,078.26	1.861E-01	Pulse	0.25	3
B			1	83.391	ug/l	1.44	182,705.41	1.634E-01	Pulse	0.15	3
Ca			1	370051.173	ug/l	0.37	154,264,834.37	6.279E+01	Analog	0.10	3
Sr			1	188.805	ug/l	0.54	4,107,260.46	1.256E+00	Pulse	0.10	3
Mo			1	112.349	ug/l	0.19	456,406.92	1.396E-01	Pulse	0.10	3
Ag			1	71.008	ug/l	1.53	768,254.78	2.137E-01	Pulse	0.10	3
Sn			1	77.520	ug/l	1.14	542,367.35	1.509E-01	Pulse	0.10	3
Sb			1	71.466	ug/l	1.57	638,909.94	1.143E-01	Pulse	0.10	3
Ba			1	727.204	ug/l	1.19	2,737,021.42	4.896E-01	Pulse	0.10	3
Tl			1	77.841	ug/l	0.90	1,570,164.41	5.187E-01	Pulse	0.10	3
Pb			1	80.111	ug/l	0.54	558,260.72	1.844E-01	Pulse	0.10	3
Pb			1	80.333	ug/l	0.46	492,657.10	1.627E-01	Pulse	0.10	3
Pb			1	80.155	ug/l	0.20	2,257,691.66	7.458E-01	Pulse	0.10	3
Na			2	102904.557	ug/l	1.43	63,857,328.57	4.433E+02	Analog	0.30	3
Mg			2	18204.777	ug/l	2.59	5,234,136.87	3.634E+01	Analog	0.30	3
Al			2	3822.573	ug/l	1.55	374,667.59	2.601E+00	Pulse	0.30	3
K			2	6605.463	ug/l	1.35	1,580,324.42	1.097E+01	Pulse	0.30	3
Ca			2	371463.982	ug/l	0.84	4,448,676.77	3.088E+01	Pulse	0.30	3
Ti			2	77.092	ug/l	0.95	6,862.60	4.763E-02	Pulse	0.30	3
V			2	77.128	ug/l	1.11	222,725.28	1.546E+00	Pulse	0.30	3
Cr			2	82.210	ug/l	1.37	301,514.03	2.093E+00	Pulse	0.30	3
Mn			2	76.761	ug/l	1.37	150,551.24	1.045E+00	Pulse	0.30	3
Fe			2	3953.923	ug/l	1.61	11,320,283.44	7.858E+01	Analog	0.30	3
Co			2	72.805	ug/l	1.11	419,693.41	2.913E+00	Pulse	0.30	3
Ni			2	70.190	ug/l	0.26	107,028.84	7.429E-01	Pulse	0.30	3
Cu			2	72.383	ug/l	1.03	306,650.74	2.129E+00	Pulse	0.30	3
Zn			2	62.039	ug/l	1.96	40,178.06	2.789E-01	Pulse	0.30	3
As			2	70.254	ug/l	2.18	25,284.16	1.755E-01	Pulse	1.00	3
Cd			2	70.302	ug/l	0.81	68,007.63	7.986E-02	Pulse	0.30	3
Sn			2	77.403	ug/l	0.32	165,033.90	1.938E-01	Pulse	0.30	3
Se			3	331.569	ug/l	0.91	31,930.00	1.676E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,118,375.66	0.73	89.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,456,881.06	0.58	87.3	Pulse	0.10	3
1	Ge		528,175.94	1.22	92.6	Pulse	0.10	3
1	Ge		733,738.30	0.77	92.4	Pulse	0.10	3
1	Rh		3,269,095.05	1.17	84.9	Pulse	0.10	3
1	In		3,594,741.70	1.34	90.2	Pulse	0.10	3
1	Tb		5,589,955.12	1.80	100.9	Analog	0.10	3
1	Ho		538,268.39	1.32	97.9	Pulse	0.10	3
1	Bi		3,027,212.24	0.89	90.7	Pulse	0.10	3
2	Sc		144,075.29	1.26	89.7	Pulse	0.30	3
2	Ge		93,157.68	1.54	93.6	Pulse	0.30	3
2	Ge		139,692.66	0.50	93.2	Pulse	0.30	3
2	Rh		2,054,039.64	0.47	84.4	Pulse	0.30	3
2	In		851,589.08	0.96	87.6	Pulse	0.30	3
2	Tb		3,037,087.93	0.69	92.8	Pulse	0.30	3
2	Ho		312,798.77	0.50	93.6	Pulse	0.30	3
2	Bi		1,929,679.09	0.57	86.2	Pulse	0.30	3
3	Sc		202,427.28	1.53	93.4	Pulse	0.30	3
3	Ge		125,656.02	1.06	89.6	Pulse	0.30	3
3	Ge		190,480.29	1.54	90.0	Pulse	0.30	3
3	Rh		1,857,669.65	1.33	85.2	Pulse	0.30	3
3	Tb		3,453,668.13	0.75	94.3	Pulse	0.30	3

Quantitation Report

File Name 051SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 14:22
Sample Name jc94229-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.020	ug/l	23.94	82.67	7.292E-05	Pulse	0.25	3
B			1	10.188	ug/l	1.93	28,243.82	2.484E-02	Pulse	0.15	3
Ca			1	363053.655	ug/l	3.93	155,530,394.35	6.160E+01	Analog	0.10	3
Sr			1	104.681	ug/l	4.40	2,351,356.68	6.967E-01	Pulse	0.10	3
Mo			1	30.869	ug/l	6.20	129,521.28	3.839E-02	Pulse	0.10	3
Ag			1	0.044	ug/l	16.60	516.70	1.397E-04	Pulse	0.10	3
Sn			1	1.182	ug/l	9.93	11,387.82	3.072E-03	Pulse	0.10	3
Sb			1	0.182	ug/l	18.04	2,046.87	3.545E-04	Pulse	0.10	3
Ba			1	646.801	ug/l	5.15	2,512,458.09	4.355E-01	Pulse	0.10	3
Tl			1	0.053	ug/l	20.61	1,323.44	4.264E-04	Pulse	0.10	3
Pb			1	0.673	ug/l	7.63	5,081.07	1.635E-03	Pulse	0.10	3
Pb			1	0.680	ug/l	8.19	4,517.52	1.453E-03	Pulse	0.10	3
Pb			1	0.690	ug/l	3.89	21,133.51	6.797E-03	Pulse	0.10	3
Na			2	104423.940	ug/l	6.62	63,691,248.58	4.498E+02	Analog	0.30	3
Mg			2	14382.342	ug/l	7.40	4,063,281.64	2.871E+01	Pulse	0.30	3
Al			2	645.547	ug/l	8.93	62,641.04	4.428E-01	Pulse	0.30	3
K			2	2945.524	ug/l	7.13	699,272.30	4.939E+00	Pulse	0.30	3
Ca			2	385865.464	ug/l	7.29	4,540,539.82	3.208E+01	Pulse	0.30	3
Ti			2	0.450	ug/l	20.18	41.11	2.919E-04	Pulse	0.30	3
V			2	0.710	ug/l	5.06	2,280.19	1.608E-02	Pulse	0.30	3
Cr			2	9.030	ug/l	8.14	33,292.39	2.353E-01	Pulse	0.30	3
Mn			2	3.276	ug/l	5.34	6,442.45	4.547E-02	Pulse	0.30	3
Fe			2	23.537	ug/l	8.20	71,685.04	5.064E-01	Pulse	0.30	3
Co			2	0.383	ug/l	6.73	2,219.99	1.568E-02	Pulse	0.30	3
Ni			2	0.733	ug/l	10.32	1,246.73	8.813E-03	Pulse	0.30	3
Cu			2	5.106	ug/l	10.20	27,922.67	1.973E-01	Pulse	0.30	3
Zn			2	21.385	ug/l	9.75	14,465.38	1.023E-01	Pulse	0.30	3
As			2	0.823	ug/l	9.12	311.00	2.194E-03	Pulse	1.00	3
Cd			2	0.022	ug/l	139.65	33.16	3.802E-05	Pulse	0.30	3
Sn			2	1.123	ug/l	8.16	3,327.06	3.949E-03	Pulse	0.30	3
Se			3	0.478	ug/l	11.09	50.33	2.610E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,137,353.72	2.83	91.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,526,881.84	3.13	89.8	Pulse	0.10	3
1	Ge		542,146.32	1.64	95.0	Pulse	0.10	3
1	Ge		747,476.16	2.07	94.2	Pulse	0.10	3
1	Rh		3,378,844.64	3.70	87.8	Pulse	0.10	3
1	In		3,712,361.72	3.27	93.2	Pulse	0.10	3
1	Tb		5,777,216.37	4.00	104.3	Analog	0.10	3
1	Ho		550,652.99	3.37	100.1	Pulse	0.10	3
1	Bi		3,111,039.64	2.52	93.2	Pulse	0.10	3
2	Sc		142,004.13	6.55	88.4	Pulse	0.30	3
2	Ge		91,856.70	4.28	92.3	Pulse	0.30	3
2	Ge		137,707.19	4.31	91.8	Pulse	0.30	3
2	Rh		2,001,285.34	5.57	82.2	Pulse	0.30	3
2	In		844,391.40	6.10	86.9	Pulse	0.30	3
2	Tb		2,979,241.34	5.79	91.0	Pulse	0.30	3
2	Ho		304,884.09	6.30	91.2	Pulse	0.30	3
2	Bi		1,883,610.83	5.92	84.1	Pulse	0.30	3
3	Sc		203,546.85	0.48	94.0	Pulse	0.30	3
3	Ge		126,779.83	0.60	90.4	Pulse	0.30	3
3	Ge		192,826.72	0.31	91.2	Pulse	0.30	3
3	Rh		1,875,432.43	0.33	86.0	Pulse	0.30	3
3	Tb		3,464,951.25	0.65	94.6	Pulse	0.30	3

Quantitation Report

File Name 052SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 14:27
Sample Name mp17220-sd1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.045	ug/l	64.30	54.67	4.237E-05	Pulse	0.25	3
B			1	17.924	ug/l	6.11	15,918.88	1.234E-02	Pulse	0.15	3
Ca			1	371113.824	ug/l	1.37	33,714,172.83	1.260E+01	Analog	0.10	3
Sr			1	101.018	ug/l	0.38	495,200.28	1.345E-01	Pulse	0.10	3
Mo			1	29.315	ug/l	1.93	26,970.06	7.328E-03	Pulse	0.10	3
Ag			1	0.060	ug/l	17.14	166.68	4.269E-05	Pulse	0.10	3
Sn			1	-0.292	ug/l	-38.17	2,613.65	6.689E-04	Pulse	0.10	3
Sb			1	0.265	ug/l	29.05	846.73	1.474E-04	Pulse	0.10	3
Ba			1	677.604	ug/l	0.72	524,430.16	9.126E-02	Pulse	0.10	3
Tl			1	0.062	ug/l	12.68	513.36	1.573E-04	Pulse	0.10	3
Pb			1	0.764	ug/l	9.74	1,426.79	4.370E-04	Pulse	0.10	3
Pb			1	0.671	ug/l	8.62	1,136.75	3.481E-04	Pulse	0.10	3
Pb			1	0.667	ug/l	8.38	5,287.23	1.619E-03	Pulse	0.10	3
Na			2	103689.262	ug/l	1.65	14,056,500.83	8.939E+01	Analog	0.30	3
Mg			2	14240.043	ug/l	0.56	894,160.45	5.686E+00	Pulse	0.30	3
Al			2	242.651	ug/l	2.80	5,865.52	3.730E-02	Pulse	0.30	3
K			2	2882.877	ug/l	0.77	162,915.94	1.036E+00	Pulse	0.30	3
Ca			2	372298.969	ug/l	0.30	973,461.80	6.190E+00	Pulse	0.30	3
Ti			2	1.262	ug/l	36.16	26.67	1.697E-04	Pulse	0.30	3
V			2	0.550	ug/l	8.10	641.13	4.078E-03	Pulse	0.30	3
Cr			2	8.069	ug/l	4.36	7,389.51	4.699E-02	Pulse	0.30	3
Mn			2	3.073	ug/l	6.81	1,458.42	9.273E-03	Pulse	0.30	3
Fe			2	25.660	ug/l	1.52	22,144.99	1.408E-01	Pulse	0.30	3
Co			2	0.378	ug/l	4.10	528.85	3.363E-03	Pulse	0.30	3
Ni			2	0.710	ug/l	3.09	403.34	2.565E-03	Pulse	0.30	3
Cu			2	-0.643	ug/l	-32.57	7,392.85	4.701E-02	Pulse	0.30	3
Zn			2	6.270	ug/l	8.60	2,324.64	1.478E-02	Pulse	0.30	3
As			2	0.643	ug/l	13.25	72.33	4.601E-04	Pulse	1.00	3
Cd			2	0.008	ug/l	188.39	14.57	1.535E-05	Pulse	0.30	3
Sn			2	-0.607	ug/l	-12.96	807.81	8.525E-04	Pulse	0.30	3
Se			3	0.996	ug/l	10.49	23.93	1.201E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,289,674.19	0.18	103.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,676,440.27	0.49	95.1	Pulse	0.10	3
1	Ge		542,212.09	0.35	95.1	Pulse	0.10	3
1	Ge		761,524.62	0.73	95.9	Pulse	0.10	3
1	Rh		3,680,789.01	0.61	95.6	Pulse	0.10	3
1	In		3,907,460.48	0.72	98.0	Pulse	0.10	3
1	Tb		5,746,834.92	1.12	103.8	Analog	0.10	3
1	Ho		551,936.41	0.77	100.3	Pulse	0.10	3
1	Bi		3,266,190.47	1.13	97.8	Pulse	0.10	3
2	Sc		157,253.38	0.44	97.9	Pulse	0.30	3
2	Ge		96,463.22	0.38	96.9	Pulse	0.30	3
2	Ge		145,181.78	0.25	96.8	Pulse	0.30	3
2	Rh		2,298,055.60	0.56	94.4	Pulse	0.30	3
2	In		947,878.45	0.93	97.5	Pulse	0.30	3
2	Tb		3,192,910.29	0.44	97.5	Pulse	0.30	3
2	Ho		323,939.97	0.16	96.9	Pulse	0.30	3
2	Bi		2,119,544.64	0.17	94.7	Pulse	0.30	3
3	Sc		206,527.15	1.10	95.3	Pulse	0.30	3
3	Ge		131,121.61	0.35	93.5	Pulse	0.30	3
3	Ge		199,309.69	0.21	94.2	Pulse	0.30	3
3	Rh		1,993,367.84	0.97	91.4	Pulse	0.30	3
3	Tb		3,487,424.10	0.43	95.2	Pulse	0.30	3

Quantitation Report

File Name 053SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 14:32
Sample Name jc94139-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.292	ug/l	21.23	916.04	8.042E-04	Pulse	0.25	3
B			1	73.876	ug/l	1.08	165,719.43	1.454E-01	Pulse	0.15	3
Ca			1	14419.957	ug/l	0.36	5,933,737.62	2.451E+00	Analog	0.10	3
Sr			1	44.760	ug/l	0.59	989,842.69	2.979E-01	Pulse	0.10	3
Mo			1	1.126	ug/l	7.10	4,794.26	1.443E-03	Pulse	0.10	3
Ag			1	0.054	ug/l	2.31	613.37	1.696E-04	Pulse	0.10	3
Sn			1	0.848	ug/l	2.15	8,769.41	2.424E-03	Pulse	0.10	3
Sb			1	0.180	ug/l	2.94	1,900.20	3.505E-04	Pulse	0.10	3
Ba			1	91.117	ug/l	1.93	332,667.08	6.136E-02	Pulse	0.10	3
Tl			1	0.028	ug/l	8.61	813.39	2.594E-04	Pulse	0.10	3
Pb			1	1.288	ug/l	2.46	9,560.10	3.050E-03	Pulse	0.10	3
Pb			1	1.195	ug/l	6.51	7,822.38	2.495E-03	Pulse	0.10	3
Pb			1	1.218	ug/l	3.50	36,705.89	1.171E-02	Pulse	0.10	3
Na			2	124901.080	ug/l	0.86	76,611,759.18	5.380E+02	Analog	0.30	3
Mg			2	2350.969	ug/l	1.01	668,426.30	4.694E+00	Pulse	0.30	3
Al			2	2716.597	ug/l	0.10	263,394.15	1.850E+00	Pulse	0.30	3
K			2	2163.383	ug/l	1.15	519,834.22	3.651E+00	Pulse	0.30	3
Ca			2	14321.966	ug/l	0.86	169,631.74	1.191E+00	Pulse	0.30	3
Ti			2	50.350	ug/l	7.01	4,433.29	3.112E-02	Pulse	0.30	3
V			2	13.644	ug/l	1.07	39,166.29	2.750E-01	Pulse	0.30	3
Cr			2	6.469	ug/l	2.16	24,240.15	1.702E-01	Pulse	0.30	3
Mn			2	190.532	ug/l	1.40	369,169.36	2.593E+00	Pulse	0.30	3
Fe			2	3186.878	ug/l	1.04	9,020,202.42	6.335E+01	Analog	0.30	3
Co			2	1.508	ug/l	1.43	8,641.35	6.068E-02	Pulse	0.30	3
Ni			2	5.878	ug/l	2.93	8,999.23	6.319E-02	Pulse	0.30	3
Cu			2	3.841	ug/l	1.51	22,920.54	1.610E-01	Pulse	0.30	3
Zn			2	13.471	ug/l	5.05	9,661.85	6.787E-02	Pulse	0.30	3
As			2	2.440	ug/l	4.75	887.03	6.231E-03	Pulse	1.00	3
Cd			2	0.023	ug/l	62.55	34.07	3.934E-05	Pulse	0.30	3
Sn			2	0.796	ug/l	8.89	2,716.94	3.136E-03	Pulse	0.30	3
Se			3	1.528	ug/l	1.07	152.47	7.918E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,140,006.03	0.97	91.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,421,135.80	0.74	86.1	Pulse	0.10	3
1	Ge		522,310.08	0.54	91.6	Pulse	0.10	3
1	Ge		723,168.76	0.69	91.1	Pulse	0.10	3
1	Rh		3,322,385.06	0.67	86.3	Pulse	0.10	3
1	In		3,617,139.28	0.38	90.8	Pulse	0.10	3
1	Tb		5,422,870.34	2.16	97.9	Mix	0.10	3
1	Ho		537,513.36	0.46	97.7	Pulse	0.10	3
1	Bi		3,135,258.39	0.84	93.9	Pulse	0.10	3
2	Sc		142,407.50	1.16	88.6	Pulse	0.30	3
2	Ge		92,726.87	0.50	93.2	Pulse	0.30	3
2	Ge		139,642.34	0.16	93.1	Pulse	0.30	3
2	Rh		2,123,957.00	0.40	87.3	Pulse	0.30	3
2	In		866,509.03	0.36	89.2	Pulse	0.30	3
2	Tb		3,045,016.54	0.22	93.0	Pulse	0.30	3
2	Ho		315,728.57	0.67	94.5	Pulse	0.30	3
2	Bi		2,020,140.61	0.33	90.2	Pulse	0.30	3
3	Sc		196,496.23	0.98	90.7	Pulse	0.30	3
3	Ge		127,157.25	1.04	90.7	Pulse	0.30	3
3	Ge		192,560.33	0.40	91.0	Pulse	0.30	3
3	Rh		1,927,041.45	0.45	88.3	Pulse	0.30	3
3	Tb		3,502,953.13	0.78	95.6	Pulse	0.30	3

Quantitation Report

File Name	054SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 14:37
Sample Name	jc94139-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.209	ug/l	5.01	669.36	5.819E-04	Pulse	0.25	3
B			1	13.947	ug/l	1.37	36,762.30	3.195E-02	Pulse	0.15	3
Ca			1	1544.858	ug/l	0.49	652,608.86	2.664E-01	Pulse	0.10	3
Sr			1	7.421	ug/l	1.14	173,335.95	4.948E-02	Pulse	0.10	3
Mo			1	0.590	ug/l	5.27	2,723.69	7.774E-04	Pulse	0.10	3
Ag			1	0.034	ug/l	22.70	406.69	1.082E-04	Pulse	0.10	3
Sn			1	0.462	ug/l	1.96	6,301.49	1.677E-03	Pulse	0.10	3
Sb			1	0.238	ug/l	8.86	2,516.96	4.440E-04	Pulse	0.10	3
Ba			1	42.667	ug/l	1.89	163,037.03	2.874E-02	Pulse	0.10	3
Tl			1	0.065	ug/l	4.30	1,676.83	5.088E-04	Pulse	0.10	3
Pb			1	1.442	ug/l	3.15	11,221.58	3.404E-03	Pulse	0.10	3
Pb			1	1.434	ug/l	2.14	9,826.96	2.981E-03	Pulse	0.10	3
Pb			1	1.423	ug/l	1.88	44,868.46	1.361E-02	Pulse	0.10	3
Na			2	13103.535	ug/l	0.39	8,053,438.01	5.651E+01	Analog	0.30	3
Mg			2	739.156	ug/l	0.75	210,532.45	1.477E+00	Pulse	0.30	3
Al			2	3309.147	ug/l	1.03	320,963.77	2.252E+00	Pulse	0.30	3
K			2	1267.205	ug/l	0.22	309,831.08	2.174E+00	Pulse	0.30	3
Ca			2	1526.828	ug/l	2.67	18,187.87	1.276E-01	Pulse	0.30	3
Ti			2	40.064	ug/l	6.31	3,528.52	2.476E-02	Pulse	0.30	3
V			2	6.631	ug/l	0.28	19,185.67	1.346E-01	Pulse	0.30	3
Cr			2	3.694	ug/l	2.50	14,222.88	9.980E-02	Pulse	0.30	3
Mn			2	94.420	ug/l	0.14	183,166.28	1.285E+00	Pulse	0.30	3
Fe			2	3129.858	ug/l	0.35	8,866,371.87	6.221E+01	Analog	0.30	3
Co			2	1.132	ug/l	1.30	6,502.99	4.563E-02	Pulse	0.30	3
Ni			2	2.711	ug/l	3.45	4,235.03	2.972E-02	Pulse	0.30	3
Cu			2	0.854	ug/l	2.13	10,718.04	7.521E-02	Pulse	0.30	3
Zn			2	6.925	ug/l	6.08	5,618.82	3.942E-02	Pulse	0.30	3
As			2	1.397	ug/l	4.80	516.68	3.626E-03	Pulse	1.00	3
Cd			2	0.017	ug/l	41.39	28.68	3.245E-05	Pulse	0.30	3
Sn			2	0.436	ug/l	19.57	1,980.15	2.241E-03	Pulse	0.30	3
Se			3	0.311	ug/l	8.92	34.80	1.764E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,150,581.27	0.84	92.1	Pulse	0.10	3
1	Sc		2,449,600.69	0.53	87.1	Pulse	0.10	3
1	Ge		539,432.84	0.28	94.6	Pulse	0.10	3

Quantitation Report

1	Ge		740,875.95	0.21	93.3	Pulse	0.10	3
1	Rh		3,502,939.12	0.59	91.0	Pulse	0.10	3
1	In		3,757,600.01	1.04	94.3	Pulse	0.10	3
1	Tb		5,673,655.54	2.04	102.5	Analog	0.10	3
1	Ho		543,869.39	1.32	98.9	Pulse	0.10	3
1	Bi		3,296,071.93	0.88	98.7	Pulse	0.10	3
2	Sc		142,516.27	0.34	88.7	Pulse	0.30	3
2	Ge		93,608.08	0.90	94.1	Pulse	0.30	3
2	Ge		140,989.71	0.06	94.0	Pulse	0.30	3
2	Rh		2,198,584.36	0.90	90.3	Pulse	0.30	3
2	In		883,811.40	0.18	90.9	Pulse	0.30	3
2	Tb		3,070,672.03	0.77	93.8	Pulse	0.30	3
2	Ho		317,129.52	1.25	94.9	Pulse	0.30	3
2	Bi		2,101,342.14	0.69	93.9	Pulse	0.30	3
3	Sc		201,287.11	0.92	92.9	Pulse	0.30	3
3	Ge		130,791.42	0.81	93.2	Pulse	0.30	3
3	Ge		197,342.87	0.59	93.3	Pulse	0.30	3
3	Rh		2,026,985.34	0.37	92.9	Pulse	0.30	3
3	Tb		3,552,644.44	0.63	97.0	Pulse	0.30	3

Quantitation Report

File Name	055SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 14:42
Sample Name	jc94139-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.047	ug/l	4.30	162.67	1.436E-04	Pulse	0.25	3
B			1	15.688	ug/l	2.55	39,933.91	3.525E-02	Pulse	0.15	3
Ca			1	6251.621	ug/l	0.48	2,566,067.05	1.065E+00	Pulse	0.10	3
Sr			1	19.337	ug/l	0.40	445,535.19	1.288E-01	Pulse	0.10	3
Mo			1	2.064	ug/l	7.02	9,019.57	2.608E-03	Pulse	0.10	3
Ag			1	0.096	ug/l	9.44	1,090.08	2.948E-04	Pulse	0.10	3
Sn			1	1.015	ug/l	8.88	10,163.66	2.748E-03	Pulse	0.10	3
Sb			1	0.493	ug/l	5.86	4,800.93	8.512E-04	Pulse	0.10	3
Ba			1	110.360	ug/l	1.32	419,235.27	7.432E-02	Pulse	0.10	3
Tl			1	0.019	ug/l	2.25	666.71	2.038E-04	Pulse	0.10	3
Pb			1	2.868	ug/l	0.99	21,873.62	6.685E-03	Pulse	0.10	3
Pb			1	2.725	ug/l	0.86	18,301.93	5.594E-03	Pulse	0.10	3
Pb			1	2.771	ug/l	0.64	85,552.88	2.615E-02	Pulse	0.10	3
Na			2	11371.077	ug/l	0.50	6,823,440.14	4.905E+01	Analog	0.30	3
Mg			2	1882.761	ug/l	0.47	523,037.88	3.760E+00	Pulse	0.30	3
Al			2	1753.839	ug/l	1.07	166,330.71	1.196E+00	Pulse	0.30	3
K			2	1250.906	ug/l	0.59	298,704.30	2.147E+00	Pulse	0.30	3
Ca			2	6248.998	ug/l	0.58	72,364.90	5.202E-01	Pulse	0.30	3
Ti			2	74.551	ug/l	4.72	6,407.99	4.606E-02	Pulse	0.30	3
V			2	10.334	ug/l	1.66	29,045.50	2.088E-01	Pulse	0.30	3
Cr			2	10.801	ug/l	1.04	38,983.62	2.802E-01	Pulse	0.30	3
Mn			2	154.396	ug/l	1.03	292,286.85	2.101E+00	Pulse	0.30	3
Fe			2	5299.908	ug/l	0.37	14,651,984.97	1.053E+02	Analog	0.30	3
Co			2	1.997	ug/l	0.63	11,164.34	8.025E-02	Pulse	0.30	3
Ni			2	6.925	ug/l	1.47	10,329.99	7.425E-02	Pulse	0.30	3
Cu			2	21.700	ug/l	0.30	93,713.63	6.736E-01	Pulse	0.30	3
Zn			2	87.504	ug/l	1.77	54,193.61	3.896E-01	Pulse	0.30	3
As			2	1.699	ug/l	3.69	609.34	4.380E-03	Pulse	1.00	3
Cd			2	0.101	ug/l	11.42	111.55	1.285E-04	Pulse	0.30	3
Sn			2	0.978	ug/l	4.96	3,115.90	3.589E-03	Pulse	0.30	3
Se			3	0.223	ug/l	12.64	25.60	1.318E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,133,075.65	0.89	90.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,409,480.49	0.36	85.7	Pulse	0.10	3
1	Ge		538,880.97	0.38	94.5	Pulse	0.10	3
1	Ge		743,741.13	0.93	93.7	Pulse	0.10	3
1	Rh		3,459,926.20	0.60	89.9	Pulse	0.10	3
1	In		3,698,435.38	0.48	92.8	Pulse	0.10	3
1	Tb		5,641,098.88	0.58	101.9	Analog	0.10	3
1	Ho		543,026.32	0.87	98.7	Pulse	0.10	3
1	Bi		3,271,839.22	0.87	98.0	Pulse	0.10	3
2	Sc		139,120.40	0.59	86.6	Pulse	0.30	3
2	Ge		93,584.71	0.38	94.0	Pulse	0.30	3
2	Ge		139,350.92	0.97	92.9	Pulse	0.30	3
2	Rh		2,172,350.47	0.51	89.2	Pulse	0.30	3
2	In		868,276.25	0.28	89.3	Pulse	0.30	3
2	Tb		3,045,935.36	0.16	93.0	Pulse	0.30	3
2	Ho		315,193.46	0.86	94.3	Pulse	0.30	3
2	Bi		2,084,404.71	0.96	93.1	Pulse	0.30	3
3	Sc		195,882.89	0.27	90.4	Pulse	0.30	3
3	Ge		128,818.13	1.32	91.8	Pulse	0.30	3
3	Ge		194,204.49	0.22	91.8	Pulse	0.30	3
3	Rh		2,006,736.45	0.14	92.0	Pulse	0.30	3
3	Tb		3,520,833.33	0.54	96.1	Pulse	0.30	3

Quantitation Report

File Name	056SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 14:47
Sample Name	jc94139-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.958	ug/l	6.40	2,845.62	2.597E-03	Pulse	0.25	3
B			1	62.772	ug/l	1.16	136,214.85	1.244E-01	Pulse	0.15	3
Ca			1	136811.929	ug/l	0.47	57,161,400.81	2.322E+01	Analog	0.10	3
Sr			1	59.174	ug/l	0.97	1,270,957.25	3.939E-01	Pulse	0.10	3
Mo			1	1.361	ug/l	1.67	5,597.85	1.735E-03	Pulse	0.10	3
Ag			1	0.644	ug/l	2.89	6,915.12	1.946E-03	Pulse	0.10	3
Sn			1	0.645	ug/l	8.74	7,218.60	2.031E-03	Pulse	0.10	3
Sb			1	0.221	ug/l	10.12	2,313.59	4.162E-04	Pulse	0.10	3
Ba			1	207.349	ug/l	0.80	776,589.83	1.396E-01	Pulse	0.10	3
Tl			1	0.066	ug/l	13.52	1,556.83	5.155E-04	Pulse	0.10	3
Pb			1	2.849	ug/l	1.68	20,044.29	6.640E-03	Pulse	0.10	3
Pb			1	2.757	ug/l	2.42	17,083.88	5.660E-03	Pulse	0.10	3
Pb			1	2.776	ug/l	0.57	79,055.51	2.619E-02	Pulse	0.10	3
Na			2	218175.603	ug/l	1.40	134,446,167.99	9.397E+02	Analog	0.30	3
Mg			2	6243.532	ug/l	1.98	1,782,920.14	1.246E+01	Pulse	0.30	3
Al			2	7837.110	ug/l	1.88	762,176.70	5.328E+00	Pulse	0.30	3
K			2	2776.801	ug/l	1.70	666,872.61	4.661E+00	Pulse	0.30	3
Ca			2	137962.696	ug/l	1.87	1,640,774.66	1.147E+01	Pulse	0.30	3
Ti			2	124.009	ug/l	1.29	10,961.53	7.662E-02	Pulse	0.30	3
V			2	18.738	ug/l	2.89	53,928.34	3.770E-01	Pulse	0.30	3
Cr			2	10.444	ug/l	1.99	38,789.83	2.711E-01	Pulse	0.30	3
Mn			2	144.114	ug/l	2.66	280,540.04	1.961E+00	Pulse	0.30	3
Fe			2	7597.069	ug/l	2.73	21,593,056.36	1.510E+02	Analog	0.30	3
Co			2	3.159	ug/l	2.98	18,126.33	1.267E-01	Pulse	0.30	3
Ni			2	8.369	ug/l	2.17	12,807.31	8.952E-02	Pulse	0.30	3
Cu			2	10.123	ug/l	3.83	48,817.86	3.413E-01	Pulse	0.30	3
Zn			2	18.172	ug/l	3.91	12,629.40	8.830E-02	Pulse	0.30	3
As			2	3.445	ug/l	4.75	1,249.72	8.738E-03	Pulse	1.00	3
Cd			2	0.021	ug/l	75.10	31.78	3.774E-05	Pulse	0.30	3
Sn			2	0.594	ug/l	11.36	2,214.63	2.633E-03	Pulse	0.30	3
Se			3	0.854	ug/l	4.63	83.93	4.512E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,095,387.80	0.35	87.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,462,202.31	0.81	87.5	Pulse	0.10	3
1	Ge		511,279.18	0.63	89.6	Pulse	0.10	3
1	Ge		704,464.68	0.71	88.7	Pulse	0.10	3
1	Rh		3,227,392.14	1.89	83.8	Pulse	0.10	3
1	In		3,553,347.49	1.51	89.2	Pulse	0.10	3
1	Tb		5,562,704.29	1.67	100.5	Analog	0.10	3
1	Ho		538,195.50	1.59	97.8	Pulse	0.10	3
1	Bi		3,018,541.10	0.79	90.4	Pulse	0.10	3
2	Sc		143,090.33	1.75	89.0	Pulse	0.30	3
2	Ge		89,268.75	0.81	89.7	Pulse	0.30	3
2	Ge		133,687.53	1.24	89.1	Pulse	0.30	3
2	Rh		2,010,557.49	1.50	82.6	Pulse	0.30	3
2	In		841,495.01	1.46	86.6	Pulse	0.30	3
2	Tb		2,994,575.23	0.79	91.5	Pulse	0.30	3
2	Ho		311,723.22	1.29	93.3	Pulse	0.30	3
2	Bi		1,898,739.09	1.36	84.8	Pulse	0.30	3
3	Sc		197,574.42	0.54	91.2	Pulse	0.30	3
3	Ge		122,814.75	0.62	87.6	Pulse	0.30	3
3	Ge		186,026.10	0.41	87.9	Pulse	0.30	3
3	Rh		1,812,482.01	0.72	83.1	Pulse	0.30	3
3	Tb		3,366,185.22	0.23	91.9	Pulse	0.30	3

Quantitation Report

File Name	057_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 14:52
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	46.575	ug/l	0.86	299,859.43	2.507E-01	Pulse	0.25	3
B			1	89.855	ug/l	2.26	413,447.53	3.457E-01	Pulse	0.15	3
Ca			1	5044.104	ug/l	0.21	4,336,528.17	1.716E+00	Pulse	0.10	3
Sr			1	51.519	ug/l	1.31	2,402,160.69	6.857E-01	Pulse	0.10	3
Mo			1	50.900	ug/l	0.65	443,181.00	1.265E-01	Pulse	0.10	3
Ag			1	48.673	ug/l	0.65	1,100,824.83	2.930E-01	Pulse	0.10	3
Sn			1	49.758	ug/l	1.19	726,856.55	1.935E-01	Pulse	0.10	3
Sb			1	49.723	ug/l	2.01	900,700.30	1.590E-01	Pulse	0.10	3
Ba			1	48.081	ug/l	0.56	366,767.01	6.476E-02	Pulse	0.10	3
Tl			1	50.803	ug/l	0.49	2,163,217.42	6.770E-01	Pulse	0.10	3
Pb			1	50.817	ug/l	0.44	747,458.48	2.339E-01	Pulse	0.10	3
Pb			1	50.859	ug/l	0.39	658,371.24	2.060E-01	Pulse	0.10	3
Pb			1	50.810	ug/l	0.34	3,020,777.20	9.454E-01	Pulse	0.10	3
Na			2	5110.042	ug/l	1.71	6,597,060.71	4.409E+01	Analog	0.30	3
Mg			2	4846.718	ug/l	0.80	2,895,144.88	1.935E+01	Pulse	0.30	3
Al			2	4820.677	ug/l	0.46	980,606.04	6.553E+00	Pulse	0.30	3
K			2	4920.257	ug/l	1.16	2,439,000.18	1.630E+01	Pulse	0.30	3
Ca			2	5107.035	ug/l	0.63	127,157.12	8.498E-01	Pulse	0.30	3
Ti			2	48.861	ug/l	2.39	9,033.65	6.038E-02	Pulse	0.30	3
V			2	50.019	ug/l	1.32	299,946.09	2.005E+00	Pulse	0.30	3
Cr			2	49.302	ug/l	0.58	375,461.46	2.509E+00	Pulse	0.30	3
Mn			2	49.723	ug/l	1.53	202,529.95	1.354E+00	Pulse	0.30	3
Fe			2	5076.464	ug/l	0.71	30,184,972.13	2.017E+02	Analog	0.30	3
Co			2	49.193	ug/l	1.11	589,055.45	3.937E+00	Pulse	0.30	3
Ni			2	48.508	ug/l	1.11	153,578.58	1.026E+00	Pulse	0.30	3
Cu			2	48.282	ug/l	0.59	422,385.81	2.823E+00	Pulse	0.30	3
Zn			2	49.229	ug/l	0.86	65,414.26	4.372E-01	Pulse	0.30	3
As			2	49.921	ug/l	0.37	37,318.37	2.494E-01	Pulse	1.00	3
Cd			2	50.010	ug/l	1.26	101,897.13	1.136E-01	Pulse	0.30	3
Sn			2	49.668	ug/l	0.62	222,782.99	2.484E-01	Pulse	0.30	3
Se			3	198.054	ug/l	0.93	38,466.37	2.003E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,196,231.01	0.67	95.8	Pulse	0.10	3
1	Sc		2,527,247.88	0.68	89.8	Pulse	0.10	3
1	Ge		519,002.01	0.52	91.0	Pulse	0.10	3

Quantitation Report

1	Ge		723,547.31	0.68	91.1	Pulse	0.10	3
1	Rh		3,503,258.18	0.60	91.0	Pulse	0.10	3
1	In		3,756,820.93	0.44	94.3	Pulse	0.10	3
1	Tb		5,663,455.54	0.61	102.3	Analog	0.10	3
1	Ho		539,691.27	0.94	98.1	Pulse	0.10	3
1	Bi		3,195,218.60	0.15	95.7	Pulse	0.10	3
2	Sc		149,643.73	1.39	93.1	Pulse	0.30	3
2	Ge		91,280.68	1.40	91.7	Pulse	0.30	3
2	Ge		138,157.61	1.66	92.1	Pulse	0.30	3
2	Rh		2,221,034.22	0.90	91.2	Pulse	0.30	3
2	In		896,956.75	1.20	92.3	Pulse	0.30	3
2	Tb		3,055,851.96	1.41	93.3	Pulse	0.30	3
2	Ho		310,965.68	1.16	93.0	Pulse	0.30	3
2	Bi		2,051,920.61	0.67	91.6	Pulse	0.30	3
3	Sc		196,784.06	0.38	90.8	Pulse	0.30	3
3	Ge		126,798.17	0.22	90.4	Pulse	0.30	3
3	Ge		192,078.99	0.65	90.8	Pulse	0.30	3
3	Rh		1,932,291.80	0.77	88.6	Pulse	0.30	3
3	Tb		3,388,482.23	0.15	92.5	Pulse	0.30	3

Quantitation Report

File Name 058_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 14:57
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	39.31	54.67	4.463E-05	Pulse	0.25	3
B			1	3.553	ug/l	5.81	23,267.49	1.901E-02	Pulse	0.15	3
Ca			1	-0.161	ug/l	-181.32	10,903.99	4.260E-03	Pulse	0.10	3
Sr			1	0.008	ug/l	31.71	743.37	2.044E-04	Pulse	0.10	3
Mo			1	0.059	ug/l	31.21	696.71	1.913E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	38.32	340.02	8.840E-05	Pulse	0.10	3
Sn			1	0.151	ug/l	9.28	5,261.08	1.368E-03	Pulse	0.10	3
Sb			1	0.047	ug/l	8.52	1,190.09	2.122E-04	Pulse	0.10	3
Ba			1	0.010	ug/l	73.52	163.34	2.914E-05	Pulse	0.10	3
Tl			1	0.021	ug/l	2.83	1,166.77	3.581E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	25.97	496.69	1.523E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	53.57	366.69	1.126E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	23.94	1,693.44	5.199E-04	Pulse	0.10	3
Na			2	13.021	ug/l	2.94	28,246.92	1.860E-01	Pulse	0.30	3
Mg			2	0.530	ug/l	13.37	628.91	4.141E-03	Pulse	0.30	3
Al			2	-0.437	ug/l	-34.23	568.91	3.745E-03	Pulse	0.30	3
K			2	0.904	ug/l	23.73	13,513.34	8.897E-02	Pulse	0.30	3
Ca			2	3.412	ug/l	21.37	192.23	1.266E-03	Pulse	0.30	3
Ti			2	-0.005	ug/l	-198.59	1.11	7.367E-06	Pulse	0.30	3
V			2	0.008	ug/l	83.61	331.12	2.181E-03	Pulse	0.30	3
Cr			2	0.002	ug/l	429.59	927.81	6.110E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	12.63	146.67	9.657E-04	Pulse	0.30	3
Fe			2	0.846	ug/l	5.54	11,013.80	7.250E-02	Pulse	0.30	3
Co			2	0.005	ug/l	36.16	112.19	7.385E-04	Pulse	0.30	3
Ni			2	0.009	ug/l	41.54	192.23	1.265E-03	Pulse	0.30	3
Cu			2	-0.637	ug/l	-1.86	2,146.84	1.413E-02	Pulse	0.30	3
Zn			2	-0.510	ug/l	-8.37	744.47	4.902E-03	Pulse	0.30	3
As			2	0.001	ug/l	965.26	21.67	1.428E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.002	ug/l	245.43	16.59	1.796E-05	Pulse	0.30	3
Sn			2	0.159	ug/l	16.24	1,795.69	1.945E-03	Pulse	0.30	3
Se			3	0.109	ug/l	4.26	25.00	1.295E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,224,358.70	0.47	98.0	Pulse	0.10	3
1	Sc		2,559,559.76	0.34	91.0	Pulse	0.10	3
1	Ge		524,005.58	0.15	91.9	Pulse	0.10	3
1	Ge		732,164.83	0.50	92.2	Pulse	0.10	3
1	Rh		3,639,780.57	1.00	94.5	Pulse	0.10	3
1	In		3,844,700.82	0.21	96.5	Pulse	0.10	3
1	Tb		5,608,010.54	0.20	101.3	Analog	0.10	3
1	Ho		533,376.32	0.40	97.0	Pulse	0.10	3
1	Bi		3,258,441.41	0.78	97.6	Pulse	0.10	3
2	Sc		151,890.58	0.69	94.5	Pulse	0.30	3
2	Ge		93,303.98	1.23	93.8	Pulse	0.30	3
2	Ge		140,848.21	1.13	93.9	Pulse	0.30	3
2	Rh		2,283,227.06	0.64	93.8	Pulse	0.30	3
2	In		922,805.08	0.65	95.0	Pulse	0.30	3
2	Tb		3,092,962.72	0.64	94.5	Pulse	0.30	3
2	Ho		312,206.36	1.09	93.4	Pulse	0.30	3
2	Bi		2,111,527.21	0.45	94.3	Pulse	0.30	3
3	Sc		196,437.12	1.15	90.7	Pulse	0.30	3
3	Ge		127,629.22	1.94	91.0	Pulse	0.30	3
3	Ge		192,982.07	1.04	91.2	Pulse	0.30	3
3	Rh		1,987,516.52	0.35	91.1	Pulse	0.30	3
3	Tb		3,328,372.23	0.56	90.9	Pulse	0.30	3

Quantitation Report

File Name 059SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 15:02
Sample Name jc94229-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.122	ug/l	14.64	389.34	3.464E-04	Pulse	0.25	3
B			1	12.557	ug/l	4.70	32,963.39	2.932E-02	Pulse	0.15	3
Ca			1	413346.682	ug/l	0.56	171,447,857.44	7.013E+01	Analog	0.10	3
Sr			1	293.999	ug/l	0.56	6,329,045.32	1.956E+00	Analog	0.10	3
Mo			1	0.839	ug/l	4.39	3,513.85	1.086E-03	Pulse	0.10	3
Ag			1	0.033	ug/l	6.79	373.35	1.045E-04	Pulse	0.10	3
Sn			1	0.665	ug/l	9.00	7,395.38	2.069E-03	Pulse	0.10	3
Sb			1	0.150	ug/l	7.87	1,596.81	3.025E-04	Pulse	0.10	3
Ba			1	1132.458	ug/l	0.32	4,024,204.94	7.625E-01	Pulse	0.10	3
Tl			1	0.044	ug/l	6.49	1,083.41	3.650E-04	Pulse	0.10	3
Pb			1	1.155	ug/l	3.76	8,139.20	2.742E-03	Pulse	0.10	3
Pb			1	1.088	ug/l	3.65	6,768.48	2.280E-03	Pulse	0.10	3
Pb			1	1.088	ug/l	0.81	31,153.82	1.050E-02	Pulse	0.10	3
Na			2	46887.473	ug/l	2.42	29,716,332.15	2.020E+02	Analog	0.30	3
Mg			2	19152.452	ug/l	1.41	5,623,476.17	3.823E+01	Analog	0.30	3
Al			2	1812.889	ug/l	0.25	181,804.91	1.236E+00	Pulse	0.30	3
K			2	3731.995	ug/l	1.56	917,255.69	6.235E+00	Pulse	0.30	3
Ca			2	415578.227	ug/l	2.58	5,081,626.46	3.455E+01	Mix	0.30	3
Ti			2	24.382	ug/l	9.20	2,216.89	1.507E-02	Pulse	0.30	3
V			2	3.137	ug/l	1.70	9,516.16	6.467E-02	Pulse	0.30	3
Cr			2	2.265	ug/l	1.23	9,346.07	6.352E-02	Pulse	0.30	3
Mn			2	227.877	ug/l	1.43	456,120.17	3.101E+00	Pulse	0.30	3
Fe			2	1743.198	ug/l	2.21	5,099,574.52	3.467E+01	Pulse	0.30	3
Co			2	0.773	ug/l	0.16	4,598.05	3.125E-02	Pulse	0.30	3
Ni			2	2.355	ug/l	3.89	3,817.15	2.595E-02	Pulse	0.30	3
Cu			2	0.547	ug/l	12.19	9,768.55	6.641E-02	Pulse	0.30	3
Zn			2	6.587	ug/l	3.26	5,583.23	3.796E-02	Pulse	0.30	3
As			2	1.020	ug/l	5.51	395.01	2.686E-03	Pulse	1.00	3
Cd			2	0.027	ug/l	7.64	38.56	4.443E-05	Pulse	0.30	3
Sn			2	0.648	ug/l	7.74	2,403.55	2.768E-03	Pulse	0.30	3
Se			3	5.158	ug/l	3.49	489.81	2.627E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,124,227.73	0.22	90.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,444,560.54	0.37	86.9	Pulse	0.10	3
1	Ge		508,738.40	0.74	89.2	Pulse	0.10	3
1	Ge		703,008.24	1.17	88.6	Pulse	0.10	3
1	Rh		3,235,185.79	1.34	84.0	Pulse	0.10	3
1	In		3,573,055.07	0.81	89.7	Pulse	0.10	3
1	Tb		5,277,820.76	0.73	95.3	Pulse	0.10	3
1	Ho		529,709.91	1.05	96.3	Pulse	0.10	3
1	Bi		2,968,150.79	0.10	88.9	Pulse	0.10	3
2	Sc		147,124.91	1.21	91.6	Pulse	0.30	3
2	Ge		90,314.51	0.77	90.8	Pulse	0.30	3
2	Ge		136,783.75	1.08	91.2	Pulse	0.30	3
2	Rh		2,063,367.70	1.23	84.8	Pulse	0.30	3
2	In		868,039.26	1.14	89.3	Pulse	0.30	3
2	Tb		3,012,084.53	1.37	92.0	Pulse	0.30	3
2	Ho		310,195.91	1.55	92.8	Pulse	0.30	3
2	Bi		1,922,877.15	1.09	85.9	Pulse	0.30	3
3	Sc		199,146.58	4.58	91.9	Pulse	0.30	3
3	Ge		123,465.01	2.56	88.0	Pulse	0.30	3
3	Ge		186,431.88	3.07	88.1	Pulse	0.30	3
3	Rh		1,828,781.18	4.26	83.8	Pulse	0.30	3
3	Tb		3,363,400.98	4.17	91.8	Pulse	0.30	3

Quantitation Report

File Name 060SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 15:07
Sample Name jc94229-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.062	ug/l	17.06	206.67	1.863E-04	Pulse	0.25	3
B			1	62.608	ug/l	0.91	137,672.52	1.240E-01	Pulse	0.15	3
Ca			1	30172.873	ug/l	0.21	12,171,024.82	5.124E+00	Analog	0.10	3
Sr			1	26.804	ug/l	1.06	581,611.53	1.785E-01	Pulse	0.10	3
Mo			1	5.204	ug/l	2.82	21,211.46	6.508E-03	Pulse	0.10	3
Ag			1	0.095	ug/l	9.92	1,030.06	2.920E-04	Pulse	0.10	3
Sn			1	0.582	ug/l	4.69	6,731.69	1.909E-03	Pulse	0.10	3
Sb			1	0.217	ug/l	4.80	2,163.57	4.093E-04	Pulse	0.10	3
Ba			1	51.930	ug/l	1.77	184,874.50	3.498E-02	Pulse	0.10	3
Tl			1	0.141	ug/l	12.14	2,997.12	1.011E-03	Pulse	0.10	3
Pb			1	0.610	ug/l	3.05	4,414.17	1.490E-03	Pulse	0.10	3
Pb			1	0.614	ug/l	2.14	3,910.68	1.320E-03	Pulse	0.10	3
Pb			1	0.602	ug/l	1.52	17,704.93	5.975E-03	Pulse	0.10	3
Na			2	216442.908	ug/l	0.64	132,276,488.08	9.323E+02	Analog	0.30	3
Mg			2	1545.358	ug/l	0.31	437,897.22	3.086E+00	Pulse	0.30	3
Al			2	1333.632	ug/l	1.65	129,139.89	9.102E-01	Pulse	0.30	3
K			2	1718.752	ug/l	1.13	414,038.83	2.918E+00	Pulse	0.30	3
Ca			2	29231.356	ug/l	0.17	344,872.59	2.431E+00	Pulse	0.30	3
Ti			2	17.571	ug/l	12.09	1,542.45	1.087E-02	Pulse	0.30	3
V			2	7.258	ug/l	1.46	20,883.27	1.472E-01	Pulse	0.30	3
Cr			2	10.565	ug/l	0.54	38,908.98	2.742E-01	Pulse	0.30	3
Mn			2	83.404	ug/l	0.74	161,098.70	1.135E+00	Pulse	0.30	3
Fe			2	953.839	ug/l	0.83	2,694,006.70	1.899E+01	Pulse	0.30	3
Co			2	0.526	ug/l	3.80	3,034.15	2.138E-02	Pulse	0.30	3
Ni			2	3.472	ug/l	3.80	5,357.59	3.776E-02	Pulse	0.30	3
Cu			2	1.504	ug/l	0.69	13,318.83	9.387E-02	Pulse	0.30	3
Zn			2	12.052	ug/l	0.12	8,754.64	6.170E-02	Pulse	0.30	3
As			2	3.788	ug/l	5.86	1,361.39	9.595E-03	Pulse	1.00	3
Cd			2	0.201	ug/l	20.55	205.08	2.414E-04	Pulse	0.30	3
Sn			2	0.586	ug/l	5.13	2,220.19	2.614E-03	Pulse	0.30	3
Se			3	0.628	ug/l	7.05	61.40	3.369E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,109,907.94	0.73	88.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,375,541.74	0.76	84.4	Pulse	0.10	3
1	Ge		511,081.75	0.71	89.6	Pulse	0.10	3
1	Ge		711,740.66	0.63	89.7	Pulse	0.10	3
1	Rh		3,259,210.16	0.60	84.7	Pulse	0.10	3
1	In		3,527,118.29	0.31	88.5	Pulse	0.10	3
1	Tb		5,286,603.04	2.32	95.5	Mix	0.10	3
1	Ho		521,145.16	0.39	94.7	Pulse	0.10	3
1	Bi		2,962,906.21	0.30	88.7	Pulse	0.10	3
2	Sc		141,886.48	0.41	88.3	Pulse	0.30	3
2	Ge		89,926.69	1.84	90.4	Pulse	0.30	3
2	Ge		134,708.74	0.99	89.8	Pulse	0.30	3
2	Rh		2,048,967.21	1.11	84.2	Pulse	0.30	3
2	In		849,312.03	0.37	87.4	Pulse	0.30	3
2	Tb		2,966,685.44	1.13	90.6	Pulse	0.30	3
2	Ho		305,170.52	1.45	91.3	Pulse	0.30	3
2	Bi		1,929,299.78	0.66	86.2	Pulse	0.30	3
3	Sc		189,515.17	0.98	87.5	Pulse	0.30	3
3	Ge		120,919.68	0.92	86.2	Pulse	0.30	3
3	Ge		182,411.51	2.00	86.2	Pulse	0.30	3
3	Rh		1,799,078.33	1.53	82.5	Pulse	0.30	3
3	Tb		3,273,795.08	1.02	89.4	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 15:12
Sample Name jc94229-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.047	ug/l	4.40	160.00	1.451E-04	Pulse	0.25	3
B			1	104.152	ug/l	2.11	223,442.13	2.027E-01	Pulse	0.15	3
Ca			1	28929.754	ug/l	1.38	11,694,453.16	4.913E+00	Analog	0.10	3
Sr			1	68.425	ug/l	0.32	1,494,183.00	4.554E-01	Pulse	0.10	3
Mo			1	4.321	ug/l	1.89	17,760.48	5.412E-03	Pulse	0.10	3
Ag			1	0.051	ug/l	6.06	566.70	1.589E-04	Pulse	0.10	3
Sn			1	0.355	ug/l	2.30	5,237.71	1.469E-03	Pulse	0.10	3
Sb			1	0.202	ug/l	2.00	2,050.23	3.863E-04	Pulse	0.10	3
Ba			1	99.434	ug/l	3.09	355,303.56	6.696E-02	Pulse	0.10	3
Tl			1	0.013	ug/l	27.77	476.69	1.598E-04	Pulse	0.10	3
Pb			1	0.344	ug/l	3.31	2,613.67	8.772E-04	Pulse	0.10	3
Pb			1	0.329	ug/l	5.84	2,213.59	7.429E-04	Pulse	0.10	3
Pb			1	0.331	ug/l	5.56	10,288.47	3.453E-03	Pulse	0.10	3
Na			2	182358.615	ug/l	1.44	111,221,395.58	7.855E+02	Analog	0.30	3
Mg			2	2641.329	ug/l	1.68	746,712.66	5.274E+00	Pulse	0.30	3
Al			2	699.648	ug/l	3.02	67,892.86	4.796E-01	Pulse	0.30	3
K			2	1450.882	ug/l	1.32	350,684.54	2.477E+00	Pulse	0.30	3
Ca			2	28524.168	ug/l	1.75	335,830.96	2.372E+00	Pulse	0.30	3
Ti			2	13.921	ug/l	6.80	1,218.95	8.613E-03	Pulse	0.30	3
V			2	8.687	ug/l	3.57	24,884.34	1.758E-01	Pulse	0.30	3
Cr			2	4.143	ug/l	2.00	15,745.38	1.112E-01	Pulse	0.30	3
Mn			2	32.075	ug/l	1.65	61,909.67	4.372E-01	Pulse	0.30	3
Fe			2	889.961	ug/l	1.72	2,508,643.58	1.772E+01	Pulse	0.30	3
Co			2	0.375	ug/l	4.29	2,171.17	1.534E-02	Pulse	0.30	3
Ni			2	1.290	ug/l	11.12	2,079.05	1.470E-02	Pulse	0.30	3
Cu			2	1.979	ug/l	2.31	15,222.75	1.075E-01	Pulse	0.30	3
Zn			2	4.543	ug/l	4.48	4,116.12	2.908E-02	Pulse	0.30	3
As			2	2.224	ug/l	3.83	805.69	5.691E-03	Pulse	1.00	3
Cd			2	0.015	ug/l	46.78	26.47	3.078E-05	Pulse	0.30	3
Sn			2	0.216	ug/l	16.07	1,454.53	1.691E-03	Pulse	0.30	3
Se			3	0.710	ug/l	6.92	70.80	3.781E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,102,653.94	0.93	88.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,380,631.94	0.85	84.6	Pulse	0.10	3
1	Ge		510,984.93	1.06	89.6	Pulse	0.10	3
1	Ge		710,965.90	0.74	89.6	Pulse	0.10	3
1	Rh		3,281,013.29	1.07	85.2	Pulse	0.10	3
1	In		3,566,468.68	0.94	89.5	Pulse	0.10	3
1	Tb		5,309,618.25	3.28	95.9	Mix	0.10	3
1	Ho		519,573.32	1.69	94.5	Pulse	0.10	3
1	Bi		2,979,983.08	1.31	89.3	Pulse	0.10	3
2	Sc		141,616.93	1.70	88.1	Pulse	0.30	3
2	Ge		90,705.27	0.92	91.1	Pulse	0.30	3
2	Ge		136,278.64	0.92	90.9	Pulse	0.30	3
2	Rh		2,048,277.69	1.00	84.1	Pulse	0.30	3
2	In		860,031.82	0.06	88.5	Pulse	0.30	3
2	Tb		2,993,584.46	0.53	91.4	Pulse	0.30	3
2	Ho		305,965.05	1.11	91.5	Pulse	0.30	3
2	Bi		1,926,827.28	0.35	86.1	Pulse	0.30	3
3	Sc		192,398.54	3.68	88.8	Pulse	0.30	3
3	Ge		123,313.23	2.43	87.9	Pulse	0.30	3
3	Ge		187,191.14	2.48	88.5	Pulse	0.30	3
3	Rh		1,822,848.95	4.18	83.6	Pulse	0.30	3
3	Tb		3,313,510.01	4.56	90.5	Pulse	0.30	3

Quantitation Report

File Name	062SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 15:17
Sample Name	jc94229-5
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	5481.89	21.33	1.846E-05	Pulse	0.25	3
B			1	7.002	ug/l	2.48	21,638.59	1.881E-02	Pulse	0.15	3
Ca			1	140.369	ug/l	4.32	67,728.68	2.813E-02	Pulse	0.10	3
Sr			1	1.311	ug/l	0.98	31,060.81	8.823E-03	Pulse	0.10	3
Mo			1	0.050	ug/l	22.23	376.69	1.068E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	48.77	156.67	4.184E-05	Pulse	0.10	3
Sn			1	0.328	ug/l	9.24	5,294.42	1.418E-03	Pulse	0.10	3
Sb			1	0.074	ug/l	19.60	990.06	1.819E-04	Pulse	0.10	3
Ba			1	1.675	ug/l	8.01	6,234.85	1.143E-03	Pulse	0.10	3
Tl			1	0.004	ug/l	1.73	323.35	9.997E-05	Pulse	0.10	3
Pb			1	0.015	ug/l	40.01	390.02	1.206E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-523.29	243.34	7.518E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	1807.50	1,226.74	3.795E-04	Pulse	0.10	3
Na			2	63.836	ug/l	2.19	51,701.83	3.487E-01	Pulse	0.30	3
Mg			2	13.299	ug/l	1.44	4,235.03	2.857E-02	Pulse	0.30	3
Al			2	8.941	ug/l	23.64	1,538.99	1.041E-02	Pulse	0.30	3
K			2	4.323	ug/l	45.44	13,794.68	9.311E-02	Pulse	0.30	3
Ca			2	140.736	ug/l	6.21	1,835.68	1.240E-02	Pulse	0.30	3
Ti			2	0.125	ug/l	82.25	13.33	9.129E-05	Pulse	0.30	3
V			2	0.355	ug/l	11.55	1,334.52	8.984E-03	Pulse	0.30	3
Cr			2	0.310	ug/l	5.14	2,059.04	1.390E-02	Pulse	0.30	3
Mn			2	2.742	ug/l	2.55	5,666.59	3.821E-02	Pulse	0.30	3
Fe			2	2.138	ug/l	11.51	12,043.41	8.134E-02	Pulse	0.30	3
Co			2	0.071	ug/l	6.56	469.98	3.174E-03	Pulse	0.30	3
Ni			2	0.231	ug/l	4.50	520.01	3.508E-03	Pulse	0.30	3
Cu			2	-0.808	ug/l	-5.64	4,072.78	2.750E-02	Pulse	0.30	3
Zn			2	2.613	ug/l	16.09	3,060.32	2.068E-02	Pulse	0.30	3
As			2	0.147	ug/l	8.29	75.00	5.066E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.005	ug/l	-278.07	7.75	8.332E-06	Pulse	0.30	3
Sn			2	0.341	ug/l	11.46	1,852.36	2.003E-03	Pulse	0.30	3
Se			3	0.044	ug/l	22.05	7.87	4.151E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,150,463.97	0.88	92.1	Pulse	0.10	3
1	Sc		2,408,376.68	1.55	85.6	Pulse	0.10	3
1	Ge		549,964.72	1.26	96.4	Pulse	0.10	3
1	Ge		757,207.38	0.84	95.4	Pulse	0.10	3
1	Rh		3,520,757.03	1.97	91.5	Pulse	0.10	3
1	In		3,735,805.43	1.96	93.7	Pulse	0.10	3
1	Tb		5,463,381.07	4.31	98.7	Mix	0.10	3
1	Ho		528,255.73	1.12	96.0	Pulse	0.10	3
1	Bi		3,234,481.30	1.48	96.9	Pulse	0.10	3
2	Sc		148,275.22	3.70	92.3	Pulse	0.30	3
2	Ge		98,815.31	3.47	99.3	Pulse	0.30	3
2	Ge		149,768.37	2.49	99.9	Pulse	0.30	3
2	Rh		2,307,836.37	3.84	94.8	Pulse	0.30	3
2	In		925,565.25	3.39	95.2	Pulse	0.30	3
2	Tb		3,149,371.82	3.41	96.2	Pulse	0.30	3
2	Ho		322,369.54	4.18	96.4	Pulse	0.30	3
2	Bi		2,145,981.86	3.69	95.9	Pulse	0.30	3
3	Sc		189,896.09	6.50	87.7	Pulse	0.30	3
3	Ge		125,477.05	5.28	89.5	Pulse	0.30	3
3	Ge		189,748.78	4.51	89.7	Pulse	0.30	3
3	Rh		1,903,266.66	6.13	87.3	Pulse	0.30	3
3	Tb		3,278,949.52	6.36	89.5	Pulse	0.30	3

Quantitation Report

File Name	063SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 15:22
Sample Name	jc94611-5
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	98.42	46.67	4.351E-05	Pulse	0.25	3
B			1	96.484	ug/l	1.70	201,927.95	1.882E-01	Pulse	0.15	3
Ca			1	118172.180	ug/l	1.43	46,986,830.97	2.005E+01	Analog	0.10	3
Sr			1	1164.130	ug/l	0.59	23,890,901.31	7.746E+00	Analog	0.10	3
Mo			1	19.950	ug/l	3.05	76,560.43	2.483E-02	Pulse	0.10	3
Ag			1	0.011	ug/l	42.55	133.34	3.904E-05	Pulse	0.10	3
Sn			1	0.432	ug/l	9.95	5,511.19	1.619E-03	Pulse	0.10	3
Sb			1	0.684	ug/l	5.57	5,881.32	1.156E-03	Pulse	0.10	3
Ba			1	175.180	ug/l	2.57	600,158.83	1.180E-01	Pulse	0.10	3
Tl			1	0.018	ug/l	11.28	546.70	1.960E-04	Pulse	0.10	3
Pb			1	0.554	ug/l	5.83	3,797.30	1.361E-03	Pulse	0.10	3
Pb			1	0.451	ug/l	6.92	2,767.04	9.902E-04	Pulse	0.10	3
Pb			1	0.484	ug/l	1.27	13,612.96	4.876E-03	Pulse	0.10	3
Na			2	443489.131	ug/l	2.76	263,882,887.29	1.910E+03	Analog	0.30	3
Mg			2	7664.698	ug/l	2.33	2,113,636.38	1.530E+01	Pulse	0.30	3
Al			2	182.057	ug/l	2.64	17,683.81	1.280E-01	Pulse	0.30	3
K			2	25696.997	ug/l	1.73	5,861,817.13	4.243E+01	Analog	0.30	3
Ca			2	120004.068	ug/l	1.92	1,378,305.12	9.976E+00	Pulse	0.30	3
Ti			2	8.714	ug/l	7.16	745.58	5.397E-03	Pulse	0.30	3
V			2	1.021	ug/l	1.39	3,083.66	2.232E-02	Pulse	0.30	3
Cr			2	2.012	ug/l	1.34	7,890.85	5.710E-02	Pulse	0.30	3
Mn			2	7104.850	ug/l	2.62	13,350,740.86	9.664E+01	Analog	0.30	3
Fe			2	4285.119	ug/l	2.44	11,765,179.25	8.516E+01	Analog	0.30	3
Co			2	1.707	ug/l	2.60	9,481.08	6.863E-02	Pulse	0.30	3
Ni			2	2.487	ug/l	5.52	3,778.26	2.735E-02	Pulse	0.30	3
Cu			2	1.486	ug/l	6.85	12,896.28	9.336E-02	Pulse	0.30	3
Zn			2	9.649	ug/l	0.76	7,083.82	5.126E-02	Pulse	0.30	3
As			2	4.874	ug/l	3.43	1,700.10	1.231E-02	Pulse	1.00	3
Cd			2	0.023	ug/l	110.06	32.00	3.926E-05	Pulse	0.30	3
Sn			2	0.369	ug/l	12.77	1,676.78	2.072E-03	Pulse	0.30	3
Se			3	0.214	ug/l	4.87	22.33	1.276E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,073,320.39	1.01	85.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,343,384.13	1.52	83.3	Pulse	0.10	3
1	Ge		491,086.83	1.26	86.1	Pulse	0.10	3
1	Ge		681,725.15	0.68	85.9	Pulse	0.10	3
1	Rh		3,084,314.95	1.22	80.1	Pulse	0.10	3
1	In		3,404,509.50	1.54	85.4	Pulse	0.10	3
1	Tb		5,090,054.50	2.56	91.9	Pulse	0.10	3
1	Ho		508,292.88	3.01	92.4	Pulse	0.10	3
1	Bi		2,792,235.27	1.97	83.6	Pulse	0.10	3
2	Sc		138,187.32	1.70	86.0	Pulse	0.30	3
2	Ge		86,584.42	1.74	87.0	Pulse	0.30	3
2	Ge		129,637.33	0.76	86.4	Pulse	0.30	3
2	Rh		1,928,661.94	1.01	79.2	Pulse	0.30	3
2	In		809,266.04	1.56	83.3	Pulse	0.30	3
2	Tb		2,858,711.90	0.75	87.3	Pulse	0.30	3
2	Ho		293,639.94	0.95	87.8	Pulse	0.30	3
2	Bi		1,798,424.10	0.82	80.3	Pulse	0.30	3
3	Sc		186,718.64	0.73	86.2	Pulse	0.30	3
3	Ge		116,248.46	0.77	82.9	Pulse	0.30	3
3	Ge		175,035.70	0.87	82.7	Pulse	0.30	3
3	Rh		1,708,426.39	0.83	78.3	Pulse	0.30	3
3	Tb		3,189,579.04	0.74	87.1	Pulse	0.30	3

Quantitation Report

File Name 064SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 15:27
Sample Name jc94611-6
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	31.49	44.00	4.028E-05	Pulse	0.25	3
B			1	52.645	ug/l	1.03	114,753.94	1.052E-01	Pulse	0.15	3
Ca			1	45147.371	ug/l	0.60	18,114,190.56	7.664E+00	Analog	0.10	3
Sr			1	455.668	ug/l	1.76	9,567,577.57	3.032E+00	Analog	0.10	3
Mo			1	22.240	ug/l	1.84	87,315.09	2.767E-02	Pulse	0.10	3
Ag			1	0.015	ug/l	54.28	180.01	5.185E-05	Pulse	0.10	3
Sn			1	0.700	ug/l	4.30	7,398.69	2.138E-03	Pulse	0.10	3
Sb			1	0.617	ug/l	6.90	5,357.80	1.050E-03	Pulse	0.10	3
Ba			1	59.927	ug/l	0.64	206,115.26	4.036E-02	Pulse	0.10	3
Tl			1	0.136	ug/l	9.28	2,760.37	9.807E-04	Pulse	0.10	3
Pb			1	0.329	ug/l	4.08	2,373.62	8.433E-04	Pulse	0.10	3
Pb			1	0.292	ug/l	13.82	1,876.86	6.671E-04	Pulse	0.10	3
Pb			1	0.310	ug/l	5.32	9,164.81	3.256E-03	Pulse	0.10	3
Na			2	352793.635	ug/l	1.81	221,957,231.18	1.520E+03	Analog	0.30	3
Mg			2	2519.600	ug/l	2.13	734,794.71	5.031E+00	Pulse	0.30	3
Al			2	258.104	ug/l	0.85	26,244.90	1.797E-01	Pulse	0.30	3
K			2	7118.999	ug/l	1.35	1,726,049.48	1.182E+01	Pulse	0.30	3
Ca			2	44341.874	ug/l	1.42	538,534.48	3.687E+00	Pulse	0.30	3
Ti			2	3.814	ug/l	17.55	345.56	2.370E-03	Pulse	0.30	3
V			2	1.437	ug/l	1.95	4,476.21	3.064E-02	Pulse	0.30	3
Cr			2	19.777	ug/l	2.47	74,210.56	5.081E-01	Pulse	0.30	3
Mn			2	8.179	ug/l	2.49	16,384.90	1.122E-01	Pulse	0.30	3
Fe			2	342.333	ug/l	1.44	999,042.91	6.839E+00	Pulse	0.30	3
Co			2	0.293	ug/l	6.13	1,760.75	1.206E-02	Pulse	0.30	3
Ni			2	3.820	ug/l	4.64	6,053.41	4.144E-02	Pulse	0.30	3
Cu			2	2.758	ug/l	3.53	18,969.99	1.299E-01	Pulse	0.30	3
Zn			2	2.704	ug/l	4.98	3,080.32	2.108E-02	Pulse	0.30	3
As			2	0.383	ug/l	12.19	160.00	1.096E-03	Pulse	1.00	3
Cd			2	0.027	ug/l	13.87	38.76	4.469E-05	Pulse	0.30	3
Sn			2	0.549	ug/l	11.08	2,184.62	2.520E-03	Pulse	0.30	3
Se			3	0.309	ug/l	12.99	32.40	1.757E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,091,004.38	1.03	87.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,363,610.43	1.11	84.0	Pulse	0.10	3
1	Ge		509,917.40	1.35	89.4	Pulse	0.10	3
1	Ge		705,967.44	1.67	88.9	Pulse	0.10	3
1	Rh		3,155,576.00	0.82	82.0	Pulse	0.10	3
1	In		3,461,357.00	0.99	86.9	Pulse	0.10	3
1	Tb		5,106,756.49	1.53	92.2	Pulse	0.10	3
1	Ho		503,870.23	2.18	91.6	Pulse	0.10	3
1	Bi		2,814,263.40	0.84	84.3	Pulse	0.10	3
2	Sc		146,097.24	1.69	90.9	Pulse	0.30	3
2	Ge		92,574.13	0.89	93.0	Pulse	0.30	3
2	Ge		140,434.44	1.06	93.6	Pulse	0.30	3
2	Rh		2,066,700.75	0.84	84.9	Pulse	0.30	3
2	In		867,180.81	1.12	89.2	Pulse	0.30	3
2	Tb		2,986,965.02	0.58	91.2	Pulse	0.30	3
2	Ho		309,161.57	0.64	92.5	Pulse	0.30	3
2	Bi		1,900,497.15	0.68	84.9	Pulse	0.30	3
3	Sc		192,386.63	0.68	88.8	Pulse	0.30	3
3	Ge		122,172.33	0.75	87.1	Pulse	0.30	3
3	Ge		184,534.99	1.04	87.2	Pulse	0.30	3
3	Rh		1,777,201.39	0.22	81.5	Pulse	0.30	3
3	Tb		3,253,118.83	0.30	88.8	Pulse	0.30	3

Quantitation Report

File Name	065SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 15:32
Sample Name	mp17206-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	79.24	32.00	2.515E-05	Pulse	0.25	3
B			1	1.207	ug/l	4.71	12,887.33	1.013E-02	Pulse	0.15	3
Ca			1	8.230	ug/l	1.94	18,524.26	7.107E-03	Pulse	0.10	3
Sr			1	0.049	ug/l	16.13	2,773.68	7.573E-04	Pulse	0.10	3
Mo			1	0.295	ug/l	6.03	2,850.35	7.781E-04	Pulse	0.10	3
Ag			1	0.004	ug/l	32.00	110.01	2.882E-05	Pulse	0.10	3
Sn			1	0.037	ug/l	47.93	3,537.19	9.256E-04	Pulse	0.10	3
Sb			1	0.057	ug/l	18.63	1,350.12	2.450E-04	Pulse	0.10	3
Ba			1	0.043	ug/l	10.40	406.69	7.384E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	147.89	250.01	7.840E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	30.12	366.69	1.149E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	47.10	343.35	1.076E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	46.65	1,436.75	4.505E-04	Pulse	0.10	3
Na			2	46.778	ug/l	2.59	72,952.28	4.768E-01	Pulse	0.30	3
Mg			2	0.659	ug/l	10.19	712.25	4.656E-03	Pulse	0.30	3
Al			2	2.177	ug/l	24.32	1,115.61	7.295E-03	Pulse	0.30	3
K			2	1.724	ug/l	55.99	14,026.00	9.167E-02	Pulse	0.30	3
Ca			2	9.739	ug/l	19.61	354.45	2.318E-03	Pulse	0.30	3
Ti			2	0.136	ug/l	51.92	27.78	1.813E-04	Pulse	0.30	3
V			2	0.007	ug/l	66.73	328.89	2.149E-03	Pulse	0.30	3
Cr			2	-0.015	ug/l	-35.74	806.70	5.270E-03	Pulse	0.30	3
Mn			2	0.089	ug/l	15.90	511.13	3.340E-03	Pulse	0.30	3
Fe			2	1.115	ug/l	3.11	12,727.23	8.318E-02	Pulse	0.30	3
Co			2	0.000	ug/l	723.45	54.41	3.548E-04	Pulse	0.30	3
Ni			2	0.004	ug/l	212.65	176.67	1.154E-03	Pulse	0.30	3
Cu			2	-0.615	ug/l	-1.18	2,356.87	1.540E-02	Pulse	0.30	3
Zn			2	0.021	ug/l	261.70	1,455.64	9.516E-03	Pulse	0.30	3
As			2	0.003	ug/l	26.90	23.67	1.547E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.003	ug/l	-54.63	6.48	6.958E-06	Pulse	0.30	3
Sn			2	0.014	ug/l	6.09	1,138.95	1.224E-03	Pulse	0.30	3
Se			3	0.022	ug/l	42.10	8.00	4.157E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,272,718.61	0.42	101.9	Pulse	0.10	3
1	Sc		2,606,394.02	0.89	92.7	Pulse	0.10	3
1	Ge		534,040.90	1.27	93.6	Pulse	0.10	3
1	Ge		740,795.62	0.40	93.3	Pulse	0.10	3
1	Rh		3,662,615.36	0.38	95.1	Pulse	0.10	3
1	In		3,820,821.51	0.99	95.9	Pulse	0.10	3
1	Tb		5,508,201.79	0.38	99.5	Analog	0.10	3
1	Ho		523,687.46	0.71	95.2	Pulse	0.10	3
1	Bi		3,189,065.58	0.65	95.5	Pulse	0.10	3
2	Sc		153,032.37	1.14	95.2	Pulse	0.30	3
2	Ge		94,585.87	0.15	95.0	Pulse	0.30	3
2	Ge		142,857.24	0.80	95.3	Pulse	0.30	3
2	Rh		2,290,427.89	0.89	94.1	Pulse	0.30	3
2	In		930,458.27	0.34	95.7	Pulse	0.30	3
2	Tb		3,057,330.92	0.63	93.4	Pulse	0.30	3
2	Ho		312,051.69	0.74	93.4	Pulse	0.30	3
2	Bi		2,086,082.83	1.13	93.2	Pulse	0.30	3
3	Sc		198,833.11	0.75	91.8	Pulse	0.30	3
3	Ge		127,568.29	0.56	90.9	Pulse	0.30	3
3	Ge		192,516.18	0.35	91.0	Pulse	0.30	3
3	Rh		1,983,482.84	0.57	90.9	Pulse	0.30	3
3	Tb		3,337,424.80	0.49	91.1	Pulse	0.30	3

Quantitation Report

File Name 066SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 15:37
Sample Name mp17206-b1conf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	68.267	ug/l	0.65	456,014.58	3.674E-01	Pulse	0.25	3
B			1	64.015	ug/l	1.23	307,618.19	2.479E-01	Pulse	0.15	3
Ca			1	24.211	ug/l	3.78	31,891.53	1.253E-02	Pulse	0.10	3
Sr			1	77.015	ug/l	0.40	3,660,535.99	1.025E+00	Pulse	0.10	3
Mo			1	0.196	ug/l	3.56	1,896.87	5.311E-04	Pulse	0.10	3
Ag			1	0.008	ug/l	8.61	203.34	5.397E-05	Pulse	0.10	3
Sn			1	0.235	ug/l	9.78	6,381.50	1.694E-03	Pulse	0.10	3
Sb			1	0.306	ug/l	3.78	5,434.49	1.041E-03	Pulse	0.10	3
Ba			1	77.237	ug/l	0.84	543,178.92	1.040E-01	Pulse	0.10	3
Tl			1	76.655	ug/l	0.44	3,197,823.18	1.021E+00	Pulse	0.10	3
Pb			1	78.657	ug/l	1.03	1,133,386.36	3.620E-01	Pulse	0.10	3
Pb			1	78.666	ug/l	1.04	997,590.14	3.187E-01	Pulse	0.10	3
Pb			1	78.339	ug/l	0.77	4,562,511.10	1.457E+00	Pulse	0.10	3
Na			2	24.583	ug/l	1.37	42,838.45	2.856E-01	Pulse	0.30	3
Mg			2	0.871	ug/l	16.74	825.59	5.504E-03	Pulse	0.30	3
Al			2	1.790	ug/l	24.47	1,015.62	6.770E-03	Pulse	0.30	3
K			2	1.019	ug/l	6.99	13,403.26	8.935E-02	Pulse	0.30	3
Ca			2	259.685	ug/l	0.90	6,581.38	4.387E-02	Pulse	0.30	3
Ti			2	0.193	ug/l	38.74	37.78	2.517E-04	Pulse	0.30	3
V			2	76.782	ug/l	0.26	461,468.32	3.076E+00	Pulse	0.30	3
Cr			2	75.115	ug/l	0.15	572,999.20	3.820E+00	Pulse	0.30	3
Mn			2	76.347	ug/l	0.30	311,704.06	2.078E+00	Pulse	0.30	3
Fe			2	1.011	ug/l	3.75	11,858.58	7.905E-02	Pulse	0.30	3
Co			2	74.945	ug/l	0.09	899,670.39	5.997E+00	Pulse	0.30	3
Ni			2	74.375	ug/l	0.47	235,988.53	1.573E+00	Pulse	0.30	3
Cu			2	74.114	ug/l	0.36	645,917.56	4.306E+00	Pulse	0.30	3
Zn			2	77.678	ug/l	1.41	102,664.83	6.844E-01	Pulse	0.30	3
As			2	0.201	ug/l	8.06	171.33	1.142E-03	Pulse	1.00	3
Cd			2	75.087	ug/l	0.55	155,788.91	1.706E-01	Pulse	0.30	3
Sn			2	0.199	ug/l	6.29	1,956.81	2.143E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	79.373	ug/l	2.97	15,062.97	8.027E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,241,150.31	0.47	99.4	Pulse	0.10	3
1	Sc		2,545,273.50	0.41	90.5	Pulse	0.10	3
1	Ge		522,939.95	0.37	91.7	Pulse	0.10	3
1	Ge		724,651.97	0.16	91.3	Pulse	0.10	3
1	Rh		3,571,181.09	0.55	92.8	Pulse	0.10	3
1	In		3,767,531.73	0.12	94.5	Pulse	0.10	3
1	Tb		5,222,135.44	0.67	94.3	Pulse	0.10	3
1	Ho		512,766.71	1.27	93.2	Pulse	0.10	3
1	Bi		3,130,558.81	0.08	93.8	Pulse	0.10	3
2	Sc		150,010.02	0.22	93.3	Pulse	0.30	3
2	Ge		92,828.17	0.25	93.3	Pulse	0.30	3
2	Ge		138,389.65	0.90	92.3	Pulse	0.30	3
2	Rh		2,242,756.30	0.33	92.1	Pulse	0.30	3
2	In		913,305.63	0.86	94.0	Pulse	0.30	3
2	Tb		2,997,633.14	0.39	91.6	Pulse	0.30	3
2	Ho		306,908.45	0.18	91.8	Pulse	0.30	3
2	Bi		2,061,385.06	0.45	92.1	Pulse	0.30	3
3	Sc		192,167.19	3.97	88.7	Pulse	0.30	3
3	Ge		124,287.10	2.52	88.6	Pulse	0.30	3
3	Ge		187,726.88	2.29	88.7	Pulse	0.30	3
3	Rh		1,917,584.02	3.76	87.9	Pulse	0.30	3
3	Tb		3,256,522.78	3.99	88.9	Pulse	0.30	3

Quantitation Report

File Name 067_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 15:42
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	45.579	ug/l	0.59	290,408.24	2.453E-01	Pulse	0.25	3
B			1	88.613	ug/l	1.83	403,609.37	3.410E-01	Pulse	0.15	3
Ca			1	5017.258	ug/l	0.71	4,146,276.19	1.707E+00	Pulse	0.10	3
Sr			1	51.400	ug/l	0.60	2,300,516.27	6.841E-01	Pulse	0.10	3
Mo			1	50.572	ug/l	0.97	422,648.08	1.257E-01	Pulse	0.10	3
Ag			1	48.609	ug/l	0.60	1,045,324.59	2.926E-01	Pulse	0.10	3
Sn			1	49.510	ug/l	0.81	687,697.62	1.925E-01	Pulse	0.10	3
Sb			1	52.002	ug/l	1.48	845,635.46	1.663E-01	Pulse	0.10	3
Ba			1	50.487	ug/l	0.59	345,708.46	6.800E-02	Pulse	0.10	3
Tl			1	50.116	ug/l	0.48	2,001,517.84	6.679E-01	Pulse	0.10	3
Pb			1	50.414	ug/l	1.29	695,505.98	2.321E-01	Pulse	0.10	3
Pb			1	50.233	ug/l	0.53	609,914.25	2.035E-01	Pulse	0.10	3
Pb			1	50.130	ug/l	0.60	2,795,412.66	9.328E-01	Pulse	0.10	3
Na			2	5040.020	ug/l	0.67	6,299,178.64	4.349E+01	Analog	0.30	3
Mg			2	4829.704	ug/l	0.52	2,792,829.06	1.928E+01	Pulse	0.30	3
Al			2	4838.807	ug/l	0.67	952,803.02	6.578E+00	Pulse	0.30	3
K			2	4914.575	ug/l	0.99	2,358,360.53	1.628E+01	Pulse	0.30	3
Ca			2	5117.614	ug/l	1.53	123,334.45	8.515E-01	Pulse	0.30	3
Ti			2	49.540	ug/l	2.46	8,866.90	6.122E-02	Pulse	0.30	3
V			2	49.566	ug/l	0.73	287,745.45	1.987E+00	Pulse	0.30	3
Cr			2	48.967	ug/l	1.59	360,963.29	2.492E+00	Pulse	0.30	3
Mn			2	49.644	ug/l	1.50	195,741.36	1.351E+00	Pulse	0.30	3
Fe			2	5056.166	ug/l	1.21	29,101,526.62	2.009E+02	Analog	0.30	3
Co			2	48.455	ug/l	0.70	561,689.32	3.878E+00	Pulse	0.30	3
Ni			2	48.087	ug/l	1.16	147,377.02	1.017E+00	Pulse	0.30	3
Cu			2	47.530	ug/l	0.29	402,629.77	2.780E+00	Pulse	0.30	3
Zn			2	48.670	ug/l	1.36	62,618.82	4.323E-01	Pulse	0.30	3
As			2	49.484	ug/l	2.10	35,803.65	2.472E-01	Pulse	1.00	3
Cd			2	48.795	ug/l	0.71	96,521.59	1.109E-01	Pulse	0.30	3
Sn			2	49.553	ug/l	0.45	215,776.44	2.478E-01	Pulse	0.30	3
Se			3	197.521	ug/l	0.71	35,899.64	1.997E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,183,820.60	0.75	94.8	Pulse	0.10	3
1	Sc		2,429,335.38	0.72	86.4	Pulse	0.10	3
1	Ge		491,590.55	0.84	86.2	Pulse	0.10	3

Quantitation Report

1	Ge		694,403.43	0.24	87.5	Pulse	0.10	3
1	Rh		3,362,634.95	0.46	87.3	Pulse	0.10	3
1	In		3,572,005.44	0.76	89.6	Pulse	0.10	3
1	Tb		5,083,978.78	0.47	91.8	Pulse	0.10	3
1	Ho		504,151.56	0.86	91.6	Pulse	0.10	3
1	Bi		2,996,966.52	0.36	89.8	Pulse	0.10	3
2	Sc		144,857.79	1.27	90.1	Pulse	0.30	3
2	Ge		87,887.97	0.96	88.3	Pulse	0.30	3
2	Ge		133,232.87	1.23	88.8	Pulse	0.30	3
2	Rh		2,117,146.24	0.69	87.0	Pulse	0.30	3
2	In		870,718.70	0.42	89.6	Pulse	0.30	3
2	Tb		2,926,059.95	0.15	89.4	Pulse	0.30	3
2	Ho		298,963.50	0.35	89.4	Pulse	0.30	3
2	Bi		1,956,542.77	0.68	87.4	Pulse	0.30	3
3	Sc		185,752.18	0.92	85.7	Pulse	0.30	3
3	Ge		118,799.47	0.37	84.7	Pulse	0.30	3
3	Ge		179,743.09	0.58	85.0	Pulse	0.30	3
3	Rh		1,822,428.82	0.92	83.5	Pulse	0.30	3
3	Tb		3,206,639.80	0.61	87.5	Pulse	0.30	3

Quantitation Report

File Name 068_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 15:47
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	4.90	108.00	8.813E-05	Pulse	0.25	3
B			1	3.967	ug/l	6.69	25,212.32	2.057E-02	Pulse	0.15	3
Ca			1	1.142	ug/l	56.06	11,754.62	4.702E-03	Pulse	0.10	3
Sr			1	0.016	ug/l	6.24	1,120.08	3.190E-04	Pulse	0.10	3
Mo			1	0.074	ug/l	13.79	796.71	2.270E-04	Pulse	0.10	3
Ag			1	0.008	ug/l	23.66	210.01	5.731E-05	Pulse	0.10	3
Sn			1	0.128	ug/l	5.02	4,684.22	1.278E-03	Pulse	0.10	3
Sb			1	0.055	ug/l	1.24	1,223.43	2.397E-04	Pulse	0.10	3
Ba			1	0.013	ug/l	69.31	170.01	3.330E-05	Pulse	0.10	3
Tl			1	0.025	ug/l	1.09	1,266.78	4.106E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	41.94	483.36	1.567E-04	Pulse	0.10	3
Pb			1	0.023	ug/l	38.80	520.03	1.685E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	11.98	2,323.53	7.533E-04	Pulse	0.10	3
Na			2	15.803	ug/l	2.03	30,912.71	2.099E-01	Pulse	0.30	3
Mg			2	0.632	ug/l	22.87	670.02	4.548E-03	Pulse	0.30	3
Al			2	2.140	ug/l	4.82	1,066.72	7.245E-03	Pulse	0.30	3
K			2	0.481	ug/l	154.99	12,892.86	8.757E-02	Pulse	0.30	3
Ca			2	3.379	ug/l	11.54	185.56	1.260E-03	Pulse	0.30	3
Ti			2	0.032	ug/l	67.45	7.78	5.293E-05	Pulse	0.30	3
V			2	0.000	ug/l	8486.40	276.67	1.878E-03	Pulse	0.30	3
Cr			2	0.004	ug/l	217.25	920.04	6.247E-03	Pulse	0.30	3
Mn			2	0.018	ug/l	74.17	207.78	1.410E-03	Pulse	0.30	3
Fe			2	0.950	ug/l	9.44	11,286.56	7.664E-02	Pulse	0.30	3
Co			2	0.008	ug/l	46.22	148.86	1.009E-03	Pulse	0.30	3
Ni			2	0.026	ug/l	54.47	237.78	1.614E-03	Pulse	0.30	3
Cu			2	-0.562	ug/l	-3.10	2,713.60	1.843E-02	Pulse	0.30	3
Zn			2	-0.191	ug/l	-34.50	1,130.05	7.673E-03	Pulse	0.30	3
As			2	0.019	ug/l	16.82	34.33	2.333E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.010	ug/l	83.71	33.25	3.715E-05	Pulse	0.30	3
Sn			2	0.118	ug/l	11.71	1,562.32	1.743E-03	Pulse	0.30	3
Se			3	0.142	ug/l	7.22	29.87	1.633E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,225,518.22	0.64	98.1	Pulse	0.10	3
1	Sc		2,499,692.62	0.60	88.9	Pulse	0.10	3
1	Ge		508,725.08	0.57	89.2	Pulse	0.10	3
1	Ge		707,700.90	0.60	89.2	Pulse	0.10	3
1	Rh		3,510,844.11	0.48	91.2	Pulse	0.10	3
1	In		3,665,454.73	0.36	92.0	Pulse	0.10	3
1	Tb		5,103,597.84	0.12	92.2	Pulse	0.10	3
1	Ho		506,036.05	0.28	92.0	Pulse	0.10	3
1	Bi		3,085,110.16	0.38	92.4	Pulse	0.10	3
2	Sc		147,240.23	0.81	91.6	Pulse	0.30	3
2	Ge		91,475.04	1.18	91.9	Pulse	0.30	3
2	Ge		137,042.36	0.61	91.4	Pulse	0.30	3
2	Rh		2,218,886.30	0.83	91.2	Pulse	0.30	3
2	In		896,424.25	0.61	92.2	Pulse	0.30	3
2	Tb		2,965,098.91	0.46	90.6	Pulse	0.30	3
2	Ho		302,411.07	0.32	90.5	Pulse	0.30	3
2	Bi		2,029,545.68	0.63	90.7	Pulse	0.30	3
3	Sc		187,862.56	0.78	86.7	Pulse	0.30	3
3	Ge		120,518.93	0.78	85.9	Pulse	0.30	3
3	Ge		182,922.03	0.08	86.5	Pulse	0.30	3
3	Rh		1,897,092.50	0.67	87.0	Pulse	0.30	3
3	Tb		3,206,793.48	0.80	87.5	Pulse	0.30	3

Quantitation Report

File Name 069SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 15:52
Sample Name jc94283-2 8
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.080	ug/l	155.50	33.33	2.679E-05	Pulse	0.25	3
B			1	150.708	ug/l	5.79	21,102.30	1.697E-02	Pulse	0.15	3
Ca			1	38357.554	ug/l	0.89	670,626.03	2.646E-01	Pulse	0.10	3
Sr			1	164.351	ug/l	2.01	154,728.58	4.385E-02	Pulse	0.10	3
Mo			1	4.358	ug/l	10.29	920.06	2.606E-04	Pulse	0.10	3
Ag			1	0.914	ug/l	13.00	433.36	1.166E-04	Pulse	0.10	3
Sn			1	12.924	ug/l	4.14	6,624.98	1.783E-03	Pulse	0.10	3
Sb			1	6.762	ug/l	6.37	2,546.97	4.952E-04	Pulse	0.10	3
Ba			1	100.030	ug/l	1.28	13,940.19	2.710E-03	Pulse	0.10	3
Tl			1	1.888	ug/l	4.60	1,783.52	5.771E-04	Pulse	0.10	3
Pb			1	2761.079	ug/l	1.09	785,559.94	2.542E-01	Pulse	0.10	3
Pb			1	2776.089	ug/l	0.82	695,120.69	2.249E-01	Pulse	0.10	3
Pb			1	2772.552	ug/l	0.79	3,188,388.52	1.032E+00	Pulse	0.10	3
Na			2	55933.729	ug/l	1.16	1,442,025.01	9.710E+00	Pulse	0.30	3
Mg			2	7488.701	ug/l	1.40	89,086.58	5.999E-01	Pulse	0.30	3
Al			2	421.458	ug/l	5.21	2,344.64	1.579E-02	Pulse	0.30	3
K			2	2063.880	ug/l	2.06	32,973.56	2.220E-01	Pulse	0.30	3
Ca			2	39094.476	ug/l	2.53	19,408.12	1.307E-01	Pulse	0.30	3
Ti			2	10.944	ug/l	20.78	42.22	2.842E-04	Pulse	0.30	3
V			2	3.321	ug/l	4.45	673.35	4.533E-03	Pulse	0.30	3
Cr			2	1.081	ug/l	27.96	1,057.82	7.121E-03	Pulse	0.30	3
Mn			2	11.370	ug/l	4.37	1,054.49	7.099E-03	Pulse	0.30	3
Fe			2	403.307	ug/l	1.60	53,365.79	3.593E-01	Pulse	0.30	3
Co			2	0.209	ug/l	20.57	99.86	6.724E-04	Pulse	0.30	3
Ni			2	1.035	ug/l	55.46	223.34	1.503E-03	Pulse	0.30	3
Cu			2	14.620	ug/l	13.32	10,022.05	6.749E-02	Pulse	0.30	3
Zn			2	173.590	ug/l	2.66	5,866.66	3.950E-02	Pulse	0.30	3
As			2	8.187	ug/l	8.91	142.00	9.564E-04	Pulse	1.00	3
Cd			2	0.026	ug/l	549.98	13.26	1.471E-05	Pulse	0.30	3
Sn			2	10.828	ug/l	6.73	2,014.60	2.233E-03	Pulse	0.30	3
Se			3	7.071	ug/l	10.07	29.93	1.623E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,243,725.30	0.11	99.6	Pulse	0.10	3
1	Sc		2,534,360.17	1.05	90.1	Pulse	0.10	3
1	Ge		519,072.95	0.45	91.0	Pulse	0.10	3

Quantitation Report

1	Ge		726,846.71	0.19	91.6	Pulse	0.10	3
1	Rh		3,528,510.47	0.82	91.7	Pulse	0.10	3
1	In		3,715,186.86	0.88	93.2	Pulse	0.10	3
1	Tb		5,145,198.99	1.43	92.9	Pulse	0.10	3
1	Ho		507,331.52	0.47	92.2	Pulse	0.10	3
1	Bi		3,090,363.08	0.07	92.6	Pulse	0.10	3
2	Sc		148,520.43	0.78	92.4	Pulse	0.30	3
2	Ge		91,295.18	1.16	91.7	Pulse	0.30	3
2	Ge		137,261.92	1.53	91.5	Pulse	0.30	3
2	Rh		2,207,978.18	0.62	90.7	Pulse	0.30	3
2	In		902,359.22	0.47	92.9	Pulse	0.30	3
2	Tb		2,958,619.19	0.91	90.4	Pulse	0.30	3
2	Ho		303,053.03	1.36	90.7	Pulse	0.30	3
2	Bi		2,037,373.81	0.46	91.0	Pulse	0.30	3
3	Sc		188,916.08	0.10	87.2	Pulse	0.30	3
3	Ge		123,232.08	0.97	87.9	Pulse	0.30	3
3	Ge		184,481.82	1.38	87.2	Pulse	0.30	3
3	Rh		1,894,016.38	0.47	86.8	Pulse	0.30	3
3	Tb		3,201,307.44	0.94	87.4	Pulse	0.30	3

Quantitation Report

File Name 070SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 15:57
Sample Name jc94447-4 1
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	389.89	26.67	2.126E-05	Pulse	0.25	3
B			1	16.498	ug/l	2.59	85,098.40	6.800E-02	Pulse	0.15	3
Ca			1	43644.334	ug/l	0.57	38,099,519.43	1.481E+01	Analog	0.10	3
Sr			1	183.788	ug/l	0.48	8,306,978.00	2.446E+00	Analog	0.10	3
Mo			1	0.614	ug/l	4.54	5,327.78	1.569E-03	Pulse	0.10	3
Ag			1	0.005	ug/l	14.52	133.34	3.681E-05	Pulse	0.10	3
Sn			1	-0.082	ug/l	-23.83	1,676.82	4.629E-04	Pulse	0.10	3
Sb			1	0.099	ug/l	4.77	1,966.86	3.809E-04	Pulse	0.10	3
Ba			1	37.028	ug/l	3.13	257,592.74	4.988E-02	Pulse	0.10	3
Tl			1	0.009	ug/l	25.98	590.03	1.994E-04	Pulse	0.10	3
Pb			1	1.459	ug/l	3.08	20,131.01	6.800E-03	Pulse	0.10	3
Pb			1	1.396	ug/l	2.29	16,967.05	5.731E-03	Pulse	0.10	3
Pb			1	1.425	ug/l	1.77	79,566.81	2.688E-02	Pulse	0.10	3
Na			2	16574.777	ug/l	1.31	22,125,194.12	1.428E+02	Analog	0.30	3
Mg			2	8786.133	ug/l	2.02	5,432,143.95	3.507E+01	Analog	0.30	3
Al			2	30.805	ug/l	2.55	7,154.93	4.619E-02	Pulse	0.30	3
K			2	3310.163	ug/l	1.05	1,702,920.52	1.099E+01	Pulse	0.30	3
Ca			2	44058.786	ug/l	0.34	1,134,732.63	7.326E+00	Pulse	0.30	3
Ti			2	0.239	ug/l	11.29	47.78	3.085E-04	Pulse	0.30	3
V			2	0.468	ug/l	5.80	3,192.57	2.062E-02	Pulse	0.30	3
Cr			2	0.201	ug/l	6.07	2,515.78	1.624E-02	Pulse	0.30	3
Mn			2	5.877	ug/l	1.22	24,905.55	1.608E-01	Pulse	0.30	3
Fe			2	58.000	ug/l	0.88	362,942.19	2.343E+00	Pulse	0.30	3
Co			2	0.136	ug/l	1.39	1,735.80	1.121E-02	Pulse	0.30	3
Ni			2	1.227	ug/l	4.31	4,181.70	2.699E-02	Pulse	0.30	3
Cu			2	52.984	ug/l	0.99	479,026.96	3.093E+00	Pulse	0.30	3
Zn			2	166.171	ug/l	0.32	225,146.49	1.453E+00	Pulse	0.30	3
As			2	0.249	ug/l	4.74	214.33	1.384E-03	Pulse	1.00	3
Cd			2	0.000	ug/l	-1947.30	11.79	1.300E-05	Pulse	0.30	3
Sn			2	-0.118	ug/l	-6.07	512.24	5.653E-04	Pulse	0.30	3
Se			3	0.127	ug/l	9.76	26.73	1.480E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,251,474.61	0.77	100.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,571,857.31	0.71	91.4	Pulse	0.10	3
1	Ge		518,271.76	1.03	90.9	Pulse	0.10	3
1	Ge		720,602.70	0.74	90.8	Pulse	0.10	3
1	Rh		3,396,225.15	0.46	88.2	Pulse	0.10	3
1	In		3,623,865.90	0.54	90.9	Pulse	0.10	3
1	Tb		5,168,471.69	3.49	93.3	Mix	0.10	3
1	Ho		506,666.41	0.97	92.1	Pulse	0.10	3
1	Bi		2,960,223.50	0.22	88.7	Pulse	0.10	3
2	Sc		154,901.59	1.18	96.4	Pulse	0.30	3
2	Ge		93,461.66	0.95	93.9	Pulse	0.30	3
2	Ge		141,099.99	0.79	94.1	Pulse	0.30	3
2	Rh		2,137,098.80	0.46	87.8	Pulse	0.30	3
2	In		906,142.75	0.21	93.2	Pulse	0.30	3
2	Tb		3,002,674.19	0.72	91.7	Pulse	0.30	3
2	Ho		308,570.40	0.38	92.3	Pulse	0.30	3
2	Bi		1,968,327.98	0.80	87.9	Pulse	0.30	3
3	Sc		186,738.63	0.68	86.2	Pulse	0.30	3
3	Ge		120,631.94	0.73	86.0	Pulse	0.30	3
3	Ge		180,599.57	0.66	85.4	Pulse	0.30	3
3	Rh		1,782,851.32	0.39	81.7	Pulse	0.30	3
3	Tb		3,175,535.36	0.13	86.7	Pulse	0.30	3

Quantitation Report

File Name	071SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 16:02
Sample Name	mp17203-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	246.10	28.00	2.441E-05	Pulse	0.25	3
B			1	4.980	ug/l	0.81	17,204.77	1.498E-02	Pulse	0.15	3
Ca			1	26.813	ug/l	9.59	20,810.41	8.864E-03	Pulse	0.10	3
Sr			1	0.122	ug/l	6.62	3,067.07	9.146E-04	Pulse	0.10	3
Mo			1	0.069	ug/l	4.22	433.35	1.293E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	27.95	180.01	5.078E-05	Pulse	0.10	3
Sn			1	0.387	ug/l	7.43	5,431.15	1.531E-03	Pulse	0.10	3
Sb			1	0.108	ug/l	7.27	1,173.42	2.349E-04	Pulse	0.10	3
Ba			1	0.087	ug/l	6.42	370.02	7.408E-05	Pulse	0.10	3
Tl			1	0.010	ug/l	22.30	433.36	1.394E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	4.54	456.70	1.469E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	63.11	430.02	1.383E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	22.24	2,000.14	6.435E-04	Pulse	0.10	3
Na			2	49.907	ug/l	2.57	40,767.88	2.888E-01	Pulse	0.30	3
Mg			2	3.622	ug/l	5.90	1,306.74	9.255E-03	Pulse	0.30	3
Al			2	0.205	ug/l	219.00	632.24	4.477E-03	Pulse	0.30	3
K			2	4.921	ug/l	8.09	13,284.27	9.410E-02	Pulse	0.30	3
Ca			2	26.928	ug/l	14.61	414.46	2.937E-03	Pulse	0.30	3
Ti			2	0.322	ug/l	20.40	30.00	2.125E-04	Pulse	0.30	3
V			2	0.267	ug/l	5.61	1,020.04	7.226E-03	Pulse	0.30	3
Cr			2	0.115	ug/l	15.72	1,262.29	8.940E-03	Pulse	0.30	3
Mn			2	0.103	ug/l	32.94	325.56	2.307E-03	Pulse	0.30	3
Fe			2	3.226	ug/l	0.48	14,534.32	1.030E-01	Pulse	0.30	3
Co			2	0.023	ug/l	29.86	178.85	1.268E-03	Pulse	0.30	3
Ni			2	0.041	ug/l	66.33	212.23	1.503E-03	Pulse	0.30	3
Cu			2	-0.775	ug/l	-2.62	4,016.10	2.845E-02	Pulse	0.30	3
Zn			2	2.354	ug/l	3.46	2,761.38	1.956E-02	Pulse	0.30	3
As			2	0.100	ug/l	34.09	55.00	3.896E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.003	ug/l	291.25	14.40	1.660E-05	Pulse	0.30	3
Sn			2	0.307	ug/l	9.54	1,665.67	1.919E-03	Pulse	0.30	3
Se			3	0.113	ug/l	8.57	14.07	7.632E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,148,230.87	0.51	91.9	Pulse	0.10	3
1	Sc		2,348,384.55	1.20	83.5	Pulse	0.10	3
1	Ge		523,248.96	1.04	91.7	Pulse	0.10	3
1	Ge		722,069.73	1.03	91.0	Pulse	0.10	3
1	Rh		3,352,475.58	1.02	87.1	Pulse	0.10	3
1	In		3,545,898.61	0.58	89.0	Pulse	0.10	3
1	Tb		4,995,599.61	0.74	90.2	Pulse	0.10	3
1	Ho		494,481.66	1.53	89.9	Pulse	0.10	3
1	Bi		3,109,028.60	0.64	93.1	Pulse	0.10	3
2	Sc		141,175.36	0.57	87.9	Pulse	0.30	3
2	Ge		93,662.88	1.11	94.1	Pulse	0.30	3
2	Ge		141,080.67	0.30	94.1	Pulse	0.30	3
2	Rh		2,128,058.25	0.15	87.4	Pulse	0.30	3
2	In		867,972.61	0.33	89.3	Pulse	0.30	3
2	Tb		2,904,623.57	0.65	88.7	Pulse	0.30	3
2	Ho		297,568.80	0.87	89.0	Pulse	0.30	3
2	Bi		2,021,258.81	0.79	90.3	Pulse	0.30	3
3	Sc		187,834.39	1.66	86.7	Pulse	0.30	3
3	Ge		122,474.53	0.80	87.3	Pulse	0.30	3
3	Ge		184,324.86	0.62	87.1	Pulse	0.30	3
3	Rh		1,883,621.80	0.61	86.4	Pulse	0.30	3
3	Tb		3,247,226.33	0.53	88.6	Pulse	0.30	3

Quantitation Report

File Name 072SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 16:07
Sample Name mp17203-b1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	65.030	ug/l	0.98	198,704.05	1.750E-01	Pulse	0.25	3
B			1	69.812	ug/l	0.82	156,314.87	1.377E-01	Pulse	0.15	3
Ca			1	3960.356	ug/l	0.34	1,563,422.90	6.762E-01	Pulse	0.10	3
Sr			1	76.431	ug/l	0.38	1,680,182.84	5.087E-01	Pulse	0.10	3
Mo			1	75.139	ug/l	0.49	308,470.29	9.339E-02	Pulse	0.10	3
Ag			1	76.417	ug/l	0.90	800,563.16	2.300E-01	Pulse	0.10	3
Sn			1	76.188	ug/l	1.20	516,149.34	1.483E-01	Pulse	0.10	3
Sb			1	76.070	ug/l	0.51	615,792.92	1.217E-01	Pulse	0.10	3
Ba			1	74.039	ug/l	0.85	252,355.07	4.986E-02	Pulse	0.10	3
Tl			1	74.847	ug/l	1.57	1,495,249.56	4.987E-01	Pulse	0.10	3
Pb			1	76.394	ug/l	1.59	527,220.60	1.759E-01	Pulse	0.10	3
Pb			1	77.269	ug/l	1.09	469,345.80	1.565E-01	Pulse	0.10	3
Pb			1	76.580	ug/l	1.04	2,136,345.37	7.125E-01	Pulse	0.10	3
Na			2	3828.596	ug/l	0.78	2,276,702.69	1.656E+01	Pulse	0.30	3
Mg			2	3780.724	ug/l	1.12	1,037,442.74	7.548E+00	Pulse	0.30	3
Al			2	3752.110	ug/l	0.40	350,918.23	2.553E+00	Pulse	0.30	3
K			2	3845.338	ug/l	0.86	882,745.73	6.422E+00	Pulse	0.30	3
Ca			2	4182.089	ug/l	0.89	47,881.90	3.483E-01	Pulse	0.30	3
Ti			2	76.994	ug/l	1.36	6,539.13	4.757E-02	Pulse	0.30	3
V			2	75.303	ug/l	1.30	207,476.39	1.509E+00	Pulse	0.30	3
Cr			2	73.860	ug/l	1.18	258,548.70	1.881E+00	Pulse	0.30	3
Mn			2	74.626	ug/l	1.02	139,651.50	1.016E+00	Pulse	0.30	3
Fe			2	4101.087	ug/l	0.98	11,203,938.44	8.151E+01	Analog	0.30	3
Co			2	74.458	ug/l	0.59	409,536.52	2.979E+00	Pulse	0.30	3
Ni			2	74.121	ug/l	1.68	107,827.15	7.844E-01	Pulse	0.30	3
Cu			2	72.915	ug/l	0.20	294,688.15	2.144E+00	Pulse	0.30	3
Zn			2	66.889	ug/l	0.69	41,236.19	3.000E-01	Pulse	0.30	3
As			2	71.207	ug/l	0.64	24,454.24	1.779E-01	Pulse	1.00	3
Cd			2	71.845	ug/l	1.35	68,810.14	8.161E-02	Pulse	0.30	3
Sn			2	76.377	ug/l	0.38	161,253.67	1.912E-01	Pulse	0.30	3
Se			3	338.374	ug/l	1.02	31,185.76	1.711E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,135,397.04	0.28	90.9	Pulse	0.10	3
1	Sc		2,311,946.94	0.07	82.2	Pulse	0.10	3
1	Ge		504,223.30	1.19	88.4	Pulse	0.10	3

Quantitation Report

1	Ge		704,492.70	0.53	88.7	Pulse	0.10	3
1	Rh		3,303,135.06	1.10	85.8	Pulse	0.10	3
1	In		3,480,519.01	1.12	87.3	Pulse	0.10	3
1	Tb		5,060,906.38	0.20	91.4	Pulse	0.10	3
1	Ho		503,326.19	0.18	91.5	Pulse	0.10	3
1	Bi		2,998,477.14	1.43	89.8	Pulse	0.10	3
2	Sc		137,457.85	0.54	85.5	Pulse	0.30	3
2	Ge		89,269.80	0.60	89.7	Pulse	0.30	3
2	Ge		133,965.15	0.87	89.3	Pulse	0.30	3
2	Rh		2,087,097.55	0.83	85.7	Pulse	0.30	3
2	In		843,165.95	0.63	86.8	Pulse	0.30	3
2	Tb		2,896,884.47	0.45	88.5	Pulse	0.30	3
2	Ho		295,633.74	1.01	88.4	Pulse	0.30	3
2	Bi		1,968,481.94	1.09	87.9	Pulse	0.30	3
3	Sc		188,621.87	0.55	87.1	Pulse	0.30	3
3	Ge		121,204.16	0.57	86.4	Pulse	0.30	3
3	Ge		182,294.51	0.92	86.2	Pulse	0.30	3
3	Rh		1,879,308.26	0.65	86.2	Pulse	0.30	3
3	Tb		3,300,987.02	0.09	90.1	Pulse	0.30	3

Quantitation Report

File Name 073SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 16:12
Sample Name mp17203-s1 4
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	68.840	ug/l	1.18	85,038.85	7.412E-02	Pulse	0.25	3
B			1	148.031	ug/l	0.98	134,952.87	1.176E-01	Pulse	0.15	3
Ca			1	71345.746	ug/l	0.24	11,568,439.41	4.846E+00	Analog	0.10	3
Sr			1	458.769	ug/l	0.25	3,934,985.78	1.221E+00	Pulse	0.10	3
Mo			1	82.736	ug/l	1.70	132,605.44	4.116E-02	Pulse	0.10	3
Ag			1	76.369	ug/l	1.30	320,267.49	9.196E-02	Pulse	0.10	3
Sn			1	78.557	ug/l	0.17	214,638.12	6.163E-02	Pulse	0.10	3
Sb			1	78.679	ug/l	0.35	255,067.93	5.038E-02	Pulse	0.10	3
Ba			1	131.063	ug/l	1.25	178,798.39	3.531E-02	Pulse	0.10	3
Tl			1	77.031	ug/l	0.26	593,695.07	2.054E-01	Pulse	0.10	3
Pb			1	78.907	ug/l	0.62	210,200.05	7.271E-02	Pulse	0.10	3
Pb			1	80.331	ug/l	0.49	188,323.15	6.514E-02	Pulse	0.10	3
Pb			1	79.610	ug/l	0.48	857,213.43	2.965E-01	Pulse	0.10	3
Na			2	320065.197	ug/l	3.44	76,399,496.96	5.515E+02	Analog	0.30	3
Mg			2	26154.164	ug/l	2.96	2,893,143.64	2.088E+01	Pulse	0.30	3
Al			2	5924.240	ug/l	3.56	223,589.69	1.614E+00	Pulse	0.30	3
K			2	11758.700	ug/l	3.34	1,085,617.18	7.836E+00	Pulse	0.30	3
Ca			2	72865.867	ug/l	3.21	335,769.38	2.424E+00	Pulse	0.30	3
Ti			2	80.917	ug/l	5.37	2,771.38	2.001E-02	Pulse	0.30	3
V			2	78.353	ug/l	2.72	87,197.30	6.293E-01	Pulse	0.30	3
Cr			2	75.857	ug/l	3.04	107,555.54	7.763E-01	Pulse	0.30	3
Mn			2	946.229	ug/l	3.06	713,425.30	5.149E+00	Pulse	0.30	3
Fe			2	4055.290	ug/l	3.47	4,469,488.85	3.226E+01	Pulse	0.30	3
Co			2	94.670	ug/l	3.32	209,949.48	1.515E+00	Pulse	0.30	3
Ni			2	132.383	ug/l	2.78	77,690.66	5.607E-01	Pulse	0.30	3
Cu			2	85.365	ug/l	3.50	142,824.66	1.031E+00	Pulse	0.30	3
Zn			2	279.579	ug/l	4.41	68,604.71	4.953E-01	Pulse	0.30	3
As			2	77.895	ug/l	3.17	10,795.91	7.792E-02	Pulse	1.00	3
Cd			2	79.224	ug/l	2.66	30,049.50	3.601E-02	Pulse	0.30	3
Sn			2	80.170	ug/l	1.89	67,586.04	8.097E-02	Pulse	0.30	3
Se			3	354.984	ug/l	0.60	12,850.83	7.180E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,147,413.43	0.53	91.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,387,109.13	0.71	84.9	Pulse	0.10	3
1	Ge		500,365.23	0.74	87.7	Pulse	0.10	3
1	Ge		689,455.98	0.74	86.9	Pulse	0.10	3
1	Rh		3,222,259.85	0.72	83.7	Pulse	0.10	3
1	In		3,482,778.92	0.57	87.4	Pulse	0.10	3
1	Tb		5,063,313.36	0.89	91.4	Pulse	0.10	3
1	Ho		518,065.98	0.50	94.2	Pulse	0.10	3
1	Bi		2,891,073.91	1.27	86.6	Pulse	0.10	3
2	Sc		138,625.34	2.75	86.3	Pulse	0.30	3
2	Ge		88,141.52	1.32	88.6	Pulse	0.30	3
2	Ge		132,882.06	1.07	88.6	Pulse	0.30	3
2	Rh		2,001,550.47	1.73	82.2	Pulse	0.30	3
2	In		834,902.00	2.27	85.9	Pulse	0.30	3
2	Tb		2,868,443.15	1.36	87.6	Pulse	0.30	3
2	Ho		307,434.27	0.63	92.0	Pulse	0.30	3
2	Bi		1,864,058.61	1.28	83.3	Pulse	0.30	3
3	Sc		185,715.97	0.36	85.7	Pulse	0.30	3
3	Ge		119,964.93	0.79	85.5	Pulse	0.30	3
3	Ge		178,973.21	0.47	84.6	Pulse	0.30	3
3	Rh		1,766,656.11	0.40	81.0	Pulse	0.30	3
3	Tb		3,209,912.37	0.27	87.6	Pulse	0.30	3

Quantitation Report

File Name	074SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 16:17
Sample Name	mp17203-s2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	67.765	ug/l	0.54	82,755.70	7.296E-02	Pulse	0.25	3
B			1	145.546	ug/l	1.80	131,273.75	1.157E-01	Pulse	0.15	3
Ca			1	70339.188	ug/l	0.41	11,289,376.50	4.778E+00	Analog	0.10	3
Sr			1	446.985	ug/l	0.58	3,830,574.74	1.190E+00	Pulse	0.10	3
Mo			1	79.646	ug/l	1.19	127,552.81	3.962E-02	Pulse	0.10	3
Ag			1	74.946	ug/l	0.31	315,663.49	9.024E-02	Pulse	0.10	3
Sn			1	77.333	ug/l	0.65	212,249.28	6.068E-02	Pulse	0.10	3
Sb			1	76.910	ug/l	1.18	250,105.48	4.925E-02	Pulse	0.10	3
Ba			1	128.122	ug/l	1.45	175,347.71	3.452E-02	Pulse	0.10	3
Tl			1	76.177	ug/l	0.94	585,087.28	2.031E-01	Pulse	0.10	3
Pb			1	79.174	ug/l	0.46	210,177.36	7.295E-02	Pulse	0.10	3
Pb			1	79.305	ug/l	1.84	185,286.94	6.431E-02	Pulse	0.10	3
Pb			1	78.875	ug/l	0.65	846,392.76	2.938E-01	Pulse	0.10	3
Na			2	312342.181	ug/l	0.76	75,735,254.77	5.382E+02	Analog	0.30	3
Mg			2	25388.673	ug/l	0.31	2,852,594.75	2.027E+01	Pulse	0.30	3
Al			2	5799.455	ug/l	0.58	222,356.73	1.580E+00	Pulse	0.30	3
K			2	11488.944	ug/l	0.85	1,077,730.65	7.658E+00	Pulse	0.30	3
Ca			2	70957.088	ug/l	0.44	332,128.29	2.360E+00	Pulse	0.30	3
Ti			2	76.441	ug/l	3.53	2,660.25	1.890E-02	Pulse	0.30	3
V			2	76.385	ug/l	0.82	86,345.05	6.136E-01	Pulse	0.30	3
Cr			2	72.960	ug/l	1.31	105,103.16	7.469E-01	Pulse	0.30	3
Mn			2	916.693	ug/l	0.91	702,009.33	4.989E+00	Pulse	0.30	3
Fe			2	3954.938	ug/l	1.09	4,427,770.94	3.146E+01	Pulse	0.30	3
Co			2	92.481	ug/l	0.26	208,332.44	1.480E+00	Pulse	0.30	3
Ni			2	128.596	ug/l	0.81	76,652.77	5.447E-01	Pulse	0.30	3
Cu			2	82.029	ug/l	0.54	139,688.62	9.926E-01	Pulse	0.30	3
Zn			2	270.342	ug/l	0.62	67,438.88	4.792E-01	Pulse	0.30	3
As			2	73.911	ug/l	1.53	10,406.67	7.394E-02	Pulse	1.00	3
Cd			2	78.240	ug/l	1.09	30,039.92	3.556E-02	Pulse	0.30	3
Sn			2	77.101	ug/l	0.85	65,822.00	7.791E-02	Pulse	0.30	3
Se			3	354.712	ug/l	1.05	12,718.73	7.175E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,134,270.86	0.21	90.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,362,883.51	0.82	84.0	Pulse	0.10	3
1	Ge		496,760.41	1.09	87.1	Pulse	0.10	3
1	Ge		685,324.57	1.08	86.3	Pulse	0.10	3
1	Rh		3,219,627.14	1.14	83.6	Pulse	0.10	3
1	In		3,498,004.72	1.32	87.8	Pulse	0.10	3
1	Tb		5,078,917.63	1.54	91.7	Pulse	0.10	3
1	Ho		520,178.98	1.51	94.6	Pulse	0.10	3
1	Bi		2,881,006.31	0.38	86.3	Pulse	0.10	3
2	Sc		140,728.19	0.55	87.6	Pulse	0.30	3
2	Ge		88,173.71	0.39	88.6	Pulse	0.30	3
2	Ge		131,901.82	0.34	88.0	Pulse	0.30	3
2	Rh		2,018,568.32	0.28	82.9	Pulse	0.30	3
2	In		844,832.36	0.79	86.9	Pulse	0.30	3
2	Tb		2,884,886.41	0.41	88.1	Pulse	0.30	3
2	Ho		308,526.18	0.30	92.3	Pulse	0.30	3
2	Bi		1,886,790.48	0.54	84.3	Pulse	0.30	3
3	Sc		184,355.91	1.00	85.1	Pulse	0.30	3
3	Ge		118,205.61	0.79	84.3	Pulse	0.30	3
3	Ge		177,276.94	0.83	83.8	Pulse	0.30	3
3	Rh		1,753,605.97	0.51	80.4	Pulse	0.30	3
3	Tb		3,205,174.80	0.29	87.5	Pulse	0.30	3

Quantitation Report

File Name 075SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 16:22
Sample Name jc94533-3
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.029	ug/l	67.05	57.33	4.987E-05	Pulse	0.25	3
B			1	161.364	ug/l	1.53	147,174.97	1.277E-01	Pulse	0.15	3
Ca			1	227695.818	ug/l	0.87	37,369,378.61	1.546E+01	Analog	0.10	3
Sr			1	3061.145	ug/l	1.07	24,387,930.47	8.148E+00	Analog	0.10	3
Mo			1	5.299	ug/l	3.16	8,012.36	2.677E-03	Pulse	0.10	3
Ag			1	0.048	ug/l	24.43	210.01	6.397E-05	Pulse	0.10	3
Sn			1	1.797	ug/l	1.46	7,138.53	2.174E-03	Pulse	0.10	3
Sb			1	0.365	ug/l	19.08	1,426.79	2.962E-04	Pulse	0.10	3
Ba			1	359.894	ug/l	0.46	466,947.31	9.694E-02	Pulse	0.10	3
Tl			1	0.037	ug/l	47.93	443.36	1.727E-04	Pulse	0.10	3
Pb			1	0.520	ug/l	8.14	1,450.13	5.644E-04	Pulse	0.10	3
Pb			1	0.410	ug/l	6.26	1,050.08	4.086E-04	Pulse	0.10	3
Pb			1	0.459	ug/l	2.48	5,360.60	2.086E-03	Pulse	0.10	3
Na			2	2377792.688	ug/l	1.13	584,909,132.31	4.096E+03	Analog	0.30	3
Mg			2	11232.221	ug/l	0.90	1,280,641.72	8.969E+00	Pulse	0.30	3
Al			2	6.347	ug/l	19.33	865.59	6.063E-03	Pulse	0.30	3
K			2	31695.712	ug/l	0.63	2,995,119.81	2.098E+01	Pulse	0.30	3
Ca			2	234436.522	ug/l	0.62	1,113,152.70	7.796E+00	Pulse	0.30	3
Ti			2	0.636	ug/l	45.06	24.44	1.711E-04	Pulse	0.30	3
V			2	1.071	ug/l	12.44	1,492.31	1.045E-02	Pulse	0.30	3
Cr			2	1.767	ug/l	3.15	3,421.52	2.396E-02	Pulse	0.30	3
Mn			2	818.356	ug/l	0.77	635,890.50	4.453E+00	Pulse	0.30	3
Fe			2	4289.771	ug/l	0.81	4,872,560.36	3.412E+01	Pulse	0.30	3
Co			2	0.395	ug/l	11.95	951.33	6.664E-03	Pulse	0.30	3
Ni			2	1.042	ug/l	9.30	781.14	5.471E-03	Pulse	0.30	3
Cu			2	-1.897	ug/l	-4.58	4,128.35	2.891E-02	Pulse	0.30	3
Zn			2	-1.192	ug/l	-18.87	1,036.71	7.261E-03	Pulse	0.30	3
As			2	1.203	ug/l	0.62	191.33	1.340E-03	Pulse	1.00	3
Cd			2	-0.019	ug/l	-27.25	3.81	4.754E-06	Pulse	0.30	3
Sn			2	1.737	ug/l	0.30	2,309.09	2.884E-03	Pulse	0.30	3
Se			3	0.539	ug/l	7.25	21.33	1.283E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,152,551.42	1.27	92.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,417,741.94	0.70	85.9	Pulse	0.10	3
1	Ge		475,794.63	0.69	83.4	Pulse	0.10	3
1	Ge		657,306.42	0.42	82.8	Pulse	0.10	3
1	Rh		2,993,321.00	0.85	77.8	Pulse	0.10	3
1	In		3,283,421.19	0.50	82.4	Pulse	0.10	3
1	Tb		4,816,842.22	0.72	87.0	Pulse	0.10	3
1	Ho		478,639.20	0.21	87.0	Pulse	0.10	3
1	Bi		2,569,649.34	0.43	77.0	Pulse	0.10	3
2	Sc		142,787.74	0.31	88.9	Pulse	0.30	3
2	Ge		84,636.64	0.79	85.0	Pulse	0.30	3
2	Ge		126,748.47	0.44	84.5	Pulse	0.30	3
2	Rh		1,867,113.53	0.40	76.7	Pulse	0.30	3
2	In		800,724.45	0.53	82.4	Pulse	0.30	3
2	Tb		2,740,947.11	0.36	83.7	Pulse	0.30	3
2	Ho		281,665.32	0.81	84.3	Pulse	0.30	3
2	Bi		1,678,635.42	0.49	75.0	Pulse	0.30	3
3	Sc		180,584.39	0.64	83.4	Pulse	0.30	3
3	Ge		109,942.00	0.58	78.4	Pulse	0.30	3
3	Ge		166,199.31	1.30	78.6	Pulse	0.30	3
3	Rh		1,603,395.21	0.34	73.5	Pulse	0.30	3
3	Tb		2,991,595.23	0.74	81.7	Pulse	0.30	3

Quantitation Report

File Name 076SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 16:27
Sample Name jc94533-5
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.020	ug/l	106.54	45.33	3.946E-05	Pulse	0.25	3
B			1	162.192	ug/l	0.68	146,744.26	1.283E-01	Pulse	0.15	3
Ca			1	225265.282	ug/l	1.69	36,911,579.45	1.529E+01	Analog	0.10	3
Sr			1	3056.791	ug/l	1.58	24,182,185.47	8.136E+00	Analog	0.10	3
Mo			1	5.505	ug/l	2.34	8,262.45	2.780E-03	Pulse	0.10	3
Ag			1	0.022	ug/l	11.38	106.67	3.288E-05	Pulse	0.10	3
Sn			1	1.995	ug/l	7.67	7,538.75	2.327E-03	Pulse	0.10	3
Sb			1	0.371	ug/l	15.53	1,436.79	2.998E-04	Pulse	0.10	3
Ba			1	359.779	ug/l	0.71	464,513.78	9.691E-02	Pulse	0.10	3
Tl			1	-0.001	ug/l	-219.00	180.01	7.045E-05	Pulse	0.10	3
Pb			1	0.512	ug/l	2.47	1,423.46	5.570E-04	Pulse	0.10	3
Pb			1	0.497	ug/l	11.36	1,223.43	4.788E-04	Pulse	0.10	3
Pb			1	0.497	ug/l	2.91	5,687.31	2.226E-03	Pulse	0.10	3
Na			2	2333687.069	ug/l	1.09	579,513,434.75	4.020E+03	Analog	0.30	3
Mg			2	10934.209	ug/l	1.03	1,258,522.00	8.731E+00	Pulse	0.30	3
Al			2	8.768	ug/l	11.02	968.95	6.721E-03	Pulse	0.30	3
K			2	31031.510	ug/l	1.34	2,960,400.30	2.054E+01	Pulse	0.30	3
Ca			2	229770.863	ug/l	1.74	1,101,308.74	7.641E+00	Pulse	0.30	3
Ti			2	0.851	ug/l	67.41	32.22	2.241E-04	Pulse	0.30	3
V			2	1.034	ug/l	10.12	1,464.53	1.015E-02	Pulse	0.30	3
Cr			2	1.363	ug/l	5.11	2,863.62	1.986E-02	Pulse	0.30	3
Mn			2	815.163	ug/l	1.63	639,395.77	4.436E+00	Pulse	0.30	3
Fe			2	4347.720	ug/l	1.59	4,984,998.00	3.459E+01	Pulse	0.30	3
Co			2	0.370	ug/l	3.43	902.13	6.259E-03	Pulse	0.30	3
Ni			2	1.047	ug/l	4.28	791.14	5.490E-03	Pulse	0.30	3
Cu			2	-1.798	ug/l	-2.83	4,331.74	3.005E-02	Pulse	0.30	3
Zn			2	0.764	ug/l	67.64	1,535.65	1.066E-02	Pulse	0.30	3
As			2	1.083	ug/l	6.51	176.00	1.221E-03	Pulse	1.00	3
Cd			2	0.002	ug/l	1070.08	11.59	1.435E-05	Pulse	0.30	3
Sn			2	1.607	ug/l	3.89	2,232.41	2.755E-03	Pulse	0.30	3
Se			3	0.464	ug/l	18.94	18.47	1.131E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,143,371.79	1.24	91.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,414,226.26	1.59	85.8	Pulse	0.10	3
1	Ge		475,829.58	0.87	83.4	Pulse	0.10	3
1	Ge		659,158.53	0.42	83.0	Pulse	0.10	3
1	Rh		2,972,508.29	1.04	77.2	Pulse	0.10	3
1	In		3,240,431.17	1.68	81.3	Pulse	0.10	3
1	Tb		4,793,495.24	0.74	86.6	Pulse	0.10	3
1	Ho		473,544.51	0.39	86.1	Pulse	0.10	3
1	Bi		2,555,547.62	0.27	76.5	Pulse	0.10	3
2	Sc		144,154.31	1.26	89.7	Pulse	0.30	3
2	Ge		85,632.77	1.25	86.1	Pulse	0.30	3
2	Ge		129,030.76	0.79	86.0	Pulse	0.30	3
2	Rh		1,890,420.13	0.78	77.7	Pulse	0.30	3
2	In		810,468.01	1.05	83.4	Pulse	0.30	3
2	Tb		2,804,711.35	1.23	85.7	Pulse	0.30	3
2	Ho		287,600.04	1.45	86.0	Pulse	0.30	3
2	Bi		1,698,379.76	0.79	75.9	Pulse	0.30	3
3	Sc		177,189.69	8.02	81.8	Pulse	0.30	3
3	Ge		108,138.14	5.24	77.1	Pulse	0.30	3
3	Ge		163,956.39	5.16	77.5	Pulse	0.30	3
3	Rh		1,586,680.94	6.84	72.7	Pulse	0.30	3
3	Tb		2,945,364.68	7.03	80.4	Pulse	0.30	3

Quantitation Report

File Name 077_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 16:32
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	45.677	ug/l	1.02	288,140.36	2.458E-01	Pulse	0.25	3
B			1	86.940	ug/l	1.28	392,189.92	3.346E-01	Pulse	0.15	3
Ca			1	5048.506	ug/l	0.46	4,070,519.52	1.717E+00	Pulse	0.10	3
Sr			1	51.983	ug/l	0.31	2,265,361.74	6.919E-01	Pulse	0.10	3
Mo			1	51.085	ug/l	0.55	415,710.22	1.270E-01	Pulse	0.10	3
Ag			1	49.228	ug/l	1.25	1,030,221.39	2.964E-01	Pulse	0.10	3
Sn			1	49.881	ug/l	0.39	674,279.52	1.940E-01	Pulse	0.10	3
Sb			1	52.788	ug/l	0.36	830,373.92	1.688E-01	Pulse	0.10	3
Ba			1	50.867	ug/l	0.28	336,921.34	6.851E-02	Pulse	0.10	3
Tl			1	51.000	ug/l	0.93	1,959,829.81	6.796E-01	Pulse	0.10	3
Pb			1	50.927	ug/l	0.81	676,042.44	2.344E-01	Pulse	0.10	3
Pb			1	50.758	ug/l	0.51	592,995.72	2.056E-01	Pulse	0.10	3
Pb			1	50.795	ug/l	0.32	2,725,410.64	9.451E-01	Pulse	0.10	3
Na			2	5210.635	ug/l	0.52	6,341,534.47	4.496E+01	Analog	0.30	3
Mg			2	4882.281	ug/l	0.12	2,749,208.50	1.949E+01	Pulse	0.30	3
Al			2	4902.144	ug/l	0.20	939,966.80	6.664E+00	Pulse	0.30	3
K			2	4960.338	ug/l	0.79	2,317,811.99	1.643E+01	Pulse	0.30	3
Ca			2	5196.524	ug/l	0.27	121,963.34	8.646E-01	Pulse	0.30	3
Ti			2	48.516	ug/l	1.57	8,456.70	5.995E-02	Pulse	0.30	3
V			2	50.253	ug/l	0.39	284,082.58	2.014E+00	Pulse	0.30	3
Cr			2	49.476	ug/l	0.60	355,179.15	2.518E+00	Pulse	0.30	3
Mn			2	50.609	ug/l	0.69	194,325.98	1.378E+00	Pulse	0.30	3
Fe			2	5134.674	ug/l	0.28	28,780,811.08	2.040E+02	Analog	0.30	3
Co			2	49.125	ug/l	0.56	554,530.19	3.931E+00	Pulse	0.30	3
Ni			2	48.843	ug/l	0.62	145,774.47	1.033E+00	Pulse	0.30	3
Cu			2	48.004	ug/l	0.57	395,904.84	2.807E+00	Pulse	0.30	3
Zn			2	49.298	ug/l	1.88	61,747.81	4.378E-01	Pulse	0.30	3
As			2	49.782	ug/l	0.82	35,078.80	2.487E-01	Pulse	1.00	3
Cd			2	49.369	ug/l	0.31	95,778.21	1.122E-01	Pulse	0.30	3
Sn			2	49.561	ug/l	0.50	211,658.89	2.479E-01	Pulse	0.30	3
Se			3	198.464	ug/l	0.79	35,260.51	2.007E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,172,036.10	0.35	93.8	Pulse	0.10	3
1	Sc		2,370,228.66	0.81	84.3	Pulse	0.10	3
1	Ge		478,858.11	0.68	83.9	Pulse	0.10	3

Quantitation Report

1	Ge		676,797.02	1.30	85.3	Pulse	0.10	3
1	Rh		3,274,176.82	0.66	85.1	Pulse	0.10	3
1	In		3,476,371.93	0.61	87.2	Pulse	0.10	3
1	Tb		4,917,915.76	0.85	88.8	Pulse	0.10	3
1	Ho		485,451.59	0.38	88.2	Pulse	0.10	3
1	Bi		2,883,673.29	0.34	86.4	Pulse	0.10	3
2	Sc		141,055.03	0.70	87.8	Pulse	0.30	3
2	Ge		87,156.40	1.02	87.6	Pulse	0.30	3
2	Ge		130,142.32	0.57	86.8	Pulse	0.30	3
2	Rh		2,071,509.36	0.32	85.1	Pulse	0.30	3
2	In		853,951.25	0.88	87.9	Pulse	0.30	3
2	Tb		2,871,726.62	0.69	87.7	Pulse	0.30	3
2	Ho		294,345.24	1.08	88.1	Pulse	0.30	3
2	Bi		1,921,224.51	0.13	85.8	Pulse	0.30	3
3	Sc		180,436.72	0.56	83.3	Pulse	0.30	3
3	Ge		116,087.14	1.07	82.8	Pulse	0.30	3
3	Ge		175,707.13	0.79	83.1	Pulse	0.30	3
3	Rh		1,778,320.42	0.08	81.5	Pulse	0.30	3
3	Tb		3,145,324.11	0.09	85.9	Pulse	0.30	3

Quantitation Report

File Name 078_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 16:37
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	67.85	84.00	7.023E-05	Pulse	0.25	3
B			1	3.798	ug/l	3.99	23,863.74	1.993E-02	Pulse	0.15	3
Ca			1	2.211	ug/l	23.87	12,268.32	5.065E-03	Pulse	0.10	3
Sr			1	0.029	ug/l	3.10	1,656.82	4.871E-04	Pulse	0.10	3
Mo			1	0.083	ug/l	12.67	850.06	2.500E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	51.78	326.68	9.192E-05	Pulse	0.10	3
Sn			1	0.153	ug/l	13.75	4,897.63	1.375E-03	Pulse	0.10	3
Sb			1	0.058	ug/l	13.87	1,236.77	2.493E-04	Pulse	0.10	3
Ba			1	0.024	ug/l	60.28	236.68	4.778E-05	Pulse	0.10	3
Tl			1	0.021	ug/l	19.34	1,040.08	3.492E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	55.91	516.70	1.732E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	33.33	413.36	1.388E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	2.65	2,053.48	6.892E-04	Pulse	0.10	3
Na			2	48.523	ug/l	2.48	71,022.00	4.918E-01	Pulse	0.30	3
Mg			2	0.863	ug/l	8.61	790.03	5.471E-03	Pulse	0.30	3
Al			2	2.298	ug/l	25.66	1,076.71	7.460E-03	Pulse	0.30	3
K			2	1.674	ug/l	14.34	13,216.44	9.151E-02	Pulse	0.30	3
Ca			2	4.823	ug/l	13.19	216.67	1.500E-03	Pulse	0.30	3
Ti			2	0.051	ug/l	54.75	11.11	7.677E-05	Pulse	0.30	3
V			2	0.002	ug/l	332.94	281.12	1.947E-03	Pulse	0.30	3
Cr			2	0.008	ug/l	52.55	925.59	6.409E-03	Pulse	0.30	3
Mn			2	0.022	ug/l	31.76	220.00	1.524E-03	Pulse	0.30	3
Fe			2	1.078	ug/l	5.05	11,798.76	8.171E-02	Pulse	0.30	3
Co			2	0.007	ug/l	43.73	132.19	9.167E-04	Pulse	0.30	3
Ni			2	0.028	ug/l	40.51	238.89	1.655E-03	Pulse	0.30	3
Cu			2	-0.590	ug/l	-1.46	2,430.21	1.683E-02	Pulse	0.30	3
Zn			2	-0.155	ug/l	-15.04	1,153.39	7.986E-03	Pulse	0.30	3
As			2	0.010	ug/l	65.27	27.33	1.893E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.003	ug/l	175.61	17.69	2.014E-05	Pulse	0.30	3
Sn			2	0.162	ug/l	7.50	1,723.44	1.962E-03	Pulse	0.30	3
Se			3	0.115	ug/l	14.27	24.27	1.351E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,197,232.92	0.58	95.9	Pulse	0.10	3
1	Sc		2,421,541.16	0.85	86.1	Pulse	0.10	3
1	Ge		495,585.19	0.48	86.9	Pulse	0.10	3
1	Ge		691,020.30	2.09	87.1	Pulse	0.10	3
1	Rh		3,402,481.10	1.70	88.4	Pulse	0.10	3
1	In		3,561,700.51	1.01	89.4	Pulse	0.10	3
1	Tb		4,960,283.05	0.71	89.6	Pulse	0.10	3
1	Ho		491,008.81	1.38	89.3	Pulse	0.10	3
1	Bi		2,979,399.85	0.92	89.2	Pulse	0.10	3
2	Sc		144,421.75	0.96	89.9	Pulse	0.30	3
2	Ge		88,154.84	0.16	88.6	Pulse	0.30	3
2	Ge		133,946.42	1.03	89.3	Pulse	0.30	3
2	Rh		2,146,048.87	0.54	88.2	Pulse	0.30	3
2	In		878,271.92	0.10	90.4	Pulse	0.30	3
2	Tb		2,909,421.48	0.13	88.9	Pulse	0.30	3
2	Ho		297,045.23	0.56	88.9	Pulse	0.30	3
2	Bi		1,989,727.84	0.22	88.9	Pulse	0.30	3
3	Sc		184,700.89	0.65	85.3	Pulse	0.30	3
3	Ge		118,255.05	0.87	84.3	Pulse	0.30	3
3	Ge		179,563.68	0.37	84.9	Pulse	0.30	3
3	Rh		1,863,682.15	1.06	85.4	Pulse	0.30	3
3	Tb		3,190,715.50	0.70	87.1	Pulse	0.30	3

Quantitation Report

File Name 079SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 16:42
Sample Name jc94533-7
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	55.31	37.33	3.346E-05	Pulse	0.25	3
B			1	116.186	ug/l	1.51	104,395.12	9.351E-02	Pulse	0.15	3
Ca			1	149452.209	ug/l	0.53	23,313,022.15	1.015E+01	Analog	0.10	3
Sr			1	1220.409	ug/l	2.59	10,117,767.98	3.248E+00	Analog	0.10	3
Mo			1	6.733	ug/l	4.40	10,563.89	3.390E-03	Pulse	0.10	3
Ag			1	0.052	ug/l	27.98	233.35	6.948E-05	Pulse	0.10	3
Sn			1	1.944	ug/l	7.06	7,672.15	2.288E-03	Pulse	0.10	3
Sb			1	0.463	ug/l	4.51	1,743.51	3.590E-04	Pulse	0.10	3
Ba			1	283.533	ug/l	1.38	370,837.33	7.637E-02	Pulse	0.10	3
Tl			1	0.165	ug/l	13.38	1,423.46	5.151E-04	Pulse	0.10	3
Pb			1	2.788	ug/l	6.42	7,325.42	2.652E-03	Pulse	0.10	3
Pb			1	2.612	ug/l	5.78	6,058.14	2.192E-03	Pulse	0.10	3
Pb			1	2.682	ug/l	4.42	28,612.02	1.036E-02	Pulse	0.10	3
Na			2	428485.118	ug/l	0.89	102,454,940.37	7.383E+02	Analog	0.30	3
Mg			2	8401.054	ug/l	0.61	931,037.22	6.709E+00	Pulse	0.30	3
Al			2	19.325	ug/l	10.20	1,331.18	9.589E-03	Pulse	0.30	3
K			2	29256.439	ug/l	1.11	2,687,866.63	1.937E+01	Pulse	0.30	3
Ca			2	149054.030	ug/l	0.71	687,936.22	4.957E+00	Pulse	0.30	3
Ti			2	1.501	ug/l	39.81	53.33	3.847E-04	Pulse	0.30	3
V			2	0.326	ug/l	23.62	622.24	4.486E-03	Pulse	0.30	3
Cr			2	1.439	ug/l	2.48	2,863.63	2.063E-02	Pulse	0.30	3
Mn			2	15497.624	ug/l	1.45	11,701,800.92	8.432E+01	Analog	0.30	3
Fe			2	35111.611	ug/l	1.52	38,721,757.35	2.790E+02	Analog	0.30	3
Co			2	4.093	ug/l	1.42	9,137.02	6.584E-02	Pulse	0.30	3
Ni			2	1.112	ug/l	5.93	800.03	5.764E-03	Pulse	0.30	3
Cu			2	-2.088	ug/l	-2.96	3,709.34	2.672E-02	Pulse	0.30	3
Zn			2	2.184	ug/l	23.30	1,822.35	1.313E-02	Pulse	0.30	3
As			2	2.507	ug/l	3.89	366.68	2.642E-03	Pulse	1.00	3
Cd			2	0.037	ug/l	51.74	24.76	3.012E-05	Pulse	0.30	3
Sn			2	1.932	ug/l	2.54	2,531.34	3.078E-03	Pulse	0.30	3
Se			3	0.619	ug/l	9.82	24.80	1.444E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,116,456.93	0.54	89.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,297,556.53	0.20	81.7	Pulse	0.10	3
1	Ge		471,905.37	0.51	82.7	Pulse	0.10	3
1	Ge		651,688.83	0.75	82.1	Pulse	0.10	3
1	Rh		3,115,494.33	1.45	80.9	Pulse	0.10	3
1	In		3,354,016.05	0.83	84.2	Pulse	0.10	3
1	Tb		4,855,859.72	0.68	87.7	Pulse	0.10	3
1	Ho		478,516.15	0.77	87.0	Pulse	0.10	3
1	Bi		2,763,181.73	0.73	82.8	Pulse	0.10	3
2	Sc		138,783.26	0.88	86.4	Pulse	0.30	3
2	Ge		85,619.25	0.87	86.0	Pulse	0.30	3
2	Ge		128,260.05	0.65	85.5	Pulse	0.30	3
2	Rh		1,966,239.58	0.11	80.8	Pulse	0.30	3
2	In		822,512.72	0.45	84.6	Pulse	0.30	3
2	Tb		2,833,786.41	0.54	86.5	Pulse	0.30	3
2	Ho		288,111.16	0.54	86.2	Pulse	0.30	3
2	Bi		1,832,251.52	0.46	81.8	Pulse	0.30	3
3	Sc		181,189.67	0.68	83.6	Pulse	0.30	3
3	Ge		114,137.82	0.12	81.4	Pulse	0.30	3
3	Ge		171,812.72	0.87	81.2	Pulse	0.30	3
3	Rh		1,708,740.24	0.91	78.3	Pulse	0.30	3
3	Tb		3,131,221.75	0.39	85.5	Pulse	0.30	3

Quantitation Report

File Name	080SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 16:47
Sample Name	jc94533-11
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	232.77	29.33	2.584E-05	Pulse	0.25	3
B			1	122.705	ug/l	1.10	111,797.41	9.845E-02	Pulse	0.15	3
Ca			1	211928.448	ug/l	0.69	34,991,623.65	1.439E+01	Analog	0.10	3
Sr			1	2196.618	ug/l	0.72	18,041,382.65	5.847E+00	Analog	0.10	3
Mo			1	14.005	ug/l	5.90	21,605.28	7.003E-03	Pulse	0.10	3
Ag			1	0.755	ug/l	10.71	3,067.12	9.156E-04	Pulse	0.10	3
Sn			1	0.819	ug/l	14.18	4,744.26	1.416E-03	Pulse	0.10	3
Sb			1	0.369	ug/l	10.10	1,456.79	2.988E-04	Pulse	0.10	3
Ba			1	348.134	ug/l	0.46	456,810.68	9.377E-02	Pulse	0.10	3
Tl			1	0.316	ug/l	10.84	2,430.30	9.175E-04	Pulse	0.10	3
Pb			1	0.128	ug/l	5.90	540.03	2.039E-04	Pulse	0.10	3
Pb			1	0.145	ug/l	16.78	513.37	1.939E-04	Pulse	0.10	3
Pb			1	0.124	ug/l	2.30	2,220.16	8.382E-04	Pulse	0.10	3
Na			2	1652518.660	ug/l	12.47	383,655,806.98	2.847E+03	Analog	0.30	3
Mg			2	8387.024	ug/l	12.61	902,470.97	6.698E+00	Pulse	0.30	3
Al			2	13.995	ug/l	3.38	1,107.83	8.141E-03	Pulse	0.30	3
K			2	59871.847	ug/l	13.08	5,326,871.73	3.955E+01	Analog	0.30	3
Ca			2	234214.855	ug/l	12.30	1,049,715.10	7.789E+00	Pulse	0.30	3
Ti			2	0.746	ug/l	49.86	27.78	1.980E-04	Pulse	0.30	3
V			2	1.359	ug/l	11.39	1,723.44	1.276E-02	Pulse	0.30	3
Cr			2	0.814	ug/l	23.82	1,925.69	1.429E-02	Pulse	0.30	3
Mn			2	2627.549	ug/l	12.73	1,926,250.90	1.430E+01	Pulse	0.30	3
Fe			2	657.795	ug/l	12.50	709,643.48	5.266E+00	Pulse	0.30	3
Co			2	9.982	ug/l	10.39	21,609.04	1.601E-01	Pulse	0.30	3
Ni			2	1.945	ug/l	20.28	1,246.73	9.289E-03	Pulse	0.30	3
Cu			2	-0.387	ug/l	-82.75	6,256.83	4.626E-02	Pulse	0.30	3
Zn			2	3.320	ug/l	34.73	2,034.60	1.510E-02	Pulse	0.30	3
As			2	0.958	ug/l	20.51	147.00	1.096E-03	Pulse	1.00	3
Cd			2	10.986	ug/l	11.84	3,838.85	5.005E-03	Pulse	0.30	3
Sn			2	0.937	ug/l	23.35	1,603.43	2.088E-03	Pulse	0.30	3
Se			3	0.553	ug/l	13.13	22.80	1.312E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,135,640.05	0.31	90.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,432,082.31	1.08	86.5	Pulse	0.10	3
1	Ge		482,849.28	0.62	84.6	Pulse	0.10	3
1	Ge		672,656.71	1.34	84.7	Pulse	0.10	3
1	Rh		3,085,930.68	1.25	80.2	Pulse	0.10	3
1	In		3,349,410.09	0.89	84.0	Pulse	0.10	3
1	Tb		4,871,800.66	1.85	88.0	Pulse	0.10	3
1	Ho		483,987.68	0.66	88.0	Pulse	0.10	3
1	Bi		2,648,771.42	0.64	79.3	Pulse	0.10	3
2	Sc		136,104.79	11.90	84.7	Pulse	0.30	3
2	Ge		80,365.97	11.65	80.8	Pulse	0.30	3
2	Ge		120,762.87	12.20	80.5	Pulse	0.30	3
2	Rh		1,797,015.69	12.28	73.8	Pulse	0.30	3
2	In		774,243.00	11.83	79.7	Pulse	0.30	3
2	Tb		2,622,374.13	12.33	80.1	Pulse	0.30	3
2	Ho		269,515.77	12.43	80.6	Pulse	0.30	3
2	Bi		1,623,602.30	12.25	72.5	Pulse	0.30	3
3	Sc		187,503.32	0.94	86.5	Pulse	0.30	3
3	Ge		115,529.96	0.29	82.4	Pulse	0.30	3
3	Ge		173,650.97	0.65	82.1	Pulse	0.30	3
3	Rh		1,694,076.25	1.02	77.7	Pulse	0.30	3
3	Tb		3,122,425.29	1.09	85.2	Pulse	0.30	3

Quantitation Report

File Name	081SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 16:52
Sample Name	jc94536-3
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.017	ug/l	38.94	42.67	3.657E-05	Pulse	0.25	3
B			1	166.466	ug/l	1.75	153,502.09	1.316E-01	Pulse	0.15	3
Ca			1	66555.986	ug/l	0.98	10,945,582.34	4.521E+00	Analog	0.10	3
Sr			1	433.887	ug/l	0.58	3,739,210.99	1.155E+00	Pulse	0.10	3
Mo			1	1.026	ug/l	9.56	1,793.51	5.539E-04	Pulse	0.10	3
Ag			1	0.032	ug/l	49.98	156.67	4.520E-05	Pulse	0.10	3
Sn			1	0.768	ug/l	3.76	4,777.56	1.377E-03	Pulse	0.10	3
Sb			1	0.144	ug/l	10.40	770.06	1.547E-04	Pulse	0.10	3
Ba			1	245.290	ug/l	1.44	328,825.82	6.607E-02	Pulse	0.10	3
Tl			1	0.025	ug/l	37.79	393.36	1.401E-04	Pulse	0.10	3
Pb			1	0.329	ug/l	18.38	1,090.08	3.884E-04	Pulse	0.10	3
Pb			1	0.339	ug/l	8.23	983.40	3.507E-04	Pulse	0.10	3
Pb			1	0.305	ug/l	10.09	4,247.06	1.514E-03	Pulse	0.10	3
Na			2	445840.547	ug/l	0.73	111,168,875.59	7.681E+02	Analog	0.30	3
Mg			2	3725.822	ug/l	2.07	430,707.26	2.976E+00	Pulse	0.30	3
Al			2	4.260	ug/l	24.52	795.58	5.496E-03	Pulse	0.30	3
K			2	35547.854	ug/l	1.72	3,402,871.11	2.352E+01	Pulse	0.30	3
Ca			2	66605.604	ug/l	1.29	320,602.80	2.215E+00	Pulse	0.30	3
Ti			2	0.410	ug/l	59.93	16.67	1.152E-04	Pulse	0.30	3
V			2	0.555	ug/l	14.31	913.37	6.315E-03	Pulse	0.30	3
Cr			2	1.193	ug/l	10.26	2,623.58	1.814E-02	Pulse	0.30	3
Mn			2	132.486	ug/l	1.96	104,442.16	7.218E-01	Pulse	0.30	3
Fe			2	285.435	ug/l	1.37	333,852.02	2.307E+00	Pulse	0.30	3
Co			2	0.326	ug/l	5.50	804.69	5.558E-03	Pulse	0.30	3
Ni			2	0.285	ug/l	47.44	328.90	2.268E-03	Pulse	0.30	3
Cu			2	-2.082	ug/l	-10.74	3,874.95	2.680E-02	Pulse	0.30	3
Zn			2	4.397	ug/l	0.83	2,456.88	1.698E-02	Pulse	0.30	3
As			2	0.243	ug/l	36.08	55.33	3.815E-04	Pulse	1.00	3
Cd			2	0.010	ug/l	129.05	15.42	1.810E-05	Pulse	0.30	3
Sn			2	0.821	ug/l	15.57	1,676.78	1.972E-03	Pulse	0.30	3
Se			3	0.612	ug/l	6.95	25.60	1.431E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,166,702.74	0.26	93.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,421,034.86	0.32	86.1	Pulse	0.10	3
1	Ge		494,134.49	0.19	86.6	Pulse	0.10	3
1	Ge		696,358.30	0.63	87.7	Pulse	0.10	3
1	Rh		3,237,658.60	0.81	84.1	Pulse	0.10	3
1	In		3,469,570.95	0.64	87.1	Pulse	0.10	3
1	Tb		4,976,793.57	0.43	89.9	Pulse	0.10	3
1	Ho		494,297.27	0.75	89.9	Pulse	0.10	3
1	Bi		2,804,158.91	1.53	84.0	Pulse	0.10	3
2	Sc		144,732.20	1.40	90.1	Pulse	0.30	3
2	Ge		88,650.01	0.71	89.1	Pulse	0.30	3
2	Ge		134,667.32	0.36	89.8	Pulse	0.30	3
2	Rh		2,044,295.48	0.76	84.0	Pulse	0.30	3
2	In		850,554.57	0.94	87.5	Pulse	0.30	3
2	Tb		2,900,250.37	1.29	88.6	Pulse	0.30	3
2	Ho		296,996.25	0.61	88.8	Pulse	0.30	3
2	Bi		1,866,032.36	0.36	83.3	Pulse	0.30	3
3	Sc		186,028.08	1.37	85.9	Pulse	0.30	3
3	Ge		118,922.96	0.58	84.8	Pulse	0.30	3
3	Ge		178,863.45	1.10	84.6	Pulse	0.30	3
3	Rh		1,768,970.62	0.43	81.1	Pulse	0.30	3
3	Tb		3,198,979.18	0.70	87.3	Pulse	0.30	3

Quantitation Report

File Name	082SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 16:57
Sample Name	jc94536-5
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.019	ug/l	61.85	44.00	3.821E-05	Pulse	0.25	3
B			1	194.523	ug/l	1.35	175,752.76	1.528E-01	Pulse	0.15	3
Ca			1	131981.136	ug/l	0.44	21,853,958.01	8.961E+00	Analog	0.10	3
Sr			1	941.065	ug/l	0.40	8,018,679.05	2.505E+00	Analog	0.10	3
Mo			1	3.436	ug/l	6.01	5,604.55	1.752E-03	Pulse	0.10	3
Ag			1	0.027	ug/l	54.73	133.34	3.871E-05	Pulse	0.10	3
Sn			1	0.934	ug/l	15.86	5,177.73	1.505E-03	Pulse	0.10	3
Sb			1	1.710	ug/l	4.38	5,734.58	1.156E-03	Pulse	0.10	3
Ba			1	398.134	ug/l	0.19	531,727.65	1.072E-01	Pulse	0.10	3
Tl			1	0.157	ug/l	9.51	1,346.79	4.923E-04	Pulse	0.10	3
Pb			1	0.143	ug/l	37.28	593.37	2.170E-04	Pulse	0.10	3
Pb			1	0.103	ug/l	25.64	436.69	1.595E-04	Pulse	0.10	3
Pb			1	0.112	ug/l	24.30	2,173.49	7.946E-04	Pulse	0.10	3
Na			2	881384.688	ug/l	0.35	219,504,831.28	1.518E+03	Analog	0.30	3
Mg			2	8092.824	ug/l	0.56	934,208.64	6.463E+00	Pulse	0.30	3
Al			2	1.436	ug/l	39.73	683.35	4.728E-03	Pulse	0.30	3
K			2	28874.038	ug/l	0.54	2,763,347.88	1.912E+01	Pulse	0.30	3
Ca			2	134664.446	ug/l	0.73	647,358.03	4.478E+00	Pulse	0.30	3
Ti			2	0.067	ug/l	207.90	4.44	3.046E-05	Pulse	0.30	3
V			2	1.214	ug/l	3.54	1,676.77	1.160E-02	Pulse	0.30	3
Cr			2	4.539	ug/l	3.40	7,531.79	5.211E-02	Pulse	0.30	3
Mn			2	394.425	ug/l	1.41	310,330.40	2.147E+00	Pulse	0.30	3
Fe			2	19.803	ug/l	1.33	28,364.47	1.962E-01	Pulse	0.30	3
Co			2	0.567	ug/l	3.39	1,361.11	9.414E-03	Pulse	0.30	3
Ni			2	1.828	ug/l	9.54	1,270.07	8.791E-03	Pulse	0.30	3
Cu			2	-1.478	ug/l	-0.80	4,876.32	3.373E-02	Pulse	0.30	3
Zn			2	-0.631	ug/l	-42.80	1,190.06	8.236E-03	Pulse	0.30	3
As			2	0.281	ug/l	8.20	60.67	4.198E-04	Pulse	1.00	3
Cd			2	0.044	ug/l	30.07	28.45	3.369E-05	Pulse	0.30	3
Sn			2	0.650	ug/l	6.87	1,522.32	1.802E-03	Pulse	0.30	3
Se			3	1.594	ug/l	2.60	59.73	3.417E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,150,170.90	0.60	92.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,438,698.61	1.41	86.7	Pulse	0.10	3
1	Ge		497,728.67	1.28	87.3	Pulse	0.10	3
1	Ge		685,229.47	0.93	86.3	Pulse	0.10	3
1	Rh		3,201,299.54	1.50	83.2	Pulse	0.10	3
1	In		3,438,921.24	1.08	86.3	Pulse	0.10	3
1	Tb		4,958,407.84	0.62	89.5	Pulse	0.10	3
1	Ho		488,999.98	0.21	88.9	Pulse	0.10	3
1	Bi		2,737,217.98	0.93	82.0	Pulse	0.10	3
2	Sc		144,559.10	1.28	90.0	Pulse	0.30	3
2	Ge		87,796.17	0.46	88.2	Pulse	0.30	3
2	Ge		132,006.38	1.69	88.0	Pulse	0.30	3
2	Rh		1,978,497.28	0.75	81.3	Pulse	0.30	3
2	In		844,759.04	0.22	86.9	Pulse	0.30	3
2	Tb		2,865,365.51	1.09	87.5	Pulse	0.30	3
2	Ho		292,456.34	0.59	87.5	Pulse	0.30	3
2	Bi		1,787,725.28	1.24	79.8	Pulse	0.30	3
3	Sc		185,780.01	0.76	85.8	Pulse	0.30	3
3	Ge		116,023.43	0.77	82.7	Pulse	0.30	3
3	Ge		174,784.29	0.87	82.6	Pulse	0.30	3
3	Rh		1,712,173.20	0.24	78.5	Pulse	0.30	3
3	Tb		3,124,389.60	0.43	85.3	Pulse	0.30	3

Quantitation Report

File Name 083SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 17:02
Sample Name jc94536-7
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.007	ug/l	-134.32	12.00	1.043E-05	Pulse	0.25	3
B			1	190.828	ug/l	1.64	172,580.35	1.500E-01	Pulse	0.15	3
Ca			1	130280.267	ug/l	0.97	21,468,968.01	8.846E+00	Analog	0.10	3
Sr			1	955.750	ug/l	0.23	8,003,534.26	2.544E+00	Analog	0.10	3
Mo			1	3.888	ug/l	5.21	6,218.11	1.976E-03	Pulse	0.10	3
Ag			1	0.011	ug/l	71.06	66.67	1.968E-05	Pulse	0.10	3
Sn			1	0.812	ug/l	4.96	4,800.90	1.411E-03	Pulse	0.10	3
Sb			1	1.653	ug/l	4.74	5,481.16	1.120E-03	Pulse	0.10	3
Ba			1	392.275	ug/l	1.41	517,043.69	1.057E-01	Pulse	0.10	3
Tl			1	0.137	ug/l	15.69	1,186.77	4.397E-04	Pulse	0.10	3
Pb			1	0.132	ug/l	20.77	560.03	2.075E-04	Pulse	0.10	3
Pb			1	0.089	ug/l	47.57	400.02	1.483E-04	Pulse	0.10	3
Pb			1	0.109	ug/l	24.49	2,110.16	7.818E-04	Pulse	0.10	3
Na			2	868467.727	ug/l	5.63	216,874,995.83	1.496E+03	Analog	0.30	3
Mg			2	7970.484	ug/l	5.81	922,518.09	6.365E+00	Pulse	0.30	3
Al			2	2.347	ug/l	55.99	723.36	4.976E-03	Pulse	0.30	3
K			2	28495.730	ug/l	5.16	2,735,204.68	1.887E+01	Pulse	0.30	3
Ca			2	132421.958	ug/l	5.72	638,293.08	4.404E+00	Pulse	0.30	3
Ti			2	0.211	ug/l	149.43	10.00	6.600E-05	Pulse	0.30	3
V			2	1.156	ug/l	15.03	1,608.99	1.113E-02	Pulse	0.30	3
Cr			2	4.131	ug/l	6.87	6,952.65	4.797E-02	Pulse	0.30	3
Mn			2	390.094	ug/l	6.54	307,663.15	2.123E+00	Pulse	0.30	3
Fe			2	13.715	ug/l	6.33	21,440.74	1.479E-01	Pulse	0.30	3
Co			2	0.525	ug/l	6.70	1,268.89	8.746E-03	Pulse	0.30	3
Ni			2	1.507	ug/l	6.73	1,078.94	7.434E-03	Pulse	0.30	3
Cu			2	-1.434	ug/l	-6.87	4,968.59	3.424E-02	Pulse	0.30	3
Zn			2	-1.862	ug/l	-15.93	883.37	6.095E-03	Pulse	0.30	3
As			2	0.296	ug/l	30.93	62.67	4.345E-04	Pulse	1.00	3
Cd			2	0.046	ug/l	42.86	29.55	3.460E-05	Pulse	0.30	3
Sn			2	0.673	ug/l	18.47	1,543.43	1.824E-03	Pulse	0.30	3
Se			3	1.480	ug/l	3.87	55.87	3.187E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,150,401.54	0.25	92.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,427,127.52	0.83	86.3	Pulse	0.10	3
1	Ge		488,915.93	0.23	85.7	Pulse	0.10	3
1	Ge		684,788.43	0.07	86.3	Pulse	0.10	3
1	Rh		3,146,088.70	1.08	81.7	Pulse	0.10	3
1	In		3,402,476.54	1.56	85.4	Pulse	0.10	3
1	Tb		4,893,449.09	0.55	88.4	Pulse	0.10	3
1	Ho		487,230.85	0.45	88.6	Pulse	0.10	3
1	Bi		2,700,172.25	0.63	80.9	Pulse	0.10	3
2	Sc		145,250.66	5.62	90.4	Pulse	0.30	3
2	Ge		87,813.46	4.25	88.2	Pulse	0.30	3
2	Ge		132,155.55	3.80	88.1	Pulse	0.30	3
2	Rh		1,999,437.28	5.85	82.1	Pulse	0.30	3
2	In		847,538.70	4.95	87.2	Pulse	0.30	3
2	Tb		2,892,674.82	4.74	88.3	Pulse	0.30	3
2	Ho		294,737.99	4.49	88.2	Pulse	0.30	3
2	Bi		1,807,378.16	5.17	80.7	Pulse	0.30	3
3	Sc		187,525.34	1.59	86.6	Pulse	0.30	3
3	Ge		116,500.31	1.26	83.1	Pulse	0.30	3
3	Ge		175,309.44	0.41	82.9	Pulse	0.30	3
3	Rh		1,732,043.89	0.50	79.4	Pulse	0.30	3
3	Tb		3,155,582.58	0.50	86.1	Pulse	0.30	3

Quantitation Report

File Name 084SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 17:07
Sample Name jc94536-11
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	24.70	58.67	5.454E-05	Pulse	0.25	3
B			1	322.439	ug/l	0.43	661,915.08	6.158E-01	Pulse	0.15	3
Ca			1	29861.568	ug/l	0.62	11,417,531.50	5.071E+00	Analog	0.10	3
Sr			1	144.926	ug/l	1.15	2,930,424.33	9.644E-01	Pulse	0.10	3
Mo			1	0.659	ug/l	7.88	2,623.65	8.628E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	30.34	133.34	4.088E-05	Pulse	0.10	3
Sn			1	0.659	ug/l	7.40	6,731.71	2.059E-03	Pulse	0.10	3
Sb			1	0.137	ug/l	9.96	1,346.78	2.814E-04	Pulse	0.10	3
Ba			1	215.453	ug/l	0.79	694,790.02	1.451E-01	Pulse	0.10	3
Tl			1	0.086	ug/l	16.36	1,740.18	6.486E-04	Pulse	0.10	3
Pb			1	0.591	ug/l	4.73	3,873.98	1.444E-03	Pulse	0.10	3
Pb			1	0.499	ug/l	5.89	2,913.73	1.087E-03	Pulse	0.10	3
Pb			1	0.543	ug/l	1.86	14,553.40	5.427E-03	Pulse	0.10	3
Na			2	309585.200	ug/l	1.35	180,929,921.70	1.333E+03	Analog	0.30	3
Mg			2	3228.190	ug/l	1.45	874,469.08	6.445E+00	Pulse	0.30	3
Al			2	101.158	ug/l	1.58	9,911.93	7.305E-02	Pulse	0.30	3
K			2	7072.941	ug/l	1.49	1,592,960.32	1.174E+01	Pulse	0.30	3
Ca			2	29949.471	ug/l	0.56	337,921.80	2.490E+00	Pulse	0.30	3
Ti			2	4.022	ug/l	13.17	338.89	2.498E-03	Pulse	0.30	3
V			2	0.644	ug/l	10.95	2,002.37	1.477E-02	Pulse	0.30	3
Cr			2	5.299	ug/l	0.58	19,069.97	1.405E-01	Pulse	0.30	3
Mn			2	121.176	ug/l	0.78	223,777.67	1.649E+00	Pulse	0.30	3
Fe			2	291.582	ug/l	1.30	791,195.77	5.831E+00	Pulse	0.30	3
Co			2	0.319	ug/l	0.07	1,775.76	1.309E-02	Pulse	0.30	3
Ni			2	5.851	ug/l	3.02	8,534.54	6.291E-02	Pulse	0.30	3
Cu			2	0.522	ug/l	4.92	8,915.84	6.570E-02	Pulse	0.30	3
Zn			2	2.455	ug/l	6.17	2,713.59	2.000E-02	Pulse	0.30	3
As			2	0.247	ug/l	13.08	102.67	7.565E-04	Pulse	1.00	3
Cd			2	0.091	ug/l	5.25	94.25	1.167E-04	Pulse	0.30	3
Sn			2	0.572	ug/l	7.77	2,082.39	2.579E-03	Pulse	0.30	3
Se			3	1.154	ug/l	3.02	104.53	6.027E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,074,975.77	1.18	86.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,251,738.35	0.76	80.0	Pulse	0.10	3
1	Ge		501,482.62	1.06	87.9	Pulse	0.10	3
1	Ge		697,866.19	0.47	87.9	Pulse	0.10	3
1	Rh		3,038,781.00	1.44	78.9	Pulse	0.10	3
1	In		3,268,215.79	1.43	82.0	Pulse	0.10	3
1	Tb		4,788,889.10	1.21	86.5	Pulse	0.10	3
1	Ho		472,921.29	1.54	86.0	Pulse	0.10	3
1	Bi		2,681,763.50	0.50	80.3	Pulse	0.10	3
2	Sc		135,699.51	1.18	84.4	Pulse	0.30	3
2	Ge		90,550.94	0.47	91.0	Pulse	0.30	3
2	Ge		137,324.71	1.09	91.6	Pulse	0.30	3
2	Rh		1,929,712.35	0.27	79.3	Pulse	0.30	3
2	In		807,580.00	0.64	83.1	Pulse	0.30	3
2	Tb		2,802,086.48	0.51	85.6	Pulse	0.30	3
2	Ho		287,895.22	0.39	86.1	Pulse	0.30	3
2	Bi		1,782,338.26	0.41	79.6	Pulse	0.30	3
3	Sc		180,203.38	1.28	83.2	Pulse	0.30	3
3	Ge		115,260.33	0.55	82.2	Pulse	0.30	3
3	Ge		173,439.57	0.75	82.0	Pulse	0.30	3
3	Rh		1,685,475.32	0.13	77.3	Pulse	0.30	3
3	Tb		3,100,285.02	0.50	84.6	Pulse	0.30	3

Quantitation Report

File Name 085SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 17:12
Sample Name mp17187-mb1conf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-119.36	14.67	1.155E-05	Pulse	0.25	3
B			1	3.730	ug/l	2.73	25,036.51	1.968E-02	Pulse	0.15	3
Ca			1	7.860	ug/l	4.52	17,546.62	6.982E-03	Pulse	0.10	3
Sr			1	0.044	ug/l	9.78	2,410.29	6.825E-04	Pulse	0.10	3
Mo			1	0.009	ug/l	52.92	233.34	6.608E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	72.04	103.34	2.810E-05	Pulse	0.10	3
Sn			1	0.018	ug/l	36.96	3,143.76	8.535E-04	Pulse	0.10	3
Sb			1	0.029	ug/l	22.31	780.06	1.547E-04	Pulse	0.10	3
Ba			1	0.053	ug/l	13.13	440.02	8.731E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	120.46	253.35	8.300E-05	Pulse	0.10	3
Pb			1	0.018	ug/l	17.49	520.03	1.703E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	56.67	420.03	1.376E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	14.86	1,993.47	6.530E-04	Pulse	0.10	3
Na			2	75.440	ug/l	1.88	109,363.20	7.236E-01	Pulse	0.30	3
Mg			2	1.298	ug/l	19.60	1,087.85	7.208E-03	Pulse	0.30	3
Al			2	1.215	ug/l	9.63	905.59	5.989E-03	Pulse	0.30	3
K			2	2.654	ug/l	24.70	14,316.25	9.474E-02	Pulse	0.30	3
Ca			2	9.740	ug/l	12.15	350.01	2.318E-03	Pulse	0.30	3
Ti			2	0.572	ug/l	18.97	108.89	7.208E-04	Pulse	0.30	3
V			2	0.000	ug/l	-577.41	281.12	1.861E-03	Pulse	0.30	3
Cr			2	0.051	ug/l	23.70	1,302.29	8.618E-03	Pulse	0.30	3
Mn			2	0.081	ug/l	12.30	468.90	3.105E-03	Pulse	0.30	3
Fe			2	3.160	ug/l	4.41	24,858.81	1.644E-01	Pulse	0.30	3
Co			2	0.002	ug/l	109.79	71.05	4.695E-04	Pulse	0.30	3
Ni			2	0.019	ug/l	46.24	220.00	1.458E-03	Pulse	0.30	3
Cu			2	-0.537	ug/l	-3.92	3,003.64	1.987E-02	Pulse	0.30	3
Zn			2	2.639	ug/l	0.29	4,877.45	3.227E-02	Pulse	0.30	3
As			2	0.019	ug/l	30.07	35.00	2.319E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-299.98	9.97	1.103E-05	Pulse	0.30	3
Sn			2	-0.015	ug/l	-116.86	983.38	1.081E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.035	ug/l	7.74	9.87	5.456E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,272,476.55	0.39	101.9	Pulse	0.10	3
1	Sc		2,513,321.94	0.85	89.3	Pulse	0.10	3
1	Ge		514,033.54	0.54	90.1	Pulse	0.10	3
1	Ge		716,430.14	0.27	90.3	Pulse	0.10	3
1	Rh		3,532,350.36	0.42	91.8	Pulse	0.10	3
1	In		3,683,800.19	0.56	92.4	Pulse	0.10	3
1	Tb		5,040,746.28	0.35	91.0	Pulse	0.10	3
1	Ho		500,086.87	0.37	90.9	Pulse	0.10	3
1	Bi		3,052,992.77	0.29	91.4	Pulse	0.10	3
2	Sc		151,160.36	1.85	94.1	Pulse	0.30	3
2	Ge		92,911.93	1.11	93.4	Pulse	0.30	3
2	Ge		139,573.47	0.50	93.1	Pulse	0.30	3
2	Rh		2,215,936.51	1.13	91.0	Pulse	0.30	3
2	In		909,557.81	1.50	93.6	Pulse	0.30	3
2	Tb		2,966,680.51	1.44	90.6	Pulse	0.30	3
2	Ho		301,156.42	1.42	90.1	Pulse	0.30	3
2	Bi		2,031,784.23	1.67	90.8	Pulse	0.30	3
3	Sc		186,084.45	0.97	85.9	Pulse	0.30	3
3	Ge		119,926.85	0.94	85.5	Pulse	0.30	3
3	Ge		180,864.31	0.87	85.5	Pulse	0.30	3
3	Rh		1,859,327.78	1.16	85.2	Pulse	0.30	3
3	Tb		3,158,788.62	0.83	86.2	Pulse	0.30	3

Quantitation Report

File Name 086SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 17:17
Sample Name mp17187-b1conf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	69.409	ug/l	0.56	450,633.62	3.736E-01	Pulse	0.25	3
B			1	66.743	ug/l	0.93	311,438.78	2.582E-01	Pulse	0.15	3
Ca			1	2049.553	ug/l	0.43	1,689,757.58	6.998E-01	Pulse	0.10	3
Sr			1	80.188	ug/l	1.10	3,547,785.99	1.067E+00	Pulse	0.10	3
Mo			1	78.070	ug/l	0.49	644,953.38	1.940E-01	Pulse	0.10	3
Ag			1	78.893	ug/l	1.11	1,669,915.18	4.749E-01	Pulse	0.10	3
Sn			1	77.518	ug/l	1.48	1,058,243.89	3.010E-01	Pulse	0.10	3
Sb			1	82.859	ug/l	1.25	1,302,190.47	2.650E-01	Pulse	0.10	3
Ba			1	79.381	ug/l	0.21	525,370.02	1.069E-01	Pulse	0.10	3
Tl			1	78.961	ug/l	1.54	3,066,297.77	1.052E+00	Pulse	0.10	3
Pb			1	80.957	ug/l	0.91	1,085,908.84	3.726E-01	Pulse	0.10	3
Pb			1	80.971	ug/l	0.63	955,882.77	3.280E-01	Pulse	0.10	3
Pb			1	80.871	ug/l	0.82	4,384,512.77	1.505E+00	Pulse	0.10	3
Na			2	2006.194	ug/l	0.25	2,499,749.69	1.735E+01	Pulse	0.30	3
Mg			2	1963.383	ug/l	0.59	1,129,135.96	7.839E+00	Pulse	0.30	3
Al			2	1999.222	ug/l	0.55	391,826.94	2.720E+00	Pulse	0.30	3
K			2	2015.011	ug/l	0.59	968,864.27	6.726E+00	Pulse	0.30	3
Ca			2	2304.622	ug/l	0.84	55,287.91	3.839E-01	Pulse	0.30	3
Ti			2	77.425	ug/l	1.16	13,779.14	9.567E-02	Pulse	0.30	3
V			2	78.636	ug/l	1.02	453,775.17	3.150E+00	Pulse	0.30	3
Cr			2	76.408	ug/l	0.69	559,639.65	3.885E+00	Pulse	0.30	3
Mn			2	78.254	ug/l	0.51	306,770.25	2.130E+00	Pulse	0.30	3
Fe			2	2087.564	ug/l	0.58	11,952,075.64	8.298E+01	Analog	0.30	3
Co			2	75.679	ug/l	0.39	872,303.48	6.056E+00	Pulse	0.30	3
Ni			2	75.079	ug/l	0.99	228,730.66	1.588E+00	Pulse	0.30	3
Cu			2	74.665	ug/l	1.06	624,749.98	4.337E+00	Pulse	0.30	3
Zn			2	79.855	ug/l	1.70	101,308.99	7.033E-01	Pulse	0.30	3
As			2	76.477	ug/l	0.35	55,020.62	3.820E-01	Pulse	1.00	3
Cd			2	76.288	ug/l	0.47	149,803.31	1.733E-01	Pulse	0.30	3
Sn			2	77.700	ug/l	0.37	335,324.66	3.879E-01	Pulse	0.30	3
Se			3	197.925	ug/l	0.61	34,686.77	2.001E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,206,299.28	0.24	96.6	Pulse	0.10	3
1	Sc		2,414,721.11	0.30	85.8	Pulse	0.10	3
1	Ge		489,958.90	1.81	85.9	Pulse	0.10	3

Quantitation Report

1	Ge		687,683.45	0.43	86.6	Pulse	0.10	3
1	Rh		3,324,298.28	0.31	86.4	Pulse	0.10	3
1	In		3,516,302.22	1.21	88.2	Pulse	0.10	3
1	Tb		4,914,407.53	1.01	88.7	Pulse	0.10	3
1	Ho		483,474.95	0.77	87.9	Pulse	0.10	3
1	Bi		2,914,361.93	0.75	87.3	Pulse	0.10	3
2	Sc		144,038.05	0.59	89.6	Pulse	0.30	3
2	Ge		88,575.01	0.20	89.0	Pulse	0.30	3
2	Ge		132,407.02	0.80	88.3	Pulse	0.30	3
2	Rh		2,092,198.11	0.45	86.0	Pulse	0.30	3
2	In		864,399.75	0.52	88.9	Pulse	0.30	3
2	Tb		2,882,894.61	0.42	88.0	Pulse	0.30	3
2	Ho		292,432.91	0.25	87.5	Pulse	0.30	3
2	Bi		1,927,764.71	0.80	86.1	Pulse	0.30	3
3	Sc		179,148.71	0.89	82.7	Pulse	0.30	3
3	Ge		114,214.24	1.09	81.4	Pulse	0.30	3
3	Ge		173,314.12	0.78	81.9	Pulse	0.30	3
3	Rh		1,776,558.89	0.28	81.4	Pulse	0.30	3
3	Tb		3,072,281.96	0.50	83.9	Pulse	0.30	3

Quantitation Report

File Name 087_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 17:22
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	44.972	ug/l	0.60	284,933.39	2.421E-01	Pulse	0.25	3
B			1	88.588	ug/l	0.59	401,237.35	3.409E-01	Pulse	0.15	3
Ca			1	5033.784	ug/l	0.22	4,060,178.38	1.712E+00	Pulse	0.10	3
Sr			1	51.718	ug/l	0.43	2,245,292.67	6.884E-01	Pulse	0.10	3
Mo			1	51.073	ug/l	1.42	414,024.08	1.269E-01	Pulse	0.10	3
Ag			1	49.442	ug/l	0.70	1,024,487.17	2.976E-01	Pulse	0.10	3
Sn			1	50.151	ug/l	0.99	671,192.80	1.950E-01	Pulse	0.10	3
Sb			1	52.476	ug/l	0.66	818,478.95	1.679E-01	Pulse	0.10	3
Ba			1	50.554	ug/l	0.43	332,021.52	6.809E-02	Pulse	0.10	3
Tl			1	50.447	ug/l	0.65	1,917,356.85	6.723E-01	Pulse	0.10	3
Pb			1	50.217	ug/l	0.33	659,322.31	2.312E-01	Pulse	0.10	3
Pb			1	50.486	ug/l	0.74	583,362.05	2.045E-01	Pulse	0.10	3
Pb			1	50.281	ug/l	0.26	2,668,365.69	9.356E-01	Pulse	0.10	3
Na			2	5085.881	ug/l	1.06	6,253,673.50	4.388E+01	Analog	0.30	3
Mg			2	4809.257	ug/l	0.59	2,736,121.77	1.920E+01	Pulse	0.30	3
Al			2	4871.687	ug/l	0.81	943,783.16	6.623E+00	Pulse	0.30	3
K			2	4924.932	ug/l	0.89	2,325,183.52	1.632E+01	Pulse	0.30	3
Ca			2	5165.102	ug/l	1.04	122,479.14	8.594E-01	Pulse	0.30	3
Ti			2	48.601	ug/l	2.16	8,560.06	6.006E-02	Pulse	0.30	3
V			2	49.187	ug/l	0.41	280,950.58	1.971E+00	Pulse	0.30	3
Cr			2	48.610	ug/l	0.52	352,581.54	2.474E+00	Pulse	0.30	3
Mn			2	49.783	ug/l	0.21	193,142.32	1.355E+00	Pulse	0.30	3
Fe			2	5091.179	ug/l	0.69	28,831,842.19	2.023E+02	Analog	0.30	3
Co			2	48.078	ug/l	0.81	548,319.58	3.848E+00	Pulse	0.30	3
Ni			2	47.616	ug/l	1.51	143,580.45	1.008E+00	Pulse	0.30	3
Cu			2	47.122	ug/l	0.07	392,796.57	2.756E+00	Pulse	0.30	3
Zn			2	48.403	ug/l	1.95	61,273.91	4.300E-01	Pulse	0.30	3
As			2	49.467	ug/l	1.56	35,216.08	2.471E-01	Pulse	1.00	3
Cd			2	48.938	ug/l	0.40	94,774.56	1.112E-01	Pulse	0.30	3
Sn			2	49.760	ug/l	0.35	212,130.82	2.488E-01	Pulse	0.30	3
Se			3	197.160	ug/l	0.49	34,245.04	1.994E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,177,137.91	0.32	94.3	Pulse	0.10	3
1	Sc		2,371,037.10	0.25	84.3	Pulse	0.10	3
1	Ge		481,183.33	1.44	84.4	Pulse	0.10	3

Quantitation Report

1	Ge		673,273.84	0.32	84.8	Pulse	0.10	3
1	Rh		3,261,699.85	0.22	84.7	Pulse	0.10	3
1	In		3,441,930.22	0.10	86.4	Pulse	0.10	3
1	Tb		4,876,242.63	0.14	88.1	Pulse	0.10	3
1	Ho		479,814.58	0.69	87.2	Pulse	0.10	3
1	Bi		2,852,149.54	0.42	85.4	Pulse	0.10	3
2	Sc		142,517.92	0.86	88.7	Pulse	0.30	3
2	Ge		85,904.09	0.50	86.3	Pulse	0.30	3
2	Ge		129,754.81	0.39	86.5	Pulse	0.30	3
2	Rh		2,054,318.74	0.87	84.4	Pulse	0.30	3
2	In		852,465.76	0.54	87.7	Pulse	0.30	3
2	Tb		2,836,161.41	0.72	86.6	Pulse	0.30	3
2	Ho		291,342.90	0.54	87.2	Pulse	0.30	3
2	Bi		1,893,155.69	0.56	84.6	Pulse	0.30	3
3	Sc		178,746.36	0.45	82.5	Pulse	0.30	3
3	Ge		113,621.50	0.70	81.0	Pulse	0.30	3
3	Ge		171,768.98	0.28	81.2	Pulse	0.30	3
3	Rh		1,740,593.54	0.89	79.8	Pulse	0.30	3
3	Tb		3,063,459.88	0.63	83.6	Pulse	0.30	3

Quantitation Report

File Name	088_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 17:27
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	26.21	112.00	9.397E-05	Pulse	0.25	3
B			1	4.594	ug/l	2.59	27,331.29	2.295E-02	Pulse	0.15	3
Ca			1	0.239	ug/l	207.54	10,547.06	4.396E-03	Pulse	0.10	3
Sr			1	0.019	ug/l	5.98	1,176.76	3.492E-04	Pulse	0.10	3
Mo			1	0.083	ug/l	10.53	840.06	2.491E-04	Pulse	0.10	3
Ag			1	0.018	ug/l	22.02	396.69	1.128E-04	Pulse	0.10	3
Sn			1	0.162	ug/l	6.54	4,964.30	1.411E-03	Pulse	0.10	3
Sb			1	0.075	ug/l	3.25	1,473.46	3.033E-04	Pulse	0.10	3
Ba			1	0.016	ug/l	34.13	180.01	3.703E-05	Pulse	0.10	3
Tl			1	0.026	ug/l	13.71	1,206.76	4.154E-04	Pulse	0.10	3
Pb			1	0.023	ug/l	34.68	556.70	1.914E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	19.86	510.03	1.755E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	8.54	2,290.17	7.881E-04	Pulse	0.10	3
Na			2	29.977	ug/l	3.70	47,497.35	3.320E-01	Pulse	0.30	3
Mg			2	0.754	ug/l	12.76	721.14	5.036E-03	Pulse	0.30	3
Al			2	2.193	ug/l	18.62	1,047.82	7.318E-03	Pulse	0.30	3
K			2	1.052	ug/l	69.25	12,797.25	8.946E-02	Pulse	0.30	3
Ca			2	3.833	ug/l	23.28	191.12	1.336E-03	Pulse	0.30	3
Ti			2	0.045	ug/l	2.02	10.00	6.990E-05	Pulse	0.30	3
V			2	0.000	ug/l	-3637.23	267.78	1.870E-03	Pulse	0.30	3
Cr			2	-0.002	ug/l	-130.74	844.48	5.903E-03	Pulse	0.30	3
Mn			2	0.011	ug/l	45.32	173.34	1.213E-03	Pulse	0.30	3
Fe			2	0.973	ug/l	8.23	11,091.62	7.755E-02	Pulse	0.30	3
Co			2	0.006	ug/l	30.85	121.09	8.455E-04	Pulse	0.30	3
Ni			2	0.026	ug/l	79.99	230.00	1.610E-03	Pulse	0.30	3
Cu			2	-0.565	ug/l	-1.91	2,615.80	1.829E-02	Pulse	0.30	3
Zn			2	-0.156	ug/l	-9.39	1,141.17	7.974E-03	Pulse	0.30	3
As			2	0.015	ug/l	57.82	30.33	2.115E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.005	ug/l	131.33	22.13	2.542E-05	Pulse	0.30	3
Sn			2	0.196	ug/l	22.36	1,856.80	2.130E-03	Pulse	0.30	3
Se			3	0.123	ug/l	6.62	25.07	1.436E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,190,985.83	0.57	95.4	Pulse	0.10	3
1	Sc		2,399,575.90	0.81	85.3	Pulse	0.10	3
1	Ge		486,037.60	1.42	85.2	Pulse	0.10	3
1	Ge		678,539.96	0.75	85.5	Pulse	0.10	3
1	Rh		3,370,703.91	0.86	87.6	Pulse	0.10	3
1	In		3,518,795.35	0.70	88.3	Pulse	0.10	3
1	Tb		4,858,967.01	0.72	87.7	Pulse	0.10	3
1	Ho		477,976.05	0.48	86.9	Pulse	0.10	3
1	Bi		2,906,041.93	0.74	87.0	Pulse	0.10	3
2	Sc		143,087.79	1.63	89.0	Pulse	0.30	3
2	Ge		88,172.80	0.99	88.6	Pulse	0.30	3
2	Ge		132,646.93	1.04	88.5	Pulse	0.30	3
2	Rh		2,133,513.74	0.58	87.6	Pulse	0.30	3
2	In		871,795.65	0.65	89.7	Pulse	0.30	3
2	Tb		2,845,266.28	0.34	86.9	Pulse	0.30	3
2	Ho		291,594.25	0.96	87.2	Pulse	0.30	3
2	Bi		1,958,453.26	1.00	87.5	Pulse	0.30	3
3	Sc		179,047.27	1.43	82.6	Pulse	0.30	3
3	Ge		115,165.21	1.60	82.1	Pulse	0.30	3
3	Ge		174,581.35	0.46	82.5	Pulse	0.30	3
3	Rh		1,812,856.11	0.27	83.1	Pulse	0.30	3
3	Tb		3,077,218.97	0.68	84.0	Pulse	0.30	3

Quantitation Report

File Name 089SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 17:32
Sample Name mp17187-s1 1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	64.642	ug/l	0.41	190,263.75	1.740E-01	Pulse	0.25	3
B			1	349.684	ug/l	0.79	729,860.60	6.673E-01	Pulse	0.15	3
Ca			1	210101.741	ug/l	0.52	84,792,965.40	3.565E+01	Analog	0.10	3
Sr			1	1114.765	ug/l	0.87	22,364,009.67	7.418E+00	Analog	0.10	3
Mo			1	88.251	ug/l	1.09	330,668.45	1.097E-01	Pulse	0.10	3
Ag			1	68.236	ug/l	0.72	675,896.66	2.054E-01	Pulse	0.10	3
Sn			1	71.706	ug/l	1.30	459,469.71	1.396E-01	Pulse	0.10	3
Sb			1	103.558	ug/l	1.02	787,134.44	1.656E-01	Pulse	0.10	3
Ba			1	141.565	ug/l	0.41	453,054.59	9.533E-02	Pulse	0.10	3
Tl			1	72.213	ug/l	0.48	1,276,102.04	4.812E-01	Pulse	0.10	3
Pb			1	112.119	ug/l	0.33	684,364.75	2.581E-01	Pulse	0.10	3
Pb			1	110.514	ug/l	0.33	593,682.95	2.239E-01	Pulse	0.10	3
Pb			1	110.805	ug/l	0.08	2,733,761.22	1.031E+00	Pulse	0.10	3
Na			2	224049.802	ug/l	0.09	137,794,518.97	9.650E+02	Analog	0.30	3
Mg			2	32467.707	ug/l	1.27	9,252,505.19	6.480E+01	Analog	0.30	3
Al			2	3419.608	ug/l	0.75	332,280.03	2.327E+00	Pulse	0.30	3
K			2	29607.088	ug/l	1.58	6,977,898.61	4.887E+01	Analog	0.30	3
Ca			2	213528.058	ug/l	0.62	2,534,544.27	1.775E+01	Pulse	0.30	3
Ti			2	109.383	ug/l	1.42	9,649.58	6.758E-02	Pulse	0.30	3
V			2	76.121	ug/l	0.10	217,869.13	1.526E+00	Pulse	0.30	3
Cr			2	158.250	ug/l	1.09	574,469.49	4.023E+00	Pulse	0.30	3
Mn			2	1301.361	ug/l	0.92	2,527,614.41	1.770E+01	Pulse	0.30	3
Fe			2	12137.462	ug/l	0.39	34,432,534.19	2.411E+02	Analog	0.30	3
Co			2	65.072	ug/l	0.50	371,799.39	2.604E+00	Pulse	0.30	3
Ni			2	65.056	ug/l	0.71	98,326.35	6.886E-01	Pulse	0.30	3
Cu			2	66.888	ug/l	1.52	281,409.08	1.971E+00	Pulse	0.30	3
Zn			2	95.043	ug/l	0.61	60,302.53	4.223E-01	Pulse	0.30	3
As			2	89.913	ug/l	0.88	32,070.30	2.246E-01	Pulse	1.00	3
Cd			2	65.200	ug/l	0.85	61,063.33	7.407E-02	Pulse	0.30	3
Sn			2	71.249	ug/l	1.24	147,149.30	1.785E-01	Pulse	0.30	3
Se			3	171.541	ug/l	0.68	14,112.80	8.674E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,093,686.98	0.31	87.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,378,462.41	0.26	84.5	Pulse	0.10	3
1	Ge		463,547.51	0.75	81.3	Pulse	0.10	3
1	Ge		648,127.97	0.74	81.6	Pulse	0.10	3
1	Rh		3,014,927.46	0.53	78.3	Pulse	0.10	3
1	In		3,290,872.50	1.40	82.6	Pulse	0.10	3
1	Tb		4,752,550.14	0.48	85.8	Pulse	0.10	3
1	Ho		472,370.34	0.24	85.9	Pulse	0.10	3
1	Bi		2,652,019.54	0.16	79.4	Pulse	0.10	3
2	Sc		142,787.34	0.47	88.9	Pulse	0.30	3
2	Ge		85,323.46	0.75	85.7	Pulse	0.30	3
2	Ge		127,413.13	1.15	85.0	Pulse	0.30	3
2	Rh		1,902,094.86	0.55	78.1	Pulse	0.30	3
2	In		824,433.21	0.24	84.8	Pulse	0.30	3
2	Tb		2,807,316.97	0.53	85.7	Pulse	0.30	3
2	Ho		289,079.24	0.70	86.5	Pulse	0.30	3
2	Bi		1,774,002.85	0.83	79.2	Pulse	0.30	3
3	Sc		174,103.22	0.80	80.4	Pulse	0.30	3
3	Ge		108,498.14	0.20	77.4	Pulse	0.30	3
3	Ge		162,703.57	0.69	76.9	Pulse	0.30	3
3	Rh		1,572,077.61	0.22	72.1	Pulse	0.30	3
3	Tb		2,922,019.53	0.59	79.8	Pulse	0.30	3

Quantitation Report

File Name 090SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 17:37
Sample Name mp17187-s2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	65.242	ug/l	1.22	189,495.49	1.756E-01	Pulse	0.25	3
B			1	355.819	ug/l	0.65	732,758.29	6.789E-01	Pulse	0.15	3
Ca			1	217043.616	ug/l	0.14	84,389,495.41	3.683E+01	Analog	0.10	3
Sr			1	1150.739	ug/l	0.35	22,625,677.16	7.657E+00	Analog	0.10	3
Mo			1	90.220	ug/l	1.41	331,283.98	1.121E-01	Pulse	0.10	3
Ag			1	68.826	ug/l	1.15	667,879.34	2.072E-01	Pulse	0.10	3
Sn			1	72.769	ug/l	0.79	456,801.16	1.417E-01	Pulse	0.10	3
Sb			1	105.820	ug/l	0.96	793,048.97	1.692E-01	Pulse	0.10	3
Ba			1	144.550	ug/l	0.98	456,132.70	9.734E-02	Pulse	0.10	3
Tl			1	73.473	ug/l	0.70	1,274,549.07	4.896E-01	Pulse	0.10	3
Pb			1	115.323	ug/l	0.60	690,991.11	2.654E-01	Pulse	0.10	3
Pb			1	113.340	ug/l	0.77	597,685.28	2.296E-01	Pulse	0.10	3
Pb			1	113.892	ug/l	0.46	2,758,322.67	1.060E+00	Pulse	0.10	3
Na			2	231447.540	ug/l	0.47	137,858,714.52	9.969E+02	Analog	0.30	3
Mg			2	33261.677	ug/l	0.65	9,180,330.47	6.639E+01	Analog	0.30	3
Al			2	3516.706	ug/l	0.42	330,932.33	2.393E+00	Pulse	0.30	3
K			2	30403.007	ug/l	0.37	6,939,590.28	5.018E+01	Analog	0.30	3
Ca			2	218530.672	ug/l	0.23	2,512,279.76	1.817E+01	Pulse	0.30	3
Ti			2	109.792	ug/l	1.76	9,380.53	6.783E-02	Pulse	0.30	3
V			2	78.096	ug/l	0.01	216,477.63	1.565E+00	Pulse	0.30	3
Cr			2	163.161	ug/l	0.56	573,618.26	4.148E+00	Pulse	0.30	3
Mn			2	1343.234	ug/l	0.72	2,526,726.01	1.827E+01	Pulse	0.30	3
Fe			2	12572.979	ug/l	1.03	34,543,030.85	2.498E+02	Analog	0.30	3
Co			2	66.665	ug/l	0.81	368,885.51	2.668E+00	Pulse	0.30	3
Ni			2	66.790	ug/l	1.15	97,758.48	7.070E-01	Pulse	0.30	3
Cu			2	68.204	ug/l	0.70	277,773.91	2.009E+00	Pulse	0.30	3
Zn			2	95.817	ug/l	1.70	58,863.94	4.257E-01	Pulse	0.30	3
As			2	92.795	ug/l	1.40	32,053.93	2.318E-01	Pulse	1.00	3
Cd			2	66.365	ug/l	0.41	60,674.19	7.539E-02	Pulse	0.30	3
Sn			2	72.381	ug/l	0.34	145,915.40	1.813E-01	Pulse	0.30	3
Se			3	173.678	ug/l	1.03	14,091.11	8.782E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,079,246.53	0.45	86.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,291,424.24	0.52	81.5	Pulse	0.10	3
1	Ge		452,777.01	1.15	79.4	Pulse	0.10	3
1	Ge		633,485.29	1.30	79.8	Pulse	0.10	3
1	Rh		2,954,805.27	0.56	76.8	Pulse	0.10	3
1	In		3,223,872.99	0.66	80.9	Pulse	0.10	3
1	Tb		4,686,375.14	1.25	84.6	Pulse	0.10	3
1	Ho		466,917.98	1.57	84.9	Pulse	0.10	3
1	Bi		2,603,325.90	0.27	78.0	Pulse	0.10	3
2	Sc		138,292.48	1.00	86.1	Pulse	0.30	3
2	Ge		82,705.23	0.85	83.1	Pulse	0.30	3
2	Ge		123,209.37	0.87	82.2	Pulse	0.30	3
2	Rh		1,858,773.61	0.62	76.4	Pulse	0.30	3
2	In		804,809.06	0.82	82.8	Pulse	0.30	3
2	Tb		2,733,705.66	0.98	83.5	Pulse	0.30	3
2	Ho		281,793.64	0.76	84.3	Pulse	0.30	3
2	Bi		1,741,756.84	0.61	77.8	Pulse	0.30	3
3	Sc		170,885.11	1.45	78.9	Pulse	0.30	3
3	Ge		105,379.17	0.85	75.1	Pulse	0.30	3
3	Ge		160,462.13	1.04	75.9	Pulse	0.30	3
3	Rh		1,556,890.67	0.39	71.4	Pulse	0.30	3
3	Tb		2,912,690.65	0.15	79.5	Pulse	0.30	3

Quantitation Report

File Name 091SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 17:42
Sample Name jc94351-5
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.056	ug/l	5.71	180.00	1.694E-04	Pulse	0.25	3
B			1	292.139	ug/l	1.03	593,422.01	5.584E-01	Pulse	0.15	3
Ca			1	213541.628	ug/l	0.78	81,267,922.12	3.623E+01	Analog	0.10	3
Sr			1	1061.765	ug/l	0.78	20,553,691.36	7.065E+00	Analog	0.10	3
Mo			1	13.306	ug/l	1.68	48,216.72	1.657E-02	Pulse	0.10	3
Ag			1	0.067	ug/l	12.81	660.04	2.074E-04	Pulse	0.10	3
Sn			1	1.122	ug/l	3.93	9,403.17	2.955E-03	Pulse	0.10	3
Sb			1	33.211	ug/l	0.45	246,494.12	5.316E-02	Pulse	0.10	3
Ba			1	70.553	ug/l	1.08	220,336.74	4.752E-02	Pulse	0.10	3
Tl			1	0.142	ug/l	3.37	2,630.36	1.021E-03	Pulse	0.10	3
Pb			1	38.977	ug/l	0.29	231,234.60	8.977E-02	Pulse	0.10	3
Pb			1	37.038	ug/l	0.67	193,389.09	7.508E-02	Pulse	0.10	3
Pb			1	37.761	ug/l	0.20	905,553.53	3.515E-01	Pulse	0.10	3
Na			2	228952.910	ug/l	1.34	131,701,825.88	9.862E+02	Analog	0.30	3
Mg			2	31604.749	ug/l	1.10	8,424,748.55	6.308E+01	Analog	0.30	3
Al			2	1581.581	ug/l	1.50	144,051.31	1.079E+00	Pulse	0.30	3
K			2	28886.905	ug/l	0.49	6,369,097.11	4.768E+01	Analog	0.30	3
Ca			2	218730.794	ug/l	0.97	2,428,687.89	1.818E+01	Pulse	0.30	3
Ti			2	42.820	ug/l	4.88	3,532.66	2.646E-02	Pulse	0.30	3
V			2	5.667	ug/l	1.07	15,404.01	1.153E-01	Pulse	0.30	3
Cr			2	95.673	ug/l	1.48	325,174.48	2.435E+00	Pulse	0.30	3
Mn			2	1278.396	ug/l	1.04	2,322,563.73	1.739E+01	Pulse	0.30	3
Fe			2	10759.382	ug/l	1.86	28,547,355.53	2.138E+02	Analog	0.30	3
Co			2	0.691	ug/l	0.49	3,738.96	2.799E-02	Pulse	0.30	3
Ni			2	2.787	ug/l	3.11	4,076.10	3.052E-02	Pulse	0.30	3
Cu			2	5.147	ug/l	2.45	26,504.81	1.985E-01	Pulse	0.30	3
Zn			2	47.521	ug/l	1.28	28,824.36	2.158E-01	Pulse	0.30	3
As			2	22.415	ug/l	1.72	7,491.41	5.610E-02	Pulse	1.00	3
Cd			2	0.054	ug/l	54.38	59.50	7.471E-05	Pulse	0.30	3
Sn			2	1.080	ug/l	3.92	3,048.11	3.843E-03	Pulse	0.30	3
Se			3	0.433	ug/l	15.23	35.67	2.383E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,062,709.27	0.74	85.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,242,941.48	0.85	79.7	Pulse	0.10	3
1	Ge		443,320.79	1.46	77.7	Pulse	0.10	3
1	Ge		619,177.36	1.31	78.0	Pulse	0.10	3
1	Rh		2,909,114.44	0.54	75.6	Pulse	0.10	3
1	In		3,182,898.59	1.00	79.9	Pulse	0.10	3
1	Tb		4,637,129.41	0.67	83.7	Pulse	0.10	3
1	Ho		458,875.23	0.80	83.4	Pulse	0.10	3
1	Bi		2,575,976.63	0.48	77.2	Pulse	0.10	3
2	Sc		133,580.46	2.42	83.1	Pulse	0.30	3
2	Ge		80,538.03	2.00	80.9	Pulse	0.30	3
2	Ge		120,516.52	1.93	80.4	Pulse	0.30	3
2	Rh		1,828,431.25	1.75	75.1	Pulse	0.30	3
2	In		792,944.81	2.04	81.6	Pulse	0.30	3
2	Tb		2,697,114.61	1.49	82.4	Pulse	0.30	3
2	Ho		277,681.69	1.08	83.1	Pulse	0.30	3
2	Bi		1,720,274.34	1.49	76.8	Pulse	0.30	3
3	Sc		156,968.20	7.37	72.5	Pulse	0.30	3
3	Ge		99,898.04	4.67	71.2	Pulse	0.30	3
3	Ge		150,373.35	5.01	71.1	Pulse	0.30	3
3	Rh		1,441,980.26	6.79	66.1	Pulse	0.30	3
3	Tb		2,697,341.77	7.25	73.6	Pulse	0.30	3

Quantitation Report

File Name 092SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 17:47
Sample Name mp17229-mb1 4
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	49.50	36.00	3.207E-05	Pulse	0.25	3
B			1	37.248	ug/l	3.45	37,840.06	3.376E-02	Pulse	0.15	3
Ca			1	132.717	ug/l	7.46	30,502.05	1.332E-02	Pulse	0.10	3
Sr			1	0.675	ug/l	11.11	6,201.44	1.900E-03	Pulse	0.10	3
Mo			1	0.460	ug/l	18.88	890.06	2.725E-04	Pulse	0.10	3
Ag			1	0.060	ug/l	4.94	270.01	7.865E-05	Pulse	0.10	3
Sn			1	13.499	ug/l	0.77	38,588.01	1.124E-02	Pulse	0.10	3
Sb			1	0.242	ug/l	12.40	1,030.08	2.173E-04	Pulse	0.10	3
Ba			1	0.279	ug/l	42.69	430.02	9.090E-05	Pulse	0.10	3
Tl			1	0.044	ug/l	25.65	553.36	1.904E-04	Pulse	0.10	3
Pb			1	0.121	ug/l	33.58	573.37	1.973E-04	Pulse	0.10	3
Pb			1	0.174	ug/l	18.03	630.04	2.169E-04	Pulse	0.10	3
Pb			1	0.138	ug/l	9.84	2,593.53	8.928E-04	Pulse	0.10	3
Na			2	336.135	ug/l	9.95	92,616.13	6.529E-01	Pulse	0.30	3
Mg			2	18.988	ug/l	14.08	2,434.66	1.718E-02	Pulse	0.30	3
Al			2	3.031	ug/l	24.63	734.47	5.162E-03	Pulse	0.30	3
K			2	25.144	ug/l	43.56	14,557.56	1.026E-01	Pulse	0.30	3
Ca			2	112.808	ug/l	14.32	631.13	4.449E-03	Pulse	0.30	3
Ti			2	0.939	ug/l	50.11	34.44	2.459E-04	Pulse	0.30	3
V			2	0.066	ug/l	37.20	341.12	2.404E-03	Pulse	0.30	3
Cr			2	0.785	ug/l	6.69	1,992.37	1.400E-02	Pulse	0.30	3
Mn			2	0.626	ug/l	12.50	613.35	4.319E-03	Pulse	0.30	3
Fe			2	20.773	ug/l	7.59	28,958.81	2.039E-01	Pulse	0.30	3
Co			2	0.016	ug/l	72.92	84.37	5.993E-04	Pulse	0.30	3
Ni			2	0.251	ug/l	13.25	303.34	2.126E-03	Pulse	0.30	3
Cu			2	-1.741	ug/l	-5.68	4,365.08	3.071E-02	Pulse	0.30	3
Zn			2	-0.048	ug/l	-927.07	1,312.29	9.249E-03	Pulse	0.30	3
As			2	0.094	ug/l	29.87	33.00	2.328E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.015	ug/l	200.68	17.71	2.041E-05	Pulse	0.30	3
Sn			2	13.087	ug/l	7.33	12,482.93	1.418E-02	Pulse	0.30	3
Se			3	0.301	ug/l	36.12	13.53	8.019E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,121,259.56	1.24	89.8	Pulse	0.10	3
1	Sc		2,290,379.29	0.99	81.4	Pulse	0.10	3
1	Ge		469,228.03	1.40	82.3	Pulse	0.10	3
1	Ge		658,762.93	1.18	83.0	Pulse	0.10	3
1	Rh		3,267,973.91	1.65	84.9	Pulse	0.10	3
1	In		3,434,050.30	1.48	86.2	Pulse	0.10	3
1	Tb		4,744,790.66	1.72	85.7	Pulse	0.10	3
1	Ho		470,202.31	1.47	85.5	Pulse	0.10	3
1	Bi		2,904,275.89	1.19	87.0	Pulse	0.10	3
2	Sc		142,315.26	5.64	88.6	Pulse	0.30	3
2	Ge		87,937.50	3.87	88.4	Pulse	0.30	3
2	Ge		131,376.90	3.66	87.6	Pulse	0.30	3
2	Rh		2,139,350.33	5.60	87.9	Pulse	0.30	3
2	In		881,695.65	4.69	90.7	Pulse	0.30	3
2	Tb		2,894,329.33	5.45	88.4	Pulse	0.30	3
2	Ho		293,539.70	5.84	87.8	Pulse	0.30	3
2	Bi		1,989,385.20	3.90	88.9	Pulse	0.30	3
3	Sc		172,269.26	0.44	79.5	Pulse	0.30	3
3	Ge		110,840.32	1.38	79.0	Pulse	0.30	3
3	Ge		168,797.26	0.43	79.8	Pulse	0.30	3
3	Rh		1,743,366.67	0.30	79.9	Pulse	0.30	3
3	Tb		2,968,361.41	0.31	81.0	Pulse	0.30	3

Quantitation Report

File Name 093SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 17:52
Sample Name mp17229-b1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	162.639	ug/l	1.06	198,265.36	1.751E-01	Pulse	0.25	3
B			1	168.996	ug/l	1.78	151,161.86	1.335E-01	Pulse	0.15	3
Ca			1	9539.631	ug/l	0.25	1,497,646.18	6.517E-01	Pulse	0.10	3
Sr			1	186.484	ug/l	0.72	1,593,892.84	4.965E-01	Pulse	0.10	3
Mo			1	183.776	ug/l	1.15	293,317.92	9.136E-02	Pulse	0.10	3
Ag			1	88.664	ug/l	1.02	360,276.16	1.068E-01	Pulse	0.10	3
Sn			1	195.711	ug/l	1.60	514,185.11	1.524E-01	Pulse	0.10	3
Sb			1	194.203	ug/l	0.92	588,931.66	1.243E-01	Pulse	0.10	3
Ba			1	186.462	ug/l	0.69	238,088.76	5.023E-02	Pulse	0.10	3
Tl			1	183.768	ug/l	0.47	1,372,660.40	4.898E-01	Pulse	0.10	3
Pb			1	188.629	ug/l	1.07	486,745.10	1.737E-01	Pulse	0.10	3
Pb			1	191.029	ug/l	0.32	433,835.94	1.548E-01	Pulse	0.10	3
Pb			1	188.909	ug/l	0.54	1,970,384.85	7.031E-01	Pulse	0.10	3
Na			2	9296.075	ug/l	0.95	2,202,389.91	1.609E+01	Pulse	0.30	3
Mg			2	9086.926	ug/l	1.27	993,336.90	7.256E+00	Pulse	0.30	3
Al			2	9162.870	ug/l	1.87	341,381.56	2.494E+00	Pulse	0.30	3
K			2	9349.020	ug/l	1.25	855,263.20	6.248E+00	Pulse	0.30	3
Ca			2	10256.257	ug/l	1.32	46,778.82	3.417E-01	Pulse	0.30	3
Ti			2	183.345	ug/l	3.50	6,204.56	4.532E-02	Pulse	0.30	3
V			2	182.074	ug/l	1.80	199,842.56	1.460E+00	Pulse	0.30	3
Cr			2	178.228	ug/l	1.40	248,569.98	1.816E+00	Pulse	0.30	3
Mn			2	183.296	ug/l	0.92	136,644.28	9.982E-01	Pulse	0.30	3
Fe			2	9850.244	ug/l	0.48	10,720,003.46	7.831E+01	Analog	0.30	3
Co			2	178.169	ug/l	0.81	390,383.39	2.852E+00	Pulse	0.30	3
Ni			2	176.757	ug/l	0.91	102,435.14	7.483E-01	Pulse	0.30	3
Cu			2	184.754	ug/l	1.10	297,349.56	2.172E+00	Pulse	0.30	3
Zn			2	187.557	ug/l	2.39	45,902.00	3.353E-01	Pulse	0.30	3
As			2	184.157	ug/l	0.34	25,193.67	1.840E-01	Pulse	1.00	3
Cd			2	179.884	ug/l	1.02	68,062.63	8.174E-02	Pulse	0.30	3
Sn			2	194.172	ug/l	0.65	161,931.97	1.945E-01	Pulse	0.30	3
Se			3	474.375	ug/l	0.10	15,752.56	9.595E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,132,546.67	1.47	90.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,297,983.72	0.18	81.7	Pulse	0.10	3
1	Ge		470,676.31	0.04	82.5	Pulse	0.10	3
1	Ge		654,236.81	1.19	82.4	Pulse	0.10	3
1	Rh		3,210,733.49	1.25	83.4	Pulse	0.10	3
1	In		3,374,784.22	0.67	84.7	Pulse	0.10	3
1	Tb		4,739,883.78	0.29	85.6	Pulse	0.10	3
1	Ho		469,278.75	1.30	85.3	Pulse	0.10	3
1	Bi		2,802,490.17	0.44	83.9	Pulse	0.10	3
2	Sc		136,898.90	0.99	85.2	Pulse	0.30	3
2	Ge		84,024.45	1.34	84.4	Pulse	0.30	3
2	Ge		126,178.49	0.11	84.1	Pulse	0.30	3
2	Rh		2,014,796.52	0.50	82.8	Pulse	0.30	3
2	In		832,748.94	1.07	85.7	Pulse	0.30	3
2	Tb		2,768,162.67	0.99	84.5	Pulse	0.30	3
2	Ho		283,606.90	0.80	84.8	Pulse	0.30	3
2	Bi		1,873,116.94	0.31	83.7	Pulse	0.30	3
3	Sc		169,739.63	0.16	78.3	Pulse	0.30	3
3	Ge		109,819.33	1.08	78.3	Pulse	0.30	3
3	Ge		164,179.94	0.74	77.6	Pulse	0.30	3
3	Rh		1,701,669.00	0.69	78.0	Pulse	0.30	3
3	Tb		2,965,034.26	0.19	80.9	Pulse	0.30	3

Quantitation Report

File Name	094SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 17:57
Sample Name	mp17229-s1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	167.356	ug/l	0.98	197,999.97	1.802E-01	Pulse	0.25	3
B			1	195.759	ug/l	0.35	168,977.98	1.537E-01	Pulse	0.15	3
Ca			1	42806.889	ug/l	0.54	7,014,328.23	2.909E+00	Analog	0.10	3
Sr			1	412.611	ug/l	0.07	3,465,736.72	1.098E+00	Pulse	0.10	3
Mo			1	193.293	ug/l	0.83	303,224.21	9.609E-02	Pulse	0.10	3
Ag			1	103.173	ug/l	0.44	416,630.02	1.242E-01	Pulse	0.10	3
Sn			1	212.172	ug/l	0.74	553,771.25	1.651E-01	Pulse	0.10	3
Sb			1	89.290	ug/l	0.71	273,881.25	5.716E-02	Pulse	0.10	3
Ba			1	1156.570	ug/l	0.55	1,492,495.92	3.115E-01	Pulse	0.10	3
Tl			1	178.390	ug/l	1.53	1,318,530.14	4.755E-01	Pulse	0.10	3
Pb			1	810.062	ug/l	1.04	2,067,713.51	7.456E-01	Pulse	0.10	3
Pb			1	783.766	ug/l	0.42	1,760,802.84	6.349E-01	Pulse	0.10	3
Pb			1	795.400	ug/l	0.63	8,206,525.77	2.959E+00	Pulse	0.10	3
Na			2	10389.795	ug/l	2.25	2,607,002.19	1.797E+01	Pulse	0.30	3
Mg			2	20873.000	ug/l	2.02	2,417,447.40	1.667E+01	Pulse	0.30	3
Al			2	66285.999	ug/l	2.09	2,613,057.05	1.801E+01	Pulse	0.30	3
K			2	15130.214	ug/l	1.28	1,459,146.19	1.006E+01	Pulse	0.30	3
Ca			2	43222.458	ug/l	1.68	208,586.79	1.438E+00	Pulse	0.30	3
Ti			2	2109.029	ug/l	2.17	75,590.34	5.211E-01	Pulse	0.30	3
V			2	391.065	ug/l	1.31	454,584.34	3.134E+00	Pulse	0.30	3
Cr			2	336.438	ug/l	1.19	496,486.23	3.422E+00	Pulse	0.30	3
Mn			2	1049.747	ug/l	1.31	828,721.41	5.712E+00	Pulse	0.30	3
Fe			2	184503.378	ug/l	2.11	212,667,400.44	1.466E+03	Analog	0.30	3
Co			2	361.334	ug/l	2.21	838,851.79	5.783E+00	Pulse	0.30	3
Ni			2	2919.137	ug/l	1.46	1,790,366.04	1.234E+01	Pulse	0.30	3
Cu			2	280618.419	ug/l	0.68	467,516,159.20	3.222E+03	Analog	0.30	3
Zn			2	935.352	ug/l	2.27	237,172.89	1.635E+00	Pulse	0.30	3
As			2	284.806	ug/l	2.35	41,272.45	2.845E-01	Pulse	1.00	3
Cd			2	177.311	ug/l	1.14	67,062.85	8.057E-02	Pulse	0.30	3
Sn			2	212.304	ug/l	0.85	176,893.82	2.125E-01	Pulse	0.30	3
Se			3	522.791	ug/l	0.86	17,512.53	1.057E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,099,076.06	0.46	88.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,410,875.02	0.53	85.7	Pulse	0.10	3
1	Ge		470,804.11	0.55	82.5	Pulse	0.10	3
1	Ge		649,731.23	0.65	81.9	Pulse	0.10	3
1	Rh		3,155,488.49	0.24	82.0	Pulse	0.10	3
1	In		3,353,794.28	0.52	84.2	Pulse	0.10	3
1	Tb		4,791,411.49	0.42	86.5	Pulse	0.10	3
1	Ho		511,799.87	0.47	93.0	Pulse	0.10	3
1	Bi		2,773,416.83	1.31	83.1	Pulse	0.10	3
2	Sc		145,096.01	2.05	90.3	Pulse	0.30	3
2	Ge		85,852.59	0.80	86.3	Pulse	0.30	3
2	Ge		127,379.50	1.56	84.9	Pulse	0.30	3
2	Rh		1,988,712.70	0.34	81.7	Pulse	0.30	3
2	In		832,398.80	0.67	85.7	Pulse	0.30	3
2	Tb		2,817,531.76	0.71	86.1	Pulse	0.30	3
2	Ho		308,911.44	0.94	92.4	Pulse	0.30	3
2	Bi		1,861,241.73	0.52	83.1	Pulse	0.30	3
3	Sc		183,052.43	0.57	84.5	Pulse	0.30	3
3	Ge		112,561.01	2.09	80.2	Pulse	0.30	3
3	Ge		165,625.83	1.01	78.3	Pulse	0.30	3
3	Rh		1,675,146.53	0.38	76.8	Pulse	0.30	3
3	Tb		2,990,852.94	1.06	81.6	Pulse	0.30	3

Quantitation Report

File Name 095SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 18:02
Sample Name mp17229-s2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	164.547	ug/l	1.36	196,314.71	1.771E-01	Pulse	0.25	3
B			1	195.533	ug/l	1.99	170,204.82	1.536E-01	Pulse	0.15	3
Ca			1	26053.951	ug/l	0.48	4,205,397.33	1.772E+00	Pulse	0.10	3
Sr			1	348.183	ug/l	0.37	2,926,245.48	9.268E-01	Pulse	0.10	3
Mo			1	193.658	ug/l	1.05	303,959.14	9.627E-02	Pulse	0.10	3
Ag			1	93.030	ug/l	0.42	379,500.63	1.120E-01	Pulse	0.10	3
Sn			1	206.954	ug/l	0.80	545,728.04	1.611E-01	Pulse	0.10	3
Sb			1	99.358	ug/l	0.51	307,615.46	6.360E-02	Pulse	0.10	3
Ba			1	879.186	ug/l	0.55	1,145,202.54	2.368E-01	Pulse	0.10	3
Tl			1	181.738	ug/l	0.17	1,366,142.90	4.844E-01	Pulse	0.10	3
Pb			1	644.528	ug/l	0.14	1,673,205.29	5.933E-01	Pulse	0.10	3
Pb			1	623.958	ug/l	0.67	1,425,612.74	5.055E-01	Pulse	0.10	3
Pb			1	632.918	ug/l	0.34	6,641,206.93	2.355E+00	Pulse	0.10	3
Na			2	10187.774	ug/l	0.82	2,478,128.58	1.762E+01	Pulse	0.30	3
Mg			2	17535.883	ug/l	0.33	1,968,721.52	1.400E+01	Pulse	0.30	3
Al			2	63329.055	ug/l	0.18	2,420,029.97	1.721E+01	Pulse	0.30	3
K			2	13953.664	ug/l	0.72	1,305,193.66	9.283E+00	Pulse	0.30	3
Ca			2	27070.153	ug/l	0.09	126,663.22	9.008E-01	Pulse	0.30	3
Ti			2	2091.238	ug/l	0.77	72,654.17	5.167E-01	Pulse	0.30	3
V			2	375.520	ug/l	0.06	423,105.36	3.009E+00	Pulse	0.30	3
Cr			2	315.703	ug/l	0.35	451,605.16	3.212E+00	Pulse	0.30	3
Mn			2	870.781	ug/l	0.10	666,310.83	4.739E+00	Pulse	0.30	3
Fe			2	177427.958	ug/l	0.02	198,242,543.23	1.410E+03	Analog	0.30	3
Co			2	221.931	ug/l	0.57	499,449.71	3.552E+00	Pulse	0.30	3
Ni			2	1549.215	ug/l	0.39	921,027.88	6.550E+00	Pulse	0.30	3
Cu			2	225794.508	ug/l	0.72	364,563,167.74	2.593E+03	Analog	0.30	3
Zn			2	756.847	ug/l	1.00	186,274.05	1.325E+00	Pulse	0.30	3
As			2	275.070	ug/l	0.77	38,641.09	2.748E-01	Pulse	1.00	3
Cd			2	180.470	ug/l	0.93	67,618.55	8.200E-02	Pulse	0.30	3
Sn			2	208.418	ug/l	0.76	172,051.45	2.086E-01	Pulse	0.30	3
Se			3	489.858	ug/l	1.58	16,449.70	9.908E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,108,416.16	1.36	88.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,372,603.14	0.35	84.3	Pulse	0.10	3
1	Ge		468,025.76	0.41	82.1	Pulse	0.10	3
1	Ge		649,307.18	0.39	81.8	Pulse	0.10	3
1	Rh		3,157,258.60	0.81	82.0	Pulse	0.10	3
1	In		3,387,851.10	0.73	85.0	Pulse	0.10	3
1	Tb		4,836,573.88	1.03	87.3	Pulse	0.10	3
1	Ho		511,934.65	0.20	93.1	Pulse	0.10	3
1	Bi		2,820,325.48	0.93	84.5	Pulse	0.10	3
2	Sc		140,611.18	0.95	87.5	Pulse	0.30	3
2	Ge		84,394.04	1.56	84.8	Pulse	0.30	3
2	Ge		125,330.98	0.16	83.6	Pulse	0.30	3
2	Rh		1,971,474.30	0.50	81.0	Pulse	0.30	3
2	In		824,624.99	0.80	84.9	Pulse	0.30	3
2	Tb		2,788,242.88	0.70	85.2	Pulse	0.30	3
2	Ho		302,498.36	1.40	90.5	Pulse	0.30	3
2	Bi		1,852,540.76	0.77	82.7	Pulse	0.30	3
3	Sc		182,037.92	0.69	84.0	Pulse	0.30	3
3	Ge		111,041.72	0.67	79.2	Pulse	0.30	3
3	Ge		166,047.79	1.27	78.5	Pulse	0.30	3
3	Rh		1,672,586.22	0.53	76.7	Pulse	0.30	3
3	Tb		2,996,874.74	0.13	81.8	Pulse	0.30	3

Quantitation Report

File Name 096SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 18:07
Sample Name jc94207-16ar
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.101	ug/l	2.47	4,903.44	4.432E-03	Pulse	0.25	3
B			1	49.165	ug/l	2.28	47,326.00	4.278E-02	Pulse	0.15	3
Ca			1	22242.182	ug/l	2.96	3,633,604.01	1.514E+00	Pulse	0.10	3
Sr			1	175.731	ug/l	2.57	1,497,470.03	4.678E-01	Pulse	0.10	3
Mo			1	16.796	ug/l	3.86	26,849.96	8.390E-03	Pulse	0.10	3
Ag			1	7.119	ug/l	4.54	29,401.44	8.578E-03	Pulse	0.10	3
Sn			1	31.577	ug/l	2.70	86,514.09	2.524E-02	Pulse	0.10	3
Sb			1	5.587	ug/l	5.82	18,154.43	3.636E-03	Pulse	0.10	3
Ba			1	763.255	ug/l	6.31	1,026,282.38	2.056E-01	Pulse	0.10	3
Tl			1	1.653	ug/l	3.55	12,822.67	4.480E-03	Pulse	0.10	3
Pb			1	540.233	ug/l	2.06	1,422,741.44	4.973E-01	Pulse	0.10	3
Pb			1	514.888	ug/l	2.34	1,193,336.91	4.171E-01	Pulse	0.10	3
Pb			1	524.279	ug/l	2.05	5,580,781.74	1.951E+00	Pulse	0.10	3
Na			2	1339.126	ug/l	4.64	326,841.02	2.381E+00	Pulse	0.30	3
Mg			2	9503.208	ug/l	4.34	1,041,815.34	7.589E+00	Pulse	0.30	3
Al			2	54653.722	ug/l	5.08	2,038,751.24	1.485E+01	Pulse	0.30	3
K			2	4821.267	ug/l	4.81	448,001.67	3.264E+00	Pulse	0.30	3
Ca			2	23898.326	ug/l	4.85	109,173.61	7.953E-01	Pulse	0.30	3
Ti			2	2143.220	ug/l	4.45	72,698.93	5.296E-01	Pulse	0.30	3
V			2	211.151	ug/l	4.08	232,414.02	1.693E+00	Pulse	0.30	3
Cr			2	154.965	ug/l	3.70	216,893.62	1.580E+00	Pulse	0.30	3
Mn			2	760.013	ug/l	3.96	567,874.01	4.136E+00	Pulse	0.30	3
Fe			2	195458.291	ug/l	5.09	213,173,147.08	1.553E+03	Analog	0.30	3
Co			2	54.393	ug/l	4.42	119,550.61	8.708E-01	Pulse	0.30	3
Ni			2	1090.057	ug/l	4.24	632,801.96	4.609E+00	Pulse	0.30	3
Cu			2	252346.541	ug/l	4.42	397,792,873.08	2.898E+03	Analog	0.30	3
Zn			2	660.039	ug/l	4.21	158,784.06	1.157E+00	Pulse	0.30	3
As			2	115.923	ug/l	4.64	15,909.43	1.159E-01	Pulse	1.00	3
Cd			2	3.059	ug/l	6.00	1,134.69	1.403E-03	Pulse	0.30	3
Sn			2	33.187	ug/l	3.82	27,652.10	3.419E-02	Pulse	0.30	3
Se			3	33.425	ug/l	2.52	1,127.91	6.779E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,106,533.11	1.66	88.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,401,993.45	3.50	85.4	Pulse	0.10	3
1	Ge		467,602.04	1.63	82.0	Pulse	0.10	3
1	Ge		649,492.27	2.17	81.8	Pulse	0.10	3
1	Rh		3,202,047.35	2.34	83.2	Pulse	0.10	3
1	In		3,429,057.56	2.88	86.0	Pulse	0.10	3
1	Tb		5,006,322.84	6.78	90.4	Mix	0.10	3
1	Ho		524,764.44	3.70	95.4	Pulse	0.10	3
1	Bi		2,862,220.17	3.02	85.7	Pulse	0.10	3
2	Sc		137,456.29	4.35	85.5	Pulse	0.30	3
2	Ge		83,434.13	3.50	83.8	Pulse	0.30	3
2	Ge		122,899.05	3.94	82.0	Pulse	0.30	3
2	Rh		1,942,917.42	3.77	79.8	Pulse	0.30	3
2	In		809,429.22	3.77	83.3	Pulse	0.30	3
2	Tb		2,751,707.18	3.41	84.0	Pulse	0.30	3
2	Ho		306,618.58	3.71	91.7	Pulse	0.30	3
2	Bi		1,833,879.23	3.01	81.9	Pulse	0.30	3
3	Sc		182,380.38	0.27	84.2	Pulse	0.30	3
3	Ge		112,994.34	1.22	80.6	Pulse	0.30	3
3	Ge		166,429.45	1.29	78.7	Pulse	0.30	3
3	Rh		1,699,223.41	0.52	77.9	Pulse	0.30	3
3	Tb		3,023,326.34	0.32	82.5	Pulse	0.30	3

Quantitation Report

File Name 097_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 18:12
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	44.087	ug/l	0.71	258,672.84	2.373E-01	Pulse	0.25	3
B			1	86.227	ug/l	0.50	361,840.95	3.319E-01	Pulse	0.15	3
Ca			1	5014.240	ug/l	0.52	3,784,279.42	1.706E+00	Pulse	0.10	3
Sr			1	51.507	ug/l	0.57	2,154,651.17	6.856E-01	Pulse	0.10	3
Mo			1	50.585	ug/l	0.01	395,145.05	1.257E-01	Pulse	0.10	3
Ag			1	49.067	ug/l	0.17	985,186.08	2.954E-01	Pulse	0.10	3
Sn			1	50.148	ug/l	0.58	650,324.93	1.950E-01	Pulse	0.10	3
Sb			1	52.265	ug/l	0.60	796,487.91	1.672E-01	Pulse	0.10	3
Ba			1	50.756	ug/l	0.66	325,707.34	6.836E-02	Pulse	0.10	3
Tl			1	50.784	ug/l	0.50	1,892,295.18	6.768E-01	Pulse	0.10	3
Pb			1	50.669	ug/l	0.66	652,193.58	2.332E-01	Pulse	0.10	3
Pb			1	50.525	ug/l	0.35	572,359.61	2.047E-01	Pulse	0.10	3
Pb			1	50.579	ug/l	0.22	2,631,474.90	9.411E-01	Pulse	0.10	3
Na			2	5007.928	ug/l	0.33	5,872,481.71	4.321E+01	Analog	0.30	3
Mg			2	4744.069	ug/l	0.48	2,573,786.84	1.894E+01	Pulse	0.30	3
Al			2	4790.064	ug/l	0.57	884,940.17	6.512E+00	Pulse	0.30	3
K			2	4902.808	ug/l	0.29	2,207,454.56	1.624E+01	Pulse	0.30	3
Ca			2	5102.129	ug/l	0.72	115,377.01	8.490E-01	Pulse	0.30	3
Ti			2	49.425	ug/l	2.04	8,299.94	6.107E-02	Pulse	0.30	3
V			2	49.418	ug/l	0.32	269,165.80	1.981E+00	Pulse	0.30	3
Cr			2	48.468	ug/l	0.41	335,255.14	2.467E+00	Pulse	0.30	3
Mn			2	49.890	ug/l	0.25	184,574.22	1.358E+00	Pulse	0.30	3
Fe			2	5140.668	ug/l	1.13	27,761,061.12	2.043E+02	Analog	0.30	3
Co			2	48.308	ug/l	0.61	525,399.94	3.866E+00	Pulse	0.30	3
Ni			2	48.121	ug/l	0.82	138,377.31	1.018E+00	Pulse	0.30	3
Cu			2	55.393	ug/l	0.99	439,099.32	3.231E+00	Pulse	0.30	3
Zn			2	48.778	ug/l	0.35	58,879.59	4.332E-01	Pulse	0.30	3
As			2	49.923	ug/l	0.73	33,894.62	2.494E-01	Pulse	1.00	3
Cd			2	49.225	ug/l	0.58	92,547.81	1.118E-01	Pulse	0.30	3
Sn			2	49.554	ug/l	0.53	205,086.28	2.478E-01	Pulse	0.30	3
Se			3	194.999	ug/l	0.57	33,256.16	1.972E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,090,124.82	0.20	87.3	Pulse	0.10	3
1	Sc		2,218,544.91	0.51	78.9	Pulse	0.10	3
1	Ge		458,072.92	0.57	80.3	Pulse	0.10	3

Quantitation Report

1	Ge		642,888.09	0.50	81.0	Pulse	0.10	3
1	Rh		3,142,902.77	0.50	81.6	Pulse	0.10	3
1	In		3,335,125.11	1.02	83.7	Pulse	0.10	3
1	Tb		4,764,413.05	0.32	86.0	Pulse	0.10	3
1	Ho		470,585.68	0.24	85.5	Pulse	0.10	3
1	Bi		2,796,133.60	0.30	83.8	Pulse	0.10	3
2	Sc		135,903.18	0.35	84.6	Pulse	0.30	3
2	Ge		83,805.65	0.78	84.2	Pulse	0.30	3
2	Ge		126,308.56	1.41	84.2	Pulse	0.30	3
2	Rh		2,005,773.18	0.46	82.4	Pulse	0.30	3
2	In		827,567.79	0.41	85.2	Pulse	0.30	3
2	Tb		2,795,634.61	0.73	85.4	Pulse	0.30	3
2	Ho		286,887.43	0.44	85.8	Pulse	0.30	3
2	Bi		1,861,317.70	0.37	83.1	Pulse	0.30	3
3	Sc		175,247.00	1.03	80.9	Pulse	0.30	3
3	Ge		111,852.95	0.89	79.7	Pulse	0.30	3
3	Ge		168,658.11	0.29	79.7	Pulse	0.30	3
3	Rh		1,712,224.86	0.44	78.5	Pulse	0.30	3
3	Tb		3,007,298.35	1.04	82.1	Pulse	0.30	3

Quantitation Report

File Name	098_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 18:17
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	35.34	104.00	9.483E-05	Pulse	0.25	3
B			1	4.455	ug/l	1.69	24,573.57	2.242E-02	Pulse	0.15	3
Ca			1	1.463	ug/l	26.90	10,663.80	4.811E-03	Pulse	0.10	3
Sr			1	0.018	ug/l	15.81	1,096.75	3.395E-04	Pulse	0.10	3
Mo			1	0.069	ug/l	23.46	693.37	2.145E-04	Pulse	0.10	3
Ag			1	0.009	ug/l	12.82	206.68	6.119E-05	Pulse	0.10	3
Sn			1	0.143	ug/l	5.20	4,520.83	1.337E-03	Pulse	0.10	3
Sb			1	0.048	ug/l	25.75	1,030.07	2.153E-04	Pulse	0.10	3
Ba			1	0.029	ug/l	25.50	260.01	5.444E-05	Pulse	0.10	3
Tl			1	0.023	ug/l	9.95	1,083.42	3.776E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	3.58	420.02	1.463E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	41.62	406.69	1.416E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	14.52	1,886.79	6.573E-04	Pulse	0.10	3
Na			2	15.749	ug/l	0.95	28,171.29	2.095E-01	Pulse	0.30	3
Mg			2	0.755	ug/l	14.94	677.80	5.039E-03	Pulse	0.30	3
Al			2	2.092	ug/l	3.12	965.60	7.180E-03	Pulse	0.30	3
K			2	0.486	ug/l	141.57	11,779.81	8.759E-02	Pulse	0.30	3
Ca			2	2.758	ug/l	34.98	155.56	1.157E-03	Pulse	0.30	3
Ti			2	0.022	ug/l	137.83	5.56	4.131E-05	Pulse	0.30	3
V			2	-0.006	ug/l	-155.03	217.78	1.618E-03	Pulse	0.30	3
Cr			2	0.008	ug/l	218.45	862.26	6.410E-03	Pulse	0.30	3
Mn			2	0.014	ug/l	49.88	173.33	1.289E-03	Pulse	0.30	3
Fe			2	1.916	ug/l	7.40	15,470.79	1.150E-01	Pulse	0.30	3
Co			2	0.008	ug/l	56.29	126.63	9.406E-04	Pulse	0.30	3
Ni			2	0.036	ug/l	42.37	246.67	1.833E-03	Pulse	0.30	3
Cu			2	2.742	ug/l	8.69	27,991.73	2.081E-01	Pulse	0.30	3
Zn			2	-0.151	ug/l	-20.19	1,078.94	8.022E-03	Pulse	0.30	3
As			2	0.018	ug/l	40.76	30.67	2.280E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.004	ug/l	115.70	19.91	2.369E-05	Pulse	0.30	3
Sn			2	0.148	ug/l	17.29	1,585.65	1.889E-03	Pulse	0.30	3
Se			3	0.134	ug/l	15.21	26.53	1.549E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,096,056.64	0.95	87.8	Pulse	0.10	3
1	Sc		2,216,870.96	1.21	78.8	Pulse	0.10	3
1	Ge		459,412.06	1.11	80.5	Pulse	0.10	3
1	Ge		642,502.40	1.07	80.9	Pulse	0.10	3
1	Rh		3,228,099.02	1.11	83.9	Pulse	0.10	3
1	In		3,381,088.32	1.48	84.8	Pulse	0.10	3
1	Tb		4,779,907.12	1.02	86.3	Pulse	0.10	3
1	Ho		472,349.76	1.50	85.9	Pulse	0.10	3
1	Bi		2,870,362.98	0.98	86.0	Pulse	0.10	3
2	Sc		134,488.08	0.40	83.7	Pulse	0.30	3
2	Ge		83,626.84	0.80	84.0	Pulse	0.30	3
2	Ge		126,048.54	0.48	84.1	Pulse	0.30	3
2	Rh		2,047,068.81	1.12	84.1	Pulse	0.30	3
2	In		839,253.63	0.89	86.4	Pulse	0.30	3
2	Tb		2,790,912.32	0.88	85.2	Pulse	0.30	3
2	Ho		284,847.76	0.73	85.2	Pulse	0.30	3
2	Bi		1,899,061.17	1.11	84.8	Pulse	0.30	3
3	Sc		176,274.65	0.69	81.4	Pulse	0.30	3
3	Ge		113,113.94	0.40	80.6	Pulse	0.30	3
3	Ge		171,378.92	0.94	81.0	Pulse	0.30	3
3	Rh		1,760,332.98	0.25	80.7	Pulse	0.30	3
3	Tb		3,012,075.51	0.60	82.2	Pulse	0.30	3

Quantitation Report

File Name	099SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 18:22
Sample Name	mp17229-sd1
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.825	ug/l	17.04	1,122.72	1.057E-03	Pulse	0.25	3
B			1	92.093	ug/l	15.03	20,788.73	1.950E-02	Pulse	0.15	3
Ca			1	27481.929	ug/l	13.28	782,937.20	3.773E-01	Pulse	0.10	3
Sr			1	200.836	ug/l	12.83	312,162.54	1.070E-01	Pulse	0.10	3
Mo			1	20.650	ug/l	17.66	6,091.40	2.096E-03	Pulse	0.10	3
Ag			1	8.376	ug/l	13.74	6,198.13	2.024E-03	Pulse	0.10	3
Sn			1	36.450	ug/l	12.75	19,736.30	6.428E-03	Pulse	0.10	3
Sb			1	7.882	ug/l	7.76	4,577.50	1.071E-03	Pulse	0.10	3
Ba			1	929.567	ug/l	13.40	212,893.32	5.008E-02	Pulse	0.10	3
Tl			1	2.185	ug/l	15.34	3,220.46	1.239E-03	Pulse	0.10	3
Pb			1	619.278	ug/l	12.34	296,603.84	1.141E-01	Pulse	0.10	3
Pb			1	588.182	ug/l	11.69	248,093.13	9.536E-02	Pulse	0.10	3
Pb			1	597.037	ug/l	12.16	1,156,089.77	4.446E-01	Pulse	0.10	3
Na			2	1707.255	ug/l	0.60	97,222.59	6.621E-01	Pulse	0.30	3
Mg			2	9594.595	ug/l	0.81	225,255.97	1.534E+00	Pulse	0.30	3
Al			2	55019.360	ug/l	0.59	439,674.65	2.994E+00	Pulse	0.30	3
K			2	4851.517	ug/l	1.81	106,536.62	7.255E-01	Pulse	0.30	3
Ca			2	24088.158	ug/l	0.45	23,626.88	1.609E-01	Pulse	0.30	3
Ti			2	2134.286	ug/l	1.66	15,490.66	1.055E-01	Pulse	0.30	3
V			2	208.443	ug/l	0.56	49,300.83	3.357E-01	Pulse	0.30	3
Cr			2	154.620	ug/l	0.84	46,997.54	3.200E-01	Pulse	0.30	3
Mn			2	764.991	ug/l	1.06	122,375.21	8.334E-01	Pulse	0.30	3
Fe			2	196449.814	ug/l	0.66	45,850,913.73	3.122E+02	Analog	0.30	3
Co			2	54.725	ug/l	1.57	25,772.16	1.755E-01	Pulse	0.30	3
Ni			2	1093.174	ug/l	0.86	135,884.71	9.253E-01	Pulse	0.30	3
Cu			2	256839.030	ug/l	0.68	86,625,165.44	5.899E+02	Analog	0.30	3
Zn			2	732.253	ug/l	0.34	38,751.26	2.639E-01	Pulse	0.30	3
As			2	123.046	ug/l	1.41	3,629.08	2.471E-02	Pulse	1.00	3
Cd			2	3.237	ug/l	4.14	274.02	3.077E-04	Pulse	0.30	3
Sn			2	28.593	ug/l	2.43	6,097.93	6.848E-03	Pulse	0.30	3
Se			3	39.786	ug/l	3.63	290.27	1.628E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,074,119.35	10.57	86.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,098,566.69	12.90	74.6	Pulse	0.10	3
1	Ge		444,798.26	11.35	78.0	Pulse	0.10	3
1	Ge		614,169.51	10.80	77.4	Pulse	0.10	3
1	Rh		2,950,796.99	13.40	76.7	Pulse	0.10	3
1	In		3,101,396.92	13.57	77.8	Pulse	0.10	3
1	Tb		4,304,033.48	14.02	77.7	Pulse	0.10	3
1	Ho		432,783.37	13.63	78.7	Pulse	0.10	3
1	Bi		2,627,154.08	12.57	78.7	Pulse	0.10	3
2	Sc		146,849.96	0.36	91.4	Pulse	0.30	3
2	Ge		89,910.93	0.28	90.3	Pulse	0.30	3
2	Ge		134,610.64	0.16	89.8	Pulse	0.30	3
2	Rh		2,147,350.40	0.78	88.2	Pulse	0.30	3
2	In		890,492.44	0.49	91.6	Pulse	0.30	3
2	Tb		2,931,831.06	0.19	89.5	Pulse	0.30	3
2	Ho		303,583.58	0.28	90.8	Pulse	0.30	3
2	Bi		1,989,410.27	0.37	88.9	Pulse	0.30	3
3	Sc		185,629.68	0.39	85.7	Pulse	0.30	3
3	Ge		117,859.19	1.22	84.0	Pulse	0.30	3
3	Ge		178,218.04	0.78	84.2	Pulse	0.30	3
3	Rh		1,813,874.93	0.29	83.2	Pulse	0.30	3
3	Tb		3,115,838.35	0.45	85.1	Pulse	0.30	3

Quantitation Report

File Name 100SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 18:27
Sample Name jc94365-1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.607	ug/l	13.24	5,091.49	4.978E-03	Pulse	0.25	3
B			1	140.252	ug/l	14.85	114,134.81	1.117E-01	Pulse	0.15	3
Ca			1	54417.038	ug/l	15.15	8,363,039.25	3.697E+00	Analog	0.10	3
Sr			1	380.986	ug/l	16.03	2,910,595.48	1.014E+00	Pulse	0.10	3
Mo			1	13.402	ug/l	21.02	19,155.51	6.704E-03	Pulse	0.10	3
Ag			1	16.559	ug/l	14.19	61,647.27	1.994E-02	Pulse	0.10	3
Sn			1	198.971	ug/l	14.37	478,655.28	1.549E-01	Pulse	0.10	3
Sb			1	6.704	ug/l	14.53	19,162.38	4.350E-03	Pulse	0.10	3
Ba			1	1060.347	ug/l	16.02	1,255,741.54	2.856E-01	Pulse	0.10	3
Tl			1	1.378	ug/l	15.08	9,877.05	3.746E-03	Pulse	0.10	3
Pb			1	981.452	ug/l	14.10	2,382,232.36	9.034E-01	Pulse	0.10	3
Pb			1	936.798	ug/l	13.64	2,001,962.89	7.589E-01	Pulse	0.10	3
Pb			1	952.341	ug/l	13.85	9,345,050.38	3.543E+00	Pulse	0.10	3
Na			2	43131.838	ug/l	1.29	11,160,239.83	7.438E+01	Analog	0.30	3
Mg			2	34170.579	ug/l	1.29	4,093,373.87	2.728E+01	Pulse	0.30	3
Al			2	76987.021	ug/l	0.63	3,139,231.61	2.092E+01	Pulse	0.30	3
K			2	17619.756	ug/l	1.13	1,755,370.90	1.170E+01	Pulse	0.30	3
Ca			2	49156.408	ug/l	1.11	245,352.54	1.635E+00	Pulse	0.30	3
Ti			2	1927.952	ug/l	0.43	71,480.21	4.764E-01	Pulse	0.30	3
V			2	202.411	ug/l	0.11	243,499.52	1.623E+00	Pulse	0.30	3
Cr			2	445.188	ug/l	1.02	679,196.26	4.527E+00	Pulse	0.30	3
Mn			2	1478.665	ug/l	0.81	1,207,283.87	8.046E+00	Pulse	0.30	3
Fe			2	156435.426	ug/l	1.40	186,511,388.14	1.243E+03	Analog	0.30	3
Co			2	44.470	ug/l	0.90	106,839.18	7.120E-01	Pulse	0.30	3
Ni			2	161.843	ug/l	1.51	102,816.38	6.853E-01	Pulse	0.30	3
Cu			2	1307.227	ug/l	1.23	2,259,834.22	1.506E+01	Pulse	0.30	3
Zn			2	1390.273	ug/l	1.17	363,976.73	2.426E+00	Pulse	0.30	3
As			2	104.292	ug/l	0.67	15,647.50	1.043E-01	Pulse	1.00	3
Cd			2	10.797	ug/l	3.64	4,161.29	4.919E-03	Pulse	0.30	3
Sn			2	177.928	ug/l	0.38	150,822.84	1.783E-01	Pulse	0.30	3
Se			3	16.446	ug/l	14.17	579.94	3.345E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,032,737.70	11.56	82.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,291,786.74	12.98	81.5	Pulse	0.10	3
1	Ge		449,265.36	11.00	78.8	Pulse	0.10	3
1	Ge		612,504.04	11.11	77.2	Pulse	0.10	3
1	Rh		2,913,423.39	13.95	75.7	Pulse	0.10	3
1	In		3,129,169.34	13.08	78.5	Pulse	0.10	3
1	Tb		4,462,634.73	13.74	80.6	Pulse	0.10	3
1	Ho		474,766.93	11.94	86.3	Pulse	0.10	3
1	Bi		2,668,005.22	12.34	79.9	Pulse	0.10	3
2	Sc		150,049.89	0.56	93.4	Pulse	0.30	3
2	Ge		88,146.12	1.18	88.6	Pulse	0.30	3
2	Ge		129,382.24	1.45	86.3	Pulse	0.30	3
2	Rh		2,031,258.67	0.78	83.4	Pulse	0.30	3
2	In		845,942.74	0.83	87.0	Pulse	0.30	3
2	Tb		2,849,908.71	0.53	87.0	Pulse	0.30	3
2	Ho		311,821.09	0.56	93.3	Pulse	0.30	3
2	Bi		1,906,878.47	0.22	85.2	Pulse	0.30	3
3	Sc		194,752.92	18.92	89.9	Pulse	0.30	3
3	Ge		118,071.04	14.66	84.2	Pulse	0.30	3
3	Ge		175,657.28	13.93	83.0	Pulse	0.30	3
3	Rh		1,751,234.65	18.70	80.3	Pulse	0.30	3
3	Tb		3,217,414.73	23.15	87.8	Mix	0.30	3

Quantitation Report

File Name 101SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 18:32
Sample Name jc94365-2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.046	ug/l	3.14	4,912.78	4.373E-03	Pulse	0.25	3
B			1	128.124	ug/l	1.48	115,190.16	1.025E-01	Pulse	0.15	3
Ca			1	25251.936	ug/l	0.64	4,316,980.56	1.718E+00	Pulse	0.10	3
Sr			1	250.507	ug/l	0.32	2,165,641.37	6.669E-01	Pulse	0.10	3
Mo			1	11.043	ug/l	1.35	17,964.07	5.532E-03	Pulse	0.10	3
Ag			1	15.307	ug/l	1.84	63,641.94	1.844E-02	Pulse	0.10	3
Sn			1	167.032	ug/l	0.33	449,284.41	1.302E-01	Pulse	0.10	3
Sb			1	5.516	ug/l	1.00	17,710.76	3.590E-03	Pulse	0.10	3
Ba			1	904.787	ug/l	0.71	1,202,048.76	2.437E-01	Pulse	0.10	3
Tl			1	1.242	ug/l	11.10	9,770.24	3.385E-03	Pulse	0.10	3
Pb			1	889.930	ug/l	0.23	2,364,068.71	8.191E-01	Pulse	0.10	3
Pb			1	853.171	ug/l	0.54	1,994,638.88	6.911E-01	Pulse	0.10	3
Pb			1	867.040	ug/l	0.39	9,309,437.73	3.226E+00	Pulse	0.10	3
Na			2	48143.609	ug/l	0.56	12,242,076.46	8.301E+01	Analog	0.30	3
Mg			2	32873.164	ug/l	0.56	3,870,480.54	2.625E+01	Pulse	0.30	3
Al			2	73073.084	ug/l	0.21	2,928,548.91	1.986E+01	Pulse	0.30	3
K			2	17304.650	ug/l	0.41	1,694,651.32	1.149E+01	Pulse	0.30	3
Ca			2	26112.593	ug/l	0.80	128,151.76	8.690E-01	Pulse	0.30	3
Ti			2	1895.909	ug/l	0.46	69,086.22	4.685E-01	Pulse	0.30	3
V			2	196.652	ug/l	0.42	232,513.99	1.577E+00	Pulse	0.30	3
Cr			2	455.620	ug/l	0.53	683,174.80	4.633E+00	Pulse	0.30	3
Mn			2	1320.016	ug/l	0.60	1,059,267.60	7.183E+00	Pulse	0.30	3
Fe			2	144056.217	ug/l	0.46	168,810,486.62	1.145E+03	Analog	0.30	3
Co			2	42.175	ug/l	0.55	99,588.25	6.753E-01	Pulse	0.30	3
Ni			2	157.262	ug/l	0.94	98,198.65	6.659E-01	Pulse	0.30	3
Cu			2	1343.759	ug/l	0.51	2,282,939.98	1.548E+01	Pulse	0.30	3
Zn			2	1344.444	ug/l	0.51	345,987.77	2.346E+00	Pulse	0.30	3
As			2	100.493	ug/l	1.83	14,818.39	1.005E-01	Pulse	1.00	3
Cd			2	12.467	ug/l	2.25	4,764.99	5.677E-03	Pulse	0.30	3
Sn			2	167.261	ug/l	0.88	140,738.36	1.677E-01	Pulse	0.30	3
Se			3	15.155	ug/l	0.32	539.34	3.084E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,123,296.29	0.22	89.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,512,715.64	0.47	89.3	Pulse	0.10	3
1	Ge		489,712.47	1.18	85.9	Pulse	0.10	3
1	Ge		670,589.10	0.22	84.5	Pulse	0.10	3
1	Rh		3,247,547.87	0.32	84.4	Pulse	0.10	3
1	In		3,451,895.93	0.50	86.6	Pulse	0.10	3
1	Tb		4,932,904.51	0.29	89.1	Pulse	0.10	3
1	Ho		520,396.24	0.95	94.6	Pulse	0.10	3
1	Bi		2,886,112.56	0.35	86.4	Pulse	0.10	3
2	Sc		147,474.10	0.66	91.8	Pulse	0.30	3
2	Ge		87,126.19	1.18	87.6	Pulse	0.30	3
2	Ge		129,179.58	0.81	86.1	Pulse	0.30	3
2	Rh		2,026,098.88	1.11	83.2	Pulse	0.30	3
2	In		839,433.09	1.10	86.4	Pulse	0.30	3
2	Tb		2,836,677.53	1.25	86.6	Pulse	0.30	3
2	Ho		309,848.59	1.43	92.7	Pulse	0.30	3
2	Bi		1,898,060.48	1.54	84.8	Pulse	0.30	3
3	Sc		193,549.56	1.09	89.3	Pulse	0.30	3
3	Ge		117,625.14	1.01	83.9	Pulse	0.30	3
3	Ge		174,888.72	0.31	82.7	Pulse	0.30	3
3	Rh		1,756,897.19	0.72	80.5	Pulse	0.30	3
3	Tb		3,110,517.58	1.00	84.9	Pulse	0.30	3

Quantitation Report

File Name 102SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 18:37
Sample Name jc94365-3
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	3.694	ug/l	2.54	4,524.68	3.994E-03	Pulse	0.25	3
B			1	133.713	ug/l	2.08	120,965.33	1.068E-01	Pulse	0.15	3
Ca			1	21649.953	ug/l	0.31	3,765,420.46	1.474E+00	Pulse	0.10	3
Sr			1	211.520	ug/l	0.13	1,851,764.87	5.631E-01	Pulse	0.10	3
Mo			1	6.565	ug/l	3.82	10,874.10	3.306E-03	Pulse	0.10	3
Ag			1	8.430	ug/l	2.17	35,223.24	1.016E-02	Pulse	0.10	3
Sn			1	128.883	ug/l	0.74	348,898.89	1.006E-01	Pulse	0.10	3
Sb			1	3.383	ug/l	2.97	11,034.32	2.226E-03	Pulse	0.10	3
Ba			1	749.664	ug/l	0.68	1,000,948.16	2.019E-01	Pulse	0.10	3
Tl			1	1.050	ug/l	4.63	8,356.00	2.874E-03	Pulse	0.10	3
Pb			1	622.819	ug/l	2.17	1,666,764.25	5.733E-01	Pulse	0.10	3
Pb			1	598.894	ug/l	1.39	1,410,629.41	4.852E-01	Pulse	0.10	3
Pb			1	609.171	ug/l	1.48	6,589,519.75	2.266E+00	Pulse	0.10	3
Na			2	50240.609	ug/l	1.53	13,139,568.09	8.663E+01	Analog	0.30	3
Mg			2	33912.397	ug/l	0.49	4,106,903.03	2.708E+01	Pulse	0.30	3
Al			2	70076.748	ug/l	0.57	2,888,705.93	1.904E+01	Pulse	0.30	3
K			2	16836.759	ug/l	0.76	1,696,268.96	1.118E+01	Pulse	0.30	3
Ca			2	22504.911	ug/l	0.52	113,618.68	7.490E-01	Pulse	0.30	3
Ti			2	1737.405	ug/l	0.78	65,117.85	4.293E-01	Pulse	0.30	3
V			2	172.616	ug/l	0.34	209,962.88	1.384E+00	Pulse	0.30	3
Cr			2	335.716	ug/l	0.88	517,994.20	3.415E+00	Pulse	0.30	3
Mn			2	1501.781	ug/l	1.20	1,239,516.10	8.172E+00	Pulse	0.30	3
Fe			2	139673.574	ug/l	0.96	168,347,739.98	1.110E+03	Analog	0.30	3
Co			2	39.147	ug/l	0.80	95,081.68	6.268E-01	Pulse	0.30	3
Ni			2	129.692	ug/l	0.93	83,325.63	5.493E-01	Pulse	0.30	3
Cu			2	673.437	ug/l	0.53	1,180,646.97	7.784E+00	Pulse	0.30	3
Zn			2	954.150	ug/l	0.83	252,972.73	1.668E+00	Pulse	0.30	3
As			2	73.492	ug/l	1.65	11,153.48	7.353E-02	Pulse	1.00	3
Cd			2	4.103	ug/l	1.77	1,617.08	1.878E-03	Pulse	0.30	3
Sn			2	127.674	ug/l	1.32	110,465.13	1.283E-01	Pulse	0.30	3
Se			3	9.062	ug/l	2.33	326.80	1.852E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,132,801.78	0.40	90.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,555,299.70	0.45	90.8	Pulse	0.10	3
1	Ge		492,638.00	0.98	86.4	Pulse	0.10	3
1	Ge		683,768.04	1.05	86.1	Pulse	0.10	3
1	Rh		3,288,610.68	1.12	85.4	Pulse	0.10	3
1	In		3,467,975.84	0.63	87.0	Pulse	0.10	3
1	Tb		4,957,599.41	0.89	89.5	Pulse	0.10	3
1	Ho		519,743.26	1.03	94.5	Pulse	0.10	3
1	Bi		2,907,734.54	0.98	87.1	Pulse	0.10	3
2	Sc		151,688.51	0.68	94.4	Pulse	0.30	3
2	Ge		88,688.62	0.69	89.1	Pulse	0.30	3
2	Ge		132,128.98	0.90	88.1	Pulse	0.30	3
2	Rh		2,073,054.29	0.50	85.2	Pulse	0.30	3
2	In		861,333.55	0.96	88.6	Pulse	0.30	3
2	Tb		2,894,200.51	0.53	88.4	Pulse	0.30	3
2	Ho		313,824.72	0.41	93.9	Pulse	0.30	3
2	Bi		1,919,945.48	0.89	85.8	Pulse	0.30	3
3	Sc		193,448.03	0.58	89.3	Pulse	0.30	3
3	Ge		117,488.15	0.27	83.8	Pulse	0.30	3
3	Ge		176,474.58	0.52	83.4	Pulse	0.30	3
3	Rh		1,759,170.28	0.65	80.6	Pulse	0.30	3
3	Tb		3,093,290.50	0.49	84.4	Pulse	0.30	3

Quantitation Report

File Name	103SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 18:42
Sample Name	jc94365-4
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.124	ug/l	2.33	5,063.48	4.458E-03	Pulse	0.25	3
B			1	133.940	ug/l	0.54	121,491.54	1.070E-01	Pulse	0.15	3
Ca			1	21896.180	ug/l	0.92	3,856,663.07	1.490E+00	Pulse	0.10	3
Sr			1	211.813	ug/l	1.16	1,873,524.66	5.639E-01	Pulse	0.10	3
Mo			1	8.621	ug/l	1.32	14,380.34	4.328E-03	Pulse	0.10	3
Ag			1	12.720	ug/l	1.14	54,236.67	1.532E-02	Pulse	0.10	3
Sn			1	138.999	ug/l	1.16	383,885.28	1.084E-01	Pulse	0.10	3
Sb			1	3.791	ug/l	5.35	12,518.80	2.487E-03	Pulse	0.10	3
Ba			1	770.933	ug/l	0.49	1,044,834.36	2.076E-01	Pulse	0.10	3
Tl			1	1.182	ug/l	2.50	9,443.36	3.224E-03	Pulse	0.10	3
Pb			1	727.168	ug/l	0.70	1,960,530.44	6.693E-01	Pulse	0.10	3
Pb			1	697.339	ug/l	0.56	1,654,680.60	5.649E-01	Pulse	0.10	3
Pb			1	706.736	ug/l	0.59	7,701,628.59	2.629E+00	Pulse	0.10	3
Na			2	45010.041	ug/l	1.51	12,001,962.58	7.762E+01	Analog	0.30	3
Mg			2	34543.671	ug/l	1.26	4,264,738.30	2.758E+01	Pulse	0.30	3
Al			2	74449.453	ug/l	1.19	3,128,649.11	2.023E+01	Pulse	0.30	3
K			2	17336.695	ug/l	1.15	1,780,254.86	1.151E+01	Pulse	0.30	3
Ca			2	22384.529	ug/l	0.60	115,210.32	7.450E-01	Pulse	0.30	3
Ti			2	1830.291	ug/l	1.48	69,933.79	4.523E-01	Pulse	0.30	3
V			2	186.093	ug/l	1.31	230,735.34	1.492E+00	Pulse	0.30	3
Cr			2	394.158	ug/l	1.27	619,849.96	4.008E+00	Pulse	0.30	3
Mn			2	1465.719	ug/l	1.03	1,233,347.80	7.976E+00	Pulse	0.30	3
Fe			2	147102.342	ug/l	1.26	180,754,717.26	1.169E+03	Analog	0.30	3
Co			2	41.998	ug/l	1.61	103,987.08	6.725E-01	Pulse	0.30	3
Ni			2	144.627	ug/l	0.97	94,712.84	6.125E-01	Pulse	0.30	3
Cu			2	842.959	ug/l	0.94	1,504,662.96	9.730E+00	Pulse	0.30	3
Zn			2	1148.390	ug/l	0.95	310,110.88	2.005E+00	Pulse	0.30	3
As			2	78.370	ug/l	0.12	12,124.18	7.840E-02	Pulse	1.00	3
Cd			2	6.426	ug/l	2.39	2,549.13	2.933E-03	Pulse	0.30	3
Sn			2	138.601	ug/l	0.14	120,918.11	1.391E-01	Pulse	0.30	3
Se			3	10.294	ug/l	2.15	376.33	2.101E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,135,967.10	0.17	91.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,587,991.78	0.94	92.0	Pulse	0.10	3
1	Ge		499,492.40	0.76	87.6	Pulse	0.10	3
1	Ge		691,277.39	1.13	87.1	Pulse	0.10	3
1	Rh		3,322,820.78	0.81	86.3	Pulse	0.10	3
1	In		3,539,982.45	0.34	88.8	Pulse	0.10	3
1	Tb		5,032,164.51	1.12	90.9	Pulse	0.10	3
1	Ho		531,886.46	0.79	96.7	Pulse	0.10	3
1	Bi		2,929,178.81	0.45	87.7	Pulse	0.10	3
2	Sc		154,649.51	1.01	96.2	Pulse	0.30	3
2	Ge		90,289.70	0.54	90.7	Pulse	0.30	3
2	Ge		133,496.79	0.35	89.0	Pulse	0.30	3
2	Rh		2,084,965.33	0.27	85.7	Pulse	0.30	3
2	In		869,056.64	0.52	89.4	Pulse	0.30	3
2	Tb		2,906,528.91	0.11	88.8	Pulse	0.30	3
2	Ho		316,862.90	0.61	94.8	Pulse	0.30	3
2	Bi		1,943,847.00	0.06	86.8	Pulse	0.30	3
3	Sc		200,508.85	0.94	92.5	Pulse	0.30	3
3	Ge		121,319.37	0.58	86.5	Pulse	0.30	3
3	Ge		179,130.72	0.75	84.7	Pulse	0.30	3
3	Rh		1,773,028.61	0.37	81.3	Pulse	0.30	3
3	Tb		3,127,719.32	0.39	85.4	Pulse	0.30	3

Quantitation Report

File Name	104SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 18:47
Sample Name	jc94365-5
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	2.866	ug/l	5.78	3,600.44	3.104E-03	Pulse	0.25	3
B			1	106.430	ug/l	0.48	99,926.32	8.613E-02	Pulse	0.15	3
Ca			1	17269.692	ug/l	0.54	2,988,446.00	1.176E+00	Pulse	0.10	3
Sr			1	185.800	ug/l	0.42	1,661,298.25	4.946E-01	Pulse	0.10	3
Mo			1	4.748	ug/l	3.96	8,072.41	2.403E-03	Pulse	0.10	3
Ag			1	6.381	ug/l	0.81	27,320.96	7.689E-03	Pulse	0.10	3
Sn			1	103.380	ug/l	0.69	287,295.32	8.086E-02	Pulse	0.10	3
Sb			1	2.699	ug/l	3.82	8,976.23	1.789E-03	Pulse	0.10	3
Ba			1	541.704	ug/l	1.01	732,044.05	1.459E-01	Pulse	0.10	3
Tl			1	0.850	ug/l	5.57	6,811.86	2.338E-03	Pulse	0.10	3
Pb			1	488.194	ug/l	1.03	1,309,113.24	4.494E-01	Pulse	0.10	3
Pb			1	467.944	ug/l	0.44	1,104,395.74	3.791E-01	Pulse	0.10	3
Pb			1	474.863	ug/l	0.36	5,147,086.64	1.767E+00	Pulse	0.10	3
Na			2	46836.900	ug/l	1.47	12,301,099.51	8.076E+01	Analog	0.30	3
Mg			2	27467.405	ug/l	1.25	3,340,274.04	2.193E+01	Pulse	0.30	3
Al			2	55891.254	ug/l	1.11	2,313,686.23	1.519E+01	Pulse	0.30	3
K			2	13613.218	ug/l	1.40	1,379,700.47	9.058E+00	Pulse	0.30	3
Ca			2	17660.398	ug/l	1.85	89,545.85	5.879E-01	Pulse	0.30	3
Ti			2	1374.523	ug/l	1.19	51,734.65	3.396E-01	Pulse	0.30	3
V			2	138.339	ug/l	1.14	169,025.81	1.110E+00	Pulse	0.30	3
Cr			2	263.000	ug/l	0.79	407,705.89	2.677E+00	Pulse	0.30	3
Mn			2	1266.636	ug/l	1.18	1,049,835.83	6.892E+00	Pulse	0.30	3
Fe			2	112995.810	ug/l	1.16	136,763,701.23	8.979E+02	Analog	0.30	3
Co			2	30.628	ug/l	1.17	74,711.54	4.905E-01	Pulse	0.30	3
Ni			2	97.389	ug/l	0.96	62,875.86	4.128E-01	Pulse	0.30	3
Cu			2	527.971	ug/l	1.24	931,136.91	6.113E+00	Pulse	0.30	3
Zn			2	764.148	ug/l	1.20	203,725.11	1.338E+00	Pulse	0.30	3
As			2	60.198	ug/l	2.18	9,176.59	6.025E-02	Pulse	1.00	3
Cd			2	3.355	ug/l	4.29	1,333.89	1.538E-03	Pulse	0.30	3
Sn			2	104.154	ug/l	0.52	90,953.27	1.048E-01	Pulse	0.30	3
Se			3	7.202	ug/l	9.26	263.07	1.476E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,160,237.59	0.47	92.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,540,565.74	0.69	90.3	Pulse	0.10	3
1	Ge		501,540.68	0.24	87.9	Pulse	0.10	3
1	Ge		691,970.30	0.67	87.2	Pulse	0.10	3
1	Rh		3,358,661.51	0.74	87.2	Pulse	0.10	3
1	In		3,553,142.89	0.41	89.2	Pulse	0.10	3
1	Tb		5,017,667.01	0.84	90.6	Pulse	0.10	3
1	Ho		519,690.91	1.22	94.5	Pulse	0.10	3
1	Bi		2,913,298.29	1.14	87.3	Pulse	0.10	3
2	Sc		152,331.62	1.31	94.8	Pulse	0.30	3
2	Ge		89,871.90	0.55	90.3	Pulse	0.30	3
2	Ge		134,027.85	0.37	89.4	Pulse	0.30	3
2	Rh		2,091,606.23	0.79	85.9	Pulse	0.30	3
2	In		867,506.40	0.29	89.3	Pulse	0.30	3
2	Tb		2,924,122.66	0.70	89.3	Pulse	0.30	3
2	Ho		311,334.06	0.13	93.1	Pulse	0.30	3
2	Bi		1,934,079.57	0.12	86.4	Pulse	0.30	3
3	Sc		197,081.26	12.08	91.0	Pulse	0.30	3
3	Ge		120,422.78	8.26	85.9	Pulse	0.30	3
3	Ge		179,073.27	7.95	84.7	Pulse	0.30	3
3	Rh		1,803,075.10	11.59	82.7	Pulse	0.30	3
3	Tb		3,199,210.78	14.72	87.3	Mix	0.30	3

Quantitation Report

File Name	105SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 18:52
Sample Name	jc94365-6
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	3.749	ug/l	1.68	4,620.69	4.054E-03	Pulse	0.25	3
B			1	120.337	ug/l	2.91	110,148.40	9.665E-02	Pulse	0.15	3
Ca			1	15262.295	ug/l	0.41	2,685,862.04	1.040E+00	Pulse	0.10	3
Sr			1	180.881	ug/l	0.75	1,598,963.16	4.815E-01	Pulse	0.10	3
Mo			1	9.663	ug/l	4.29	16,088.62	4.846E-03	Pulse	0.10	3
Ag			1	11.749	ug/l	1.11	49,996.35	1.415E-02	Pulse	0.10	3
Sn			1	126.278	ug/l	0.86	348,285.85	9.859E-02	Pulse	0.10	3
Sb			1	3.345	ug/l	5.32	10,987.57	2.202E-03	Pulse	0.10	3
Ba			1	680.425	ug/l	0.63	914,529.00	1.833E-01	Pulse	0.10	3
Tl			1	1.157	ug/l	3.45	9,159.86	3.157E-03	Pulse	0.10	3
Pb			1	670.972	ug/l	1.53	1,792,328.98	6.176E-01	Pulse	0.10	3
Pb			1	644.399	ug/l	1.17	1,514,988.10	5.220E-01	Pulse	0.10	3
Pb			1	654.386	ug/l	1.00	7,065,555.78	2.435E+00	Pulse	0.10	3
Na			2	48131.208	ug/l	0.81	12,877,771.71	8.299E+01	Analog	0.30	3
Mg			2	31022.362	ug/l	0.89	3,843,209.43	2.477E+01	Pulse	0.30	3
Al			2	66602.285	ug/l	1.16	2,808,560.72	1.810E+01	Pulse	0.30	3
K			2	15751.748	ug/l	0.38	1,624,311.12	1.047E+01	Pulse	0.30	3
Ca			2	15635.988	ug/l	0.65	80,783.04	5.206E-01	Pulse	0.30	3
Ti			2	1697.444	ug/l	0.99	65,081.12	4.194E-01	Pulse	0.30	3
V			2	163.348	ug/l	0.85	203,266.29	1.310E+00	Pulse	0.30	3
Cr			2	357.697	ug/l	0.41	564,550.57	3.638E+00	Pulse	0.30	3
Mn			2	1151.381	ug/l	0.72	972,200.69	6.265E+00	Pulse	0.30	3
Fe			2	130278.162	ug/l	1.06	160,631,624.73	1.035E+03	Analog	0.30	3
Co			2	37.015	ug/l	1.05	91,973.89	5.927E-01	Pulse	0.30	3
Ni			2	126.375	ug/l	0.45	83,065.53	5.353E-01	Pulse	0.30	3
Cu			2	796.442	ug/l	1.54	1,426,899.28	9.196E+00	Pulse	0.30	3
Zn			2	1044.702	ug/l	1.16	283,203.30	1.825E+00	Pulse	0.30	3
As			2	66.251	ug/l	1.13	10,286.92	6.630E-02	Pulse	1.00	3
Cd			2	6.453	ug/l	4.87	2,582.30	2.945E-03	Pulse	0.30	3
Sn			2	123.689	ug/l	1.32	108,993.87	1.243E-01	Pulse	0.30	3
Se			3	8.996	ug/l	1.51	331.73	1.838E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,139,695.93	0.93	91.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,582,368.82	0.88	91.8	Pulse	0.10	3
1	Ge		499,357.87	1.34	87.5	Pulse	0.10	3
1	Ge		688,918.74	0.48	86.8	Pulse	0.10	3
1	Rh		3,320,626.62	0.79	86.3	Pulse	0.10	3
1	In		3,532,668.40	0.93	88.6	Pulse	0.10	3
1	Tb		4,990,422.63	0.46	90.1	Pulse	0.10	3
1	Ho		525,415.58	0.76	95.5	Pulse	0.10	3
1	Bi		2,902,286.93	0.97	86.9	Pulse	0.10	3
2	Sc		155,173.37	0.61	96.6	Pulse	0.30	3
2	Ge		91,090.70	0.44	91.5	Pulse	0.30	3
2	Ge		135,254.60	0.25	90.2	Pulse	0.30	3
2	Rh		2,112,880.12	0.22	86.8	Pulse	0.30	3
2	In		876,986.32	1.05	90.2	Pulse	0.30	3
2	Tb		2,919,856.97	0.48	89.2	Pulse	0.30	3
2	Ho		317,111.57	0.37	94.9	Pulse	0.30	3
2	Bi		1,946,075.41	0.62	86.9	Pulse	0.30	3
3	Sc		200,535.48	0.36	92.6	Pulse	0.30	3
3	Ge		122,033.00	0.45	87.0	Pulse	0.30	3
3	Ge		180,437.63	0.23	85.3	Pulse	0.30	3
3	Rh		1,802,624.72	0.16	82.6	Pulse	0.30	3
3	Tb		3,167,036.26	0.31	86.5	Pulse	0.30	3

Quantitation Report

File Name 106SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 18:57
Sample Name jc94365-7
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.058	ug/l	1.82	4,995.46	4.386E-03	Pulse	0.25	3
B			1	104.578	ug/l	1.44	96,482.26	8.472E-02	Pulse	0.15	3
Ca			1	20225.825	ug/l	0.33	3,505,633.28	1.377E+00	Pulse	0.10	3
Sr			1	443.498	ug/l	0.06	3,926,228.38	1.181E+00	Pulse	0.10	3
Mo			1	16.889	ug/l	3.61	28,055.41	8.436E-03	Pulse	0.10	3
Ag			1	28.687	ug/l	0.95	123,091.88	3.455E-02	Pulse	0.10	3
Sn			1	246.194	ug/l	0.36	682,223.04	1.915E-01	Pulse	0.10	3
Sb			1	8.767	ug/l	1.58	28,373.01	5.669E-03	Pulse	0.10	3
Ba			1	2364.943	ug/l	0.71	3,187,313.50	6.369E-01	Pulse	0.10	3
Tl			1	1.301	ug/l	1.67	10,464.11	3.540E-03	Pulse	0.10	3
Pb			1	1484.676	ug/l	0.28	4,038,996.40	1.366E+00	Pulse	0.10	3
Pb			1	1424.860	ug/l	0.09	3,411,457.87	1.154E+00	Pulse	0.10	3
Pb			1	1499.726	ug/l	0.11	16,490,261.42	5.579E+00	Analog	0.10	3
Na			2	44051.477	ug/l	0.24	11,546,667.59	7.596E+01	Analog	0.30	3
Mg			2	25963.960	ug/l	0.50	3,150,871.26	2.073E+01	Pulse	0.30	3
Al			2	62025.523	ug/l	0.71	2,562,163.93	1.686E+01	Pulse	0.30	3
K			2	14207.031	ug/l	0.70	1,436,319.32	9.450E+00	Pulse	0.30	3
Ca			2	21256.357	ug/l	0.54	107,537.23	7.075E-01	Pulse	0.30	3
Ti			2	1882.484	ug/l	1.14	70,699.32	4.651E-01	Pulse	0.30	3
V			2	220.152	ug/l	1.19	268,246.87	1.765E+00	Pulse	0.30	3
Cr			2	812.536	ug/l	0.36	1,255,023.18	8.257E+00	Pulse	0.30	3
Mn			2	990.864	ug/l	0.62	819,587.89	5.392E+00	Pulse	0.30	3
Fe			2	125335.465	ug/l	0.78	151,379,669.54	9.959E+02	Analog	0.30	3
Co			2	42.850	ug/l	0.86	104,288.28	6.861E-01	Pulse	0.30	3
Ni			2	198.912	ug/l	0.93	127,976.73	8.420E-01	Pulse	0.30	3
Cu			2	3477.238	ug/l	1.09	6,076,520.59	3.998E+01	Analog	0.30	3
Zn			2	2181.234	ug/l	0.12	577,690.50	3.801E+00	Pulse	0.30	3
As			2	191.810	ug/l	0.60	29,135.53	1.917E-01	Pulse	1.00	3
Cd			2	42.935	ug/l	2.47	17,147.27	1.952E-02	Pulse	0.30	3
Sn			2	244.573	ug/l	0.61	214,914.06	2.446E-01	Pulse	0.30	3
Se			3	45.607	ug/l	1.46	1,661.48	9.242E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,138,805.45	0.91	91.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,545,966.26	0.43	90.5	Pulse	0.10	3
1	Ge		496,591.15	0.34	87.1	Pulse	0.10	3
1	Ge		684,360.46	0.60	86.2	Pulse	0.10	3
1	Rh		3,325,826.83	0.48	86.4	Pulse	0.10	3
1	In		3,563,095.24	0.48	89.4	Pulse	0.10	3
1	Tb		5,004,367.12	0.78	90.4	Pulse	0.10	3
1	Ho		525,902.22	0.59	95.6	Pulse	0.10	3
1	Bi		2,955,732.04	1.00	88.5	Pulse	0.10	3
2	Sc		152,000.97	0.68	94.6	Pulse	0.30	3
2	Ge		91,070.79	0.22	91.5	Pulse	0.30	3
2	Ge		133,892.19	0.83	89.3	Pulse	0.30	3
2	Rh		2,102,647.69	0.35	86.4	Pulse	0.30	3
2	In		878,498.72	0.23	90.4	Pulse	0.30	3
2	Tb		2,921,026.34	0.38	89.2	Pulse	0.30	3
2	Ho		315,750.06	0.67	94.5	Pulse	0.30	3
2	Bi		1,976,429.44	0.52	88.3	Pulse	0.30	3
3	Sc		198,696.32	1.33	91.7	Pulse	0.30	3
3	Ge		120,147.57	1.68	85.7	Pulse	0.30	3
3	Ge		179,788.20	1.21	85.0	Pulse	0.30	3
3	Rh		1,800,805.62	0.61	82.6	Pulse	0.30	3
3	Tb		3,191,554.32	0.58	87.1	Pulse	0.30	3

Quantitation Report

File Name 107SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 19:02
Sample Name mp17229-sd1
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.076	ug/l	8.04	1,110.72	8.958E-04	Pulse	0.25	3
B			1	61.227	ug/l	3.82	18,381.41	1.483E-02	Pulse	0.15	3
Ca			1	23071.466	ug/l	0.62	822,327.23	3.175E-01	Pulse	0.10	3
Sr			1	173.422	ug/l	0.98	330,720.72	9.242E-02	Pulse	0.10	3
Mo			1	17.645	ug/l	7.95	6,431.53	1.798E-03	Pulse	0.10	3
Ag			1	7.310	ug/l	2.12	6,625.02	1.767E-03	Pulse	0.10	3
Sn			1	31.966	ug/l	3.07	21,498.71	5.734E-03	Pulse	0.10	3
Sb			1	5.871	ug/l	2.87	4,510.81	8.137E-04	Pulse	0.10	3
Ba			1	746.871	ug/l	0.98	223,074.05	4.024E-02	Pulse	0.10	3
Tl			1	1.547	ug/l	9.02	2,767.04	8.984E-04	Pulse	0.10	3
Pb			1	533.162	ug/l	0.69	302,401.95	9.822E-02	Pulse	0.10	3
Pb			1	513.615	ug/l	0.76	256,385.56	8.328E-02	Pulse	0.10	3
Pb			1	518.020	ug/l	0.44	1,187,668.85	3.858E-01	Pulse	0.10	3
Na			2	1476.734	ug/l	1.88	90,581.83	5.826E-01	Pulse	0.30	3
Mg			2	9514.732	ug/l	1.34	236,509.48	1.521E+00	Pulse	0.30	3
Al			2	54397.553	ug/l	0.84	460,266.14	2.960E+00	Pulse	0.30	3
K			2	4865.883	ug/l	1.62	113,092.35	7.274E-01	Pulse	0.30	3
Ca			2	23773.860	ug/l	0.40	24,691.75	1.588E-01	Pulse	0.30	3
Ti			2	2103.043	ug/l	1.80	16,162.42	1.039E-01	Pulse	0.30	3
V			2	208.729	ug/l	1.40	52,269.77	3.362E-01	Pulse	0.30	3
Cr			2	155.253	ug/l	0.45	49,962.72	3.213E-01	Pulse	0.30	3
Mn			2	764.877	ug/l	1.06	129,548.17	8.332E-01	Pulse	0.30	3
Fe			2	197957.646	ug/l	1.97	48,914,978.06	3.146E+02	Analog	0.30	3
Co			2	53.970	ug/l	0.81	26,911.34	1.731E-01	Pulse	0.30	3
Ni			2	1096.144	ug/l	1.63	144,253.95	9.278E-01	Pulse	0.30	3
Cu			2	256668.239	ug/l	0.67	91,655,796.36	5.895E+02	Analog	0.30	3
Zn			2	721.851	ug/l	1.98	40,463.18	2.603E-01	Pulse	0.30	3
As			2	124.213	ug/l	1.89	3,879.14	2.495E-02	Pulse	1.00	3
Cd			2	2.833	ug/l	21.90	251.77	2.709E-04	Pulse	0.30	3
Sn			2	30.681	ug/l	0.97	6,749.31	7.263E-03	Pulse	0.30	3
Se			3	40.063	ug/l	3.28	314.73	1.640E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,239,717.62	0.64	99.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,590,237.30	1.04	92.1	Pulse	0.10	3
1	Ge		525,938.01	1.11	92.2	Pulse	0.10	3
1	Ge		732,503.17	1.54	92.3	Pulse	0.10	3
1	Rh		3,578,285.05	0.99	93.0	Pulse	0.10	3
1	In		3,749,462.22	0.15	94.1	Pulse	0.10	3
1	Tb		5,543,534.09	1.27	100.1	Analog	0.10	3
1	Ho		514,200.30	1.33	93.5	Pulse	0.10	3
1	Bi		3,078,817.66	1.28	92.2	Pulse	0.10	3
2	Sc		155,487.91	0.97	96.8	Pulse	0.30	3
2	Ge		95,684.51	0.59	96.2	Pulse	0.30	3
2	Ge		141,788.39	1.14	94.5	Pulse	0.30	3
2	Rh		2,249,280.33	0.16	92.4	Pulse	0.30	3
2	In		929,225.20	0.39	95.6	Pulse	0.30	3
2	Tb		3,036,528.70	0.31	92.7	Pulse	0.30	3
2	Ho		314,613.78	0.29	94.1	Pulse	0.30	3
2	Bi		2,047,604.16	0.28	91.5	Pulse	0.30	3
3	Sc		199,744.32	0.35	92.2	Pulse	0.30	3
3	Ge		127,373.42	1.52	90.8	Pulse	0.30	3
3	Ge		191,948.02	0.16	90.7	Pulse	0.30	3
3	Rh		1,928,851.73	0.41	88.4	Pulse	0.30	3
3	Tb		3,269,417.16	0.14	89.2	Pulse	0.30	3

Quantitation Report

File Name	108SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 19:07
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	246.05	29.33	2.468E-05	Pulse	0.25	3
B			1	1.174	ug/l	7.91	11,899.98	1.000E-02	Pulse	0.15	3
Ca			1	-3.168	ug/l	-23.32	7,885.54	3.240E-03	Pulse	0.10	3
Sr			1	0.003	ug/l	60.49	503.36	1.453E-04	Pulse	0.10	3
Mo			1	-0.005	ug/l	-22.37	110.01	3.175E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	38.68	86.67	2.382E-05	Pulse	0.10	3
Sn			1	-0.010	ug/l	-150.84	2,696.99	7.429E-04	Pulse	0.10	3
Sb			1	-0.001	ug/l	-127.51	293.35	5.873E-05	Pulse	0.10	3
Ba			1	0.017	ug/l	54.76	193.34	3.861E-05	Pulse	0.10	3
Tl			1	-0.002	ug/l	-56.60	123.34	4.159E-05	Pulse	0.10	3
Pb			1	0.049	ug/l	11.19	916.73	3.096E-04	Pulse	0.10	3
Pb			1	0.037	ug/l	13.31	666.71	2.251E-04	Pulse	0.10	3
Pb			1	0.039	ug/l	7.10	3,293.61	1.112E-03	Pulse	0.10	3
Na			2	7.951	ug/l	5.40	20,920.84	1.423E-01	Pulse	0.30	3
Mg			2	0.169	ug/l	9.46	396.68	2.699E-03	Pulse	0.30	3
Al			2	-0.878	ug/l	-15.08	462.23	3.145E-03	Pulse	0.30	3
K			2	-1.339	ug/l	-35.64	11,992.17	8.158E-02	Pulse	0.30	3
Ca			2	0.158	ug/l	899.51	106.67	7.247E-04	Pulse	0.30	3
Ti			2	0.099	ug/l	18.44	20.00	1.360E-04	Pulse	0.30	3
V			2	-0.017	ug/l	-37.94	175.56	1.195E-03	Pulse	0.30	3
Cr			2	-0.049	ug/l	-8.31	521.13	3.546E-03	Pulse	0.30	3
Mn			2	0.004	ug/l	20.67	150.00	1.020E-03	Pulse	0.30	3
Fe			2	2.313	ug/l	2.64	19,225.76	1.308E-01	Pulse	0.30	3
Co			2	-0.001	ug/l	-53.49	35.51	2.415E-04	Pulse	0.30	3
Ni			2	0.004	ug/l	82.53	170.00	1.157E-03	Pulse	0.30	3
Cu			2	1.148	ug/l	8.31	17,146.85	1.166E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.498	ug/l	-0.79	735.58	5.003E-03	Pulse	0.30	3
As			2	0.002	ug/l	320.35	22.00	1.498E-04	Pulse	1.00	3
Cd			2	-0.003	ug/l	-105.53	6.65	7.419E-06	Pulse	0.30	3
Sn			2	0.013	ug/l	285.96	1,092.33	1.218E-03	Pulse	0.30	3
Se			3	0.021	ug/l	33.03	7.07	4.064E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,189,664.20	0.22	95.3	Pulse	0.10	3
1	Sc		2,433,060.85	0.84	86.5	Pulse	0.10	3
1	Ge		499,815.64	0.80	87.6	Pulse	0.10	3
1	Ge		695,241.79	0.78	87.6	Pulse	0.10	3
1	Rh		3,463,986.93	0.67	90.0	Pulse	0.10	3
1	In		3,631,414.86	1.21	91.1	Pulse	0.10	3
1	Tb		4,997,517.32	1.12	90.2	Pulse	0.10	3
1	Ho		487,178.59	1.45	88.6	Pulse	0.10	3
1	Bi		2,961,785.16	0.46	88.7	Pulse	0.10	3
2	Sc		147,009.71	0.71	91.5	Pulse	0.30	3
2	Ge		91,476.22	1.14	91.9	Pulse	0.30	3
2	Ge		136,625.26	1.13	91.1	Pulse	0.30	3
2	Rh		2,202,738.80	0.32	90.5	Pulse	0.30	3
2	In		897,032.40	0.46	92.3	Pulse	0.30	3
2	Tb		2,915,755.79	0.60	89.1	Pulse	0.30	3
2	Ho		297,524.74	0.74	89.0	Pulse	0.30	3
2	Bi		1,978,395.41	0.77	88.4	Pulse	0.30	3
3	Sc		176,479.85	11.98	81.5	Pulse	0.30	3
3	Ge		115,854.74	8.49	82.6	Pulse	0.30	3
3	Ge		174,775.65	8.47	82.6	Pulse	0.30	3
3	Rh		1,763,497.29	11.44	80.8	Pulse	0.30	3
3	Tb		2,963,495.71	11.73	80.9	Pulse	0.30	3

Quantitation Report

File Name 109_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 19:12
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	44.607	ug/l	0.37	286,717.63	2.401E-01	Pulse	0.25	3
B			1	85.698	ug/l	0.28	394,010.25	3.299E-01	Pulse	0.15	3
Ca			1	5012.078	ug/l	0.54	4,227,522.33	1.705E+00	Pulse	0.10	3
Sr			1	51.755	ug/l	0.10	2,353,746.37	6.889E-01	Pulse	0.10	3
Mo			1	50.859	ug/l	1.38	431,901.07	1.264E-01	Pulse	0.10	3
Ag			1	49.054	ug/l	0.98	1,062,579.78	2.953E-01	Pulse	0.10	3
Sn			1	49.783	ug/l	0.85	696,509.83	1.936E-01	Pulse	0.10	3
Sb			1	53.005	ug/l	0.54	855,360.22	1.695E-01	Pulse	0.10	3
Ba			1	50.663	ug/l	0.60	344,239.96	6.824E-02	Pulse	0.10	3
Tl			1	50.523	ug/l	0.68	1,961,699.03	6.733E-01	Pulse	0.10	3
Pb			1	50.353	ug/l	0.36	675,392.73	2.318E-01	Pulse	0.10	3
Pb			1	50.579	ug/l	0.56	597,074.81	2.049E-01	Pulse	0.10	3
Pb			1	50.320	ug/l	0.06	2,728,076.00	9.363E-01	Pulse	0.10	3
Na			2	4989.559	ug/l	0.69	6,383,832.66	4.305E+01	Analog	0.30	3
Mg			2	4715.604	ug/l	0.76	2,791,349.13	1.882E+01	Pulse	0.30	3
Al			2	4773.683	ug/l	0.23	962,240.00	6.489E+00	Pulse	0.30	3
K			2	4935.876	ug/l	0.10	2,424,651.29	1.635E+01	Pulse	0.30	3
Ca			2	5201.952	ug/l	0.25	128,343.24	8.655E-01	Pulse	0.30	3
Ti			2	49.502	ug/l	1.89	9,070.34	6.117E-02	Pulse	0.30	3
V			2	49.403	ug/l	0.78	293,588.81	1.980E+00	Pulse	0.30	3
Cr			2	48.622	ug/l	0.20	366,936.76	2.475E+00	Pulse	0.30	3
Mn			2	49.605	ug/l	0.47	200,232.88	1.350E+00	Pulse	0.30	3
Fe			2	5133.742	ug/l	0.27	30,248,996.58	2.040E+02	Analog	0.30	3
Co			2	48.630	ug/l	0.43	577,051.44	3.892E+00	Pulse	0.30	3
Ni			2	48.719	ug/l	0.11	152,854.58	1.031E+00	Pulse	0.30	3
Cu			2	48.879	ug/l	0.16	423,638.71	2.857E+00	Pulse	0.30	3
Zn			2	48.515	ug/l	0.94	63,902.53	4.310E-01	Pulse	0.30	3
As			2	49.955	ug/l	0.49	37,004.69	2.496E-01	Pulse	1.00	3
Cd			2	48.951	ug/l	0.84	98,554.49	1.112E-01	Pulse	0.30	3
Sn			2	49.376	ug/l	0.64	218,836.40	2.469E-01	Pulse	0.30	3
Se			3	199.104	ug/l	0.77	36,996.61	2.013E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,194,250.34	0.54	95.6	Pulse	0.10	3
1	Sc		2,479,491.84	0.82	88.1	Pulse	0.10	3
1	Ge		507,485.66	0.72	89.0	Pulse	0.10	3

Quantitation Report

1	Ge		704,854.50	0.42	88.8	Pulse	0.10	3
1	Rh		3,416,884.53	0.53	88.8	Pulse	0.10	3
1	In		3,598,272.89	1.06	90.3	Pulse	0.10	3
1	Tb		5,045,007.53	0.80	91.1	Pulse	0.10	3
1	Ho		495,615.23	1.25	90.1	Pulse	0.10	3
1	Bi		2,913,731.83	1.05	87.3	Pulse	0.10	3
2	Sc		148,279.34	0.06	92.3	Pulse	0.30	3
2	Ge		91,022.77	1.04	91.5	Pulse	0.30	3
2	Ge		137,682.12	0.43	91.8	Pulse	0.30	3
2	Rh		2,155,914.01	0.40	88.6	Pulse	0.30	3
2	In		886,230.07	0.52	91.2	Pulse	0.30	3
2	Tb		2,930,434.19	0.18	89.5	Pulse	0.30	3
2	Ho		298,239.29	0.16	89.2	Pulse	0.30	3
2	Bi		1,928,447.08	0.66	86.1	Pulse	0.30	3
3	Sc		192,180.14	0.49	88.7	Pulse	0.30	3
3	Ge		121,569.87	0.28	86.7	Pulse	0.30	3
3	Ge		183,765.96	0.85	86.9	Pulse	0.30	3
3	Rh		1,848,101.94	0.12	84.7	Pulse	0.30	3
3	Tb		3,203,880.36	0.33	87.5	Pulse	0.30	3

Quantitation Report

File Name 110_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 19:17
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	48.73	90.67	7.670E-05	Pulse	0.25	3
B			1	3.228	ug/l	3.39	20,997.86	1.778E-02	Pulse	0.15	3
Ca			1	0.923	ug/l	56.01	11,250.81	4.628E-03	Pulse	0.10	3
Sr			1	0.013	ug/l	20.18	963.41	2.791E-04	Pulse	0.10	3
Mo			1	0.069	ug/l	28.06	746.71	2.162E-04	Pulse	0.10	3
Ag			1	0.009	ug/l	18.04	223.34	6.225E-05	Pulse	0.10	3
Sn			1	0.142	ug/l	7.68	4,774.25	1.330E-03	Pulse	0.10	3
Sb			1	0.047	ug/l	20.95	1,056.75	2.121E-04	Pulse	0.10	3
Ba			1	0.017	ug/l	27.61	190.01	3.816E-05	Pulse	0.10	3
Tl			1	0.022	ug/l	10.80	1,070.08	3.618E-04	Pulse	0.10	3
Pb			1	0.044	ug/l	12.11	850.06	2.874E-04	Pulse	0.10	3
Pb			1	0.043	ug/l	12.25	743.38	2.513E-04	Pulse	0.10	3
Pb			1	0.040	ug/l	3.89	3,326.96	1.125E-03	Pulse	0.10	3
Na			2	8.126	ug/l	1.09	20,775.07	1.438E-01	Pulse	0.30	3
Mg			2	0.791	ug/l	15.61	748.91	5.183E-03	Pulse	0.30	3
Al			2	2.174	ug/l	9.81	1,053.38	7.291E-03	Pulse	0.30	3
K			2	0.151	ug/l	198.65	12,493.67	8.649E-02	Pulse	0.30	3
Ca			2	4.079	ug/l	18.15	198.89	1.377E-03	Pulse	0.30	3
Ti			2	0.026	ug/l	123.74	6.67	4.595E-05	Pulse	0.30	3
V			2	-0.006	ug/l	-104.95	233.34	1.616E-03	Pulse	0.30	3
Cr			2	-0.004	ug/l	-164.56	842.26	5.829E-03	Pulse	0.30	3
Mn			2	0.010	ug/l	105.84	172.23	1.192E-03	Pulse	0.30	3
Fe			2	1.534	ug/l	4.07	14,424.21	9.984E-02	Pulse	0.30	3
Co			2	0.004	ug/l	62.01	101.07	6.985E-04	Pulse	0.30	3
Ni			2	0.018	ug/l	50.41	207.78	1.437E-03	Pulse	0.30	3
Cu			2	0.263	ug/l	3.38	9,509.53	6.583E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.172	ug/l	-21.03	1,132.27	7.837E-03	Pulse	0.30	3
As			2	0.008	ug/l	108.33	25.67	1.778E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	91.57	17.70	2.000E-05	Pulse	0.30	3
Sn			2	0.152	ug/l	8.54	1,693.44	1.910E-03	Pulse	0.30	3
Se			3	0.103	ug/l	1.05	22.67	1.234E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,181,324.11	0.70	94.6	Pulse	0.10	3
1	Sc		2,431,155.38	0.30	86.4	Pulse	0.10	3
1	Ge		501,048.98	0.96	87.8	Pulse	0.10	3
1	Ge		696,841.13	0.91	87.8	Pulse	0.10	3
1	Rh		3,452,736.62	0.12	89.7	Pulse	0.10	3
1	In		3,589,621.62	0.44	90.1	Pulse	0.10	3
1	Tb		4,981,578.36	0.59	90.0	Pulse	0.10	3
1	Ho		489,803.06	0.83	89.0	Pulse	0.10	3
1	Bi		2,958,026.10	0.03	88.6	Pulse	0.10	3
2	Sc		144,460.23	0.81	89.9	Pulse	0.30	3
2	Ge		90,049.54	0.99	90.5	Pulse	0.30	3
2	Ge		135,841.51	0.58	90.6	Pulse	0.30	3
2	Rh		2,164,454.92	0.46	88.9	Pulse	0.30	3
2	In		886,739.52	0.89	91.2	Pulse	0.30	3
2	Tb		2,891,860.30	0.32	88.3	Pulse	0.30	3
2	Ho		293,704.20	0.75	87.9	Pulse	0.30	3
2	Bi		1,964,110.06	0.36	87.7	Pulse	0.30	3
3	Sc		187,235.49	0.83	86.4	Pulse	0.30	3
3	Ge		120,889.15	1.00	86.2	Pulse	0.30	3
3	Ge		183,686.21	0.51	86.8	Pulse	0.30	3
3	Rh		1,886,170.48	0.28	86.5	Pulse	0.30	3
3	Tb		3,191,129.04	0.55	87.1	Pulse	0.30	3

Quantitation Report

File Name	111SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 19:22
Sample Name	jc94365-1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.327	ug/l	4.47	5,554.30	4.675E-03	Pulse	0.25	3
B			1	125.538	ug/l	0.96	119,497.99	1.006E-01	Pulse	0.15	3
Ca			1	49558.424	ug/l	0.43	9,048,032.37	3.368E+00	Analog	0.10	3
Sr			1	338.435	ug/l	1.00	3,071,629.85	9.009E-01	Pulse	0.10	3
Mo			1	11.645	ug/l	2.79	19,879.70	5.831E-03	Pulse	0.10	3
Ag			1	15.023	ug/l	0.60	65,512.41	1.809E-02	Pulse	0.10	3
Sn			1	175.744	ug/l	0.17	495,687.84	1.369E-01	Pulse	0.10	3
Sb			1	5.836	ug/l	7.66	19,923.40	3.795E-03	Pulse	0.10	3
Ba			1	925.933	ug/l	4.01	1,310,782.92	2.494E-01	Pulse	0.10	3
Tl			1	1.236	ug/l	0.81	10,050.48	3.369E-03	Pulse	0.10	3
Pb			1	891.341	ug/l	0.79	2,447,812.26	8.204E-01	Pulse	0.10	3
Pb			1	851.896	ug/l	0.37	2,058,918.77	6.901E-01	Pulse	0.10	3
Pb			1	877.940	ug/l	2.62	9,744,882.93	3.266E+00	Mix	0.10	3
Na			2	43600.334	ug/l	1.32	12,019,996.74	7.519E+01	Analog	0.30	3
Mg			2	33997.272	ug/l	0.21	4,339,400.94	2.714E+01	Pulse	0.30	3
Al			2	76422.141	ug/l	0.21	3,320,262.92	2.077E+01	Pulse	0.30	3
K			2	17672.058	ug/l	0.14	1,875,856.04	1.173E+01	Pulse	0.30	3
Ca			2	49294.482	ug/l	0.43	262,157.09	1.640E+00	Pulse	0.30	3
Ti			2	1939.797	ug/l	0.51	76,628.03	4.793E-01	Pulse	0.30	3
V			2	202.696	ug/l	0.52	259,802.66	1.625E+00	Pulse	0.30	3
Cr			2	443.837	ug/l	0.63	721,480.27	4.513E+00	Pulse	0.30	3
Mn			2	1469.856	ug/l	0.74	1,278,672.14	7.998E+00	Pulse	0.30	3
Fe			2	156602.269	ug/l	0.92	198,941,232.10	1.244E+03	Analog	0.30	3
Co			2	44.108	ug/l	0.86	112,907.83	7.062E-01	Pulse	0.30	3
Ni			2	159.089	ug/l	0.27	107,691.82	6.736E-01	Pulse	0.30	3
Cu			2	1287.782	ug/l	0.66	2,372,178.45	1.484E+01	Pulse	0.30	3
Zn			2	1374.544	ug/l	0.87	383,453.40	2.398E+00	Pulse	0.30	3
As			2	104.383	ug/l	1.11	16,686.19	1.044E-01	Pulse	1.00	3
Cd			2	10.622	ug/l	1.63	4,313.49	4.839E-03	Pulse	0.30	3
Sn			2	176.079	ug/l	0.68	157,281.91	1.764E-01	Pulse	0.30	3
Se			3	17.360	ug/l	5.46	644.21	3.530E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,187,957.58	0.23	95.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,686,836.94	0.53	95.5	Pulse	0.10	3
1	Ge		516,132.82	0.34	90.5	Pulse	0.10	3
1	Ge		710,839.29	0.59	89.5	Pulse	0.10	3
1	Rh		3,409,551.20	0.02	88.6	Pulse	0.10	3
1	In		3,620,695.97	0.41	90.9	Pulse	0.10	3
1	Tb		5,262,701.69	4.61	95.0	Mix	0.10	3
1	Ho		540,392.95	0.55	98.2	Pulse	0.10	3
1	Bi		2,983,568.91	0.29	89.4	Pulse	0.10	3
2	Sc		159,872.71	0.29	99.5	Pulse	0.30	3
2	Ge		93,647.24	0.39	94.1	Pulse	0.30	3
2	Ge		138,266.11	0.64	92.2	Pulse	0.30	3
2	Rh		2,138,041.93	0.63	87.8	Pulse	0.30	3
2	In		891,381.71	0.48	91.7	Pulse	0.30	3
2	Tb		2,963,196.76	0.35	90.5	Pulse	0.30	3
2	Ho		323,124.79	0.73	96.7	Pulse	0.30	3
2	Bi		1,978,326.79	0.24	88.4	Pulse	0.30	3
3	Sc		205,070.85	2.22	94.7	Pulse	0.30	3
3	Ge		123,752.49	1.60	88.2	Pulse	0.30	3
3	Ge		182,566.26	1.59	86.3	Pulse	0.30	3
3	Rh		1,833,135.76	0.98	84.0	Pulse	0.30	3
3	Tb		3,217,561.40	1.81	87.8	Pulse	0.30	3

Quantitation Report

File Name 112SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 19:27
Sample Name jc94441-4ar
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.158	ug/l	3.83	4,964.80	4.494E-03	Pulse	0.25	3
B			1	91.222	ug/l	0.67	82,431.39	7.461E-02	Pulse	0.15	3
Ca			1	447732.812	ug/l	0.32	75,622,602.21	3.039E+01	Analog	0.10	3
Sr			1	1336.872	ug/l	1.22	10,993,923.17	3.558E+00	Analog	0.10	3
Mo			1	8.925	ug/l	4.76	13,836.54	4.479E-03	Pulse	0.10	3
Ag			1	0.885	ug/l	3.24	3,617.23	1.072E-03	Pulse	0.10	3
Sn			1	35.119	ug/l	1.84	94,435.96	2.798E-02	Pulse	0.10	3
Sb			1	3.526	ug/l	2.73	11,314.54	2.318E-03	Pulse	0.10	3
Ba			1	1022.527	ug/l	0.49	1,344,747.69	2.754E-01	Pulse	0.10	3
Tl			1	0.964	ug/l	2.95	7,302.08	2.642E-03	Pulse	0.10	3
Pb			1	948.775	ug/l	0.47	2,412,867.15	8.733E-01	Pulse	0.10	3
Pb			1	924.831	ug/l	0.51	2,070,024.61	7.492E-01	Pulse	0.10	3
Pb			1	946.718	ug/l	2.15	9,732,397.62	3.522E+00	Mix	0.10	3
Na			2	2215.665	ug/l	0.49	585,338.50	3.891E+00	Pulse	0.30	3
Mg			2	70542.177	ug/l	0.55	8,472,335.77	5.632E+01	Analog	0.30	3
Al			2	102125.017	ug/l	0.80	4,175,039.14	2.775E+01	Pulse	0.30	3
K			2	3847.512	ug/l	0.75	394,428.51	2.622E+00	Pulse	0.30	3
Ca			2	440968.256	ug/l	0.22	2,205,975.19	1.466E+01	Pulse	0.30	3
Ti			2	7104.095	ug/l	0.69	264,077.57	1.755E+00	Pulse	0.30	3
V			2	3203.880	ug/l	0.84	3,860,123.60	2.566E+01	Pulse	0.30	3
Cr			2	9815.818	ug/l	0.77	14,995,434.96	9.968E+01	Analog	0.30	3
Mn			2	4452.941	ug/l	0.55	3,644,939.99	2.423E+01	Pulse	0.30	3
Fe			2	400050.195	ug/l	0.48	478,217,172.11	3.179E+03	Analog	0.30	3
Co			2	473.268	ug/l	1.02	1,139,456.48	7.574E+00	Pulse	0.30	3
Ni			2	1542.400	ug/l	0.74	981,069.96	6.522E+00	Pulse	0.30	3
Cu			2	220.098	ug/l	0.73	387,831.42	2.578E+00	Pulse	0.30	3
Zn			2	1204.556	ug/l	1.15	316,358.75	2.103E+00	Pulse	0.30	3
As			2	39.808	ug/l	2.07	6,000.79	3.989E-02	Pulse	1.00	3
Cd			2	2.080	ug/l	6.83	793.42	9.584E-04	Pulse	0.30	3
Sn			2	35.249	ug/l	3.01	30,005.31	3.625E-02	Pulse	0.30	3
Se			3	4.767	ug/l	8.89	169.13	9.832E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,104,812.17	0.66	88.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,488,432.72	0.04	88.5	Pulse	0.10	3
1	Ge		469,965.30	0.86	82.4	Pulse	0.10	3
1	Ge		641,909.70	0.33	80.9	Pulse	0.10	3
1	Rh		3,089,763.18	0.63	80.3	Pulse	0.10	3
1	In		3,374,938.17	1.17	84.7	Pulse	0.10	3
1	Tb		4,883,326.91	1.81	88.2	Pulse	0.10	3
1	Ho		511,742.43	1.24	93.0	Pulse	0.10	3
1	Bi		2,763,032.67	1.09	82.8	Pulse	0.10	3
2	Sc		150,443.60	1.03	93.6	Pulse	0.30	3
2	Ge		85,330.18	1.11	85.7	Pulse	0.30	3
2	Ge		124,564.86	0.69	83.1	Pulse	0.30	3
2	Rh		1,961,044.99	0.79	80.6	Pulse	0.30	3
2	In		827,876.99	0.39	85.2	Pulse	0.30	3
2	Tb		2,832,807.39	0.24	86.5	Pulse	0.30	3
2	Ho		305,799.64	0.77	91.5	Pulse	0.30	3
2	Bi		1,827,548.54	0.40	81.6	Pulse	0.30	3
3	Sc		200,438.01	1.29	92.5	Pulse	0.30	3
3	Ge		117,570.95	0.44	83.8	Pulse	0.30	3
3	Ge		171,956.94	0.77	81.3	Pulse	0.30	3
3	Rh		1,718,460.25	1.01	78.8	Pulse	0.30	3
3	Tb		3,138,394.11	1.12	85.7	Pulse	0.30	3

Quantitation Report

File Name	113SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 19:32
Sample Name	mp17232a-mb1 5
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	2.11	44.00	4.224E-05	Pulse	0.25	3
B			1	4.349	ug/l	6.96	14,364.07	1.379E-02	Pulse	0.15	3
Ca			1	32.065	ug/l	13.25	20,727.32	9.755E-03	Pulse	0.10	3
Sr			1	0.093	ug/l	16.21	2,266.91	7.201E-04	Pulse	0.10	3
Mo			1	0.096	ug/l	30.76	513.36	1.631E-04	Pulse	0.10	3
Ag			1	0.008	ug/l	51.77	100.00	3.004E-05	Pulse	0.10	3
Sn			1	0.670	ug/l	3.79	6,925.08	2.079E-03	Pulse	0.10	3
Sb			1	0.078	ug/l	18.63	896.73	1.877E-04	Pulse	0.10	3
Ba			1	0.191	ug/l	12.21	690.05	1.446E-04	Pulse	0.10	3
Tl			1	0.007	ug/l	36.69	363.35	1.237E-04	Pulse	0.10	3
Pb			1	0.230	ug/l	12.90	1,803.51	6.140E-04	Pulse	0.10	3
Pb			1	0.211	ug/l	1.90	1,480.13	5.041E-04	Pulse	0.10	3
Pb			1	0.218	ug/l	4.67	7,070.94	2.408E-03	Pulse	0.10	3
Na			2	28.033	ug/l	2.80	24,857.18	1.946E-01	Pulse	0.30	3
Mg			2	4.632	ug/l	7.11	1,440.08	1.127E-02	Pulse	0.30	3
Al			2	7.159	ug/l	9.66	1,175.61	9.201E-03	Pulse	0.30	3
K			2	5.772	ug/l	25.36	12,204.55	9.550E-02	Pulse	0.30	3
Ca			2	25.710	ug/l	5.46	362.23	2.836E-03	Pulse	0.30	3
Ti			2	1.007	ug/l	57.55	81.11	6.361E-04	Pulse	0.30	3
V			2	0.175	ug/l	4.10	687.80	5.383E-03	Pulse	0.30	3
Cr			2	0.685	ug/l	3.71	2,990.31	2.340E-02	Pulse	0.30	3
Mn			2	0.235	ug/l	34.41	525.57	4.108E-03	Pulse	0.30	3
Fe			2	24.496	ug/l	6.87	67,171.37	5.255E-01	Pulse	0.30	3
Co			2	0.030	ug/l	14.93	195.37	1.528E-03	Pulse	0.30	3
Ni			2	0.125	ug/l	5.05	305.56	2.391E-03	Pulse	0.30	3
Cu			2	2.232	ug/l	6.08	14,664.43	1.148E-01	Pulse	0.30	3
Zn			2	2.674	ug/l	4.92	2,678.03	2.095E-02	Pulse	0.30	3
As			2	0.088	ug/l	13.45	45.67	3.575E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-621.22	9.96	1.223E-05	Pulse	0.30	3
Sn			2	0.728	ug/l	11.82	2,404.66	2.965E-03	Pulse	0.30	3
Se			3	0.100	ug/l	24.58	12.53	6.990E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,041,833.67	1.20	83.4	Pulse	0.10	3
1	Sc		2,125,296.95	0.63	75.5	Pulse	0.10	3
1	Ge		474,624.23	0.71	83.2	Pulse	0.10	3
1	Ge		660,871.79	0.27	83.3	Pulse	0.10	3
1	Rh		3,147,056.83	0.86	81.7	Pulse	0.10	3
1	In		3,330,677.19	1.38	83.6	Pulse	0.10	3
1	Tb		4,773,733.47	1.19	86.2	Pulse	0.10	3
1	Ho		468,734.40	0.50	85.2	Pulse	0.10	3
1	Bi		2,936,587.97	0.90	88.0	Pulse	0.10	3
2	Sc		127,783.37	1.21	79.5	Pulse	0.30	3
2	Ge		86,133.03	1.57	86.6	Pulse	0.30	3
2	Ge		129,638.53	0.89	86.4	Pulse	0.30	3
2	Rh		2,011,654.58	0.25	82.6	Pulse	0.30	3
2	In		811,253.39	0.90	83.5	Pulse	0.30	3
2	Tb		2,745,639.89	0.53	83.9	Pulse	0.30	3
2	Ho		282,069.81	1.05	84.4	Pulse	0.30	3
2	Bi		1,907,378.61	0.80	85.2	Pulse	0.30	3
3	Sc		182,170.11	0.64	84.1	Pulse	0.30	3
3	Ge		118,397.19	1.94	84.4	Pulse	0.30	3
3	Ge		179,119.52	0.93	84.7	Pulse	0.30	3
3	Rh		1,841,235.27	0.17	84.4	Pulse	0.30	3
3	Tb		3,179,147.03	0.18	86.8	Pulse	0.30	3

Quantitation Report

File Name 114SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 19:37
Sample Name mp17232a-b2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	62.196	ug/l	1.14	181,136.97	1.674E-01	Pulse	0.25	3
B			1	66.942	ug/l	0.98	143,109.10	1.322E-01	Pulse	0.15	3
Ca			1	3806.200	ug/l	0.61	1,447,369.46	6.501E-01	Pulse	0.10	3
Sr			1	72.892	ug/l	1.04	1,568,085.24	4.851E-01	Pulse	0.10	3
Mo			1	72.832	ug/l	1.97	292,595.53	9.052E-02	Pulse	0.10	3
Ag			1	71.030	ug/l	0.46	731,875.90	2.138E-01	Pulse	0.10	3
Sn			1	73.400	ug/l	0.34	489,184.54	1.429E-01	Pulse	0.10	3
Sb			1	74.309	ug/l	0.89	583,543.15	1.189E-01	Pulse	0.10	3
Ba			1	72.057	ug/l	0.65	238,248.83	4.853E-02	Pulse	0.10	3
Tl			1	72.202	ug/l	1.44	1,382,164.20	4.811E-01	Pulse	0.10	3
Pb			1	74.294	ug/l	0.47	491,331.31	1.710E-01	Pulse	0.10	3
Pb			1	74.240	ug/l	0.83	432,091.43	1.504E-01	Pulse	0.10	3
Pb			1	74.057	ug/l	0.70	1,979,616.94	6.891E-01	Pulse	0.10	3
Na			2	3642.151	ug/l	0.65	2,093,023.11	1.576E+01	Pulse	0.30	3
Mg			2	3569.131	ug/l	0.47	946,286.49	7.125E+00	Pulse	0.30	3
Al			2	3536.260	ug/l	0.73	319,571.36	2.406E+00	Pulse	0.30	3
K			2	3686.824	ug/l	0.81	818,184.71	6.161E+00	Pulse	0.30	3
Ca			2	4009.444	ug/l	1.41	44,355.60	3.340E-01	Pulse	0.30	3
Ti			2	73.316	ug/l	2.30	6,016.73	4.530E-02	Pulse	0.30	3
V			2	72.612	ug/l	0.92	193,307.16	1.456E+00	Pulse	0.30	3
Cr			2	71.184	ug/l	0.41	240,788.60	1.813E+00	Pulse	0.30	3
Mn			2	71.859	ug/l	1.37	129,924.44	9.783E-01	Pulse	0.30	3
Fe			2	4005.053	ug/l	1.20	10,570,793.75	7.960E+01	Analog	0.30	3
Co			2	71.537	ug/l	0.46	380,157.68	2.863E+00	Pulse	0.30	3
Ni			2	71.442	ug/l	0.56	100,416.74	7.561E-01	Pulse	0.30	3
Cu			2	72.223	ug/l	1.43	282,063.56	2.124E+00	Pulse	0.30	3
Zn			2	65.674	ug/l	0.30	39,138.86	2.947E-01	Pulse	0.30	3
As			2	69.269	ug/l	0.89	22,983.75	1.731E-01	Pulse	1.00	3
Cd			2	68.779	ug/l	0.50	64,399.72	7.813E-02	Pulse	0.30	3
Sn			2	73.106	ug/l	0.80	150,923.94	1.831E-01	Pulse	0.30	3
Se			3	341.835	ug/l	0.54	31,331.91	1.728E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,082,165.47	0.28	86.7	Pulse	0.10	3
1	Sc		2,226,496.43	1.02	79.1	Pulse	0.10	3
1	Ge		494,179.19	0.95	86.6	Pulse	0.10	3

Quantitation Report

1	Ge		686,507.26	0.87	86.5	Pulse	0.10	3
1	Rh		3,232,580.89	1.38	84.0	Pulse	0.10	3
1	In		3,422,950.78	0.88	85.9	Pulse	0.10	3
1	Tb		4,909,450.24	0.94	88.7	Pulse	0.10	3
1	Ho		487,479.68	1.49	88.6	Pulse	0.10	3
1	Bi		2,872,926.31	0.76	86.1	Pulse	0.10	3
2	Sc		132,808.46	0.71	82.6	Pulse	0.30	3
2	Ge		87,728.04	1.12	88.2	Pulse	0.30	3
2	Ge		132,105.87	0.35	88.1	Pulse	0.30	3
2	Rh		2,029,674.78	0.52	83.4	Pulse	0.30	3
2	In		824,253.18	0.26	84.8	Pulse	0.30	3
2	Tb		2,779,384.40	0.23	84.9	Pulse	0.30	3
2	Ho		286,118.63	0.35	85.6	Pulse	0.30	3
2	Bi		1,880,954.23	0.92	84.0	Pulse	0.30	3
3	Sc		187,659.66	0.56	86.6	Pulse	0.30	3
3	Ge		119,230.74	0.75	85.0	Pulse	0.30	3
3	Ge		181,289.74	1.17	85.7	Pulse	0.30	3
3	Rh		1,842,170.07	0.43	84.5	Pulse	0.30	3
3	Tb		3,229,201.12	0.35	88.2	Pulse	0.30	3

Quantitation Report

File Name	115SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 19:42
Sample Name	mp17232a-s3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	62.366	ug/l	0.58	181,293.68	1.678E-01	Pulse	0.25	3
B			1	192.886	ug/l	1.54	400,291.08	3.706E-01	Pulse	0.15	3
Ca			1	52592.628	ug/l	0.62	19,940,120.12	8.927E+00	Analog	0.10	3
Sr			1	476.932	ug/l	0.78	9,976,334.65	3.174E+00	Analog	0.10	3
Mo			1	75.888	ug/l	0.29	296,499.51	9.432E-02	Pulse	0.10	3
Ag			1	70.934	ug/l	0.74	717,856.81	2.135E-01	Pulse	0.10	3
Sn			1	74.116	ug/l	1.66	485,144.01	1.443E-01	Pulse	0.10	3
Sb			1	73.420	ug/l	0.53	574,116.76	1.174E-01	Pulse	0.10	3
Ba			1	120.533	ug/l	0.54	396,798.41	8.117E-02	Pulse	0.10	3
Tl			1	73.404	ug/l	1.18	1,371,183.21	4.891E-01	Pulse	0.10	3
Pb			1	75.124	ug/l	0.11	484,823.60	1.729E-01	Pulse	0.10	3
Pb			1	75.555	ug/l	0.44	429,137.51	1.531E-01	Pulse	0.10	3
Pb			1	75.203	ug/l	0.22	1,961,699.82	6.997E-01	Pulse	0.10	3
Na			2	16630.154	ug/l	0.18	9,575,663.79	7.170E+01	Analog	0.30	3
Mg			2	9879.941	ug/l	0.48	2,633,756.21	1.972E+01	Pulse	0.30	3
Al			2	3504.708	ug/l	0.68	318,512.78	2.385E+00	Pulse	0.30	3
K			2	12054.989	ug/l	0.57	2,664,279.97	1.995E+01	Pulse	0.30	3
Ca			2	52107.435	ug/l	0.63	578,586.45	4.332E+00	Pulse	0.30	3
Ti			2	70.791	ug/l	0.70	5,842.20	4.374E-02	Pulse	0.30	3
V			2	73.108	ug/l	0.94	195,717.70	1.465E+00	Pulse	0.30	3
Cr			2	71.284	ug/l	0.63	242,481.09	1.816E+00	Pulse	0.30	3
Mn			2	2063.060	ug/l	0.69	3,747,923.46	2.806E+01	Pulse	0.30	3
Fe			2	69967.580	ug/l	0.85	185,629,814.85	1.390E+03	Analog	0.30	3
Co			2	86.994	ug/l	0.67	464,888.43	3.481E+00	Pulse	0.30	3
Ni			2	74.521	ug/l	0.63	105,326.74	7.887E-01	Pulse	0.30	3
Cu			2	69.410	ug/l	1.02	272,885.94	2.043E+00	Pulse	0.30	3
Zn			2	68.623	ug/l	0.02	41,071.39	3.075E-01	Pulse	0.30	3
As			2	1545.336	ug/l	0.17	515,253.80	3.858E+00	Pulse	1.00	3
Cd			2	67.831	ug/l	1.11	62,380.25	7.705E-02	Pulse	0.30	3
Sn			2	74.374	ug/l	0.44	150,788.59	1.863E-01	Pulse	0.30	3
Se			3	334.630	ug/l	0.49	30,530.04	1.692E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,080,162.80	0.68	86.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,233,668.46	0.65	79.4	Pulse	0.10	3
1	Ge		494,307.74	0.84	86.7	Pulse	0.10	3
1	Ge		685,256.63	1.16	86.3	Pulse	0.10	3
1	Rh		3,143,681.52	1.14	81.7	Pulse	0.10	3
1	In		3,361,960.58	0.50	84.4	Pulse	0.10	3
1	Tb		4,888,642.42	0.96	88.3	Pulse	0.10	3
1	Ho		484,481.34	0.98	88.1	Pulse	0.10	3
1	Bi		2,803,530.27	1.03	84.0	Pulse	0.10	3
2	Sc		133,555.52	0.61	83.1	Pulse	0.30	3
2	Ge		88,512.18	0.32	88.9	Pulse	0.30	3
2	Ge		131,573.65	1.30	87.7	Pulse	0.30	3
2	Rh		1,985,673.25	0.37	81.6	Pulse	0.30	3
2	In		809,556.17	0.37	83.3	Pulse	0.30	3
2	Tb		2,776,387.95	0.37	84.8	Pulse	0.30	3
2	Ho		285,855.62	0.30	85.5	Pulse	0.30	3
2	Bi		1,816,172.70	0.57	81.1	Pulse	0.30	3
3	Sc		186,327.79	1.10	86.0	Pulse	0.30	3
3	Ge		120,488.53	0.76	85.9	Pulse	0.30	3
3	Ge		180,449.91	0.50	85.3	Pulse	0.30	3
3	Rh		1,791,041.04	0.24	82.1	Pulse	0.30	3
3	Tb		3,200,739.45	0.18	87.4	Pulse	0.30	3

Quantitation Report

File Name 116SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 19:47
Sample Name mp17232a-s4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	64.964	ug/l	0.70	190,681.93	1.748E-01	Pulse	0.25	3
B			1	202.663	ug/l	0.19	424,372.65	3.891E-01	Pulse	0.15	3
Ca			1	53652.532	ug/l	0.60	20,662,817.19	9.107E+00	Analog	0.10	3
Sr			1	490.757	ug/l	1.50	10,339,381.72	3.266E+00	Analog	0.10	3
Mo			1	76.643	ug/l	1.24	301,601.17	9.526E-02	Pulse	0.10	3
Ag			1	72.016	ug/l	0.72	736,384.60	2.168E-01	Pulse	0.10	3
Sn			1	75.246	ug/l	1.39	497,584.68	1.465E-01	Pulse	0.10	3
Sb			1	74.287	ug/l	0.67	584,875.62	1.188E-01	Pulse	0.10	3
Ba			1	123.425	ug/l	0.49	409,094.13	8.311E-02	Pulse	0.10	3
Tl			1	74.102	ug/l	1.39	1,394,829.46	4.938E-01	Pulse	0.10	3
Pb			1	75.815	ug/l	0.89	493,014.06	1.745E-01	Pulse	0.10	3
Pb			1	76.645	ug/l	0.86	438,661.49	1.553E-01	Pulse	0.10	3
Pb			1	76.052	ug/l	0.57	1,999,046.21	7.076E-01	Pulse	0.10	3
Na			2	17016.805	ug/l	0.65	9,867,191.28	7.336E+01	Analog	0.30	3
Mg			2	10163.589	ug/l	1.51	2,728,233.92	2.029E+01	Pulse	0.30	3
Al			2	3597.528	ug/l	1.37	329,215.67	2.448E+00	Pulse	0.30	3
K			2	12477.758	ug/l	1.30	2,776,582.04	2.065E+01	Pulse	0.30	3
Ca			2	53954.520	ug/l	1.17	603,289.19	4.486E+00	Pulse	0.30	3
Ti			2	74.625	ug/l	3.49	6,200.11	4.611E-02	Pulse	0.30	3
V			2	74.548	ug/l	2.51	200,946.46	1.494E+00	Pulse	0.30	3
Cr			2	72.697	ug/l	1.71	248,992.83	1.852E+00	Pulse	0.30	3
Mn			2	2127.076	ug/l	1.32	3,891,176.79	2.893E+01	Pulse	0.30	3
Fe			2	72179.786	ug/l	1.20	192,837,334.56	1.434E+03	Analog	0.30	3
Co			2	88.818	ug/l	1.03	477,962.06	3.554E+00	Pulse	0.30	3
Ni			2	77.156	ug/l	1.34	109,808.03	8.165E-01	Pulse	0.30	3
Cu			2	70.412	ug/l	1.52	278,655.80	2.072E+00	Pulse	0.30	3
Zn			2	67.138	ug/l	1.31	40,489.92	3.011E-01	Pulse	0.30	3
As			2	1610.142	ug/l	1.27	540,609.42	4.020E+00	Pulse	1.00	3
Cd			2	70.080	ug/l	0.91	64,881.82	7.961E-02	Pulse	0.30	3
Sn			2	75.382	ug/l	0.46	153,852.17	1.888E-01	Pulse	0.30	3
Se			3	353.275	ug/l	1.50	32,509.26	1.786E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,090,666.28	0.47	87.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,268,899.03	0.43	80.7	Pulse	0.10	3
1	Ge		496,761.61	0.65	87.1	Pulse	0.10	3
1	Ge		692,994.26	1.06	87.3	Pulse	0.10	3
1	Rh		3,166,254.22	0.65	82.2	Pulse	0.10	3
1	In		3,397,159.69	1.17	85.2	Pulse	0.10	3
1	Tb		4,921,999.93	0.59	88.9	Pulse	0.10	3
1	Ho		488,163.78	1.23	88.7	Pulse	0.10	3
1	Bi		2,824,953.50	0.38	84.6	Pulse	0.10	3
2	Sc		134,501.29	1.33	83.7	Pulse	0.30	3
2	Ge		88,417.45	1.64	88.8	Pulse	0.30	3
2	Ge		133,108.08	1.34	88.8	Pulse	0.30	3
2	Rh		1,995,176.93	0.41	82.0	Pulse	0.30	3
2	In		815,036.04	0.57	83.9	Pulse	0.30	3
2	Tb		2,786,990.24	0.31	85.1	Pulse	0.30	3
2	Ho		284,285.78	0.88	85.0	Pulse	0.30	3
2	Bi		1,818,129.16	0.11	81.2	Pulse	0.30	3
3	Sc		189,521.31	0.99	87.5	Pulse	0.30	3
3	Ge		122,192.26	0.88	87.1	Pulse	0.30	3
3	Ge		182,026.66	1.19	86.1	Pulse	0.30	3
3	Rh		1,798,538.82	0.86	82.5	Pulse	0.30	3
3	Tb		3,183,166.19	0.80	86.9	Pulse	0.30	3

Quantitation Report

File Name	117SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 19:52
Sample Name	jc94613-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.043	ug/l	43.01	144.00	1.331E-04	Pulse	0.25	3
B			1	132.251	ug/l	11.02	281,814.34	2.558E-01	Pulse	0.15	3
Ca			1	48931.467	ug/l	15.12	18,874,273.05	8.306E+00	Analog	0.10	3
Sr			1	397.449	ug/l	14.45	8,453,858.42	2.645E+00	Analog	0.10	3
Mo			1	1.575	ug/l	13.27	6,404.85	2.001E-03	Pulse	0.10	3
Ag			1	0.021	ug/l	41.02	236.68	7.016E-05	Pulse	0.10	3
Sn			1	0.753	ug/l	24.47	7,632.19	2.240E-03	Pulse	0.10	3
Sb			1	0.195	ug/l	24.43	1,856.86	3.747E-04	Pulse	0.10	3
Ba			1	47.674	ug/l	16.63	159,554.77	3.211E-02	Pulse	0.10	3
Tl			1	0.054	ug/l	23.43	1,216.76	4.336E-04	Pulse	0.10	3
Pb			1	0.157	ug/l	14.71	1,260.11	4.475E-04	Pulse	0.10	3
Pb			1	0.137	ug/l	67.91	966.74	3.547E-04	Pulse	0.10	3
Pb			1	0.135	ug/l	26.17	4,573.80	1.636E-03	Pulse	0.10	3
Na			2	12921.754	ug/l	0.91	7,527,441.92	5.573E+01	Analog	0.30	3
Mg			2	6417.017	ug/l	0.70	1,730,232.47	1.281E+01	Pulse	0.30	3
Al			2	6.862	ug/l	2.35	1,215.62	8.999E-03	Pulse	0.30	3
K			2	8434.792	ug/l	0.59	1,888,958.61	1.398E+01	Pulse	0.30	3
Ca			2	48647.829	ug/l	0.19	546,357.76	4.045E+00	Pulse	0.30	3
Ti			2	0.257	ug/l	46.30	23.33	1.727E-04	Pulse	0.30	3
V			2	0.456	ug/l	12.71	1,485.64	1.099E-02	Pulse	0.30	3
Cr			2	0.753	ug/l	3.12	3,397.06	2.515E-02	Pulse	0.30	3
Mn			2	2008.196	ug/l	0.31	3,689,944.44	2.732E+01	Pulse	0.30	3
Fe			2	66385.003	ug/l	0.72	178,136,730.70	1.319E+03	Analog	0.30	3
Co			2	17.161	ug/l	1.77	92,788.21	6.870E-01	Pulse	0.30	3
Ni			2	5.946	ug/l	2.53	8,631.23	6.390E-02	Pulse	0.30	3
Cu			2	0.030	ug/l	94.50	6,963.76	5.156E-02	Pulse	0.30	3
Zn			2	4.985	ug/l	4.42	4,186.14	3.099E-02	Pulse	0.30	3
As			2	1474.275	ug/l	0.96	497,162.68	3.681E+00	Pulse	1.00	3
Cd			2	0.022	ug/l	60.48	31.75	3.877E-05	Pulse	0.30	3
Sn			2	0.762	ug/l	6.86	2,498.01	3.051E-03	Pulse	0.30	3
Se			3	0.340	ug/l	7.78	34.20	1.912E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,109,298.93	9.94	88.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,304,674.55	14.10	81.9	Pulse	0.10	3
1	Ge		506,103.52	10.87	88.7	Pulse	0.10	3
1	Ge		695,200.00	9.69	87.6	Pulse	0.10	3
1	Rh		3,238,176.10	13.47	84.1	Pulse	0.10	3
1	In		3,453,069.04	13.55	86.6	Pulse	0.10	3
1	Tb		5,064,195.24	17.16	91.5	Mix	0.10	3
1	Ho		486,183.96	12.69	88.4	Pulse	0.10	3
1	Bi		2,845,991.41	13.63	85.2	Pulse	0.10	3
2	Sc		135,082.19	0.80	84.1	Pulse	0.30	3
2	Ge		89,065.29	0.94	89.5	Pulse	0.30	3
2	Ge		134,498.78	0.19	89.7	Pulse	0.30	3
2	Rh		2,021,471.24	0.31	83.0	Pulse	0.30	3
2	In		818,564.95	0.65	84.2	Pulse	0.30	3
2	Tb		2,800,847.80	1.12	85.5	Pulse	0.30	3
2	Ho		286,734.91	0.54	85.8	Pulse	0.30	3
2	Bi		1,838,974.37	0.77	82.1	Pulse	0.30	3
3	Sc		184,873.35	2.02	85.3	Pulse	0.30	3
3	Ge		119,767.63	0.49	85.4	Pulse	0.30	3
3	Ge		178,949.66	2.30	84.6	Pulse	0.30	3
3	Rh		1,787,378.54	1.25	81.9	Pulse	0.30	3
3	Tb		3,149,522.65	1.80	86.0	Pulse	0.30	3

Quantitation Report

File Name 118SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 19:57
Sample Name mp17232a-sd1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.035	ug/l	19.57	45.33	3.722E-05	Pulse	0.25	3
B			1	137.794	ug/l	1.55	70,295.29	5.771E-02	Pulse	0.15	3
Ca			1	47078.300	ug/l	0.41	3,972,479.84	1.602E+00	Pulse	0.10	3
Sr			1	356.860	ug/l	0.92	1,636,457.11	4.750E-01	Pulse	0.10	3
Mo			1	1.376	ug/l	12.35	1,330.10	3.860E-04	Pulse	0.10	3
Ag			1	0.052	ug/l	13.33	136.67	3.763E-05	Pulse	0.10	3
Sn			1	-0.756	ug/l	-6.38	1,776.83	4.893E-04	Pulse	0.10	3
Sb			1	0.196	ug/l	43.09	646.70	1.254E-04	Pulse	0.10	3
Ba			1	47.896	ug/l	3.27	33,366.63	6.465E-03	Pulse	0.10	3
Tl			1	0.040	ug/l	72.26	376.69	1.279E-04	Pulse	0.10	3
Pb			1	0.368	ug/l	13.46	750.05	2.549E-04	Pulse	0.10	3
Pb			1	0.399	ug/l	22.08	700.04	2.379E-04	Pulse	0.10	3
Pb			1	0.381	ug/l	12.04	3,196.93	1.087E-03	Pulse	0.10	3
Na			2	12194.085	ug/l	1.28	1,537,479.42	1.058E+01	Pulse	0.30	3
Mg			2	6438.211	ug/l	1.35	373,832.12	2.572E+00	Pulse	0.30	3
Al			2	0.907	ug/l	433.81	648.91	4.461E-03	Pulse	0.30	3
K			2	8442.610	ug/l	0.99	416,910.44	2.868E+00	Pulse	0.30	3
Ca			2	48274.432	ug/l	0.33	116,768.87	8.033E-01	Pulse	0.30	3
Ti			2	1.511	ug/l	116.30	28.89	2.004E-04	Pulse	0.30	3
V			2	0.181	ug/l	36.95	377.79	2.598E-03	Pulse	0.30	3
Cr			2	0.025	ug/l	98.28	894.48	6.152E-03	Pulse	0.30	3
Mn			2	1975.837	ug/l	1.09	781,438.56	5.376E+00	Pulse	0.30	3
Fe			2	65853.391	ug/l	1.91	38,032,917.38	2.617E+02	Analog	0.30	3
Co			2	16.586	ug/l	2.32	19,342.22	1.331E-01	Pulse	0.30	3
Ni			2	6.062	ug/l	5.11	2,016.82	1.388E-02	Pulse	0.30	3
Cu			2	-4.148	ug/l	-0.61	3,908.29	2.689E-02	Pulse	0.30	3
Zn			2	2.837	ug/l	21.34	1,714.55	1.180E-02	Pulse	0.30	3
As			2	1563.898	ug/l	0.73	113,521.93	7.810E-01	Pulse	1.00	3
Cd			2	0.007	ug/l	415.48	13.24	1.514E-05	Pulse	0.30	3
Sn			2	-0.970	ug/l	-10.03	587.79	6.717E-04	Pulse	0.30	3
Se			3	0.652	ug/l	22.73	15.80	8.525E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,217,939.64	0.62	97.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,480,015.90	0.13	88.2	Pulse	0.10	3
1	Ge		511,112.39	0.22	89.6	Pulse	0.10	3
1	Ge		706,855.43	0.27	89.0	Pulse	0.10	3
1	Rh		3,445,127.24	0.38	89.5	Pulse	0.10	3
1	In		3,631,884.10	0.68	91.1	Pulse	0.10	3
1	Tb		5,164,287.42	4.43	93.3	Mix	0.10	3
1	Ho		495,147.58	0.31	90.0	Pulse	0.10	3
1	Bi		2,941,690.27	0.54	88.1	Pulse	0.10	3
2	Sc		145,368.14	1.35	90.5	Pulse	0.30	3
2	Ge		91,086.24	0.62	91.5	Pulse	0.30	3
2	Ge		135,620.73	1.01	90.4	Pulse	0.30	3
2	Rh		2,151,573.32	0.74	88.4	Pulse	0.30	3
2	In		875,176.00	0.43	90.1	Pulse	0.30	3
2	Tb		2,888,594.61	0.66	88.2	Pulse	0.30	3
2	Ho		295,045.08	0.97	88.3	Pulse	0.30	3
2	Bi		1,946,048.53	0.85	86.9	Pulse	0.30	3
3	Sc		190,270.42	0.50	87.8	Pulse	0.30	3
3	Ge		122,446.36	0.48	87.3	Pulse	0.30	3
3	Ge		185,429.74	0.46	87.7	Pulse	0.30	3
3	Rh		1,899,685.75	0.29	87.1	Pulse	0.30	3
3	Tb		3,244,227.86	0.41	88.6	Pulse	0.30	3

Quantitation Report

File Name	119SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 20:02
Sample Name	mp17232a-ps1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	68.620	ug/l	1.41	208,475.34	1.847E-01	Pulse	0.25	3
B			1	187.662	ug/l	0.68	407,206.60	3.607E-01	Pulse	0.15	3
Ca			1	47929.149	ug/l	0.78	19,021,261.38	8.136E+00	Analog	0.10	3
Sr			1	444.156	ug/l	0.78	9,505,018.19	2.956E+00	Analog	0.10	3
Mo			1	83.120	ug/l	0.23	332,230.84	1.033E-01	Pulse	0.10	3
Ag			1	74.781	ug/l	0.36	767,723.53	2.251E-01	Pulse	0.10	3
Sn			1	80.439	ug/l	0.83	533,926.82	1.565E-01	Pulse	0.10	3
Sb			1	80.699	ug/l	1.48	625,919.29	1.291E-01	Pulse	0.10	3
Ba			1	123.599	ug/l	1.69	403,622.44	8.323E-02	Pulse	0.10	3
Tl			1	80.075	ug/l	0.32	1,478,181.49	5.336E-01	Pulse	0.10	3
Pb			1	78.555	ug/l	0.76	500,960.51	1.808E-01	Pulse	0.10	3
Pb			1	78.788	ug/l	1.11	442,175.31	1.596E-01	Pulse	0.10	3
Pb			1	78.459	ug/l	0.33	2,022,386.64	7.300E-01	Pulse	0.10	3
Na			2	15578.259	ug/l	1.09	9,331,519.91	6.717E+01	Analog	0.30	3
Mg			2	9476.555	ug/l	1.03	2,627,923.65	1.892E+01	Pulse	0.30	3
Al			2	3739.348	ug/l	1.40	353,474.59	2.544E+00	Pulse	0.30	3
K			2	11440.962	ug/l	1.12	2,630,974.55	1.894E+01	Pulse	0.30	3
Ca			2	47548.548	ug/l	1.50	549,227.29	3.953E+00	Pulse	0.30	3
Ti			2	76.029	ug/l	0.67	6,526.91	4.698E-02	Pulse	0.30	3
V			2	78.304	ug/l	0.86	218,058.23	1.570E+00	Pulse	0.30	3
Cr			2	76.888	ug/l	1.00	272,013.13	1.958E+00	Pulse	0.30	3
Mn			2	1849.459	ug/l	0.95	3,495,135.83	2.516E+01	Pulse	0.30	3
Fe			2	62477.810	ug/l	1.08	172,436,659.81	1.241E+03	Analog	0.30	3
Co			2	90.690	ug/l	1.32	504,139.04	3.629E+00	Pulse	0.30	3
Ni			2	79.038	ug/l	0.81	116,204.19	8.364E-01	Pulse	0.30	3
Cu			2	74.174	ug/l	1.33	302,857.77	2.180E+00	Pulse	0.30	3
Zn			2	72.542	ug/l	1.63	45,087.43	3.246E-01	Pulse	0.30	3
As			2	1387.550	ug/l	1.28	481,253.71	3.464E+00	Pulse	1.00	3
Cd			2	73.727	ug/l	1.58	69,293.74	8.375E-02	Pulse	0.30	3
Sn			2	80.248	ug/l	0.87	166,211.65	2.009E-01	Pulse	0.30	3
Se			3	357.712	ug/l	0.56	32,876.92	1.809E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,128,914.58	0.19	90.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,337,881.27	0.24	83.1	Pulse	0.10	3
1	Ge		500,273.77	0.95	87.7	Pulse	0.10	3
1	Ge		695,068.48	0.68	87.6	Pulse	0.10	3
1	Rh		3,216,089.22	0.98	83.5	Pulse	0.10	3
1	In		3,410,626.00	0.69	85.6	Pulse	0.10	3
1	Tb		4,849,850.86	1.55	87.6	Pulse	0.10	3
1	Ho		484,012.02	0.89	88.0	Pulse	0.10	3
1	Bi		2,770,393.29	0.96	83.0	Pulse	0.10	3
2	Sc		138,941.26	1.27	86.5	Pulse	0.30	3
2	Ge		89,130.08	0.99	89.6	Pulse	0.30	3
2	Ge		133,349.74	0.62	88.9	Pulse	0.30	3
2	Rh		2,022,961.52	0.21	83.1	Pulse	0.30	3
2	In		827,442.44	0.80	85.1	Pulse	0.30	3
2	Tb		2,812,828.01	0.80	85.9	Pulse	0.30	3
2	Ho		287,818.46	0.86	86.1	Pulse	0.30	3
2	Bi		1,827,298.54	0.72	81.6	Pulse	0.30	3
3	Sc		190,082.27	1.08	87.7	Pulse	0.30	3
3	Ge		121,845.23	0.94	86.9	Pulse	0.30	3
3	Ge		181,787.21	1.01	85.9	Pulse	0.30	3
3	Rh		1,811,483.89	0.49	83.0	Pulse	0.30	3
3	Tb		3,210,776.47	0.13	87.6	Pulse	0.30	3

Quantitation Report

File Name 120_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 20:07
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	44.856	ug/l	0.56	296,089.93	2.414E-01	Pulse	0.25	3
B			1	87.107	ug/l	0.32	411,170.10	3.353E-01	Pulse	0.15	3
Ca			1	5006.329	ug/l	0.50	4,327,305.25	1.703E+00	Pulse	0.10	3
Sr			1	51.497	ug/l	0.64	2,380,765.96	6.854E-01	Pulse	0.10	3
Mo			1	50.796	ug/l	0.36	438,513.93	1.262E-01	Pulse	0.10	3
Ag			1	49.550	ug/l	0.43	1,079,374.85	2.983E-01	Pulse	0.10	3
Sn			1	49.270	ug/l	0.59	693,276.26	1.916E-01	Pulse	0.10	3
Sb			1	52.879	ug/l	0.29	856,369.88	1.691E-01	Pulse	0.10	3
Ba			1	51.031	ug/l	0.27	347,996.23	6.873E-02	Pulse	0.10	3
Tl			1	50.983	ug/l	0.23	1,950,886.59	6.794E-01	Pulse	0.10	3
Pb			1	50.358	ug/l	0.80	665,638.97	2.318E-01	Pulse	0.10	3
Pb			1	50.697	ug/l	1.56	589,769.17	2.054E-01	Pulse	0.10	3
Pb			1	50.392	ug/l	0.77	2,692,308.75	9.376E-01	Pulse	0.10	3
Na			2	5045.273	ug/l	1.06	6,522,016.55	4.353E+01	Analog	0.30	3
Mg			2	4745.146	ug/l	0.74	2,838,017.18	1.894E+01	Pulse	0.30	3
Al			2	4783.324	ug/l	1.06	974,197.63	6.502E+00	Pulse	0.30	3
K			2	4943.046	ug/l	1.00	2,453,357.68	1.638E+01	Pulse	0.30	3
Ca			2	5171.214	ug/l	1.25	128,911.28	8.604E-01	Pulse	0.30	3
Ti			2	50.011	ug/l	3.29	9,258.25	6.180E-02	Pulse	0.30	3
V			2	49.739	ug/l	0.82	298,655.34	1.993E+00	Pulse	0.30	3
Cr			2	48.828	ug/l	0.81	372,318.84	2.485E+00	Pulse	0.30	3
Mn			2	49.348	ug/l	1.36	201,263.46	1.343E+00	Pulse	0.30	3
Fe			2	5178.095	ug/l	1.43	30,826,592.11	2.058E+02	Analog	0.30	3
Co			2	48.608	ug/l	1.25	582,784.09	3.890E+00	Pulse	0.30	3
Ni			2	48.473	ug/l	0.77	153,664.14	1.026E+00	Pulse	0.30	3
Cu			2	47.589	ug/l	1.17	416,933.85	2.783E+00	Pulse	0.30	3
Zn			2	48.661	ug/l	1.11	64,756.03	4.322E-01	Pulse	0.30	3
As			2	50.123	ug/l	1.04	37,514.81	2.504E-01	Pulse	1.00	3
Cd			2	48.594	ug/l	1.18	97,799.51	1.104E-01	Pulse	0.30	3
Sn			2	49.313	ug/l	0.32	218,473.23	2.466E-01	Pulse	0.30	3
Se			3	199.919	ug/l	0.58	37,775.36	2.022E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,226,450.59	0.93	98.2	Pulse	0.10	3
1	Sc		2,540,896.05	0.51	90.3	Pulse	0.10	3
1	Ge		512,447.96	0.76	89.8	Pulse	0.10	3

Quantitation Report

1	Ge		717,985.46	0.67	90.4	Pulse	0.10	3
1	Rh		3,473,428.39	0.11	90.2	Pulse	0.10	3
1	In		3,618,415.96	0.51	90.8	Pulse	0.10	3
1	Tb		5,063,154.92	0.18	91.4	Pulse	0.10	3
1	Ho		496,070.72	0.30	90.2	Pulse	0.10	3
1	Bi		2,871,428.39	0.07	86.0	Pulse	0.10	3
2	Sc		149,822.41	0.40	93.2	Pulse	0.30	3
2	Ge		91,351.25	0.37	91.8	Pulse	0.30	3
2	Ge		137,781.95	0.68	91.9	Pulse	0.30	3
2	Rh		2,149,383.67	0.97	88.3	Pulse	0.30	3
2	In		885,875.61	0.48	91.2	Pulse	0.30	3
2	Tb		2,917,810.58	0.64	89.1	Pulse	0.30	3
2	Ho		296,847.49	0.20	88.8	Pulse	0.30	3
2	Bi		1,911,202.56	0.39	85.4	Pulse	0.30	3
3	Sc		197,361.48	0.74	91.1	Pulse	0.30	3
3	Ge		124,285.36	0.69	88.6	Pulse	0.30	3
3	Ge		186,869.45	1.09	88.3	Pulse	0.30	3
3	Rh		1,897,013.12	0.59	87.0	Pulse	0.30	3
3	Tb		3,274,414.66	0.59	89.4	Pulse	0.30	3

Quantitation Report

File Name 121_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 20:12
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	42.92	94.67	7.623E-05	Pulse	0.25	3
B			1	4.515	ug/l	3.21	28,110.21	2.265E-02	Pulse	0.15	3
Ca			1	0.737	ug/l	52.32	11,574.46	4.565E-03	Pulse	0.10	3
Sr			1	0.017	ug/l	19.58	1,160.09	3.296E-04	Pulse	0.10	3
Mo			1	0.075	ug/l	18.44	813.39	2.307E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	17.60	290.01	7.927E-05	Pulse	0.10	3
Sn			1	0.131	ug/l	22.23	4,714.26	1.288E-03	Pulse	0.10	3
Sb			1	0.057	ug/l	12.80	1,223.43	2.444E-04	Pulse	0.10	3
Ba			1	0.015	ug/l	35.82	180.01	3.597E-05	Pulse	0.10	3
Tl			1	0.030	ug/l	24.82	1,400.13	4.788E-04	Pulse	0.10	3
Pb			1	0.050	ug/l	15.83	920.06	3.144E-04	Pulse	0.10	3
Pb			1	0.046	ug/l	14.73	766.72	2.620E-04	Pulse	0.10	3
Pb			1	0.045	ug/l	13.13	3,540.30	1.210E-03	Pulse	0.10	3
Na			2	4.869	ug/l	12.11	17,948.53	1.158E-01	Pulse	0.30	3
Mg			2	0.784	ug/l	19.59	800.03	5.153E-03	Pulse	0.30	3
Al			2	1.959	ug/l	9.47	1,085.60	6.999E-03	Pulse	0.30	3
K			2	-0.863	ug/l	-137.81	12,889.54	8.315E-02	Pulse	0.30	3
Ca			2	3.534	ug/l	27.78	198.89	1.286E-03	Pulse	0.30	3
Ti			2	0.035	ug/l	75.50	8.89	5.686E-05	Pulse	0.30	3
V			2	-0.014	ug/l	-22.88	201.12	1.299E-03	Pulse	0.30	3
Cr			2	-0.008	ug/l	-115.49	872.26	5.617E-03	Pulse	0.30	3
Mn			2	0.039	ug/l	3.32	304.45	1.962E-03	Pulse	0.30	3
Fe			2	2.018	ug/l	7.29	18,454.89	1.191E-01	Pulse	0.30	3
Co			2	0.006	ug/l	19.11	131.06	8.419E-04	Pulse	0.30	3
Ni			2	0.015	ug/l	106.08	214.45	1.381E-03	Pulse	0.30	3
Cu			2	-0.414	ug/l	-4.84	4,179.47	2.694E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.201	ug/l	-27.48	1,176.72	7.590E-03	Pulse	0.30	3
As			2	0.067	ug/l	26.89	74.00	4.741E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	262.74	18.81	2.073E-05	Pulse	0.30	3
Sn			2	0.141	ug/l	12.50	1,711.23	1.857E-03	Pulse	0.30	3
Se			3	0.127	ug/l	8.22	27.67	1.481E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,241,218.33	0.33	99.4	Pulse	0.10	3
1	Sc		2,535,165.06	0.87	90.1	Pulse	0.10	3
1	Ge		517,733.16	1.42	90.8	Pulse	0.10	3
1	Ge		719,724.62	0.49	90.7	Pulse	0.10	3
1	Rh		3,523,939.43	1.22	91.5	Pulse	0.10	3
1	In		3,660,503.87	1.17	91.9	Pulse	0.10	3
1	Tb		5,005,597.53	0.16	90.4	Pulse	0.10	3
1	Ho		492,002.23	0.79	89.4	Pulse	0.10	3
1	Bi		2,927,933.19	0.94	87.7	Pulse	0.10	3
2	Sc		155,226.01	4.31	96.6	Pulse	0.30	3
2	Ge		93,899.14	2.57	94.4	Pulse	0.30	3
2	Ge		140,392.13	1.17	93.6	Pulse	0.30	3
2	Rh		2,263,807.97	2.63	93.0	Pulse	0.30	3
2	In		920,938.80	2.50	94.8	Pulse	0.30	3
2	Tb		2,983,300.37	2.90	91.1	Pulse	0.30	3
2	Ho		302,695.93	2.81	90.6	Pulse	0.30	3
2	Bi		1,996,059.50	2.14	89.2	Pulse	0.30	3
3	Sc		195,579.35	0.93	90.3	Pulse	0.30	3
3	Ge		124,071.52	0.48	88.5	Pulse	0.30	3
3	Ge		186,884.60	1.12	88.3	Pulse	0.30	3
3	Rh		1,925,609.44	0.44	88.3	Pulse	0.30	3
3	Tb		3,214,449.87	0.65	87.7	Pulse	0.30	3

Quantitation Report

File Name 122SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 20:17
Sample Name jc94537-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.019	ug/l	62.47	76.00	6.894E-05	Pulse	0.25	3
B			1	100.928	ug/l	1.70	216,705.30	1.966E-01	Pulse	0.15	3
Ca			1	39428.129	ug/l	0.53	15,447,921.44	6.694E+00	Analog	0.10	3
Sr			1	306.391	ug/l	0.20	6,508,326.15	2.039E+00	Analog	0.10	3
Mo			1	0.419	ug/l	3.22	1,800.18	5.640E-04	Pulse	0.10	3
Ag			1	0.023	ug/l	15.46	256.68	7.487E-05	Pulse	0.10	3
Sn			1	0.649	ug/l	8.04	6,995.17	2.039E-03	Pulse	0.10	3
Sb			1	0.191	ug/l	9.67	1,766.83	3.677E-04	Pulse	0.10	3
Ba			1	14.824	ug/l	1.48	48,025.15	9.996E-03	Pulse	0.10	3
Tl			1	0.017	ug/l	19.48	520.03	1.868E-04	Pulse	0.10	3
Pb			1	0.170	ug/l	3.98	1,330.11	4.778E-04	Pulse	0.10	3
Pb			1	0.199	ug/l	7.85	1,333.45	4.790E-04	Pulse	0.10	3
Pb			1	0.182	ug/l	1.35	5,764.00	2.071E-03	Pulse	0.10	3
Na			2	22299.635	ug/l	0.71	13,149,407.53	9.612E+01	Analog	0.30	3
Mg			2	5045.386	ug/l	0.38	1,377,844.22	1.007E+01	Pulse	0.30	3
Al			2	1.216	ug/l	56.28	706.69	5.164E-03	Pulse	0.30	3
K			2	7097.893	ug/l	0.37	1,611,759.35	1.178E+01	Pulse	0.30	3
Ca			2	39376.621	ug/l	0.35	447,892.76	3.274E+00	Pulse	0.30	3
Ti			2	2.200	ug/l	16.24	187.78	1.373E-03	Pulse	0.30	3
V			2	0.185	ug/l	10.71	764.47	5.587E-03	Pulse	0.30	3
Cr			2	0.476	ug/l	3.11	2,476.88	1.811E-02	Pulse	0.30	3
Mn			2	24.779	ug/l	0.77	46,235.58	3.380E-01	Pulse	0.30	3
Fe			2	644.905	ug/l	0.32	1,757,909.06	1.285E+01	Pulse	0.30	3
Co			2	0.414	ug/l	6.92	2,313.23	1.691E-02	Pulse	0.30	3
Ni			2	4.812	ug/l	1.57	7,102.73	5.192E-02	Pulse	0.30	3
Cu			2	3.005	ug/l	0.01	18,736.37	1.370E-01	Pulse	0.30	3
Zn			2	4.061	ug/l	7.73	3,690.46	2.698E-02	Pulse	0.30	3
As			2	24.799	ug/l	1.22	8,488.22	6.205E-02	Pulse	1.00	3
Cd			2	0.001	ug/l	244.23	12.07	1.451E-05	Pulse	0.30	3
Sn			2	0.638	ug/l	14.29	2,281.31	2.742E-03	Pulse	0.30	3
Se			3	0.233	ug/l	19.61	24.80	1.370E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,102,532.17	0.50	88.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,307,836.16	0.46	82.0	Pulse	0.10	3
1	Ge		505,510.36	0.51	88.6	Pulse	0.10	3
1	Ge		699,050.51	0.28	88.1	Pulse	0.10	3
1	Rh		3,192,183.18	0.71	82.9	Pulse	0.10	3
1	In		3,429,508.95	0.63	86.1	Pulse	0.10	3
1	Tb		4,804,675.35	0.65	86.8	Pulse	0.10	3
1	Ho		479,663.58	0.85	87.2	Pulse	0.10	3
1	Bi		2,783,857.36	0.06	83.4	Pulse	0.10	3
2	Sc		136,804.31	0.54	85.1	Pulse	0.30	3
2	Ge		89,083.34	1.30	89.5	Pulse	0.30	3
2	Ge		135,592.45	0.49	90.4	Pulse	0.30	3
2	Rh		2,019,164.30	0.64	83.0	Pulse	0.30	3
2	In		832,190.14	0.52	85.6	Pulse	0.30	3
2	Tb		2,785,563.08	0.45	85.1	Pulse	0.30	3
2	Ho		283,955.86	0.58	84.9	Pulse	0.30	3
2	Bi		1,833,995.62	1.26	81.9	Pulse	0.30	3
3	Sc		186,624.39	0.32	86.1	Pulse	0.30	3
3	Ge		120,222.11	0.31	85.7	Pulse	0.30	3
3	Ge		180,999.46	0.54	85.6	Pulse	0.30	3
3	Rh		1,801,573.68	0.75	82.6	Pulse	0.30	3
3	Tb		3,194,660.78	0.55	87.2	Pulse	0.30	3

Quantitation Report

File Name	123SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 20:22
Sample Name	jc94613-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.019	ug/l	28.93	77.33	7.038E-05	Pulse	0.25	3
B			1	45.355	ug/l	0.39	100,411.43	9.139E-02	Pulse	0.15	3
Ca			1	25756.077	ug/l	1.63	9,969,613.18	4.374E+00	Analog	0.10	3
Sr			1	172.148	ug/l	0.50	3,675,908.17	1.146E+00	Pulse	0.10	3
Mo			1	2.368	ug/l	3.48	9,579.88	2.986E-03	Pulse	0.10	3
Ag			1	0.016	ug/l	15.20	183.34	5.393E-05	Pulse	0.10	3
Sn			1	0.725	ug/l	2.77	7,428.69	2.186E-03	Pulse	0.10	3
Sb			1	0.439	ug/l	5.48	3,680.57	7.647E-04	Pulse	0.10	3
Ba			1	14.456	ug/l	3.16	46,925.10	9.749E-03	Pulse	0.10	3
Tl			1	0.048	ug/l	25.62	1,103.42	3.913E-04	Pulse	0.10	3
Pb			1	0.090	ug/l	8.98	823.39	2.921E-04	Pulse	0.10	3
Pb			1	0.118	ug/l	9.52	890.06	3.160E-04	Pulse	0.10	3
Pb			1	0.095	ug/l	3.83	3,546.97	1.259E-03	Pulse	0.10	3
Na			2	5830.739	ug/l	0.90	3,382,973.27	2.519E+01	Pulse	0.30	3
Mg			2	2740.302	ug/l	0.26	734,899.97	5.471E+00	Pulse	0.30	3
Al			2	3.176	ug/l	16.84	872.27	6.495E-03	Pulse	0.30	3
K			2	3497.474	ug/l	0.30	785,631.96	5.849E+00	Pulse	0.30	3
Ca			2	25388.236	ug/l	0.96	283,570.60	2.111E+00	Pulse	0.30	3
Ti			2	0.286	ug/l	7.42	25.56	1.902E-04	Pulse	0.30	3
V			2	0.192	ug/l	22.05	766.70	5.711E-03	Pulse	0.30	3
Cr			2	0.629	ug/l	3.17	2,954.75	2.200E-02	Pulse	0.30	3
Mn			2	2146.137	ug/l	0.51	3,921,255.54	2.919E+01	Pulse	0.30	3
Fe			2	40414.600	ug/l	1.33	107,837,809.05	8.029E+02	Analog	0.30	3
Co			2	12.999	ug/l	1.35	69,906.17	5.204E-01	Pulse	0.30	3
Ni			2	5.581	ug/l	1.60	8,065.40	6.005E-02	Pulse	0.30	3
Cu			2	-0.100	ug/l	-27.89	6,424.67	4.783E-02	Pulse	0.30	3
Zn			2	4.428	ug/l	2.28	3,838.28	2.857E-02	Pulse	0.30	3
As			2	2897.919	ug/l	0.59	971,760.63	7.235E+00	Pulse	1.00	3
Cd			2	0.006	ug/l	64.92	17.08	2.090E-05	Pulse	0.30	3
Sn			2	0.760	ug/l	8.40	2,490.23	3.046E-03	Pulse	0.30	3
Se			3	0.203	ug/l	13.68	22.13	1.220E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,098,691.19	0.09	88.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,279,319.29	0.77	81.0	Pulse	0.10	3
1	Ge		503,498.78	0.95	88.3	Pulse	0.10	3
1	Ge		694,797.07	0.56	87.5	Pulse	0.10	3
1	Rh		3,208,813.28	0.71	83.4	Pulse	0.10	3
1	In		3,398,172.18	0.51	85.3	Pulse	0.10	3
1	Tb		4,814,278.68	0.73	86.9	Pulse	0.10	3
1	Ho		477,816.74	1.51	86.9	Pulse	0.10	3
1	Bi		2,817,686.42	0.66	84.4	Pulse	0.10	3
2	Sc		134,323.86	0.69	83.6	Pulse	0.30	3
2	Ge		90,006.91	1.19	90.4	Pulse	0.30	3
2	Ge		133,533.66	0.50	89.0	Pulse	0.30	3
2	Rh		2,012,497.00	1.26	82.7	Pulse	0.30	3
2	In		817,711.72	0.24	84.1	Pulse	0.30	3
2	Tb		2,770,949.89	0.52	84.6	Pulse	0.30	3
2	Ho		284,418.60	1.23	85.1	Pulse	0.30	3
2	Bi		1,842,479.79	1.07	82.3	Pulse	0.30	3
3	Sc		186,204.82	0.74	85.9	Pulse	0.30	3
3	Ge		121,170.17	0.12	86.4	Pulse	0.30	3
3	Ge		181,373.68	0.53	85.7	Pulse	0.30	3
3	Rh		1,829,953.05	0.64	83.9	Pulse	0.30	3
3	Tb		3,210,459.59	0.32	87.6	Pulse	0.30	3

Quantitation Report

File Name 124SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 20:27
Sample Name mp17239-mb1 4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	142.02	33.33	3.031E-05	Pulse	0.25	3
B			1	5.826	ug/l	1.51	18,241.17	1.658E-02	Pulse	0.15	3
Ca			1	8.013	ug/l	12.36	13,008.90	5.674E-03	Pulse	0.10	3
Sr			1	0.053	ug/l	12.77	1,490.13	4.539E-04	Pulse	0.10	3
Mo			1	0.053	ug/l	17.00	360.02	1.096E-04	Pulse	0.10	3
Ag			1	0.007	ug/l	77.55	100.00	2.904E-05	Pulse	0.10	3
Sn			1	0.649	ug/l	11.86	7,005.17	2.039E-03	Pulse	0.10	3
Sb			1	0.057	ug/l	12.52	736.71	1.541E-04	Pulse	0.10	3
Ba			1	0.050	ug/l	15.17	236.68	4.950E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	122.18	283.35	9.933E-05	Pulse	0.10	3
Pb			1	0.085	ug/l	16.80	803.39	2.820E-04	Pulse	0.10	3
Pb			1	0.087	ug/l	17.26	716.72	2.516E-04	Pulse	0.10	3
Pb			1	0.087	ug/l	11.90	3,376.97	1.185E-03	Pulse	0.10	3
Na			2	22.864	ug/l	4.69	23,258.30	1.723E-01	Pulse	0.30	3
Mg			2	1.977	ug/l	9.03	806.70	5.972E-03	Pulse	0.30	3
Al			2	1.344	ug/l	39.67	708.93	5.251E-03	Pulse	0.30	3
K			2	3.581	ug/l	18.81	12,405.84	9.189E-02	Pulse	0.30	3
Ca			2	10.296	ug/l	17.01	210.00	1.554E-03	Pulse	0.30	3
Ti			2	0.164	ug/l	14.70	15.56	1.153E-04	Pulse	0.30	3
V			2	0.108	ug/l	14.74	545.58	4.043E-03	Pulse	0.30	3
Cr			2	0.435	ug/l	5.13	2,303.52	1.706E-02	Pulse	0.30	3
Mn			2	0.280	ug/l	17.01	638.91	4.727E-03	Pulse	0.30	3
Fe			2	9.620	ug/l	1.16	31,052.60	2.300E-01	Pulse	0.30	3
Co			2	0.016	ug/l	22.52	134.36	9.939E-04	Pulse	0.30	3
Ni			2	0.048	ug/l	24.36	212.23	1.571E-03	Pulse	0.30	3
Cu			2	0.172	ug/l	30.21	7,512.89	5.565E-02	Pulse	0.30	3
Zn			2	2.314	ug/l	5.70	2,616.91	1.939E-02	Pulse	0.30	3
As			2	0.585	ug/l	13.24	215.67	1.598E-03	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.002	ug/l	-219.44	8.85	1.072E-05	Pulse	0.30	3
Sn			2	0.638	ug/l	8.54	2,266.86	2.743E-03	Pulse	0.30	3
Se			3	0.076	ug/l	35.56	10.53	5.790E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,099,924.46	0.09	88.1	Pulse	0.10	3
1	Sc		2,292,506.79	0.96	81.5	Pulse	0.10	3
1	Ge		509,245.47	0.45	89.3	Pulse	0.10	3
1	Ge		709,619.26	0.66	89.4	Pulse	0.10	3
1	Rh		3,282,665.89	0.96	85.3	Pulse	0.10	3
1	In		3,434,504.11	0.93	86.2	Pulse	0.10	3
1	Tb		4,783,204.09	1.12	86.4	Pulse	0.10	3
1	Ho		472,149.47	0.45	85.8	Pulse	0.10	3
1	Bi		2,847,176.10	0.92	85.3	Pulse	0.10	3
2	Sc		135,019.35	1.27	84.0	Pulse	0.30	3
2	Ge		89,825.04	0.51	90.3	Pulse	0.30	3
2	Ge		135,446.02	0.62	90.3	Pulse	0.30	3
2	Rh		2,065,735.82	0.43	84.9	Pulse	0.30	3
2	In		826,457.44	0.49	85.0	Pulse	0.30	3
2	Tb		2,763,104.47	0.62	84.4	Pulse	0.30	3
2	Ho		282,348.68	0.26	84.5	Pulse	0.30	3
2	Bi		1,855,927.01	0.99	82.9	Pulse	0.30	3
3	Sc		186,469.61	0.33	86.1	Pulse	0.30	3
3	Ge		120,479.88	0.94	85.9	Pulse	0.30	3
3	Ge		181,764.17	0.52	85.9	Pulse	0.30	3
3	Rh		1,858,016.53	0.37	85.2	Pulse	0.30	3
3	Tb		3,189,247.03	0.56	87.1	Pulse	0.30	3

Quantitation Report

File Name 125SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 20:32
Sample Name jc94365-8
Sample Type Sample
Comment fb
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.032	ug/l	8.87	112.00	1.030E-04	Pulse	0.25	3
B			1	5.313	ug/l	0.86	16,977.65	1.561E-02	Pulse	0.15	3
Ca			1	12.143	ug/l	9.56	14,310.01	6.375E-03	Pulse	0.10	3
Sr			1	0.785	ug/l	1.14	17,062.90	5.325E-03	Pulse	0.10	3
Mo			1	0.035	ug/l	18.83	280.01	8.738E-05	Pulse	0.10	3
Ag			1	0.009	ug/l	70.90	116.67	3.481E-05	Pulse	0.10	3
Sn			1	0.282	ug/l	12.62	4,464.13	1.328E-03	Pulse	0.10	3
Sb			1	0.063	ug/l	7.58	770.05	1.636E-04	Pulse	0.10	3
Ba			1	1.150	ug/l	1.83	3,720.61	7.903E-04	Pulse	0.10	3
Tl			1	0.006	ug/l	33.67	310.02	1.112E-04	Pulse	0.10	3
Pb			1	0.078	ug/l	19.55	736.72	2.645E-04	Pulse	0.10	3
Pb			1	0.057	ug/l	9.83	536.70	1.926E-04	Pulse	0.10	3
Pb			1	0.067	ug/l	9.94	2,800.22	1.005E-03	Pulse	0.10	3
Na			2	36.822	ug/l	2.68	30,965.04	2.324E-01	Pulse	0.30	3
Mg			2	1.437	ug/l	3.32	652.24	4.895E-03	Pulse	0.30	3
Al			2	25.208	ug/l	6.18	2,859.17	2.146E-02	Pulse	0.30	3
K			2	5.085	ug/l	15.46	12,574.83	9.437E-02	Pulse	0.30	3
Ca			2	23.598	ug/l	7.65	354.45	2.660E-03	Pulse	0.30	3
Ti			2	0.153	ug/l	30.34	14.45	1.084E-04	Pulse	0.30	3
V			2	0.120	ug/l	27.31	568.91	4.271E-03	Pulse	0.30	3
Cr			2	0.379	ug/l	3.94	2,084.60	1.565E-02	Pulse	0.30	3
Mn			2	0.179	ug/l	10.34	446.68	3.352E-03	Pulse	0.30	3
Fe			2	4.407	ug/l	2.57	16,844.27	1.264E-01	Pulse	0.30	3
Co			2	0.027	ug/l	20.67	186.62	1.401E-03	Pulse	0.30	3
Ni			2	0.156	ug/l	19.11	361.12	2.709E-03	Pulse	0.30	3
Cu			2	0.324	ug/l	19.02	7,993.15	5.999E-02	Pulse	0.30	3
Zn			2	2.821	ug/l	4.02	2,876.96	2.159E-02	Pulse	0.30	3
As			2	0.243	ug/l	23.03	99.33	7.454E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.002	ug/l	-479.81	8.87	1.092E-05	Pulse	0.30	3
Sn			2	0.269	ug/l	33.00	1,483.42	1.825E-03	Pulse	0.30	3
Se			3	0.069	ug/l	2.84	9.73	5.419E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,087,393.55	0.32	87.1	Pulse	0.10	3
1	Sc		2,244,807.00	0.93	79.8	Pulse	0.10	3
1	Ge		498,239.33	1.61	87.3	Pulse	0.10	3
1	Ge		692,506.99	1.28	87.2	Pulse	0.10	3
1	Rh		3,204,357.76	0.99	83.2	Pulse	0.10	3
1	In		3,360,458.65	0.88	84.3	Pulse	0.10	3
1	Tb		4,707,657.01	0.78	85.0	Pulse	0.10	3
1	Ho		466,027.87	0.49	84.7	Pulse	0.10	3
1	Bi		2,786,479.02	0.66	83.5	Pulse	0.10	3
2	Sc		133,246.36	0.48	82.9	Pulse	0.30	3
2	Ge		89,200.39	0.23	89.6	Pulse	0.30	3
2	Ge		132,892.96	0.82	88.6	Pulse	0.30	3
2	Rh		2,018,876.24	0.60	82.9	Pulse	0.30	3
2	In		813,139.79	0.28	83.7	Pulse	0.30	3
2	Tb		2,713,558.36	0.94	82.9	Pulse	0.30	3
2	Ho		277,447.75	0.35	83.0	Pulse	0.30	3
2	Bi		1,823,564.02	0.36	81.5	Pulse	0.30	3
3	Sc		183,007.52	0.38	84.5	Pulse	0.30	3
3	Ge		119,599.03	1.08	85.3	Pulse	0.30	3
3	Ge		179,606.03	0.54	84.9	Pulse	0.30	3
3	Rh		1,820,305.97	1.01	83.4	Pulse	0.30	3
3	Tb		3,104,978.56	0.47	84.8	Pulse	0.30	3

Quantitation Report

File Name	126SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 20:37
Sample Name	jc94499-23
Sample Type	Sample
Comment	fb
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.027	ug/l	18.18	100.00	9.140E-05	Pulse	0.25	3
B			1	4.571	ug/l	10.12	15,516.23	1.421E-02	Pulse	0.15	3
Ca			1	10.569	ug/l	7.98	13,696.11	6.108E-03	Pulse	0.10	3
Sr			1	0.375	ug/l	3.54	8,292.44	2.598E-03	Pulse	0.10	3
Mo			1	0.081	ug/l	7.09	463.36	1.452E-04	Pulse	0.10	3
Ag			1	0.007	ug/l	28.55	90.00	2.700E-05	Pulse	0.10	3
Sn			1	0.359	ug/l	4.83	4,920.96	1.478E-03	Pulse	0.10	3
Sb			1	0.112	ug/l	14.63	1,126.75	2.415E-04	Pulse	0.10	3
Ba			1	0.669	ug/l	3.99	2,173.58	4.663E-04	Pulse	0.10	3
Tl			1	0.001	ug/l	421.95	220.01	7.958E-05	Pulse	0.10	3
Pb			1	0.115	ug/l	3.98	970.08	3.513E-04	Pulse	0.10	3
Pb			1	0.098	ug/l	5.60	760.05	2.753E-04	Pulse	0.10	3
Pb			1	0.104	ug/l	2.02	3,720.33	1.347E-03	Pulse	0.10	3
Na			2	36.330	ug/l	2.42	30,701.18	2.303E-01	Pulse	0.30	3
Mg			2	1.774	ug/l	17.08	742.25	5.566E-03	Pulse	0.30	3
Al			2	22.916	ug/l	1.20	2,653.58	1.990E-02	Pulse	0.30	3
K			2	6.557	ug/l	16.51	12,903.98	9.679E-02	Pulse	0.30	3
Ca			2	17.769	ug/l	12.16	290.01	2.176E-03	Pulse	0.30	3
Ti			2	0.194	ug/l	48.36	17.78	1.334E-04	Pulse	0.30	3
V			2	0.121	ug/l	11.78	572.24	4.293E-03	Pulse	0.30	3
Cr			2	0.361	ug/l	5.76	2,025.71	1.519E-02	Pulse	0.30	3
Mn			2	0.122	ug/l	5.20	342.23	2.567E-03	Pulse	0.30	3
Fe			2	7.147	ug/l	4.33	24,109.96	1.809E-01	Pulse	0.30	3
Co			2	0.018	ug/l	19.50	139.94	1.050E-03	Pulse	0.30	3
Ni			2	0.085	ug/l	26.22	261.12	1.958E-03	Pulse	0.30	3
Cu			2	0.256	ug/l	10.97	7,738.57	5.805E-02	Pulse	0.30	3
Zn			2	2.321	ug/l	7.26	2,589.12	1.942E-02	Pulse	0.30	3
As			2	0.189	ug/l	26.04	81.33	6.099E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-339.44	9.96	1.231E-05	Pulse	0.30	3
Sn			2	0.299	ug/l	6.16	1,538.98	1.900E-03	Pulse	0.30	3
Se			3	0.065	ug/l	31.85	9.27	5.210E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,092,526.13	1.47	87.5	Pulse	0.10	3
1	Sc		2,242,459.97	0.67	79.7	Pulse	0.10	3
1	Ge		494,092.92	0.76	86.6	Pulse	0.10	3
1	Ge		684,628.17	0.88	86.2	Pulse	0.10	3
1	Rh		3,191,212.98	1.02	82.9	Pulse	0.10	3
1	In		3,330,447.25	0.62	83.6	Pulse	0.10	3
1	Tb		4,662,056.28	1.36	84.2	Pulse	0.10	3
1	Ho		462,095.66	1.63	84.0	Pulse	0.10	3
1	Bi		2,761,399.02	1.04	82.7	Pulse	0.10	3
2	Sc		133,318.24	0.26	83.0	Pulse	0.30	3
2	Ge		88,433.16	0.82	88.9	Pulse	0.30	3
2	Ge		132,941.87	0.24	88.7	Pulse	0.30	3
2	Rh		2,023,011.52	0.37	83.1	Pulse	0.30	3
2	In		810,193.62	0.48	83.4	Pulse	0.30	3
2	Tb		2,698,577.74	0.75	82.4	Pulse	0.30	3
2	Ho		275,453.43	0.49	82.4	Pulse	0.30	3
2	Bi		1,816,454.86	0.61	81.1	Pulse	0.30	3
3	Sc		183,211.49	0.44	84.6	Pulse	0.30	3
3	Ge		118,238.12	0.07	84.3	Pulse	0.30	3
3	Ge		177,813.73	0.99	84.1	Pulse	0.30	3
3	Rh		1,827,412.43	0.12	83.8	Pulse	0.30	3
3	Tb		3,112,864.81	0.17	85.0	Pulse	0.30	3

Quantitation Report

File Name	127SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 20:42
Sample Name	jc94499-24
Sample Type	Sample
Comment	fb
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.022	ug/l	20.58	86.67	7.848E-05	Pulse	0.25	3
B			1	3.808	ug/l	1.52	14,112.75	1.277E-02	Pulse	0.15	3
Ca			1	30.015	ug/l	4.18	21,124.22	9.407E-03	Pulse	0.10	3
Sr			1	0.282	ug/l	5.22	6,351.50	1.976E-03	Pulse	0.10	3
Mo			1	0.222	ug/l	15.68	1,026.74	3.194E-04	Pulse	0.10	3
Ag			1	0.005	ug/l	59.12	76.67	2.302E-05	Pulse	0.10	3
Sn			1	0.349	ug/l	7.73	4,864.27	1.459E-03	Pulse	0.10	3
Sb			1	0.087	ug/l	18.12	936.73	2.016E-04	Pulse	0.10	3
Ba			1	0.517	ug/l	4.54	1,690.17	3.639E-04	Pulse	0.10	3
Tl			1	0.003	ug/l	91.99	256.68	9.359E-05	Pulse	0.10	3
Pb			1	0.074	ug/l	9.37	700.05	2.553E-04	Pulse	0.10	3
Pb			1	0.083	ug/l	38.98	666.71	2.435E-04	Pulse	0.10	3
Pb			1	0.065	ug/l	6.50	2,700.20	9.846E-04	Pulse	0.10	3
Na			2	37.564	ug/l	2.47	31,037.39	2.356E-01	Pulse	0.30	3
Mg			2	2.100	ug/l	10.49	818.92	6.216E-03	Pulse	0.30	3
Al			2	29.925	ug/l	1.35	3,249.25	2.466E-02	Pulse	0.30	3
K			2	7.851	ug/l	12.94	13,031.85	9.893E-02	Pulse	0.30	3
Ca			2	36.345	ug/l	5.20	490.01	3.720E-03	Pulse	0.30	3
Ti			2	0.155	ug/l	92.60	14.44	1.097E-04	Pulse	0.30	3
V			2	0.108	ug/l	12.42	531.13	4.032E-03	Pulse	0.30	3
Cr			2	0.331	ug/l	9.25	1,901.25	1.443E-02	Pulse	0.30	3
Mn			2	0.371	ug/l	3.86	785.58	5.963E-03	Pulse	0.30	3
Fe			2	5.737	ug/l	0.67	20,135.74	1.528E-01	Pulse	0.30	3
Co			2	0.014	ug/l	27.02	118.84	9.018E-04	Pulse	0.30	3
Ni			2	0.174	ug/l	22.02	382.23	2.901E-03	Pulse	0.30	3
Cu			2	0.247	ug/l	12.11	7,612.96	5.779E-02	Pulse	0.30	3
Zn			2	4.663	ug/l	8.92	3,898.29	2.959E-02	Pulse	0.30	3
As			2	0.109	ug/l	29.58	54.00	4.101E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.009	ug/l	24.52	18.81	2.329E-05	Pulse	0.30	3
Sn			2	0.282	ug/l	9.65	1,498.98	1.856E-03	Pulse	0.30	3
Se			3	0.034	ug/l	42.85	6.40	3.627E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,105,565.39	1.21	88.5	Pulse	0.10	3
1	Sc		2,245,832.73	1.07	79.8	Pulse	0.10	3
1	Ge		495,520.68	0.48	86.9	Pulse	0.10	3
1	Ge		685,462.70	0.31	86.4	Pulse	0.10	3
1	Rh		3,214,266.93	0.69	83.5	Pulse	0.10	3
1	In		3,334,323.51	0.97	83.7	Pulse	0.10	3
1	Tb		4,645,365.45	1.34	83.9	Pulse	0.10	3
1	Ho		460,085.31	1.31	83.6	Pulse	0.10	3
1	Bi		2,742,659.75	0.93	82.2	Pulse	0.10	3
2	Sc		131,736.28	0.29	82.0	Pulse	0.30	3
2	Ge		88,572.51	0.82	89.0	Pulse	0.30	3
2	Ge		133,004.28	1.41	88.7	Pulse	0.30	3
2	Rh		2,012,553.67	0.11	82.7	Pulse	0.30	3
2	In		807,737.35	0.04	83.1	Pulse	0.30	3
2	Tb		2,691,336.91	0.30	82.2	Pulse	0.30	3
2	Ho		273,696.34	0.57	81.9	Pulse	0.30	3
2	Bi		1,810,059.72	0.27	80.8	Pulse	0.30	3
3	Sc		178,798.31	1.46	82.5	Pulse	0.30	3
3	Ge		117,102.21	1.26	83.5	Pulse	0.30	3
3	Ge		176,549.61	0.49	83.5	Pulse	0.30	3
3	Rh		1,808,044.37	1.16	82.9	Pulse	0.30	3
3	Tb		3,073,959.04	1.58	83.9	Pulse	0.30	3

Quantitation Report

File Name 128SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 20:47
Sample Name jc94499-25
Sample Type Sample
Comment fb
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	42.05	36.00	3.286E-05	Pulse	0.25	3
B			1	3.305	ug/l	1.52	12,936.29	1.181E-02	Pulse	0.15	3
Ca			1	52.445	ug/l	4.87	29,640.55	1.321E-02	Pulse	0.10	3
Sr			1	1.279	ug/l	3.01	27,450.93	8.611E-03	Pulse	0.10	3
Mo			1	0.039	ug/l	17.86	293.35	9.194E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	24.79	66.67	2.002E-05	Pulse	0.10	3
Sn			1	0.269	ug/l	17.65	4,337.42	1.303E-03	Pulse	0.10	3
Sb			1	0.094	ug/l	3.87	990.07	2.130E-04	Pulse	0.10	3
Ba			1	1.183	ug/l	4.07	3,777.26	8.125E-04	Pulse	0.10	3
Tl			1	0.001	ug/l	309.80	220.01	8.051E-05	Pulse	0.10	3
Pb			1	0.046	ug/l	16.34	526.70	1.924E-04	Pulse	0.10	3
Pb			1	0.036	ug/l	62.80	410.02	1.494E-04	Pulse	0.10	3
Pb			1	0.042	ug/l	16.48	2,103.48	7.683E-04	Pulse	0.10	3
Na			2	33.591	ug/l	1.12	28,658.75	2.185E-01	Pulse	0.30	3
Mg			2	2.873	ug/l	6.64	1,017.82	7.760E-03	Pulse	0.30	3
Al			2	0.645	ug/l	43.79	626.69	4.776E-03	Pulse	0.30	3
K			2	12.440	ug/l	5.07	13,969.29	1.065E-01	Pulse	0.30	3
Ca			2	65.353	ug/l	17.13	803.36	6.131E-03	Pulse	0.30	3
Ti			2	0.198	ug/l	85.37	17.78	1.361E-04	Pulse	0.30	3
V			2	0.124	ug/l	3.70	572.24	4.363E-03	Pulse	0.30	3
Cr			2	0.339	ug/l	6.79	1,917.91	1.462E-02	Pulse	0.30	3
Mn			2	0.209	ug/l	9.16	492.24	3.753E-03	Pulse	0.30	3
Fe			2	2.756	ug/l	4.49	12,280.24	9.363E-02	Pulse	0.30	3
Co			2	0.042	ug/l	14.02	265.53	2.023E-03	Pulse	0.30	3
Ni			2	0.430	ug/l	16.94	735.58	5.612E-03	Pulse	0.30	3
Cu			2	2.496	ug/l	4.46	16,047.95	1.224E-01	Pulse	0.30	3
Zn			2	2.548	ug/l	12.53	2,675.81	2.040E-02	Pulse	0.30	3
As			2	0.093	ug/l	48.53	48.67	3.705E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.008	ug/l	-44.01	3.31	4.107E-06	Pulse	0.30	3
Sn			2	0.204	ug/l	21.94	1,338.96	1.663E-03	Pulse	0.30	3
Se			3	0.048	ug/l	32.26	7.67	4.375E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,095,025.17	0.85	87.7	Pulse	0.10	3
1	Sc		2,243,114.60	1.07	79.7	Pulse	0.10	3
1	Ge		494,765.80	1.62	86.7	Pulse	0.10	3
1	Ge		682,778.58	1.72	86.0	Pulse	0.10	3
1	Rh		3,188,472.97	1.24	82.8	Pulse	0.10	3
1	In		3,327,479.49	1.26	83.5	Pulse	0.10	3
1	Tb		4,648,323.89	1.26	83.9	Pulse	0.10	3
1	Ho		458,273.47	1.42	83.3	Pulse	0.10	3
1	Bi		2,737,014.13	1.72	82.0	Pulse	0.10	3
2	Sc		131,174.71	1.08	81.6	Pulse	0.30	3
2	Ge		87,354.89	0.62	87.8	Pulse	0.30	3
2	Ge		131,858.12	0.65	87.9	Pulse	0.30	3
2	Rh		2,006,785.61	0.95	82.4	Pulse	0.30	3
2	In		805,004.10	0.40	82.8	Pulse	0.30	3
2	Tb		2,671,041.49	0.68	81.6	Pulse	0.30	3
2	Ho		272,098.10	0.91	81.4	Pulse	0.30	3
2	Bi		1,802,792.50	0.49	80.5	Pulse	0.30	3
3	Sc		177,321.21	1.55	81.8	Pulse	0.30	3
3	Ge		116,217.30	0.98	82.9	Pulse	0.30	3
3	Ge		174,909.25	1.74	82.7	Pulse	0.30	3
3	Rh		1,807,846.25	1.36	82.9	Pulse	0.30	3
3	Tb		3,098,059.25	1.78	84.6	Pulse	0.30	3

Quantitation Report

File Name 129SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 20:52
Sample Name mp17239-b1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	61.735	ug/l	0.94	187,093.60	1.661E-01	Pulse	0.25	3
B			1	65.330	ug/l	0.80	145,485.64	1.292E-01	Pulse	0.15	3
Ca			1	3757.415	ug/l	0.68	1,466,933.83	6.418E-01	Pulse	0.10	3
Sr			1	72.697	ug/l	0.04	1,547,077.58	4.838E-01	Pulse	0.10	3
Mo			1	72.743	ug/l	1.24	289,072.56	9.041E-02	Pulse	0.10	3
Ag			1	70.903	ug/l	1.23	714,995.67	2.134E-01	Pulse	0.10	3
Sn			1	72.038	ug/l	0.32	469,973.21	1.403E-01	Pulse	0.10	3
Sb			1	73.957	ug/l	1.26	557,818.13	1.183E-01	Pulse	0.10	3
Ba			1	71.896	ug/l	1.13	228,325.08	4.842E-02	Pulse	0.10	3
Tl			1	70.848	ug/l	0.94	1,289,428.32	4.721E-01	Pulse	0.10	3
Pb			1	73.701	ug/l	0.74	463,419.81	1.697E-01	Pulse	0.10	3
Pb			1	74.309	ug/l	0.84	411,193.44	1.505E-01	Pulse	0.10	3
Pb			1	73.607	ug/l	0.57	1,870,718.18	6.849E-01	Pulse	0.10	3
Na			2	3601.246	ug/l	0.53	2,088,896.10	1.558E+01	Pulse	0.30	3
Mg			2	3535.863	ug/l	0.68	946,182.95	7.059E+00	Pulse	0.30	3
Al			2	3519.647	ug/l	0.49	321,035.46	2.395E+00	Pulse	0.30	3
K			2	3660.526	ug/l	0.96	819,989.53	6.118E+00	Pulse	0.30	3
Ca			2	3935.731	ug/l	1.91	43,946.70	3.279E-01	Pulse	0.30	3
Ti			2	69.886	ug/l	1.74	5,788.86	4.318E-02	Pulse	0.30	3
V			2	71.262	ug/l	1.20	191,478.79	1.429E+00	Pulse	0.30	3
Cr			2	70.464	ug/l	0.52	240,580.36	1.795E+00	Pulse	0.30	3
Mn			2	70.906	ug/l	0.97	129,399.24	9.654E-01	Pulse	0.30	3
Fe			2	3991.188	ug/l	0.92	10,632,400.41	7.932E+01	Analog	0.30	3
Co			2	70.608	ug/l	0.87	378,707.90	2.825E+00	Pulse	0.30	3
Ni			2	70.214	ug/l	0.47	99,610.53	7.431E-01	Pulse	0.30	3
Cu			2	69.575	ug/l	0.72	274,517.94	2.048E+00	Pulse	0.30	3
Zn			2	62.901	ug/l	1.85	37,890.43	2.827E-01	Pulse	0.30	3
As			2	68.713	ug/l	0.86	23,011.49	1.717E-01	Pulse	1.00	3
Cd			2	67.587	ug/l	0.67	61,768.94	7.678E-02	Pulse	0.30	3
Sn			2	71.814	ug/l	0.91	144,724.45	1.799E-01	Pulse	0.30	3
Se			3	339.168	ug/l	0.49	30,375.85	1.715E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,126,073.87	0.65	90.2	Pulse	0.10	3
1	Sc		2,285,694.40	0.61	81.3	Pulse	0.10	3
1	Ge		492,264.34	0.66	86.3	Pulse	0.10	3

Quantitation Report

1	Ge		684,215.69	0.71	86.2	Pulse	0.10	3
1	Rh		3,197,544.02	1.31	83.1	Pulse	0.10	3
1	In		3,350,471.10	1.56	84.1	Pulse	0.10	3
1	Tb		4,715,739.41	1.08	85.2	Pulse	0.10	3
1	Ho		464,621.01	0.95	84.5	Pulse	0.10	3
1	Bi		2,731,538.60	1.47	81.8	Pulse	0.10	3
2	Sc		134,043.96	0.65	83.4	Pulse	0.30	3
2	Ge		87,216.53	0.44	87.6	Pulse	0.30	3
2	Ge		130,702.55	0.91	87.2	Pulse	0.30	3
2	Rh		2,008,632.07	0.41	82.5	Pulse	0.30	3
2	In		804,521.47	0.20	82.8	Pulse	0.30	3
2	Tb		2,694,940.03	0.66	82.3	Pulse	0.30	3
2	Ho		275,901.90	0.21	82.5	Pulse	0.30	3
2	Bi		1,786,973.96	0.05	79.8	Pulse	0.30	3
3	Sc		181,582.03	0.86	83.8	Pulse	0.30	3
3	Ge		116,869.74	0.88	83.3	Pulse	0.30	3
3	Ge		177,134.75	0.36	83.7	Pulse	0.30	3
3	Rh		1,820,306.66	0.46	83.4	Pulse	0.30	3
3	Tb		3,167,831.82	0.73	86.5	Pulse	0.30	3

Quantitation Report

File Name	130_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 20:57
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	44.784	ug/l	17.61	288,270.89	2.410E-01	Pulse	0.25	3
B			1	83.842	ug/l	19.18	385,627.49	3.229E-01	Pulse	0.15	3
Ca			1	5056.154	ug/l	23.64	4,150,018.59	1.720E+00	Pulse	0.10	3
Sr			1	51.210	ug/l	26.23	2,250,511.79	6.816E-01	Pulse	0.10	3
Mo			1	50.468	ug/l	26.01	414,171.56	1.254E-01	Pulse	0.10	3
Ag			1	48.325	ug/l	26.05	1,006,252.15	2.909E-01	Pulse	0.10	3
Sn			1	48.989	ug/l	26.34	658,773.54	1.905E-01	Pulse	0.10	3
Sb			1	52.902	ug/l	26.14	809,634.42	1.692E-01	Pulse	0.10	3
Ba			1	50.787	ug/l	26.05	327,212.13	6.840E-02	Pulse	0.10	3
Tl			1	50.774	ug/l	20.32	1,820,497.94	6.766E-01	Pulse	0.10	3
Pb			1	50.704	ug/l	20.84	627,547.83	2.334E-01	Pulse	0.10	3
Pb			1	51.015	ug/l	20.72	555,903.73	2.067E-01	Pulse	0.10	3
Pb			1	50.685	ug/l	20.83	2,535,788.52	9.431E-01	Pulse	0.10	3
Na			2	5101.934	ug/l	2.08	6,240,690.03	4.402E+01	Analog	0.30	3
Mg			2	4794.394	ug/l	1.64	2,713,461.98	1.914E+01	Pulse	0.30	3
Al			2	4830.401	ug/l	1.44	930,954.34	6.566E+00	Pulse	0.30	3
K			2	4974.897	ug/l	1.01	2,336,612.06	1.648E+01	Pulse	0.30	3
Ca			2	5203.569	ug/l	0.97	122,757.77	8.658E-01	Pulse	0.30	3
Ti			2	50.635	ug/l	4.81	8,868.02	6.257E-02	Pulse	0.30	3
V			2	50.420	ug/l	0.62	286,508.57	2.021E+00	Pulse	0.30	3
Cr			2	49.246	ug/l	1.07	355,345.37	2.506E+00	Pulse	0.30	3
Mn			2	49.695	ug/l	1.37	191,802.44	1.353E+00	Pulse	0.30	3
Fe			2	5226.279	ug/l	1.50	29,443,062.16	2.077E+02	Analog	0.30	3
Co			2	48.521	ug/l	0.80	550,536.61	3.883E+00	Pulse	0.30	3
Ni			2	48.257	ug/l	1.71	144,761.51	1.021E+00	Pulse	0.30	3
Cu			2	47.576	ug/l	1.03	394,462.42	2.782E+00	Pulse	0.30	3
Zn			2	48.990	ug/l	1.71	61,686.29	4.351E-01	Pulse	0.30	3
As			2	50.311	ug/l	0.76	35,635.28	2.513E-01	Pulse	1.00	3
Cd			2	49.042	ug/l	0.67	92,957.66	1.114E-01	Pulse	0.30	3
Sn			2	49.435	ug/l	1.46	206,256.04	2.472E-01	Pulse	0.30	3
Se			3	199.720	ug/l	0.44	35,121.63	2.020E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,221,985.67	18.24	97.8	Pulse	0.10	3
1	Sc		2,505,844.39	24.00	89.1	Pulse	0.10	3
1	Ge		499,407.02	18.09	87.6	Pulse	0.10	3

Quantitation Report

1	Ge		695,510.07	18.64	87.6	Pulse	0.10	3
1	Rh		3,467,416.30	27.74	90.1	Mix	0.10	3
1	In		3,636,977.34	28.66	91.3	Mix	0.10	3
1	Tb		5,027,319.30	28.15	90.8	Mix	0.10	3
1	Ho		477,826.30	23.70	86.9	Pulse	0.10	3
1	Bi		2,769,690.79	21.34	83.0	Pulse	0.10	3
2	Sc		141,792.70	1.33	88.2	Pulse	0.30	3
2	Ge		85,920.84	0.39	86.3	Pulse	0.30	3
2	Ge		130,753.95	0.65	87.2	Pulse	0.30	3
2	Rh		2,021,067.84	0.51	83.0	Pulse	0.30	3
2	In		834,335.64	0.75	85.9	Pulse	0.30	3
2	Tb		2,749,360.59	0.54	84.0	Pulse	0.30	3
2	Ho		278,334.76	0.84	83.3	Pulse	0.30	3
2	Bi		1,789,554.17	0.55	79.9	Pulse	0.30	3
3	Sc		180,641.98	1.09	83.4	Pulse	0.30	3
3	Ge		114,524.09	0.41	81.6	Pulse	0.30	3
3	Ge		173,912.44	1.00	82.2	Pulse	0.30	3
3	Rh		1,753,621.60	0.90	80.4	Pulse	0.30	3
3	Tb		3,050,061.34	0.78	83.3	Pulse	0.30	3

Quantitation Report

File Name 131_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File
Method Path
Acq Time 9/11/2019 21:02
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/11/2019 11:44
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	32.01	86.67	7.553E-05	Pulse	0.25	3
B			1	3.731	ug/l	2.01	22,608.58	1.968E-02	Pulse	0.15	3
Ca			1	0.246	ug/l	105.82	10,100.08	4.398E-03	Pulse	0.10	3
Sr			1	0.017	ug/l	9.33	1,040.07	3.312E-04	Pulse	0.10	3
Mo			1	0.092	ug/l	23.54	853.39	2.716E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	25.08	280.01	8.585E-05	Pulse	0.10	3
Sn			1	0.136	ug/l	13.74	4,270.75	1.308E-03	Pulse	0.10	3
Sb			1	0.066	ug/l	6.58	1,220.10	2.754E-04	Pulse	0.10	3
Ba			1	0.015	ug/l	83.74	160.01	3.613E-05	Pulse	0.10	3
Tl			1	0.027	ug/l	8.65	1,120.08	4.335E-04	Pulse	0.10	3
Pb			1	0.042	ug/l	25.47	723.38	2.797E-04	Pulse	0.10	3
Pb			1	0.046	ug/l	34.72	680.05	2.638E-04	Pulse	0.10	3
Pb			1	0.041	ug/l	5.80	2,926.90	1.133E-03	Pulse	0.10	3
Na			2	4.576	ug/l	4.65	15,314.79	1.132E-01	Pulse	0.30	3
Mg			2	0.800	ug/l	14.87	705.58	5.217E-03	Pulse	0.30	3
Al			2	1.656	ug/l	8.14	891.15	6.588E-03	Pulse	0.30	3
K			2	2.062	ug/l	5.78	12,550.36	9.279E-02	Pulse	0.30	3
Ca			2	3.646	ug/l	59.20	176.67	1.305E-03	Pulse	0.30	3
Ti			2	0.055	ug/l	82.64	11.11	8.199E-05	Pulse	0.30	3
V			2	-0.012	ug/l	-23.75	190.00	1.405E-03	Pulse	0.30	3
Cr			2	-0.010	ug/l	-33.05	745.58	5.512E-03	Pulse	0.30	3
Mn			2	0.005	ug/l	154.60	141.12	1.043E-03	Pulse	0.30	3
Fe			2	1.220	ug/l	6.06	11,816.57	8.735E-02	Pulse	0.30	3
Co			2	0.008	ug/l	3.23	135.53	1.002E-03	Pulse	0.30	3
Ni			2	0.018	ug/l	63.88	195.56	1.447E-03	Pulse	0.30	3
Cu			2	-0.458	ug/l	-3.46	3,297.03	2.438E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.199	ug/l	-18.23	1,027.82	7.601E-03	Pulse	0.30	3
As			2	0.026	ug/l	45.87	36.00	2.665E-04	Pulse	1.00	3
Cd			2	0.007	ug/l	26.27	23.27	2.884E-05	Pulse	0.30	3
Sn			2	0.167	ug/l	22.79	1,602.36	1.986E-03	Pulse	0.30	3
Se			3	0.119	ug/l	8.41	23.20	1.400E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,148,827.82	0.85	92.0	Pulse	0.10	3
1	Sc		2,296,447.21	0.63	81.6	Pulse	0.10	3
1	Ge		464,826.69	0.21	81.5	Pulse	0.10	3
1	Ge		646,496.14	0.98	81.4	Pulse	0.10	3
1	Rh		3,140,398.71	0.75	81.6	Pulse	0.10	3
1	In		3,265,458.19	0.93	81.9	Pulse	0.10	3
1	Tb		4,430,187.23	0.18	80.0	Pulse	0.10	3
1	Ho		435,304.54	0.26	79.1	Pulse	0.10	3
1	Bi		2,582,283.04	1.28	77.3	Pulse	0.10	3
2	Sc		135,261.80	1.01	84.2	Pulse	0.30	3
2	Ge		82,106.97	1.17	82.5	Pulse	0.30	3
2	Ge		124,103.71	1.20	82.8	Pulse	0.30	3
2	Rh		1,981,057.70	1.07	81.4	Pulse	0.30	3
2	In		806,453.61	0.52	83.0	Pulse	0.30	3
2	Tb		2,596,977.61	1.21	79.3	Pulse	0.30	3
2	Ho		264,033.05	0.48	79.0	Pulse	0.30	3
2	Bi		1,740,578.65	1.09	77.7	Pulse	0.30	3
3	Sc		171,286.76	1.68	79.1	Pulse	0.30	3
3	Ge		109,860.51	1.90	78.3	Pulse	0.30	3
3	Ge		165,664.35	1.22	78.3	Pulse	0.30	3
3	Rh		1,724,710.04	1.93	79.1	Pulse	0.30	3
3	Tb		2,918,816.41	1.58	79.7	Pulse	0.30	3

Quantitation Report

File Name	132SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Method File	
Method Path	
Acq Time	9/11/2019 21:07
Sample Name	mp17239-s1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/11/2019 11:44
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

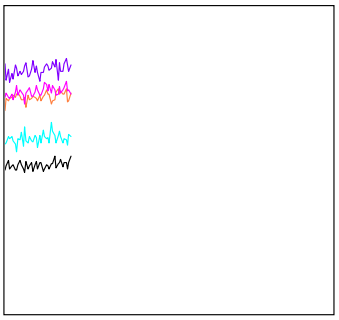
Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	71.194	ug/l	0.48	207,671.86	1.916E-01	Pulse	0.25	3
B			1	2688.429	ug/l	1.30	5,520,952.98	5.093E+00	Analog	0.15	3
Ca			1	261818.902	ug/l	0.67	117,023,828.26	4.443E+01	Analog	0.10	3
Sr			1	5895.933	ug/l	0.30	96,517,318.56	3.923E+01	Analog	0.10	3
Mo			1	95.068	ug/l	0.86	290,662.12	1.181E-01	Pulse	0.10	3
Ag			1	61.437	ug/l	0.28	497,631.31	1.849E-01	Pulse	0.10	3
Sn			1	70.957	ug/l	0.61	371,851.84	1.382E-01	Pulse	0.10	3
Sb			1	72.367	ug/l	0.17	439,128.73	1.158E-01	Pulse	0.10	3
Ba			1	109.577	ug/l	1.06	279,901.66	7.379E-02	Pulse	0.10	3
Tl			1	77.496	ug/l	0.53	916,790.77	5.164E-01	Pulse	0.10	3
Pb			1	82.607	ug/l	0.94	337,594.06	1.902E-01	Pulse	0.10	3
Pb			1	82.650	ug/l	0.14	297,275.42	1.674E-01	Pulse	0.10	3
Pb			1	82.309	ug/l	0.24	1,359,660.53	7.658E-01	Pulse	0.10	3
Na			2	OR	ug/l	---	OR	1.824E+04	Error	0.30	3
Mg			2	741758.009	ug/l	1.09	263,555,251.75	1.480E+03	Analog	0.30	3
Al			2	4180.407	ug/l	0.55	506,183.00	2.844E+00	Pulse	0.30	3
K			2	259910.405	ug/l	0.50	76,251,510.30	4.283E+02	Analog	0.30	3
Ca			2	269850.221	ug/l	0.15	3,993,080.12	2.243E+01	Pulse	0.30	3
Ti			2	85.834	ug/l	2.64	9,437.24	5.303E-02	Pulse	0.30	3
V			2	72.570	ug/l	0.97	258,928.83	1.455E+00	Pulse	0.30	3
Cr			2	62.410	ug/l	0.63	283,064.02	1.590E+00	Pulse	0.30	3
Mn			2	161.189	ug/l	0.28	390,423.81	2.193E+00	Pulse	0.30	3
Fe			2	4013.144	ug/l	1.14	14,196,280.82	7.976E+01	Analog	0.30	3
Co			2	53.346	ug/l	1.23	379,931.47	2.135E+00	Pulse	0.30	3
Ni			2	50.230	ug/l	0.97	94,675.91	5.319E-01	Pulse	0.30	3
Cu			2	55.222	ug/l	3.62	291,069.34	1.636E+00	Pulse	0.30	3
Zn			2	46.938	ug/l	2.08	37,957.21	2.133E-01	Pulse	0.30	3
As			2	54.307	ug/l	1.23	24,161.46	1.357E-01	Pulse	1.00	3
Cd			2	54.294	ug/l	1.45	45,661.83	6.168E-02	Pulse	0.30	3
Sn			2	69.564	ug/l	0.49	129,022.65	1.743E-01	Pulse	0.30	3
Se			3	313.041	ug/l	1.22	24,419.20	1.583E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,083,873.74	1.00	86.8	Pulse	0.10	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	2888	2849.5	3.27
59	5000	4044	3968.6	2.51
89	10000	7168	7043.9	2.12
140	10000	7149	7220.5	2.21
205	10000	5132	4826.0	2.71
156/140	1	0.853 %	0.707 %	12.90
70/140	20	11.319 %	9.556 %	20.34
9	20	5	2.3	87.37
11	2000	1312	1337.6	3.64
88	200	107	100.4	11.67
95	20	7	7.4	37.30
107	20	3	3.4	55.49
121	100	68	69.7	13.91
137	50	23	20.8	21.93
208	100	35	40.0	17.73
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-24	V
Extract 2	-150.0	V	Cell Exit	-60	V
Omega Bias	-65	V	Deflect	14.0	V
Omega Lens	7.2	V	Plate Bias	-45	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.59E+2	Pa	Internal Temp	26.7	℃
Water RF/WC/IF	1.28	L/min	S/C Temp (L)	1.6	℃
Carrier Gas(BP)	1.42E+2	kPa			

US EPA Tune Check Sample Report

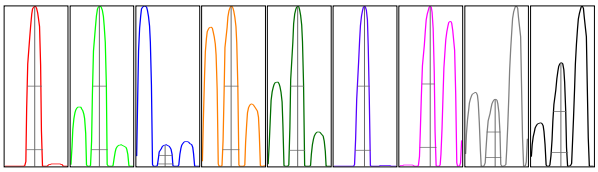
Batch Folder C:\Agilent\ICPMH\1\DATA\xa091119m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	86141	0.77	5.00	
24	363749	0.70	5.00	
25	47625	0.64	5.00	
26	55685	0.40	5.00	
59	441600	0.30	5.00	
115	697798	0.39	5.00	
206	176723	0.35	5.00	
207	162266	0.51	5.00	
208	382388	0.61	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	85341	85689	86057	86751	86868
24	360559	362742	363012	365161	367271
25	47174	47900	47451	47795	47805
26	55531	55592	55467	56006	55826
59	439855	441357	440902	442940	442944
115	697125	700531	696689	700478	694169
206	176945	177658	176646	176174	176191
207	162625	163478	161862	162091	161273
208	385115	384687	381153	380497	380486

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	13989	8.95	8.9 - 9.1		0.766	0.900	
24	58916	23.90	23.9 - 24.1		0.758	0.900	
25	7803	24.90	24.9 - 25.1		0.732	0.900	
26	9035	25.90	25.9 - 26.1		0.759	0.900	
59	75759	58.95	58.9 - 59.1		0.720	0.900	
115	126734	115.00	114.9 - 115.1		0.710	0.900	
206	30865	206.00	205.9 - 206.1		0.755	0.900	
207	27912	206.95	206.9 - 207.1		0.722	0.900	
208	66782	207.95	207.9 - 208.1		0.752	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

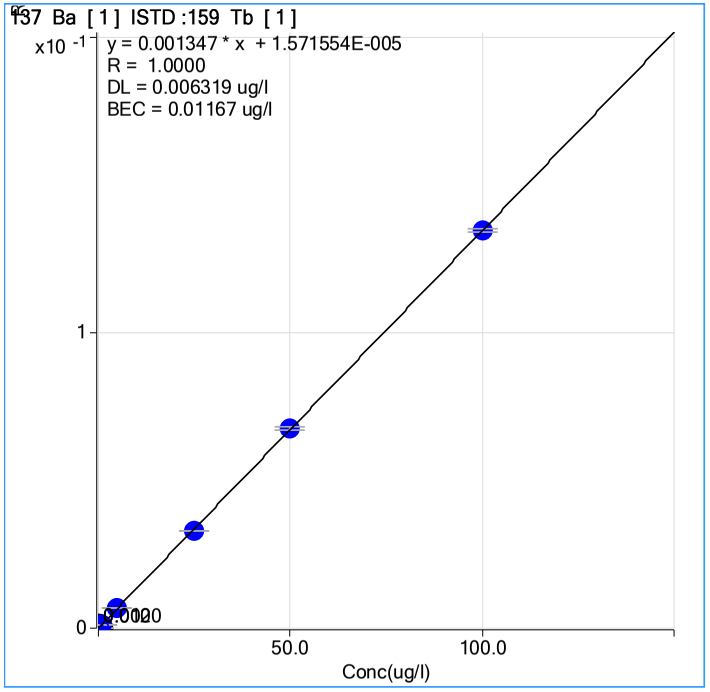
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.2	V			
Extract 2	-150.0	V	Cell Entrance	-24	V			
Omega Bias	-65	V	Cell Exit	-60	V			
Deflect	14.0	V						

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						


137 Ba [1] ISTD :159 Tb [1]
x10 -1
y = 0.001347 * x + 1.571554E-005
R = 1.0000
DL = 0.006319 ug/l
BEC = 0.01167 ug/l
1
0
50.0
100.0
Conc(ug/l)

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 10:24
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	185.47	14.67	1.330E-05	Pulse	0.25	3
B			1	0.528	ug/l	38.01	13,850.35	1.256E-02	Pulse	0.15	3
Ca			1	-0.366	ug/l	-177.85	6,478.20	3.023E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-4159.86	396.69	1.256E-04	Pulse	0.10	3
Mo			1	0.003	ug/l	90.06	40.00	1.267E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	72637.86	26.67	7.988E-06	Pulse	0.10	3
Sn			1	0.002	ug/l	605.16	1,933.55	5.800E-04	Pulse	0.10	3
Sb			1	0.003	ug/l	33.06	203.34	4.307E-05	Pulse	0.10	3
Ba			1	-0.007	ug/l	-49.15	60.00	1.271E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-133.39	170.01	5.924E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	121.09	263.35	9.191E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	341.74	203.34	7.100E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	111.80	933.38	3.257E-04	Pulse	0.10	3
Na			2	-0.222	ug/l	-57.44	10,764.63	8.571E-02	Pulse	0.30	3
Mg			2	0.060	ug/l	43.33	296.67	2.362E-03	Pulse	0.30	3
Al			2	-2.920	ug/l	-9.14	428.90	3.415E-03	Pulse	0.30	3
K			2	-0.598	ug/l	-36.75	10,428.90	8.303E-02	Pulse	0.30	3
Ca			2	-2.554	ug/l	-31.18	82.22	6.544E-04	Pulse	0.30	3
Ti			2	0.022	ug/l	152.66	4.44	3.555E-05	Pulse	0.30	3
V			2	0.004	ug/l	197.38	338.90	2.698E-03	Pulse	0.30	3
Cr			2	0.001	ug/l	821.83	500.01	3.981E-03	Pulse	0.30	3
Mn			2	0.001	ug/l	753.46	143.34	1.140E-03	Pulse	0.30	3
Fe			2	-0.051	ug/l	-64.89	2,659.15	2.117E-02	Pulse	0.30	3
Co			2	0.001	ug/l	136.36	41.10	3.269E-04	Pulse	0.30	3
Ni			2	0.002	ug/l	324.30	155.56	1.238E-03	Pulse	0.30	3
Cu			2	-0.140	ug/l	-12.73	2,756.94	2.195E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.345	ug/l	-15.72	793.36	6.318E-03	Pulse	0.30	3
As			2	0.011	ug/l	34.58	20.33	1.619E-04	Pulse	1.00	3
Cd			2	-0.005	ug/l	-100.27	11.11	1.351E-05	Pulse	0.30	3
Sn			2	0.004	ug/l	351.82	608.91	7.375E-04	Pulse	0.30	3
Se			3	-0.006	ug/l	-131.41	5.27	3.402E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,103,008.67	0.41	100.0	Pulse	0.10	3
1	Sc		2,142,016.32	0.93	100.0	Pulse	0.10	3
1	Ge		456,156.48	0.61	100.0	Pulse	0.10	3
1	Ge		631,603.13	0.95	100.0	Pulse	0.10	3
1	Rh		3,158,890.99	0.26	100.0	Pulse	0.10	3
1	In		3,332,025.31	0.97	100.0	Pulse	0.10	3
1	Tb		4,722,037.43	0.34	100.0	Pulse	0.10	3
1	Ho		467,963.82	1.50	100.0	Pulse	0.10	3
1	Bi		2,866,587.56	0.77	100.0	Pulse	0.10	3
2	Sc		125,601.44	0.68	100.0	Pulse	0.30	3
2	Ge		81,121.92	0.66	100.0	Pulse	0.30	3
2	Ge		122,505.08	0.85	100.0	Pulse	0.30	3
2	Rh		1,989,203.74	0.89	100.0	Pulse	0.30	3
2	In		825,262.54	0.70	100.0	Pulse	0.30	3
2	Tb		2,780,606.14	0.80	100.0	Pulse	0.30	3
2	Ho		283,693.10	0.92	100.0	Pulse	0.30	3
2	Bi		1,909,315.13	0.82	100.0	Pulse	0.30	3
3	Sc		148,151.78	0.66	100.0	Pulse	0.30	3
3	Ge		102,441.80	0.88	100.0	Pulse	0.30	3
3	Ge		154,572.51	1.05	100.0	Pulse	0.30	3
3	Rh		1,736,171.42	0.60	100.0	Pulse	0.30	3
3	Tb		3,166,291.68	0.41	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 10:29
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	23.87	38.67	3.494E-05	Pulse	0.25	3
B			1	0.188	ug/l	57.48	12,711.70	1.149E-02	Pulse	0.15	3
Ca			1	-0.078	ug/l	-425.71	6,594.95	3.121E-03	Pulse	0.10	3
Sr			1	0.001	ug/l	83.27	443.36	1.421E-04	Pulse	0.10	3
Mo			1	0.008	ug/l	40.46	83.34	2.671E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	18.55	56.67	1.728E-05	Pulse	0.10	3
Sn			1	0.012	ug/l	99.34	2,030.22	6.193E-04	Pulse	0.10	3
Sb			1	0.005	ug/l	93.76	233.35	5.014E-05	Pulse	0.10	3
Ba			1	0.008	ug/l	32.66	150.01	3.224E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	14.17	283.34	9.890E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	105.65	280.02	9.771E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	123.63	220.01	7.679E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	31.92	1,073.39	3.747E-04	Pulse	0.10	3
Na			2	1.716	ug/l	14.30	12,728.26	1.018E-01	Pulse	0.30	3
Mg			2	0.318	ug/l	20.46	420.01	3.360E-03	Pulse	0.30	3
Al			2	-2.647	ug/l	-13.39	472.23	3.779E-03	Pulse	0.30	3
K			2	-0.559	ug/l	-69.09	10,393.33	8.316E-02	Pulse	0.30	3
Ca			2	-2.530	ug/l	-44.94	82.23	6.585E-04	Pulse	0.30	3
Ti			2	-0.007	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	-0.003	ug/l	-257.99	304.45	2.435E-03	Pulse	0.30	3
Cr			2	0.002	ug/l	104.58	504.46	4.037E-03	Pulse	0.30	3
Mn			2	0.009	ug/l	121.41	167.78	1.341E-03	Pulse	0.30	3
Fe			2	0.313	ug/l	7.70	4,478.48	3.583E-02	Pulse	0.30	3
Co			2	0.003	ug/l	44.62	61.10	4.885E-04	Pulse	0.30	3
Ni			2	0.014	ug/l	116.72	184.45	1.477E-03	Pulse	0.30	3
Cu			2	-0.150	ug/l	-4.52	2,672.47	2.138E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.424	ug/l	-20.87	701.14	5.610E-03	Pulse	0.30	3
As			2	0.014	ug/l	96.24	22.33	1.784E-04	Pulse	1.00	3
Cd			2	-0.006	ug/l	-32.62	8.89	1.082E-05	Pulse	0.30	3
Sn			2	0.008	ug/l	315.23	622.24	7.584E-04	Pulse	0.30	3
Se			3	-0.017	ug/l	-30.88	3.53	2.298E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,106,442.65	0.30	100.0	Pulse	0.10	3
1	Sc		2,113,477.36	0.58	100.0	Pulse	0.10	3
1	Ge		442,603.11	1.20	100.0	Pulse	0.10	3
1	Ge		618,677.52	0.29	100.0	Pulse	0.10	3
1	Rh		3,121,654.64	0.32	100.0	Pulse	0.10	3
1	In		3,278,627.31	0.51	100.0	Pulse	0.10	3
1	Tb		4,651,840.14	0.59	100.0	Pulse	0.10	3
1	Ho		460,899.08	1.26	100.0	Pulse	0.10	3
1	Bi		2,865,059.75	0.23	100.0	Pulse	0.10	3
2	Sc		124,983.40	0.65	100.0	Pulse	0.30	3
2	Ge		80,229.04	0.62	100.0	Pulse	0.30	3
2	Ge		121,149.14	0.84	100.0	Pulse	0.30	3
2	Rh		1,975,413.04	0.26	100.0	Pulse	0.30	3
2	In		820,812.52	0.36	100.0	Pulse	0.30	3
2	Tb		2,769,018.50	0.72	100.0	Pulse	0.30	3
2	Ho		283,790.81	0.93	100.0	Pulse	0.30	3
2	Bi		1,911,849.92	0.57	100.0	Pulse	0.30	3
3	Sc		145,498.44	0.40	100.0	Pulse	0.30	3
3	Ge		101,879.44	0.20	100.0	Pulse	0.30	3
3	Ge		153,752.70	0.06	100.0	Pulse	0.30	3
3	Rh		1,744,902.19	0.70	100.0	Pulse	0.30	3
3	Tb		3,192,875.22	0.39	100.0	Pulse	0.30	3

Quantitation Report

File Name 003CALB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 10:37
Sample Name STDA
Sample Type CalBlk
Comment 0
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	---	13.33	1.216E-05	Pulse	0.25	3
B			1	0.000	ug/l	---	11,871.04	1.090E-02	Pulse	0.15	3
Ca			1	0.000	ug/l	---	6,598.25	3.147E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	1588.47	393.36	1.271E-04	Pulse	0.10	3
Mo			1	0.000	ug/l	-6090.33	20.00	6.455E-06	Pulse	0.10	3
Ag			1	0.000	ug/l	2096.29	26.67	8.291E-06	Pulse	0.10	3
Sn			1	0.001	ug/l	988.69	1,856.86	5.753E-04	Pulse	0.10	3
Sb			1	-0.001	ug/l	-66.24	143.34	3.103E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	2589.17	100.00	2.164E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	1175.60	203.34	7.134E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	1152.01	213.34	7.490E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	667.18	200.01	7.025E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	357.40	900.05	3.159E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	10,649.01	8.756E-02	Pulse	0.30	3
Mg			2	0.000	ug/l	---	261.11	2.128E-03	Pulse	0.30	3
Al			2	-2.811	ug/l	-7.01	434.46	3.561E-03	Pulse	0.30	3
K			2	0.555	ug/l	187.17	10,561.24	8.675E-02	Pulse	0.30	3
Ca			2	-0.523	ug/l	-170.81	122.23	9.969E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	1.11	8.817E-06	Pulse	0.30	3
V			2	0.000	ug/l	---	308.89	2.553E-03	Pulse	0.30	3
Cr			2	0.000	ug/l	---	477.79	3.939E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	135.56	1.104E-03	Pulse	0.30	3
Fe			2	-0.046	ug/l	-43.62	2,599.13	2.134E-02	Pulse	0.30	3
Co			2	0.000	ug/l	---	31.10	2.541E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	---	144.45	1.187E-03	Pulse	0.30	3
Cu			2	-0.148	ug/l	-18.49	2,612.46	2.149E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.352	ug/l	-7.06	763.36	6.254E-03	Pulse	0.30	3
As			2	0.000	ug/l	---	12.67	1.046E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	-3059.18	20.00	2.491E-05	Pulse	0.30	3
Sn			2	0.000	ug/l	---	577.80	7.194E-04	Pulse	0.30	3
Se			3	-0.013	ug/l	-75.43	4.00	2.620E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,089,774.52	1.57	100.0	Pulse	0.10	3
1	Sc		2,097,134.50	1.36	100.0	Pulse	0.10	3
1	Ge		439,074.90	0.59	100.0	Pulse	0.10	3
1	Ge		615,050.61	0.70	100.0	Pulse	0.10	3
1	Rh		3,094,731.73	0.68	100.0	Pulse	0.10	3
1	In		3,227,612.18	0.69	100.0	Pulse	0.10	3
1	Tb		4,619,683.58	0.29	100.0	Pulse	0.10	3
1	Ho		458,405.42	0.79	100.0	Pulse	0.10	3
1	Bi		2,849,778.19	0.70	100.0	Pulse	0.10	3
2	Sc		121,940.93	6.39	100.0	Pulse	0.30	3
2	Ge		78,896.76	4.46	100.0	Pulse	0.30	3
2	Ge		119,971.21	4.32	100.0	Pulse	0.30	3
2	Rh		1,922,469.71	5.66	100.0	Pulse	0.30	3
2	In		804,339.00	5.16	100.0	Pulse	0.30	3
2	Tb		2,681,384.20	5.29	100.0	Pulse	0.30	3
2	Ho		273,779.82	6.06	100.0	Pulse	0.30	3
2	Bi		1,866,288.12	5.01	100.0	Pulse	0.30	3
3	Sc		147,232.56	0.96	100.0	Pulse	0.30	3
3	Ge		101,598.77	0.95	100.0	Pulse	0.30	3
3	Ge		153,198.77	1.27	100.0	Pulse	0.30	3
3	Rh		1,736,180.80	0.58	100.0	Pulse	0.30	3
3	Tb		3,181,100.91	0.81	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 10:42
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.522	ug/l	7.96	2,621.57	2.361E-03	Pulse	0.25	3
B			1	23.766	ug/l	0.81	95,218.63	8.574E-02	Pulse	0.15	3
Ca			1	262.791	ug/l	0.99	195,342.13	9.217E-02	Pulse	0.10	3
Sr			1	4.908	ug/l	0.85	201,281.79	6.425E-02	Pulse	0.10	3
Mo			1	0.997	ug/l	4.72	7,642.14	2.439E-03	Pulse	0.10	3
Ag			1	0.459	ug/l	6.22	9,056.24	2.742E-03	Pulse	0.10	3
Sn			1	4.852	ug/l	2.39	63,887.08	1.935E-02	Pulse	0.10	3
Sb			1	2.075	ug/l	4.15	30,971.38	6.623E-03	Pulse	0.10	3
Ba			1	0.972	ug/l	0.90	6,164.81	1.318E-03	Pulse	0.10	3
Tl			1	0.509	ug/l	3.57	19,743.80	6.865E-03	Pulse	0.10	3
Pb			1	0.488	ug/l	7.55	6,658.40	2.316E-03	Pulse	0.10	3
Pb			1	0.479	ug/l	7.46	5,761.33	2.004E-03	Pulse	0.10	3
Pb			1	0.485	ug/l	2.81	26,850.62	9.337E-03	Pulse	0.10	3
Na			2	246.731	ug/l	0.38	275,923.01	2.140E+00	Pulse	0.30	3
Mg			2	252.451	ug/l	0.20	126,400.86	9.805E-01	Pulse	0.30	3
Al			2	22.716	ug/l	4.49	4,845.20	3.758E-02	Pulse	0.30	3
K			2	251.200	ug/l	0.21	115,489.81	8.958E-01	Pulse	0.30	3
Ca			2	274.773	ug/l	2.20	6,112.31	4.741E-02	Pulse	0.30	3
Ti			2	1.214	ug/l	12.18	193.34	1.500E-03	Pulse	0.30	3
V			2	0.959	ug/l	0.67	5,275.35	4.092E-02	Pulse	0.30	3
Cr			2	1.009	ug/l	4.04	7,080.49	5.492E-02	Pulse	0.30	3
Mn			2	0.981	ug/l	1.40	3,660.45	2.839E-02	Pulse	0.30	3
Fe			2	25.678	ug/l	1.04	136,664.25	1.060E+00	Pulse	0.30	3
Co			2	0.478	ug/l	0.62	4,989.33	3.870E-02	Pulse	0.30	3
Ni			2	1.020	ug/l	1.56	2,933.63	2.276E-02	Pulse	0.30	3
Cu			2	1.885	ug/l	1.51	17,745.29	1.376E-01	Pulse	0.30	3
Zn			2	5.074	ug/l	2.01	7,100.50	5.508E-02	Pulse	0.30	3
As			2	0.508	ug/l	7.20	355.68	2.759E-03	Pulse	1.00	3
Cd			2	0.494	ug/l	6.72	949.41	1.131E-03	Pulse	0.30	3
Sn			2	4.922	ug/l	0.52	21,171.07	2.522E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.495	ug/l	6.97	83.93	5.480E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,110,535.31	0.87	101.9	Pulse	0.10	3
1	Sc		2,119,354.50	0.78	101.1	Pulse	0.10	3
1	Ge		446,230.45	0.69	101.6	Pulse	0.10	3
1	Ge		621,262.50	0.56	101.0	Pulse	0.10	3
1	Rh		3,132,969.12	0.60	101.2	Pulse	0.10	3
1	In		3,302,431.68	0.18	102.3	Pulse	0.10	3
1	Tb		4,676,905.87	0.77	101.2	Pulse	0.10	3
1	Ho		466,976.73	0.40	101.9	Pulse	0.10	3
1	Bi		2,875,966.00	0.55	100.9	Pulse	0.10	3
2	Sc		128,918.77	0.16	105.7	Pulse	0.30	3
2	Ge		82,023.35	1.30	104.0	Pulse	0.30	3
2	Ge		123,029.36	0.64	102.5	Pulse	0.30	3
2	Rh		2,015,381.45	0.14	104.8	Pulse	0.30	3
2	In		839,456.15	0.76	104.4	Pulse	0.30	3
2	Tb		2,808,327.60	0.62	104.7	Pulse	0.30	3
2	Ho		287,882.31	0.81	105.2	Pulse	0.30	3
2	Bi		1,930,218.39	0.63	103.4	Pulse	0.30	3
3	Sc		144,855.52	0.75	98.4	Pulse	0.30	3
3	Ge		101,466.95	1.36	99.9	Pulse	0.30	3
3	Ge		153,104.18	1.27	99.9	Pulse	0.30	3
3	Rh		1,744,051.04	0.47	100.5	Pulse	0.30	3
3	Tb		3,201,155.78	0.32	100.6	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 10:47
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.061	ug/l	1.79	24,957.04	2.281E-02	Pulse	0.25	3
B			1	5.418	ug/l	5.05	30,590.21	2.796E-02	Pulse	0.15	3
Ca			1	6.775	ug/l	20.72	11,237.58	5.442E-03	Pulse	0.10	3
Sr			1	5.047	ug/l	0.91	200,728.55	6.606E-02	Pulse	0.10	3
Mo			1	5.102	ug/l	1.71	37,845.80	1.246E-02	Pulse	0.10	3
Ag			1	5.048	ug/l	1.71	95,889.57	3.010E-02	Pulse	0.10	3
Sn			1	5.147	ug/l	1.53	65,252.81	2.049E-02	Pulse	0.10	3
Sb			1	5.098	ug/l	2.01	73,924.74	1.622E-02	Pulse	0.10	3
Ba			1	5.084	ug/l	2.60	31,018.61	6.806E-03	Pulse	0.10	3
Tl			1	4.902	ug/l	0.79	185,032.54	6.553E-02	Pulse	0.10	3
Pb			1	4.932	ug/l	1.78	64,149.77	2.272E-02	Pulse	0.10	3
Pb			1	5.012	ug/l	1.35	57,388.88	2.033E-02	Pulse	0.10	3
Pb			1	4.969	ug/l	0.92	262,106.12	9.283E-02	Pulse	0.10	3
Na			2	4.978	ug/l	10.57	16,126.68	1.290E-01	Pulse	0.30	3
Mg			2	5.283	ug/l	6.91	2,826.94	2.260E-02	Pulse	0.30	3
Al			2	1.645	ug/l	8.49	1,187.84	9.499E-03	Pulse	0.30	3
K			2	4.539	ug/l	17.07	12,454.76	9.961E-02	Pulse	0.30	3
Ca			2	17.606	ug/l	10.85	506.68	4.053E-03	Pulse	0.30	3
Ti			2	5.052	ug/l	5.48	776.69	6.213E-03	Pulse	0.30	3
V			2	5.000	ug/l	1.62	25,331.74	2.026E-01	Pulse	0.30	3
Cr			2	5.078	ug/l	0.81	32,559.84	2.604E-01	Pulse	0.30	3
Mn			2	4.963	ug/l	1.93	17,403.77	1.392E-01	Pulse	0.30	3
Fe			2	6.020	ug/l	1.20	33,295.88	2.663E-01	Pulse	0.30	3
Co			2	5.018	ug/l	1.94	50,500.40	4.039E-01	Pulse	0.30	3
Ni			2	5.108	ug/l	1.43	13,654.69	1.092E-01	Pulse	0.30	3
Cu			2	4.968	ug/l	1.04	39,240.17	3.138E-01	Pulse	0.30	3
Zn			2	4.663	ug/l	1.59	6,423.55	5.138E-02	Pulse	0.30	3
As			2	5.060	ug/l	1.13	3,320.01	2.655E-02	Pulse	1.00	3
Cd			2	5.064	ug/l	1.27	9,419.89	1.135E-02	Pulse	0.30	3
Sn			2	5.055	ug/l	1.72	21,475.84	2.588E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	5.119	ug/l	0.78	808.29	5.298E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,094,266.81	0.66	100.4	Pulse	0.10	3
1	Sc		2,066,318.25	1.18	98.5	Pulse	0.10	3
1	Ge		433,304.38	0.98	98.7	Pulse	0.10	3
1	Ge		609,212.97	0.88	99.1	Pulse	0.10	3
1	Rh		3,038,335.37	0.61	98.2	Pulse	0.10	3
1	In		3,185,297.16	0.13	98.7	Pulse	0.10	3
1	Tb		4,558,017.43	0.38	98.7	Pulse	0.10	3
1	Ho		451,445.01	0.08	98.5	Pulse	0.10	3
1	Bi		2,823,539.75	0.11	99.1	Pulse	0.10	3
2	Sc		125,035.35	0.66	102.5	Pulse	0.30	3
2	Ge		81,648.17	1.73	103.5	Pulse	0.30	3
2	Ge		121,537.42	0.81	101.3	Pulse	0.30	3
2	Rh		1,975,253.04	0.46	102.7	Pulse	0.30	3
2	In		829,752.30	0.31	103.2	Pulse	0.30	3
2	Tb		2,770,394.89	0.53	103.3	Pulse	0.30	3
2	Ho		282,725.04	0.69	103.3	Pulse	0.30	3
2	Bi		1,911,106.38	0.86	102.4	Pulse	0.30	3
3	Sc		144,336.26	1.19	98.0	Pulse	0.30	3
3	Ge		100,875.53	0.45	99.3	Pulse	0.30	3
3	Ge		152,575.03	0.50	99.6	Pulse	0.30	3
3	Rh		1,747,751.18	0.80	100.7	Pulse	0.30	3
3	Tb		3,207,598.48	1.07	100.8	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 10:52
Sample Name	STDD
Sample Type	CalStd
Comment	25
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	24.985	ug/l	1.19	125,537.55	1.125E-01	Pulse	0.25	3
B			1	24.244	ug/l	3.76	97,306.61	8.725E-02	Pulse	0.15	3
Ca			1	36.739	ug/l	1.42	32,806.58	1.559E-02	Pulse	0.10	3
Sr			1	25.098	ug/l	0.57	1,016,789.96	3.280E-01	Pulse	0.10	3
Mo			1	24.963	ug/l	0.33	188,855.09	6.092E-02	Pulse	0.10	3
Ag			1	25.118	ug/l	0.95	487,229.71	1.498E-01	Pulse	0.10	3
Sn			1	24.960	ug/l	0.59	316,042.32	9.715E-02	Pulse	0.10	3
Sb			1	25.206	ug/l	0.45	371,894.93	8.007E-02	Pulse	0.10	3
Ba			1	24.854	ug/l	0.27	154,142.32	3.319E-02	Pulse	0.10	3
Tl			1	24.680	ug/l	0.93	944,990.48	3.297E-01	Pulse	0.10	3
Pb			1	24.857	ug/l	1.65	327,384.27	1.142E-01	Pulse	0.10	3
Pb			1	24.761	ug/l	0.38	287,098.03	1.001E-01	Pulse	0.10	3
Pb			1	24.790	ug/l	1.03	1,324,113.20	4.619E-01	Pulse	0.10	3
Na			2	25.369	ug/l	0.18	38,010.30	2.986E-01	Pulse	0.30	3
Mg			2	25.989	ug/l	4.25	13,088.52	1.028E-01	Pulse	0.30	3
Al			2	23.905	ug/l	8.43	4,983.02	3.917E-02	Pulse	0.30	3
K			2	24.446	ug/l	2.11	20,857.58	1.639E-01	Pulse	0.30	3
Ca			2	113.419	ug/l	4.40	2,571.35	2.021E-02	Pulse	0.30	3
Ti			2	24.596	ug/l	0.67	3,846.05	3.021E-02	Pulse	0.30	3
V			2	24.860	ug/l	0.31	126,936.06	9.973E-01	Pulse	0.30	3
Cr			2	24.889	ug/l	1.24	160,499.84	1.261E+00	Pulse	0.30	3
Mn			2	25.081	ug/l	1.66	88,946.23	6.989E-01	Pulse	0.30	3
Fe			2	26.365	ug/l	2.14	138,444.28	1.088E+00	Pulse	0.30	3
Co			2	24.922	ug/l	0.23	255,188.24	2.005E+00	Pulse	0.30	3
Ni			2	24.636	ug/l	1.06	66,466.53	5.222E-01	Pulse	0.30	3
Cu			2	25.043	ug/l	0.27	185,951.48	1.461E+00	Pulse	0.30	3
Zn			2	25.150	ug/l	1.38	29,997.51	2.357E-01	Pulse	0.30	3
As			2	24.883	ug/l	0.88	16,568.40	1.302E-01	Pulse	1.00	3
Cd			2	24.903	ug/l	1.09	46,247.06	5.574E-02	Pulse	0.30	3
Sn			2	24.893	ug/l	1.62	103,417.97	1.246E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	25.055	ug/l	0.12	3,969.88	2.577E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,115,641.22	1.65	102.4	Pulse	0.10	3
1	Sc		2,103,799.03	1.04	100.3	Pulse	0.10	3
1	Ge		442,248.52	0.72	100.7	Pulse	0.10	3
1	Ge		612,963.21	1.46	99.7	Pulse	0.10	3
1	Rh		3,099,949.64	0.76	100.2	Pulse	0.10	3
1	In		3,253,294.25	0.69	100.8	Pulse	0.10	3
1	Tb		4,644,782.43	0.70	100.5	Pulse	0.10	3
1	Ho		458,788.40	1.74	100.1	Pulse	0.10	3
1	Bi		2,866,690.58	1.13	100.6	Pulse	0.10	3
2	Sc		127,286.05	1.10	104.4	Pulse	0.30	3
2	Ge		81,611.42	0.95	103.4	Pulse	0.30	3
2	Ge		123,515.54	1.20	103.0	Pulse	0.30	3
2	Rh		1,985,747.70	0.71	103.3	Pulse	0.30	3
2	In		829,820.82	0.91	103.2	Pulse	0.30	3
2	Tb		2,788,068.64	0.84	104.0	Pulse	0.30	3
2	Ho		286,889.94	0.83	104.8	Pulse	0.30	3
2	Bi		1,929,827.91	1.37	103.4	Pulse	0.30	3
3	Sc		144,136.15	1.11	97.9	Pulse	0.30	3
3	Ge		100,161.81	1.10	98.6	Pulse	0.30	3
3	Ge		154,022.91	0.26	100.5	Pulse	0.30	3
3	Rh		1,752,869.97	0.88	101.0	Pulse	0.30	3
3	Tb		3,229,987.79	1.23	101.5	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 10:57
Sample Name STDE
Sample Type CalStd
Comment 50
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.100	ug/l	1.49	250,922.86	2.257E-01	Pulse	0.25	3
B			1	48.272	ug/l	0.97	181,172.57	1.629E-01	Pulse	0.15	3
Ca			1	65.976	ug/l	1.16	53,159.29	2.550E-02	Pulse	0.10	3
Sr			1	50.768	ug/l	0.83	2,047,922.21	6.634E-01	Pulse	0.10	3
Mo			1	50.171	ug/l	0.91	377,970.71	1.224E-01	Pulse	0.10	3
Ag			1	49.841	ug/l	0.75	963,741.24	2.972E-01	Pulse	0.10	3
Sn			1	50.228	ug/l	0.96	632,128.98	1.949E-01	Pulse	0.10	3
Sb			1	50.382	ug/l	0.37	742,597.96	1.600E-01	Pulse	0.10	3
Ba			1	50.546	ug/l	0.71	313,103.11	6.747E-02	Pulse	0.10	3
Tl			1	49.847	ug/l	1.18	1,909,026.69	6.657E-01	Pulse	0.10	3
Pb			1	50.177	ug/l	0.86	660,920.96	2.305E-01	Pulse	0.10	3
Pb			1	50.069	ug/l	0.15	580,506.27	2.024E-01	Pulse	0.10	3
Pb			1	50.024	ug/l	0.14	2,672,057.94	9.318E-01	Pulse	0.10	3
Na			2	50.458	ug/l	0.45	63,929.76	5.074E-01	Pulse	0.30	3
Mg			2	50.274	ug/l	0.95	24,818.32	1.970E-01	Pulse	0.30	3
Al			2	49.783	ug/l	2.94	9,281.56	7.366E-02	Pulse	0.30	3
K			2	48.755	ug/l	3.35	30,535.69	2.423E-01	Pulse	0.30	3
Ca			2	211.793	ug/l	3.29	4,636.26	3.679E-02	Pulse	0.30	3
Ti			2	48.823	ug/l	1.32	7,556.27	5.997E-02	Pulse	0.30	3
V			2	49.713	ug/l	0.70	250,974.26	1.992E+00	Pulse	0.30	3
Cr			2	49.702	ug/l	0.94	316,827.20	2.514E+00	Pulse	0.30	3
Mn			2	50.234	ug/l	0.82	176,235.25	1.399E+00	Pulse	0.30	3
Fe			2	51.072	ug/l	0.16	262,789.41	2.086E+00	Pulse	0.30	3
Co			2	50.008	ug/l	0.44	506,887.34	4.023E+00	Pulse	0.30	3
Ni			2	49.925	ug/l	0.76	133,196.79	1.057E+00	Pulse	0.30	3
Cu			2	50.292	ug/l	0.74	365,894.36	2.904E+00	Pulse	0.30	3
Zn			2	50.339	ug/l	1.10	58,256.34	4.623E-01	Pulse	0.30	3
As			2	49.833	ug/l	0.41	32,836.49	2.606E-01	Pulse	1.00	3
Cd			2	50.192	ug/l	0.98	92,880.34	1.123E-01	Pulse	0.30	3
Sn			2	50.228	ug/l	1.69	207,364.13	2.508E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	50.733	ug/l	1.01	7,918.72	5.215E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,112,025.72	0.47	102.0	Pulse	0.10	3
1	Sc		2,084,771.79	0.46	99.4	Pulse	0.10	3
1	Ge		442,385.23	1.31	100.8	Pulse	0.10	3
1	Ge		615,023.40	1.27	100.0	Pulse	0.10	3
1	Rh		3,087,272.66	1.20	99.8	Pulse	0.10	3
1	In		3,243,325.08	1.37	100.5	Pulse	0.10	3
1	Tb		4,641,134.51	1.46	100.5	Pulse	0.10	3
1	Ho		459,906.23	0.41	100.3	Pulse	0.10	3
1	Bi		2,867,563.81	0.03	100.6	Pulse	0.10	3
2	Sc		126,007.56	0.33	103.3	Pulse	0.30	3
2	Ge		81,292.05	0.63	103.0	Pulse	0.30	3
2	Ge		121,792.70	1.19	101.5	Pulse	0.30	3
2	Rh		1,976,440.06	1.17	102.8	Pulse	0.30	3
2	In		827,011.89	0.66	102.8	Pulse	0.30	3
2	Tb		2,784,013.85	0.63	103.8	Pulse	0.30	3
2	Ho		287,012.39	0.37	104.8	Pulse	0.30	3
2	Bi		1,920,192.42	0.46	102.9	Pulse	0.30	3
3	Sc		143,769.13	0.07	97.6	Pulse	0.30	3
3	Ge		99,499.53	1.05	97.9	Pulse	0.30	3
3	Ge		151,853.62	0.70	99.1	Pulse	0.30	3
3	Rh		1,745,448.13	0.58	100.5	Pulse	0.30	3
3	Tb		3,222,856.33	0.38	101.3	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 11:02
Sample Name STDF
Sample Type CalStd
Comment 100
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	99.951	ug/l	0.51	495,941.47	4.502E-01	Pulse	0.25	3
B			1	96.010	ug/l	1.43	345,126.56	3.133E-01	Pulse	0.15	3
Ca			1	128.066	ug/l	1.20	96,238.34	4.653E-02	Pulse	0.10	3
Sr			1	99.922	ug/l	0.33	4,014,934.42	1.306E+00	Pulse	0.10	3
Mo			1	99.770	ug/l	0.76	748,734.81	2.435E-01	Pulse	0.10	3
Ag			1	99.938	ug/l	1.98	1,924,155.70	5.959E-01	Pulse	0.10	3
Sn			1	100.342	ug/l	0.81	1,255,716.98	3.888E-01	Pulse	0.10	3
Sb			1	99.254	ug/l	0.50	1,460,891.02	3.152E-01	Pulse	0.10	3
Ba			1	99.554	ug/l	0.51	615,832.87	1.329E-01	Pulse	0.10	3
Tl			1	100.572	ug/l	0.20	3,828,897.65	1.343E+00	Pulse	0.10	3
Pb			1	100.209	ug/l	0.96	1,311,972.48	4.602E-01	Pulse	0.10	3
Pb			1	100.273	ug/l	0.63	1,155,569.02	4.054E-01	Pulse	0.10	3
Pb			1	99.821	ug/l	0.72	5,299,781.46	1.859E+00	Pulse	0.10	3
Na			2	99.032	ug/l	1.12	113,969.34	9.115E-01	Pulse	0.30	3
Mg			2	100.115	ug/l	2.18	48,776.67	3.901E-01	Pulse	0.30	3
Al			2	102.054	ug/l	1.44	17,920.76	1.433E-01	Pulse	0.30	3
K			2	98.882	ug/l	1.38	50,538.12	4.042E-01	Pulse	0.30	3
Ca			2	423.636	ug/l	2.80	9,065.92	7.251E-02	Pulse	0.30	3
Ti			2	100.685	ug/l	0.72	15,462.87	1.237E-01	Pulse	0.30	3
V			2	100.179	ug/l	0.63	501,559.44	4.011E+00	Pulse	0.30	3
Cr			2	100.173	ug/l	0.33	633,168.15	5.064E+00	Pulse	0.30	3
Mn			2	99.865	ug/l	0.60	347,541.49	2.779E+00	Pulse	0.30	3
Fe			2	102.440	ug/l	0.55	520,142.97	4.160E+00	Pulse	0.30	3
Co			2	100.015	ug/l	0.28	1,005,988.18	8.045E+00	Pulse	0.30	3
Ni			2	100.123	ug/l	1.20	264,914.92	2.119E+00	Pulse	0.30	3
Cu			2	99.845	ug/l	0.46	717,146.79	5.735E+00	Pulse	0.30	3
Zn			2	99.789	ug/l	0.46	113,441.53	9.072E-01	Pulse	0.30	3
As			2	100.110	ug/l	0.44	65,447.34	5.234E-01	Pulse	1.00	3
Cd			2	99.937	ug/l	0.28	184,568.90	2.236E-01	Pulse	0.30	3
Sn			2	99.917	ug/l	0.65	411,169.19	4.981E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	101.236	ug/l	0.63	15,694.43	1.040E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,101,673.18	0.35	101.1	Pulse	0.10	3
1	Sc		2,068,257.99	0.52	98.6	Pulse	0.10	3
1	Ge		438,338.57	0.85	99.8	Pulse	0.10	3
1	Ge		610,494.82	0.68	99.3	Pulse	0.10	3
1	Rh		3,075,340.58	0.85	99.4	Pulse	0.10	3
1	In		3,229,666.02	1.04	100.1	Pulse	0.10	3
1	Tb		4,635,059.62	0.44	100.3	Pulse	0.10	3
1	Ho		460,192.61	0.84	100.4	Pulse	0.10	3
1	Bi		2,850,721.42	0.59	100.0	Pulse	0.10	3
2	Sc		125,045.17	0.72	102.5	Pulse	0.30	3
2	Ge		79,804.66	1.08	101.2	Pulse	0.30	3
2	Ge		120,311.71	1.00	100.3	Pulse	0.30	3
2	Rh		1,965,232.91	0.59	102.2	Pulse	0.30	3
2	In		825,450.75	0.63	102.6	Pulse	0.30	3
2	Tb		2,783,221.42	1.03	103.8	Pulse	0.30	3
2	Ho		285,026.02	0.34	104.1	Pulse	0.30	3
2	Bi		1,930,934.37	0.53	103.5	Pulse	0.30	3
3	Sc		142,646.11	0.30	96.9	Pulse	0.30	3
3	Ge		99,643.57	1.29	98.1	Pulse	0.30	3
3	Ge		150,875.91	0.13	98.5	Pulse	0.30	3
3	Rh		1,730,248.27	0.66	99.7	Pulse	0.30	3
3	Tb		3,219,446.89	0.38	101.2	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 11:07
Sample Name	STDG
Sample Type	CalStd
Comment	500MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.023	ug/l	37.47	128.00	1.161E-04	Pulse	0.25	3
B			1	202.666	ug/l	1.42	715,193.51	6.492E-01	Pulse	0.15	3
Ca			1	504.807	ug/l	1.12	361,695.44	1.742E-01	Pulse	0.10	3
Sr			1	0.026	ug/l	24.80	1,446.79	4.695E-04	Pulse	0.10	3
Mo			1	0.151	ug/l	15.38	1,156.75	3.751E-04	Pulse	0.10	3
Ag			1	0.018	ug/l	26.81	376.68	1.165E-04	Pulse	0.10	3
Sn			1	0.236	ug/l	17.86	4,814.25	1.486E-03	Pulse	0.10	3
Sb			1	0.698	ug/l	9.65	10,420.55	2.249E-03	Pulse	0.10	3
Ba			1	0.026	ug/l	21.21	260.01	5.609E-05	Pulse	0.10	3
Tl			1	0.037	ug/l	3.86	1,626.82	5.651E-04	Pulse	0.10	3
Pb			1	0.034	ug/l	14.06	660.04	2.295E-04	Pulse	0.10	3
Pb			1	0.034	ug/l	15.46	586.70	2.038E-04	Pulse	0.10	3
Pb			1	0.035	ug/l	6.49	2,713.53	9.432E-04	Pulse	0.10	3
Na			2	494.324	ug/l	1.15	529,483.52	4.200E+00	Pulse	0.30	3
Mg			2	498.940	ug/l	0.99	244,021.70	1.936E+00	Pulse	0.30	3
Al			2	500.940	ug/l	1.00	85,086.98	6.749E-01	Pulse	0.30	3
K			2	494.603	ug/l	0.66	211,983.21	1.682E+00	Pulse	0.30	3
Ca			2	493.656	ug/l	3.26	10,627.97	8.432E-02	Pulse	0.30	3
Ti			2	0.058	ug/l	99.81	10.00	7.967E-05	Pulse	0.30	3
V			2	-0.006	ug/l	-250.46	292.23	2.317E-03	Pulse	0.30	3
Cr			2	0.016	ug/l	19.28	600.02	4.759E-03	Pulse	0.30	3
Mn			2	0.026	ug/l	5.68	228.89	1.815E-03	Pulse	0.30	3
Fe			2	503.946	ug/l	0.22	2,568,355.94	2.037E+01	Pulse	0.30	3
Co			2	0.030	ug/l	4.69	336.40	2.668E-03	Pulse	0.30	3
Ni			2	0.048	ug/l	20.79	276.67	2.194E-03	Pulse	0.30	3
Cu			2	-0.124	ug/l	-15.90	2,884.73	2.288E-02	Pulse	0.30	3
Zn			2	0.021	ug/l	168.43	1,212.28	9.617E-03	Pulse	0.30	3
As			2	0.044	ug/l	12.98	42.00	3.332E-04	Pulse	1.00	3
Cd			2	0.010	ug/l	69.22	39.88	4.792E-05	Pulse	0.30	3
Sn			2	0.322	ug/l	16.52	1,927.92	2.320E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	195.389	ug/l	0.37	30,749.88	2.007E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,101,702.32	0.39	101.1	Pulse	0.10	3
1	Sc		2,076,866.95	1.38	99.0	Pulse	0.10	3
1	Ge		439,822.60	0.05	100.2	Pulse	0.10	3
1	Ge		613,904.58	0.75	99.8	Pulse	0.10	3
1	Rh		3,082,981.93	0.45	99.6	Pulse	0.10	3
1	In		3,238,358.64	1.35	100.3	Pulse	0.10	3
1	Tb		4,631,998.06	0.79	100.3	Pulse	0.10	3
1	Ho		461,432.53	0.95	100.7	Pulse	0.10	3
1	Bi		2,878,152.04	1.35	101.0	Pulse	0.10	3
2	Sc		126,069.73	0.81	103.4	Pulse	0.30	3
2	Ge		80,433.42	0.66	101.9	Pulse	0.30	3
2	Ge		121,280.69	0.51	101.1	Pulse	0.30	3
2	Rh		1,967,778.39	0.05	102.4	Pulse	0.30	3
2	In		831,217.07	0.73	103.3	Pulse	0.30	3
2	Tb		2,792,729.41	0.16	104.2	Pulse	0.30	3
2	Ho		285,249.42	1.05	104.2	Pulse	0.30	3
2	Bi		1,917,311.31	0.99	102.7	Pulse	0.30	3
3	Sc		143,302.39	1.12	97.3	Pulse	0.30	3
3	Ge		100,733.28	0.87	99.1	Pulse	0.30	3
3	Ge		153,189.95	0.10	100.0	Pulse	0.30	3
3	Rh		1,751,512.99	0.64	100.9	Pulse	0.30	3
3	Tb		3,235,032.23	0.61	101.7	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 11:12
Sample Name	STDH
Sample Type	CalStd
Comment	1000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	70.32	54.67	4.902E-05	Pulse	0.25	3
B			1	7.948	ug/l	2.66	40,058.56	3.593E-02	Pulse	0.15	3
Ca			1	1013.468	ug/l	1.09	731,554.54	3.465E-01	Pulse	0.10	3
Sr			1	0.017	ug/l	9.24	1,060.08	3.430E-04	Pulse	0.10	3
Mo			1	0.046	ug/l	16.04	370.02	1.196E-04	Pulse	0.10	3
Ag			1	0.006	ug/l	10.36	143.34	4.378E-05	Pulse	0.10	3
Sn			1	0.055	ug/l	22.67	2,566.98	7.840E-04	Pulse	0.10	3
Sb			1	0.236	ug/l	11.10	3,667.25	7.818E-04	Pulse	0.10	3
Ba			1	0.017	ug/l	52.72	203.34	4.350E-05	Pulse	0.10	3
Tl			1	0.007	ug/l	3.36	486.70	1.679E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	37.94	396.69	1.370E-04	Pulse	0.10	3
Pb			1	0.023	ug/l	26.38	460.03	1.589E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	15.49	1,830.12	6.317E-04	Pulse	0.10	3
Na			2	983.637	ug/l	0.66	1,046,693.74	8.271E+00	Pulse	0.30	3
Mg			2	989.943	ug/l	0.23	485,763.87	3.839E+00	Pulse	0.30	3
Al			2	1001.440	ug/l	1.02	169,827.83	1.342E+00	Pulse	0.30	3
K			2	994.237	ug/l	0.15	416,899.32	3.294E+00	Pulse	0.30	3
Ca			2	1016.687	ug/l	1.86	21,828.87	1.725E-01	Pulse	0.30	3
Ti			2	0.043	ug/l	57.63	7.78	6.139E-05	Pulse	0.30	3
V			2	-0.005	ug/l	-15.20	296.67	2.344E-03	Pulse	0.30	3
Cr			2	-0.002	ug/l	-436.15	485.57	3.836E-03	Pulse	0.30	3
Mn			2	0.033	ug/l	25.37	255.56	2.020E-03	Pulse	0.30	3
Fe			2	1004.001	ug/l	0.43	5,133,492.02	4.056E+01	Pulse	0.30	3
Co			2	0.050	ug/l	6.01	543.93	4.298E-03	Pulse	0.30	3
Ni			2	0.071	ug/l	75.03	340.06	2.686E-03	Pulse	0.30	3
Cu			2	-0.141	ug/l	-3.34	2,768.05	2.187E-02	Pulse	0.30	3
Zn			2	0.165	ug/l	47.24	1,380.07	1.090E-02	Pulse	0.30	3
As			2	0.017	ug/l	54.79	24.33	1.922E-04	Pulse	1.00	3
Cd			2	-0.004	ug/l	-25.77	14.40	1.711E-05	Pulse	0.30	3
Sn			2	0.123	ug/l	13.04	1,118.95	1.330E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	376.315	ug/l	1.01	60,640.20	3.866E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,114,955.04	0.10	102.3	Pulse	0.10	3
1	Sc		2,111,538.30	1.51	100.7	Pulse	0.10	3
1	Ge		442,546.87	1.39	100.8	Pulse	0.10	3
1	Ge		623,569.07	1.44	101.4	Pulse	0.10	3
1	Rh		3,089,476.93	1.07	99.8	Pulse	0.10	3
1	In		3,275,312.33	1.19	101.5	Pulse	0.10	3
1	Tb		4,686,809.09	1.47	101.5	Pulse	0.10	3
1	Ho		469,327.27	2.49	102.4	Pulse	0.10	3
1	Bi		2,898,567.98	0.99	101.7	Pulse	0.10	3
2	Sc		126,549.95	0.31	103.8	Pulse	0.30	3
2	Ge		82,058.95	0.74	104.0	Pulse	0.30	3
2	Ge		123,290.20	0.70	102.8	Pulse	0.30	3
2	Rh		1,987,098.25	1.10	103.4	Pulse	0.30	3
2	In		841,130.74	1.61	104.6	Pulse	0.30	3
2	Tb		2,829,341.07	0.93	105.5	Pulse	0.30	3
2	Ho		290,245.77	1.38	106.0	Pulse	0.30	3
2	Bi		1,929,680.20	0.53	103.4	Pulse	0.30	3
3	Sc		146,209.31	1.01	99.3	Pulse	0.30	3
3	Ge		101,897.39	0.32	100.3	Pulse	0.30	3
3	Ge		156,873.69	0.44	102.4	Pulse	0.30	3
3	Rh		1,784,672.15	0.83	102.8	Pulse	0.30	3
3	Tb		3,326,979.31	0.26	104.6	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 11:17
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-99904.93	13.33	1.215E-05	Pulse	0.25	3
B			1	3.940	ug/l	7.94	25,668.69	2.330E-02	Pulse	0.15	3
Ca			1	5091.655	ug/l	0.26	3,590,430.57	1.728E+00	Pulse	0.10	3
Sr			1	0.044	ug/l	5.16	2,120.22	6.988E-04	Pulse	0.10	3
Mo			1	0.026	ug/l	34.99	216.68	7.122E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	66.65	86.67	2.702E-05	Pulse	0.10	3
Sn			1	0.053	ug/l	36.37	2,500.30	7.786E-04	Pulse	0.10	3
Sb			1	0.143	ug/l	2.55	2,253.58	4.858E-04	Pulse	0.10	3
Ba			1	0.008	ug/l	135.52	146.67	3.158E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	73.04	350.02	1.248E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	51.71	416.69	1.487E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	56.30	283.35	1.010E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	12.11	1,506.76	5.377E-04	Pulse	0.10	3
Na			2	5019.110	ug/l	1.53	5,310,688.26	4.184E+01	Analog	0.30	3
Mg			2	4966.867	ug/l	1.04	2,443,194.76	1.925E+01	Pulse	0.30	3
Al			2	5002.165	ug/l	1.42	847,041.46	6.674E+00	Pulse	0.30	3
K			2	4989.076	ug/l	0.50	2,054,741.44	1.619E+01	Pulse	0.30	3
Ca			2	4968.098	ug/l	0.53	106,446.37	8.387E-01	Pulse	0.30	3
Ti			2	0.007	ug/l	347.56	2.22	1.758E-05	Pulse	0.30	3
V			2	-0.016	ug/l	-50.12	244.45	1.927E-03	Pulse	0.30	3
Cr			2	0.020	ug/l	36.98	631.13	4.973E-03	Pulse	0.30	3
Mn			2	0.077	ug/l	4.02	412.23	3.248E-03	Pulse	0.30	3
Fe			2	5065.461	ug/l	1.23	25,962,505.08	2.046E+02	Analog	0.30	3
Co			2	0.226	ug/l	3.33	2,337.88	1.842E-02	Pulse	0.30	3
Ni			2	0.172	ug/l	21.89	613.36	4.833E-03	Pulse	0.30	3
Cu			2	-0.147	ug/l	-10.77	2,733.60	2.154E-02	Pulse	0.30	3
Zn			2	-0.169	ug/l	-26.89	1,003.38	7.906E-03	Pulse	0.30	3
As			2	0.045	ug/l	25.59	43.33	3.415E-04	Pulse	1.00	3
Cd			2	-0.003	ug/l	-93.38	15.53	1.868E-05	Pulse	0.30	3
Sn			2	0.079	ug/l	2.54	923.37	1.111E-03	Pulse	0.30	3
Se			3	0.179	ug/l	13.63	34.20	2.239E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,101,627.71	0.52	101.1	Pulse	0.10	3
1	Sc		2,077,685.18	0.73	99.1	Pulse	0.10	3
1	Ge		437,345.66	0.91	99.6	Pulse	0.10	3

Quantitation Report

1	Ge		612,070.11	1.19	99.5	Pulse	0.10	3
1	Rh		3,032,987.45	1.56	98.0	Pulse	0.10	3
1	In		3,213,540.61	1.54	99.6	Pulse	0.10	3
1	Tb		4,638,421.70	1.14	100.4	Pulse	0.10	3
1	Ho		459,705.84	1.38	100.3	Pulse	0.10	3
1	Bi		2,802,682.56	0.55	98.3	Pulse	0.10	3
2	Sc		126,918.03	0.34	104.1	Pulse	0.30	3
2	Ge		81,941.93	1.31	103.9	Pulse	0.30	3
2	Ge		122,421.90	1.04	102.0	Pulse	0.30	3
2	Rh		1,973,928.95	0.53	102.7	Pulse	0.30	3
2	In		830,957.14	0.55	103.3	Pulse	0.30	3
2	Tb		2,802,704.26	0.25	104.5	Pulse	0.30	3
2	Ho		287,919.90	0.42	105.2	Pulse	0.30	3
2	Bi		1,896,766.31	0.53	101.6	Pulse	0.30	3
3	Sc		145,753.93	0.29	99.0	Pulse	0.30	3
3	Ge		101,008.41	0.86	99.4	Pulse	0.30	3
3	Ge		152,770.42	1.21	99.7	Pulse	0.30	3
3	Rh		1,737,046.11	0.11	100.0	Pulse	0.30	3
3	Tb		3,281,875.36	0.47	103.2	Pulse	0.30	3

Quantitation Report

File Name 012CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 11:22
Sample Name STDJ
Sample Type CalStd
Comment 10000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	62.25	34.67	3.110E-05	Pulse	0.25	3
B			1	2.434	ug/l	6.96	20,746.39	1.856E-02	Pulse	0.15	3
Ca			1	9952.266	ug/l	1.50	7,196,893.02	3.375E+00	Analog	0.10	3
Sr			1	0.086	ug/l	8.79	3,833.96	1.254E-03	Pulse	0.10	3
Mo			1	0.028	ug/l	35.93	226.68	7.410E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	43.22	106.67	3.291E-05	Pulse	0.10	3
Sn			1	0.173	ug/l	16.70	4,020.66	1.241E-03	Pulse	0.10	3
Sb			1	0.129	ug/l	11.92	2,066.88	4.413E-04	Pulse	0.10	3
Ba			1	0.009	ug/l	47.21	153.34	3.273E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	81.87	276.68	9.913E-05	Pulse	0.10	3
Pb			1	0.022	ug/l	13.35	490.02	1.755E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	65.07	310.02	1.110E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	15.59	1,553.43	5.562E-04	Pulse	0.10	3
Na			2	9992.447	ug/l	1.50	10,710,892.63	8.322E+01	Analog	0.30	3
Mg			2	10017.564	ug/l	2.20	4,996,563.00	3.882E+01	Analog	0.30	3
Al			2	9998.713	ug/l	1.40	1,716,072.33	1.333E+01	Pulse	0.30	3
K			2	10021.633	ug/l	1.25	4,174,536.36	3.243E+01	Pulse	0.30	3
Ca			2	10068.547	ug/l	1.57	218,620.69	1.699E+00	Pulse	0.30	3
Ti			2	0.021	ug/l	59.32	4.44	3.459E-05	Pulse	0.30	3
V			2	-0.015	ug/l	-13.34	248.89	1.933E-03	Pulse	0.30	3
Cr			2	0.043	ug/l	1.18	783.36	6.086E-03	Pulse	0.30	3
Mn			2	0.137	ug/l	1.98	634.46	4.929E-03	Pulse	0.30	3
Fe			2	9924.024	ug/l	0.99	51,584,710.17	4.008E+02	Analog	0.30	3
Co			2	0.455	ug/l	2.09	4,739.28	3.682E-02	Pulse	0.30	3
Ni			2	0.371	ug/l	15.53	1,162.28	9.035E-03	Pulse	0.30	3
Cu			2	-0.118	ug/l	-11.59	2,990.31	2.323E-02	Pulse	0.30	3
Zn			2	0.105	ug/l	28.90	1,334.52	1.037E-02	Pulse	0.30	3
As			2	0.068	ug/l	35.71	59.33	4.606E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-708.38	19.97	2.405E-05	Pulse	0.30	3
Sn			2	0.197	ug/l	5.52	1,412.31	1.702E-03	Pulse	0.30	3
Se			3	0.058	ug/l	6.58	15.13	9.925E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,117,885.04	1.17	102.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,132,573.30	0.50	101.7	Pulse	0.10	3
1	Ge		447,035.12	1.44	101.8	Pulse	0.10	3
1	Ge		620,527.01	0.70	100.9	Pulse	0.10	3
1	Rh		3,056,385.16	0.44	98.8	Pulse	0.10	3
1	In		3,239,223.06	0.47	100.4	Pulse	0.10	3
1	Tb		4,684,308.68	0.31	101.4	Pulse	0.10	3
1	Ho		465,749.50	0.30	101.6	Pulse	0.10	3
1	Bi		2,793,177.46	0.46	98.0	Pulse	0.10	3
2	Sc		128,718.53	1.17	105.6	Pulse	0.30	3
2	Ge		82,059.11	0.99	104.0	Pulse	0.30	3
2	Ge		123,827.39	0.78	103.2	Pulse	0.30	3
2	Rh		1,960,173.26	0.44	102.0	Pulse	0.30	3
2	In		829,732.86	0.53	103.2	Pulse	0.30	3
2	Tb		2,836,825.72	0.27	105.8	Pulse	0.30	3
2	Ho		289,160.14	0.25	105.6	Pulse	0.30	3
2	Bi		1,870,065.00	0.47	100.2	Pulse	0.30	3
3	Sc		146,443.46	0.92	99.5	Pulse	0.30	3
3	Ge		101,923.01	0.13	100.3	Pulse	0.30	3
3	Ge		152,431.81	1.82	99.5	Pulse	0.30	3
3	Rh		1,731,960.35	0.09	99.8	Pulse	0.30	3
3	Tb		3,263,261.19	0.17	102.6	Pulse	0.30	3

Quantitation Report

File Name	013SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 11:27
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	95.52	22.67	2.022E-05	Pulse	0.25	3
B			1	1.567	ug/l	11.07	17,798.62	1.583E-02	Pulse	0.15	3
Ca			1	0.431	ug/l	119.92	6,918.42	3.293E-03	Pulse	0.10	3
Sr			1	0.002	ug/l	6.67	480.02	1.539E-04	Pulse	0.10	3
Mo			1	0.009	ug/l	72.25	86.67	2.784E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	99.27	46.67	1.428E-05	Pulse	0.10	3
Sn			1	0.006	ug/l	121.03	1,936.87	5.943E-04	Pulse	0.10	3
Sb			1	0.048	ug/l	16.62	850.05	1.839E-04	Pulse	0.10	3
Ba			1	-0.008	ug/l	-62.35	46.67	1.014E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	44.70	260.01	9.069E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	38.99	266.68	9.306E-05	Pulse	0.10	3
Pb			1	0.009	ug/l	48.80	293.35	1.024E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	16.25	1,143.40	3.989E-04	Pulse	0.10	3
Na			2	-0.287	ug/l	-127.21	10,842.47	8.517E-02	Pulse	0.30	3
Mg			2	0.852	ug/l	14.71	691.13	5.430E-03	Pulse	0.30	3
Al			2	-2.391	ug/l	-14.39	524.46	4.121E-03	Pulse	0.30	3
K			2	-1.272	ug/l	-21.14	10,294.37	8.086E-02	Pulse	0.30	3
Ca			2	-1.935	ug/l	-56.96	96.67	7.588E-04	Pulse	0.30	3
Ti			2	-0.007	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	-0.028	ug/l	-20.44	182.23	1.432E-03	Pulse	0.30	3
Cr			2	-0.020	ug/l	-27.79	375.56	2.950E-03	Pulse	0.30	3
Mn			2	-0.007	ug/l	-102.74	114.44	8.988E-04	Pulse	0.30	3
Fe			2	1.134	ug/l	5.42	8,781.31	6.898E-02	Pulse	0.30	3
Co			2	0.001	ug/l	157.59	37.76	2.968E-04	Pulse	0.30	3
Ni			2	0.007	ug/l	293.30	171.11	1.344E-03	Pulse	0.30	3
Cu			2	-0.200	ug/l	-10.28	2,359.08	1.853E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.314	ug/l	-11.26	840.03	6.599E-03	Pulse	0.30	3
As			2	-0.001	ug/l	-246.23	12.67	9.953E-05	Pulse	1.00	3
Cd			2	-0.007	ug/l	-14.85	7.77	9.367E-06	Pulse	0.30	3
Sn			2	0.034	ug/l	19.03	736.69	8.875E-04	Pulse	0.30	3
Se			3	0.011	ug/l	103.47	7.93	5.175E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,124,559.97	1.24	103.2	Pulse	0.10	3
1	Sc		2,101,418.82	0.84	100.2	Pulse	0.10	3
1	Ge		442,806.58	0.25	100.8	Pulse	0.10	3
1	Ge		619,641.03	0.50	100.7	Pulse	0.10	3
1	Rh		3,119,493.70	0.92	100.8	Pulse	0.10	3
1	In		3,259,595.77	0.82	101.0	Pulse	0.10	3
1	Tb		4,628,615.55	1.56	100.2	Pulse	0.10	3
1	Ho		459,736.32	1.05	100.3	Pulse	0.10	3
1	Bi		2,866,767.87	0.88	100.6	Pulse	0.10	3
2	Sc		127,312.16	0.47	104.4	Pulse	0.30	3
2	Ge		80,364.33	0.85	101.9	Pulse	0.30	3
2	Ge		122,898.02	0.56	102.4	Pulse	0.30	3
2	Rh		2,000,402.63	0.62	104.1	Pulse	0.30	3
2	In		830,138.49	0.24	103.2	Pulse	0.30	3
2	Tb		2,786,815.79	0.35	103.9	Pulse	0.30	3
2	Ho		285,297.32	0.54	104.2	Pulse	0.30	3
2	Bi		1,923,540.48	0.67	103.1	Pulse	0.30	3
3	Sc		143,481.32	0.22	97.5	Pulse	0.30	3
3	Ge		100,825.09	0.34	99.2	Pulse	0.30	3
3	Ge		153,294.21	0.21	100.1	Pulse	0.30	3
3	Rh		1,769,005.90	0.79	101.9	Pulse	0.30	3
3	Tb		3,240,742.30	0.76	101.9	Pulse	0.30	3

Quantitation Report

File Name 014_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 11:32
Sample Name sampleconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	59.198	ug/l	14.50	305,167.08	2.666E-01	Pulse	0.25	3
B			1	117.458	ug/l	15.10	435,838.71	3.808E-01	Pulse	0.15	3
Ca			1	5466.087	ug/l	17.21	4,006,611.19	1.855E+00	Pulse	0.10	3
Sr			1	60.191	ug/l	18.04	2,467,534.97	7.865E-01	Pulse	0.10	3
Mo			1	59.784	ug/l	17.25	458,118.45	1.459E-01	Pulse	0.10	3
Ag			1	58.532	ug/l	17.18	1,161,295.22	3.490E-01	Pulse	0.10	3
Sn			1	59.491	ug/l	17.68	767,391.68	2.308E-01	Pulse	0.10	3
Sb			1	61.946	ug/l	17.81	949,506.39	1.967E-01	Pulse	0.10	3
Ba			1	59.569	ug/l	17.09	384,076.76	7.951E-02	Pulse	0.10	3
Tl			1	62.167	ug/l	17.75	2,382,446.58	8.303E-01	Pulse	0.10	3
Pb			1	61.046	ug/l	16.77	805,390.80	2.804E-01	Pulse	0.10	3
Pb			1	58.524	ug/l	17.09	679,479.13	2.366E-01	Pulse	0.10	3
Pb			1	59.546	ug/l	16.92	3,185,473.65	1.109E+00	Pulse	0.10	3
Na			2	5523.809	ug/l	1.11	5,881,475.32	4.604E+01	Analog	0.30	3
Mg			2	5399.567	ug/l	1.61	2,672,844.76	2.093E+01	Pulse	0.30	3
Al			2	5528.398	ug/l	1.44	941,995.07	7.375E+00	Pulse	0.30	3
K			2	5438.885	ug/l	1.55	2,253,182.41	1.764E+01	Pulse	0.30	3
Ca			2	5618.824	ug/l	1.42	121,137.59	9.484E-01	Pulse	0.30	3
Ti			2	60.816	ug/l	4.88	9,539.52	7.469E-02	Pulse	0.30	3
V			2	61.387	ug/l	0.98	314,048.74	2.459E+00	Pulse	0.30	3
Cr			2	60.127	ug/l	1.04	388,404.13	3.041E+00	Pulse	0.30	3
Mn			2	60.382	ug/l	1.27	214,696.75	1.681E+00	Pulse	0.30	3
Fe			2	5523.195	ug/l	0.75	28,489,553.31	2.231E+02	Analog	0.30	3
Co			2	60.119	ug/l	1.49	617,664.74	4.836E+00	Pulse	0.30	3
Ni			2	59.593	ug/l	1.90	161,114.08	1.262E+00	Pulse	0.30	3
Cu			2	59.398	ug/l	0.89	437,338.88	3.424E+00	Pulse	0.30	3
Zn			2	58.596	ug/l	0.85	68,543.48	5.366E-01	Pulse	0.30	3
As			2	62.245	ug/l	2.24	41,567.24	3.255E-01	Pulse	1.00	3
Cd			2	60.420	ug/l	0.63	112,307.78	1.352E-01	Pulse	0.30	3
Sn			2	60.269	ug/l	0.32	249,837.63	3.007E-01	Pulse	0.30	3
Se			3	260.282	ug/l	0.48	40,854.84	2.674E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,160,540.36	14.27	106.5	Pulse	0.10	3
1	Sc		2,202,800.90	17.02	105.0	Pulse	0.10	3
1	Ge		455,390.14	15.18	103.7	Pulse	0.10	3

Quantitation Report

1	Ge		644,426.98	14.26	104.8	Pulse	0.10	3
1	Rh		3,202,855.06	17.07	103.5	Pulse	0.10	3
1	In		3,393,872.90	17.23	105.2	Pulse	0.10	3
1	Tb		4,932,697.64	18.22	106.8	Mix	0.10	3
1	Ho		486,035.41	17.46	106.0	Pulse	0.10	3
1	Bi		2,926,657.71	16.64	102.7	Pulse	0.10	3
2	Sc		127,733.20	1.10	104.8	Pulse	0.30	3
2	Ge		82,418.68	2.55	104.5	Pulse	0.30	3
2	Ge		124,025.33	0.44	103.4	Pulse	0.30	3
2	Rh		1,963,742.15	0.99	102.1	Pulse	0.30	3
2	In		830,744.80	0.59	103.3	Pulse	0.30	3
2	Tb		2,803,457.25	0.56	104.6	Pulse	0.30	3
2	Ho		285,634.23	1.38	104.3	Pulse	0.30	3
2	Bi		1,889,759.99	0.83	101.3	Pulse	0.30	3
3	Sc		143,790.50	1.05	97.7	Pulse	0.30	3
3	Ge		101,375.18	0.75	99.8	Pulse	0.30	3
3	Ge		152,797.91	0.64	99.7	Pulse	0.30	3
3	Rh		1,729,997.26	0.59	99.6	Pulse	0.30	3
3	Tb		3,251,987.30	0.44	102.2	Pulse	0.30	3

Quantitation Report

File Name 015_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 11:37
Sample Name ICVA 5
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	59.869	ug/l	0.49	301,153.97	2.697E-01	Pulse	0.25	3
B			1	122.932	ug/l	0.92	444,594.78	3.981E-01	Pulse	0.15	3
Ca			1	5531.985	ug/l	0.35	3,996,063.90	1.877E+00	Pulse	0.10	3
Sr			1	60.890	ug/l	1.60	2,457,739.60	7.956E-01	Pulse	0.10	3
Mo			1	59.896	ug/l	1.24	451,524.37	1.462E-01	Pulse	0.10	3
Ag			1	58.650	ug/l	0.36	1,150,725.69	3.497E-01	Pulse	0.10	3
Sn			1	59.858	ug/l	1.06	764,047.46	2.322E-01	Pulse	0.10	3
Sb			1	63.352	ug/l	1.00	950,940.17	2.012E-01	Pulse	0.10	3
Ba			1	60.801	ug/l	1.46	383,548.65	8.115E-02	Pulse	0.10	3
Tl			1	62.814	ug/l	0.94	2,386,324.55	8.389E-01	Pulse	0.10	3
Pb			1	61.537	ug/l	0.96	804,006.89	2.826E-01	Pulse	0.10	3
Pb			1	58.703	ug/l	0.86	675,127.83	2.373E-01	Pulse	0.10	3
Pb			1	59.871	ug/l	0.79	3,172,230.68	1.115E+00	Pulse	0.10	3
Na			2	5408.102	ug/l	1.33	5,782,871.30	4.508E+01	Analog	0.30	3
Mg			2	5389.257	ug/l	0.27	2,679,371.77	2.089E+01	Pulse	0.30	3
Al			2	5478.511	ug/l	0.37	937,567.04	7.309E+00	Pulse	0.30	3
K			2	5424.337	ug/l	0.10	2,256,977.76	1.759E+01	Pulse	0.30	3
Ca			2	5607.331	ug/l	0.67	121,411.94	9.465E-01	Pulse	0.30	3
Ti			2	59.024	ug/l	1.97	9,299.37	7.249E-02	Pulse	0.30	3
V			2	60.453	ug/l	1.00	310,611.12	2.421E+00	Pulse	0.30	3
Cr			2	59.177	ug/l	0.79	383,917.60	2.993E+00	Pulse	0.30	3
Mn			2	59.954	ug/l	0.62	214,102.21	1.669E+00	Pulse	0.30	3
Fe			2	5480.272	ug/l	0.89	28,389,716.65	2.213E+02	Analog	0.30	3
Co			2	59.355	ug/l	0.35	612,461.68	4.775E+00	Pulse	0.30	3
Ni			2	59.128	ug/l	0.15	160,561.28	1.252E+00	Pulse	0.30	3
Cu			2	58.965	ug/l	0.95	436,048.65	3.399E+00	Pulse	0.30	3
Zn			2	58.668	ug/l	1.04	68,917.44	5.373E-01	Pulse	0.30	3
As			2	61.865	ug/l	0.93	41,496.05	3.235E-01	Pulse	1.00	3
Cd			2	59.482	ug/l	0.91	110,804.15	1.331E-01	Pulse	0.30	3
Sn			2	59.602	ug/l	0.43	247,608.64	2.974E-01	Pulse	0.30	3
Se			3	276.310	ug/l	9.53	41,005.15	2.838E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,116,870.55	1.15	102.5	Pulse	0.10	3
1	Sc		2,128,642.57	0.91	101.5	Pulse	0.10	3
1	Ge		444,373.55	1.10	101.2	Pulse	0.10	3

Quantitation Report

1	Ge		630,160.75	1.54	102.5	Pulse	0.10	3
1	Rh		3,089,016.83	0.33	99.8	Pulse	0.10	3
1	In		3,290,709.61	0.30	102.0	Pulse	0.10	3
1	Tb		4,726,868.05	1.42	102.3	Pulse	0.10	3
1	Ho		465,323.47	1.72	101.5	Pulse	0.10	3
1	Bi		2,844,501.21	0.46	99.8	Pulse	0.10	3
2	Sc		128,276.29	0.13	105.2	Pulse	0.30	3
2	Ge		81,558.90	0.78	103.4	Pulse	0.30	3
2	Ge		123,920.30	0.90	103.3	Pulse	0.30	3
2	Rh		1,967,234.30	0.25	102.3	Pulse	0.30	3
2	In		832,523.81	0.26	103.5	Pulse	0.30	3
2	Tb		2,806,473.92	0.25	104.7	Pulse	0.30	3
2	Ho		286,798.05	0.39	104.8	Pulse	0.30	3
2	Bi		1,899,038.40	0.47	101.8	Pulse	0.30	3
3	Sc		132,572.90	10.38	90.0	Pulse	0.30	3
3	Ge		94,933.63	6.96	93.4	Pulse	0.30	3
3	Ge		145,218.17	8.23	94.8	Pulse	0.30	3
3	Rh		1,600,042.40	10.40	92.2	Pulse	0.30	3
3	Tb		3,012,191.13	11.09	94.7	Pulse	0.30	3

Quantitation Report

File Name	016_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 11:42
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	22.15	81.33	7.414E-05	Pulse	0.25	3
B			1	5.526	ug/l	2.03	31,039.80	2.830E-02	Pulse	0.15	3
Ca			1	1.523	ug/l	18.83	7,605.37	3.663E-03	Pulse	0.10	3
Sr			1	0.008	ug/l	43.72	700.05	2.276E-04	Pulse	0.10	3
Mo			1	0.095	ug/l	19.55	733.38	2.382E-04	Pulse	0.10	3
Ag			1	0.066	ug/l	15.07	1,300.10	4.002E-04	Pulse	0.10	3
Sn			1	0.172	ug/l	17.41	4,024.01	1.238E-03	Pulse	0.10	3
Sb			1	0.136	ug/l	6.77	2,136.90	4.643E-04	Pulse	0.10	3
Ba			1	0.004	ug/l	168.43	120.00	2.612E-05	Pulse	0.10	3
Tl			1	0.029	ug/l	4.41	1,283.44	4.511E-04	Pulse	0.10	3
Pb			1	0.033	ug/l	12.40	633.37	2.227E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	23.81	490.03	1.724E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	7.29	2,376.84	8.354E-04	Pulse	0.10	3
Na			2	-0.183	ug/l	-351.00	10,368.83	8.603E-02	Pulse	0.30	3
Mg			2	0.614	ug/l	16.76	543.35	4.507E-03	Pulse	0.30	3
Al			2	64.458	ug/l	10.98	11,212.75	9.322E-02	Pulse	0.30	3
K			2	0.478	ug/l	401.05	10,420.01	8.650E-02	Pulse	0.30	3
Ca			2	-0.070	ug/l	-826.99	130.00	1.073E-03	Pulse	0.30	3
Ti			2	0.009	ug/l	310.02	2.22	1.998E-05	Pulse	0.30	3
V			2	-0.012	ug/l	-28.09	250.01	2.074E-03	Pulse	0.30	3
Cr			2	0.037	ug/l	50.89	697.80	5.817E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	86.02	141.12	1.165E-03	Pulse	0.30	3
Fe			2	1.816	ug/l	7.14	11,657.59	9.654E-02	Pulse	0.30	3
Co			2	0.007	ug/l	46.92	94.41	7.883E-04	Pulse	0.30	3
Ni			2	0.009	ug/l	280.57	163.34	1.373E-03	Pulse	0.30	3
Cu			2	-0.172	ug/l	-8.18	2,424.69	2.010E-02	Pulse	0.30	3
Zn			2	-0.340	ug/l	-5.61	770.03	6.367E-03	Pulse	0.30	3
As			2	0.012	ug/l	89.44	19.67	1.652E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-1384.88	18.80	2.384E-05	Pulse	0.30	3
Sn			2	0.245	ug/l	11.81	1,531.21	1.937E-03	Pulse	0.30	3
Se			3	0.112	ug/l	15.11	23.33	1.552E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,096,840.96	0.89	100.6	Pulse	0.10	3
1	Sc		2,076,290.18	0.84	99.0	Pulse	0.10	3
1	Ge		439,083.37	1.18	100.0	Pulse	0.10	3
1	Ge		609,374.37	0.92	99.1	Pulse	0.10	3
1	Rh		3,076,769.54	0.68	99.4	Pulse	0.10	3
1	In		3,250,033.12	0.64	100.7	Pulse	0.10	3
1	Tb		4,600,290.87	1.44	99.6	Pulse	0.10	3
1	Ho		454,977.96	1.09	99.3	Pulse	0.10	3
1	Bi		2,845,465.37	1.15	99.8	Pulse	0.10	3
2	Sc		120,849.44	6.89	99.1	Pulse	0.30	3
2	Ge		78,107.20	6.21	99.0	Pulse	0.30	3
2	Ge		116,576.36	4.06	97.2	Pulse	0.30	3
2	Rh		1,904,037.35	7.19	99.0	Pulse	0.30	3
2	In		793,434.51	7.12	98.6	Pulse	0.30	3
2	Tb		2,662,867.12	7.38	99.3	Pulse	0.30	3
2	Ho		270,932.47	7.60	99.0	Pulse	0.30	3
2	Bi		1,827,279.58	6.13	97.9	Pulse	0.30	3
3	Sc		142,154.27	2.02	96.6	Pulse	0.30	3
3	Ge		99,981.11	1.43	98.4	Pulse	0.30	3
3	Ge		150,504.07	1.73	98.2	Pulse	0.30	3
3	Rh		1,745,650.94	1.33	100.5	Pulse	0.30	3
3	Tb		3,207,829.11	1.21	100.8	Pulse	0.30	3

Quantitation Report

File Name 017_ICB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 11:47
Sample Name ICB
Sample Type ICB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	118.89	30.67	2.710E-05	Pulse	0.25	3
B			1	2.601	ug/l	7.22	21,558.50	1.909E-02	Pulse	0.15	3
Ca			1	-0.652	ug/l	-42.23	6,124.71	2.926E-03	Pulse	0.10	3
Sr			1	0.002	ug/l	78.50	490.03	1.570E-04	Pulse	0.10	3
Mo			1	0.018	ug/l	46.51	156.67	5.014E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	79.09	80.00	2.440E-05	Pulse	0.10	3
Sn			1	0.018	ug/l	23.72	2,100.24	6.430E-04	Pulse	0.10	3
Sb			1	0.025	ug/l	32.82	520.03	1.119E-04	Pulse	0.10	3
Ba			1	-0.003	ug/l	-180.02	80.00	1.716E-05	Pulse	0.10	3
Tl			1	0.003	ug/l	31.21	323.35	1.123E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	72.21	386.69	1.344E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	37.85	306.68	1.066E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	28.02	1,453.42	5.048E-04	Pulse	0.10	3
Na			2	-1.059	ug/l	-40.38	9,907.45	7.874E-02	Pulse	0.30	3
Mg			2	0.134	ug/l	44.77	333.34	2.649E-03	Pulse	0.30	3
Al			2	-2.804	ug/l	-11.90	448.90	3.571E-03	Pulse	0.30	3
K			2	-1.941	ug/l	-31.45	9,901.92	7.870E-02	Pulse	0.30	3
Ca			2	-2.507	ug/l	-47.86	83.33	6.624E-04	Pulse	0.30	3
Ti			2	0.007	ug/l	171.97	2.22	1.776E-05	Pulse	0.30	3
V			2	-0.023	ug/l	-7.50	207.78	1.651E-03	Pulse	0.30	3
Cr			2	-0.011	ug/l	-24.40	427.79	3.400E-03	Pulse	0.30	3
Mn			2	-0.008	ug/l	-64.27	110.00	8.752E-04	Pulse	0.30	3
Fe			2	0.185	ug/l	14.06	3,860.51	3.068E-02	Pulse	0.30	3
Co			2	0.001	ug/l	29.97	43.32	3.443E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-682.41	147.78	1.174E-03	Pulse	0.30	3
Cu			2	-0.191	ug/l	-10.25	2,395.77	1.904E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.305	ug/l	-9.55	841.14	6.682E-03	Pulse	0.30	3
As			2	0.013	ug/l	29.62	21.67	1.722E-04	Pulse	1.00	3
Cd			2	-0.005	ug/l	-84.46	11.09	1.330E-05	Pulse	0.30	3
Sn			2	0.054	ug/l	24.87	820.03	9.858E-04	Pulse	0.30	3
Se			3	0.033	ug/l	64.49	11.27	7.394E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,129,720.29	0.74	103.7	Pulse	0.10	3
1	Sc		2,092,980.75	0.67	99.8	Pulse	0.10	3
1	Ge		446,443.78	0.30	101.7	Pulse	0.10	3
1	Ge		616,346.92	0.25	100.2	Pulse	0.10	3
1	Rh		3,123,971.52	0.91	100.9	Pulse	0.10	3
1	In		3,265,760.22	1.15	101.2	Pulse	0.10	3
1	Tb		4,648,581.91	1.00	100.6	Pulse	0.10	3
1	Ho		464,303.38	0.48	101.3	Pulse	0.10	3
1	Bi		2,878,612.14	0.94	101.0	Pulse	0.10	3
2	Sc		125,848.01	1.18	103.2	Pulse	0.30	3
2	Ge		81,567.89	0.43	103.4	Pulse	0.30	3
2	Ge		122,833.51	0.78	102.4	Pulse	0.30	3
2	Rh		1,977,454.50	0.73	102.9	Pulse	0.30	3
2	In		831,657.37	0.60	103.4	Pulse	0.30	3
2	Tb		2,764,670.10	0.46	103.1	Pulse	0.30	3
2	Ho		283,674.92	1.44	103.6	Pulse	0.30	3
2	Bi		1,911,626.04	0.91	102.4	Pulse	0.30	3
3	Sc		142,347.92	0.17	96.7	Pulse	0.30	3
3	Ge		100,002.41	1.03	98.4	Pulse	0.30	3
3	Ge		152,426.91	0.70	99.5	Pulse	0.30	3
3	Rh		1,775,342.71	0.99	102.3	Pulse	0.30	3
3	Tb		3,240,217.30	0.88	101.9	Pulse	0.30	3

Quantitation Report

File Name 018_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 11:52
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.579	ug/l	0.14	261,898.57	2.278E-01	Pulse	0.25	3
B			1	99.271	ug/l	1.51	371,936.17	3.235E-01	Pulse	0.15	3
Ca			1	5053.972	ug/l	1.32	3,729,393.69	1.715E+00	Pulse	0.10	3
Sr			1	51.665	ug/l	1.14	2,123,218.98	6.751E-01	Pulse	0.10	3
Mo			1	51.141	ug/l	0.45	392,524.97	1.248E-01	Pulse	0.10	3
Ag			1	49.638	ug/l	0.47	986,119.60	2.960E-01	Pulse	0.10	3
Sn			1	50.324	ug/l	0.74	650,701.46	1.953E-01	Pulse	0.10	3
Sb			1	51.970	ug/l	1.26	786,860.56	1.650E-01	Pulse	0.10	3
Ba			1	51.154	ug/l	1.23	325,527.22	6.828E-02	Pulse	0.10	3
Tl			1	50.413	ug/l	1.29	1,934,990.39	6.733E-01	Pulse	0.10	3
Pb			1	50.119	ug/l	1.32	661,608.84	2.302E-01	Pulse	0.10	3
Pb			1	50.857	ug/l	1.20	590,940.90	2.056E-01	Pulse	0.10	3
Pb			1	50.296	ug/l	1.12	2,692,532.01	9.369E-01	Pulse	0.10	3
Na			2	4985.421	ug/l	1.24	5,431,186.45	4.156E+01	Analog	0.30	3
Mg			2	4932.944	ug/l	1.61	2,498,153.72	1.912E+01	Pulse	0.30	3
Al			2	4994.481	ug/l	1.37	870,760.33	6.664E+00	Pulse	0.30	3
K			2	4966.978	ug/l	1.70	2,106,030.75	1.612E+01	Pulse	0.30	3
Ca			2	5142.872	ug/l	1.15	113,441.86	8.682E-01	Pulse	0.30	3
Ti			2	50.779	ug/l	3.87	8,147.65	6.237E-02	Pulse	0.30	3
V			2	50.309	ug/l	2.14	263,347.92	2.016E+00	Pulse	0.30	3
Cr			2	49.999	ug/l	1.42	330,496.56	2.529E+00	Pulse	0.30	3
Mn			2	49.942	ug/l	0.25	181,711.79	1.391E+00	Pulse	0.30	3
Fe			2	5020.705	ug/l	1.45	26,493,592.28	2.028E+02	Analog	0.30	3
Co			2	49.493	ug/l	1.59	520,206.65	3.981E+00	Pulse	0.30	3
Ni			2	49.652	ug/l	1.10	137,368.25	1.051E+00	Pulse	0.30	3
Cu			2	49.792	ug/l	1.99	375,656.09	2.875E+00	Pulse	0.30	3
Zn			2	49.542	ug/l	1.46	59,471.68	4.551E-01	Pulse	0.30	3
As			2	49.775	ug/l	1.08	34,011.56	2.603E-01	Pulse	1.00	3
Cd			2	50.457	ug/l	0.91	94,866.44	1.129E-01	Pulse	0.30	3
Sn			2	50.113	ug/l	0.39	210,207.55	2.502E-01	Pulse	0.30	3
Se			3	195.717	ug/l	1.75	30,853.60	2.011E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,149,626.76	1.03	105.5	Pulse	0.10	3
1	Sc		2,174,402.31	1.29	103.7	Pulse	0.10	3
1	Ge		453,068.25	0.74	103.2	Pulse	0.10	3

Quantitation Report

1	Ge		636,995.96	0.56	103.6	Pulse	0.10	3
1	Rh		3,145,110.06	0.25	101.6	Pulse	0.10	3
1	In		3,331,996.38	0.36	103.2	Pulse	0.10	3
1	Tb		4,767,889.41	0.89	103.2	Pulse	0.10	3
1	Ho		473,918.44	0.49	103.4	Pulse	0.10	3
1	Bi		2,874,106.93	0.95	100.9	Pulse	0.10	3
2	Sc		130,681.32	1.42	107.2	Pulse	0.30	3
2	Ge		83,342.29	1.02	105.6	Pulse	0.30	3
2	Ge		126,215.57	0.47	105.2	Pulse	0.30	3
2	Rh		1,993,037.98	0.68	103.7	Pulse	0.30	3
2	In		840,224.82	1.10	104.5	Pulse	0.30	3
2	Tb		2,831,705.02	0.60	105.6	Pulse	0.30	3
2	Ho		290,303.77	0.15	106.0	Pulse	0.30	3
2	Bi		1,908,918.88	0.68	102.3	Pulse	0.30	3
3	Sc		145,290.15	0.73	98.7	Pulse	0.30	3
3	Ge		99,965.42	0.66	98.4	Pulse	0.30	3
3	Ge		153,474.01	1.46	100.2	Pulse	0.30	3
3	Rh		1,734,857.92	0.73	99.9	Pulse	0.30	3
3	Tb		3,261,128.62	0.67	102.5	Pulse	0.30	3

Quantitation Report

File Name 019_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 11:57
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	35.76	69.33	6.165E-05	Pulse	0.25	3
B			1	4.223	ug/l	1.92	27,226.66	2.420E-02	Pulse	0.15	3
Ca			1	1.300	ug/l	15.86	7,598.70	3.587E-03	Pulse	0.10	3
Sr			1	0.008	ug/l	32.24	710.04	2.247E-04	Pulse	0.10	3
Mo			1	0.087	ug/l	18.41	693.38	2.194E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	22.75	286.68	8.719E-05	Pulse	0.10	3
Sn			1	0.095	ug/l	5.38	3,093.78	9.406E-04	Pulse	0.10	3
Sb			1	0.135	ug/l	9.92	2,123.56	4.608E-04	Pulse	0.10	3
Ba			1	-0.002	ug/l	-208.31	83.34	1.808E-05	Pulse	0.10	3
Tl			1	0.020	ug/l	8.39	963.40	3.352E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	14.08	543.36	1.890E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	19.97	363.35	1.265E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	9.47	1,896.79	6.602E-04	Pulse	0.10	3
Na			2	-0.700	ug/l	-1.01	10,571.19	8.174E-02	Pulse	0.30	3
Mg			2	0.556	ug/l	19.26	554.46	4.285E-03	Pulse	0.30	3
Al			2	-2.338	ug/l	-11.70	542.24	4.191E-03	Pulse	0.30	3
K			2	-1.145	ug/l	-33.35	10,511.18	8.126E-02	Pulse	0.30	3
Ca			2	-0.529	ug/l	-153.99	128.89	9.958E-04	Pulse	0.30	3
Ti			2	0.014	ug/l	151.40	3.33	2.586E-05	Pulse	0.30	3
V			2	-0.023	ug/l	-10.78	212.23	1.641E-03	Pulse	0.30	3
Cr			2	-0.010	ug/l	-38.76	445.57	3.444E-03	Pulse	0.30	3
Mn			2	-0.005	ug/l	-45.66	123.34	9.532E-04	Pulse	0.30	3
Fe			2	0.745	ug/l	8.01	6,893.75	5.330E-02	Pulse	0.30	3
Co			2	0.005	ug/l	34.91	79.98	6.181E-04	Pulse	0.30	3
Ni			2	0.008	ug/l	161.00	176.67	1.364E-03	Pulse	0.30	3
Cu			2	-0.196	ug/l	-1.59	2,424.65	1.875E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.203	ug/l	-2.01	982.26	7.595E-03	Pulse	0.30	3
As			2	0.007	ug/l	116.06	18.00	1.390E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	-2296.15	21.03	2.474E-05	Pulse	0.30	3
Sn			2	0.141	ug/l	7.55	1,206.74	1.421E-03	Pulse	0.30	3
Se			3	0.090	ug/l	13.00	20.47	1.329E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,125,217.79	0.73	103.3	Pulse	0.10	3
1	Sc		2,118,356.27	0.88	101.0	Pulse	0.10	3
1	Ge		445,183.03	0.33	101.4	Pulse	0.10	3
1	Ge		620,825.11	0.52	100.9	Pulse	0.10	3
1	Rh		3,159,634.64	0.40	102.1	Pulse	0.10	3
1	In		3,289,519.06	0.61	101.9	Pulse	0.10	3
1	Tb		4,605,553.99	0.91	99.7	Pulse	0.10	3
1	Ho		461,982.40	1.65	100.8	Pulse	0.10	3
1	Bi		2,873,580.89	0.81	100.8	Pulse	0.10	3
2	Sc		129,334.04	0.90	106.1	Pulse	0.30	3
2	Ge		81,916.15	1.44	103.8	Pulse	0.30	3
2	Ge		124,164.74	0.53	103.5	Pulse	0.30	3
2	Rh		2,020,309.09	0.53	105.1	Pulse	0.30	3
2	In		849,134.52	0.50	105.6	Pulse	0.30	3
2	Tb		2,820,154.61	0.86	105.2	Pulse	0.30	3
2	Ho		287,775.71	0.98	105.1	Pulse	0.30	3
2	Bi		1,943,253.32	0.06	104.1	Pulse	0.30	3
3	Sc		145,357.08	0.53	98.7	Pulse	0.30	3
3	Ge		102,051.34	0.21	100.4	Pulse	0.30	3
3	Ge		153,936.48	1.31	100.5	Pulse	0.30	3
3	Rh		1,778,275.62	1.26	102.4	Pulse	0.30	3
3	Tb		3,250,210.50	1.00	102.2	Pulse	0.30	3

Quantitation Report

File Name 020LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 12:02
Sample Name CRI
Sample Type LLCCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.509	ug/l	3.02	2,601.57	2.303E-03	Pulse	0.25	3
B			1	25.900	ug/l	0.55	104,442.06	9.247E-02	Pulse	0.15	3
Ca			1	260.713	ug/l	0.21	197,760.20	9.147E-02	Pulse	0.10	3
Sr			1	4.909	ug/l	1.08	205,289.33	6.426E-02	Pulse	0.10	3
Mo			1	1.020	ug/l	5.50	7,968.95	2.495E-03	Pulse	0.10	3
Ag			1	0.476	ug/l	2.87	9,526.59	2.843E-03	Pulse	0.10	3
Sn			1	4.982	ug/l	2.56	66,474.37	1.985E-02	Pulse	0.10	3
Sb			1	2.110	ug/l	1.57	32,043.79	6.733E-03	Pulse	0.10	3
Ba			1	0.997	ug/l	3.27	6,431.57	1.351E-03	Pulse	0.10	3
Tl			1	0.492	ug/l	1.14	19,473.36	6.647E-03	Pulse	0.10	3
Pb			1	0.500	ug/l	7.68	6,948.57	2.371E-03	Pulse	0.10	3
Pb			1	0.494	ug/l	1.41	6,051.49	2.066E-03	Pulse	0.10	3
Pb			1	0.485	ug/l	1.50	27,330.76	9.328E-03	Pulse	0.10	3
Na			2	247.227	ug/l	1.16	280,496.81	2.144E+00	Pulse	0.30	3
Mg			2	253.551	ug/l	2.05	128,794.40	9.847E-01	Pulse	0.30	3
Al			2	23.668	ug/l	4.78	5,081.94	3.885E-02	Pulse	0.30	3
K			2	256.150	ug/l	1.96	119,261.14	9.118E-01	Pulse	0.30	3
Ca			2	272.550	ug/l	3.96	6,151.20	4.704E-02	Pulse	0.30	3
Ti			2	0.974	ug/l	20.23	157.78	1.205E-03	Pulse	0.30	3
V			2	0.951	ug/l	3.66	5,310.91	4.061E-02	Pulse	0.30	3
Cr			2	0.988	ug/l	4.00	7,039.35	5.383E-02	Pulse	0.30	3
Mn			2	1.006	ug/l	6.64	3,802.70	2.908E-02	Pulse	0.30	3
Fe			2	26.004	ug/l	1.37	140,380.59	1.073E+00	Pulse	0.30	3
Co			2	0.508	ug/l	1.81	5,377.23	4.111E-02	Pulse	0.30	3
Ni			2	0.989	ug/l	8.55	2,888.07	2.209E-02	Pulse	0.30	3
Cu			2	1.819	ug/l	2.28	17,511.70	1.339E-01	Pulse	0.30	3
Zn			2	5.106	ug/l	5.05	7,240.57	5.536E-02	Pulse	0.30	3
As			2	0.523	ug/l	1.96	371.34	2.838E-03	Pulse	1.00	3
Cd			2	0.473	ug/l	3.53	932.72	1.083E-03	Pulse	0.30	3
Sn			2	5.012	ug/l	2.34	22,114.50	2.567E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.518	ug/l	11.27	89.47	5.723E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,129,523.65	0.26	103.6	Pulse	0.10	3
1	Sc		2,162,029.81	0.31	103.1	Pulse	0.10	3
1	Ge		455,619.96	0.54	103.8	Pulse	0.10	3
1	Ge		635,029.43	0.09	103.2	Pulse	0.10	3
1	Rh		3,195,134.33	1.17	103.2	Pulse	0.10	3
1	In		3,350,055.84	1.42	103.8	Pulse	0.10	3
1	Tb		4,759,511.70	0.78	103.0	Pulse	0.10	3
1	Ho		467,780.02	2.14	102.0	Pulse	0.10	3
1	Bi		2,929,830.16	1.07	102.8	Pulse	0.10	3
2	Sc		130,818.75	1.55	107.3	Pulse	0.30	3
2	Ge		84,346.08	1.58	106.9	Pulse	0.30	3
2	Ge		127,003.63	1.44	105.9	Pulse	0.30	3
2	Rh		2,039,234.15	0.27	106.1	Pulse	0.30	3
2	In		861,607.63	0.53	107.1	Pulse	0.30	3
2	Tb		2,853,578.50	0.55	106.4	Pulse	0.30	3
2	Ho		290,446.67	1.30	106.1	Pulse	0.30	3
2	Bi		1,958,101.31	0.35	104.9	Pulse	0.30	3
3	Sc		147,369.38	0.75	100.1	Pulse	0.30	3
3	Ge		102,404.85	0.02	100.8	Pulse	0.30	3
3	Ge		156,429.49	1.27	102.1	Pulse	0.30	3
3	Rh		1,787,480.48	0.83	103.0	Pulse	0.30	3
3	Tb		3,270,456.47	0.31	102.8	Pulse	0.30	3

Quantitation Report

File Name 021ICSA.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 12:07
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	294.93	16.00	1.460E-05	Pulse	0.25	3
B			1	3.138	ug/l	4.94	22,711.10	2.078E-02	Pulse	0.15	3
Ca			1	95171.779	ug/l	0.30	68,504,765.65	3.224E+01	Analog	0.10	3
Sr			1	1967.109	ug/l	1.15	73,198,963.91	2.570E+01	Analog	0.10	3
Mo			1	2085.413	ug/l	0.52	14,494,808.12	5.089E+00	Analog	0.10	3
Ag			1	0.030	ug/l	20.16	586.70	1.868E-04	Pulse	0.10	3
Sn			1	1820.467	ug/l	1.00	22,100,497.17	7.044E+00	Analog	0.10	3
Sb			1	0.218	ug/l	5.36	3,367.18	7.264E-04	Pulse	0.10	3
Ba			1	0.233	ug/l	8.18	1,543.47	3.329E-04	Pulse	0.10	3
Tl			1	0.006	ug/l	39.58	400.02	1.496E-04	Pulse	0.10	3
Pb			1	0.119	ug/l	18.73	1,656.83	6.190E-04	Pulse	0.10	3
Pb			1	0.118	ug/l	13.86	1,446.79	5.424E-04	Pulse	0.10	3
Pb			1	0.114	ug/l	5.79	6,454.16	2.417E-03	Pulse	0.10	3
Na			2	94016.832	ug/l	1.31	102,905,298.13	7.823E+02	Analog	0.30	3
Mg			2	92926.570	ug/l	1.44	47,372,763.67	3.601E+02	Analog	0.30	3
Al			2	97854.867	ug/l	1.18	17,157,318.21	1.304E+02	Analog	0.30	3
K			2	98764.148	ug/l	1.12	41,949,893.89	3.189E+02	Analog	0.30	3
Ca			2	101928.845	ug/l	0.55	2,260,916.92	1.719E+01	Pulse	0.30	3
Ti			2	1866.701	ug/l	1.48	301,555.41	2.292E+00	Pulse	0.30	3
V			2	-0.013	ug/l	-15.19	267.78	2.035E-03	Pulse	0.30	3
Cr			2	0.278	ug/l	3.40	2,365.76	1.799E-02	Pulse	0.30	3
Mn			2	0.529	ug/l	5.09	2,082.38	1.583E-02	Pulse	0.30	3
Fe			2	91727.780	ug/l	0.98	487,259,482.86	3.704E+03	Analog	0.30	3
Co			2	0.180	ug/l	11.90	1,938.10	1.473E-02	Pulse	0.30	3
Ni			2	0.511	ug/l	5.87	1,577.88	1.199E-02	Pulse	0.30	3
Cu			2	1.965	ug/l	0.51	18,711.88	1.422E-01	Pulse	0.30	3
Zn			2	0.172	ug/l	36.32	1,443.42	1.097E-02	Pulse	0.30	3
As			2	0.073	ug/l	17.53	63.67	4.844E-04	Pulse	1.00	3
Cd			2	-0.304	ug/l	-11.34	-521.18	-6.547E-04	Pulse	0.30	3
Sn			2	1870.191	ug/l	0.81	7,413,054.71	9.311E+00	Analog	0.30	3
Se			3	0.112	ug/l	15.08	23.00	1.548E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,093,090.74	0.85	100.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,124,493.67	1.11	101.3	Pulse	0.10	3
1	Ge		441,770.62	1.91	100.6	Pulse	0.10	3
1	Ge		599,523.82	1.28	97.5	Pulse	0.10	3
1	Rh		2,848,376.21	0.87	92.0	Pulse	0.10	3
1	In		3,137,358.90	1.04	97.2	Pulse	0.10	3
1	Tb		4,636,190.97	1.39	100.4	Pulse	0.10	3
1	Ho		460,304.64	1.70	100.4	Pulse	0.10	3
1	Bi		2,671,608.60	2.52	93.7	Pulse	0.10	3
2	Sc		131,558.80	1.14	107.9	Pulse	0.30	3
2	Ge		82,540.48	0.69	104.6	Pulse	0.30	3
2	Ge		119,602.93	1.72	99.7	Pulse	0.30	3
2	Rh		1,831,108.26	1.15	95.2	Pulse	0.30	3
2	In		796,205.10	0.50	99.0	Pulse	0.30	3
2	Tb		2,763,902.67	0.14	103.1	Pulse	0.30	3
2	Ho		284,584.76	0.23	103.9	Pulse	0.30	3
2	Bi		1,770,747.78	0.34	94.9	Pulse	0.30	3
3	Sc		151,901.66	1.44	103.2	Pulse	0.30	3
3	Ge		101,975.52	0.88	100.4	Pulse	0.30	3
3	Ge		148,746.92	1.31	97.1	Pulse	0.30	3
3	Rh		1,599,787.96	0.09	92.1	Pulse	0.30	3
3	Tb		3,159,175.29	0.16	99.3	Pulse	0.30	3

Quantitation Report

File Name 022ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 12:12
Sample Name ICSAB
Sample Type ICSB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	142.55	20.00	1.936E-05	Pulse	0.25	3
B			1	52.568	ug/l	0.28	182,370.00	1.765E-01	Pulse	0.15	3
Ca			1	95322.725	ug/l	1.40	66,189,804.01	3.230E+01	Analog	0.10	3
Sr			1	1964.730	ug/l	1.13	72,670,663.92	2.567E+01	Analog	0.10	3
Mo			1	2060.682	ug/l	1.82	14,236,221.04	5.029E+00	Analog	0.10	3
Ag			1	20.096	ug/l	0.81	373,616.19	1.198E-01	Pulse	0.10	3
Sn			1	1804.208	ug/l	1.96	21,766,754.68	6.982E+00	Analog	0.10	3
Sb			1	0.189	ug/l	4.16	2,937.05	6.317E-04	Pulse	0.10	3
Ba			1	0.225	ug/l	11.41	1,496.80	3.221E-04	Pulse	0.10	3
Tl			1	0.004	ug/l	39.22	316.68	1.183E-04	Pulse	0.10	3
Pb			1	0.090	ug/l	11.36	1,303.44	4.869E-04	Pulse	0.10	3
Pb			1	0.092	ug/l	10.64	1,176.77	4.392E-04	Pulse	0.10	3
Pb			1	0.089	ug/l	7.25	5,260.57	1.964E-03	Pulse	0.10	3
Na			2	92028.390	ug/l	1.32	96,836,447.26	7.657E+02	Analog	0.30	3
Mg			2	91724.589	ug/l	1.13	44,953,268.21	3.555E+02	Analog	0.30	3
Al			2	96475.748	ug/l	1.67	16,261,006.58	1.286E+02	Analog	0.30	3
K			2	96751.691	ug/l	1.39	39,507,348.43	3.124E+02	Analog	0.30	3
Ca			2	100065.693	ug/l	1.34	2,133,657.76	1.687E+01	Pulse	0.30	3
Ti			2	1829.928	ug/l	1.13	284,192.31	2.247E+00	Pulse	0.30	3
V			2	20.456	ug/l	1.60	103,826.18	8.210E-01	Pulse	0.30	3
Cr			2	21.152	ug/l	0.87	135,607.03	1.072E+00	Pulse	0.30	3
Mn			2	21.253	ug/l	0.16	74,917.31	5.924E-01	Pulse	0.30	3
Fe			2	90839.197	ug/l	1.21	463,876,621.57	3.668E+03	Analog	0.30	3
Co			2	20.357	ug/l	0.62	207,114.09	1.638E+00	Pulse	0.30	3
Ni			2	20.382	ug/l	0.48	54,662.54	4.322E-01	Pulse	0.30	3
Cu			2	19.046	ug/l	1.06	141,422.00	1.118E+00	Pulse	0.30	3
Zn			2	17.985	ug/l	2.63	21,653.33	1.712E-01	Pulse	0.30	3
As			2	20.882	ug/l	0.71	13,818.18	1.093E-01	Pulse	1.00	3
Cd			2	19.863	ug/l	0.80	34,684.00	4.446E-02	Pulse	0.30	3
Sn			2	1877.614	ug/l	0.10	7,291,745.27	9.348E+00	Analog	0.30	3
Se			3	20.288	ug/l	0.55	3,052.22	2.088E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,033,510.66	0.10	94.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,049,450.33	0.11	97.7	Pulse	0.10	3
1	Ge		431,629.73	0.76	98.3	Pulse	0.10	3
1	Ge		585,235.19	0.77	95.2	Pulse	0.10	3
1	Rh		2,831,281.52	0.66	91.5	Pulse	0.10	3
1	In		3,118,259.99	1.39	96.6	Pulse	0.10	3
1	Tb		4,650,746.80	1.38	100.7	Pulse	0.10	3
1	Ho		462,688.73	1.08	100.9	Pulse	0.10	3
1	Bi		2,678,877.88	1.11	94.0	Pulse	0.10	3
2	Sc		126,466.76	0.61	103.7	Pulse	0.30	3
2	Ge		78,941.69	0.79	100.1	Pulse	0.30	3
2	Ge		117,873.65	0.58	98.3	Pulse	0.30	3
2	Rh		1,807,011.87	0.17	94.0	Pulse	0.30	3
2	In		780,066.92	0.49	97.0	Pulse	0.30	3
2	Tb		2,730,333.15	0.30	101.8	Pulse	0.30	3
2	Ho		280,350.27	0.27	102.4	Pulse	0.30	3
2	Bi		1,743,687.88	0.49	93.4	Pulse	0.30	3
3	Sc		150,080.71	0.38	101.9	Pulse	0.30	3
3	Ge		100,355.54	0.07	98.8	Pulse	0.30	3
3	Ge		146,196.80	1.61	95.4	Pulse	0.30	3
3	Rh		1,595,954.00	0.54	91.9	Pulse	0.30	3
3	Tb		3,171,859.39	0.69	99.7	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 12:17
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	125.31	20.00	2.099E-05	Pulse	0.25	3
B			1	1.123	ug/l	8.66	13,745.85	1.443E-02	Pulse	0.15	3
Ca			1	10.515	ug/l	9.98	12,772.05	6.709E-03	Pulse	0.10	3
Sr			1	0.214	ug/l	7.50	8,886.14	2.926E-03	Pulse	0.10	3
Mo			1	0.904	ug/l	7.21	6,714.97	2.211E-03	Pulse	0.10	3
Ag			1	0.008	ug/l	21.84	190.01	5.807E-05	Pulse	0.10	3
Sn			1	0.398	ug/l	7.85	6,918.47	2.112E-03	Pulse	0.10	3
Sb			1	0.028	ug/l	12.48	573.36	1.217E-04	Pulse	0.10	3
Ba			1	0.007	ug/l	26.83	146.68	3.114E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	713.09	210.01	7.165E-05	Pulse	0.10	3
Pb			1	0.007	ug/l	8.69	303.35	1.035E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	88.84	280.02	9.548E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	8.81	1,213.40	4.140E-04	Pulse	0.10	3
Na			2	10.688	ug/l	7.02	21,092.21	1.765E-01	Pulse	0.30	3
Mg			2	7.245	ug/l	6.31	3,611.56	3.021E-02	Pulse	0.30	3
Al			2	4.182	ug/l	8.72	1,538.97	1.288E-02	Pulse	0.30	3
K			2	7.071	ug/l	20.65	12,880.64	1.078E-01	Pulse	0.30	3
Ca			2	5.530	ug/l	16.42	241.12	2.017E-03	Pulse	0.30	3
Ti			2	0.294	ug/l	37.29	44.44	3.700E-04	Pulse	0.30	3
V			2	-0.026	ug/l	-8.74	180.00	1.505E-03	Pulse	0.30	3
Cr			2	0.003	ug/l	58.37	486.68	4.072E-03	Pulse	0.30	3
Mn			2	-0.004	ug/l	-154.32	117.78	9.832E-04	Pulse	0.30	3
Fe			2	9.929	ug/l	4.13	50,715.69	4.241E-01	Pulse	0.30	3
Co			2	0.002	ug/l	39.69	50.97	4.262E-04	Pulse	0.30	3
Ni			2	0.001	ug/l	436.74	144.45	1.208E-03	Pulse	0.30	3
Cu			2	-0.224	ug/l	-3.95	2,050.15	1.715E-02	Pulse	0.30	3
Zn			2	-0.373	ug/l	-9.69	725.58	6.072E-03	Pulse	0.30	3
As			2	0.004	ug/l	194.04	14.67	1.230E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.005	ug/l	-19.78	11.55	1.396E-05	Pulse	0.30	3
Sn			2	0.361	ug/l	2.57	2,081.28	2.516E-03	Pulse	0.30	3
Se			3	0.015	ug/l	43.42	8.40	5.578E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		952,437.37	0.54	87.4	Pulse	0.10	3
1	Sc		1,904,104.76	0.70	90.8	Pulse	0.10	3
1	Ge		415,542.99	0.33	94.6	Pulse	0.10	3
1	Ge		583,218.57	0.47	94.8	Pulse	0.10	3
1	Rh		3,036,552.35	0.10	98.1	Pulse	0.10	3
1	In		3,274,526.14	0.60	101.5	Pulse	0.10	3
1	Tb		4,711,215.03	0.69	102.0	Pulse	0.10	3
1	Ho		469,178.03	0.18	102.4	Pulse	0.10	3
1	Bi		2,930,831.21	0.72	102.8	Pulse	0.10	3
2	Sc		119,533.72	2.08	98.0	Pulse	0.30	3
2	Ge		77,754.11	1.51	98.6	Pulse	0.30	3
2	Ge		116,424.81	0.91	97.0	Pulse	0.30	3
2	Rh		1,972,610.47	2.09	102.6	Pulse	0.30	3
2	In		827,259.82	1.36	102.8	Pulse	0.30	3
2	Tb		2,810,469.54	1.98	104.8	Pulse	0.30	3
2	Ho		288,246.45	2.16	105.3	Pulse	0.30	3
2	Bi		1,950,585.34	1.02	104.5	Pulse	0.30	3
3	Sc		139,160.48	2.95	94.5	Pulse	0.30	3
3	Ge		99,751.92	1.98	98.2	Pulse	0.30	3
3	Ge		150,340.07	2.07	98.1	Pulse	0.30	3
3	Rh		1,729,749.31	2.60	99.6	Pulse	0.30	3
3	Tb		3,181,158.55	2.59	100.0	Pulse	0.30	3

Quantitation Report

File Name 024_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 12:22
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.649	ug/l	0.83	221,559.18	2.281E-01	Pulse	0.25	3
B			1	98.947	ug/l	1.35	313,237.16	3.225E-01	Pulse	0.15	3
Ca			1	5097.815	ug/l	0.82	3,399,352.86	1.730E+00	Pulse	0.10	3
Sr			1	51.507	ug/l	0.22	2,059,973.56	6.730E-01	Pulse	0.10	3
Mo			1	51.065	ug/l	0.50	381,426.84	1.246E-01	Pulse	0.10	3
Ag			1	49.215	ug/l	0.61	963,899.39	2.934E-01	Pulse	0.10	3
Sn			1	50.450	ug/l	1.41	643,085.04	1.958E-01	Pulse	0.10	3
Sb			1	51.231	ug/l	0.12	780,371.34	1.627E-01	Pulse	0.10	3
Ba			1	50.325	ug/l	1.71	322,149.34	6.717E-02	Pulse	0.10	3
Tl			1	50.462	ug/l	0.55	1,973,547.52	6.740E-01	Pulse	0.10	3
Pb			1	50.714	ug/l	0.35	682,149.08	2.329E-01	Pulse	0.10	3
Pb			1	50.675	ug/l	0.43	599,986.23	2.049E-01	Pulse	0.10	3
Pb			1	50.416	ug/l	0.24	2,750,038.93	9.391E-01	Pulse	0.10	3
Na			2	4933.100	ug/l	1.54	5,009,429.25	4.113E+01	Analog	0.30	3
Mg			2	4832.017	ug/l	0.65	2,280,991.44	1.873E+01	Pulse	0.30	3
Al			2	4929.008	ug/l	0.37	801,021.83	6.577E+00	Pulse	0.30	3
K			2	4973.977	ug/l	0.41	1,965,907.07	1.614E+01	Pulse	0.30	3
Ca			2	5186.118	ug/l	0.35	106,629.66	8.755E-01	Pulse	0.30	3
Ti			2	50.736	ug/l	1.50	7,589.60	6.232E-02	Pulse	0.30	3
V			2	50.570	ug/l	0.34	246,759.32	2.026E+00	Pulse	0.30	3
Cr			2	50.295	ug/l	0.17	309,891.93	2.544E+00	Pulse	0.30	3
Mn			2	50.674	ug/l	0.34	171,846.00	1.411E+00	Pulse	0.30	3
Fe			2	5119.653	ug/l	0.45	25,182,009.55	2.068E+02	Analog	0.30	3
Co			2	50.449	ug/l	0.53	494,282.09	4.058E+00	Pulse	0.30	3
Ni			2	50.090	ug/l	0.18	129,169.62	1.061E+00	Pulse	0.30	3
Cu			2	50.104	ug/l	1.09	352,349.06	2.893E+00	Pulse	0.30	3
Zn			2	50.597	ug/l	1.25	56,590.49	4.646E-01	Pulse	0.30	3
As			2	50.915	ug/l	0.97	32,427.71	2.662E-01	Pulse	1.00	3
Cd			2	50.364	ug/l	1.53	92,621.69	1.127E-01	Pulse	0.30	3
Sn			2	50.464	ug/l	0.86	207,068.32	2.519E-01	Pulse	0.30	3
Se			3	196.745	ug/l	1.52	30,911.25	2.021E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		971,250.09	0.92	89.1	Pulse	0.10	3
1	Sc		1,964,890.29	1.26	93.7	Pulse	0.10	3
1	Ge		427,455.50	1.09	97.4	Pulse	0.10	3

Quantitation Report

1	Ge		601,495.32	1.55	97.8	Pulse	0.10	3
1	Rh		3,060,738.49	0.30	98.9	Pulse	0.10	3
1	In		3,284,925.06	0.71	101.8	Pulse	0.10	3
1	Tb		4,796,424.20	1.31	103.8	Pulse	0.10	3
1	Ho		477,692.54	1.31	104.2	Pulse	0.10	3
1	Bi		2,928,319.95	0.42	102.8	Pulse	0.10	3
2	Sc		121,798.05	0.46	99.9	Pulse	0.30	3
2	Ge		78,972.88	1.08	100.1	Pulse	0.30	3
2	Ge		119,895.93	0.67	99.9	Pulse	0.30	3
2	Rh		1,943,522.35	0.52	101.1	Pulse	0.30	3
2	In		821,915.88	0.58	102.2	Pulse	0.30	3
2	Tb		2,824,543.98	0.33	105.3	Pulse	0.30	3
2	Ho		288,068.03	0.60	105.2	Pulse	0.30	3
2	Bi		1,918,924.78	0.45	102.8	Pulse	0.30	3
3	Sc		145,458.26	2.09	98.8	Pulse	0.30	3
3	Ge		100,283.95	0.26	98.7	Pulse	0.30	3
3	Ge		152,956.01	1.62	99.8	Pulse	0.30	3
3	Rh		1,731,928.82	0.76	99.8	Pulse	0.30	3
3	Tb		3,270,122.72	0.44	102.8	Pulse	0.30	3

Quantitation Report

File Name 025_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 12:27
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	59.06	66.67	6.714E-05	Pulse	0.25	3
B			1	3.214	ug/l	7.15	20,844.30	2.102E-02	Pulse	0.15	3
Ca			1	1.069	ug/l	43.72	6,898.36	3.509E-03	Pulse	0.10	3
Sr			1	0.024	ug/l	10.71	1,380.12	4.422E-04	Pulse	0.10	3
Mo			1	0.159	ug/l	14.31	1,233.43	3.952E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	27.69	276.68	8.376E-05	Pulse	0.10	3
Sn			1	0.136	ug/l	13.53	3,630.58	1.098E-03	Pulse	0.10	3
Sb			1	0.150	ug/l	14.20	2,440.29	5.096E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	95.43	120.01	2.505E-05	Pulse	0.10	3
Tl			1	0.020	ug/l	20.51	983.41	3.313E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	10.57	513.36	1.730E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	32.09	406.69	1.370E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	11.77	1,793.45	6.042E-04	Pulse	0.10	3
Na			2	3.516	ug/l	70.36	14,256.12	1.168E-01	Pulse	0.30	3
Mg			2	1.240	ug/l	7.46	845.59	6.933E-03	Pulse	0.30	3
Al			2	-1.754	ug/l	-19.04	605.58	4.970E-03	Pulse	0.30	3
K			2	1.188	ug/l	34.93	10,828.04	8.880E-02	Pulse	0.30	3
Ca			2	-0.050	ug/l	-1814.53	131.11	1.077E-03	Pulse	0.30	3
Ti			2	0.060	ug/l	75.79	10.00	8.238E-05	Pulse	0.30	3
V			2	-0.027	ug/l	-36.92	178.89	1.468E-03	Pulse	0.30	3
Cr			2	-0.009	ug/l	-39.03	422.23	3.462E-03	Pulse	0.30	3
Mn			2	-0.003	ug/l	-183.47	123.34	1.011E-03	Pulse	0.30	3
Fe			2	1.734	ug/l	4.48	11,362.90	9.321E-02	Pulse	0.30	3
Co			2	0.006	ug/l	16.37	89.97	7.384E-04	Pulse	0.30	3
Ni			2	0.001	ug/l	427.62	147.78	1.212E-03	Pulse	0.30	3
Cu			2	-0.233	ug/l	-2.45	2,026.82	1.662E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.229	ug/l	-26.13	897.81	7.366E-03	Pulse	0.30	3
As			2	0.013	ug/l	64.21	21.33	1.746E-04	Pulse	1.00	3
Cd			2	-0.004	ug/l	-86.20	13.19	1.581E-05	Pulse	0.30	3
Sn			2	0.192	ug/l	3.32	1,398.97	1.674E-03	Pulse	0.30	3
Se			3	0.098	ug/l	5.82	21.20	1.408E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		991,644.80	0.49	91.0	Pulse	0.10	3
1	Sc		1,965,598.15	0.42	93.7	Pulse	0.10	3
1	Ge		426,381.97	0.50	97.1	Pulse	0.10	3
1	Ge		601,710.34	0.85	97.8	Pulse	0.10	3
1	Rh		3,119,979.54	1.24	100.8	Pulse	0.10	3
1	In		3,306,516.07	0.80	102.4	Pulse	0.10	3
1	Tb		4,789,165.87	0.63	103.7	Pulse	0.10	3
1	Ho		477,763.85	0.38	104.2	Pulse	0.10	3
1	Bi		2,968,374.54	0.52	104.2	Pulse	0.10	3
2	Sc		121,932.55	1.22	100.0	Pulse	0.30	3
2	Ge		79,473.06	1.17	100.7	Pulse	0.30	3
2	Ge		120,202.79	1.11	100.2	Pulse	0.30	3
2	Rh		1,990,912.28	0.60	103.6	Pulse	0.30	3
2	In		835,482.78	1.00	103.9	Pulse	0.30	3
2	Tb		2,828,867.11	0.99	105.5	Pulse	0.30	3
2	Ho		290,468.67	0.27	106.1	Pulse	0.30	3
2	Bi		1,975,122.35	0.40	105.8	Pulse	0.30	3
3	Sc		142,195.03	3.01	96.6	Pulse	0.30	3
3	Ge		98,829.73	1.85	97.3	Pulse	0.30	3
3	Ge		150,657.71	2.63	98.3	Pulse	0.30	3
3	Rh		1,746,846.18	2.38	100.6	Pulse	0.30	3
3	Tb		3,192,493.48	2.96	100.4	Pulse	0.30	3

Quantitation Report

File Name 026SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 12:32
Sample Name mp17239-s1conf
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.314	ug/l	1.89	14,226.10	1.340E-02	Pulse	0.25	3
B			1	2756.420	ug/l	0.98	380,259.26	3.581E-01	Pulse	0.15	3
Ca			1	261625.593	ug/l	0.93	7,770,910.92	3.548E+00	Analog	0.10	3
Sr			1	4989.735	ug/l	0.49	8,050,659.46	2.608E+00	Analog	0.10	3
Mo			1	84.453	ug/l	2.78	25,474.47	8.250E-03	Pulse	0.10	3
Ag			1	67.691	ug/l	1.47	54,625.02	1.615E-02	Pulse	0.10	3
Sn			1	73.608	ug/l	1.80	40,469.71	1.196E-02	Pulse	0.10	3
Sb			1	75.499	ug/l	1.30	47,860.59	9.622E-03	Pulse	0.10	3
Ba			1	105.182	ug/l	2.04	28,036.17	5.635E-03	Pulse	0.10	3
Tl			1	73.024	ug/l	0.08	109,587.52	3.908E-02	Pulse	0.10	3
Pb			1	79.791	ug/l	2.62	41,295.18	1.473E-02	Pulse	0.10	3
Pb			1	80.966	ug/l	1.59	36,900.26	1.316E-02	Pulse	0.10	3
Pb			1	80.151	ug/l	0.96	168,249.86	6.000E-02	Pulse	0.10	3
Na			2	6173975.230	ug/l	1.16	286,910,379.71	2.055E+03	Analog	0.30	3
Mg			2	747556.856	ug/l	1.38	16,181,194.91	1.159E+02	Analog	0.30	3
Al			2	4095.257	ug/l	0.99	31,506.13	2.256E-01	Pulse	0.30	3
K			2	238236.344	ug/l	1.03	4,307,300.11	3.085E+01	Pulse	0.30	3
Ca			2	273978.845	ug/l	0.72	258,164.36	1.849E+00	Pulse	0.30	3
Ti			2	88.782	ug/l	5.36	610.02	4.370E-03	Pulse	0.30	3
V			2	80.785	ug/l	2.54	18,410.39	1.318E-01	Pulse	0.30	3
Cr			2	72.021	ug/l	2.10	20,867.73	1.494E-01	Pulse	0.30	3
Mn			2	187.517	ug/l	0.95	29,293.83	2.098E-01	Pulse	0.30	3
Fe			2	4538.234	ug/l	1.08	1,026,820.27	7.353E+00	Pulse	0.30	3
Co			2	69.312	ug/l	0.38	31,176.80	2.233E-01	Pulse	0.30	3
Ni			2	67.125	ug/l	3.09	8,096.52	5.797E-02	Pulse	0.30	3
Cu			2	68.312	ug/l	2.90	25,982.93	1.861E-01	Pulse	0.30	3
Zn			2	66.538	ug/l	4.11	4,659.60	3.337E-02	Pulse	0.30	3
As			2	73.558	ug/l	3.20	2,162.82	1.548E-02	Pulse	1.00	3
Cd			2	68.721	ug/l	1.61	5,382.19	6.175E-03	Pulse	0.30	3
Sn			2	74.983	ug/l	3.02	13,641.59	1.565E-02	Pulse	0.30	3
Se			3	352.741	ug/l	1.27	2,248.02	1.453E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,061,732.49	1.24	97.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,190,099.60	1.28	104.4	Pulse	0.10	3
1	Ge		454,205.45	1.30	103.4	Pulse	0.10	3
1	Ge		637,469.77	1.07	103.6	Pulse	0.10	3
1	Rh		3,087,273.81	1.03	99.8	Pulse	0.10	3
1	In		3,382,435.60	1.56	104.8	Pulse	0.10	3
1	Tb		4,974,691.38	1.43	107.7	Pulse	0.10	3
1	Ho		495,107.12	1.16	108.0	Pulse	0.10	3
1	Bi		2,804,345.48	1.34	98.4	Pulse	0.10	3
2	Sc		139,645.14	1.11	114.5	Pulse	0.30	3
2	Ge		86,067.23	1.41	109.1	Pulse	0.30	3
2	Ge		130,173.72	1.44	108.5	Pulse	0.30	3
2	Rh		1,987,169.64	0.87	103.4	Pulse	0.30	3
2	In		871,663.06	0.61	108.4	Pulse	0.30	3
2	Tb		2,963,136.83	0.55	110.5	Pulse	0.30	3
2	Ho		305,034.07	0.34	111.4	Pulse	0.30	3
2	Bi		1,856,667.91	0.18	99.5	Pulse	0.30	3
3	Sc		153,309.30	0.81	104.1	Pulse	0.30	3
3	Ge		102,447.39	0.90	100.8	Pulse	0.30	3
3	Ge		154,692.43	0.23	101.0	Pulse	0.30	3
3	Rh		1,661,791.78	1.08	95.7	Pulse	0.30	3
3	Tb		3,203,143.21	1.06	100.7	Pulse	0.30	3

Quantitation Report

File Name 027SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 12:37
Sample Name mp17220-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	64.11	38.67	3.739E-05	Pulse	0.25	3
B			1	8.148	ug/l	3.44	24,544.73	2.373E-02	Pulse	0.15	3
Ca			1	19.337	ug/l	9.47	13,369.24	6.422E-03	Pulse	0.10	3
Sr			1	0.129	ug/l	7.78	3,200.47	9.696E-04	Pulse	0.10	3
Mo			1	0.278	ug/l	2.15	1,140.10	3.454E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	23.08	183.34	5.246E-05	Pulse	0.10	3
Sn			1	0.761	ug/l	6.28	7,148.57	2.044E-03	Pulse	0.10	3
Sb			1	0.264	ug/l	5.76	2,293.60	4.526E-04	Pulse	0.10	3
Ba			1	0.045	ug/l	11.12	260.01	5.130E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	6.11	590.04	1.821E-04	Pulse	0.10	3
Pb			1	0.057	ug/l	11.37	656.71	2.027E-04	Pulse	0.10	3
Pb			1	0.053	ug/l	15.15	566.70	1.749E-04	Pulse	0.10	3
Pb			1	0.052	ug/l	11.07	2,536.86	7.828E-04	Pulse	0.10	3
Na			2	64.114	ug/l	9.26	45,043.28	3.543E-01	Pulse	0.30	3
Mg			2	7.893	ug/l	8.43	2,214.62	1.742E-02	Pulse	0.30	3
Al			2	0.807	ug/l	132.82	997.82	7.845E-03	Pulse	0.30	3
K			2	2.490	ug/l	107.33	11,311.72	8.898E-02	Pulse	0.30	3
Ca			2	18.497	ug/l	36.88	335.56	2.644E-03	Pulse	0.30	3
Ti			2	0.672	ug/l	51.40	53.33	4.214E-04	Pulse	0.30	3
V			2	0.287	ug/l	6.71	1,055.61	8.303E-03	Pulse	0.30	3
Cr			2	0.289	ug/l	8.59	1,427.86	1.123E-02	Pulse	0.30	3
Mn			2	0.101	ug/l	36.03	320.01	2.512E-03	Pulse	0.30	3
Fe			2	7.830	ug/l	0.74	23,059.59	1.813E-01	Pulse	0.30	3
Co			2	0.015	ug/l	30.71	108.83	8.578E-04	Pulse	0.30	3
Ni			2	0.051	ug/l	68.57	218.89	1.724E-03	Pulse	0.30	3
Cu			2	0.266	ug/l	11.94	4,776.31	3.756E-02	Pulse	0.30	3
Zn			2	1.305	ug/l	1.40	1,945.70	1.530E-02	Pulse	0.30	3
As			2	0.129	ug/l	13.83	56.33	4.430E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.002	ug/l	-420.75	19.89	2.281E-05	Pulse	0.30	3
Sn			2	0.767	ug/l	8.26	2,286.86	2.627E-03	Pulse	0.30	3
Se			3	0.049	ug/l	8.15	10.67	6.541E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,034,514.43	0.73	94.9	Pulse	0.10	3
1	Sc		2,081,680.49	0.79	99.3	Pulse	0.10	3
1	Ge		462,687.55	1.19	105.4	Pulse	0.10	3
1	Ge		645,831.46	0.28	105.0	Pulse	0.10	3
1	Rh		3,301,112.24	0.24	106.7	Pulse	0.10	3
1	In		3,497,092.71	0.82	108.3	Pulse	0.10	3
1	Tb		5,065,789.30	1.75	109.7	Pulse	0.10	3
1	Ho		507,880.40	1.49	110.8	Pulse	0.10	3
1	Bi		3,239,527.76	0.76	113.7	Pulse	0.10	3
2	Sc		127,197.30	1.78	104.3	Pulse	0.30	3
2	Ge		85,106.25	1.23	107.9	Pulse	0.30	3
2	Ge		128,990.03	0.20	107.5	Pulse	0.30	3
2	Rh		2,083,347.90	0.21	108.4	Pulse	0.30	3
2	In		870,606.69	0.71	108.2	Pulse	0.30	3
2	Tb		2,978,945.30	1.11	111.1	Pulse	0.30	3
2	Ho		306,808.99	1.28	112.1	Pulse	0.30	3
2	Bi		2,103,656.93	0.34	112.7	Pulse	0.30	3
3	Sc		151,666.04	7.14	103.0	Pulse	0.30	3
3	Ge		107,390.91	5.48	105.7	Pulse	0.30	3
3	Ge		162,974.41	4.75	106.4	Pulse	0.30	3
3	Rh		1,842,402.98	6.69	106.1	Pulse	0.30	3
3	Tb		3,409,885.28	7.31	107.2	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 12:42
Sample Name mp17220-b1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.854	ug/l	0.46	162,215.20	1.708E-01	Pulse	0.25	3
B			1	85.597	ug/l	0.95	138,337.87	1.457E-01	Pulse	0.15	3
Ca			1	4067.116	ug/l	0.53	1,331,601.75	6.921E-01	Pulse	0.10	3
Sr			1	78.592	ug/l	0.79	1,571,635.76	5.135E-01	Pulse	0.10	3
Mo			1	77.341	ug/l	1.23	288,828.68	9.437E-02	Pulse	0.10	3
Ag			1	75.395	ug/l	0.92	751,742.91	2.248E-01	Pulse	0.10	3
Sn			1	78.405	ug/l	0.31	509,207.06	1.523E-01	Pulse	0.10	3
Sb			1	75.844	ug/l	0.98	599,629.04	1.204E-01	Pulse	0.10	3
Ba			1	74.470	ug/l	0.67	247,455.25	4.971E-02	Pulse	0.10	3
Tl			1	75.106	ug/l	0.15	1,560,846.69	5.016E-01	Pulse	0.10	3
Pb			1	77.901	ug/l	0.31	556,838.25	1.789E-01	Pulse	0.10	3
Pb			1	77.432	ug/l	0.90	487,174.64	1.566E-01	Pulse	0.10	3
Pb			1	77.357	ug/l	0.54	2,242,319.64	7.205E-01	Pulse	0.10	3
Na			2	3939.265	ug/l	0.29	1,953,866.38	1.647E+01	Pulse	0.30	3
Mg			2	3903.376	ug/l	0.50	897,299.34	7.566E+00	Pulse	0.30	3
Al			2	3895.536	ug/l	1.05	308,759.27	2.603E+00	Pulse	0.30	3
K			2	3981.919	ug/l	0.60	772,313.49	6.512E+00	Pulse	0.30	3
Ca			2	4272.409	ug/l	2.26	42,846.27	3.612E-01	Pulse	0.30	3
Ti			2	76.164	ug/l	0.88	5,547.65	4.678E-02	Pulse	0.30	3
V			2	78.957	ug/l	0.58	187,649.66	1.582E+00	Pulse	0.30	3
Cr			2	77.924	ug/l	0.16	233,866.74	1.972E+00	Pulse	0.30	3
Mn			2	78.053	ug/l	0.62	128,901.97	1.087E+00	Pulse	0.30	3
Fe			2	4196.457	ug/l	0.98	10,051,173.49	8.475E+01	Analog	0.30	3
Co			2	78.311	ug/l	0.81	373,549.64	3.150E+00	Pulse	0.30	3
Ni			2	77.767	ug/l	0.50	97,669.26	8.235E-01	Pulse	0.30	3
Cu			2	79.008	ug/l	0.57	271,275.69	2.287E+00	Pulse	0.30	3
Zn			2	71.814	ug/l	1.14	39,433.00	3.325E-01	Pulse	0.30	3
As			2	73.080	ug/l	1.40	22,665.03	1.911E-01	Pulse	1.00	3
Cd			2	74.313	ug/l	0.44	68,966.13	8.315E-02	Pulse	0.30	3
Sn			2	78.328	ug/l	0.74	162,297.56	1.957E-01	Pulse	0.30	3
Se			3	323.936	ug/l	1.48	27,125.04	1.664E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		949,589.66	0.73	87.1	Pulse	0.10	3
1	Sc		1,924,115.86	0.65	91.7	Pulse	0.10	3
1	Ge		446,283.03	0.45	101.6	Pulse	0.10	3

Quantitation Report

1	Ge		627,365.80	0.67	102.0	Pulse	0.10	3
1	Rh		3,060,723.18	0.92	98.9	Pulse	0.10	3
1	In		3,344,450.58	0.50	103.6	Pulse	0.10	3
1	Tb		4,978,565.45	0.74	107.8	Pulse	0.10	3
1	Ho		500,709.84	1.54	109.2	Pulse	0.10	3
1	Bi		3,111,952.56	1.06	109.2	Pulse	0.10	3
2	Sc		118,600.07	0.64	97.3	Pulse	0.30	3
2	Ge		83,083.10	1.01	105.3	Pulse	0.30	3
2	Ge		124,147.74	0.93	103.5	Pulse	0.30	3
2	Rh		1,979,216.94	0.67	103.0	Pulse	0.30	3
2	In		829,426.66	1.05	103.1	Pulse	0.30	3
2	Tb		2,907,515.72	0.90	108.4	Pulse	0.30	3
2	Ho		300,640.42	0.41	109.8	Pulse	0.30	3
2	Bi		2,049,267.28	0.44	109.8	Pulse	0.30	3
3	Sc		150,808.23	0.82	102.4	Pulse	0.30	3
3	Ge		106,670.86	0.61	105.0	Pulse	0.30	3
3	Ge		163,035.14	1.69	106.4	Pulse	0.30	3
3	Rh		1,799,786.94	0.89	103.7	Pulse	0.30	3
3	Tb		3,420,290.77	1.30	107.5	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 12:47
Sample Name	mp17220-s1 4
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	77.878	ug/l	1.12	35,853.63	3.509E-02	Pulse	0.25	3
B			1	100.956	ug/l	2.63	43,623.02	4.269E-02	Pulse	0.15	3
Ca			1	388444.031	ug/l	0.64	27,100,747.93	1.316E+01	Analog	0.10	3
Sr			1	186.908	ug/l	0.77	773,101.94	2.443E-01	Pulse	0.10	3
Mo			1	113.194	ug/l	0.63	87,432.40	2.763E-02	Pulse	0.10	3
Ag			1	75.212	ug/l	1.39	154,938.54	4.485E-02	Pulse	0.10	3
Sn			1	80.286	ug/l	0.92	109,288.69	3.164E-02	Pulse	0.10	3
Sb			1	78.763	ug/l	1.51	128,125.53	2.504E-02	Pulse	0.10	3
Ba			1	788.214	ug/l	1.38	538,239.83	1.052E-01	Pulse	0.10	3
Tl			1	78.593	ug/l	0.65	323,752.74	1.050E-01	Pulse	0.10	3
Pb			1	81.426	ug/l	0.43	115,481.85	3.746E-02	Pulse	0.10	3
Pb			1	82.562	ug/l	0.42	103,072.03	3.344E-02	Pulse	0.10	3
Pb			1	81.554	ug/l	0.27	469,058.62	1.522E-01	Pulse	0.10	3
Na			2	105454.704	ug/l	0.45	11,296,080.10	8.782E+01	Analog	0.30	3
Mg			2	18219.817	ug/l	0.51	908,463.51	7.063E+00	Pulse	0.30	3
Al			2	4085.472	ug/l	0.55	70,976.97	5.518E-01	Pulse	0.30	3
K			2	6924.095	ug/l	0.11	298,415.52	2.320E+00	Pulse	0.30	3
Ca			2	384645.761	ug/l	0.22	834,284.93	6.486E+00	Pulse	0.30	3
Ti			2	82.096	ug/l	3.26	1,297.84	1.009E-02	Pulse	0.30	3
V			2	79.150	ug/l	2.33	41,061.89	3.193E-01	Pulse	0.30	3
Cr			2	86.083	ug/l	1.90	56,430.03	4.387E-01	Pulse	0.30	3
Mn			2	80.986	ug/l	0.31	29,122.41	2.264E-01	Pulse	0.30	3
Fe			2	4070.373	ug/l	0.32	2,117,071.24	1.646E+01	Pulse	0.30	3
Co			2	77.552	ug/l	1.16	80,267.14	6.241E-01	Pulse	0.30	3
Ni			2	76.798	ug/l	1.38	21,043.65	1.636E-01	Pulse	0.30	3
Cu			2	84.494	ug/l	0.71	65,952.71	5.128E-01	Pulse	0.30	3
Zn			2	76.581	ug/l	0.08	10,074.30	7.832E-02	Pulse	0.30	3
As			2	76.865	ug/l	2.76	5,181.17	4.028E-02	Pulse	1.00	3
Cd			2	76.576	ug/l	2.16	14,791.37	1.716E-02	Pulse	0.30	3
Sn			2	80.018	ug/l	0.60	34,964.34	4.055E-02	Pulse	0.30	3
Se			3	375.051	ug/l	1.70	6,133.42	3.856E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,021,900.76	0.72	93.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,058,957.16	0.50	98.2	Pulse	0.10	3
1	Ge		444,305.40	0.31	101.2	Pulse	0.10	3
1	Ge		623,081.83	1.03	101.3	Pulse	0.10	3
1	Rh		3,164,577.97	0.93	102.3	Pulse	0.10	3
1	In		3,454,509.04	0.10	107.0	Pulse	0.10	3
1	Tb		5,116,860.96	1.20	110.8	Pulse	0.10	3
1	Ho		509,268.04	0.76	111.1	Pulse	0.10	3
1	Bi		3,082,617.98	0.90	108.2	Pulse	0.10	3
2	Sc		128,624.45	0.33	105.5	Pulse	0.30	3
2	Ge		83,338.84	1.74	105.6	Pulse	0.30	3
2	Ge		125,672.36	0.08	104.8	Pulse	0.30	3
2	Rh		2,019,792.90	0.27	105.1	Pulse	0.30	3
2	In		862,186.43	0.26	107.2	Pulse	0.30	3
2	Tb		2,969,962.87	0.48	110.8	Pulse	0.30	3
2	Ho		305,253.76	1.06	111.5	Pulse	0.30	3
2	Bi		1,999,806.52	0.58	107.2	Pulse	0.30	3
3	Sc		154,750.59	0.35	105.1	Pulse	0.30	3
3	Ge		104,808.55	1.11	103.2	Pulse	0.30	3
3	Ge		159,057.12	0.67	103.8	Pulse	0.30	3
3	Rh		1,785,330.21	0.16	102.8	Pulse	0.30	3
3	Tb		3,397,199.66	0.40	106.8	Pulse	0.30	3

Quantitation Report

File Name 030SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 12:52
Sample Name mp17220-s2
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.148	ug/l	0.70	36,850.34	3.521E-02	Pulse	0.25	3
B			1	95.603	ug/l	2.38	42,916.48	4.101E-02	Pulse	0.15	3
Ca			1	393975.706	ug/l	1.79	27,650,292.09	1.335E+01	Analog	0.10	3
Sr			1	190.337	ug/l	0.50	784,453.11	2.488E-01	Pulse	0.10	3
Mo			1	112.796	ug/l	1.93	86,805.91	2.753E-02	Pulse	0.10	3
Ag			1	75.227	ug/l	1.48	155,609.79	4.486E-02	Pulse	0.10	3
Sn			1	80.928	ug/l	0.96	110,599.82	3.188E-02	Pulse	0.10	3
Sb			1	79.154	ug/l	1.13	128,912.53	2.517E-02	Pulse	0.10	3
Ba			1	793.208	ug/l	0.59	542,298.71	1.059E-01	Pulse	0.10	3
Tl			1	79.288	ug/l	0.61	326,769.14	1.060E-01	Pulse	0.10	3
Pb			1	82.394	ug/l	0.70	116,910.57	3.791E-02	Pulse	0.10	3
Pb			1	82.844	ug/l	0.70	103,475.14	3.355E-02	Pulse	0.10	3
Pb			1	82.053	ug/l	0.31	472,154.50	1.531E-01	Pulse	0.10	3
Na			2	107585.975	ug/l	2.86	11,415,109.55	8.960E+01	Analog	0.30	3
Mg			2	18341.614	ug/l	0.88	906,007.36	7.110E+00	Pulse	0.30	3
Al			2	4081.626	ug/l	0.93	70,250.66	5.513E-01	Pulse	0.30	3
K			2	6999.424	ug/l	0.53	298,741.75	2.344E+00	Pulse	0.30	3
Ca			2	385686.415	ug/l	0.36	828,779.67	6.504E+00	Pulse	0.30	3
Ti			2	75.538	ug/l	6.56	1,183.39	9.285E-03	Pulse	0.30	3
V			2	81.745	ug/l	1.01	42,008.64	3.296E-01	Pulse	0.30	3
Cr			2	89.231	ug/l	0.85	57,931.87	4.546E-01	Pulse	0.30	3
Mn			2	82.595	ug/l	0.84	29,420.73	2.309E-01	Pulse	0.30	3
Fe			2	4128.806	ug/l	0.84	2,127,399.57	1.670E+01	Pulse	0.30	3
Co			2	78.769	ug/l	1.43	80,765.04	6.338E-01	Pulse	0.30	3
Ni			2	79.244	ug/l	1.09	21,506.37	1.688E-01	Pulse	0.30	3
Cu			2	82.232	ug/l	1.48	63,691.62	4.998E-01	Pulse	0.30	3
Zn			2	73.242	ug/l	2.68	9,597.34	7.532E-02	Pulse	0.30	3
As			2	79.875	ug/l	1.88	5,333.22	4.186E-02	Pulse	1.00	3
Cd			2	78.795	ug/l	1.98	15,106.09	1.765E-02	Pulse	0.30	3
Sn			2	82.260	ug/l	0.40	35,658.08	4.167E-02	Pulse	0.30	3
Se			3	379.551	ug/l	1.26	6,185.70	3.902E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,046,639.01	0.66	96.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,071,208.82	0.27	98.8	Pulse	0.10	3
1	Ge		449,100.39	1.55	102.3	Pulse	0.10	3
1	Ge		626,249.95	1.00	101.8	Pulse	0.10	3
1	Rh		3,153,111.00	0.56	101.9	Pulse	0.10	3
1	In		3,468,865.55	0.82	107.5	Pulse	0.10	3
1	Tb		5,122,610.55	0.27	110.9	Pulse	0.10	3
1	Ho		510,923.46	0.98	111.5	Pulse	0.10	3
1	Bi		3,084,074.02	0.18	108.2	Pulse	0.10	3
2	Sc		127,431.89	1.10	104.5	Pulse	0.30	3
2	Ge		81,845.68	1.28	103.7	Pulse	0.30	3
2	Ge		123,714.53	0.39	103.1	Pulse	0.30	3
2	Rh		2,002,451.10	0.45	104.2	Pulse	0.30	3
2	In		855,769.87	0.83	106.4	Pulse	0.30	3
2	Tb		2,965,817.87	0.13	110.6	Pulse	0.30	3
2	Ho		303,359.51	0.28	110.8	Pulse	0.30	3
2	Bi		1,982,603.95	0.13	106.2	Pulse	0.30	3
3	Sc		151,050.59	0.71	102.6	Pulse	0.30	3
3	Ge		103,354.97	0.64	101.7	Pulse	0.30	3
3	Ge		158,523.46	1.28	103.5	Pulse	0.30	3
3	Rh		1,790,266.46	0.71	103.1	Pulse	0.30	3
3	Tb		3,424,342.02	0.29	107.6	Pulse	0.30	3

Quantitation Report

File Name 031SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 12:57
Sample Name jc94229-1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.034	ug/l	84.91	29.33	2.764E-05	Pulse	0.25	3
B			1	14.504	ug/l	11.91	16,386.03	1.546E-02	Pulse	0.15	3
Ca			1	387710.146	ug/l	0.56	27,318,500.42	1.314E+01	Analog	0.10	3
Sr			1	107.145	ug/l	0.97	445,745.96	1.401E-01	Pulse	0.10	3
Mo			1	31.781	ug/l	2.50	24,696.62	7.762E-03	Pulse	0.10	3
Ag			1	0.076	ug/l	18.78	186.68	5.357E-05	Pulse	0.10	3
Sn			1	2.360	ug/l	5.25	5,177.75	1.485E-03	Pulse	0.10	3
Sb			1	0.639	ug/l	12.10	1,203.43	2.357E-04	Pulse	0.10	3
Ba			1	716.358	ug/l	0.54	488,073.48	9.561E-02	Pulse	0.10	3
Tl			1	0.390	ug/l	14.21	1,836.86	5.907E-04	Pulse	0.10	3
Pb			1	0.893	ug/l	3.45	1,503.47	4.831E-04	Pulse	0.10	3
Pb			1	0.793	ug/l	11.48	1,206.76	3.877E-04	Pulse	0.10	3
Pb			1	0.854	ug/l	5.97	5,884.03	1.890E-03	Pulse	0.10	3
Na			2	101622.617	ug/l	1.65	10,971,758.45	8.463E+01	Analog	0.30	3
Mg			2	14299.828	ug/l	1.24	718,685.13	5.544E+00	Pulse	0.30	3
Al			2	155.155	ug/l	1.47	3,628.24	2.799E-02	Pulse	0.30	3
K			2	2910.256	ug/l	0.24	132,804.82	1.024E+00	Pulse	0.30	3
Ca			2	379286.086	ug/l	0.17	829,192.93	6.396E+00	Pulse	0.30	3
Ti			2	1.459	ug/l	57.44	24.45	1.881E-04	Pulse	0.30	3
V			2	0.709	ug/l	9.32	698.91	5.389E-03	Pulse	0.30	3
Cr			2	9.354	ug/l	0.45	6,635.85	5.118E-02	Pulse	0.30	3
Mn			2	3.236	ug/l	7.56	1,310.07	1.011E-02	Pulse	0.30	3
Fe			2	32.593	ug/l	2.05	20,073.47	1.548E-01	Pulse	0.30	3
Co			2	0.398	ug/l	15.16	447.74	3.456E-03	Pulse	0.30	3
Ni			2	0.594	ug/l	38.21	316.67	2.444E-03	Pulse	0.30	3
Cu			2	4.725	ug/l	4.34	7,381.74	5.695E-02	Pulse	0.30	3
Zn			2	0.890	ug/l	6.38	1,325.63	1.023E-02	Pulse	0.30	3
As			2	1.516	ug/l	9.52	116.33	8.970E-04	Pulse	1.00	3
Cd			2	-0.048	ug/l	-123.75	12.45	1.434E-05	Pulse	0.30	3
Sn			2	2.474	ug/l	2.10	1,693.45	1.951E-03	Pulse	0.30	3
Se			3	1.301	ug/l	9.15	27.60	1.737E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,059,761.97	0.50	97.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,079,427.52	0.60	99.2	Pulse	0.10	3
1	Ge		454,390.90	1.02	103.5	Pulse	0.10	3
1	Ge		632,359.80	0.97	102.8	Pulse	0.10	3
1	Rh		3,181,617.45	0.75	102.8	Pulse	0.10	3
1	In		3,486,455.92	0.49	108.0	Pulse	0.10	3
1	Tb		5,104,887.01	0.25	110.5	Pulse	0.10	3
1	Ho		505,651.23	0.49	110.3	Pulse	0.10	3
1	Bi		3,111,786.00	0.98	109.2	Pulse	0.10	3
2	Sc		129,644.71	0.89	106.3	Pulse	0.30	3
2	Ge		83,691.73	1.06	106.1	Pulse	0.30	3
2	Ge		125,574.08	0.32	104.7	Pulse	0.30	3
2	Rh		2,031,619.16	0.27	105.7	Pulse	0.30	3
2	In		867,959.32	0.42	107.9	Pulse	0.30	3
2	Tb		2,987,011.90	0.57	111.4	Pulse	0.30	3
2	Ho		306,894.79	0.31	112.1	Pulse	0.30	3
2	Bi		2,011,820.89	0.42	107.8	Pulse	0.30	3
3	Sc		154,685.15	0.81	105.1	Pulse	0.30	3
3	Ge		104,765.99	0.25	103.1	Pulse	0.30	3
3	Ge		158,890.52	0.30	103.7	Pulse	0.30	3
3	Rh		1,791,784.31	0.62	103.2	Pulse	0.30	3
3	Tb		3,408,658.61	0.67	107.2	Pulse	0.30	3

Quantitation Report

File Name 032SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 13:02
Sample Name mp17220-sd1
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.126	ug/l	97.77	25.33	2.355E-05	Pulse	0.25	3
B			1	28.998	ug/l	27.89	13,614.64	1.272E-02	Pulse	0.15	3
Ca			1	386409.093	ug/l	4.37	5,443,362.42	2.621E+00	Analog	0.10	3
Sr			1	103.557	ug/l	5.05	88,101.28	2.718E-02	Pulse	0.10	3
Mo			1	32.874	ug/l	5.36	5,221.05	1.611E-03	Pulse	0.10	3
Ag			1	0.135	ug/l	96.36	83.34	2.405E-05	Pulse	0.10	3
Sn			1	3.121	ug/l	29.68	2,850.38	8.133E-04	Pulse	0.10	3
Sb			1	1.208	ug/l	22.39	560.03	1.097E-04	Pulse	0.10	3
Ba			1	703.005	ug/l	3.61	96,043.14	1.878E-02	Pulse	0.10	3
Tl			1	0.316	ug/l	27.73	483.36	1.548E-04	Pulse	0.10	3
Pb			1	0.824	ug/l	31.06	463.36	1.485E-04	Pulse	0.10	3
Pb			1	1.082	ug/l	31.02	483.37	1.545E-04	Pulse	0.10	3
Pb			1	0.826	ug/l	7.17	1,900.14	6.078E-04	Pulse	0.10	3
Na			2	99491.681	ug/l	0.85	2,140,679.43	1.664E+01	Pulse	0.30	3
Mg			2	14399.263	ug/l	0.92	143,828.77	1.118E+00	Pulse	0.30	3
Al			2	62.077	ug/l	63.98	1,153.43	8.962E-03	Pulse	0.30	3
K			2	2897.805	ug/l	4.22	34,988.87	2.720E-01	Pulse	0.30	3
Ca			2	374473.953	ug/l	0.32	162,569.26	1.264E+00	Pulse	0.30	3
Ti			2	1.752	ug/l	0.95	6.67	5.185E-05	Pulse	0.30	3
V			2	0.502	ug/l	31.50	380.01	2.954E-03	Pulse	0.30	3
Cr			2	9.824	ug/l	4.39	1,783.46	1.386E-02	Pulse	0.30	3
Mn			2	2.655	ug/l	19.18	332.23	2.581E-03	Pulse	0.30	3
Fe			2	53.058	ug/l	9.33	8,495.98	6.606E-02	Pulse	0.30	3
Co			2	0.438	ug/l	32.92	123.32	9.589E-04	Pulse	0.30	3
Ni			2	0.482	ug/l	159.99	178.89	1.391E-03	Pulse	0.30	3
Cu			2	0.233	ug/l	289.43	3,886.06	3.021E-02	Pulse	0.30	3
Zn			2	-15.315	ug/l	-22.29	857.81	6.668E-03	Pulse	0.30	3
As			2	1.478	ug/l	11.76	33.33	2.591E-04	Pulse	1.00	3
Cd			2	-0.116	ug/l	-242.32	17.37	2.000E-05	Pulse	0.30	3
Sn			2	3.917	ug/l	16.89	966.72	1.109E-03	Pulse	0.30	3
Se			3	0.734	ug/l	22.43	9.27	5.512E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,070,467.06	1.74	98.2	Pulse	0.10	3
1	Sc		2,078,603.66	3.29	99.1	Pulse	0.10	3
1	Ge		450,359.12	1.62	102.6	Pulse	0.10	3

Quantitation Report

1	Ge		632,203.24	1.56	102.8	Pulse	0.10	3
1	Rh		3,244,079.74	3.03	104.8	Pulse	0.10	3
1	In		3,502,728.62	2.84	108.5	Pulse	0.10	3
1	Tb		5,117,568.78	3.75	110.8	Mix	0.10	3
1	Ho		505,865.75	2.72	110.4	Pulse	0.10	3
1	Bi		3,127,990.79	2.56	109.8	Pulse	0.10	3
2	Sc		128,633.58	0.79	105.5	Pulse	0.30	3
2	Ge		83,934.13	0.72	106.4	Pulse	0.30	3
2	Ge		127,317.45	1.16	106.1	Pulse	0.30	3
2	Rh		2,082,982.35	0.64	108.3	Pulse	0.30	3
2	In		871,294.81	0.87	108.3	Pulse	0.30	3
2	Tb		2,981,518.77	0.09	111.2	Pulse	0.30	3
2	Ho		305,332.02	0.27	111.5	Pulse	0.30	3
2	Bi		2,060,116.37	0.33	110.4	Pulse	0.30	3
3	Sc		162,675.82	8.80	110.5	Pulse	0.30	3
3	Ge		110,357.90	7.30	108.6	Pulse	0.30	3
3	Ge		168,535.78	7.66	110.0	Pulse	0.30	3
3	Rh		1,958,414.72	9.13	112.8	Pulse	0.30	3
3	Tb		3,617,099.37	8.91	113.7	Pulse	0.30	3

Quantitation Report

File Name 033SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 13:07
Sample Name mp17203-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	260.83	16.00	1.632E-05	Pulse	0.25	3
B			1	2.097	ug/l	15.69	13,928.28	1.420E-02	Pulse	0.15	3
Ca			1	27.201	ug/l	3.02	15,147.35	7.755E-03	Pulse	0.10	3
Sr			1	0.087	ug/l	13.38	2,203.67	6.954E-04	Pulse	0.10	3
Mo			1	0.140	ug/l	12.38	560.03	1.770E-04	Pulse	0.10	3
Ag			1	0.010	ug/l	43.59	133.34	3.908E-05	Pulse	0.10	3
Sn			1	0.527	ug/l	4.26	5,417.79	1.592E-03	Pulse	0.10	3
Sb			1	0.145	ug/l	16.32	1,350.11	2.639E-04	Pulse	0.10	3
Ba			1	0.056	ug/l	23.37	300.01	5.861E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	119.12	316.68	9.753E-05	Pulse	0.10	3
Pb			1	0.025	ug/l	45.43	420.02	1.294E-04	Pulse	0.10	3
Pb			1	0.038	ug/l	18.84	466.70	1.439E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	10.27	1,776.78	5.479E-04	Pulse	0.10	3
Na			2	26.595	ug/l	2.70	23,782.37	1.982E-01	Pulse	0.30	3
Mg			2	3.398	ug/l	8.50	1,045.60	8.713E-03	Pulse	0.30	3
Al			2	-3.920	ug/l	-19.49	563.35	4.695E-03	Pulse	0.30	3
K			2	-0.798	ug/l	-225.21	10,042.00	8.367E-02	Pulse	0.30	3
Ca			2	24.463	ug/l	16.15	377.79	3.147E-03	Pulse	0.30	3
Ti			2	0.739	ug/l	16.89	55.56	4.626E-04	Pulse	0.30	3
V			2	0.227	ug/l	11.45	850.03	7.086E-03	Pulse	0.30	3
Cr			2	0.218	ug/l	11.63	1,132.28	9.435E-03	Pulse	0.30	3
Mn			2	0.110	ug/l	21.81	315.56	2.631E-03	Pulse	0.30	3
Fe			2	5.226	ug/l	0.73	15,447.36	1.287E-01	Pulse	0.30	3
Co			2	0.013	ug/l	41.40	91.07	7.599E-04	Pulse	0.30	3
Ni			2	0.034	ug/l	120.20	185.56	1.548E-03	Pulse	0.30	3
Cu			2	0.684	ug/l	5.64	5,936.70	4.948E-02	Pulse	0.30	3
Zn			2	2.606	ug/l	3.94	2,538.00	2.115E-02	Pulse	0.30	3
As			2	0.101	ug/l	8.74	44.33	3.694E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.000	ug/l	62770.61	21.06	2.518E-05	Pulse	0.30	3
Sn			2	0.624	ug/l	11.52	1,901.25	2.274E-03	Pulse	0.30	3
Se			3	0.050	ug/l	12.36	10.80	6.590E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		980,725.06	1.43	90.0	Pulse	0.10	3
1	Sc		1,953,299.61	0.50	93.1	Pulse	0.10	3
1	Ge		464,055.10	1.23	105.7	Pulse	0.10	3
1	Ge		645,156.97	0.34	104.9	Pulse	0.10	3
1	Rh		3,166,239.95	1.35	102.3	Pulse	0.10	3
1	In		3,404,167.76	1.00	105.5	Pulse	0.10	3
1	Tb		5,120,134.92	1.21	110.8	Pulse	0.10	3
1	Ho		509,560.00	1.59	111.2	Pulse	0.10	3
1	Bi		3,242,867.66	0.58	113.8	Pulse	0.10	3
2	Sc		119,994.64	0.71	98.4	Pulse	0.30	3
2	Ge		85,924.49	1.26	108.9	Pulse	0.30	3
2	Ge		128,583.72	0.79	107.2	Pulse	0.30	3
2	Rh		2,022,983.95	0.42	105.2	Pulse	0.30	3
2	In		836,127.27	0.31	104.0	Pulse	0.30	3
2	Tb		2,934,138.50	0.49	109.4	Pulse	0.30	3
2	Ho		301,333.90	0.33	110.1	Pulse	0.30	3
2	Bi		2,075,269.57	0.54	111.2	Pulse	0.30	3
3	Sc		150,375.30	0.10	102.1	Pulse	0.30	3
3	Ge		107,590.87	1.42	105.9	Pulse	0.30	3
3	Ge		163,892.29	0.57	107.0	Pulse	0.30	3
3	Rh		1,846,674.23	0.37	106.4	Pulse	0.30	3
3	Tb		3,446,820.83	0.78	108.4	Pulse	0.30	3

Quantitation Report

File Name 034_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 13:12
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.759	ug/l	0.21	234,314.60	2.286E-01	Pulse	0.25	3
B			1	98.707	ug/l	0.56	329,781.91	3.218E-01	Pulse	0.15	3
Ca			1	5083.424	ug/l	0.17	3,502,700.16	1.725E+00	Pulse	0.10	3
Sr			1	51.751	ug/l	0.72	2,131,032.00	6.762E-01	Pulse	0.10	3
Mo			1	50.838	ug/l	1.14	390,986.99	1.241E-01	Pulse	0.10	3
Ag			1	49.519	ug/l	0.30	1,008,300.66	2.952E-01	Pulse	0.10	3
Sn			1	50.868	ug/l	0.31	674,123.09	1.974E-01	Pulse	0.10	3
Sb			1	50.719	ug/l	0.52	821,530.95	1.611E-01	Pulse	0.10	3
Ba			1	48.976	ug/l	1.19	333,441.28	6.537E-02	Pulse	0.10	3
Tl			1	50.910	ug/l	1.34	2,104,359.61	6.799E-01	Pulse	0.10	3
Pb			1	50.857	ug/l	0.85	723,007.25	2.336E-01	Pulse	0.10	3
Pb			1	51.364	ug/l	1.51	642,717.75	2.077E-01	Pulse	0.10	3
Pb			1	50.909	ug/l	1.15	2,934,957.22	9.483E-01	Pulse	0.10	3
Na			2	5034.344	ug/l	1.95	5,248,621.04	4.197E+01	Analog	0.30	3
Mg			2	4890.475	ug/l	1.33	2,370,176.57	1.895E+01	Pulse	0.30	3
Al			2	4891.622	ug/l	1.50	816,135.87	6.527E+00	Pulse	0.30	3
K			2	4940.325	ug/l	0.73	2,004,793.60	1.603E+01	Pulse	0.30	3
Ca			2	5086.287	ug/l	0.08	107,371.10	8.586E-01	Pulse	0.30	3
Ti			2	48.649	ug/l	2.62	7,471.76	5.975E-02	Pulse	0.30	3
V			2	50.691	ug/l	0.78	253,946.63	2.031E+00	Pulse	0.30	3
Cr			2	50.550	ug/l	0.47	319,771.43	2.557E+00	Pulse	0.30	3
Mn			2	50.483	ug/l	0.26	175,764.53	1.406E+00	Pulse	0.30	3
Fe			2	5072.163	ug/l	0.97	25,614,666.76	2.048E+02	Analog	0.30	3
Co			2	50.139	ug/l	0.96	504,343.21	4.033E+00	Pulse	0.30	3
Ni			2	50.070	ug/l	1.19	132,563.14	1.060E+00	Pulse	0.30	3
Cu			2	50.371	ug/l	0.49	363,665.59	2.908E+00	Pulse	0.30	3
Zn			2	50.857	ug/l	1.76	58,393.38	4.670E-01	Pulse	0.30	3
As			2	50.693	ug/l	1.28	33,148.13	2.651E-01	Pulse	1.00	3
Cd			2	50.442	ug/l	0.72	94,424.95	1.129E-01	Pulse	0.30	3
Sn			2	50.281	ug/l	0.57	209,996.75	2.510E-01	Pulse	0.30	3
Se			3	195.329	ug/l	0.32	31,326.24	2.007E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,024,889.28	0.36	94.0	Pulse	0.10	3
1	Sc		2,030,237.94	0.83	96.8	Pulse	0.10	3
1	Ge		439,045.85	0.85	100.0	Pulse	0.10	3

Quantitation Report

1	Ge		615,674.24	1.04	100.1	Pulse	0.10	3
1	Rh		3,151,293.70	0.84	101.8	Pulse	0.10	3
1	In		3,415,146.66	0.78	105.8	Pulse	0.10	3
1	Tb		5,100,552.21	1.13	110.4	Pulse	0.10	3
1	Ho		505,203.13	0.80	110.2	Pulse	0.10	3
1	Bi		3,095,223.91	1.15	108.6	Pulse	0.10	3
2	Sc		125,048.87	0.37	102.5	Pulse	0.30	3
2	Ge		80,945.86	0.87	102.6	Pulse	0.30	3
2	Ge		121,478.74	1.04	101.3	Pulse	0.30	3
2	Rh		1,994,181.38	0.67	103.7	Pulse	0.30	3
2	In		836,579.83	0.20	104.0	Pulse	0.30	3
2	Tb		2,910,970.79	0.09	108.6	Pulse	0.30	3
2	Ho		300,263.05	0.51	109.7	Pulse	0.30	3
2	Bi		1,991,732.35	0.43	106.7	Pulse	0.30	3
3	Sc		148,431.77	0.46	100.8	Pulse	0.30	3
3	Ge		101,573.92	0.45	100.0	Pulse	0.30	3
3	Ge		156,109.70	0.60	101.9	Pulse	0.30	3
3	Rh		1,768,102.85	1.07	101.8	Pulse	0.30	3
3	Tb		3,346,688.83	0.14	105.2	Pulse	0.30	3

Quantitation Report

File Name	035_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 13:17
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	20.94	52.00	4.947E-05	Pulse	0.25	3
B			1	2.639	ug/l	1.89	20,196.75	1.921E-02	Pulse	0.15	3
Ca			1	1.424	ug/l	31.36	7,348.56	3.629E-03	Pulse	0.10	3
Sr			1	0.014	ug/l	23.81	986.73	3.081E-04	Pulse	0.10	3
Mo			1	0.072	ug/l	15.89	586.70	1.832E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	13.44	303.35	8.811E-05	Pulse	0.10	3
Sn			1	0.078	ug/l	11.84	3,010.41	8.746E-04	Pulse	0.10	3
Sb			1	0.122	ug/l	2.35	2,116.90	4.213E-04	Pulse	0.10	3
Ba			1	-0.001	ug/l	-269.52	103.33	2.056E-05	Pulse	0.10	3
Tl			1	0.015	ug/l	12.61	856.72	2.746E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	26.38	490.03	1.570E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	15.11	430.02	1.378E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	6.05	1,923.46	6.164E-04	Pulse	0.10	3
Na			2	0.836	ug/l	31.72	11,812.02	9.451E-02	Pulse	0.30	3
Mg			2	0.798	ug/l	17.84	652.24	5.219E-03	Pulse	0.30	3
Al			2	-2.320	ug/l	-13.04	526.68	4.215E-03	Pulse	0.30	3
K			2	-0.758	ug/l	-46.61	10,312.17	8.252E-02	Pulse	0.30	3
Ca			2	-1.477	ug/l	-63.52	104.45	8.360E-04	Pulse	0.30	3
Ti			2	0.036	ug/l	59.54	6.67	5.329E-05	Pulse	0.30	3
V			2	-0.018	ug/l	-24.54	227.78	1.823E-03	Pulse	0.30	3
Cr			2	-0.010	ug/l	-58.33	427.79	3.423E-03	Pulse	0.30	3
Mn			2	-0.005	ug/l	-180.69	121.11	9.698E-04	Pulse	0.30	3
Fe			2	0.926	ug/l	4.01	7,571.83	6.058E-02	Pulse	0.30	3
Co			2	0.005	ug/l	41.76	77.76	6.218E-04	Pulse	0.30	3
Ni			2	0.014	ug/l	62.83	184.45	1.476E-03	Pulse	0.30	3
Cu			2	-0.184	ug/l	-7.82	2,431.32	1.946E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.174	ug/l	-17.32	982.27	7.859E-03	Pulse	0.30	3
As			2	0.009	ug/l	30.39	19.00	1.521E-04	Pulse	1.00	3
Cd			2	-0.002	ug/l	-435.56	17.71	2.075E-05	Pulse	0.30	3
Sn			2	0.143	ug/l	7.69	1,224.51	1.433E-03	Pulse	0.30	3
Se			3	0.079	ug/l	14.46	19.00	1.215E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,051,564.25	0.57	96.5	Pulse	0.10	3
1	Sc		2,024,982.16	0.89	96.6	Pulse	0.10	3
1	Ge		442,031.18	0.86	100.7	Pulse	0.10	3
1	Ge		618,145.30	0.23	100.5	Pulse	0.10	3
1	Rh		3,203,011.62	0.59	103.5	Pulse	0.10	3
1	In		3,442,147.70	0.54	106.6	Pulse	0.10	3
1	Tb		5,025,146.59	0.37	108.8	Pulse	0.10	3
1	Ho		493,692.98	0.51	107.7	Pulse	0.10	3
1	Bi		3,120,285.69	0.33	109.5	Pulse	0.10	3
2	Sc		124,973.72	0.40	102.5	Pulse	0.30	3
2	Ge		81,601.23	0.27	103.4	Pulse	0.30	3
2	Ge		123,436.79	0.19	102.9	Pulse	0.30	3
2	Rh		2,046,104.43	0.07	106.4	Pulse	0.30	3
2	In		854,697.38	0.28	106.3	Pulse	0.30	3
2	Tb		2,899,678.78	1.01	108.1	Pulse	0.30	3
2	Ho		296,999.02	0.78	108.5	Pulse	0.30	3
2	Bi		2,039,463.74	0.66	109.3	Pulse	0.30	3
3	Sc		148,034.63	1.03	100.5	Pulse	0.30	3
3	Ge		102,905.46	1.77	101.3	Pulse	0.30	3
3	Ge		156,363.82	0.50	102.1	Pulse	0.30	3
3	Rh		1,828,301.11	0.41	105.3	Pulse	0.30	3
3	Tb		3,347,558.83	0.86	105.2	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 13:22
Sample Name mp17203-b1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.110	ug/l	0.19	159,880.40	1.646E-01	Pulse	0.25	3
B			1	79.666	ug/l	1.06	132,395.90	1.363E-01	Pulse	0.15	3
Ca			1	4012.794	ug/l	0.93	1,308,161.70	6.829E-01	Pulse	0.10	3
Sr			1	76.114	ug/l	1.00	1,529,860.29	4.973E-01	Pulse	0.10	3
Mo			1	76.714	ug/l	1.03	287,958.24	9.361E-02	Pulse	0.10	3
Ag			1	76.612	ug/l	0.73	761,304.18	2.284E-01	Pulse	0.10	3
Sn			1	77.846	ug/l	1.24	503,914.41	1.512E-01	Pulse	0.10	3
Sb			1	74.557	ug/l	0.85	593,606.42	1.184E-01	Pulse	0.10	3
Ba			1	73.156	ug/l	0.87	244,808.06	4.883E-02	Pulse	0.10	3
Tl			1	73.692	ug/l	1.24	1,540,965.86	4.921E-01	Pulse	0.10	3
Pb			1	76.767	ug/l	0.16	552,148.83	1.763E-01	Pulse	0.10	3
Pb			1	76.962	ug/l	1.02	487,259.11	1.556E-01	Pulse	0.10	3
Pb			1	76.540	ug/l	0.25	2,232,558.47	7.129E-01	Pulse	0.10	3
Na			2	3805.181	ug/l	0.68	1,896,661.59	1.592E+01	Pulse	0.30	3
Mg			2	3780.686	ug/l	0.70	873,210.80	7.328E+00	Pulse	0.30	3
Al			2	3722.565	ug/l	0.60	296,479.29	2.488E+00	Pulse	0.30	3
K			2	3826.328	ug/l	0.91	746,042.32	6.261E+00	Pulse	0.30	3
Ca			2	4114.302	ug/l	1.15	41,458.22	3.479E-01	Pulse	0.30	3
Ti			2	83.470	ug/l	3.28	6,108.97	5.126E-02	Pulse	0.30	3
V			2	76.016	ug/l	1.10	181,524.46	1.523E+00	Pulse	0.30	3
Cr			2	75.918	ug/l	0.72	228,945.29	1.921E+00	Pulse	0.30	3
Mn			2	75.758	ug/l	1.54	125,707.10	1.055E+00	Pulse	0.30	3
Fe			2	4119.038	ug/l	1.19	9,912,583.77	8.319E+01	Analog	0.30	3
Co			2	75.682	ug/l	0.69	362,737.14	3.044E+00	Pulse	0.30	3
Ni			2	74.917	ug/l	0.59	94,542.22	7.934E-01	Pulse	0.30	3
Cu			2	76.172	ug/l	1.01	262,908.08	2.206E+00	Pulse	0.30	3
Zn			2	67.950	ug/l	1.43	37,546.32	3.151E-01	Pulse	0.30	3
As			2	71.625	ug/l	0.78	22,319.55	1.873E-01	Pulse	1.00	3
Cd			2	72.215	ug/l	1.60	66,407.12	8.080E-02	Pulse	0.30	3
Sn			2	77.453	ug/l	1.00	159,031.55	1.935E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	322.247	ug/l	1.49	26,454.35	1.655E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		971,045.47	0.78	89.1	Pulse	0.10	3
1	Sc		1,915,713.36	0.19	91.3	Pulse	0.10	3
1	Ge		442,905.32	1.35	100.9	Pulse	0.10	3
1	Ge		621,424.26	0.63	101.0	Pulse	0.10	3
1	Rh		3,076,295.27	0.39	99.4	Pulse	0.10	3
1	In		3,333,299.34	0.42	103.3	Pulse	0.10	3
1	Tb		5,013,822.11	1.01	108.5	Pulse	0.10	3
1	Ho		499,668.52	0.90	109.0	Pulse	0.10	3
1	Bi		3,131,427.97	0.63	109.9	Pulse	0.10	3
2	Sc		119,165.09	0.59	97.7	Pulse	0.30	3
2	Ge		82,206.37	1.36	104.2	Pulse	0.30	3
2	Ge		124,262.41	0.81	103.6	Pulse	0.30	3
2	Rh		1,962,424.65	0.50	102.1	Pulse	0.30	3
2	In		821,900.47	0.75	102.2	Pulse	0.30	3
2	Tb		2,893,594.26	0.73	107.9	Pulse	0.30	3
2	Ho		297,280.92	0.57	108.6	Pulse	0.30	3
2	Bi		2,004,756.86	0.61	107.4	Pulse	0.30	3
3	Sc		149,402.42	0.79	101.5	Pulse	0.30	3
3	Ge		105,442.83	1.97	103.8	Pulse	0.30	3
3	Ge		159,836.07	1.59	104.3	Pulse	0.30	3
3	Rh		1,806,353.75	0.63	104.0	Pulse	0.30	3
3	Tb		3,417,692.99	0.71	107.4	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 13:27
Sample Name	sampleconf
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	357.517	ug/l	0.98	321,680.72	3.221E-01	Pulse	0.25	3
B			1	3015.526	ug/l	0.70	1,908,184.85	1.910E+00	Pulse	0.15	3
Ca			1	657449.103	ug/l	0.94	91,242,811.97	4.455E+01	Analog	0.10	3
Sr			1	3060.277	ug/l	1.40	22,973,867.16	7.996E+00	Analog	0.10	3
Mo			1	544.623	ug/l	0.91	763,690.04	2.658E-01	Pulse	0.10	3
Ag			1	329.497	ug/l	0.23	1,266,377.53	3.929E-01	Pulse	0.10	3
Sn			1	371.166	ug/l	0.79	927,595.77	2.878E-01	Pulse	0.10	3
Sb			1	372.856	ug/l	1.77	1,162,359.44	2.368E-01	Pulse	0.10	3
Ba			1	816.736	ug/l	0.99	1,069,993.00	2.180E-01	Pulse	0.10	3
Tl			1	374.014	ug/l	1.43	2,799,494.54	9.990E-01	Pulse	0.10	3
Pb			1	384.292	ug/l	0.67	989,206.83	3.530E-01	Pulse	0.10	3
Pb			1	389.327	ug/l	0.45	882,146.63	3.148E-01	Pulse	0.10	3
Pb			1	385.540	ug/l	0.16	4,024,577.33	1.436E+00	Pulse	0.10	3
Na			2	836244.341	ug/l	1.25	174,861,517.49	1.392E+03	Analog	0.30	3
Mg			2	87919.082	ug/l	0.25	8,563,342.16	6.815E+01	Analog	0.30	3
Al			2	8997.176	ug/l	1.16	302,278.93	2.406E+00	Pulse	0.30	3
K			2	93612.995	ug/l	2.38	7,604,939.70	6.052E+01	Analog	0.30	3
Ca			2	659430.302	ug/l	1.02	2,794,275.45	2.224E+01	Pulse	0.30	3
Ti			2	371.457	ug/l	1.93	11,465.17	9.124E-02	Pulse	0.30	3
V			2	370.960	ug/l	0.53	373,357.42	2.971E+00	Pulse	0.30	3
Cr			2	364.319	ug/l	0.67	462,960.99	3.684E+00	Pulse	0.30	3
Mn			2	2157.913	ug/l	0.73	1,508,916.19	1.201E+01	Pulse	0.30	3
Fe			2	17652.252	ug/l	1.35	17,916,638.18	1.426E+02	Analog	0.30	3
Co			2	341.587	ug/l	1.10	690,549.37	5.495E+00	Pulse	0.30	3
Ni			2	333.729	ug/l	1.22	177,528.03	1.413E+00	Pulse	0.30	3
Cu			2	330.288	ug/l	0.80	478,085.61	3.805E+00	Pulse	0.30	3
Zn			2	322.133	ug/l	1.29	74,020.21	5.891E-01	Pulse	0.30	3
As			2	395.540	ug/l	0.65	51,975.41	4.136E-01	Pulse	1.00	3
Cd			2	333.856	ug/l	1.11	118,699.86	1.494E-01	Pulse	0.30	3
Sn			2	369.265	ug/l	1.25	292,671.48	3.684E-01	Pulse	0.30	3
Se			3	877.019	ug/l	0.47	26,427.97	1.802E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		998,865.16	0.54	91.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,048,218.35	0.92	97.7	Pulse	0.10	3
1	Ge		419,863.59	1.01	95.6	Pulse	0.10	3
1	Ge		593,299.37	0.81	96.5	Pulse	0.10	3
1	Rh		2,873,119.33	0.36	92.8	Pulse	0.10	3
1	In		3,223,082.52	0.54	99.9	Pulse	0.10	3
1	Tb		4,908,746.70	0.64	106.3	Pulse	0.10	3
1	Ho		489,593.33	0.44	106.8	Pulse	0.10	3
1	Bi		2,802,330.90	0.61	98.3	Pulse	0.10	3
2	Sc		125,662.38	0.49	103.1	Pulse	0.30	3
2	Ge		77,781.66	0.53	98.6	Pulse	0.30	3
2	Ge		116,852.36	0.38	97.4	Pulse	0.30	3
2	Rh		1,812,397.98	0.51	94.3	Pulse	0.30	3
2	In		794,509.36	0.25	98.8	Pulse	0.30	3
2	Tb		2,821,431.69	0.39	105.2	Pulse	0.30	3
2	Ho		291,462.49	1.03	106.5	Pulse	0.30	3
2	Bi		1,799,999.65	0.78	96.4	Pulse	0.30	3
3	Sc		145,299.01	0.95	98.7	Pulse	0.30	3
3	Ge		95,306.83	0.81	93.8	Pulse	0.30	3
3	Ge		146,657.25	0.04	95.7	Pulse	0.30	3
3	Rh		1,580,039.45	0.61	91.0	Pulse	0.30	3
3	Tb		3,186,464.81	0.95	100.2	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 13:32
Sample Name	mp17229-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.096	ug/l	18.72	104.00	9.889E-05	Pulse	0.25	3
B			1	66.546	ug/l	3.94	55,514.98	5.281E-02	Pulse	0.15	3
Ca			1	132.422	ug/l	5.97	24,608.93	1.212E-02	Pulse	0.10	3
Sr			1	0.623	ug/l	8.50	5,641.20	1.754E-03	Pulse	0.10	3
Mo			1	1.060	ug/l	14.21	1,690.15	5.241E-04	Pulse	0.10	3
Ag			1	0.128	ug/l	7.13	553.37	1.607E-04	Pulse	0.10	3
Sn			1	14.297	ug/l	1.22	40,072.20	1.164E-02	Pulse	0.10	3
Sb			1	0.513	ug/l	5.40	1,813.52	3.586E-04	Pulse	0.10	3
Ba			1	0.416	ug/l	8.46	670.04	1.325E-04	Pulse	0.10	3
Tl			1	0.095	ug/l	29.62	1,033.40	3.229E-04	Pulse	0.10	3
Pb			1	0.248	ug/l	25.38	963.40	3.011E-04	Pulse	0.10	3
Pb			1	0.284	ug/l	5.19	950.07	2.969E-04	Pulse	0.10	3
Pb			1	0.246	ug/l	7.32	3,893.68	1.217E-03	Pulse	0.10	3
Na			2	138.454	ug/l	6.31	39,901.62	3.179E-01	Pulse	0.30	3
Mg			2	21.467	ug/l	8.02	2,355.75	1.877E-02	Pulse	0.30	3
Al			2	-5.925	ug/l	-21.04	718.92	5.728E-03	Pulse	0.30	3
K			2	20.778	ug/l	14.13	12,342.45	9.838E-02	Pulse	0.30	3
Ca			2	103.887	ug/l	15.02	575.57	4.588E-03	Pulse	0.30	3
Ti			2	1.046	ug/l	10.14	33.33	2.656E-04	Pulse	0.30	3
V			2	0.127	ug/l	25.08	447.79	3.570E-03	Pulse	0.30	3
Cr			2	2.011	ug/l	4.64	3,042.54	2.425E-02	Pulse	0.30	3
Mn			2	0.331	ug/l	36.05	370.01	2.947E-03	Pulse	0.30	3
Fe			2	26.034	ug/l	1.84	29,290.45	2.335E-01	Pulse	0.30	3
Co			2	0.056	ug/l	3.92	144.37	1.151E-03	Pulse	0.30	3
Ni			2	0.429	ug/l	11.66	376.68	3.001E-03	Pulse	0.30	3
Cu			2	1.805	ug/l	4.52	6,345.74	5.057E-02	Pulse	0.30	3
Zn			2	0.359	ug/l	29.40	1,263.40	1.007E-02	Pulse	0.30	3
As			2	0.200	ug/l	25.35	39.33	3.133E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.052	ug/l	105.26	42.05	4.865E-05	Pulse	0.30	3
Sn			2	14.378	ug/l	1.18	13,012.22	1.503E-02	Pulse	0.30	3
Se			3	0.564	ug/l	5.12	24.47	1.559E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,051,267.55	0.43	96.5	Pulse	0.10	3
1	Sc		2,030,893.82	0.56	96.8	Pulse	0.10	3
1	Ge		443,913.56	0.64	101.1	Pulse	0.10	3
1	Ge		624,607.52	0.84	101.6	Pulse	0.10	3
1	Rh		3,219,962.55	1.94	104.0	Pulse	0.10	3
1	In		3,443,791.63	0.91	106.7	Pulse	0.10	3
1	Tb		5,056,721.91	1.53	109.5	Pulse	0.10	3
1	Ho		501,419.07	1.54	109.4	Pulse	0.10	3
1	Bi		3,200,232.24	0.47	112.3	Pulse	0.10	3
2	Sc		125,474.03	0.88	102.9	Pulse	0.30	3
2	Ge		82,704.94	0.91	104.8	Pulse	0.30	3
2	Ge		124,658.27	0.18	103.9	Pulse	0.30	3
2	Rh		2,079,257.14	0.87	108.2	Pulse	0.30	3
2	In		865,568.90	1.18	107.6	Pulse	0.30	3
2	Tb		2,937,448.91	0.68	109.5	Pulse	0.30	3
2	Ho		301,690.32	0.79	110.2	Pulse	0.30	3
2	Bi		2,074,012.56	0.69	111.1	Pulse	0.30	3
3	Sc		147,880.56	0.11	100.4	Pulse	0.30	3
3	Ge		103,205.57	0.72	101.6	Pulse	0.30	3
3	Ge		156,907.94	0.57	102.4	Pulse	0.30	3
3	Rh		1,829,983.12	0.30	105.4	Pulse	0.30	3
3	Tb		3,345,111.05	0.60	105.2	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 13:37
Sample Name mp17229-b1conf
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	183.088	ug/l	1.02	166,223.86	1.649E-01	Pulse	0.25	3
B			1	207.189	ug/l	1.20	142,505.51	1.414E-01	Pulse	0.15	3
Ca			1	9709.672	ug/l	1.17	1,305,799.01	6.610E-01	Pulse	0.10	3
Sr			1	185.572	ug/l	1.11	1,503,578.68	4.850E-01	Pulse	0.10	3
Mo			1	182.069	ug/l	0.39	275,492.03	8.887E-02	Pulse	0.10	3
Ag			1	88.136	ug/l	0.35	351,303.51	1.051E-01	Pulse	0.10	3
Sn			1	197.165	ug/l	0.75	511,887.80	1.531E-01	Pulse	0.10	3
Sb			1	186.066	ug/l	0.75	583,098.12	1.182E-01	Pulse	0.10	3
Ba			1	179.659	ug/l	0.48	236,657.93	4.797E-02	Pulse	0.10	3
Tl			1	181.785	ug/l	0.56	1,488,129.72	4.856E-01	Pulse	0.10	3
Pb			1	186.700	ug/l	0.82	525,682.86	1.715E-01	Pulse	0.10	3
Pb			1	189.801	ug/l	0.83	470,401.71	1.535E-01	Pulse	0.10	3
Pb			1	187.376	ug/l	0.91	2,139,517.52	6.981E-01	Pulse	0.10	3
Na			2	9333.717	ug/l	0.86	1,877,796.87	1.562E+01	Pulse	0.30	3
Mg			2	9249.505	ug/l	0.41	862,183.75	7.171E+00	Pulse	0.30	3
Al			2	9207.129	ug/l	1.00	295,940.78	2.462E+00	Pulse	0.30	3
K			2	9413.153	ug/l	0.94	740,855.87	6.162E+00	Pulse	0.30	3
Ca			2	10162.730	ug/l	0.83	41,331.24	3.438E-01	Pulse	0.30	3
Ti			2	178.214	ug/l	3.35	5,263.14	4.378E-02	Pulse	0.30	3
V			2	185.557	ug/l	1.11	178,833.60	1.487E+00	Pulse	0.30	3
Cr			2	185.230	ug/l	1.01	225,437.70	1.875E+00	Pulse	0.30	3
Mn			2	186.514	ug/l	0.78	124,903.41	1.039E+00	Pulse	0.30	3
Fe			2	9762.877	ug/l	1.18	9,481,982.68	7.887E+01	Analog	0.30	3
Co			2	185.859	ug/l	0.48	359,509.12	2.990E+00	Pulse	0.30	3
Ni			2	185.810	ug/l	0.56	94,635.90	7.871E-01	Pulse	0.30	3
Cu			2	195.971	ug/l	0.08	272,869.38	2.270E+00	Pulse	0.30	3
Zn			2	231.540	ug/l	1.68	51,226.43	4.261E-01	Pulse	0.30	3
As			2	188.211	ug/l	0.42	23,669.41	1.969E-01	Pulse	1.00	3
Cd			2	184.786	ug/l	0.63	67,825.75	8.270E-02	Pulse	0.30	3
Sn			2	195.716	ug/l	1.53	160,389.59	1.956E-01	Pulse	0.30	3
Se			3	470.529	ug/l	1.29	14,852.12	9.670E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,007,818.76	0.74	92.5	Pulse	0.10	3
1	Sc		1,975,459.55	0.68	94.2	Pulse	0.10	3
1	Ge		433,380.32	0.91	98.7	Pulse	0.10	3

Quantitation Report

1	Ge		607,501.72	0.70	98.8	Pulse	0.10	3
1	Rh		3,100,165.27	0.68	100.2	Pulse	0.10	3
1	In		3,342,475.74	0.83	103.6	Pulse	0.10	3
1	Tb		4,933,643.78	0.78	106.8	Pulse	0.10	3
1	Ho		491,465.37	0.74	107.2	Pulse	0.10	3
1	Bi		3,064,578.81	0.17	107.5	Pulse	0.10	3
2	Sc		120,230.09	0.49	98.6	Pulse	0.30	3
2	Ge		79,845.08	0.78	101.2	Pulse	0.30	3
2	Ge		120,039.61	0.54	100.1	Pulse	0.30	3
2	Rh		1,966,412.28	0.30	102.3	Pulse	0.30	3
2	In		820,133.93	0.62	102.0	Pulse	0.30	3
2	Tb		2,840,439.61	1.04	105.9	Pulse	0.30	3
2	Ho		294,130.29	0.71	107.4	Pulse	0.30	3
2	Bi		1,987,076.93	0.60	106.5	Pulse	0.30	3
3	Sc		145,925.45	0.94	99.1	Pulse	0.30	3
3	Ge		100,081.69	0.98	98.5	Pulse	0.30	3
3	Ge		153,609.36	1.40	100.3	Pulse	0.30	3
3	Rh		1,761,078.89	0.09	101.4	Pulse	0.30	3
3	Tb		3,318,563.69	0.51	104.3	Pulse	0.30	3

Quantitation Report

File Name 040SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 13:42
Sample Name jc94536-11 4
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.059	ug/l	46.57	64.00	6.513E-05	Pulse	0.25	3
B			1	372.427	ug/l	0.74	241,173.69	2.455E-01	Pulse	0.15	3
Ca			1	29847.111	ug/l	0.95	3,930,431.40	2.025E+00	Pulse	0.10	3
Sr			1	142.247	ug/l	0.88	1,100,094.72	3.718E-01	Pulse	0.10	3
Mo			1	1.129	ug/l	2.74	1,650.16	5.578E-04	Pulse	0.10	3
Ag			1	0.045	ug/l	28.79	200.01	6.134E-05	Pulse	0.10	3
Sn			1	1.274	ug/l	1.06	5,077.70	1.557E-03	Pulse	0.10	3
Sb			1	0.409	ug/l	12.26	1,433.45	2.926E-04	Pulse	0.10	3
Ba			1	211.702	ug/l	0.80	277,024.74	5.652E-02	Pulse	0.10	3
Tl			1	0.174	ug/l	12.35	1,590.14	5.346E-04	Pulse	0.10	3
Pb			1	0.702	ug/l	5.68	2,133.57	7.172E-04	Pulse	0.10	3
Pb			1	0.654	ug/l	3.68	1,770.19	5.953E-04	Pulse	0.10	3
Pb			1	0.651	ug/l	4.52	8,097.85	2.723E-03	Pulse	0.10	3
Na			2	313331.025	ug/l	0.91	62,313,921.97	5.214E+02	Analog	0.30	3
Mg			2	3324.221	ug/l	0.88	308,142.01	2.579E+00	Pulse	0.30	3
Al			2	86.314	ug/l	9.74	3,623.77	3.031E-02	Pulse	0.30	3
K			2	7108.088	ug/l	0.67	558,528.92	4.674E+00	Pulse	0.30	3
Ca			2	29587.918	ug/l	1.11	119,351.43	9.988E-01	Pulse	0.30	3
Ti			2	3.866	ug/l	24.02	114.45	9.583E-04	Pulse	0.30	3
V			2	0.683	ug/l	13.43	957.82	8.019E-03	Pulse	0.30	3
Cr			2	5.608	ug/l	1.23	7,240.55	6.059E-02	Pulse	0.30	3
Mn			2	124.112	ug/l	0.60	82,659.47	6.917E-01	Pulse	0.30	3
Fe			2	312.766	ug/l	0.41	304,626.92	2.549E+00	Pulse	0.30	3
Co			2	0.367	ug/l	8.10	736.98	6.165E-03	Pulse	0.30	3
Ni			2	6.303	ug/l	1.28	3,328.16	2.785E-02	Pulse	0.30	3
Cu			2	1.141	ug/l	7.59	5,136.42	4.298E-02	Pulse	0.30	3
Zn			2	1.734	ug/l	10.78	1,498.98	1.254E-02	Pulse	0.30	3
As			2	0.359	ug/l	22.14	57.33	4.797E-04	Pulse	1.00	3
Cd			2	0.078	ug/l	24.36	48.73	6.009E-05	Pulse	0.30	3
Sn			2	1.463	ug/l	9.68	1,764.57	2.176E-03	Pulse	0.30	3
Se			3	1.374	ug/l	7.51	49.27	3.222E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		982,468.81	0.62	90.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		1,940,545.33	0.30	92.5	Pulse	0.10	3
1	Ge		427,308.00	0.85	97.3	Pulse	0.10	3
1	Ge		599,849.34	0.60	97.5	Pulse	0.10	3
1	Rh		2,958,880.58	0.81	95.6	Pulse	0.10	3
1	In		3,260,379.71	0.63	101.0	Pulse	0.10	3
1	Tb		4,901,624.72	0.62	106.1	Pulse	0.10	3
1	Ho		490,478.38	1.19	107.0	Pulse	0.10	3
1	Bi		2,974,083.50	0.88	104.4	Pulse	0.10	3
2	Sc		119,502.97	0.80	98.0	Pulse	0.30	3
2	Ge		79,260.86	0.95	100.5	Pulse	0.30	3
2	Ge		119,227.09	1.64	99.4	Pulse	0.30	3
2	Rh		1,904,913.88	0.31	99.1	Pulse	0.30	3
2	In		810,844.63	0.43	100.8	Pulse	0.30	3
2	Tb		2,855,619.54	0.33	106.5	Pulse	0.30	3
2	Ho		291,866.92	0.36	106.6	Pulse	0.30	3
2	Bi		1,911,644.37	0.60	102.4	Pulse	0.30	3
3	Sc		145,417.15	1.87	98.8	Pulse	0.30	3
3	Ge		101,467.78	0.38	99.9	Pulse	0.30	3
3	Ge		152,922.96	0.66	99.8	Pulse	0.30	3
3	Rh		1,716,643.89	0.52	98.9	Pulse	0.30	3
3	Tb		3,304,920.70	1.04	103.9	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 13:47
Sample Name mp17229-s1 4
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	182.661	ug/l	0.68	33,782.76	3.292E-02	Pulse	0.25	3
B			1	340.050	ug/l	3.27	55,138.16	5.373E-02	Pulse	0.15	3
Ca			1	44245.649	ug/l	0.97	1,216,555.24	6.027E-01	Pulse	0.10	3
Sr			1	402.363	ug/l	0.54	661,900.98	2.104E-01	Pulse	0.10	3
Mo			1	188.955	ug/l	1.87	58,049.48	1.845E-02	Pulse	0.10	3
Ag			1	107.233	ug/l	0.78	85,795.01	2.558E-02	Pulse	0.10	3
Sn			1	217.378	ug/l	1.50	114,743.55	3.422E-02	Pulse	0.10	3
Sb			1	87.399	ug/l	1.34	55,600.04	1.113E-02	Pulse	0.10	3
Ba			1	1132.772	ug/l	0.87	302,057.28	6.048E-02	Pulse	0.10	3
Tl			1	175.867	ug/l	0.65	292,904.90	9.401E-02	Pulse	0.10	3
Pb			1	803.841	ug/l	0.96	460,224.69	1.477E-01	Pulse	0.10	3
Pb			1	775.497	ug/l	0.37	390,834.37	1.254E-01	Pulse	0.10	3
Pb			1	784.095	ug/l	0.28	1,820,533.71	5.843E-01	Pulse	0.10	3
Na			2	11226.527	ug/l	0.58	468,662.05	3.824E+00	Pulse	0.30	3
Mg			2	22418.022	ug/l	0.69	426,212.25	3.477E+00	Pulse	0.30	3
Al			2	69276.837	ug/l	0.26	453,588.00	3.701E+00	Pulse	0.30	3
K			2	15715.485	ug/l	1.07	259,132.41	2.114E+00	Pulse	0.30	3
Ca			2	44993.647	ug/l	1.66	37,327.41	3.045E-01	Pulse	0.30	3
Ti			2	2245.735	ug/l	1.94	13,522.27	1.103E-01	Pulse	0.30	3
V			2	418.088	ug/l	0.55	82,331.43	6.717E-01	Pulse	0.30	3
Cr			2	367.880	ug/l	1.80	91,579.80	7.472E-01	Pulse	0.30	3
Mn			2	1120.511	ug/l	0.63	152,974.27	1.248E+00	Pulse	0.30	3
Fe			2	196871.302	ug/l	0.27	38,979,549.56	3.180E+02	Analog	0.30	3
Co			2	401.114	ug/l	0.59	158,217.62	1.291E+00	Pulse	0.30	3
Ni			2	3276.709	ug/l	0.46	339,909.44	2.773E+00	Pulse	0.30	3
Cu			2	311284.804	ug/l	1.26	87,209,565.42	7.115E+02	Analog	0.30	3
Zn			2	1155.092	ug/l	1.12	52,105.73	4.251E-01	Pulse	0.30	3
As			2	301.967	ug/l	0.54	7,751.86	6.324E-02	Pulse	1.00	3
Cd			2	188.338	ug/l	3.14	13,909.39	1.688E-02	Pulse	0.30	3
Sn			2	216.338	ug/l	1.18	36,089.07	4.380E-02	Pulse	0.30	3
Se			3	526.961	ug/l	0.46	3,311.00	2.169E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,026,270.39	0.82	94.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,018,569.45	0.97	96.3	Pulse	0.10	3
1	Ge		437,222.03	1.10	99.6	Pulse	0.10	3
1	Ge		607,468.10	0.73	98.8	Pulse	0.10	3
1	Rh		3,146,152.98	0.94	101.7	Pulse	0.10	3
1	In		3,353,640.48	0.85	103.9	Pulse	0.10	3
1	Tb		4,994,404.30	0.87	108.1	Pulse	0.10	3
1	Ho		501,896.74	0.32	109.5	Pulse	0.10	3
1	Bi		3,115,556.20	0.26	109.3	Pulse	0.10	3
2	Sc		122,573.67	0.60	100.5	Pulse	0.30	3
2	Ge		80,596.23	1.34	102.2	Pulse	0.30	3
2	Ge		120,681.88	1.18	100.6	Pulse	0.30	3
2	Rh		1,982,171.73	0.74	103.1	Pulse	0.30	3
2	In		824,027.26	0.35	102.4	Pulse	0.30	3
2	Tb		2,871,379.89	0.42	107.1	Pulse	0.30	3
2	Ho		300,062.07	1.00	109.6	Pulse	0.30	3
2	Bi		2,004,860.41	0.40	107.4	Pulse	0.30	3
3	Sc		147,907.38	0.76	100.5	Pulse	0.30	3
3	Ge		101,239.67	0.23	99.6	Pulse	0.30	3
3	Ge		152,651.33	0.80	99.6	Pulse	0.30	3
3	Rh		1,785,044.02	0.62	102.8	Pulse	0.30	3
3	Tb		3,347,847.85	0.18	105.2	Pulse	0.30	3

Quantitation Report

File Name	042SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 13:52
Sample Name	mp17229-s2
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	193.252	ug/l	2.13	35,629.29	3.483E-02	Pulse	0.25	3
B			1	315.463	ug/l	3.28	51,803.47	5.064E-02	Pulse	0.15	3
Ca			1	28277.911	ug/l	1.48	782,800.25	3.863E-01	Pulse	0.10	3
Sr			1	354.511	ug/l	1.52	582,045.41	1.854E-01	Pulse	0.10	3
Mo			1	200.812	ug/l	1.23	61,562.70	1.961E-02	Pulse	0.10	3
Ag			1	98.416	ug/l	1.57	79,351.90	2.348E-02	Pulse	0.10	3
Sn			1	220.231	ug/l	0.95	117,124.02	3.466E-02	Pulse	0.10	3
Sb			1	102.488	ug/l	0.49	65,259.94	1.305E-02	Pulse	0.10	3
Ba			1	908.336	ug/l	1.39	242,547.24	4.850E-02	Pulse	0.10	3
Tl			1	187.128	ug/l	0.46	310,682.98	1.000E-01	Pulse	0.10	3
Pb			1	672.443	ug/l	0.76	383,844.02	1.236E-01	Pulse	0.10	3
Pb			1	643.366	ug/l	0.56	323,279.46	1.041E-01	Pulse	0.10	3
Pb			1	650.937	ug/l	0.23	1,506,868.07	4.852E-01	Pulse	0.10	3
Na			2	11166.657	ug/l	0.08	466,197.45	3.804E+00	Pulse	0.30	3
Mg			2	19333.550	ug/l	0.52	367,584.33	2.999E+00	Pulse	0.30	3
Al			2	69421.962	ug/l	0.69	454,498.91	3.708E+00	Pulse	0.30	3
K			2	15010.450	ug/l	1.16	247,960.60	2.023E+00	Pulse	0.30	3
Ca			2	29328.785	ug/l	0.37	24,375.74	1.989E-01	Pulse	0.30	3
Ti			2	2222.336	ug/l	0.33	13,381.04	1.092E-01	Pulse	0.30	3
V			2	411.951	ug/l	0.73	81,123.45	6.619E-01	Pulse	0.30	3
Cr			2	357.630	ug/l	0.45	89,041.84	7.265E-01	Pulse	0.30	3
Mn			2	964.017	ug/l	0.87	131,618.94	1.074E+00	Pulse	0.30	3
Fe			2	197661.442	ug/l	1.05	39,132,619.55	3.193E+02	Analog	0.30	3
Co			2	252.267	ug/l	0.85	99,513.54	8.119E-01	Pulse	0.30	3
Ni			2	1788.095	ug/l	0.56	185,542.38	1.514E+00	Pulse	0.30	3
Cu			2	257046.365	ug/l	0.36	72,013,001.58	5.876E+02	Analog	0.30	3
Zn			2	857.830	ug/l	1.00	38,991.84	3.181E-01	Pulse	0.30	3
As			2	304.457	ug/l	1.54	7,815.22	6.376E-02	Pulse	1.00	3
Cd			2	198.855	ug/l	2.50	14,831.12	1.782E-02	Pulse	0.30	3
Sn			2	217.133	ug/l	1.74	36,585.78	4.396E-02	Pulse	0.30	3
Se			3	515.109	ug/l	2.01	3,242.72	2.120E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,023,109.82	0.75	93.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,026,067.52	0.74	96.6	Pulse	0.10	3
1	Ge		439,085.83	0.31	100.0	Pulse	0.10	3
1	Ge		611,355.47	1.29	99.4	Pulse	0.10	3
1	Rh		3,139,678.50	0.13	101.5	Pulse	0.10	3
1	In		3,379,606.16	0.56	104.7	Pulse	0.10	3
1	Tb		5,000,885.97	0.48	108.3	Pulse	0.10	3
1	Ho		503,454.01	0.61	109.8	Pulse	0.10	3
1	Bi		3,105,939.02	0.36	109.0	Pulse	0.10	3
2	Sc		122,565.16	0.28	100.5	Pulse	0.30	3
2	Ge		80,097.32	0.40	101.5	Pulse	0.30	3
2	Ge		121,618.70	0.26	101.4	Pulse	0.30	3
2	Rh		2,001,895.62	0.59	104.1	Pulse	0.30	3
2	In		832,439.51	1.11	103.5	Pulse	0.30	3
2	Tb		2,880,061.27	0.79	107.4	Pulse	0.30	3
2	Ho		299,649.61	0.49	109.4	Pulse	0.30	3
2	Bi		2,020,029.16	0.33	108.2	Pulse	0.30	3
3	Sc		146,138.58	0.61	99.3	Pulse	0.30	3
3	Ge		101,193.86	0.74	99.6	Pulse	0.30	3
3	Ge		152,948.60	0.71	99.8	Pulse	0.30	3
3	Rh		1,769,150.00	0.66	101.9	Pulse	0.30	3
3	Tb		3,315,152.37	1.15	104.2	Pulse	0.30	3

Quantitation Report

File Name 043SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 13:57
Sample Name jc94207-16ar
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.691	ug/l	4.94	872.04	8.573E-04	Pulse	0.25	3
B			1	126.329	ug/l	0.66	27,267.61	2.681E-02	Pulse	0.15	3
Ca			1	24969.704	ug/l	0.57	694,478.17	3.415E-01	Pulse	0.10	3
Sr			1	182.608	ug/l	1.30	302,655.94	9.555E-02	Pulse	0.10	3
Mo			1	20.779	ug/l	5.40	6,444.87	2.035E-03	Pulse	0.10	3
Ag			1	7.458	ug/l	4.79	6,088.11	1.787E-03	Pulse	0.10	3
Sn			1	36.630	ug/l	5.10	21,265.54	6.241E-03	Pulse	0.10	3
Sb			1	5.846	ug/l	3.50	3,890.61	7.755E-04	Pulse	0.10	3
Ba			1	811.281	ug/l	0.84	217,335.16	4.332E-02	Pulse	0.10	3
Tl			1	1.858	ug/l	7.59	3,323.83	1.063E-03	Pulse	0.10	3
Pb			1	565.529	ug/l	1.47	325,054.43	1.039E-01	Pulse	0.10	3
Pb			1	541.384	ug/l	1.52	273,918.98	8.760E-02	Pulse	0.10	3
Pb			1	549.257	ug/l	0.91	1,280,336.91	4.094E-01	Pulse	0.10	3
Na			2	1410.640	ug/l	1.57	69,817.09	5.570E-01	Pulse	0.30	3
Mg			2	10208.409	ug/l	1.27	198,617.33	1.585E+00	Pulse	0.30	3
Al			2	58125.778	ug/l	1.45	389,315.03	3.106E+00	Pulse	0.30	3
K			2	5050.568	ug/l	2.53	92,380.51	7.371E-01	Pulse	0.30	3
Ca			2	25005.426	ug/l	1.67	21,272.60	1.697E-01	Pulse	0.30	3
Ti			2	2278.366	ug/l	1.41	14,029.35	1.119E-01	Pulse	0.30	3
V			2	226.795	ug/l	1.04	45,818.71	3.655E-01	Pulse	0.30	3
Cr			2	170.938	ug/l	2.41	43,776.62	3.493E-01	Pulse	0.30	3
Mn			2	814.634	ug/l	1.49	113,764.07	9.076E-01	Pulse	0.30	3
Fe			2	206794.512	ug/l	1.64	41,867,351.67	3.340E+02	Analog	0.30	3
Co			2	59.664	ug/l	2.33	24,091.57	1.922E-01	Pulse	0.30	3
Ni			2	1229.706	ug/l	1.35	130,537.95	1.041E+00	Pulse	0.30	3
Cu			2	277934.238	ug/l	2.19	79,621,536.84	6.353E+02	Analog	0.30	3
Zn			2	725.983	ug/l	1.73	33,927.40	2.707E-01	Pulse	0.30	3
As			2	128.312	ug/l	2.62	3,376.36	2.693E-02	Pulse	1.00	3
Cd			2	3.408	ug/l	21.95	280.63	3.302E-04	Pulse	0.30	3
Sn			2	36.926	ug/l	3.43	6,878.25	8.072E-03	Pulse	0.30	3
Se			3	35.310	ug/l	4.30	229.80	1.491E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,017,069.19	0.43	93.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,033,521.90	0.97	97.0	Pulse	0.10	3
1	Ge		439,241.89	0.94	100.0	Pulse	0.10	3
1	Ge		610,301.45	1.08	99.2	Pulse	0.10	3
1	Rh		3,167,483.28	0.18	102.4	Pulse	0.10	3
1	In		3,407,131.01	0.37	105.6	Pulse	0.10	3
1	Tb		5,016,789.72	0.49	108.6	Pulse	0.10	3
1	Ho		506,494.61	1.12	110.5	Pulse	0.10	3
1	Bi		3,127,398.18	0.98	109.7	Pulse	0.10	3
2	Sc		125,356.77	1.44	102.8	Pulse	0.30	3
2	Ge		81,202.89	1.09	102.9	Pulse	0.30	3
2	Ge		122,396.32	1.38	102.0	Pulse	0.30	3
2	Rh		2,041,110.40	1.55	106.2	Pulse	0.30	3
2	In		852,318.90	2.04	106.0	Pulse	0.30	3
2	Tb		2,944,189.19	2.23	109.8	Pulse	0.30	3
2	Ho		306,383.76	1.48	111.9	Pulse	0.30	3
2	Bi		2,051,462.21	1.46	109.9	Pulse	0.30	3
3	Sc		148,042.43	2.54	100.6	Pulse	0.30	3
3	Ge		101,139.35	1.30	99.5	Pulse	0.30	3
3	Ge		154,222.80	1.80	100.7	Pulse	0.30	3
3	Rh		1,782,789.17	2.01	102.7	Pulse	0.30	3
3	Tb		3,320,496.33	2.31	104.4	Pulse	0.30	3

Quantitation Report

File Name 044SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 14:02
Sample Name mp17229-sd1
Sample Type Sample
Comment
Prep Dilution 125.000
Auto Dilution N/A
Total Dilution 125.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.926	ug/l	16.46	198.67	1.897E-04	Pulse	0.25	3
B			1	369.315	ug/l	8.35	21,160.22	2.020E-02	Pulse	0.15	3
Ca			1	24054.078	ug/l	4.96	139,844.53	6.834E-02	Pulse	0.10	3
Sr			1	165.302	ug/l	2.48	55,804.34	1.740E-02	Pulse	0.10	3
Mo			1	21.469	ug/l	3.56	1,366.78	4.257E-04	Pulse	0.10	3
Ag			1	8.239	ug/l	2.71	1,373.45	4.010E-04	Pulse	0.10	3
Sn			1	39.511	ug/l	11.52	6,141.47	1.795E-03	Pulse	0.10	3
Sb			1	7.746	ug/l	13.40	1,156.76	2.298E-04	Pulse	0.10	3
Ba			1	735.339	ug/l	2.74	39,487.83	7.871E-03	Pulse	0.10	3
Tl			1	2.560	ug/l	9.85	1,083.42	3.439E-04	Pulse	0.10	3
Pb			1	510.815	ug/l	4.01	59,353.36	1.884E-02	Pulse	0.10	3
Pb			1	491.939	ug/l	4.46	50,323.31	1.597E-02	Pulse	0.10	3
Pb			1	495.178	ug/l	4.34	233,348.46	7.407E-02	Pulse	0.10	3
Na			2	1648.971	ug/l	4.89	24,570.15	1.973E-01	Pulse	0.30	3
Mg			2	9330.079	ug/l	2.44	36,286.59	2.914E-01	Pulse	0.30	3
Al			2	53173.819	ug/l	2.89	71,509.16	5.743E-01	Pulse	0.30	3
K			2	4650.149	ug/l	5.57	25,531.79	2.050E-01	Pulse	0.30	3
Ca			2	24073.487	ug/l	4.79	4,178.35	3.356E-02	Pulse	0.30	3
Ti			2	2067.101	ug/l	2.78	2,530.23	2.032E-02	Pulse	0.30	3
V			2	205.455	ug/l	1.79	8,510.06	6.832E-02	Pulse	0.30	3
Cr			2	158.436	ug/l	7.48	8,463.38	6.796E-02	Pulse	0.30	3
Mn			2	748.621	ug/l	2.69	20,886.67	1.677E-01	Pulse	0.30	3
Fe			2	191034.405	ug/l	2.08	7,688,238.58	6.174E+01	Analog	0.30	3
Co			2	52.451	ug/l	0.72	4,236.51	3.401E-02	Pulse	0.30	3
Ni			2	1122.888	ug/l	2.95	23,805.11	1.912E-01	Pulse	0.30	3
Cu			2	256635.933	ug/l	1.74	14,614,536.09	1.173E+02	Analog	0.30	3
Zn			2	736.313	ug/l	6.37	7,769.72	6.242E-02	Pulse	0.30	3
As			2	121.466	ug/l	10.10	645.01	5.184E-03	Pulse	1.00	3
Cd			2	1.652	ug/l	48.21	46.56	5.474E-05	Pulse	0.30	3
Sn			2	36.677	ug/l	1.73	1,854.58	2.180E-03	Pulse	0.30	3
Se			3	36.587	ug/l	14.05	52.73	3.407E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,048,332.73	3.49	96.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,049,040.23	4.17	97.7	Pulse	0.10	3
1	Ge		442,328.00	4.50	100.7	Pulse	0.10	3
1	Ge		620,978.46	5.15	101.0	Pulse	0.10	3
1	Rh		3,208,548.49	3.66	103.7	Pulse	0.10	3
1	In		3,427,834.69	4.12	106.2	Pulse	0.10	3
1	Tb		5,020,261.39	3.90	108.7	Pulse	0.10	3
1	Ho		502,931.05	3.90	109.7	Pulse	0.10	3
1	Bi		3,154,185.99	4.11	110.7	Pulse	0.10	3
2	Sc		124,574.32	2.24	102.2	Pulse	0.30	3
2	Ge		81,851.45	1.33	103.7	Pulse	0.30	3
2	Ge		123,589.39	1.25	103.0	Pulse	0.30	3
2	Rh		2,038,596.03	0.75	106.0	Pulse	0.30	3
2	In		850,715.32	0.54	105.8	Pulse	0.30	3
2	Tb		2,917,939.75	1.60	108.8	Pulse	0.30	3
2	Ho		299,783.66	1.01	109.5	Pulse	0.30	3
2	Bi		2,053,849.15	0.10	110.0	Pulse	0.30	3
3	Sc		147,875.10	4.67	100.4	Pulse	0.30	3
3	Ge		102,608.68	3.07	101.0	Pulse	0.30	3
3	Ge		155,051.41	3.25	101.2	Pulse	0.30	3
3	Rh		1,794,675.83	3.68	103.4	Pulse	0.30	3
3	Tb		3,317,450.56	4.17	104.3	Pulse	0.30	3

Quantitation Report

File Name	045_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 14:06
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.799	ug/l	0.80	235,659.06	2.243E-01	Pulse	0.25	3
B			1	100.009	ug/l	1.60	342,355.87	3.259E-01	Pulse	0.15	3
Ca			1	5108.491	ug/l	0.36	3,566,339.63	1.734E+00	Pulse	0.10	3
Sr			1	52.267	ug/l	1.57	2,140,221.22	6.830E-01	Pulse	0.10	3
Mo			1	51.417	ug/l	1.68	393,215.07	1.255E-01	Pulse	0.10	3
Ag			1	48.764	ug/l	0.17	988,917.41	2.907E-01	Pulse	0.10	3
Sn			1	50.860	ug/l	0.07	671,285.95	1.974E-01	Pulse	0.10	3
Sb			1	51.284	ug/l	1.18	820,276.08	1.629E-01	Pulse	0.10	3
Ba			1	50.034	ug/l	1.88	336,357.16	6.678E-02	Pulse	0.10	3
Tl			1	50.863	ug/l	0.54	2,068,730.80	6.793E-01	Pulse	0.10	3
Pb			1	50.416	ug/l	0.37	705,256.60	2.316E-01	Pulse	0.10	3
Pb			1	50.851	ug/l	0.25	626,143.57	2.056E-01	Pulse	0.10	3
Pb			1	50.537	ug/l	0.65	2,866,874.11	9.414E-01	Pulse	0.10	3
Na			2	5016.063	ug/l	1.35	5,331,898.82	4.182E+01	Analog	0.30	3
Mg			2	4839.322	ug/l	0.95	2,391,416.78	1.876E+01	Pulse	0.30	3
Al			2	4882.470	ug/l	1.13	830,584.05	6.515E+00	Pulse	0.30	3
K			2	4965.419	ug/l	0.99	2,054,422.84	1.611E+01	Pulse	0.30	3
Ca			2	5142.023	ug/l	1.33	110,673.91	8.680E-01	Pulse	0.30	3
Ti			2	49.580	ug/l	1.30	7,765.23	6.090E-02	Pulse	0.30	3
V			2	50.359	ug/l	1.31	257,226.02	2.018E+00	Pulse	0.30	3
Cr			2	50.040	ug/l	1.71	322,731.62	2.531E+00	Pulse	0.30	3
Mn			2	49.940	ug/l	1.87	177,272.73	1.390E+00	Pulse	0.30	3
Fe			2	5040.004	ug/l	1.07	25,951,777.30	2.035E+02	Analog	0.30	3
Co			2	49.825	ug/l	1.05	511,019.39	4.008E+00	Pulse	0.30	3
Ni			2	49.822	ug/l	0.56	134,501.68	1.055E+00	Pulse	0.30	3
Cu			2	50.340	ug/l	0.73	370,578.80	2.906E+00	Pulse	0.30	3
Zn			2	50.483	ug/l	0.69	59,118.35	4.636E-01	Pulse	0.30	3
As			2	50.894	ug/l	0.34	33,934.41	2.661E-01	Pulse	1.00	3
Cd			2	51.000	ug/l	1.45	96,710.53	1.141E-01	Pulse	0.30	3
Sn			2	50.527	ug/l	1.16	213,783.94	2.522E-01	Pulse	0.30	3
Se			3	198.566	ug/l	0.18	31,484.00	2.040E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,050,712.50	1.24	96.4	Pulse	0.10	3
1	Sc		2,056,991.27	0.52	98.1	Pulse	0.10	3
1	Ge		443,174.82	0.29	100.9	Pulse	0.10	3

Quantitation Report

1	Ge		623,190.38	0.70	101.3	Pulse	0.10	3
1	Rh		3,134,439.85	2.10	101.3	Pulse	0.10	3
1	In		3,401,329.77	0.96	105.4	Pulse	0.10	3
1	Tb		5,036,449.51	0.42	109.0	Pulse	0.10	3
1	Ho		497,639.99	0.93	108.6	Pulse	0.10	3
1	Bi		3,045,434.85	0.60	106.9	Pulse	0.10	3
2	Sc		127,509.41	1.34	104.6	Pulse	0.30	3
2	Ge		81,974.08	0.21	103.9	Pulse	0.30	3
2	Ge		124,324.53	1.37	103.6	Pulse	0.30	3
2	Rh		2,020,700.61	1.40	105.1	Pulse	0.30	3
2	In		847,559.81	1.23	105.4	Pulse	0.30	3
2	Tb		2,911,720.09	0.77	108.6	Pulse	0.30	3
2	Ho		298,551.85	0.81	109.0	Pulse	0.30	3
2	Bi		1,973,847.28	0.65	105.8	Pulse	0.30	3
3	Sc		149,311.51	0.27	101.4	Pulse	0.30	3
3	Ge		101,337.13	0.81	99.7	Pulse	0.30	3
3	Ge		154,339.43	0.85	100.7	Pulse	0.30	3
3	Rh		1,748,002.71	0.66	100.7	Pulse	0.30	3
3	Tb		3,299,490.22	0.86	103.7	Pulse	0.30	3

Quantitation Report

File Name 046_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 14:11
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	13.80	64.00	6.148E-05	Pulse	0.25	3
B			1	4.217	ug/l	5.23	25,170.09	2.418E-02	Pulse	0.15	3
Ca			1	0.682	ug/l	68.03	6,945.07	3.378E-03	Pulse	0.10	3
Sr			1	0.009	ug/l	16.62	776.72	2.404E-04	Pulse	0.10	3
Mo			1	0.079	ug/l	22.62	643.38	1.985E-04	Pulse	0.10	3
Ag			1	0.010	ug/l	8.16	223.34	6.471E-05	Pulse	0.10	3
Sn			1	0.072	ug/l	14.36	2,940.40	8.512E-04	Pulse	0.10	3
Sb			1	0.129	ug/l	14.19	2,213.58	4.420E-04	Pulse	0.10	3
Ba			1	0.010	ug/l	43.23	176.68	3.518E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	10.13	950.06	3.036E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	20.37	510.03	1.631E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	13.62	483.36	1.545E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	22.16	2,106.81	6.735E-04	Pulse	0.10	3
Na			2	1.218	ug/l	23.40	12,304.58	9.769E-02	Pulse	0.30	3
Mg			2	0.599	ug/l	21.16	560.02	4.449E-03	Pulse	0.30	3
Al			2	-2.679	ug/l	-10.64	471.12	3.737E-03	Pulse	0.30	3
K			2	-1.461	ug/l	-53.85	10,109.84	8.025E-02	Pulse	0.30	3
Ca			2	0.096	ug/l	1261.68	138.89	1.101E-03	Pulse	0.30	3
Ti			2	0.007	ug/l	172.36	2.22	1.772E-05	Pulse	0.30	3
V			2	-0.020	ug/l	-29.02	220.01	1.746E-03	Pulse	0.30	3
Cr			2	-0.004	ug/l	-326.95	471.12	3.745E-03	Pulse	0.30	3
Mn			2	-0.010	ug/l	-71.94	104.44	8.303E-04	Pulse	0.30	3
Fe			2	0.995	ug/l	9.91	7,979.82	6.338E-02	Pulse	0.30	3
Co			2	0.005	ug/l	33.59	78.87	6.252E-04	Pulse	0.30	3
Ni			2	0.008	ug/l	65.89	171.11	1.358E-03	Pulse	0.30	3
Cu			2	0.153	ug/l	21.89	4,873.02	3.870E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.215	ug/l	-36.89	943.37	7.494E-03	Pulse	0.30	3
As			2	0.006	ug/l	168.00	17.33	1.373E-04	Pulse	1.00	3
Cd			2	-0.002	ug/l	-254.73	17.71	2.041E-05	Pulse	0.30	3
Sn			2	0.117	ug/l	11.23	1,125.61	1.302E-03	Pulse	0.30	3
Se			3	0.080	ug/l	5.36	18.80	1.223E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,041,216.07	0.39	95.5	Pulse	0.10	3
1	Sc		2,056,080.75	0.98	98.0	Pulse	0.10	3
1	Ge		442,755.19	1.92	100.8	Pulse	0.10	3
1	Ge		620,491.80	1.02	100.9	Pulse	0.10	3
1	Rh		3,234,261.51	1.77	104.5	Pulse	0.10	3
1	In		3,452,249.68	1.89	107.0	Pulse	0.10	3
1	Tb		5,013,900.45	1.41	108.5	Pulse	0.10	3
1	Ho		501,651.93	1.49	109.4	Pulse	0.10	3
1	Bi		3,130,220.06	1.02	109.8	Pulse	0.10	3
2	Sc		125,975.46	1.23	103.3	Pulse	0.30	3
2	Ge		82,180.89	1.08	104.2	Pulse	0.30	3
2	Ge		125,304.68	0.86	104.4	Pulse	0.30	3
2	Rh		2,058,456.44	1.27	107.1	Pulse	0.30	3
2	In		864,518.68	0.99	107.5	Pulse	0.30	3
2	Tb		2,905,633.29	0.81	108.4	Pulse	0.30	3
2	Ho		298,247.19	0.69	108.9	Pulse	0.30	3
2	Bi		2,033,411.31	0.85	109.0	Pulse	0.30	3
3	Sc		148,757.68	2.22	101.0	Pulse	0.30	3
3	Ge		102,024.26	2.22	100.4	Pulse	0.30	3
3	Ge		153,749.89	2.55	100.4	Pulse	0.30	3
3	Rh		1,801,766.74	2.81	103.8	Pulse	0.30	3
3	Tb		3,297,350.70	2.67	103.7	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 14:17
Sample Name jc94365-1
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.466	ug/l	6.90	1,040.05	9.968E-04	Pulse	0.25	3
B			1	215.194	ug/l	2.51	39,659.75	3.801E-02	Pulse	0.15	3
Ca			1	53572.224	ug/l	1.94	1,528,462.43	7.291E-01	Pulse	0.10	3
Sr			1	348.135	ug/l	1.97	584,609.67	1.821E-01	Pulse	0.10	3
Mo			1	12.648	ug/l	6.13	3,987.34	1.241E-03	Pulse	0.10	3
Ag			1	15.723	ug/l	4.83	12,925.78	3.758E-03	Pulse	0.10	3
Sn			1	191.136	ug/l	3.00	103,737.31	3.015E-02	Pulse	0.10	3
Sb			1	7.092	ug/l	9.55	4,700.88	9.338E-04	Pulse	0.10	3
Ba			1	977.291	ug/l	2.88	262,875.52	5.218E-02	Pulse	0.10	3
Tl			1	1.323	ug/l	5.11	2,430.29	7.773E-04	Pulse	0.10	3
Pb			1	941.498	ug/l	0.95	541,005.59	1.730E-01	Pulse	0.10	3
Pb			1	898.948	ug/l	1.19	454,684.06	1.454E-01	Pulse	0.10	3
Pb			1	909.099	ug/l	0.76	2,118,472.37	6.774E-01	Pulse	0.10	3
Na			2	46587.799	ug/l	1.20	2,010,933.81	1.559E+01	Pulse	0.30	3
Mg			2	38746.308	ug/l	0.95	774,965.65	6.008E+00	Pulse	0.30	3
Al			2	86917.054	ug/l	1.96	598,535.86	4.641E+00	Pulse	0.30	3
K			2	19600.760	ug/l	1.50	337,368.87	2.616E+00	Pulse	0.30	3
Ca			2	54313.555	ug/l	2.01	47,381.61	3.674E-01	Pulse	0.30	3
Ti			2	2242.593	ug/l	4.73	14,205.83	1.102E-01	Pulse	0.30	3
V			2	224.850	ug/l	2.17	46,740.24	3.624E-01	Pulse	0.30	3
Cr			2	509.138	ug/l	2.95	133,157.92	1.033E+00	Pulse	0.30	3
Mn			2	1664.875	ug/l	2.63	239,076.99	1.854E+00	Pulse	0.30	3
Fe			2	174525.672	ug/l	2.34	36,356,933.00	2.819E+02	Analog	0.30	3
Co			2	50.810	ug/l	0.57	21,119.00	1.637E-01	Pulse	0.30	3
Ni			2	186.433	ug/l	1.32	20,495.13	1.589E-01	Pulse	0.30	3
Cu			2	1525.404	ug/l	2.12	453,508.19	3.517E+00	Pulse	0.30	3
Zn			2	1642.137	ug/l	0.97	77,438.42	6.004E-01	Pulse	0.30	3
As			2	117.868	ug/l	2.76	3,191.65	2.475E-02	Pulse	1.00	3
Cd			2	11.680	ug/l	8.33	920.83	1.070E-03	Pulse	0.30	3
Sn			2	192.500	ug/l	0.67	33,596.97	3.905E-02	Pulse	0.30	3
Se			3	16.727	ug/l	1.72	112.73	7.273E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,043,549.81	0.43	95.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,096,650.96	1.24	100.0	Pulse	0.10	3
1	Ge		446,244.02	0.53	101.6	Pulse	0.10	3
1	Ge		626,926.09	0.35	101.9	Pulse	0.10	3
1	Rh		3,211,532.14	0.83	103.8	Pulse	0.10	3
1	In		3,440,921.45	1.03	106.6	Pulse	0.10	3
1	Tb		5,039,014.09	1.67	109.1	Pulse	0.10	3
1	Ho		507,885.69	0.46	110.8	Pulse	0.10	3
1	Bi		3,127,170.16	0.77	109.7	Pulse	0.10	3
2	Sc		128,990.51	1.37	105.8	Pulse	0.30	3
2	Ge		83,705.22	1.01	106.1	Pulse	0.30	3
2	Ge		126,225.53	0.61	105.2	Pulse	0.30	3
2	Rh		2,036,915.82	1.05	106.0	Pulse	0.30	3
2	In		860,375.20	0.76	107.0	Pulse	0.30	3
2	Tb		2,935,853.49	0.73	109.5	Pulse	0.30	3
2	Ho		305,515.27	0.35	111.6	Pulse	0.30	3
2	Bi		2,036,652.84	0.31	109.1	Pulse	0.30	3
3	Sc		150,716.28	2.01	102.4	Pulse	0.30	3
3	Ge		100,611.03	3.89	99.0	Pulse	0.30	3
3	Ge		155,050.48	4.08	101.2	Pulse	0.30	3
3	Rh		1,779,108.89	1.49	102.5	Pulse	0.30	3
3	Tb		3,304,657.92	0.72	103.9	Pulse	0.30	3

Quantitation Report

File Name	048SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 14:21
Sample Name	jc94365-2
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.593	ug/l	7.14	894.71	8.396E-04	Pulse	0.25	3
B			1	200.782	ug/l	2.77	38,544.16	3.619E-02	Pulse	0.15	3
Ca			1	27180.551	ug/l	3.17	802,735.93	3.715E-01	Pulse	0.10	3
Sr			1	251.647	ug/l	2.83	434,117.66	1.316E-01	Pulse	0.10	3
Mo			1	12.111	ug/l	6.16	3,923.97	1.189E-03	Pulse	0.10	3
Ag			1	15.710	ug/l	4.41	13,289.42	3.755E-03	Pulse	0.10	3
Sn			1	172.466	ug/l	3.73	96,502.20	2.726E-02	Pulse	0.10	3
Sb			1	6.293	ug/l	5.27	4,347.47	8.322E-04	Pulse	0.10	3
Ba			1	907.805	ug/l	3.10	253,271.98	4.847E-02	Pulse	0.10	3
Tl			1	1.492	ug/l	1.46	2,780.39	8.676E-04	Pulse	0.10	3
Pb			1	914.954	ug/l	1.53	538,736.80	1.681E-01	Pulse	0.10	3
Pb			1	878.073	ug/l	1.22	455,120.58	1.420E-01	Pulse	0.10	3
Pb			1	889.923	ug/l	1.53	2,124,968.98	6.632E-01	Pulse	0.10	3
Na			2	51098.874	ug/l	0.28	2,199,565.75	1.709E+01	Pulse	0.30	3
Mg			2	36799.548	ug/l	0.16	734,358.88	5.707E+00	Pulse	0.30	3
Al			2	81949.747	ug/l	0.87	563,147.70	4.376E+00	Pulse	0.30	3
K			2	19126.521	ug/l	1.23	328,733.62	2.555E+00	Pulse	0.30	3
Ca			2	28639.659	ug/l	1.19	24,994.40	1.942E-01	Pulse	0.30	3
Ti			2	2129.488	ug/l	0.48	13,462.27	1.046E-01	Pulse	0.30	3
V			2	216.516	ug/l	2.30	44,921.75	3.491E-01	Pulse	0.30	3
Cr			2	514.230	ug/l	0.30	134,202.51	1.043E+00	Pulse	0.30	3
Mn			2	1472.373	ug/l	0.40	210,992.91	1.640E+00	Pulse	0.30	3
Fe			2	160429.080	ug/l	0.38	33,348,543.12	2.591E+02	Analog	0.30	3
Co			2	48.061	ug/l	1.17	19,932.28	1.549E-01	Pulse	0.30	3
Ni			2	180.421	ug/l	1.73	19,794.19	1.538E-01	Pulse	0.30	3
Cu			2	1541.541	ug/l	0.84	457,267.81	3.553E+00	Pulse	0.30	3
Zn			2	1530.428	ug/l	1.04	72,087.45	5.602E-01	Pulse	0.30	3
As			2	113.125	ug/l	1.42	3,057.29	2.376E-02	Pulse	1.00	3
Cd			2	12.368	ug/l	7.96	969.71	1.132E-03	Pulse	0.30	3
Sn			2	178.575	ug/l	1.28	31,068.50	3.628E-02	Pulse	0.30	3
Se			3	16.001	ug/l	9.81	115.67	6.975E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,065,087.29	1.02	97.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,162,249.86	2.98	103.1	Pulse	0.10	3
1	Ge		461,577.65	1.82	105.1	Pulse	0.10	3
1	Ge		640,495.62	0.80	104.1	Pulse	0.10	3
1	Rh		3,299,262.45	2.04	106.6	Pulse	0.10	3
1	In		3,541,492.48	2.32	109.7	Pulse	0.10	3
1	Tb		5,227,148.99	2.19	113.1	Mix	0.10	3
1	Ho		521,568.53	2.72	113.8	Pulse	0.10	3
1	Bi		3,204,763.91	1.51	112.5	Pulse	0.10	3
2	Sc		128,685.52	0.18	105.5	Pulse	0.30	3
2	Ge		84,597.50	1.59	107.2	Pulse	0.30	3
2	Ge		127,283.90	1.05	106.1	Pulse	0.30	3
2	Rh		2,040,145.82	0.95	106.1	Pulse	0.30	3
2	In		856,439.62	0.61	106.5	Pulse	0.30	3
2	Tb		2,947,706.48	0.93	109.9	Pulse	0.30	3
2	Ho		307,873.09	1.20	112.5	Pulse	0.30	3
2	Bi		2,040,965.20	0.39	109.4	Pulse	0.30	3
3	Sc		164,123.18	11.71	111.5	Pulse	0.30	3
3	Ge		109,327.62	8.45	107.6	Pulse	0.30	3
3	Ge		166,564.28	8.11	108.7	Pulse	0.30	3
3	Rh		1,930,936.52	11.35	111.2	Pulse	0.30	3
3	Tb		3,589,368.12	12.06	112.8	Mix	0.30	3

Quantitation Report

File Name	049SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 14:27
Sample Name	jc94365-3
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.328	ug/l	2.59	2,045.49	1.961E-03	Pulse	0.25	3
B			1	170.447	ug/l	1.58	67,341.59	6.458E-02	Pulse	0.15	3
Ca			1	23677.869	ug/l	0.59	1,754,487.94	8.053E-01	Pulse	0.10	3
Sr			1	221.127	ug/l	0.80	927,123.11	2.890E-01	Pulse	0.10	3
Mo			1	7.154	ug/l	5.66	5,621.19	1.752E-03	Pulse	0.10	3
Ag			1	8.853	ug/l	0.85	18,354.56	5.286E-03	Pulse	0.10	3
Sn			1	137.425	ug/l	0.58	186,604.76	5.374E-02	Pulse	0.10	3
Sb			1	3.446	ug/l	7.80	5,741.26	1.127E-03	Pulse	0.10	3
Ba			1	771.414	ug/l	0.13	524,187.08	1.030E-01	Pulse	0.10	3
Tl			1	1.118	ug/l	3.96	4,924.35	1.564E-03	Pulse	0.10	3
Pb			1	657.503	ug/l	1.26	950,787.51	3.020E-01	Pulse	0.10	3
Pb			1	629.185	ug/l	1.01	800,871.68	2.544E-01	Pulse	0.10	3
Pb			1	637.387	ug/l	0.79	3,737,805.62	1.187E+00	Pulse	0.10	3
Na			2	55458.822	ug/l	2.28	6,176,617.67	4.623E+01	Analog	0.30	3
Mg			2	38031.737	ug/l	1.54	1,969,662.63	1.474E+01	Pulse	0.30	3
Al			2	78629.817	ug/l	1.16	1,401,258.24	1.049E+01	Pulse	0.30	3
K			2	18804.665	ug/l	1.60	822,430.92	6.155E+00	Pulse	0.30	3
Ca			2	24351.063	ug/l	0.69	55,004.70	4.116E-01	Pulse	0.30	3
Ti			2	1917.785	ug/l	1.93	31,472.07	2.355E-01	Pulse	0.30	3
V			2	191.795	ug/l	0.81	102,884.88	7.700E-01	Pulse	0.30	3
Cr			2	377.499	ug/l	0.97	255,302.52	1.911E+00	Pulse	0.30	3
Mn			2	1679.491	ug/l	0.73	624,487.58	4.674E+00	Pulse	0.30	3
Fe			2	154003.745	ug/l	2.01	83,094,712.26	6.219E+02	Analog	0.30	3
Co			2	44.550	ug/l	0.67	47,916.90	3.586E-01	Pulse	0.30	3
Ni			2	148.617	ug/l	0.62	42,157.24	3.155E-01	Pulse	0.30	3
Cu			2	779.523	ug/l	0.87	599,189.71	4.484E+00	Pulse	0.30	3
Zn			2	1061.524	ug/l	0.88	128,877.61	9.645E-01	Pulse	0.30	3
As			2	80.407	ug/l	0.90	5,630.32	4.214E-02	Pulse	1.00	3
Cd			2	4.678	ug/l	5.86	932.94	1.072E-03	Pulse	0.30	3
Sn			2	139.990	ug/l	0.93	61,290.67	7.041E-02	Pulse	0.30	3
Se			3	9.931	ug/l	2.26	168.93	1.060E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,042,739.92	0.77	95.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,178,696.53	0.81	103.9	Pulse	0.10	3
1	Ge		460,181.01	0.82	104.8	Pulse	0.10	3
1	Ge		637,906.53	0.84	103.7	Pulse	0.10	3
1	Rh		3,207,803.39	0.45	103.7	Pulse	0.10	3
1	In		3,472,144.64	0.89	107.6	Pulse	0.10	3
1	Tb		5,091,437.21	0.87	110.2	Pulse	0.10	3
1	Ho		528,548.65	0.66	115.3	Pulse	0.10	3
1	Bi		3,148,489.64	0.53	110.5	Pulse	0.10	3
2	Sc		133,625.24	0.59	109.6	Pulse	0.30	3
2	Ge		85,233.32	0.46	108.0	Pulse	0.30	3
2	Ge		128,143.87	0.96	106.8	Pulse	0.30	3
2	Rh		2,054,889.92	0.59	106.9	Pulse	0.30	3
2	In		870,480.71	0.73	108.2	Pulse	0.30	3
2	Tb		2,981,025.16	0.50	111.2	Pulse	0.30	3
2	Ho		312,954.95	0.28	114.3	Pulse	0.30	3
2	Bi		2,037,895.96	0.24	109.2	Pulse	0.30	3
3	Sc		159,113.35	0.52	108.1	Pulse	0.30	3
3	Ge		106,085.67	0.40	104.4	Pulse	0.30	3
3	Ge		159,339.95	0.91	104.0	Pulse	0.30	3
3	Rh		1,797,671.46	0.08	103.5	Pulse	0.30	3
3	Tb		3,375,550.84	0.94	106.1	Pulse	0.30	3

Quantitation Report

File Name 050SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 14:31
Sample Name jc94365-4
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.142	ug/l	4.97	2,457.55	2.328E-03	Pulse	0.25	3
B			1	169.532	ug/l	2.62	67,863.61	6.429E-02	Pulse	0.15	3
Ca			1	23579.736	ug/l	0.83	1,762,174.35	8.020E-01	Pulse	0.10	3
Sr			1	216.091	ug/l	1.85	920,946.52	2.824E-01	Pulse	0.10	3
Mo			1	8.580	ug/l	7.30	6,845.10	2.100E-03	Pulse	0.10	3
Ag			1	13.170	ug/l	0.71	27,428.10	7.860E-03	Pulse	0.10	3
Sn			1	147.803	ug/l	0.41	201,555.99	5.776E-02	Pulse	0.10	3
Sb			1	4.090	ug/l	4.95	6,818.41	1.332E-03	Pulse	0.10	3
Ba			1	786.694	ug/l	1.32	537,707.48	1.050E-01	Pulse	0.10	3
Tl			1	1.229	ug/l	8.87	5,394.50	1.711E-03	Pulse	0.10	3
Pb			1	752.395	ug/l	0.48	1,089,456.63	3.456E-01	Pulse	0.10	3
Pb			1	724.272	ug/l	1.26	923,092.22	2.928E-01	Pulse	0.10	3
Pb			1	731.009	ug/l	0.79	4,292,355.95	1.362E+00	Pulse	0.10	3
Na			2	48672.999	ug/l	4.31	5,455,099.50	4.058E+01	Analog	0.30	3
Mg			2	38093.707	ug/l	4.26	1,984,695.13	1.476E+01	Pulse	0.30	3
Al			2	81529.621	ug/l	4.02	1,461,725.57	1.087E+01	Pulse	0.30	3
K			2	18849.803	ug/l	3.92	829,429.99	6.170E+00	Pulse	0.30	3
Ca			2	24397.067	ug/l	4.21	55,439.51	4.124E-01	Pulse	0.30	3
Ti			2	2047.208	ug/l	4.83	33,793.32	2.514E-01	Pulse	0.30	3
V			2	207.187	ug/l	4.72	111,765.96	8.316E-01	Pulse	0.30	3
Cr			2	443.895	ug/l	4.77	301,867.77	2.246E+00	Pulse	0.30	3
Mn			2	1612.771	ug/l	4.84	603,173.12	4.488E+00	Pulse	0.30	3
Fe			2	158896.687	ug/l	4.75	86,238,852.13	6.416E+02	Analog	0.30	3
Co			2	46.808	ug/l	4.59	50,639.82	3.768E-01	Pulse	0.30	3
Ni			2	164.282	ug/l	4.28	46,862.00	3.486E-01	Pulse	0.30	3
Cu			2	974.909	ug/l	4.20	752,867.73	5.601E+00	Pulse	0.30	3
Zn			2	1251.122	ug/l	4.66	152,557.70	1.135E+00	Pulse	0.30	3
As			2	85.423	ug/l	4.81	6,016.12	4.476E-02	Pulse	1.00	3
Cd			2	6.955	ug/l	4.17	1,360.65	1.581E-03	Pulse	0.30	3
Sn			2	149.038	ug/l	3.02	64,437.54	7.491E-02	Pulse	0.30	3
Se			3	10.664	ug/l	4.52	180.67	1.135E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,055,646.99	0.30	96.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,197,455.70	1.21	104.8	Pulse	0.10	3
1	Ge		462,687.01	0.86	105.4	Pulse	0.10	3
1	Ge		643,128.13	0.38	104.6	Pulse	0.10	3
1	Rh		3,261,337.76	1.61	105.4	Pulse	0.10	3
1	In		3,489,546.14	1.37	108.1	Pulse	0.10	3
1	Tb		5,121,746.49	1.56	110.9	Pulse	0.10	3
1	Ho		527,491.78	1.91	115.1	Pulse	0.10	3
1	Bi		3,152,769.54	1.24	110.6	Pulse	0.10	3
2	Sc		134,579.42	4.18	110.4	Pulse	0.30	3
2	Ge		85,152.86	2.83	107.9	Pulse	0.30	3
2	Ge		127,583.29	2.94	106.3	Pulse	0.30	3
2	Rh		2,040,800.82	4.30	106.2	Pulse	0.30	3
2	In		860,734.67	3.25	107.0	Pulse	0.30	3
2	Tb		2,957,339.26	3.52	110.3	Pulse	0.30	3
2	Ho		313,950.84	3.38	114.7	Pulse	0.30	3
2	Bi		2,034,177.84	3.68	109.0	Pulse	0.30	3
3	Sc		158,011.57	0.75	107.3	Pulse	0.30	3
3	Ge		105,777.12	1.02	104.1	Pulse	0.30	3
3	Ge		159,071.84	1.73	103.8	Pulse	0.30	3
3	Rh		1,802,525.27	0.81	103.8	Pulse	0.30	3
3	Tb		3,360,080.77	0.70	105.6	Pulse	0.30	3

Quantitation Report

File Name 051SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 14:37
Sample Name jc94365-5
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	3.354	ug/l	4.89	1,633.44	1.523E-03	Pulse	0.25	3
B			1	139.435	ug/l	1.79	58,803.78	5.481E-02	Pulse	0.15	3
Ca			1	19091.393	ug/l	0.88	1,426,963.52	6.499E-01	Pulse	0.10	3
Sr			1	203.877	ug/l	1.82	868,632.49	2.665E-01	Pulse	0.10	3
Mo			1	5.332	ug/l	5.31	4,264.04	1.308E-03	Pulse	0.10	3
Ag			1	7.148	ug/l	2.84	14,920.85	4.270E-03	Pulse	0.10	3
Sn			1	115.302	ug/l	1.44	157,919.45	4.518E-02	Pulse	0.10	3
Sb			1	3.157	ug/l	11.56	5,311.11	1.035E-03	Pulse	0.10	3
Ba			1	580.491	ug/l	0.15	397,495.40	7.748E-02	Pulse	0.10	3
Tl			1	0.885	ug/l	2.86	3,950.69	1.252E-03	Pulse	0.10	3
Pb			1	535.442	ug/l	0.44	776,007.41	2.459E-01	Pulse	0.10	3
Pb			1	511.722	ug/l	0.23	652,801.79	2.069E-01	Pulse	0.10	3
Pb			1	517.076	ug/l	0.37	3,039,041.57	9.632E-01	Pulse	0.10	3
Na			2	53478.728	ug/l	2.21	5,878,596.71	4.458E+01	Analog	0.30	3
Mg			2	31824.599	ug/l	0.70	1,626,637.47	1.234E+01	Pulse	0.30	3
Al			2	64269.722	ug/l	0.88	1,130,505.27	8.573E+00	Pulse	0.30	3
K			2	15421.150	ug/l	0.34	667,635.69	5.063E+00	Pulse	0.30	3
Ca			2	20019.378	ug/l	1.23	44,651.81	3.386E-01	Pulse	0.30	3
Ti			2	1600.877	ug/l	2.01	25,926.96	1.966E-01	Pulse	0.30	3
V			2	160.417	ug/l	0.37	84,979.05	6.444E-01	Pulse	0.30	3
Cr			2	308.589	ug/l	0.82	206,056.58	1.563E+00	Pulse	0.30	3
Mn			2	1466.643	ug/l	0.72	538,206.94	4.081E+00	Pulse	0.30	3
Fe			2	129882.710	ug/l	0.25	69,163,830.58	5.245E+02	Analog	0.30	3
Co			2	36.403	ug/l	1.54	38,647.85	2.931E-01	Pulse	0.30	3
Ni			2	117.198	ug/l	1.57	32,841.71	2.490E-01	Pulse	0.30	3
Cu			2	640.537	ug/l	0.70	486,608.54	3.690E+00	Pulse	0.30	3
Zn			2	885.356	ug/l	0.32	106,283.27	8.060E-01	Pulse	0.30	3
As			2	68.373	ug/l	2.29	4,726.70	3.584E-02	Pulse	1.00	3
Cd			2	3.399	ug/l	3.37	681.92	7.855E-04	Pulse	0.30	3
Sn			2	115.481	ug/l	1.30	50,528.46	5.821E-02	Pulse	0.30	3
Se			3	7.691	ug/l	3.11	132.53	8.300E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,072,948.42	0.87	98.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,195,612.57	0.47	104.7	Pulse	0.10	3
1	Ge		465,062.90	0.61	105.9	Pulse	0.10	3
1	Ge		644,255.73	0.15	104.7	Pulse	0.10	3
1	Rh		3,260,113.70	1.34	105.3	Pulse	0.10	3
1	In		3,494,922.15	0.43	108.3	Pulse	0.10	3
1	Tb		5,130,313.57	0.58	111.1	Pulse	0.10	3
1	Ho		527,354.77	0.48	115.0	Pulse	0.10	3
1	Bi		3,155,199.95	0.69	110.7	Pulse	0.10	3
2	Sc		131,869.19	0.23	108.1	Pulse	0.30	3
2	Ge		85,761.27	0.58	108.7	Pulse	0.30	3
2	Ge		127,983.61	0.49	106.7	Pulse	0.30	3
2	Rh		2,073,743.95	0.31	107.9	Pulse	0.30	3
2	In		868,081.12	0.62	107.9	Pulse	0.30	3
2	Tb		2,977,112.66	0.93	111.0	Pulse	0.30	3
2	Ho		312,431.01	0.15	114.1	Pulse	0.30	3
2	Bi		2,033,224.16	0.31	108.9	Pulse	0.30	3
3	Sc		157,579.41	1.09	107.0	Pulse	0.30	3
3	Ge		105,687.89	0.29	104.0	Pulse	0.30	3
3	Ge		159,703.12	1.00	104.2	Pulse	0.30	3
3	Rh		1,815,864.37	0.70	104.6	Pulse	0.30	3
3	Tb		3,382,290.35	0.26	106.3	Pulse	0.30	3

Quantitation Report

File Name 052SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 14:41
Sample Name jc94365-6
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.186	ug/l	3.12	2,022.82	1.898E-03	Pulse	0.25	3
B			1	154.649	ug/l	2.90	63,534.11	5.960E-02	Pulse	0.15	3
Ca			1	16600.846	ug/l	0.25	1,255,434.95	5.655E-01	Pulse	0.10	3
Sr			1	186.308	ug/l	0.31	803,903.68	2.435E-01	Pulse	0.10	3
Mo			1	10.251	ug/l	2.73	8,279.09	2.508E-03	Pulse	0.10	3
Ag			1	12.489	ug/l	1.33	26,509.74	7.454E-03	Pulse	0.10	3
Sn			1	135.354	ug/l	0.68	188,280.54	5.294E-02	Pulse	0.10	3
Sb			1	3.534	ug/l	9.45	5,994.69	1.155E-03	Pulse	0.10	3
Ba			1	693.274	ug/l	1.87	480,110.65	9.253E-02	Pulse	0.10	3
Tl			1	1.232	ug/l	3.92	5,437.89	1.715E-03	Pulse	0.10	3
Pb			1	705.212	ug/l	0.65	1,026,909.90	3.239E-01	Pulse	0.10	3
Pb			1	677.531	ug/l	0.52	868,429.39	2.739E-01	Pulse	0.10	3
Pb			1	686.537	ug/l	0.64	4,054,069.10	1.279E+00	Pulse	0.10	3
Na			2	54569.455	ug/l	5.30	6,053,636.70	4.549E+01	Analog	0.30	3
Mg			2	35604.592	ug/l	3.82	1,837,092.15	1.380E+01	Pulse	0.30	3
Al			2	75768.861	ug/l	3.69	1,345,313.42	1.011E+01	Pulse	0.30	3
K			2	17692.651	ug/l	3.43	771,649.59	5.796E+00	Pulse	0.30	3
Ca			2	17197.962	ug/l	2.07	38,760.55	2.910E-01	Pulse	0.30	3
Ti			2	1926.808	ug/l	2.65	31,508.85	2.366E-01	Pulse	0.30	3
V			2	186.788	ug/l	2.91	99,850.13	7.499E-01	Pulse	0.30	3
Cr			2	415.238	ug/l	3.21	279,758.64	2.101E+00	Pulse	0.30	3
Mn			2	1306.943	ug/l	3.05	484,249.04	3.637E+00	Pulse	0.30	3
Fe			2	148434.243	ug/l	2.58	79,815,325.72	5.994E+02	Analog	0.30	3
Co			2	43.810	ug/l	3.00	46,952.95	3.526E-01	Pulse	0.30	3
Ni			2	151.013	ug/l	3.94	42,675.23	3.206E-01	Pulse	0.30	3
Cu			2	946.347	ug/l	2.44	724,045.06	5.438E+00	Pulse	0.30	3
Zn			2	1190.646	ug/l	3.75	143,857.60	1.081E+00	Pulse	0.30	3
As			2	74.044	ug/l	3.62	5,166.83	3.881E-02	Pulse	1.00	3
Cd			2	6.937	ug/l	3.42	1,356.12	1.577E-03	Pulse	0.30	3
Sn			2	138.949	ug/l	2.99	60,077.22	6.989E-02	Pulse	0.30	3
Se			3	8.969	ug/l	5.40	156.20	9.613E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,066,066.47	0.50	97.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,219,873.20	0.69	105.9	Pulse	0.10	3
1	Ge		471,646.21	1.13	107.4	Pulse	0.10	3
1	Ge		655,630.93	1.04	106.6	Pulse	0.10	3
1	Rh		3,301,142.24	0.59	106.7	Pulse	0.10	3
1	In		3,556,270.82	0.39	110.2	Pulse	0.10	3
1	Tb		5,188,975.13	0.61	112.3	Pulse	0.10	3
1	Ho		532,088.68	0.25	116.1	Pulse	0.10	3
1	Bi		3,170,543.81	1.18	111.3	Pulse	0.10	3
2	Sc		133,220.45	2.96	109.2	Pulse	0.30	3
2	Ge		85,777.01	1.66	108.7	Pulse	0.30	3
2	Ge		127,776.41	1.79	106.5	Pulse	0.30	3
2	Rh		2,036,519.37	2.94	105.9	Pulse	0.30	3
2	In		860,016.74	2.46	106.9	Pulse	0.30	3
2	Tb		2,945,280.30	3.00	109.8	Pulse	0.30	3
2	Ho		310,298.31	3.38	113.3	Pulse	0.30	3
2	Bi		2,014,954.15	1.61	108.0	Pulse	0.30	3
3	Sc		159,406.41	0.72	108.3	Pulse	0.30	3
3	Ge		107,352.96	0.64	105.7	Pulse	0.30	3
3	Ge		162,507.92	0.36	106.1	Pulse	0.30	3
3	Rh		1,823,334.16	0.67	105.0	Pulse	0.30	3
3	Tb		3,411,706.32	0.60	107.2	Pulse	0.30	3

Quantitation Report

File Name	053SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 14:46
Sample Name	jc94365-7
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.774	ug/l	7.67	938.71	8.722E-04	Pulse	0.25	3
B			1	148.632	ug/l	0.28	31,892.47	2.962E-02	Pulse	0.15	3
Ca			1	21475.516	ug/l	0.21	639,869.65	2.942E-01	Pulse	0.10	3
Sr			1	440.943	ug/l	0.97	767,234.55	2.306E-01	Pulse	0.10	3
Mo			1	17.741	ug/l	4.30	5,784.60	1.738E-03	Pulse	0.10	3
Ag			1	29.500	ug/l	1.45	25,134.16	7.043E-03	Pulse	0.10	3
Sn			1	253.958	ug/l	0.93	142,297.59	3.988E-02	Pulse	0.10	3
Sb			1	9.806	ug/l	6.93	6,715.05	1.278E-03	Pulse	0.10	3
Ba			1	2323.106	ug/l	2.93	651,550.70	1.240E-01	Pulse	0.10	3
Tl			1	1.598	ug/l	4.62	2,963.75	9.241E-04	Pulse	0.10	3
Pb			1	1495.990	ug/l	0.14	881,523.27	2.749E-01	Pulse	0.10	3
Pb			1	1446.851	ug/l	0.90	750,428.43	2.340E-01	Pulse	0.10	3
Pb			1	1457.586	ug/l	0.72	3,482,964.84	1.086E+00	Pulse	0.10	3
Na			2	45187.326	ug/l	0.39	2,006,862.14	1.513E+01	Pulse	0.30	3
Mg			2	27947.745	ug/l	0.23	575,111.68	4.334E+00	Pulse	0.30	3
Al			2	66110.910	ug/l	1.11	468,580.55	3.532E+00	Pulse	0.30	3
K			2	15015.730	ug/l	0.76	268,514.86	2.024E+00	Pulse	0.30	3
Ca			2	22499.090	ug/l	1.80	20,278.02	1.528E-01	Pulse	0.30	3
Ti			2	1992.419	ug/l	2.99	12,985.20	9.788E-02	Pulse	0.30	3
V			2	236.228	ug/l	1.62	50,499.91	3.806E-01	Pulse	0.30	3
Cr			2	886.302	ug/l	1.56	238,094.11	1.795E+00	Pulse	0.30	3
Mn			2	1057.002	ug/l	1.54	156,204.36	1.177E+00	Pulse	0.30	3
Fe			2	133163.809	ug/l	1.69	28,539,003.31	2.151E+02	Analog	0.30	3
Co			2	46.846	ug/l	2.50	20,029.80	1.510E-01	Pulse	0.30	3
Ni			2	223.748	ug/l	1.07	25,274.00	1.905E-01	Pulse	0.30	3
Cu			2	3660.839	ug/l	0.26	1,114,194.78	8.397E+00	Pulse	0.30	3
Zn			2	2375.340	ug/l	1.18	114,665.76	8.643E-01	Pulse	0.30	3
As			2	205.137	ug/l	0.92	5,704.68	4.300E-02	Pulse	1.00	3
Cd			2	45.799	ug/l	1.68	3,622.24	4.124E-03	Pulse	0.30	3
Sn			2	252.707	ug/l	1.45	44,838.13	5.104E-02	Pulse	0.30	3
Se			3	46.017	ug/l	2.90	308.00	1.931E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,076,717.47	0.87	98.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,175,245.85	0.75	103.7	Pulse	0.10	3
1	Ge		465,231.21	0.64	106.0	Pulse	0.10	3
1	Ge		646,878.22	0.40	105.2	Pulse	0.10	3
1	Rh		3,327,746.72	0.54	107.5	Pulse	0.10	3
1	In		3,568,513.36	0.51	110.6	Pulse	0.10	3
1	Tb		5,256,320.96	2.66	113.8	Mix	0.10	3
1	Ho		524,396.59	0.59	114.4	Pulse	0.10	3
1	Bi		3,207,248.08	0.63	112.5	Pulse	0.10	3
2	Sc		132,685.62	0.94	108.8	Pulse	0.30	3
2	Ge		85,955.60	0.95	108.9	Pulse	0.30	3
2	Ge		128,234.52	0.41	106.9	Pulse	0.30	3
2	Rh		2,090,807.76	0.21	108.8	Pulse	0.30	3
2	In		878,479.00	0.45	109.2	Pulse	0.30	3
2	Tb		2,986,106.62	0.71	111.4	Pulse	0.30	3
2	Ho		309,243.89	0.62	113.0	Pulse	0.30	3
2	Bi		2,076,752.07	0.79	111.3	Pulse	0.30	3
3	Sc		156,233.48	0.35	106.1	Pulse	0.30	3
3	Ge		106,174.18	2.16	104.5	Pulse	0.30	3
3	Ge		159,569.70	1.23	104.2	Pulse	0.30	3
3	Rh		1,858,548.33	0.19	107.0	Pulse	0.30	3
3	Tb		3,398,645.91	0.41	106.8	Pulse	0.30	3

Quantitation Report

File Name	054SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 14:51
Sample Name	jc94365-7
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.842	ug/l	11.17	492.01	4.483E-04	Pulse	0.25	3
B			1	165.668	ug/l	2.90	23,405.34	2.133E-02	Pulse	0.15	3
Ca			1	23044.869	ug/l	0.16	345,829.89	1.593E-01	Pulse	0.10	3
Sr			1	462.259	ug/l	0.91	403,479.62	1.209E-01	Pulse	0.10	3
Mo			1	19.315	ug/l	6.28	3,167.10	9.492E-04	Pulse	0.10	3
Ag			1	31.994	ug/l	2.23	13,613.05	3.823E-03	Pulse	0.10	3
Sn			1	265.187	ug/l	4.16	75,069.28	2.109E-02	Pulse	0.10	3
Sb			1	9.966	ug/l	5.57	3,450.51	6.659E-04	Pulse	0.10	3
Ba			1	2469.841	ug/l	1.28	341,785.40	6.593E-02	Pulse	0.10	3
Tl			1	1.355	ug/l	2.83	1,390.12	4.322E-04	Pulse	0.10	3
Pb			1	1570.783	ug/l	0.52	464,300.86	1.443E-01	Pulse	0.10	3
Pb			1	1510.182	ug/l	0.77	392,927.05	1.221E-01	Pulse	0.10	3
Pb			1	1531.115	ug/l	0.81	1,835,307.82	5.705E-01	Pulse	0.10	3
Na			2	48454.198	ug/l	1.02	1,070,868.99	8.150E+00	Pulse	0.30	3
Mg			2	30411.343	ug/l	0.43	309,982.94	2.359E+00	Pulse	0.30	3
Al			2	71415.356	ug/l	0.57	251,075.31	1.911E+00	Pulse	0.30	3
K			2	15816.276	ug/l	0.59	145,325.39	1.106E+00	Pulse	0.30	3
Ca			2	24691.603	ug/l	3.25	11,081.60	8.435E-02	Pulse	0.30	3
Ti			2	2186.260	ug/l	4.20	7,056.03	5.371E-02	Pulse	0.30	3
V			2	256.741	ug/l	0.66	27,330.41	2.080E-01	Pulse	0.30	3
Cr			2	953.449	ug/l	0.52	127,066.98	9.671E-01	Pulse	0.30	3
Mn			2	1141.740	ug/l	0.97	83,614.24	6.364E-01	Pulse	0.30	3
Fe			2	143393.760	ug/l	1.28	15,218,543.28	1.158E+02	Analog	0.30	3
Co			2	51.104	ug/l	1.59	10,835.90	8.247E-02	Pulse	0.30	3
Ni			2	233.344	ug/l	3.03	13,123.10	9.989E-02	Pulse	0.30	3
Cu			2	3962.685	ug/l	0.20	598,971.10	4.559E+00	Pulse	0.30	3
Zn			2	2553.340	ug/l	1.10	61,605.26	4.689E-01	Pulse	0.30	3
As			2	220.602	ug/l	2.57	3,044.29	2.317E-02	Pulse	1.00	3
Cd			2	48.179	ug/l	3.03	1,903.21	2.181E-03	Pulse	0.30	3
Sn			2	273.189	ug/l	1.44	24,368.97	2.792E-02	Pulse	0.30	3
Se			3	47.582	ug/l	1.10	162.73	1.017E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,097,320.95	1.08	100.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,171,137.62	1.47	103.5	Pulse	0.10	3
1	Ge		468,108.51	1.29	106.6	Pulse	0.10	3
1	Ge		656,359.64	0.36	106.7	Pulse	0.10	3
1	Rh		3,337,131.41	0.61	107.8	Pulse	0.10	3
1	In		3,560,296.10	1.55	110.3	Pulse	0.10	3
1	Tb		5,184,341.18	1.36	112.2	Pulse	0.10	3
1	Ho		517,233.03	0.30	112.8	Pulse	0.10	3
1	Bi		3,217,022.66	1.05	112.9	Pulse	0.10	3
2	Sc		131,392.24	0.55	107.8	Pulse	0.30	3
2	Ge		85,720.15	1.50	108.6	Pulse	0.30	3
2	Ge		128,355.44	1.19	107.0	Pulse	0.30	3
2	Rh		2,108,786.03	0.40	109.7	Pulse	0.30	3
2	In		872,856.43	0.87	108.5	Pulse	0.30	3
2	Tb		2,962,275.51	0.14	110.5	Pulse	0.30	3
2	Ho		306,151.30	1.05	111.8	Pulse	0.30	3
2	Bi		2,073,095.27	0.48	111.1	Pulse	0.30	3
3	Sc		154,330.25	0.31	104.8	Pulse	0.30	3
3	Ge		106,045.28	1.31	104.4	Pulse	0.30	3
3	Ge		159,932.13	0.88	104.4	Pulse	0.30	3
3	Rh		1,865,330.00	0.74	107.4	Pulse	0.30	3
3	Tb		3,400,523.76	0.08	106.9	Pulse	0.30	3

Quantitation Report

File Name 055_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 14:56
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.558	ug/l	0.29	246,196.48	2.232E-01	Pulse	0.25	3
B			1	96.727	ug/l	0.35	348,021.75	3.155E-01	Pulse	0.15	3
Ca			1	5078.009	ug/l	0.44	3,741,480.05	1.723E+00	Pulse	0.10	3
Sr			1	52.261	ug/l	0.14	2,216,165.59	6.829E-01	Pulse	0.10	3
Mo			1	51.628	ug/l	0.96	408,877.12	1.260E-01	Pulse	0.10	3
Ag			1	49.564	ug/l	0.70	1,036,832.98	2.955E-01	Pulse	0.10	3
Sn			1	50.623	ug/l	0.43	689,245.54	1.964E-01	Pulse	0.10	3
Sb			1	51.461	ug/l	3.45	841,204.00	1.634E-01	Pulse	0.10	3
Ba			1	49.663	ug/l	3.29	341,216.33	6.629E-02	Pulse	0.10	3
Tl			1	50.568	ug/l	0.87	2,081,795.07	6.754E-01	Pulse	0.10	3
Pb			1	50.712	ug/l	0.64	718,035.02	2.329E-01	Pulse	0.10	3
Pb			1	51.008	ug/l	1.12	635,701.20	2.062E-01	Pulse	0.10	3
Pb			1	50.524	ug/l	0.60	2,901,074.37	9.411E-01	Pulse	0.10	3
Na			2	4963.652	ug/l	0.77	5,410,718.68	4.138E+01	Analog	0.30	3
Mg			2	4824.437	ug/l	0.77	2,444,752.26	1.870E+01	Pulse	0.30	3
Al			2	4841.084	ug/l	0.77	844,526.50	6.459E+00	Pulse	0.30	3
K			2	4968.413	ug/l	0.53	2,107,917.90	1.612E+01	Pulse	0.30	3
Ca			2	5096.543	ug/l	1.15	112,484.74	8.604E-01	Pulse	0.30	3
Ti			2	48.929	ug/l	3.43	7,856.39	6.010E-02	Pulse	0.30	3
V			2	50.505	ug/l	0.62	264,537.34	2.023E+00	Pulse	0.30	3
Cr			2	50.103	ug/l	0.56	331,383.77	2.535E+00	Pulse	0.30	3
Mn			2	50.634	ug/l	0.94	184,313.16	1.410E+00	Pulse	0.30	3
Fe			2	5155.835	ug/l	0.10	27,222,624.47	2.082E+02	Analog	0.30	3
Co			2	50.561	ug/l	0.97	531,741.08	4.067E+00	Pulse	0.30	3
Ni			2	49.905	ug/l	0.93	138,141.56	1.057E+00	Pulse	0.30	3
Cu			2	50.364	ug/l	0.40	380,173.69	2.908E+00	Pulse	0.30	3
Zn			2	50.474	ug/l	0.57	60,603.59	4.635E-01	Pulse	0.30	3
As			2	51.139	ug/l	0.53	34,963.54	2.674E-01	Pulse	1.00	3
Cd			2	50.613	ug/l	0.44	97,758.34	1.133E-01	Pulse	0.30	3
Sn			2	50.359	ug/l	0.46	217,016.58	2.514E-01	Pulse	0.30	3
Se			3	195.927	ug/l	0.47	31,801.14	2.013E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,102,963.31	0.11	101.2	Pulse	0.10	3
1	Sc		2,170,917.73	0.18	103.5	Pulse	0.10	3
1	Ge		464,752.36	0.69	105.8	Pulse	0.10	3

Quantitation Report

1	Ge		652,010.80	0.74	106.0	Pulse	0.10	3
1	Rh		3,245,274.22	0.12	104.9	Pulse	0.10	3
1	In		3,508,665.40	0.85	108.7	Pulse	0.10	3
1	Tb		5,151,433.78	3.61	111.5	Mix	0.10	3
1	Ho		508,060.97	0.76	110.8	Pulse	0.10	3
1	Bi		3,082,662.76	1.23	108.2	Pulse	0.10	3
2	Sc		130,742.58	0.49	107.2	Pulse	0.30	3
2	Ge		84,900.15	0.02	107.6	Pulse	0.30	3
2	Ge		128,846.63	0.44	107.4	Pulse	0.30	3
2	Rh		2,060,825.82	0.63	107.2	Pulse	0.30	3
2	In		863,201.40	0.48	107.3	Pulse	0.30	3
2	Tb		2,956,925.51	0.34	110.3	Pulse	0.30	3
2	Ho		303,001.88	1.32	110.7	Pulse	0.30	3
2	Bi		1,995,213.60	0.79	106.9	Pulse	0.30	3
3	Sc		152,045.40	0.89	103.3	Pulse	0.30	3
3	Ge		104,265.28	1.25	102.6	Pulse	0.30	3
3	Ge		157,997.22	0.94	103.1	Pulse	0.30	3
3	Rh		1,811,186.73	0.52	104.3	Pulse	0.30	3
3	Tb		3,374,279.31	0.60	106.1	Pulse	0.30	3

Quantitation Report

File Name	056_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 15:01
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	33.32	84.00	7.673E-05	Pulse	0.25	3
B			1	3.344	ug/l	2.18	23,420.90	2.143E-02	Pulse	0.15	3
Ca			1	0.075	ug/l	796.52	6,754.97	3.172E-03	Pulse	0.10	3
Sr			1	0.010	ug/l	5.32	853.39	2.598E-04	Pulse	0.10	3
Mo			1	0.076	ug/l	10.37	633.37	1.929E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	25.52	293.35	8.403E-05	Pulse	0.10	3
Sn			1	0.087	ug/l	15.45	3,170.44	9.078E-04	Pulse	0.10	3
Sb			1	0.126	ug/l	20.06	2,186.90	4.323E-04	Pulse	0.10	3
Ba			1	0.004	ug/l	175.70	136.67	2.701E-05	Pulse	0.10	3
Tl			1	0.014	ug/l	25.12	823.39	2.623E-04	Pulse	0.10	3
Pb			1	0.039	ug/l	34.63	790.06	2.511E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	30.75	600.04	1.911E-04	Pulse	0.10	3
Pb			1	0.037	ug/l	1.83	3,133.60	9.972E-04	Pulse	0.10	3
Na			2	5.867	ug/l	179.16	17,444.80	1.364E-01	Pulse	0.30	3
Mg			2	0.691	ug/l	16.81	615.58	4.808E-03	Pulse	0.30	3
Al			2	-2.462	ug/l	-10.88	515.57	4.026E-03	Pulse	0.30	3
K			2	-1.889	ug/l	-35.58	10,098.71	7.887E-02	Pulse	0.30	3
Ca			2	0.258	ug/l	492.54	144.45	1.129E-03	Pulse	0.30	3
Ti			2	0.042	ug/l	57.84	7.78	6.070E-05	Pulse	0.30	3
V			2	-0.018	ug/l	-47.89	232.23	1.813E-03	Pulse	0.30	3
Cr			2	-0.010	ug/l	-74.24	441.12	3.445E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-285.17	135.56	1.058E-03	Pulse	0.30	3
Fe			2	1.146	ug/l	3.11	8,895.83	6.947E-02	Pulse	0.30	3
Co			2	0.005	ug/l	32.18	84.43	6.595E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	313.18	161.11	1.258E-03	Pulse	0.30	3
Cu			2	-0.087	ug/l	-17.06	3,199.24	2.498E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.195	ug/l	-19.95	982.26	7.671E-03	Pulse	0.30	3
As			2	0.014	ug/l	46.73	23.00	1.795E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-170.87	19.92	2.298E-05	Pulse	0.30	3
Sn			2	0.138	ug/l	6.41	1,218.95	1.406E-03	Pulse	0.30	3
Se			3	0.079	ug/l	1.00	19.07	1.211E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,093,045.80	0.88	100.3	Pulse	0.10	3
1	Sc		2,128,849.34	0.99	101.5	Pulse	0.10	3
1	Ge		461,001.01	0.63	105.0	Pulse	0.10	3
1	Ge		640,926.81	0.42	104.2	Pulse	0.10	3
1	Rh		3,285,748.49	0.95	106.2	Pulse	0.10	3
1	In		3,493,241.78	0.63	108.2	Pulse	0.10	3
1	Tb		5,056,293.36	0.37	109.5	Pulse	0.10	3
1	Ho		504,196.87	1.42	110.0	Pulse	0.10	3
1	Bi		3,142,153.18	0.86	110.3	Pulse	0.10	3
2	Sc		128,057.76	0.41	105.0	Pulse	0.30	3
2	Ge		84,492.40	1.23	107.1	Pulse	0.30	3
2	Ge		127,164.80	0.58	106.0	Pulse	0.30	3
2	Rh		2,086,158.87	0.14	108.5	Pulse	0.30	3
2	In		866,750.62	0.42	107.8	Pulse	0.30	3
2	Tb		2,921,633.43	0.34	109.0	Pulse	0.30	3
2	Ho		299,228.19	0.25	109.3	Pulse	0.30	3
2	Bi		2,035,922.28	0.69	109.1	Pulse	0.30	3
3	Sc		150,158.62	1.03	102.0	Pulse	0.30	3
3	Ge		104,614.12	0.16	103.0	Pulse	0.30	3
3	Ge		157,450.80	0.30	102.8	Pulse	0.30	3
3	Rh		1,852,931.46	0.17	106.7	Pulse	0.30	3
3	Tb		3,373,050.35	0.31	106.0	Pulse	0.30	3

Quantitation Report

File Name	057SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 15:06
Sample Name	jc94441-4ar
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.930	ug/l	6.39	481.35	4.562E-04	Pulse	0.25	3
B			1	197.417	ug/l	2.36	24,618.25	2.333E-02	Pulse	0.15	3
Ca			1	534566.626	ug/l	0.90	7,548,660.51	3.625E+00	Analog	0.10	3
Sr			1	1328.030	ug/l	0.61	1,106,915.92	3.471E-01	Pulse	0.10	3
Mo			1	12.997	ug/l	4.78	2,043.55	6.409E-04	Pulse	0.10	3
Ag			1	1.210	ug/l	7.99	520.03	1.522E-04	Pulse	0.10	3
Sn			1	44.568	ug/l	2.65	13,736.53	4.021E-03	Pulse	0.10	3
Sb			1	6.139	ug/l	9.80	2,103.56	4.228E-04	Pulse	0.10	3
Ba			1	1139.617	ug/l	1.04	151,394.08	3.043E-02	Pulse	0.10	3
Tl			1	1.107	ug/l	17.58	1,126.76	3.661E-04	Pulse	0.10	3
Pb			1	1015.840	ug/l	1.72	287,487.80	9.337E-02	Pulse	0.10	3
Pb			1	991.193	ug/l	1.75	246,913.81	8.019E-02	Pulse	0.10	3
Pb			1	996.117	ug/l	0.80	1,143,224.90	3.713E-01	Pulse	0.10	3
Na			2	2740.331	ug/l	1.05	66,877.71	5.435E-01	Pulse	0.30	3
Mg			2	86564.186	ug/l	0.78	825,809.69	6.712E+00	Pulse	0.30	3
Al			2	128979.405	ug/l	0.35	423,949.62	3.445E+00	Pulse	0.30	3
K			2	4686.479	ug/l	1.39	47,684.42	3.875E-01	Pulse	0.30	3
Ca			2	543846.175	ug/l	1.14	225,776.60	1.835E+00	Pulse	0.30	3
Ti			2	8875.971	ug/l	1.37	26,825.04	2.180E-01	Pulse	0.30	3
V			2	4008.995	ug/l	0.66	395,066.26	3.211E+00	Pulse	0.30	3
Cr			2	12088.119	ug/l	0.80	1,503,000.08	1.222E+01	Pulse	0.30	3
Mn			2	5616.264	ug/l	0.66	384,658.63	3.126E+00	Pulse	0.30	3
Fe			2	503655.009	ug/l	1.16	50,052,016.90	4.068E+02	Analog	0.30	3
Co			2	625.267	ug/l	1.54	123,795.53	1.006E+00	Pulse	0.30	3
Ni			2	2074.564	ug/l	1.54	108,111.37	8.787E-01	Pulse	0.30	3
Cu			2	296.098	ug/l	0.96	45,321.20	3.683E-01	Pulse	0.30	3
Zn			2	1666.720	ug/l	1.20	38,062.00	3.093E-01	Pulse	0.30	3
As			2	49.956	ug/l	4.16	655.35	5.327E-03	Pulse	1.00	3
Cd			2	2.322	ug/l	19.00	106.52	1.291E-04	Pulse	0.30	3
Sn			2	47.106	ug/l	1.79	4,470.68	5.409E-03	Pulse	0.30	3
Se			3	6.351	ug/l	12.94	25.67	1.705E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,055,139.03	0.65	96.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,082,309.24	0.33	99.3	Pulse	0.10	3
1	Ge		447,981.32	0.62	102.0	Pulse	0.10	3
1	Ge		621,185.67	0.48	101.0	Pulse	0.10	3
1	Rh		3,188,826.93	0.16	103.0	Pulse	0.10	3
1	In		3,416,406.32	0.26	105.8	Pulse	0.10	3
1	Tb		4,974,356.70	0.30	107.7	Pulse	0.10	3
1	Ho		497,704.31	0.21	108.6	Pulse	0.10	3
1	Bi		3,079,215.79	0.88	108.1	Pulse	0.10	3
2	Sc		123,049.38	0.89	100.9	Pulse	0.30	3
2	Ge		80,301.82	1.70	101.8	Pulse	0.30	3
2	Ge		120,530.88	1.53	100.5	Pulse	0.30	3
2	Rh		1,984,019.29	0.53	103.2	Pulse	0.30	3
2	In		826,543.62	1.60	102.8	Pulse	0.30	3
2	Tb		2,849,305.44	1.44	106.3	Pulse	0.30	3
2	Ho		294,002.33	1.14	107.4	Pulse	0.30	3
2	Bi		1,976,298.25	0.19	105.9	Pulse	0.30	3
3	Sc		145,702.56	1.87	99.0	Pulse	0.30	3
3	Ge		100,399.06	0.60	98.8	Pulse	0.30	3
3	Ge		150,604.40	0.80	98.3	Pulse	0.30	3
3	Rh		1,757,907.85	0.28	101.3	Pulse	0.30	3
3	Tb		3,315,139.45	0.33	104.2	Pulse	0.30	3

Quantitation Report

File Name 058SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 15:11
Sample Name mp17229-ps1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	200.489	ug/l	1.53	193,670.53	1.806E-01	Pulse	0.25	3
B			1	224.005	ug/l	1.07	162,989.86	1.520E-01	Pulse	0.15	3
Ca			1	30720.245	ug/l	0.96	4,674,523.37	2.085E+00	Pulse	0.10	3
Sr			1	367.870	ug/l	0.82	3,068,183.81	9.613E-01	Pulse	0.10	3
Mo			1	215.861	ug/l	0.66	336,258.51	1.054E-01	Pulse	0.10	3
Ag			1	99.213	ug/l	0.99	409,301.62	1.183E-01	Pulse	0.10	3
Sn			1	227.746	ug/l	0.74	611,627.61	1.768E-01	Pulse	0.10	3
Sb			1	205.555	ug/l	0.40	660,604.03	1.306E-01	Pulse	0.10	3
Ba			1	913.143	ug/l	0.49	1,233,078.34	2.437E-01	Pulse	0.10	3
Tl			1	195.654	ug/l	0.34	1,605,240.76	5.226E-01	Pulse	0.10	3
Pb			1	695.552	ug/l	0.75	1,962,216.01	6.389E-01	Pulse	0.10	3
Pb			1	673.662	ug/l	0.68	1,672,822.11	5.446E-01	Pulse	0.10	3
Pb			1	682.055	ug/l	0.72	7,802,910.56	2.540E+00	Pulse	0.10	3
Na			2	10481.438	ug/l	0.14	2,338,880.67	1.753E+01	Pulse	0.30	3
Mg			2	17794.831	ug/l	0.38	1,840,704.16	1.379E+01	Pulse	0.30	3
Al			2	57698.157	ug/l	0.20	2,053,204.71	1.539E+01	Pulse	0.30	3
K			2	13844.617	ug/l	0.52	1,203,993.11	9.023E+00	Pulse	0.30	3
Ca			2	31042.557	ug/l	0.18	139,820.14	1.048E+00	Pulse	0.30	3
Ti			2	2116.179	ug/l	1.40	69,357.11	5.198E-01	Pulse	0.30	3
V			2	378.918	ug/l	0.67	404,964.31	3.035E+00	Pulse	0.30	3
Cr			2	330.782	ug/l	1.17	446,415.31	3.345E+00	Pulse	0.30	3
Mn			2	861.577	ug/l	0.49	639,826.33	4.795E+00	Pulse	0.30	3
Fe			2	181900.130	ug/l	0.56	196,024,009.99	1.469E+03	Analog	0.30	3
Co			2	237.096	ug/l	0.40	508,990.92	3.814E+00	Pulse	0.30	3
Ni			2	1187.235	ug/l	0.52	670,247.30	5.023E+00	Pulse	0.30	3
Cu			2	231356.763	ug/l	0.71	352,811,843.76	2.644E+03	Analog	0.30	3
Zn			2	775.420	ug/l	1.27	187,439.06	1.405E+00	Pulse	0.30	3
As			2	296.946	ug/l	0.21	41,438.26	3.105E-01	Pulse	1.00	3
Cd			2	199.524	ug/l	1.40	75,044.84	8.930E-02	Pulse	0.30	3
Sn			2	228.402	ug/l	0.82	191,719.84	2.281E-01	Pulse	0.30	3
Se			3	541.723	ug/l	1.52	17,260.87	1.113E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,072,402.80	0.85	98.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,242,567.16	1.07	106.9	Pulse	0.10	3
1	Ge		464,631.54	0.93	105.8	Pulse	0.10	3
1	Ge		642,879.80	1.04	104.5	Pulse	0.10	3
1	Rh		3,191,605.37	0.74	103.1	Pulse	0.10	3
1	In		3,459,321.28	0.86	107.2	Pulse	0.10	3
1	Tb		5,059,522.73	0.31	109.5	Pulse	0.10	3
1	Ho		544,973.61	0.41	118.9	Pulse	0.10	3
1	Bi		3,071,480.37	0.32	107.8	Pulse	0.10	3
2	Sc		133,436.83	0.31	109.4	Pulse	0.30	3
2	Ge		84,040.46	0.14	106.5	Pulse	0.30	3
2	Ge		125,042.14	0.99	104.2	Pulse	0.30	3
2	Rh		1,989,334.09	1.00	103.5	Pulse	0.30	3
2	In		840,466.69	1.00	104.5	Pulse	0.30	3
2	Tb		2,905,064.05	0.15	108.3	Pulse	0.30	3
2	Ho		321,291.21	0.58	117.4	Pulse	0.30	3
2	Bi		1,958,355.62	0.71	104.9	Pulse	0.30	3
3	Sc		156,845.54	1.27	106.5	Pulse	0.30	3
3	Ge		104,863.53	0.21	103.2	Pulse	0.30	3
3	Ge		155,068.89	1.40	101.2	Pulse	0.30	3
3	Rh		1,774,413.05	0.17	102.2	Pulse	0.30	3
3	Tb		3,384,204.59	0.60	106.4	Pulse	0.30	3

Quantitation Report

File Name 059SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 15:16
Sample Name mp17232a-mb1conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.020	ug/l	45.62	53.33	5.695E-05	Pulse	0.25	3
B			1	6.570	ug/l	2.96	19,918.65	2.124E-02	Pulse	0.15	3
Ca			1	27.546	ug/l	2.00	14,229.89	7.813E-03	Pulse	0.10	3
Sr			1	0.068	ug/l	17.84	1,680.15	5.680E-04	Pulse	0.10	3
Mo			1	0.299	ug/l	12.26	1,096.75	3.708E-04	Pulse	0.10	3
Ag			1	0.021	ug/l	19.11	223.34	6.926E-05	Pulse	0.10	3
Sn			1	0.872	ug/l	1.01	7,281.99	2.258E-03	Pulse	0.10	3
Sb			1	0.264	ug/l	0.40	2,193.57	4.520E-04	Pulse	0.10	3
Ba			1	0.424	ug/l	8.12	1,476.79	3.041E-04	Pulse	0.10	3
Tl			1	0.030	ug/l	16.88	850.06	2.722E-04	Pulse	0.10	3
Pb			1	0.162	ug/l	3.35	1,390.12	4.451E-04	Pulse	0.10	3
Pb			1	0.151	ug/l	10.84	1,163.42	3.725E-04	Pulse	0.10	3
Pb			1	0.157	ug/l	5.93	5,507.31	1.763E-03	Pulse	0.10	3
Na			2	9.704	ug/l	10.65	14,123.80	1.279E-01	Pulse	0.30	3
Mg			2	4.978	ug/l	3.19	1,300.06	1.177E-02	Pulse	0.30	3
Al			2	9.031	ug/l	22.45	1,471.19	1.333E-02	Pulse	0.30	3
K			2	-1.116	ug/l	-140.77	9,182.62	8.316E-02	Pulse	0.30	3
Ca			2	23.663	ug/l	10.99	340.01	3.080E-03	Pulse	0.30	3
Ti			2	0.870	ug/l	68.38	60.00	5.427E-04	Pulse	0.30	3
V			2	0.100	ug/l	2.96	502.24	4.549E-03	Pulse	0.30	3
Cr			2	0.685	ug/l	6.59	2,345.75	2.125E-02	Pulse	0.30	3
Mn			2	0.292	ug/l	12.26	571.13	5.172E-03	Pulse	0.30	3
Fe			2	18.900	ug/l	2.47	44,697.59	4.048E-01	Pulse	0.30	3
Co			2	0.030	ug/l	26.34	159.88	1.447E-03	Pulse	0.30	3
Ni			2	0.186	ug/l	22.17	347.79	3.149E-03	Pulse	0.30	3
Cu			2	21.548	ug/l	13.64	71,295.02	6.456E-01	Pulse	0.30	3
Zn			2	2.975	ug/l	3.09	2,518.00	2.281E-02	Pulse	0.30	3
As			2	0.137	ug/l	20.30	51.00	4.617E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.015	ug/l	-44.14	6.57	8.422E-06	Pulse	0.30	3
Sn			2	1.006	ug/l	4.87	2,518.01	3.222E-03	Pulse	0.30	3
Se			3	0.098	ug/l	25.26	14.07	9.059E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		937,700.24	0.62	86.0	Pulse	0.10	3
1	Sc		1,821,239.09	0.46	86.8	Pulse	0.10	3
1	Ge		445,371.32	0.71	101.4	Pulse	0.10	3
1	Ge		626,896.61	0.79	101.9	Pulse	0.10	3
1	Rh		2,957,642.04	0.21	95.6	Pulse	0.10	3
1	In		3,224,668.11	0.30	99.9	Pulse	0.10	3
1	Tb		4,853,272.43	1.14	105.1	Pulse	0.10	3
1	Ho		484,239.11	1.16	105.6	Pulse	0.10	3
1	Bi		3,123,113.08	0.21	109.6	Pulse	0.10	3
2	Sc		110,413.13	0.37	90.5	Pulse	0.30	3
2	Ge		81,782.17	0.35	103.7	Pulse	0.30	3
2	Ge		122,792.88	0.22	102.4	Pulse	0.30	3
2	Rh		1,897,575.06	0.35	98.7	Pulse	0.30	3
2	In		781,360.46	0.36	97.1	Pulse	0.30	3
2	Tb		2,767,534.96	0.50	103.2	Pulse	0.30	3
2	Ho		286,375.50	0.80	104.6	Pulse	0.30	3
2	Bi		1,985,235.06	0.59	106.4	Pulse	0.30	3
3	Sc		140,368.96	1.03	95.3	Pulse	0.30	3
3	Ge		101,784.30	0.96	100.2	Pulse	0.30	3
3	Ge		155,211.12	0.41	101.3	Pulse	0.30	3
3	Rh		1,786,132.92	0.73	102.9	Pulse	0.30	3
3	Tb		3,359,940.77	0.62	105.6	Pulse	0.30	3

Quantitation Report

File Name 060SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 15:21
Sample Name mp17232a-b2conf
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	68.643	ug/l	0.81	145,908.42	1.546E-01	Pulse	0.25	3
B			1	74.691	ug/l	0.84	121,297.38	1.285E-01	Pulse	0.15	3
Ca			1	3828.601	ug/l	0.58	1,201,217.59	6.517E-01	Pulse	0.10	3
Sr			1	73.523	ug/l	0.52	1,424,528.73	4.804E-01	Pulse	0.10	3
Mo			1	74.222	ug/l	0.43	268,573.12	9.057E-02	Pulse	0.10	3
Ag			1	70.976	ug/l	0.36	687,007.59	2.116E-01	Pulse	0.10	3
Sn			1	74.920	ug/l	0.76	472,437.93	1.455E-01	Pulse	0.10	3
Sb			1	71.084	ug/l	1.55	555,730.89	1.129E-01	Pulse	0.10	3
Ba			1	69.418	ug/l	0.77	228,117.22	4.634E-02	Pulse	0.10	3
Tl			1	70.664	ug/l	0.64	1,443,541.65	4.719E-01	Pulse	0.10	3
Pb			1	73.556	ug/l	0.16	516,836.72	1.690E-01	Pulse	0.10	3
Pb			1	74.280	ug/l	0.18	459,413.07	1.502E-01	Pulse	0.10	3
Pb			1	73.653	ug/l	0.30	2,098,679.88	6.861E-01	Pulse	0.10	3
Na			2	3692.106	ug/l	0.53	1,724,791.88	1.545E+01	Pulse	0.30	3
Mg			2	3692.548	ug/l	0.62	799,196.11	7.157E+00	Pulse	0.30	3
Al			2	3612.157	ug/l	0.65	269,602.95	2.414E+00	Pulse	0.30	3
K			2	3723.508	ug/l	0.88	680,553.46	6.095E+00	Pulse	0.30	3
Ca			2	3988.097	ug/l	1.41	37,667.07	3.373E-01	Pulse	0.30	3
Ti			2	74.510	ug/l	3.99	5,108.62	4.576E-02	Pulse	0.30	3
V			2	74.035	ug/l	1.28	165,669.86	1.484E+00	Pulse	0.30	3
Cr			2	74.640	ug/l	1.50	210,914.34	1.889E+00	Pulse	0.30	3
Mn			2	74.250	ug/l	1.09	115,450.95	1.034E+00	Pulse	0.30	3
Fe			2	4052.173	ug/l	1.70	9,138,053.53	8.184E+01	Analog	0.30	3
Co			2	74.346	ug/l	0.40	333,921.34	2.990E+00	Pulse	0.30	3
Ni			2	73.943	ug/l	0.74	87,443.25	7.831E-01	Pulse	0.30	3
Cu			2	79.123	ug/l	0.60	255,777.07	2.291E+00	Pulse	0.30	3
Zn			2	67.277	ug/l	2.51	34,847.12	3.121E-01	Pulse	0.30	3
As			2	70.384	ug/l	1.40	20,552.90	1.841E-01	Pulse	1.00	3
Cd			2	69.972	ug/l	0.21	61,153.46	7.829E-02	Pulse	0.30	3
Sn			2	74.166	ug/l	1.13	144,749.51	1.853E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	323.631	ug/l	0.69	25,757.71	1.662E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		943,869.13	0.89	86.6	Pulse	0.10	3
1	Sc		1,843,331.59	0.34	87.9	Pulse	0.10	3
1	Ge		436,959.53	0.92	99.5	Pulse	0.10	3
1	Ge		618,058.44	1.87	100.5	Pulse	0.10	3
1	Rh		2,965,427.87	0.78	95.8	Pulse	0.10	3
1	In		3,246,826.04	0.78	100.6	Pulse	0.10	3
1	Tb		4,923,291.90	0.56	106.6	Pulse	0.10	3
1	Ho		491,647.82	0.50	107.3	Pulse	0.10	3
1	Bi		3,059,017.76	0.04	107.3	Pulse	0.10	3
2	Sc		111,669.19	1.08	91.6	Pulse	0.30	3
2	Ge		81,142.24	1.26	102.8	Pulse	0.30	3
2	Ge		122,419.35	0.77	102.0	Pulse	0.30	3
2	Rh		1,886,637.42	0.11	98.1	Pulse	0.30	3
2	In		781,088.57	0.50	97.1	Pulse	0.30	3
2	Tb		2,790,322.25	0.28	104.1	Pulse	0.30	3
2	Ho		287,633.36	0.57	105.1	Pulse	0.30	3
2	Bi		1,927,652.98	0.93	103.3	Pulse	0.30	3
3	Sc		143,581.17	0.06	97.5	Pulse	0.30	3
3	Ge		101,565.26	0.95	100.0	Pulse	0.30	3
3	Ge		154,940.15	0.36	101.1	Pulse	0.30	3
3	Rh		1,767,975.63	0.62	101.8	Pulse	0.30	3
3	Tb		3,374,015.28	0.44	106.1	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 15:26
Sample Name mp17232a-s3 5
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.283	ug/l	1.21	13,556.22	1.321E-02	Pulse	0.25	3
B			1	240.342	ug/l	1.26	42,237.13	4.117E-02	Pulse	0.15	3
Ca			1	53442.168	ug/l	0.35	1,437,055.55	7.273E-01	Pulse	0.10	3
Sr			1	452.416	ug/l	0.93	733,462.69	2.365E-01	Pulse	0.10	3
Mo			1	77.584	ug/l	2.12	23,501.24	7.580E-03	Pulse	0.10	3
Ag			1	73.603	ug/l	0.16	58,398.35	1.756E-02	Pulse	0.10	3
Sn			1	77.957	ug/l	2.19	42,024.01	1.264E-02	Pulse	0.10	3
Sb			1	77.616	ug/l	1.65	48,850.36	9.891E-03	Pulse	0.10	3
Ba			1	124.160	ug/l	3.60	32,842.28	6.648E-03	Pulse	0.10	3
Tl			1	74.672	ug/l	0.38	122,060.89	3.996E-02	Pulse	0.10	3
Pb			1	78.392	ug/l	1.00	44,210.42	1.447E-02	Pulse	0.10	3
Pb			1	78.983	ug/l	1.02	39,213.06	1.284E-02	Pulse	0.10	3
Pb			1	77.864	ug/l	0.28	178,086.04	5.830E-02	Pulse	0.10	3
Na			2	16822.242	ug/l	0.40	679,163.48	5.686E+00	Pulse	0.30	3
Mg			2	10712.841	ug/l	0.48	198,616.48	1.663E+00	Pulse	0.30	3
Al			2	3725.516	ug/l	0.80	24,596.85	2.059E-01	Pulse	0.30	3
K			2	12753.925	ug/l	0.85	206,852.59	1.732E+00	Pulse	0.30	3
Ca			2	54614.186	ug/l	0.50	44,124.93	3.694E-01	Pulse	0.30	3
Ti			2	71.225	ug/l	12.41	418.90	3.508E-03	Pulse	0.30	3
V			2	75.126	ug/l	1.42	14,667.71	1.228E-01	Pulse	0.30	3
Cr			2	76.616	ug/l	1.69	18,959.87	1.587E-01	Pulse	0.30	3
Mn			2	2175.761	ug/l	0.63	289,344.06	2.422E+00	Pulse	0.30	3
Fe			2	73840.147	ug/l	0.34	14,249,017.77	1.193E+02	Analog	0.30	3
Co			2	93.803	ug/l	0.45	36,081.11	3.021E-01	Pulse	0.30	3
Ni			2	83.900	ug/l	2.96	8,620.12	7.216E-02	Pulse	0.30	3
Cu			2	86.587	ug/l	1.00	27,217.05	2.279E-01	Pulse	0.30	3
Zn			2	73.647	ug/l	3.44	4,291.72	3.593E-02	Pulse	0.30	3
As			2	1713.788	ug/l	0.42	42,815.43	3.584E-01	Pulse	1.00	3
Cd			2	76.202	ug/l	1.75	5,588.12	6.844E-03	Pulse	0.30	3
Sn			2	79.250	ug/l	2.26	13,470.31	1.650E-02	Pulse	0.30	3
Se			3	391.800	ug/l	1.32	2,445.32	1.614E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,025,859.43	0.64	94.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		1,975,805.28	0.88	94.2	Pulse	0.10	3
1	Ge		433,761.82	0.96	98.8	Pulse	0.10	3
1	Ge		603,116.19	0.62	98.1	Pulse	0.10	3
1	Rh		3,100,929.95	1.30	100.2	Pulse	0.10	3
1	In		3,325,357.96	0.46	103.0	Pulse	0.10	3
1	Tb		4,939,272.53	0.62	106.9	Pulse	0.10	3
1	Ho		490,186.37	0.34	106.9	Pulse	0.10	3
1	Bi		3,054,795.16	0.88	107.2	Pulse	0.10	3
2	Sc		119,449.12	0.22	98.0	Pulse	0.30	3
2	Ge		78,508.61	0.94	99.5	Pulse	0.30	3
2	Ge		118,884.66	0.84	99.1	Pulse	0.30	3
2	Rh		1,946,607.91	0.33	101.3	Pulse	0.30	3
2	In		816,446.55	0.60	101.5	Pulse	0.30	3
2	Tb		2,830,228.22	0.56	105.6	Pulse	0.30	3
2	Ho		290,361.34	0.15	106.1	Pulse	0.30	3
2	Bi		1,969,097.84	0.88	105.5	Pulse	0.30	3
3	Sc		142,654.25	0.48	96.9	Pulse	0.30	3
3	Ge		99,208.65	0.32	97.6	Pulse	0.30	3
3	Ge		151,545.77	1.21	98.9	Pulse	0.30	3
3	Rh		1,766,626.04	0.41	101.8	Pulse	0.30	3
3	Tb		3,299,949.45	0.20	103.7	Pulse	0.30	3

Quantitation Report

File Name	062SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 15:31
Sample Name	mp17232a-s4
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.361	ug/l	2.37	13,832.38	1.359E-02	Pulse	0.25	3
B			1	237.952	ug/l	2.03	41,602.38	4.087E-02	Pulse	0.15	3
Ca			1	55551.296	ug/l	0.23	1,498,394.14	7.559E-01	Pulse	0.10	3
Sr			1	466.924	ug/l	0.37	751,610.74	2.441E-01	Pulse	0.10	3
Mo			1	82.885	ug/l	2.85	24,930.19	8.097E-03	Pulse	0.10	3
Ag			1	2457.969	ug/l	0.98	1,951,334.97	5.862E-01	Pulse	0.10	3
Sn			1	103.304	ug/l	1.79	55,127.34	1.656E-02	Pulse	0.10	3
Sb			1	140.453	ug/l	1.57	87,339.89	1.787E-02	Pulse	0.10	3
Ba			1	126.220	ug/l	2.52	33,029.42	6.758E-03	Pulse	0.10	3
Tl			1	76.010	ug/l	0.63	123,106.16	4.067E-02	Pulse	0.10	3
Pb			1	78.869	ug/l	2.04	44,070.08	1.456E-02	Pulse	0.10	3
Pb			1	79.022	ug/l	0.94	38,871.98	1.284E-02	Pulse	0.10	3
Pb			1	78.680	ug/l	0.72	178,296.18	5.891E-02	Pulse	0.10	3
Na			2	17183.298	ug/l	0.32	701,569.42	5.806E+00	Pulse	0.30	3
Mg			2	10971.981	ug/l	0.60	205,776.16	1.703E+00	Pulse	0.30	3
Al			2	3827.251	ug/l	1.07	25,537.16	2.113E-01	Pulse	0.30	3
K			2	12876.500	ug/l	0.60	211,168.05	1.748E+00	Pulse	0.30	3
Ca			2	55958.558	ug/l	0.86	45,732.52	3.785E-01	Pulse	0.30	3
Ti			2	87.412	ug/l	9.78	520.02	4.303E-03	Pulse	0.30	3
V			2	77.136	ug/l	1.20	15,226.00	1.260E-01	Pulse	0.30	3
Cr			2	78.789	ug/l	1.20	19,710.74	1.631E-01	Pulse	0.30	3
Mn			2	2235.396	ug/l	0.67	300,721.98	2.489E+00	Pulse	0.30	3
Fe			2	74517.244	ug/l	1.06	14,546,245.53	1.204E+02	Analog	0.30	3
Co			2	95.436	ug/l	1.78	37,132.67	3.073E-01	Pulse	0.30	3
Ni			2	83.511	ug/l	0.53	8,680.15	7.183E-02	Pulse	0.30	3
Cu			2	84.422	ug/l	1.62	26,935.50	2.229E-01	Pulse	0.30	3
Zn			2	88.619	ug/l	3.86	4,993.05	4.132E-02	Pulse	0.30	3
As			2	1769.197	ug/l	0.38	44,712.49	3.700E-01	Pulse	1.00	3
Cd			2	77.606	ug/l	4.90	5,693.61	6.970E-03	Pulse	0.30	3
Sn			2	105.161	ug/l	0.50	17,696.73	2.166E-02	Pulse	0.30	3
Se			3	408.184	ug/l	0.78	2,528.06	1.681E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,017,750.06	1.45	93.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		1,982,212.94	1.01	94.5	Pulse	0.10	3
1	Ge		432,023.26	0.76	98.4	Pulse	0.10	3
1	Ge		600,034.68	0.99	97.6	Pulse	0.10	3
1	Rh		3,078,759.33	0.49	99.5	Pulse	0.10	3
1	In		3,328,686.05	0.65	103.1	Pulse	0.10	3
1	Tb		4,887,261.07	0.42	105.8	Pulse	0.10	3
1	Ho		486,992.20	0.50	106.2	Pulse	0.10	3
1	Bi		3,026,804.12	0.36	106.2	Pulse	0.10	3
2	Sc		120,838.36	0.68	99.1	Pulse	0.30	3
2	Ge		78,967.29	1.44	100.1	Pulse	0.30	3
2	Ge		119,656.16	1.09	99.7	Pulse	0.30	3
2	Rh		1,958,521.38	0.50	101.9	Pulse	0.30	3
2	In		817,045.41	0.60	101.6	Pulse	0.30	3
2	Tb		2,817,084.26	0.76	105.1	Pulse	0.30	3
2	Ho		289,169.44	0.53	105.6	Pulse	0.30	3
2	Bi		1,967,134.92	0.88	105.4	Pulse	0.30	3
3	Sc		143,880.32	0.69	97.7	Pulse	0.30	3
3	Ge		98,603.85	0.19	97.1	Pulse	0.30	3
3	Ge		150,388.67	0.40	98.2	Pulse	0.30	3
3	Rh		1,763,768.40	0.40	101.6	Pulse	0.30	3
3	Tb		3,286,895.91	0.59	103.3	Pulse	0.30	3

Quantitation Report

File Name 063SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 15:36
Sample Name jc94613-1
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	713.07	13.33	1.298E-05	Pulse	0.25	3
B			1	156.447	ug/l	4.81	31,360.36	3.060E-02	Pulse	0.15	3
Ca			1	50351.556	ug/l	1.04	1,354,729.46	6.855E-01	Pulse	0.10	3
Sr			1	383.723	ug/l	0.27	614,100.00	2.007E-01	Pulse	0.10	3
Mo			1	2.577	ug/l	6.69	790.05	2.581E-04	Pulse	0.10	3
Ag			1	0.498	ug/l	13.68	420.02	1.267E-04	Pulse	0.10	3
Sn			1	2.123	ug/l	30.28	2,987.11	9.005E-04	Pulse	0.10	3
Sb			1	2.319	ug/l	13.60	1,590.14	3.276E-04	Pulse	0.10	3
Ba			1	50.589	ug/l	2.89	13,192.83	2.722E-03	Pulse	0.10	3
Tl			1	0.078	ug/l	45.05	340.02	1.121E-04	Pulse	0.10	3
Pb			1	0.793	ug/l	8.62	663.38	2.186E-04	Pulse	0.10	3
Pb			1	0.904	ug/l	6.70	646.71	2.131E-04	Pulse	0.10	3
Pb			1	0.820	ug/l	3.57	2,763.55	9.107E-04	Pulse	0.10	3
Na			2	12992.983	ug/l	0.77	532,503.89	4.411E+00	Pulse	0.30	3
Mg			2	6920.132	ug/l	0.40	129,744.64	1.075E+00	Pulse	0.30	3
Al			2	-38.130	ug/l	-30.03	636.69	5.275E-03	Pulse	0.30	3
K			2	8855.419	ug/l	1.07	148,277.75	1.228E+00	Pulse	0.30	3
Ca			2	51092.055	ug/l	0.31	41,723.35	3.457E-01	Pulse	0.30	3
Ti			2	5.622	ug/l	118.17	34.45	2.850E-04	Pulse	0.30	3
V			2	-0.261	ug/l	-17.49	257.78	2.136E-03	Pulse	0.30	3
Cr			2	0.579	ug/l	56.80	616.69	5.108E-03	Pulse	0.30	3
Mn			2	2129.093	ug/l	0.96	286,134.57	2.370E+00	Pulse	0.30	3
Fe			2	69679.603	ug/l	0.28	13,588,309.74	1.126E+02	Analog	0.30	3
Co			2	18.169	ug/l	1.57	7,087.17	5.871E-02	Pulse	0.30	3
Ni			2	6.800	ug/l	13.98	837.81	6.940E-03	Pulse	0.30	3
Cu			2	3.246	ug/l	11.06	4,510.68	3.737E-02	Pulse	0.30	3
Zn			2	3.101	ug/l	56.24	1,272.29	1.054E-02	Pulse	0.30	3
As			2	1630.243	ug/l	0.21	41,158.53	3.410E-01	Pulse	1.00	3
Cd			2	-0.160	ug/l	-44.13	8.81	1.085E-05	Pulse	0.30	3
Sn			2	1.928	ug/l	16.49	898.93	1.103E-03	Pulse	0.30	3
Se			3	1.197	ug/l	29.23	13.47	8.923E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,024,865.95	0.88	94.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		1,976,444.71	0.70	94.2	Pulse	0.10	3
1	Ge		432,725.96	1.10	98.6	Pulse	0.10	3
1	Ge		602,979.52	0.37	98.0	Pulse	0.10	3
1	Rh		3,060,528.39	1.01	98.9	Pulse	0.10	3
1	In		3,315,015.65	1.11	102.7	Pulse	0.10	3
1	Tb		4,848,843.68	1.47	105.0	Pulse	0.10	3
1	Ho		479,044.65	0.55	104.5	Pulse	0.10	3
1	Bi		3,034,626.93	0.40	106.5	Pulse	0.10	3
2	Sc		120,709.71	0.18	99.0	Pulse	0.30	3
2	Ge		78,979.71	1.50	100.1	Pulse	0.30	3
2	Ge		118,827.15	1.07	99.0	Pulse	0.30	3
2	Rh		1,953,120.48	0.51	101.6	Pulse	0.30	3
2	In		814,410.67	0.96	101.3	Pulse	0.30	3
2	Tb		2,812,764.68	1.24	104.9	Pulse	0.30	3
2	Ho		287,553.90	1.03	105.0	Pulse	0.30	3
2	Bi		1,968,323.88	0.76	105.5	Pulse	0.30	3
3	Sc		146,415.12	14.62	99.4	Pulse	0.30	3
3	Ge		100,883.36	11.18	99.3	Pulse	0.30	3
3	Ge		152,880.72	12.19	99.8	Pulse	0.30	3
3	Rh		1,793,072.91	14.23	103.3	Pulse	0.30	3
3	Tb		3,384,192.92	16.00	106.4	Mix	0.30	3

Quantitation Report

File Name	064SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 15:41
Sample Name	mp17232a-sd1
Sample Type	Sample
Comment	
Prep Dilution	125.000
Auto Dilution	N/A
Total Dilution	125.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.237	ug/l	95.62	21.33	2.068E-05	Pulse	0.25	3
B			1	187.715	ug/l	11.15	16,136.93	1.563E-02	Pulse	0.15	3
Ca			1	45995.974	ug/l	0.81	256,751.93	1.278E-01	Pulse	0.10	3
Sr			1	347.349	ug/l	2.20	113,207.32	3.643E-02	Pulse	0.10	3
Mo			1	6.692	ug/l	19.82	426.69	1.372E-04	Pulse	0.10	3
Ag			1	0.835	ug/l	20.20	160.01	4.782E-05	Pulse	0.10	3
Sn			1	1.665	ug/l	89.90	2,086.90	6.234E-04	Pulse	0.10	3
Sb			1	5.782	ug/l	6.69	883.39	1.799E-04	Pulse	0.10	3
Ba			1	47.858	ug/l	5.15	2,613.66	5.323E-04	Pulse	0.10	3
Tl			1	0.058	ug/l	328.39	233.35	7.661E-05	Pulse	0.10	3
Pb			1	2.494	ug/l	17.24	500.03	1.645E-04	Pulse	0.10	3
Pb			1	1.522	ug/l	21.31	353.35	1.162E-04	Pulse	0.10	3
Pb			1	2.210	ug/l	21.57	1,913.46	6.293E-04	Pulse	0.10	3
Na			2	11738.936	ug/l	0.93	106,138.12	8.689E-01	Pulse	0.30	3
Mg			2	6450.943	ug/l	1.51	24,690.32	2.021E-01	Pulse	0.30	3
Al			2	379.413	ug/l	24.68	1,386.83	1.135E-02	Pulse	0.30	3
K			2	7983.415	ug/l	0.55	35,563.37	2.911E-01	Pulse	0.30	3
Ca			2	44947.065	ug/l	0.29	7,538.45	6.171E-02	Pulse	0.30	3
Ti			2	5.565	ug/l	75.49	7.78	6.349E-05	Pulse	0.30	3
V			2	-3.342	ug/l	-8.41	181.11	1.483E-03	Pulse	0.30	3
Cr			2	-0.560	ug/l	-153.82	453.35	3.713E-03	Pulse	0.30	3
Mn			2	1933.883	ug/l	1.05	52,712.74	4.315E-01	Pulse	0.30	3
Fe			2	61177.610	ug/l	1.29	2,416,950.18	1.979E+01	Pulse	0.30	3
Co			2	16.429	ug/l	1.75	1,322.43	1.083E-02	Pulse	0.30	3
Ni			2	7.379	ug/l	35.47	297.78	2.436E-03	Pulse	0.30	3
Cu			2	93.092	ug/l	5.05	8,856.92	7.250E-02	Pulse	0.30	3
Zn			2	-14.648	ug/l	-47.71	1,022.27	8.370E-03	Pulse	0.30	3
As			2	1506.599	ug/l	0.31	7,709.17	6.311E-02	Pulse	1.00	3
Cd			2	-0.959	ug/l	-46.93	6.64	8.005E-06	Pulse	0.30	3
Sn			2	2.387	ug/l	54.88	676.69	8.145E-04	Pulse	0.30	3
Se			3	0.736	ug/l	3.08	6.93	4.609E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,032,695.22	0.52	94.8	Pulse	0.10	3
1	Sc		2,008,911.27	0.25	95.8	Pulse	0.10	3
1	Ge		436,981.01	1.99	99.5	Pulse	0.10	3

Quantitation Report

1	Ge		608,649.07	0.98	99.0	Pulse	0.10	3
1	Rh		3,107,499.02	0.64	100.4	Pulse	0.10	3
1	In		3,347,408.86	0.28	103.7	Pulse	0.10	3
1	Tb		4,911,204.19	0.75	106.3	Pulse	0.10	3
1	Ho		484,856.73	0.92	105.8	Pulse	0.10	3
1	Bi		3,041,980.06	0.96	106.7	Pulse	0.10	3
2	Sc		122,160.69	0.69	100.2	Pulse	0.30	3
2	Ge		79,980.22	1.03	101.4	Pulse	0.30	3
2	Ge		120,391.37	1.10	100.4	Pulse	0.30	3
2	Rh		1,971,468.88	0.11	102.5	Pulse	0.30	3
2	In		830,810.75	0.37	103.3	Pulse	0.30	3
2	Tb		2,806,669.68	0.94	104.7	Pulse	0.30	3
2	Ho		288,588.41	1.03	105.4	Pulse	0.30	3
2	Bi		1,965,344.85	0.87	105.3	Pulse	0.30	3
3	Sc		142,706.07	1.88	96.9	Pulse	0.30	3
3	Ge		99,458.10	1.07	97.9	Pulse	0.30	3
3	Ge		150,442.57	1.50	98.2	Pulse	0.30	3
3	Rh		1,748,955.94	1.28	100.7	Pulse	0.30	3
3	Tb		3,245,432.58	0.87	102.0	Pulse	0.30	3

Quantitation Report

File Name 065_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 15:46
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.224	ug/l	0.92	240,590.73	2.262E-01	Pulse	0.25	3
B			1	96.060	ug/l	1.44	333,347.23	3.134E-01	Pulse	0.15	3
Ca			1	5073.281	ug/l	0.56	3,577,185.78	1.722E+00	Pulse	0.10	3
Sr			1	51.565	ug/l	1.27	2,119,036.84	6.738E-01	Pulse	0.10	3
Mo			1	51.117	ug/l	0.77	392,318.73	1.247E-01	Pulse	0.10	3
Ag			1	49.537	ug/l	0.46	992,211.50	2.954E-01	Pulse	0.10	3
Sn			1	50.617	ug/l	1.17	659,831.49	1.964E-01	Pulse	0.10	3
Sb			1	51.097	ug/l	0.98	795,153.09	1.623E-01	Pulse	0.10	3
Ba			1	49.849	ug/l	0.27	326,038.67	6.654E-02	Pulse	0.10	3
Tl			1	50.418	ug/l	0.20	2,005,265.44	6.734E-01	Pulse	0.10	3
Pb			1	50.476	ug/l	0.55	690,461.34	2.319E-01	Pulse	0.10	3
Pb			1	50.548	ug/l	0.34	608,631.64	2.044E-01	Pulse	0.10	3
Pb			1	50.357	ug/l	0.40	2,793,388.69	9.380E-01	Pulse	0.10	3
Na			2	5038.590	ug/l	1.69	5,329,397.57	4.201E+01	Analog	0.30	3
Mg			2	4876.217	ug/l	0.50	2,397,736.78	1.890E+01	Pulse	0.30	3
Al			2	4893.426	ug/l	0.42	828,344.88	6.529E+00	Pulse	0.30	3
K			2	4989.648	ug/l	0.65	2,054,177.97	1.619E+01	Pulse	0.30	3
Ca			2	5139.637	ug/l	0.38	110,073.92	8.676E-01	Pulse	0.30	3
Ti			2	49.459	ug/l	3.01	7,707.43	6.075E-02	Pulse	0.30	3
V			2	50.311	ug/l	0.31	255,721.67	2.016E+00	Pulse	0.30	3
Cr			2	49.944	ug/l	0.84	320,545.39	2.527E+00	Pulse	0.30	3
Mn			2	49.828	ug/l	0.20	176,012.03	1.387E+00	Pulse	0.30	3
Fe			2	5154.644	ug/l	0.41	26,409,877.84	2.082E+02	Analog	0.30	3
Co			2	49.691	ug/l	0.49	507,113.60	3.997E+00	Pulse	0.30	3
Ni			2	49.476	ug/l	0.63	132,902.20	1.048E+00	Pulse	0.30	3
Cu			2	49.869	ug/l	0.47	365,324.63	2.880E+00	Pulse	0.30	3
Zn			2	49.729	ug/l	0.53	57,957.56	4.568E-01	Pulse	0.30	3
As			2	50.345	ug/l	0.61	33,400.30	2.633E-01	Pulse	1.00	3
Cd			2	50.108	ug/l	1.47	93,551.42	1.121E-01	Pulse	0.30	3
Sn			2	50.268	ug/l	0.48	209,392.78	2.510E-01	Pulse	0.30	3
Se			3	194.363	ug/l	0.47	30,492.06	1.997E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,063,563.52	0.35	97.6	Pulse	0.10	3
1	Sc		2,077,540.86	0.73	99.1	Pulse	0.10	3
1	Ge		441,666.44	0.24	100.6	Pulse	0.10	3

Quantitation Report

1	Ge		627,516.70	0.39	102.0	Pulse	0.10	3
1	Rh		3,145,099.64	0.67	101.6	Pulse	0.10	3
1	In		3,359,343.77	0.36	104.1	Pulse	0.10	3
1	Tb		4,900,164.30	0.54	106.1	Pulse	0.10	3
1	Ho		486,363.03	0.63	106.1	Pulse	0.10	3
1	Bi		2,977,978.71	0.19	104.5	Pulse	0.10	3
2	Sc		126,868.31	0.30	104.0	Pulse	0.30	3
2	Ge		82,262.47	1.33	104.3	Pulse	0.30	3
2	Ge		123,793.82	0.68	103.2	Pulse	0.30	3
2	Rh		1,980,029.36	0.53	103.0	Pulse	0.30	3
2	In		834,384.46	0.31	103.7	Pulse	0.30	3
2	Tb		2,869,061.34	0.32	107.0	Pulse	0.30	3
2	Ho		295,300.07	0.74	107.9	Pulse	0.30	3
2	Bi		1,947,240.48	0.33	104.3	Pulse	0.30	3
3	Sc		147,002.70	1.61	99.8	Pulse	0.30	3
3	Ge		100,115.06	1.02	98.5	Pulse	0.30	3
3	Ge		152,709.43	0.57	99.7	Pulse	0.30	3
3	Rh		1,746,883.82	1.14	100.6	Pulse	0.30	3
3	Tb		3,279,610.08	1.50	103.1	Pulse	0.30	3

Quantitation Report

File Name 066_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 15:51
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	21.82	56.00	5.210E-05	Pulse	0.25	3
B			1	2.930	ug/l	8.00	21,567.31	2.012E-02	Pulse	0.15	3
Ca			1	1.153	ug/l	81.01	7,185.17	3.537E-03	Pulse	0.10	3
Sr			1	0.007	ug/l	30.19	700.04	2.226E-04	Pulse	0.10	3
Mo			1	0.062	ug/l	24.84	503.36	1.586E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	23.16	236.68	7.149E-05	Pulse	0.10	3
Sn			1	0.090	ug/l	15.28	3,055.44	9.186E-04	Pulse	0.10	3
Sb			1	0.124	ug/l	12.32	2,073.56	4.276E-04	Pulse	0.10	3
Ba			1	0.002	ug/l	74.56	116.67	2.393E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	15.84	896.72	2.975E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	18.68	470.03	1.554E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	27.48	506.69	1.686E-04	Pulse	0.10	3
Pb			1	0.023	ug/l	10.51	2,213.51	7.347E-04	Pulse	0.10	3
Na			2	-0.906	ug/l	-22.97	9,963.02	8.002E-02	Pulse	0.30	3
Mg			2	0.623	ug/l	25.01	565.58	4.542E-03	Pulse	0.30	3
Al			2	-2.483	ug/l	-4.60	497.79	3.998E-03	Pulse	0.30	3
K			2	-0.370	ug/l	-161.95	10,428.92	8.377E-02	Pulse	0.30	3
Ca			2	-0.294	ug/l	-352.71	128.89	1.036E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	16909.56	1.11	8.908E-06	Pulse	0.30	3
V			2	-0.023	ug/l	-31.46	205.56	1.651E-03	Pulse	0.30	3
Cr			2	-0.011	ug/l	-70.25	418.90	3.364E-03	Pulse	0.30	3
Mn			2	-0.008	ug/l	-89.94	108.89	8.743E-04	Pulse	0.30	3
Fe			2	0.852	ug/l	6.34	7,171.64	5.760E-02	Pulse	0.30	3
Co			2	0.005	ug/l	45.82	78.87	6.335E-04	Pulse	0.30	3
Ni			2	0.010	ug/l	115.64	174.45	1.401E-03	Pulse	0.30	3
Cu			2	-0.078	ug/l	-20.64	3,175.90	2.551E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.227	ug/l	-24.40	918.93	7.381E-03	Pulse	0.30	3
As			2	0.013	ug/l	68.81	21.33	1.714E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	86.41	25.50	3.035E-05	Pulse	0.30	3
Sn			2	0.128	ug/l	4.62	1,140.06	1.358E-03	Pulse	0.30	3
Se			3	0.088	ug/l	18.45	19.73	1.309E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,072,572.41	3.51	98.4	Pulse	0.10	3
1	Sc		2,036,347.83	5.17	97.1	Pulse	0.10	3
1	Ge		438,899.60	3.79	100.0	Pulse	0.10	3
1	Ge		610,312.16	3.71	99.2	Pulse	0.10	3
1	Rh		3,156,280.79	5.26	102.0	Pulse	0.10	3
1	In		3,329,613.28	4.23	103.2	Pulse	0.10	3
1	Tb		4,861,175.76	5.35	105.2	Pulse	0.10	3
1	Ho		481,078.95	5.37	104.9	Pulse	0.10	3
1	Bi		3,017,868.60	4.39	105.9	Pulse	0.10	3
2	Sc		124,499.92	0.22	102.1	Pulse	0.30	3
2	Ge		80,955.76	0.62	102.6	Pulse	0.30	3
2	Ge		122,599.34	0.42	102.2	Pulse	0.30	3
2	Rh		2,006,265.20	0.54	104.4	Pulse	0.30	3
2	In		839,702.47	0.48	104.4	Pulse	0.30	3
2	Tb		2,820,682.04	0.34	105.2	Pulse	0.30	3
2	Ho		287,750.07	0.47	105.1	Pulse	0.30	3
2	Bi		1,957,837.14	0.37	104.9	Pulse	0.30	3
3	Sc		143,204.94	1.58	97.3	Pulse	0.30	3
3	Ge		99,260.06	0.46	97.7	Pulse	0.30	3
3	Ge		150,757.29	1.28	98.4	Pulse	0.30	3
3	Rh		1,780,504.02	0.29	102.6	Pulse	0.30	3
3	Tb		3,237,505.29	0.50	101.8	Pulse	0.30	3

Quantitation Report

File Name	067SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 15:56
Sample Name	mp17232a-ps1
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.927	ug/l	1.37	14,918.65	1.423E-02	Pulse	0.25	3
B			1	222.431	ug/l	1.50	40,796.08	3.892E-02	Pulse	0.15	3
Ca			1	48047.390	ug/l	0.94	1,332,213.99	6.542E-01	Pulse	0.10	3
Sr			1	411.205	ug/l	0.96	676,905.14	2.150E-01	Pulse	0.10	3
Mo			1	82.034	ug/l	1.65	25,230.65	8.014E-03	Pulse	0.10	3
Ag			1	77.341	ug/l	1.21	61,875.41	1.845E-02	Pulse	0.10	3
Sn			1	80.483	ug/l	1.46	43,685.02	1.303E-02	Pulse	0.10	3
Sb			1	82.259	ug/l	0.46	50,910.18	1.048E-02	Pulse	0.10	3
Ba			1	125.070	ug/l	1.49	32,528.28	6.697E-03	Pulse	0.10	3
Tl			1	78.347	ug/l	1.50	126,242.50	4.192E-02	Pulse	0.10	3
Pb			1	79.437	ug/l	0.71	44,157.13	1.466E-02	Pulse	0.10	3
Pb			1	77.554	ug/l	1.54	37,959.64	1.261E-02	Pulse	0.10	3
Pb			1	78.311	ug/l	0.72	176,558.20	5.863E-02	Pulse	0.10	3
Na			2	15294.647	ug/l	1.00	641,978.22	5.177E+00	Pulse	0.30	3
Mg			2	10091.116	ug/l	0.81	194,230.25	1.566E+00	Pulse	0.30	3
Al			2	4028.823	ug/l	2.55	27,535.88	2.221E-01	Pulse	0.30	3
K			2	11949.089	ug/l	1.35	201,839.93	1.628E+00	Pulse	0.30	3
Ca			2	48743.179	ug/l	0.94	40,895.55	3.298E-01	Pulse	0.30	3
Ti			2	76.981	ug/l	1.90	470.01	3.790E-03	Pulse	0.30	3
V			2	80.040	ug/l	1.07	16,201.37	1.307E-01	Pulse	0.30	3
Cr			2	80.828	ug/l	1.16	20,737.52	1.672E-01	Pulse	0.30	3
Mn			2	1940.061	ug/l	0.32	267,847.25	2.160E+00	Pulse	0.30	3
Fe			2	64646.236	ug/l	1.89	12,949,621.99	1.044E+02	Analog	0.30	3
Co			2	96.624	ug/l	0.24	38,581.41	3.111E-01	Pulse	0.30	3
Ni			2	84.369	ug/l	5.14	8,998.12	7.256E-02	Pulse	0.30	3
Cu			2	81.659	ug/l	0.47	26,858.71	2.166E-01	Pulse	0.30	3
Zn			2	83.628	ug/l	4.54	4,899.68	3.952E-02	Pulse	0.30	3
As			2	1508.267	ug/l	1.70	39,117.26	3.155E-01	Pulse	1.00	3
Cd			2	77.127	ug/l	1.83	5,771.35	6.927E-03	Pulse	0.30	3
Sn			2	82.783	ug/l	1.53	14,335.53	1.720E-02	Pulse	0.30	3
Se			3	407.255	ug/l	1.34	2,544.00	1.677E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,048,270.60	0.47	96.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,036,346.58	0.84	97.1	Pulse	0.10	3
1	Ge		443,300.37	1.28	101.0	Pulse	0.10	3
1	Ge		615,153.49	1.74	100.0	Pulse	0.10	3
1	Rh		3,148,349.02	0.62	101.7	Pulse	0.10	3
1	In		3,353,101.54	0.34	103.9	Pulse	0.10	3
1	Tb		4,857,731.18	1.19	105.2	Pulse	0.10	3
1	Ho		484,605.63	0.63	105.7	Pulse	0.10	3
1	Bi		3,011,283.50	0.85	105.7	Pulse	0.10	3
2	Sc		124,002.83	0.86	101.7	Pulse	0.30	3
2	Ge		81,289.59	1.44	103.0	Pulse	0.30	3
2	Ge		121,138.73	0.68	101.0	Pulse	0.30	3
2	Rh		1,974,024.64	0.04	102.7	Pulse	0.30	3
2	In		833,279.89	1.19	103.6	Pulse	0.30	3
2	Tb		2,834,709.82	0.37	105.7	Pulse	0.30	3
2	Ho		289,475.32	0.41	105.7	Pulse	0.30	3
2	Bi		1,962,345.27	0.12	105.1	Pulse	0.30	3
3	Sc		145,319.10	0.97	98.7	Pulse	0.30	3
3	Ge		99,256.64	1.53	97.7	Pulse	0.30	3
3	Ge		151,684.01	0.64	99.0	Pulse	0.30	3
3	Rh		1,752,469.83	1.15	100.9	Pulse	0.30	3
3	Tb		3,248,740.64	0.54	102.1	Pulse	0.30	3

Quantitation Report

File Name 068SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 16:01
Sample Name jc94613-2
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.279	ug/l	38.92	38.67	3.729E-05	Pulse	0.25	3
B			1	65.760	ug/l	11.44	15,598.61	1.504E-02	Pulse	0.15	3
Ca			1	25327.482	ug/l	0.87	351,792.33	1.748E-01	Pulse	0.10	3
Sr			1	171.127	ug/l	0.53	140,243.65	4.484E-02	Pulse	0.10	3
Mo			1	7.423	ug/l	8.90	1,153.43	3.688E-04	Pulse	0.10	3
Ag			1	0.258	ug/l	35.32	130.01	3.871E-05	Pulse	0.10	3
Sn			1	1.764	ug/l	24.88	2,380.28	7.084E-04	Pulse	0.10	3
Sb			1	2.493	ug/l	11.99	923.39	1.913E-04	Pulse	0.10	3
Ba			1	14.673	ug/l	11.03	1,993.54	4.130E-04	Pulse	0.10	3
Tl			1	0.063	ug/l	129.96	263.35	8.728E-05	Pulse	0.10	3
Pb			1	0.701	ug/l	29.72	413.35	1.372E-04	Pulse	0.10	3
Pb			1	0.662	ug/l	14.30	363.35	1.205E-04	Pulse	0.10	3
Pb			1	0.706	ug/l	18.76	1,696.77	5.630E-04	Pulse	0.10	3
Na			2	5838.342	ug/l	9.80	131,591.60	1.059E+00	Pulse	0.30	3
Mg			2	2844.195	ug/l	8.70	27,662.74	2.226E-01	Pulse	0.30	3
Al			2	-90.106	ug/l	-15.99	610.02	4.905E-03	Pulse	0.30	3
K			2	3533.282	ug/l	14.07	38,870.60	3.131E-01	Pulse	0.30	3
Ca			2	25411.920	ug/l	11.25	10,768.05	8.677E-02	Pulse	0.30	3
Ti			2	2.520	ug/l	17.46	8.89	7.070E-05	Pulse	0.30	3
V			2	-1.115	ug/l	-37.59	206.67	1.661E-03	Pulse	0.30	3
Cr			2	-0.014	ug/l	-1539.84	488.90	3.925E-03	Pulse	0.30	3
Mn			2	2163.087	ug/l	10.05	149,590.89	1.205E+00	Pulse	0.30	3
Fe			2	39059.786	ug/l	9.74	3,920,701.65	3.157E+01	Pulse	0.30	3
Co			2	13.600	ug/l	3.22	2,760.79	2.213E-02	Pulse	0.30	3
Ni			2	5.322	ug/l	35.25	424.45	3.438E-03	Pulse	0.30	3
Cu			2	9.668	ug/l	26.63	5,100.85	4.100E-02	Pulse	0.30	3
Zn			2	-6.847	ug/l	-62.20	1,017.83	8.192E-03	Pulse	0.30	3
As			2	3068.888	ug/l	10.64	39,837.95	3.209E-01	Pulse	1.00	3
Cd			2	-0.334	ug/l	-38.67	8.79	1.023E-05	Pulse	0.30	3
Sn			2	2.529	ug/l	13.98	818.92	9.713E-04	Pulse	0.30	3
Se			3	1.421	ug/l	9.02	10.47	6.923E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,037,326.75	0.23	95.2	Pulse	0.10	3
1	Sc		2,013,108.82	0.25	96.0	Pulse	0.10	3
1	Ge		441,265.67	0.97	100.5	Pulse	0.10	3

Quantitation Report

1	Ge		608,486.77	0.36	98.9	Pulse	0.10	3
1	Rh		3,127,700.37	0.20	101.1	Pulse	0.10	3
1	In		3,359,903.44	0.34	104.1	Pulse	0.10	3
1	Tb		4,826,020.66	0.87	104.5	Pulse	0.10	3
1	Ho		477,670.89	0.67	104.2	Pulse	0.10	3
1	Bi		3,014,326.73	0.89	105.8	Pulse	0.10	3
2	Sc		124,949.13	9.26	102.5	Pulse	0.30	3
2	Ge		81,750.43	6.81	103.6	Pulse	0.30	3
2	Ge		122,665.67	6.90	102.2	Pulse	0.30	3
2	Rh		1,981,454.30	9.03	103.1	Pulse	0.30	3
2	In		844,132.16	8.79	104.9	Pulse	0.30	3
2	Tb		2,847,218.64	9.51	106.2	Pulse	0.30	3
2	Ho		291,896.04	9.33	106.6	Pulse	0.30	3
2	Bi		1,974,784.16	7.98	105.8	Pulse	0.30	3
3	Sc		143,861.26	1.44	97.7	Pulse	0.30	3
3	Ge		99,613.41	0.57	98.0	Pulse	0.30	3
3	Ge		151,153.04	1.01	98.7	Pulse	0.30	3
3	Rh		1,755,812.50	0.87	101.1	Pulse	0.30	3
3	Tb		3,245,585.98	0.87	102.0	Pulse	0.30	3

Quantitation Report

File Name 069SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 16:06
Sample Name mp17244-mb1 1
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	26.65	21.33	1.993E-05	Pulse	0.25	3
B			1	0.254	ug/l	48.80	12,518.28	1.170E-02	Pulse	0.15	3
Ca			1	4.359	ug/l	28.34	9,486.48	4.624E-03	Pulse	0.10	3
Sr			1	0.011	ug/l	7.29	843.39	2.662E-04	Pulse	0.10	3
Mo			1	0.027	ug/l	17.61	233.34	7.363E-05	Pulse	0.10	3
Ag			1	0.005	ug/l	45.06	130.00	3.842E-05	Pulse	0.10	3
Sn			1	0.067	ug/l	17.30	2,817.05	8.316E-04	Pulse	0.10	3
Sb			1	0.038	ug/l	12.68	746.72	1.541E-04	Pulse	0.10	3
Ba			1	0.037	ug/l	38.18	340.02	7.017E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	3874.62	216.68	7.119E-05	Pulse	0.10	3
Pb			1	0.010	ug/l	31.86	356.69	1.167E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	81.92	310.02	1.015E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	28.14	1,566.77	5.126E-04	Pulse	0.10	3
Na			2	-0.020	ug/l	-543.46	10,977.01	8.739E-02	Pulse	0.30	3
Mg			2	0.757	ug/l	14.26	635.58	5.063E-03	Pulse	0.30	3
Al			2	-1.917	ug/l	-8.58	596.68	4.752E-03	Pulse	0.30	3
K			2	-1.311	ug/l	-55.01	10,138.75	8.073E-02	Pulse	0.30	3
Ca			2	2.811	ug/l	68.18	195.56	1.559E-03	Pulse	0.30	3
Ti			2	0.202	ug/l	44.17	32.22	2.573E-04	Pulse	0.30	3
V			2	-0.027	ug/l	-18.16	185.56	1.476E-03	Pulse	0.30	3
Cr			2	0.056	ug/l	20.65	853.37	6.792E-03	Pulse	0.30	3
Mn			2	0.021	ug/l	49.16	212.23	1.692E-03	Pulse	0.30	3
Fe			2	2.331	ug/l	1.45	14,736.80	1.173E-01	Pulse	0.30	3
Co			2	0.002	ug/l	106.41	53.29	4.228E-04	Pulse	0.30	3
Ni			2	0.031	ug/l	9.89	231.12	1.840E-03	Pulse	0.30	3
Cu			2	-0.026	ug/l	-97.89	3,572.65	2.845E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	3.273	ug/l	2.51	4,883.01	3.887E-02	Pulse	0.30	3
As			2	0.060	ug/l	9.14	52.33	4.166E-04	Pulse	1.00	3
Cd			2	-0.006	ug/l	-52.47	9.98	1.190E-05	Pulse	0.30	3
Sn			2	0.080	ug/l	13.40	941.15	1.120E-03	Pulse	0.30	3
Se			3	0.003	ug/l	476.10	6.53	4.299E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,070,293.97	0.42	98.2	Pulse	0.10	3
1	Sc		2,051,319.19	1.02	97.8	Pulse	0.10	3
1	Ge		440,308.12	1.36	100.3	Pulse	0.10	3
1	Ge		615,167.57	1.76	100.0	Pulse	0.10	3
1	Rh		3,168,515.68	0.32	102.4	Pulse	0.10	3
1	In		3,388,087.77	0.54	105.0	Pulse	0.10	3
1	Tb		4,846,099.10	0.11	104.9	Pulse	0.10	3
1	Ho		483,696.76	0.67	105.5	Pulse	0.10	3
1	Bi		3,053,921.10	1.25	107.2	Pulse	0.10	3
2	Sc		125,617.06	1.21	103.0	Pulse	0.30	3
2	Ge		80,486.76	0.93	102.0	Pulse	0.30	3
2	Ge		122,130.52	0.70	101.8	Pulse	0.30	3
2	Rh		1,993,973.25	0.60	103.7	Pulse	0.30	3
2	In		840,183.98	0.60	104.5	Pulse	0.30	3
2	Tb		2,824,940.44	0.26	105.4	Pulse	0.30	3
2	Ho		289,579.37	0.78	105.8	Pulse	0.30	3
2	Bi		1,986,322.77	0.34	106.4	Pulse	0.30	3
3	Sc		144,965.14	1.07	98.5	Pulse	0.30	3
3	Ge		100,579.21	0.72	99.0	Pulse	0.30	3
3	Ge		151,686.31	0.91	99.0	Pulse	0.30	3
3	Rh		1,773,086.87	0.23	102.1	Pulse	0.30	3
3	Tb		3,248,469.52	0.24	102.1	Pulse	0.30	3

Quantitation Report

File Name 070SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 16:11
Sample Name mp17244-b1
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	71.369	ug/l	0.98	349,445.74	3.214E-01	Pulse	0.25	3
B			1	67.235	ug/l	1.43	242,035.20	2.226E-01	Pulse	0.15	3
Ca			1	1909.475	ug/l	0.53	1,366,921.85	6.500E-01	Pulse	0.10	3
Sr			1	73.555	ug/l	0.71	3,042,174.75	9.611E-01	Pulse	0.10	3
Mo			1	74.926	ug/l	0.35	578,772.57	1.828E-01	Pulse	0.10	3
Ag			1	72.378	ug/l	1.14	1,455,565.29	4.315E-01	Pulse	0.10	3
Sn			1	74.150	ug/l	0.75	969,664.07	2.875E-01	Pulse	0.10	3
Sb			1	77.361	ug/l	0.37	1,199,244.51	2.457E-01	Pulse	0.10	3
Ba			1	71.995	ug/l	0.94	469,059.32	9.609E-02	Pulse	0.10	3
Tl			1	72.313	ug/l	0.19	2,882,979.33	9.658E-01	Pulse	0.10	3
Pb			1	74.286	ug/l	0.72	1,018,505.09	3.412E-01	Pulse	0.10	3
Pb			1	74.624	ug/l	0.82	900,576.37	3.017E-01	Pulse	0.10	3
Pb			1	74.484	ug/l	0.81	4,141,267.62	1.387E+00	Pulse	0.10	3
Na			2	1804.836	ug/l	0.83	1,953,566.52	1.510E+01	Pulse	0.30	3
Mg			2	1812.536	ug/l	0.81	908,846.32	7.026E+00	Pulse	0.30	3
Al			2	1841.237	ug/l	1.15	318,354.87	2.461E+00	Pulse	0.30	3
K			2	1860.977	ug/l	0.53	788,024.31	6.092E+00	Pulse	0.30	3
Ca			2	2088.669	ug/l	0.20	45,691.30	3.532E-01	Pulse	0.30	3
Ti			2	71.953	ug/l	2.31	11,431.85	8.837E-02	Pulse	0.30	3
V			2	72.458	ug/l	0.49	375,357.21	2.902E+00	Pulse	0.30	3
Cr			2	70.935	ug/l	0.49	463,951.41	3.587E+00	Pulse	0.30	3
Mn			2	71.667	ug/l	1.29	258,033.78	1.995E+00	Pulse	0.30	3
Fe			2	1930.809	ug/l	0.99	10,087,638.21	7.799E+01	Analog	0.30	3
Co			2	70.996	ug/l	0.98	738,686.27	5.711E+00	Pulse	0.30	3
Ni			2	70.694	ug/l	1.47	193,539.05	1.496E+00	Pulse	0.30	3
Cu			2	71.184	ug/l	1.17	529,989.89	4.097E+00	Pulse	0.30	3
Zn			2	74.021	ug/l	0.41	87,360.90	6.754E-01	Pulse	0.30	3
As			2	74.140	ug/l	0.22	50,143.44	3.877E-01	Pulse	1.00	3
Cd			2	70.975	ug/l	0.56	134,446.13	1.588E-01	Pulse	0.30	3
Sn			2	73.797	ug/l	0.79	311,625.29	3.681E-01	Pulse	0.30	3
Se			3	188.233	ug/l	0.64	29,765.00	1.934E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,087,182.92	1.18	99.8	Pulse	0.10	3
1	Sc		2,102,860.96	0.38	100.3	Pulse	0.10	3
1	Ge		450,432.49	0.99	102.6	Pulse	0.10	3

Quantitation Report

1	Ge		627,829.00	1.16	102.1	Pulse	0.10	3
1	Rh		3,165,397.87	0.13	102.3	Pulse	0.10	3
1	In		3,373,163.94	0.82	104.5	Pulse	0.10	3
1	Tb		4,881,601.70	0.22	105.7	Pulse	0.10	3
1	Ho		484,793.47	0.07	105.8	Pulse	0.10	3
1	Bi		2,985,202.87	0.50	104.8	Pulse	0.10	3
2	Sc		129,351.81	0.65	106.1	Pulse	0.30	3
2	Ge		83,145.83	1.00	105.4	Pulse	0.30	3
2	Ge		125,178.89	0.49	104.3	Pulse	0.30	3
2	Rh		2,006,879.78	0.43	104.4	Pulse	0.30	3
2	In		846,615.85	0.33	105.3	Pulse	0.30	3
2	Tb		2,881,044.26	0.39	107.4	Pulse	0.30	3
2	Ho		293,855.40	0.55	107.3	Pulse	0.30	3
2	Bi		1,953,415.34	0.23	104.7	Pulse	0.30	3
3	Sc		149,042.95	0.27	101.2	Pulse	0.30	3
3	Ge		101,500.31	0.75	99.9	Pulse	0.30	3
3	Ge		153,918.58	0.37	100.5	Pulse	0.30	3
3	Rh		1,763,569.72	0.52	101.6	Pulse	0.30	3
3	Tb		3,269,230.29	0.50	102.8	Pulse	0.30	3

Quantitation Report

File Name 071SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 16:16
Sample Name mp17244-s1
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.217	ug/l	0.17	337,801.44	3.298E-01	Pulse	0.25	3
B			1	602.853	ug/l	1.04	1,955,966.24	1.910E+00	Pulse	0.15	3
Ca			1	134822.661	ug/l	0.70	94,956,008.58	4.568E+01	Analog	0.10	3
Sr			1	643.218	ug/l	1.46	23,499,412.98	8.403E+00	Analog	0.10	3
Mo			1	112.972	ug/l	0.99	770,949.52	2.757E-01	Pulse	0.10	3
Ag			1	67.028	ug/l	0.55	1,257,258.55	3.996E-01	Pulse	0.10	3
Sn			1	75.647	ug/l	0.46	922,627.43	2.933E-01	Pulse	0.10	3
Sb			1	76.608	ug/l	0.40	1,159,098.55	2.433E-01	Pulse	0.10	3
Ba			1	167.572	ug/l	1.45	1,065,487.38	2.236E-01	Pulse	0.10	3
Tl			1	76.651	ug/l	0.95	2,731,707.04	1.024E+00	Pulse	0.10	3
Pb			1	79.010	ug/l	0.67	968,356.55	3.629E-01	Pulse	0.10	3
Pb			1	79.096	ug/l	0.52	853,305.77	3.198E-01	Pulse	0.10	3
Pb			1	78.709	ug/l	0.23	3,912,048.23	1.466E+00	Pulse	0.10	3
Na			2	171103.634	ug/l	1.60	183,356,828.27	1.424E+03	Analog	0.30	3
Mg			2	18097.063	ug/l	1.12	9,033,444.09	7.014E+01	Analog	0.30	3
Al			2	1866.541	ug/l	1.35	321,350.75	2.495E+00	Pulse	0.30	3
K			2	19091.877	ug/l	1.17	7,948,685.52	6.171E+01	Analog	0.30	3
Ca			2	136174.038	ug/l	0.65	2,957,331.13	2.296E+01	Pulse	0.30	3
Ti			2	77.369	ug/l	1.37	12,240.17	9.502E-02	Pulse	0.30	3
V			2	75.612	ug/l	0.72	390,010.84	3.028E+00	Pulse	0.30	3
Cr			2	73.813	ug/l	0.82	480,713.12	3.732E+00	Pulse	0.30	3
Mn			2	439.732	ug/l	1.00	1,575,838.24	1.223E+01	Pulse	0.30	3
Fe			2	3600.019	ug/l	1.19	18,726,764.81	1.454E+02	Analog	0.30	3
Co			2	68.347	ug/l	1.21	708,120.64	5.498E+00	Pulse	0.30	3
Ni			2	66.327	ug/l	0.60	180,830.49	1.404E+00	Pulse	0.30	3
Cu			2	66.615	ug/l	0.85	494,139.08	3.836E+00	Pulse	0.30	3
Zn			2	64.495	ug/l	2.73	75,945.86	5.897E-01	Pulse	0.30	3
As			2	80.095	ug/l	1.73	53,937.08	4.188E-01	Pulse	1.00	3
Cd			2	67.161	ug/l	0.81	120,527.21	1.503E-01	Pulse	0.30	3
Sn			2	75.135	ug/l	0.50	300,569.50	3.747E-01	Pulse	0.30	3
Se			3	178.267	ug/l	0.51	26,457.83	1.831E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,024,368.72	1.09	94.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,078,902.62	0.77	99.1	Pulse	0.10	3
1	Ge		422,405.29	0.98	96.2	Pulse	0.10	3
1	Ge		590,476.80	1.22	96.0	Pulse	0.10	3
1	Rh		2,796,547.25	0.58	90.4	Pulse	0.10	3
1	In		3,146,023.22	0.63	97.5	Pulse	0.10	3
1	Tb		4,764,650.55	1.21	103.1	Pulse	0.10	3
1	Ho		473,407.81	1.23	103.3	Pulse	0.10	3
1	Bi		2,668,530.69	0.71	93.6	Pulse	0.10	3
2	Sc		128,806.64	0.72	105.6	Pulse	0.30	3
2	Ge		78,454.87	0.70	99.4	Pulse	0.30	3
2	Ge		117,774.52	0.58	98.2	Pulse	0.30	3
2	Rh		1,787,442.22	0.23	93.0	Pulse	0.30	3
2	In		802,060.04	0.25	99.7	Pulse	0.30	3
2	Tb		2,797,553.92	0.77	104.3	Pulse	0.30	3
2	Ho		286,665.43	0.65	104.7	Pulse	0.30	3
2	Bi		1,737,789.10	0.46	93.1	Pulse	0.30	3
3	Sc		146,219.57	1.26	99.3	Pulse	0.30	3
3	Ge		94,345.64	1.14	92.9	Pulse	0.30	3
3	Ge		144,466.05	0.52	94.3	Pulse	0.30	3
3	Rh		1,541,479.66	0.55	88.8	Pulse	0.30	3
3	Tb		3,083,110.71	0.51	96.9	Pulse	0.30	3

Quantitation Report

File Name 072SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 16:21
Sample Name mp17244-s1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	72.112	ug/l	0.64	67,140.33	6.497E-02	Pulse	0.25	3
B			1	649.779	ug/l	0.87	434,252.24	4.202E-01	Pulse	0.15	3
Ca			1	136878.841	ug/l	1.46	18,521,636.39	9.277E+00	Analog	0.10	3
Sr			1	590.149	ug/l	1.34	4,569,445.14	1.542E+00	Pulse	0.10	3
Mo			1	106.753	ug/l	1.13	154,414.75	5.211E-02	Pulse	0.10	3
Ag			1	69.613	ug/l	1.19	269,054.70	8.302E-02	Pulse	0.10	3
Sn			1	74.543	ug/l	0.85	188,827.84	5.826E-02	Pulse	0.10	3
Sb			1	79.364	ug/l	0.95	239,228.83	5.043E-02	Pulse	0.10	3
Ba			1	167.883	ug/l	0.77	212,618.90	4.482E-02	Pulse	0.10	3
Tl			1	74.488	ug/l	0.25	567,014.73	1.990E-01	Pulse	0.10	3
Pb			1	76.709	ug/l	1.80	200,930.21	7.052E-02	Pulse	0.10	3
Pb			1	77.063	ug/l	0.72	177,678.06	6.236E-02	Pulse	0.10	3
Pb			1	76.447	ug/l	0.83	812,031.28	2.850E-01	Pulse	0.10	3
Na			2	174522.437	ug/l	0.60	35,664,554.14	2.905E+02	Analog	0.30	3
Mg			2	17751.865	ug/l	0.70	1,689,536.60	1.376E+01	Pulse	0.30	3
Al			2	1882.082	ug/l	0.78	62,493.65	5.090E-01	Pulse	0.30	3
K			2	18355.365	ug/l	1.01	1,465,368.90	1.194E+01	Pulse	0.30	3
Ca			2	136838.335	ug/l	0.97	566,623.90	4.615E+00	Pulse	0.30	3
Ti			2	74.742	ug/l	5.89	2,254.63	1.837E-02	Pulse	0.30	3
V			2	76.026	ug/l	0.42	75,011.73	6.110E-01	Pulse	0.30	3
Cr			2	75.764	ug/l	0.09	94,451.28	7.693E-01	Pulse	0.30	3
Mn			2	453.542	ug/l	0.80	309,962.64	2.525E+00	Pulse	0.30	3
Fe			2	3630.913	ug/l	0.43	3,603,039.72	2.935E+01	Pulse	0.30	3
Co			2	72.027	ug/l	1.22	142,285.88	1.159E+00	Pulse	0.30	3
Ni			2	71.555	ug/l	0.98	37,304.43	3.038E-01	Pulse	0.30	3
Cu			2	71.725	ug/l	0.82	104,314.26	8.496E-01	Pulse	0.30	3
Zn			2	72.579	ug/l	1.73	17,192.47	1.400E-01	Pulse	0.30	3
As			2	85.286	ug/l	0.52	10,959.69	8.927E-02	Pulse	1.00	3
Cd			2	71.900	ug/l	0.85	25,982.79	3.219E-02	Pulse	0.30	3
Sn			2	75.530	ug/l	0.28	61,270.63	7.592E-02	Pulse	0.30	3
Se			3	187.008	ug/l	1.02	5,571.01	3.846E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,033,459.51	0.58	94.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		1,996,553.15	0.87	95.2	Pulse	0.10	3
1	Ge		423,366.31	0.53	96.4	Pulse	0.10	3
1	Ge		595,769.15	0.41	96.9	Pulse	0.10	3
1	Rh		2,963,285.89	0.72	95.8	Pulse	0.10	3
1	In		3,241,138.71	0.87	100.4	Pulse	0.10	3
1	Tb		4,743,628.06	1.09	102.7	Pulse	0.10	3
1	Ho		471,912.95	1.93	102.9	Pulse	0.10	3
1	Bi		2,849,087.14	0.56	100.0	Pulse	0.10	3
2	Sc		122,777.38	0.80	100.7	Pulse	0.30	3
2	Ge		78,704.78	1.11	99.8	Pulse	0.30	3
2	Ge		118,976.07	1.21	99.2	Pulse	0.30	3
2	Rh		1,868,846.87	0.43	97.2	Pulse	0.30	3
2	In		807,056.10	0.45	100.3	Pulse	0.30	3
2	Tb		2,764,607.60	1.50	103.1	Pulse	0.30	3
2	Ho		286,183.81	1.36	104.5	Pulse	0.30	3
2	Bi		1,862,548.19	0.57	99.8	Pulse	0.30	3
3	Sc		140,550.37	1.08	95.5	Pulse	0.30	3
3	Ge		95,277.79	0.88	93.8	Pulse	0.30	3
3	Ge		144,868.24	0.33	94.6	Pulse	0.30	3
3	Rh		1,616,225.91	0.87	93.1	Pulse	0.30	3
3	Tb		3,112,265.30	0.74	97.8	Pulse	0.30	3

Quantitation Report

File Name 073SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 16:26
Sample Name mp17244-s2
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	70.510	ug/l	1.38	313,779.17	3.176E-01	Pulse	0.25	3
B			1	592.106	ug/l	0.49	1,853,354.65	1.876E+00	Pulse	0.15	3
Ca			1	131157.919	ug/l	1.04	89,157,578.67	4.444E+01	Analog	0.10	3
Sr			1	623.737	ug/l	0.74	22,318,483.84	8.149E+00	Analog	0.10	3
Mo			1	110.073	ug/l	0.93	735,681.24	2.686E-01	Pulse	0.10	3
Ag			1	65.185	ug/l	1.27	1,199,606.52	3.887E-01	Pulse	0.10	3
Sn			1	74.000	ug/l	1.23	885,530.56	2.869E-01	Pulse	0.10	3
Sb			1	74.915	ug/l	0.68	1,111,060.97	2.379E-01	Pulse	0.10	3
Ba			1	164.115	ug/l	0.72	1,022,826.05	2.190E-01	Pulse	0.10	3
Tl			1	74.644	ug/l	1.10	2,615,491.89	9.969E-01	Pulse	0.10	3
Pb			1	77.041	ug/l	1.52	928,353.87	3.538E-01	Pulse	0.10	3
Pb			1	77.231	ug/l	0.57	819,189.10	3.122E-01	Pulse	0.10	3
Pb			1	76.648	ug/l	0.53	3,745,602.36	1.428E+00	Pulse	0.10	3
Na			2	164869.299	ug/l	1.01	170,373,059.90	1.372E+03	Analog	0.30	3
Mg			2	17593.646	ug/l	1.09	8,468,596.61	6.818E+01	Analog	0.30	3
Al			2	1811.485	ug/l	1.02	300,768.41	2.422E+00	Pulse	0.30	3
K			2	18660.791	ug/l	2.12	7,491,748.87	6.032E+01	Analog	0.30	3
Ca			2	132671.189	ug/l	1.20	2,778,345.45	2.237E+01	Pulse	0.30	3
Ti			2	74.876	ug/l	1.57	11,421.80	9.196E-02	Pulse	0.30	3
V			2	73.203	ug/l	1.02	364,107.47	2.932E+00	Pulse	0.30	3
Cr			2	72.083	ug/l	0.37	452,715.17	3.645E+00	Pulse	0.30	3
Mn			2	430.994	ug/l	0.46	1,489,414.18	1.199E+01	Pulse	0.30	3
Fe			2	3539.560	ug/l	1.18	17,756,153.18	1.430E+02	Analog	0.30	3
Co			2	66.502	ug/l	0.61	664,419.27	5.349E+00	Pulse	0.30	3
Ni			2	64.225	ug/l	0.44	168,851.69	1.359E+00	Pulse	0.30	3
Cu			2	64.488	ug/l	0.57	461,404.72	3.715E+00	Pulse	0.30	3
Zn			2	62.926	ug/l	0.74	71,487.01	5.756E-01	Pulse	0.30	3
As			2	77.485	ug/l	0.72	50,319.60	4.051E-01	Pulse	1.00	3
Cd			2	66.277	ug/l	0.53	115,773.18	1.483E-01	Pulse	0.30	3
Sn			2	73.114	ug/l	0.33	284,715.02	3.647E-01	Pulse	0.30	3
Se			3	174.933	ug/l	0.21	25,203.39	1.797E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		988,095.28	0.65	90.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,006,369.92	0.38	95.7	Pulse	0.10	3
1	Ge		404,744.46	1.53	92.2	Pulse	0.10	3
1	Ge		567,563.69	0.91	92.3	Pulse	0.10	3
1	Rh		2,738,920.27	0.58	88.5	Pulse	0.10	3
1	In		3,086,854.72	1.11	95.6	Pulse	0.10	3
1	Tb		4,670,254.10	0.44	101.1	Pulse	0.10	3
1	Ho		465,769.76	0.74	101.6	Pulse	0.10	3
1	Bi		2,623,745.07	0.37	92.1	Pulse	0.10	3
2	Sc		124,207.07	0.69	101.9	Pulse	0.30	3
2	Ge		75,555.68	1.30	95.8	Pulse	0.30	3
2	Ge		114,505.70	1.40	95.4	Pulse	0.30	3
2	Rh		1,741,619.24	0.80	90.6	Pulse	0.30	3
2	In		780,712.05	0.67	97.1	Pulse	0.30	3
2	Tb		2,723,901.91	0.93	101.6	Pulse	0.30	3
2	Ho		280,330.45	1.39	102.4	Pulse	0.30	3
2	Bi		1,714,774.17	0.74	91.9	Pulse	0.30	3
3	Sc		141,088.02	0.62	95.8	Pulse	0.30	3
3	Ge		91,836.24	0.79	90.4	Pulse	0.30	3
3	Ge		140,237.89	0.05	91.5	Pulse	0.30	3
3	Rh		1,503,839.77	0.35	86.6	Pulse	0.30	3
3	Tb		3,046,957.73	0.39	95.8	Pulse	0.30	3

Quantitation Report

File Name	074SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 16:31
Sample Name	mp17244-s2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	72.294	ug/l	1.00	63,855.76	6.513E-02	Pulse	0.25	3
B			1	676.901	ug/l	0.49	428,695.23	4.373E-01	Pulse	0.15	3
Ca			1	134772.103	ug/l	1.09	17,502,430.16	9.135E+00	Analog	0.10	3
Sr			1	582.531	ug/l	0.38	4,370,130.25	1.522E+00	Pulse	0.10	3
Mo			1	104.478	ug/l	0.43	146,410.22	5.100E-02	Pulse	0.10	3
Ag			1	68.160	ug/l	0.41	257,451.39	8.128E-02	Pulse	0.10	3
Sn			1	74.426	ug/l	0.49	184,227.37	5.817E-02	Pulse	0.10	3
Sb			1	78.646	ug/l	1.29	233,841.73	4.998E-02	Pulse	0.10	3
Ba			1	166.639	ug/l	1.71	208,185.20	4.449E-02	Pulse	0.10	3
Tl			1	72.359	ug/l	2.09	543,901.62	1.933E-01	Pulse	0.10	3
Pb			1	75.562	ug/l	2.29	195,433.25	6.947E-02	Pulse	0.10	3
Pb			1	75.439	ug/l	2.83	171,745.79	6.105E-02	Pulse	0.10	3
Pb			1	74.884	ug/l	1.34	785,480.73	2.792E-01	Pulse	0.10	3
Na			2	169748.721	ug/l	0.33	33,405,764.23	2.825E+02	Analog	0.30	3
Mg			2	17469.618	ug/l	0.81	1,601,143.89	1.354E+01	Pulse	0.30	3
Al			2	1836.167	ug/l	0.31	58,732.68	4.967E-01	Pulse	0.30	3
K			2	18042.514	ug/l	1.13	1,387,226.89	1.173E+01	Pulse	0.30	3
Ca			2	133442.751	ug/l	1.09	532,135.03	4.501E+00	Pulse	0.30	3
Ti			2	75.194	ug/l	3.63	2,184.62	1.848E-02	Pulse	0.30	3
V			2	74.274	ug/l	0.28	70,578.08	5.969E-01	Pulse	0.30	3
Cr			2	74.813	ug/l	0.98	89,819.24	7.597E-01	Pulse	0.30	3
Mn			2	446.202	ug/l	1.67	293,658.69	2.484E+00	Pulse	0.30	3
Fe			2	3581.780	ug/l	1.35	3,422,715.28	2.895E+01	Pulse	0.30	3
Co			2	70.899	ug/l	0.69	134,887.20	1.141E+00	Pulse	0.30	3
Ni			2	69.835	ug/l	0.27	35,065.19	2.966E-01	Pulse	0.30	3
Cu			2	70.899	ug/l	0.97	99,337.74	8.402E-01	Pulse	0.30	3
Zn			2	72.893	ug/l	0.88	16,621.89	1.406E-01	Pulse	0.30	3
As			2	82.370	ug/l	1.96	10,193.20	8.622E-02	Pulse	1.00	3
Cd			2	70.291	ug/l	2.55	24,770.12	3.148E-02	Pulse	0.30	3
Sn			2	74.079	ug/l	1.19	58,606.02	7.447E-02	Pulse	0.30	3
Se			3	193.035	ug/l	4.48	5,373.48	3.969E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		980,399.79	0.47	90.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		1,916,073.88	0.28	91.4	Pulse	0.10	3
1	Ge		412,539.01	0.58	94.0	Pulse	0.10	3
1	Ge		581,121.63	0.44	94.5	Pulse	0.10	3
1	Rh		2,870,925.89	0.23	92.8	Pulse	0.10	3
1	In		3,167,289.03	0.21	98.1	Pulse	0.10	3
1	Tb		4,679,073.06	0.15	101.3	Pulse	0.10	3
1	Ho		467,792.77	0.09	102.0	Pulse	0.10	3
1	Bi		2,813,663.40	0.87	98.7	Pulse	0.10	3
2	Sc		118,235.53	0.62	97.0	Pulse	0.30	3
2	Ge		75,843.75	0.20	96.1	Pulse	0.30	3
2	Ge		115,387.87	0.59	96.2	Pulse	0.30	3
2	Rh		1,813,514.93	0.92	94.3	Pulse	0.30	3
2	In		786,992.29	0.82	97.8	Pulse	0.30	3
2	Tb		2,729,664.82	0.51	101.8	Pulse	0.30	3
2	Ho		280,722.48	0.22	102.5	Pulse	0.30	3
2	Bi		1,841,406.18	0.33	98.7	Pulse	0.30	3
3	Sc		128,447.61	4.47	87.2	Pulse	0.30	3
3	Ge		89,738.36	3.36	88.3	Pulse	0.30	3
3	Ge		135,494.63	3.34	88.4	Pulse	0.30	3
3	Rh		1,500,833.17	4.68	86.4	Pulse	0.30	3
3	Tb		2,919,940.03	5.36	91.8	Pulse	0.30	3

Quantitation Report

File Name	075_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 16:36
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	51.158	ug/l	4.29	218,556.00	2.304E-01	Pulse	0.25	3
B			1	112.772	ug/l	4.50	347,206.93	3.661E-01	Pulse	0.15	3
Ca			1	5091.486	ug/l	0.61	3,240,379.85	1.728E+00	Pulse	0.10	3
Sr			1	51.766	ug/l	1.54	1,944,192.26	6.764E-01	Pulse	0.10	3
Mo			1	51.327	ug/l	0.83	360,067.83	1.253E-01	Pulse	0.10	3
Ag			1	48.809	ug/l	1.64	910,690.53	2.910E-01	Pulse	0.10	3
Sn			1	50.493	ug/l	0.86	613,250.94	1.959E-01	Pulse	0.10	3
Sb			1	50.062	ug/l	1.09	742,357.77	1.590E-01	Pulse	0.10	3
Ba			1	49.357	ug/l	2.76	307,580.86	6.588E-02	Pulse	0.10	3
Tl			1	51.261	ug/l	3.94	1,897,558.51	6.846E-01	Pulse	0.10	3
Pb			1	51.015	ug/l	4.28	649,421.37	2.343E-01	Pulse	0.10	3
Pb			1	51.571	ug/l	4.09	577,927.41	2.085E-01	Pulse	0.10	3
Pb			1	51.132	ug/l	3.60	2,640,097.15	9.525E-01	Pulse	0.10	3
Na			2	5016.321	ug/l	0.89	4,847,285.36	4.182E+01	Analog	0.30	3
Mg			2	4912.210	ug/l	0.56	2,206,651.23	1.904E+01	Pulse	0.30	3
Al			2	4922.832	ug/l	1.35	761,284.36	6.568E+00	Pulse	0.30	3
K			2	4957.494	ug/l	0.65	1,864,608.40	1.609E+01	Pulse	0.30	3
Ca			2	5150.982	ug/l	1.00	100,781.72	8.695E-01	Pulse	0.30	3
Ti			2	50.434	ug/l	2.24	7,179.41	6.194E-02	Pulse	0.30	3
V			2	50.636	ug/l	0.30	235,123.73	2.029E+00	Pulse	0.30	3
Cr			2	50.160	ug/l	0.66	294,100.65	2.537E+00	Pulse	0.30	3
Mn			2	50.660	ug/l	1.08	163,481.17	1.411E+00	Pulse	0.30	3
Fe			2	5204.147	ug/l	1.12	24,358,903.48	2.102E+02	Analog	0.30	3
Co			2	49.895	ug/l	0.75	465,191.58	4.014E+00	Pulse	0.30	3
Ni			2	49.482	ug/l	0.99	121,427.19	1.048E+00	Pulse	0.30	3
Cu			2	49.942	ug/l	0.42	334,230.97	2.884E+00	Pulse	0.30	3
Zn			2	50.433	ug/l	0.59	53,682.92	4.632E-01	Pulse	0.30	3
As			2	50.640	ug/l	1.48	30,692.02	2.648E-01	Pulse	1.00	3
Cd			2	49.781	ug/l	1.15	87,236.59	1.114E-01	Pulse	0.30	3
Sn			2	50.468	ug/l	0.46	197,318.46	2.520E-01	Pulse	0.30	3
Se			3	194.165	ug/l	0.99	28,450.29	1.995E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		949,795.18	4.87	87.2	Pulse	0.10	3
1	Sc		1,875,317.21	1.48	89.4	Pulse	0.10	3
1	Ge		397,642.63	6.14	90.6	Pulse	0.10	3

Quantitation Report

1	Ge		556,727.58	4.81	90.5	Pulse	0.10	3
1	Rh		2,874,770.17	1.78	92.9	Pulse	0.10	3
1	In		3,129,997.41	1.86	97.0	Pulse	0.10	3
1	Tb		4,669,613.26	1.13	101.1	Mix	0.10	3
1	Ho		457,153.94	1.35	99.7	Pulse	0.10	3
1	Bi		2,774,596.94	4.12	97.4	Pulse	0.10	3
2	Sc		115,903.39	0.17	95.0	Pulse	0.30	3
2	Ge		75,024.64	0.16	95.1	Pulse	0.30	3
2	Ge		113,843.51	0.91	94.9	Pulse	0.30	3
2	Rh		1,832,701.73	0.41	95.3	Pulse	0.30	3
2	In		783,150.81	0.31	97.4	Pulse	0.30	3
2	Tb		2,702,774.41	0.50	100.8	Pulse	0.30	3
2	Ho		279,683.82	0.53	102.2	Pulse	0.30	3
2	Bi		1,837,641.10	0.45	98.5	Pulse	0.30	3
3	Sc		136,677.33	0.10	92.8	Pulse	0.30	3
3	Ge		93,667.35	0.56	92.2	Pulse	0.30	3
3	Ge		142,633.63	0.68	93.1	Pulse	0.30	3
3	Rh		1,636,610.00	0.60	94.3	Pulse	0.30	3
3	Tb		3,113,008.07	0.75	97.9	Pulse	0.30	3

Quantitation Report

File Name 076_CCB.d
File Path C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File
Method Path
Acq Time 9/12/2019 16:41
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 9/12/2019 13:37
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	16.89	70.67	7.046E-05	Pulse	0.25	3
B			1	12.927	ug/l	1.22	51,743.25	5.161E-02	Pulse	0.15	3
Ca			1	2.433	ug/l	23.38	7,712.13	3.971E-03	Pulse	0.10	3
Sr			1	0.017	ug/l	9.01	1,080.09	3.541E-04	Pulse	0.10	3
Mo			1	0.086	ug/l	17.55	663.37	2.175E-04	Pulse	0.10	3
Ag			1	0.018	ug/l	10.87	370.02	1.134E-04	Pulse	0.10	3
Sn			1	0.119	ug/l	13.42	3,370.54	1.033E-03	Pulse	0.10	3
Sb			1	0.170	ug/l	8.92	2,697.01	5.739E-04	Pulse	0.10	3
Ba			1	0.010	ug/l	7.96	163.34	3.476E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	8.70	860.06	2.932E-04	Pulse	0.10	3
Pb			1	0.040	ug/l	12.50	750.05	2.557E-04	Pulse	0.10	3
Pb			1	0.041	ug/l	22.57	686.71	2.344E-04	Pulse	0.10	3
Pb			1	0.038	ug/l	6.53	2,956.91	1.008E-03	Pulse	0.10	3
Na			2	5.342	ug/l	4.77	15,770.81	1.320E-01	Pulse	0.30	3
Mg			2	0.730	ug/l	12.22	592.24	4.958E-03	Pulse	0.30	3
Al			2	-2.782	ug/l	-5.45	430.01	3.600E-03	Pulse	0.30	3
K			2	0.379	ug/l	47.27	10,296.60	8.619E-02	Pulse	0.30	3
Ca			2	1.236	ug/l	111.48	154.45	1.293E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	3753.37	1.11	9.243E-06	Pulse	0.30	3
V			2	-0.018	ug/l	-22.40	218.90	1.832E-03	Pulse	0.30	3
Cr			2	-0.011	ug/l	-70.11	406.68	3.404E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	404.01	138.89	1.162E-03	Pulse	0.30	3
Fe			2	0.860	ug/l	6.74	6,922.64	5.794E-02	Pulse	0.30	3
Co			2	0.006	ug/l	41.55	91.09	7.628E-04	Pulse	0.30	3
Ni			2	0.023	ug/l	180.08	198.91	1.666E-03	Pulse	0.30	3
Cu			2	-0.076	ug/l	-8.48	3,061.44	2.562E-02	Pulse	0.30	3
Zn			2	-0.151	ug/l	-29.01	963.37	8.065E-03	Pulse	0.30	3
As			2	0.010	ug/l	69.55	19.00	1.589E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.005	ug/l	22.60	28.83	3.538E-05	Pulse	0.30	3
Sn			2	0.180	ug/l	9.30	1,317.85	1.618E-03	Pulse	0.30	3
Se			3	0.091	ug/l	23.06	19.67	1.338E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,002,585.75	0.61	92.0	Pulse	0.10	3
1	Sc		1,942,001.38	0.26	92.6	Pulse	0.10	3
1	Ge		420,613.34	1.23	95.8	Pulse	0.10	3
1	Ge		585,569.30	1.09	95.2	Pulse	0.10	3
1	Rh		3,050,319.02	0.33	98.6	Pulse	0.10	3
1	In		3,261,876.19	0.90	101.1	Pulse	0.10	3
1	Tb		4,699,122.64	0.82	101.7	Pulse	0.10	3
1	Ho		465,927.69	0.38	101.6	Pulse	0.10	3
1	Bi		2,933,337.46	1.14	102.9	Pulse	0.10	3
2	Sc		119,472.15	0.45	98.0	Pulse	0.30	3
2	Ge		78,556.43	0.92	99.6	Pulse	0.30	3
2	Ge		119,319.92	0.74	99.5	Pulse	0.30	3
2	Rh		1,931,432.36	0.36	100.5	Pulse	0.30	3
2	In		814,810.81	0.39	101.3	Pulse	0.30	3
2	Tb		2,756,886.14	0.33	102.8	Pulse	0.30	3
2	Ho		281,202.81	0.60	102.7	Pulse	0.30	3
2	Bi		1,920,518.68	0.07	102.9	Pulse	0.30	3
3	Sc		140,418.09	0.38	95.4	Pulse	0.30	3
3	Ge		96,395.40	0.91	94.9	Pulse	0.30	3
3	Ge		147,015.87	0.39	96.0	Pulse	0.30	3
3	Rh		1,717,435.38	0.71	98.9	Pulse	0.30	3
3	Tb		3,162,623.62	0.63	99.4	Pulse	0.30	3

Quantitation Report

File Name	077SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Method File	
Method Path	
Acq Time	9/12/2019 16:46
Sample Name	jc94442-1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	9/12/2019 13:37
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

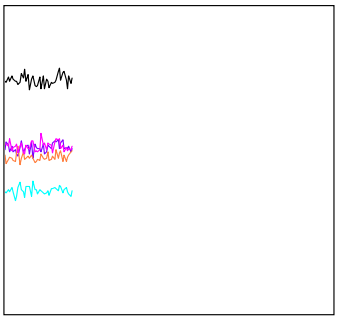
Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	50.40	64.00	6.599E-05	Pulse	0.25	3
B			1	523.866	ug/l	1.23	1,611,260.04	1.661E+00	Pulse	0.15	3
Ca			1	132991.766	ug/l	1.21	87,902,092.03	4.506E+01	Analog	0.10	3
Sr			1	555.594	ug/l	1.06	19,707,773.04	7.259E+00	Analog	0.10	3
Mo			1	30.740	ug/l	0.77	203,690.18	7.502E-02	Pulse	0.10	3
Ag			1	0.017	ug/l	23.10	333.35	1.087E-04	Pulse	0.10	3
Sn			1	0.087	ug/l	9.63	2,783.68	9.091E-04	Pulse	0.10	3
Sb			1	2.505	ug/l	2.61	36,770.43	7.986E-03	Pulse	0.10	3
Ba			1	94.524	ug/l	0.68	580,814.51	1.261E-01	Pulse	0.10	3
Tl			1	0.021	ug/l	20.04	916.73	3.504E-04	Pulse	0.10	3
Pb			1	0.475	ug/l	5.71	5,904.76	2.256E-03	Pulse	0.10	3
Pb			1	0.456	ug/l	5.92	4,997.74	1.909E-03	Pulse	0.10	3
Pb			1	0.462	ug/l	3.52	23,294.77	8.899E-03	Pulse	0.10	3
Na			2	169240.398	ug/l	1.88	170,847,850.99	1.408E+03	Analog	0.30	3
Mg			2	16279.791	ug/l	1.49	7,655,145.25	6.309E+01	Analog	0.30	3
Al			2	52.128	ug/l	1.20	9,315.99	7.678E-02	Pulse	0.30	3
K			2	17088.471	ug/l	1.83	6,702,991.26	5.525E+01	Analog	0.30	3
Ca			2	133074.062	ug/l	0.18	2,722,413.85	2.244E+01	Pulse	0.30	3
Ti			2	3.327	ug/l	9.14	496.68	4.094E-03	Pulse	0.30	3
V			2	1.208	ug/l	2.53	6,173.45	5.088E-02	Pulse	0.30	3
Cr			2	3.442	ug/l	1.49	21,575.30	1.778E-01	Pulse	0.30	3
Mn			2	366.680	ug/l	0.53	1,237,873.74	1.020E+01	Pulse	0.30	3
Fe			2	1785.126	ug/l	1.25	8,749,202.98	7.211E+01	Analog	0.30	3
Co			2	0.316	ug/l	4.10	3,110.05	2.563E-02	Pulse	0.30	3
Ni			2	0.790	ug/l	4.13	2,170.17	1.788E-02	Pulse	0.30	3
Cu			2	0.845	ug/l	4.20	9,492.85	7.824E-02	Pulse	0.30	3
Zn			2	7.058	ug/l	3.54	8,848.03	7.293E-02	Pulse	0.30	3
As			2	9.624	ug/l	2.43	6,116.16	5.041E-02	Pulse	1.00	3
Cd			2	0.012	ug/l	68.32	39.45	5.100E-05	Pulse	0.30	3
Sn			2	0.117	ug/l	22.39	1,005.60	1.301E-03	Pulse	0.30	3
Se			3	0.134	ug/l	10.35	24.20	1.780E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		970,185.88	0.16	89.0	Pulse	0.10	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	1990	1999.5	3.18
59	5000	2682	2699.8	2.72
89	10000	5300	5091.1	2.56
140	10000	5424	5441.9	2.83
205	5000	3827	3799.5	2.28
156/140	2	0.627 %	0.735 %	19.02
70/140	10	6.435 %	5.956 %	11.39
9	20	1	1.5	115.26
11	5000	1922	2006.5	3.29
88	200	81	75.8	12.88
95	20	10	5.2	53.55
107	20	0	2.6	73.46
121	100	42	43.8	19.84
137	50	24	17.2	25.57
208	100	36	33.4	20.68

Integration Time [sec] 0.10

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-26	V
Extract 2	-140.0	V	Cell Exit	-60	V
Omega Bias	-60	V	Deflect	15.0	V
Omega Lens	7.5	V	Plate Bias	-45	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.58E+2	Pa	Internal Temp	26.4	℃
Water RF/WC/IF	1.24	L/min	S/C Temp (L)	1.9	℃
Carrier Gas(BP)	1.44E+2	kPa			

US EPA Tune Check Sample Report

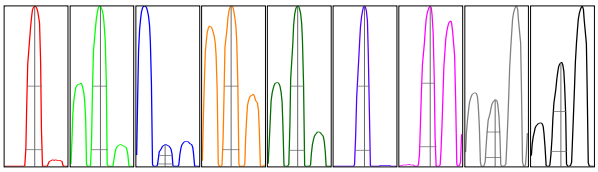
Batch Folder C:\Agilent\ICPMH\1\DATA\xa091219m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	61565	0.60	5.00	
24	254035	0.60	5.00	
25	33328	0.59	5.00	
26	38995	0.98	5.00	
59	325615	0.63	5.00	
115	548934	0.41	5.00	
206	146313	0.73	5.00	
207	134400	0.87	5.00	
208	317951	0.31	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	61453	62129	61102	61516	61625
24	252420	253163	254126	253977	256487
25	33031	33480	33383	33239	33510
26	38503	39164	39183	38693	39434
59	324770	329067	325794	324622	323822
115	546987	550490	549920	546089	551185
206	145254	147087	145034	146982	147207
207	133066	135095	136049	133796	133995
208	316905	318650	319097	318175	316927

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	9940	8.95	8.9 - 9.1		0.781	0.900	
24	41196	23.95	23.9 - 24.1		0.760	0.900	
25	5525	24.90	24.9 - 25.1		0.733	0.900	
26	6310	25.90	25.9 - 26.1		0.761	0.900	
59	55762	58.95	58.9 - 59.1		0.721	0.900	
115	100734	115.00	114.9 - 115.1		0.711	0.900	
206	25651	206.00	205.9 - 206.1		0.753	0.900	
207	23231	206.95	206.9 - 207.1		0.721	0.900	
208	55660	207.95	207.9 - 208.1		0.729	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

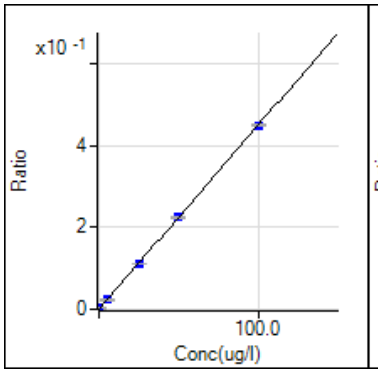
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.5	V			
Extract 2	-140.0	V	Cell Entrance	-26	V			
Omega Bias	-60	V	Cell Exit	-60	V			
Deflect	15.0	V						

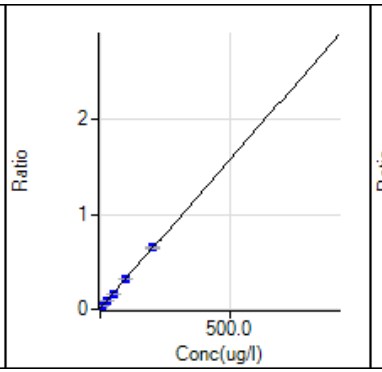
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

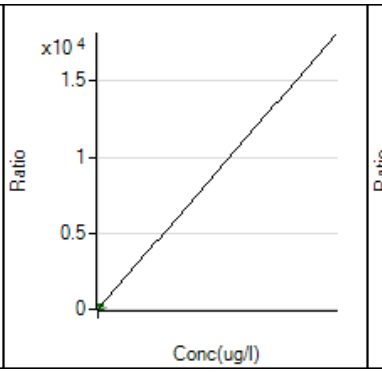
Calibration for C:\Agilent\ICPMH\1\DATA\xa091219m1.b\084SMPL.d



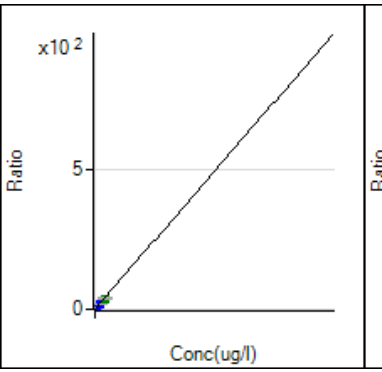
9 Be [1] / ISTD: 6 Li
y = 4.504E-3 x + 1.216E-5
R 1.0000
DL 0.004993
BEC 0.0027



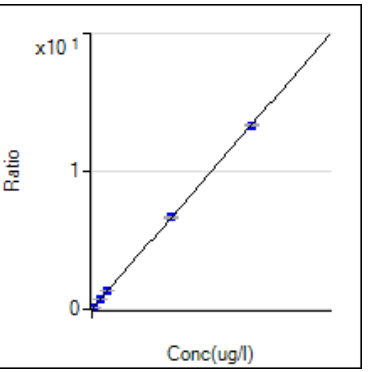
11 B [1] / ISTD: 6 Li
y = 3.149E-3 x + 1.090E-2
R 0.9996
DL 0.4018
BEC 3.459



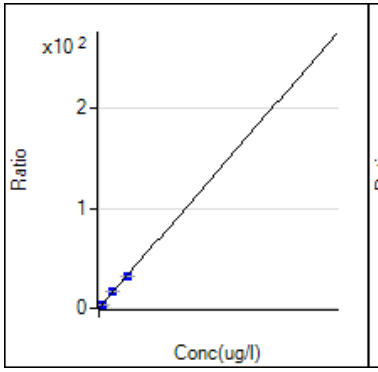
23 Na [2] / ISTD: 45 Sc
y = 8.320E-3 x + 8.756E-2
R 1.0000
DL 2.084
BEC 10.52



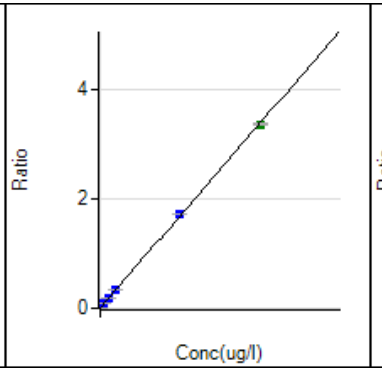
24 Mg [2] / ISTD: 45 Sc
y = 3.875E-3 x + 2.128E-3
R 1.0000
DL 0.2429
BEC 0.5492



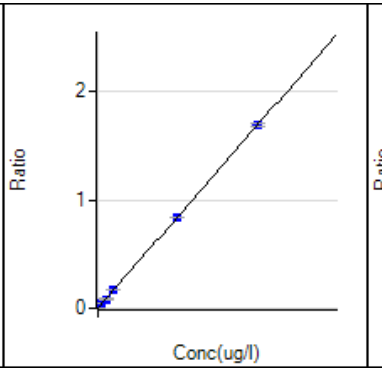
27 Al [2] / ISTD: 45 Sc
y = 1.333E-3 x + 7.307E-3
R 1.0000
DL 0.5909
BEC 5.483



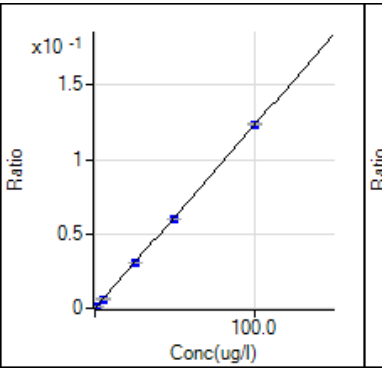
39 K [2] / ISTD: 45 Sc
y = 3.228E-3 x + 8.496E-2
R 1.0000
DL 3.114
BEC 26.32



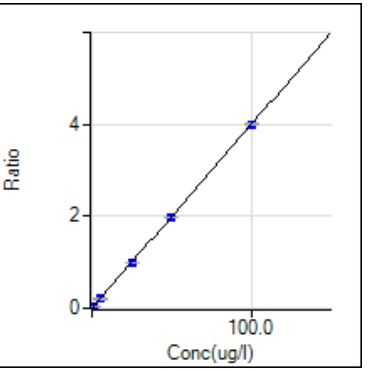
44 Ca [1] / ISTD: 45 Sc
y = 3.388E-4 x + 3.147E-3
R 0.9999
DL 0.9906
BEC 9.289



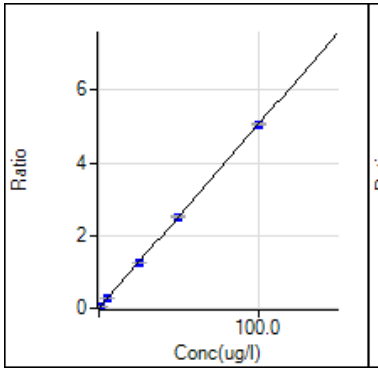
44 Ca [2] / ISTD: 45 Sc
y = 1.686E-4 x + 1.085E-3
R 1.0000
DL 2.678
BEC 6.435



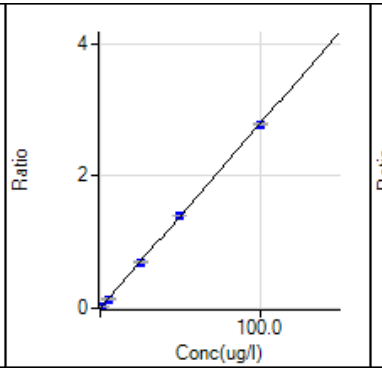
47 Ti [2] / ISTD: 45 Sc
y = 1.228E-3 x + 8.817E-6
R 0.9999
DL 0.03731
BEC 0.007179



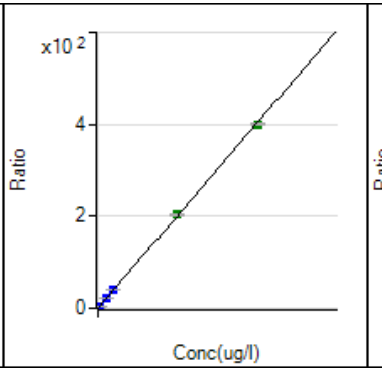
51 V [2] / ISTD: 45 Sc
y = 4.001E-2 x + 2.553E-3
R 1.0000
DL 0.03653
BEC 0.0638



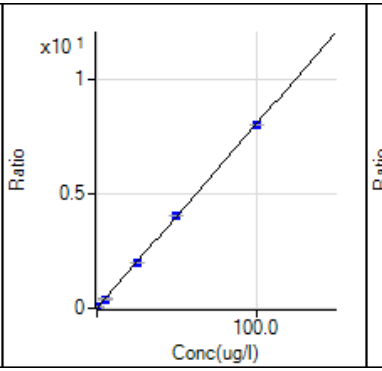
52 Cr [2] / ISTD: 45 Sc
y = 5.051E-2 x + 3.939E-3
R 1.0000
DL 0.03184
BEC 0.07799



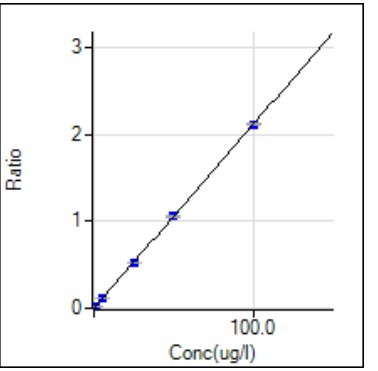
55 Mn [2] / ISTD: 45 Sc
y = 2.782E-2 x + 1.104E-3
R 1.0000
DL 0.02235
BEC 0.03968



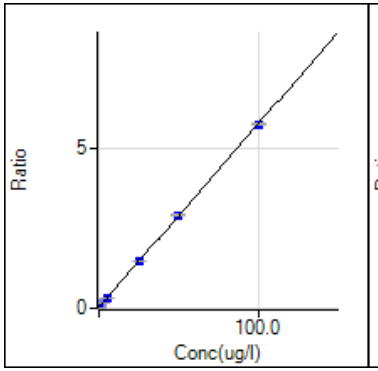
56 Fe [2] / ISTD: 45 Sc
y = 4.038E-2 x + 2.321E-2
R 1.0000
DL 0.06041
BEC 0.5748



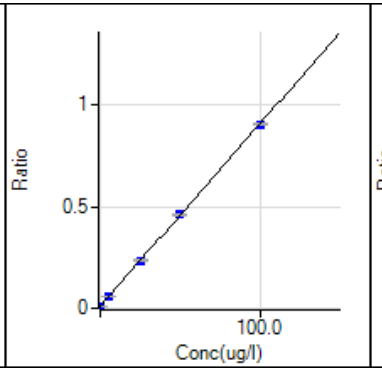
59 Co [2] / ISTD: 45 Sc
y = 8.044E-2 x + 2.541E-4
R 1.0000
DL 0.002968
BEC 0.00316



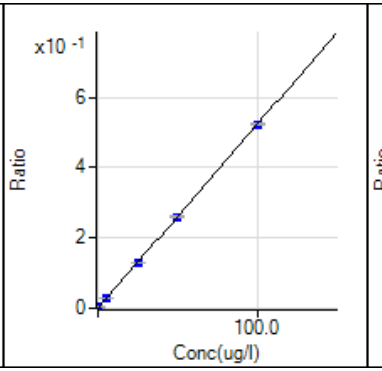
60 Ni [2] / ISTD: 45 Sc
y = 2.115E-2 x + 1.187E-3
R 1.0000
DL 0.02567
BEC 0.05613



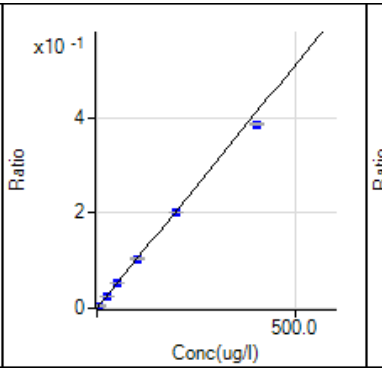
63 Cu [2] / ISTD: 45 Sc
y = 5.714E-2 x + 2.995E-2
R 1.0000
DL 0.0821
BEC 0.5241



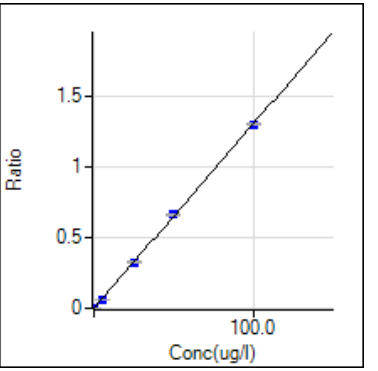
66 Zn [2] / ISTD: 45 Sc
y = 8.997E-3 x + 9.424E-3
R 1.0000
DL 0.07461
BEC 1.047



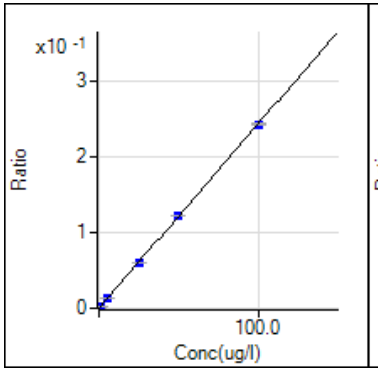
75 As [2] / ISTD: 45 Sc
y = 5.227E-3 x + 1.046E-4
R 1.0000
DL 0.009614
BEC 0.02001



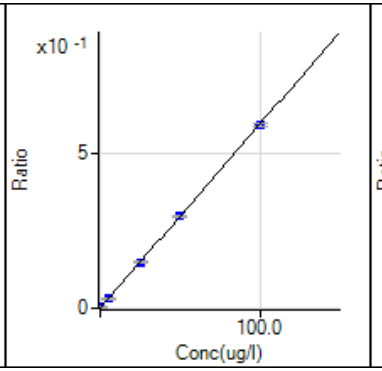
78 Se [3] / ISTD: 74 Ge
y = 1.027E-3 x + 4.004E-5
R 0.9997
DL 0.03049
BEC 0.03898



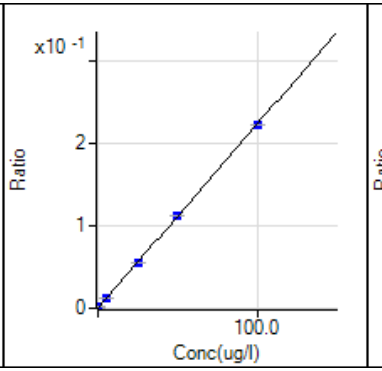
88 Sr [1] / ISTD: 103 Rh
y = 1.306E-2 x + 1.259E-4
R 1.0000
DL 0.004235
BEC 0.009639



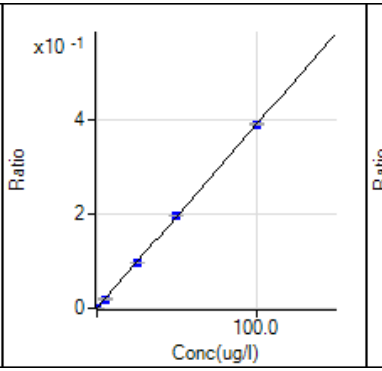
95 Mo [1] / ISTD: 103 Rh
y = 2.440E-3 x + 6.560E-6
R 1.0000
DL 0.007901
BEC 0.002688



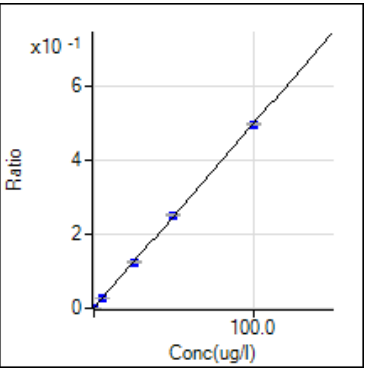
107 Ag [1] / ISTD: 115 In
y = 5.962E-3 x + 7.979E-6
R 1.0000
DL 0.003285
BEC 0.001338



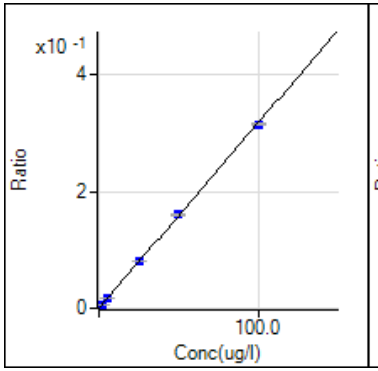
111 Cd [2] / ISTD: 115 In
y = 2.237E-3 x + 2.517E-5
R 1.0000
DL 0.01091
BEC 0.01125



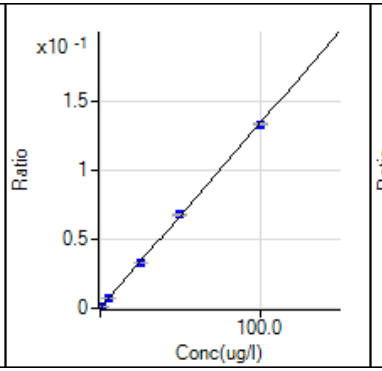
118 Sn [1] / ISTD: 115 In
y = 3.869E-3 x + 5.718E-4
R 1.0000
DL 0.02669
BEC 0.1478



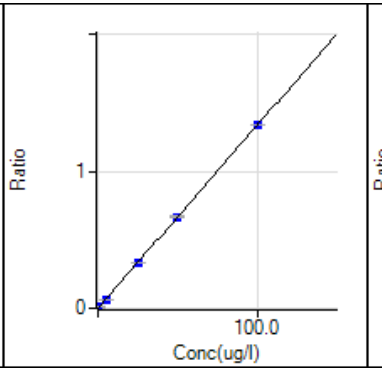
118 Sn [2] / ISTD: 115 In
y = 4.978E-3 x + 7.194E-4
R 1.0000
DL 0.06579
BEC 0.1445



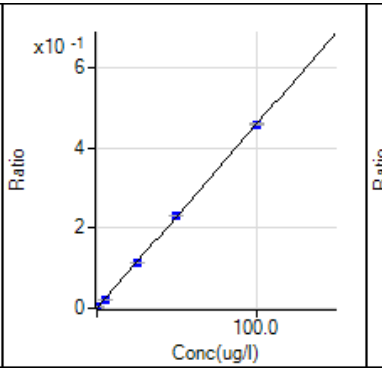
121 Sb [1] / ISTD: 159 Tb
y = 3.175E-3 x + 3.300E-5
R 1.0000
DL 0.001234
BEC 0.01039



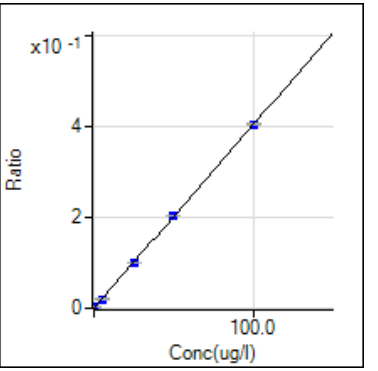
137 Ba [1] / ISTD: 159 Tb
y = 1.334E-3 x + 2.139E-5
R 1.0000
DL 0.01448
BEC 0.01603



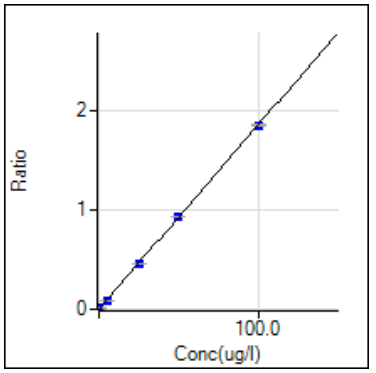
205 Tl [1] / ISTD: 209 Bi
y = 1.335E-2 x + 7.040E-5
R 1.0000
DL 0.002498
BEC 0.005271



206 Pb [1] / ISTD: 209 Bi
y = 4.592E-3 x + 7.286E-5
R 1.0000
DL 0.01531
BEC 0.01587



207 Pb [1] / ISTD: 209 Bi
y = 4.042E-3 x + 6.701E-5
R 1.0000
DL 0.01605
BEC 0.01658



208 Pb [1] / ISTD: 209 Bi

y = 1.862E-2 x + 3.002E-4

R	1.0000
DL	0.009046
BEC	0.01612

SGS

Mercury Hot Block Digestion Log

Product **HG / HGTCLP**
Matrix: Aq / Liq / DW

MA Batch #: MA47421
Analyst: LL
Date: 9/10/2019
Balance ID: N/A
Reagents: See attached sheet
Auto pipet ID: M72

Methods (Circle as appropriate)
EPA 245.1 **SW846 7470A**
Required corrected Temp. Range is 90-95 C.

Hot Block # 8 Start Time: 7:57 End Time: 9:57 Tube # 1-45 .
Start Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436 .
End Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436 .
Hot Block # 8 Start Time: 9:57 End Time: 11:57 Tube # 46-62 .
Start Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436 .
End Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436 .

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used Amount Spiked	Spiked Used Added- Y or N	Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
1	MP17235-MB1	N	30	30				MP17235	DOD
2	MP17235-B1	N	30	30	2.0 ml	Y	0.03		HG-19-148-215-HGA3, IN. V.
3	MP17235-S1	Y	30	30	2.0 ml	Y	0.03		JC94537-1A, HG-19-148-215-HGA3, I. V.
4	MP17235-S2	Y	30	30	2.0 ml	Y	0.03		JC94537-1A, HG-19-148-215-HGA3, I. V.
5	JC94537-1A	Y	30	30					
6	MP17236-MB1	N	30	30				MP17236	
7	MP17236-B1	N	30	30	2.0 ml	Y	0.03		HG-19-148-215-HGA3, IN. V.
8	MP17236-S1	Y	30	30	2.0 ml	Y	0.03		JC94459-1, HG-19-148-215-HGA3, IN. V.
9	MP17236-S2	Y	30	30	2.0 ml	Y	0.03		JC94459-1, HG-19-148-215-HGA3, IN. V.
10	JC94459-1	Y	30	30					BROWN/SEDIMENT
11	JC94459-2	Y	30	30					ORANGE/SEDIMENT
12	JC94459-3	Y	30	30					YELLOW/SEDIMENT
13	JC94459-4	Y	30	30					ORANGE/SEDIMENT
14	JC94459-5	Y	30	30					YELLOW/SEDIMENT
15	JC94459-6	Y	30	30					YELLOW/SEDIMENT
16	JC94459-7	Y	30	30					YELLOW/SEDIMENT
17	JC94459-8	Y	30	30					YELLOW/SEDIMENT
18	JC94459-9	Y	30	30					YELLOW/SEDIMENT
19	JC94459-10	Y	10	30					BROWN/SEDIMENT/FOAMY
20	JC94459-11	Y	30	30					ORANGE/SEDIMENT
21	JC94459-12	Y	10	30					YELLOW/SEDIMENT/FOAMY
22	JC94611-5	Y	30	30					SEDIMENT
23	JC94611-6	Y	30	30					
24	JC94365-8	Y	30	30					
25	JC94365-9	Y	30	30					
26	JC94365-10	Y	30	30					
27	JC94365-11	Y	30	30					
28	JC94365-12	Y	30	30					
29	JC94650-1	Y	30	30					YELLOW/SEDIMENT
30	MP17237-MB1	N	30	30				MP17237	
31	MP17237-B1	N	30	30	2.0 ml	Y	0.03		HG-19-148-215-HGA3, IN. V.
32	MP17237-S1	Y	30	30	2.0 ml	Y	0.03		JC94499-17, HG-19-148-215-HGA3, I. V.
33	MP17237-S2	Y	30	30	2.0 ml	Y	0.03		JC94499-17, HG-19-148-215-HGA3, I. V.
34	JC94499-17	Y	30	30					SEDIMENT
35	JC94499-18	Y	30	30					SEDIMENT

ANALYST: LL DATE: 9/10/19
Spike witness: CH DATE: 9/10/19
QC: REVIEWER: DATE:

DAYT-MET-0113-01-FORM-HGWATERPREP
Revision Date: 8/28/18

SGS

Mercury Hot Block Digestion Log

Product **HG / HGTCLP**
Matrix: Aq / Liq / DW

Methods (Circle as appropriate)
EPA 245.1 **SW846 7470A**
Required corrected Temp. Range is 90-95 C.

MA Batch #: MA47421
Analyst: LL
Date: 9/10/2019
Balance ID: N/A
Reagents: See attached sheet
Auto pipet ID: M72

Hot Block # 8 Start Time: 7:57 End Time: 9:57 Tube # 1-45 .
Start Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436 .
End Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436 .
Hot Block # 8 Start Time: 9:57 End Time: 11:57 Tube # 46-62 .
Start Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436 .
End Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436 .

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used Amount Spiked	Spiked Used Added-Y or N	Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
36	JC94499-19	Y	30	30					SEDIMENT
37	JC94499-20	Y	30	30					SEDIMENT
38	JC94499-21	Y	30	30					SEDIMENT
39	JC94499-22	Y	30	30					SEDIMENT
40	JC94499-23	Y	30	30					
41	JC94499-24	Y	30	30					
42	JC94499-25	Y	30	30					
43	JC94499-26	Y	30	30					SEDIMENT
44	JC94499-27	Y	30	30					SEDIMENT
45	JC94499-28	Y	30	30					
46	MP17238-MB1	N	30	30				MP17238	
47	MP17238-B1	N	30	30	2.0 ml	Y	0.03		HG-19-148-215-HGA3, IN. V.
48	MP17238-S1	Y	30	30	2.0 ml	Y	0.03		JC94639-1, HG-19-148-215-HGA3, IN. V.
49	MP17238-S2	Y	30	30	2.0 ml	Y	0.03		JC94639-1, HG-19-148-215-HGA3, IN. V.
50	JC94639-1	Y	30	30					PARTICLES
51	JC94639-2	Y	30	30					
52	JC94639-3	Y	30	30					
53	JC94639-4	Y	30	30					
54	JC94639-5	Y	30	30					
55	JC94639-6	Y	30	30					SEDIMENT
56	JC94639-7	Y	30	30					
57	JC94639-8	Y	30	30					
58	JC94639-9	Y	30	30					SEDIMENT
59	JC94639-10	Y	30	30					
60	JC94639-11	Y	30	30					
61	JC94639-12	Y	30	30					SEDIMENT
62	JC94639-13	Y	30	30					
63									
64									
65									
66									
67									
68									
69									
70									

ANALYST: LL DATE: 9/10/19
Spike witness: CH DATE: 9/10/19
QC: REVIEWER: DATE:

DAYT-MET-0113-01-FORM-HGWATERPREP
Revision Date: 8/28/18

7.5.1 7

SGS

Mercury Hot Block Digestion Log

Product **HG / EHG / HGTCLP**
Matrix: Aq / Liq / DW

MA Batch #: MA47421
Analyst: LL
Date: 9/10/2019
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID M-72

Methods (Circle as appropriate)
EPA 245.1 **SW846 7470A**

Required corrected Temp. Range is 90-95 C.
Hot Block # 7 Start Time: 7:37 End Time: 9:37 Tube # S1-CRI .

Start Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 3107658 .
End Temp: 95 Corrected Start Temp: 95 Correction: 0 Thermometer ID: 3107658 .

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used Amount Spiked	Spiked Used Added-Y or N	Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
S-1	Calibration Blank	N	30 ml	30 ml	0.0 ml	N			
S-2	0.2 ug/l Standard	N	30 ml	30 ml	2.0 ml	Y	0.003		HG-19-148-216-HGA4, IN. V.
S-3	0.5 ug/l Standard	N	30 ml	30 ml	5.0 ml	Y	0.003		HG-19-148-216-HGA4, IN. V.
S-4	1.0 ug/l Standard	N	30 ml	30 ml	1.0 ml	Y	0.030		HG-19-148-215-HGA3, IN. V.
S-5	2.5 ug/l Standard	N	30 ml	30 ml	2.5 ml	Y	0.030		HG-19-148-215-HGA3, IN. V.
S-6	5.0 ug/l Standard	N	30 ml	30 ml	5.0 ml	Y	0.030		HG-19-148-215-HGA3, IN. V.
ICV	ICV MA47421	N	30 ml	30 ml	3.0 ml	Y	0.03		HG-19-148-217-HGB3, ULTRA
ICB	ICB MA47421	N	30 ml	30 ml	0.0 ml	N			
CCV	CCV MA47421	N	30 ml	30 ml	2.5 ml	Y	0.03		HG-19-148-215-HGA3, IN. V.
CCB	CCB MA47421	N	30 ml	30 ml	0.0 ml	N			
CRI	CRI MA47421	N	30 ml	30 ml	2.0 ml	Y	0.003		HG-19-148-216-HGA4, IN. V.

7.5.1 7

Form HG022-03
Revision Date: 8/24/15

ANALYST: LL
QC: REVIEWER:

DATE: 9/10/19
DATE:

SGS

Reagent Information Log- Hg Waters

MA # 47421

Reagents	Exp. Date	Reagent # or manufacturer lot #
Conc. Sulfuric Acid	9/9/2024	Fisher -192275
Conc. Nitric Acid	9/6/2021	Baker -234822
Sodium Chloride-Hydroxylamine Hydrochloride	3/9/2020	HG-19-147-. 358 -HGHCL
Potassium Permanganate 5%	3/9/2020	HG-19-147-. 356 -HGKM2
Potassium Persulfate	3/9/2020	HG-19-147-. 357 -HGKS
Stannous Chloride	9/11/2019	HG-19-148- 218 -HGS
STD Hg standard solution 1000 ppm	3/1/2020	Inorganic Ventures N2-HG669550
STD Hg standard solu tion 30 ppb	9/11/2019	HG-19-148- 215 -HGA3
STD Hg standard solu tion 3ppb	9/11/2019	HG-19-148- 216 -HGA4
ICV Hg standard solution 1000 ppm	6/30/2021	Ultra-T00601
ICV Hg standard solution 30ppb	9/11/2019	HG-19-148- 217 -HGB3
Dilution Acid	3/9/2020	HG-19-148- 214 HGD2
Digestion Tubes Lot	N/A	Environmental Express 1902243
ph Paper	N/A	Hydrion: 206717

Form:GN087A79-03
Rev. Date: 6/6/17

SGS North America Inc.

Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP17232	9/10/2019	12:55	9/10/2019	18:25	JC94613-1A	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	2	3124598	91	-1	90
1	End	2	3124598	91	-1	90
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1902243	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP17232-MB1	N/A	N	50	50	AB		
MP17232-B1	N/A	N	50	50	AB	ABCD	
MP17232-S1	1	Y	50	50	AB	ABCD	
MP17232-S2	1	Y	50	50	AB	ABCD	
MP17232-SD1	1	Y	50	50	AB		
JC94537-1A	1	Y	50	50	AB		
JC94613-1A	1	Y	50	50	AB		
JC94613-2A	1	Y	50	50	AB		
MP17232-B2	N/A	N	50	50	AB	EFGHI	
MP17232-S3	1	Y	50	50	AB	EFGHI	
MP17232-S4	1	Y	50	50	AB	EFGHI	

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E	ACCUTEST 13B REV1	0.2
F	ACCUTEST 14B REV1	0.2
G	MINERALS 1000PPM	0.2
H	AG 20PPM	0.2

Comments:

Analyst MOUSTAFR **Approved by** RAKESHP **Approved on** 9/10/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

3S [illegible] nence Inc

Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP17232	9/10/2019	12:55	9/10/2019	18:25	JC94613-1A	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	2	3124598	91	-1	90
1	End	2	3124598	91	-1	90
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1902243	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP17232-MB1	N/A	N	50	50	AB		
MP17232-B1	N/A	N	50	50	AB	ABCD	
MP17232-S1	1	Y	50	50	AB	ABCD	
MP17232-S2	1	Y	50	50	AB	ABCD	
MP17232-SD1	1	Y	50	50	AB		
JC94537-1A	1	Y	50	50	AB		
JC94613-1A	1	Y	50	50	AB		
JC94613-2A	1	Y	50	50	AB		
MP17232-B2	N/A	N	50	50	AB	EFGHI	
MP17232-S3	1	Y	50	50	AB	EFGHI	
MP17232-S4	1	Y	50	50	AB	EFGHI	

Reagents Groups		
Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups		
Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.125
E	ACCUTEST 13B REV1	0.2
F	ACCUTEST 14B REV1	0.2
G	MINERALS 1000PPM	0.2
H	AG 20PPM	0.2
I	5000ppm	0.8

Comments: _____

Analyst MOUSTAFR Approved by Rakesh P Approved on 9/10/19

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 17232 Date: 9/10/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	2/29/2020	MP-015-1214
Spiking Solution - (ACCUTEST-14A REV1)	2/29/2020	MP-015-1215
Spiking Solution - 5000 mg/l Minerals	8/21/2020	P2-MEB681527 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	9/25/2021	LOT: 092518 MFG: ABS. STANDARDS
Spiking Solution - Si 1000ppm	5/30/2020	P2-SI676242 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	8/29/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	3/5/2020	MP-015-1220
Spiking Solution - Li 1000ppm	8/23/2020	P2-LI675235 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	2/29/2020	MP-015-1219
Spiking Solution - (ACCUTEST-13B REV1)	1/23/2020	MP-015-1203
Spiking Solution - (ACCUTEST-14B REV1)	1/23/2020	MP-015-1204
Spiking Solution - 1000ppm Minerals	10/29/2019	MP-015-1164
Spiking Solution- P		
Nitric Acid	9/9/2021	LOT: 234822 MFG: J.T. BAKER
Nitric Acid (1:1)	3/4/2020	MP-018-42-295 1:1 HNO3
Hydrochloric Acid	9/6/2021	LOT:229504 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	3/5/2020	MP-018-42-296 1:1 HCL
Hydrogen Peroxide	8/31/2021	LOT: 191365 MFG: FISHER
Soil Lab Control/Soil LC	10/31/2021	LOT: D101-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24635764 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812117 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16939084 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F9BA55973E MFG: FISHER

Spike witnessed By: EAL

Validated By:

Validated On:

Metals Prep Reagent
1/17/18

7.5.2

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17250
17232
17228

Date 9/11/19 Analyst CG MP # 17228

Post spike for ICP Method 6010D

QC sample #

Spiking solution	Elements	Spike added (Y/N)	Vendor	Intermediate Lot #	Exp. Date	Conc. (mg/l)	Amt of Spike added (ml)	Digestate sample volume (ml)	Final Digestate volume in ml (Spike+ Sample)	Final Conc at the instrument (mg/l)
Mixed ICP Intermediate Metals Solution (ACCUTEST-13A-REV1)	Ba,Be,B Cd,Cr,Co,Cu,Pb, Mn,Ni,P,Se,Sr,TL, V,Zn	Yes	Inhouse	MA-18-354-153	11/28/19	200	0.2	19.25	20	2
Mixed ICP Intermediate Metals Solution (ACCUTEST-14A-REV1)	Sb,As,Mo,Sn,Ti, W,Zr	Yes	Inhouse	MA-18-354-154	11/28/19	200	0.2			2
Ag Spike Intermediate	Ag	Yes	Inhouse	MA-18-354-152	11/28/19	20	0.25			0.25
Metals Mix	Ca,Al,Fe,Mg,K, Na	Yes	Inorganic Ventures	P2-MEB 678659	4/25/20	5000	0.1			25
S spike	S					200	0.2			2
Bi Spike	Bi					200	0.2			2
Li Spike	Li					200	0.2			2
Si spike	Si					1000	0.1			5

Form: DAYT MET-0095-01-FORM
Rev Date : 7/10/2018

Reviewed by

SGS North America Inc.

Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP17232	9/10/2019	12:55	9/10/2019	18:25	JC94613-1A	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	2	3124598	91	-1	90
1	End	2	3124598	91	-1	90
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1902243	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP17232-MB1	N/A	N	50	50	AB		
MP17232-B1	N/A	N	50	50	AB	ABCD	
MP17232-S1	1	Y	50	50	AB	ABCD	
MP17232-S2	1	Y	50	50	AB	ABCD	
MP17232-SD1	1	Y	50	50	AB		
JC94537-1A	1	Y	50	50	AB		
JC94613-1A	1	Y	50	50	AB		
JC94613-2A	1	Y	50	50	AB		
MP17232-B2	N/A	N	50	50	AB	EFGHI	
MP17232-S3	1	Y	50	50	AB	EFGHI	
MP17232-S4	1	Y	50	50	AB	EFGHI	

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E	ACCUTEST 13B REV1	0.2
F	ACCUTEST 14B REV1	0.2
G	MINERALS 1000PPM	0.2
H	AG 20PPM	0.2

Comments:

Analyst MOUSTAFR **Approved by** RAKESHP **Approved on** 9/10/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

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Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP17232	9/10/2019	12:55	9/10/2019	18:25	JC94613-1A	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	2	3124598	91	-1	90
1	End	2	3124598	91	-1	90
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1902243	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP17232-MB1	N/A	N	50	50	AB		
MP17232-B1	N/A	N	50	50	AB	ABCD	
MP17232-S1	1	Y	50	50	AB	ABCD	
MP17232-S2	1	Y	50	50	AB	ABCD	
MP17232-SD1	1	Y	50	50	AB		
JC94537-1A	1	Y	50	50	AB		
JC94613-1A	1	Y	50	50	AB		
JC94613-2A	1	Y	50	50	AB		
MP17232-B2	N/A	N	50	50	AB	EFGHI	
MP17232-S3	1	Y	50	50	AB	EFGHI	
MP17232-S4	1	Y	50	50	AB	EFGHI	

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.025
E	ACCUTEST 13B REV1	0.2
F	ACCUTEST 14B REV1	0.2
G	MINERALS 1000PPM	0.2
H	AG 20PPM	0.2
I	SE 20PPM	0.8

Comments:

Analyst MOUSTAFR Approved by Rakesh P Approved on 9/10/19

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

Document Control # NJ-MET-PREP-AQ-01 (2456468 4378704432) Validated by: Validated on:

7.5.3

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SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 17232 Date: 9/10/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	2/29/2020	MP-015-1214
Spiking Solution - (ACCUTEST-14A REV1)	2/29/2020	MP-015-1215
Spiking Solution - 5000 mg/l Minerals	8/21/2020	P2-MEB681527 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	9/25/2021	LOT: 092518 MFG: ABS. STANDARDS
Spiking Solution - Si 1000ppm	5/30/2020	P2-SI676242 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	8/29/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	3/5/2020	MP-015-1220
Spiking Solution - Li 1000ppm	8/23/2020	P2-LI675235 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	2/29/2020	MP-015-1219
Spiking Solution - (ACCUTEST-13B REV1)	1/23/2020	MP-015-1203
Spiking Solution - (ACCUTEST-14B REV1)	1/23/2020	MP-015-1204
Spiking Solution - 1000ppm Minerals	10/29/2019	MP-015-1164
Spiking Solution- P		
Nitric Acid	9/9/2021	LOT: 234822 MFG: J.T. BAKER
Nitric Acid (1:1)	3/4/2020	MP-018-42-295 1:1 HNO3
Hydrochloric Acid	9/6/2021	LOT:229504 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	3/5/2020	MP-018-42-296 1:1 HCL
Hydrogen Peroxide	8/31/2021	LOT: 191365 MFG: FISHER
Soil Lab Control/Soil LC	10/31/2021	LOT: D101-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24635764 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812117 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16939084 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F9BA55973E MFG: FISHER

Spike witnessed By: EAL

Validated By:

Validated On:

Metals Prep Reagent
1/17/18

17250
17232
17228

Date 9/11/19 Analyst CG MP # 17228

Post spike for ICP Method 6010D

QC sample #

Spiking solution	Elements	Spike added (Y/N)	Vendor	Intermediate Lot #	Exp. Date	Conc. (mg/l)	Amt of Spike added (ml)	Digestate sample volume (ml)	Final Digestate volume in ml (Spike+ Sample)	Final Conc at the instrument (mg/l)
Mixed ICP Intermediate Metals Solution (ACCUTEST-13A-REV1)	Ba,Be,B Cd,Cr,Co,Cu,Pb, Mn,Ni,P,Se,Sr,TL, V,Zn	Yes	Inhouse	MA-18-354-153	11/28/19	200	0.2	19.25	20	2
Mixed ICP Intermediate Metals Solution (ACCUTEST-14A-REV1)	Sb,As,Mo,Sn,Ti, W,Zr	Yes	Inhouse	MA-18-354-154	11/28/19	200	0.2			2
Ag Spike Intermediate	Ag	Yes	Inhouse	MA-18-354-152	11/28/19	20	0.25			0.25
Metals Mix	Ca,Al,Fe,Mg,K, Na	Yes	Inorganic Ventures	P2-MEB 678659	4/25/20	5000	0.1			25
S spike	S					200	0.2			2
Bi Spike	Bi					200	0.2			2
Li Spike	Li					200	0.2			2
Si spike	Si					1000	0.1			5

Form: DAYT MET-0095-01-FORM
Rev Date : 7/10/2018

Reviewed by

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP23538/GN99771	0.50	0.0	mg/l	2	2.05	102.5	90-110%
Chloride	GP23538/GN99771	2.0	0.0	mg/l	80	85.5	106.9	90-110%
HEM Petroleum Hydrocarbons	GP23804/GN290	5.0	0.0	mg/l	20.2	16.9	83.7	64-132%
HEM Petroleum Hydrocarbons	GP23804/GN290	5.0	0.0	mg/l	20.2	15.7	77.7	64-132%
Nitrogen, Nitrate + Nitrite	GP23681/GN68	0.10	0.0	mg/l	2	1.96	98.0	90-110%
Nitrogen, Nitrite	GN99662	0.010	0.0	mg/l	0.04	0.038	95.0	90-110%
Sulfate	GP23538/GN99771	2.0	0.0	mg/l	80	87.5	109.4	90-110%

Associated Samples:
Batch GN99662: JC94537-1A
Batch GP23538: JC94537-1A
Batch GP23681: JC94537-1A
Batch GP23804: JC94537-1A
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Bromide	GP23538/GN99715	JC94517-1	mg/l	22.6	22.5	0.4	0-20%
Bromide	GP23538/GN99715	JC94517-1	mg/l	18.6	22.5	0.4	0-20%
Chloride	GP23538/GN99771	JC94517-1	mg/l	47200	47700	1.1	0-20%
HEM Petroleum Hydrocarbons	GP23804/GN290	JC94554-2	mg/l	1.3	1.2	8.0	0-34%
Nitrogen, Nitrate + Nitrite	GP23681/GN68	JC94299-2	mg/l	4.2	4.1	2.4	0-33%
Nitrogen, Nitrite	GN99662	JC94537-1A	mg/l	0.0030 U	0.0	0.0	0-11%
Sulfate	GP23538/GN99715	JC94517-1	mg/l	185 B	165	3.6	0-20%
Sulfate	GP23538/GN99715	JC94517-1	mg/l	171	165	3.6	0-20%

Associated Samples:
Batch GN99662: JC94537-1A
Batch GP23538: JC94537-1A
Batch GP23681: JC94537-1A
Batch GP23804: JC94537-1A
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP23538/GN99715	JC94517-1	mg/l	22.6	20	44.7	110.5	80-120%
Bromide	GP23538/GN99715	JC94517-1	mg/l	18.6	20	44.7	110.5	80-120%
Chloride	GP23538/GN99771	JC94517-1	mg/l	47200	32000	79900	102.1	80-120%
HEM Petroleum Hydrocarbons	GP23804/GN290	JC94537-1A	mg/l	1.0	20.2	14.3	65.8	64-132%
Nitrogen, Nitrate + Nitrite	GP23681/GN68	JC94299-2	mg/l	4.2	1	4.8	60.0(a)	90-110%
Nitrogen, Nitrite	GN99662	JC94537-1A	mg/l	0.0030 U	0.04	0.042	105.0	22-140%
Sulfate	GP23538/GN99715	JC94517-1	mg/l	185 B	800	1060	111.1	80-120%
Sulfate	GP23538/GN99715	JC94517-1	mg/l	171	800	1060	111.1	80-120%

Associated Samples:
Batch GN99662: JC94537-1A
Batch GP23538: JC94537-1A
Batch GP23681: JC94537-1A
Batch GP23804: JC94537-1A
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: E091619W1.NO32 Date Analyzed: 09/16/19 Methods: EPA 353.2/LACHAT
Analyst: KI Run ID: GN68
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:22	GN68-STD1	1		STDA
15:23	GN68-STD2	1		STDB
15:25	GN68-STD3	1		STDC
15:26	GN68-STD4	1		STDD
15:27	GN68-STD5	1		STDE
15:28	GN68-STD6	1		STDF
15:29	GN68-STD7	1		STDG
15:31	GN68-ICV1	1		
15:33	GN68-ICB1	1		
15:34	GN68-CCV1	1		
15:35	GN68-CCB1	1		
15:36	GP23681-MB1	1		
15:37	GP23681-B1	1		
15:38	GP23681-S1	1		
15:39	GP23681-S2	1		
15:40	GP23681-D1	1		
15:42	JC94299-2	1		(sample used for QC only; not part of login JC94537)
15:43	ZZZZZZ	1		
15:44	ZZZZZZ	1		
15:45	ZZZZZZ	1		
15:46	JC94636-3	1		(sample used for QC only; not part of login JC94537)
15:47	GN68-CCV2	1		
15:48	GN68-CCB2	1		
15:49	ZZZZZZ	1		
15:50	ZZZZZZ	1		
15:52	ZZZZZZ	1		
15:53	ZZZZZZ	1		
15:54	ZZZZZZ	1		
15:55	JC94636-3	1		(sample used for QC only; not part of login JC94537)
15:56	ZZZZZZ	1		
15:57	ZZZZZZ	1		
15:58	ZZZZZZ	1		
15:59	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: E091619W1.NO32 Date Analyzed: 09/16/19 Methods: EPA 353.2/LACHAT
Analyst: KI Run ID: GN68
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:01	GN68-CCV3	1		
16:02	GN68-CCB3	1		
16:03	ZZZZZZ	1		
16:04	ZZZZZZ	1		
16:05	JC94537-1A	1		
16:06	ZZZZZZ	1		
16:07	ZZZZZZ	1		
16:08	ZZZZZZ	1		
16:10	GP23682-MB1	1		
16:11	GP23682-B1	1		
16:12	GP23682-S1	1		
16:13	GP23682-S2	1		
16:14	GN68-CCV4	1		
16:15	GN68-CCB4	1		
16:16	GP23682-D1	1		
16:17	ZZZZZZ	1		
16:19	JC94557-5	1		(sample used for QC only; not part of login JC94537)
16:20	ZZZZZZ	1		
16:21	ZZZZZZ	1		
16:22	ZZZZZZ	1		
16:23	JC94634-18	1		(sample used for QC only; not part of login JC94537)
16:24	ZZZZZZ	1		
16:25	ZZZZZZ	1		
16:26	ZZZZZZ	1		
16:28	GN68-CCV5	1		
16:29	GN68-CCB5	1		
16:30	ZZZZZZ	1		
16:31	ZZZZZZ	1		
16:32	ZZZZZZ	1		
16:33	ZZZZZZ	1		
16:34	ZZZZZZ	1		
16:35	ZZZZZZ	1		
16:37	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: E091619W1.NO32 Date Analyzed: 09/16/19 Methods: EPA 353.2/LACHAT
Analyst: KI Run ID: GN68
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:38	ZZZZZZ	1		
16:39	ZZZZZZ	1		
16:40	ZZZZZZ	20		
16:41	GN68-CCV6	1		
16:42	GN68-CCB6	1		
16:43	ZZZZZZ	40		
16:46	GN68-CCV7	1		
16:48	GN68-CCB7	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: E091619W1.NO32 Date Analyzed: 09/16/19 Methods: EPA 353.2/LACHAT
Run ID: GN68 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN68-ICV1	Nitrogen, Nitrate + Nitrite	2.02	0.10	0.090	2	101.0	90-110
GN68-ICB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN68-CCV1	Nitrogen, Nitrate + Nitrite	2.64	0.10	0.090	2.5	105.6	90-110
GN68-CCB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN68-CCV2	Nitrogen, Nitrate + Nitrite	2.61	0.10	0.090	2.5	104.4	90-110
GN68-CCB2	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN68-CCV3	Nitrogen, Nitrate + Nitrite	2.51	0.10	0.090	2.5	100.4	90-110
GN68-CCB3	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN68-CCV4	Nitrogen, Nitrate + Nitrite	2.61	0.10	0.090	2.5	104.4	90-110
GN68-CCB4	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN68-CCV5	Nitrogen, Nitrate + Nitrite	2.63	0.10	0.090	2.5	105.2	90-110
GN68-CCB5	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN68-CCV6	Nitrogen, Nitrate + Nitrite	2.43	0.10	0.090	2.5	97.2	90-110
GN68-CCB6	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN68-CCV7	Nitrogen, Nitrate + Nitrite	2.61	0.10	0.090	2.5	104.4	90-110
GN68-CCB7	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			

(!) Outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219090901.TXT Date Analyzed: 09/09/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN99715
Parameters: Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:58	GN99715-STD1	1		Manually integrated chrom. peaks reviewed and verified to comply with criteria of Accutest SOP EQA044.
12:17	GN99715-STD2	1		RT: Chl=4.500 min So4=6.391 min Bro=8.091 min
12:40	GN99715-STD3	1		STDC
13:04	GN99715-STD4	1		STDD
13:28	GN99715-STD5	1		STDE
13:52	GN99715-STD6	1		STDF
14:16	GN99715-STD7	1		STDG
10:04	GN99715-ICV1	1		
10:28	GN99715-CCV1	1		
10:52	GN99715-CCB1	1		
11:16	GP23537-MB1	1		
11:40	GP23537-B1	1		
12:06	ZZZZZZ	10		
12:30	ZZZZZZ	10		
13:04	ZZZZZZ	10		
13:27	ZZZZZZ	10		
13:51	ZZZZZZ	10		
14:15	ZZZZZZ	10		
14:39	GP23537-S1	10		rerun straight
15:03	GP23537-D1	10		rerun straight
15:27	GN99715-CCV2	1		
15:51	GN99715-CCB2	1		
16:15	JC94330-1	10		(sample used for QC only; not part of login JC94537)
16:39	JC94330-2	10		(sample used for QC only; not part of login JC94537)
17:02	ZZZZZZ	10		
17:26	GP23537-S2	10		rerun straight
17:50	JC94330-4	10		(sample used for QC only; not part of login JC94537)
18:14	ZZZZZZ	10		
18:38	ZZZZZZ	10		
19:02	ZZZZZZ	10		
19:26	ZZZZZZ	10		
19:50	ZZZZZZ	10		
20:14	GN99715-CCV3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219090901.TXT Date Analyzed: 09/09/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN99715
Parameters: Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:38	GN99715-CCB3	1		
21:02	ZZZZZZ	10		
21:26	GP23538-MB1	1		
21:26	GP23510-MB2	1		
21:26	GP23513-MB2	1		
21:50	GP23538-B1	1		
21:50	GP23510-B2	1		
21:50	GP23513-B2	1		
22:13	GP23538-S1	10		Over calibration curve. See rerun at dilution for chl. reporting for so4 and bro
22:37	GP23538-D1	10		Over calibration curve. See rerun at dilution for chl. reporting for so4 and bro
23:01	JC94517-1	10		(sample used for QC only; not part of login JC94537)
23:25	ZZZZZZ	10		
23:49	ZZZZZZ	10		
00:13	ZZZZZZ	10		
00:37	ZZZZZZ	10		
01:01	GN99715-CCV4	1		
01:25	GN99715-CCB4	1		
01:49	ZZZZZZ	3		
02:13	ZZZZZZ	3		
02:37	ZZZZZZ	2		
03:01	ZZZZZZ	3		
03:25	GP23513-S1	40		
03:48	GP23513-D1	20		
04:12	JC94336-1	20		(sample used for QC only; not part of login JC94537)
04:36	ZZZZZZ	3		
05:00	ZZZZZZ	3		
05:24	ZZZZZZ	3		
05:48	GN99715-CCV5	1		
06:12	GN99715-CCB5	1		
06:36	ZZZZZZ	3		
07:00	ZZZZZZ	10		
07:24	ZZZZZZ	10		
07:48	GN99715-CCV6	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219090901.TXT Date Analyzed: 09/09/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN99715
Parameters: Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:12	GN99715-CCB6	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219090901.TXT Date Analyzed: 09/09/19 Methods: EPA 300/SW846 9056A
Run ID: GN99715 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN99715-ICV1	Sulfate	109	2.0	0.89	100	109.0	90-110
GN99715-CCV1	Sulfate	209	2.0	0.89	200	104.5	90-110
GN99715-CCB1	Sulfate	0.89 U	2.0	0.89			
GN99715-CCV2	Sulfate	213	2.0	0.89	200	106.5	90-110
GN99715-CCB2	Sulfate	0.89 U	2.0	0.89			
GN99715-CCV3	Sulfate	214	2.0	0.89	200	107.0	90-110
GN99715-CCB3	Sulfate	0.89 U	2.0	0.89			
GN99715-CCV4	Sulfate	214	2.0	0.89	200	107.0	90-110
GN99715-CCB4	Sulfate	0.89 U	2.0	0.89			
GN99715-CCV5	Sulfate	213	2.0	0.89	200	106.5	90-110
GN99715-CCB5	Sulfate	0.89 U	2.0	0.89			
GN99715-CCV6	Sulfate	214	2.0	0.89	200	107.0	90-110
GN99715-CCB6	Sulfate	0.89 U	2.0	0.89			

(!) Outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219091001.TXT Date Analyzed: 09/10/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN99771
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:58	GN99771-STD1	1		Manually integrated chrom. peaks reviewed and verified to comply with criteria of Accutest SOP EQA044.
12:17	GN99771-STD2	1		RT: Chl=4.500 min So4=6.391 min Bro=8.091 min
12:40	GN99771-STD3	1		STDC
13:04	GN99771-STD4	1		STDD
13:28	GN99771-STD5	1		STDE
13:52	GN99771-STD6	1		STDF
14:16	GN99771-STD7	1		STDG
10:46	GN99771-ICV1	1		
11:10	GN99771-CCV1	1		
11:34	GN99771-CCB1	1		
11:58	GP23537-MB2	1		
12:22	GP23537-B2	1		
12:46	ZZZZZZ	30		
13:09	ZZZZZZ	400		
13:33	ZZZZZZ	40		
13:57	ZZZZZZ	100		
14:21	ZZZZZZ	200		
14:45	ZZZZZZ	1		
15:09	GP23537-S1	1		
15:33	GP23537-D1	1		
15:57	GN99771-CCV2	1		
16:21	GN99771-CCB2	1		
16:45	JC94330-1	1		(sample used for QC only; not part of login JC94537)
17:09	JC94330-2	200		(sample used for QC only; not part of login JC94537)
17:33	ZZZZZZ	200		
17:57	GP23537-S2	1		
18:21	JC94330-4	1		(sample used for QC only; not part of login JC94537)
18:44	ZZZZZZ	30		
19:08	ZZZZZZ	400		
19:32	ZZZZZZ	200		
19:56	ZZZZZZ	30		
20:20	ZZZZZZ	200		
20:44	GN99771-CCV3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219091001.TXT Date Analyzed: 09/10/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN99771
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:08	GN99771-CCB3	1		
21:32	ZZZZZZ	500		
21:56	ZZZZZZ	200		
22:20	ZZZZZZ	50		
22:44	GP23538-MB2	1		
23:08	GP23538-B2	1		
23:32	GP23538-S1	400		
23:56	GP23538-D1	200		
00:19	JC94517-1	200		(sample used for QC only; not part of login JC94537)
00:43	ZZZZZZ	500		
01:07	ZZZZZZ	200		
01:31	GN99771-CCV4	1		
01:55	GN99771-CCB4	1		
02:19	ZZZZZZ	200		
02:43	ZZZZZZ	200		
03:07	ZZZZZZ	10		
03:31	ZZZZZZ	10		
03:55	ZZZZZZ	10		
04:19	ZZZZZZ	10		
04:43	JC94537-1A	1		
05:07	GN99771-CCV5	1		
05:31	GN99771-CCB5	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC94537
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL), Devens, MA

File ID: 219091001.TXT Date Analyzed: 09/10/19 Methods: EPA 300/SW846 9056A
Run ID: GN99771 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN99771-ICV1	Chloride	107	2.0	0.83	100	107.0	90-110
GN99771-ICV1	Sulfate	109	2.0	0.89	100	109.0	90-110
GN99771-CCV1	Chloride	209	2.0	0.83	200	104.5	90-110
GN99771-CCV1	Sulfate	212	2.0	0.89	200	106.0	90-110
GN99771-CCB1	Chloride	0.83 U	2.0	0.83			
GN99771-CCB1	Sulfate	0.89 U	2.0	0.89			
GN99771-CCV2	Chloride	209	2.0	0.83	200	104.5	90-110
GN99771-CCV2	Sulfate	212	2.0	0.89	200	106.0	90-110
GN99771-CCB2	Chloride	0.83 U	2.0	0.83			
GN99771-CCB2	Sulfate	0.89 U	2.0	0.89			
GN99771-CCV3	Chloride	209	2.0	0.83	200	104.5	90-110
GN99771-CCV3	Sulfate	212	2.0	0.89	200	106.0	90-110
GN99771-CCB3	Chloride	0.83 U	2.0	0.83			
GN99771-CCB3	Sulfate	0.89 U	2.0	0.89			
GN99771-CCV4	Chloride	210	2.0	0.83	200	105.0	90-110
GN99771-CCV4	Sulfate	213	2.0	0.89	200	106.5	90-110
GN99771-CCB4	Chloride	0.83 U	2.0	0.83			
GN99771-CCB4	Sulfate	0.89 U	2.0	0.89			
GN99771-CCV5	Chloride	210	2.0	0.83	200	105.0	90-110
GN99771-CCV5	Sulfate	212	2.0	0.89	200	106.0	90-110
GN99771-CCB5	Chloride	0.83 U	2.0	0.83			
GN99771-CCB5	Sulfate	0.89 U	2.0	0.89			

(!) Outside of QC limits

General Chemistry

Raw Data

SGS

TEST: SGT-HEM Oil and Grease		PHC1664		GN Group:	gn290
Method: EPA 1664A		Reporting Date:	9/20/2019	GP Group:	GP23804
Date Extracted:	9/20/2019	Final Date Weighed:	9/20/2019	Analyst:	BM
Balance # Used:	B-16	(Refer to balance log for balance calibration)		Units:	mg/L

QC Summary — Units: mg/l

Dup Sample ID:	JC94554-2	Samp Res:	<5	Dup Result:	<5	% RPD:	0		
MS Sample ID:	JC94537-1A	Samp Res:	<5	Spike:	20.2	MS Res:	14.3	% Rec.	70.80%
Method Blank Date:	9/20/2019	Result:	<5	RL:	5			<RL:	yes
Blank Spike Date:	9/20/2019	Result:	16.9	Spk Amt.	20.2			% Rec.	83.7
External:	na	Control Limit:	NA	Result:	NA			% Rec.	NA

Speed Vap Temperature During Evaporation: 40 deg. C | Speed Vap ID: VAP III

(c) refer to Determination of Constant weights page for balance check weight results.

Flask #	Sample ID	Sample pH	Sample Volume (ml)	Total Weight (g)	Tare Weight (g)	Sample Weight (g)	Calc Result	Final Result **	RL	Analysis Time	Silica Gel Added
	0.002 g check (c)	na	na	0.0020	0.0020	na	na	na	na	09:00	
	1.000 g check (c)	na	na	1.0000	1.0001	na	na	na	na		
	100 g check (c)	na	na		100.0103	na	na	na	na		
MB	GP23804-MB1	<2	1000	2.4628	2.4634	-0.0006	-0.600	<5	5.00		3g
BSP	GP23804-B1	<2	1000	2.4969	2.4800	0.0169	16.900	16.900	5.00		3g
MS	GP23804-S1	<2	1000	2.4846	2.4703	0.0143	14.300	14.300	5.00		3g
DUP	GP23804-D1	<2	1000	2.4692	2.4680	0.0012	1.200	<5	5.00		3g
1	JC94532-1	<2	1000	2.4908	2.4886	0.0022	2.200	<5	5.00		3g
2	JC94537-1A	<2	1000	2.4756	2.4746	0.0010	1.000	<5	5.00		3g
3	JC94543-2conf	<2	900	2.7994	2.4749	0.3245	360.556	360.556	5.56		3g
4	JC94554-2	<2	1000	2.4717	2.4704	0.0013	1.300	<5	5.00		3g
5	JC94663-1	<2	1000	2.4791	2.4787	0.0004	0.400	<5	5.00		3g
6	JC94716-1	<2	1000	2.4752	2.4753	-0.0001	-0.100	<5	5.00		3g
7	JC94723-1	<2	1000	2.4863	2.4835	0.0028	2.800	<5	5.00		3g
8	JC94731-1	<2	1000	2.4820	2.4809	0.0011	1.100	<5	5.00		3g
9		<2									3g
10		<2									3g
	0.002g check(a)	na	na	0.0020	0.0020	na	na	na	na		
	1.000g check(b)	na	na	1.0000	1.0000	na	na	na	na	10:30	

SGS

DETERMINATION OF CONSTANT WEIGHT

Test: SGT-HEM Oil and Grease
Method: EPA 1664A
Test Code: PHC1664

GN Group: gn290
GP Group: GP23804
Analyst: BM
Units: mg/l

Balance ID#: B-16
Thermometer ID#: 73133
Thermometer correction factc -0.1

Definition of Constant Weight: Weight loss is less than 0.5 mg (0.0005 g).

Date:		9/20/2019	9/20/2019					
Start Time, End Time, Temp (Corrected, Uncorrected)	NA	12:00-12;30(70'	13:30-14:00(70')					
Sample ID	Flask #	Initial Weight (g)	Second Weight (g)	Re-Weigh ?	Third Weight (g)	Re-Weigh ?	Fourth Weight (g)	Description
0.002 g check (c)		0.0020	0.0020	N				
1.000 g check (c)		1.0000	1.0000	N				
100 g check (c)		100.0141	100.0139	N				
GP23804-MB1	MB	2.4630	2.4628	N				
GP23804-B1	BSP	2.4969	2.4969	N				
GP23804-S1	MS	2.4846	2.4846	N				
GP23804-D1	DUP	2.4691	2.4692	N				
JC94532-1	1	2.4906	2.4908	N				
JC94537-1A	2	2.4753	2.4756	N				
JC94543-2	3	2.7996	2.7994	N				
JC94554-2	4	2.4717	2.4717	N				
JC94663-1	5	2.4792	2.4791	N				
JC94716-1	6	2.4749	2.4752	N				
JC94723-1	7	2.4863	2.4863	N				
JC94731-1	8	2.4820	2.4820	N				
	9							
	10							
0.002g check(a)		0.0020	0.0020	N				
1.000g check(b)		1.0000	1.0000	N				
Form: GN135-3 Rev. Date: 08/02/04								

Note: Samples must be dried at 70 +/- 2 deg. For a minimum of 30 minutes for each drying cycle.

SGS

GN290

PHC1664 GP23804

	Accutest Sample ID	Bottle #	Volume (mL)	Appearance (clarity, color, etc.)	Odor
MS	GP23804-S1	3	1000	CLEAR, COLORLESS	SLIGHT ODOR
DUP	GP23804-D1	1	1000	CLEAR, COLORLESS	NONE
1	JC94532-1	1	1000	CLOUDY WITH SLIGHT PARTICLES	SLIGHT ODOR
2	JC94537-1A	4	1000	CLEAR, COLORLESS	SLIGHT ODOR
3	JC94543-2	2	900	VERY CLOUDY WITH PARTICLES	STRONG ODOR
4	JC94554-2	2	1000	CLEAR, COLORLESS	NONE
5	JC94663-1	1	1000	CLEAR, COLORLESS	NONE
6	JC94716-1	2	1000	CLEAR, COLORLESS	SLIGHT ODOR
7	JC94723-1	2	1000	CLOUDY	STRONG ODOR
8	JC94731-1	1	1000	SLIGHTLY CLOUDY	NONE
9					
10					
				HEM SPIKE	
				GNE9-59080-OG1664	
				EXP: 10/17/19	
				HEM: 8.043 mg/L HEX: 4.025 mg/L	

Form: GN-110
Rev. Date:9/20/2019

GP23804

Reagent Information Log - PHC1664 Water by EPA 1664A

Reagent	Expiration Date	Reagent # or Manufacturer/Lot
Hexane	12/12/2022	FISHER Lot #173528
HEM Spike	10/17/2019	GNE9-59080-OG1664
Sodium Sulfate	9/23/2019	GNE8-58870-PHC/OG1664
Disk Filter	NA	LABORATORYSALES&SER.#103411 (
Silica Gel	9/23/2019	GNE8-58879-PHC/PHC1664
Methanol	4/4/2021	FISHER 180813
1:1 HCL	1/26/2020	GNE7-58641-PHC/OG1664
Filter 47mm	NA	LABORATORYSALE&SER #150125
Pre-Filter 47mm	NA	LABORATORYSALES&SER.#141347
Filter 90/100 mm	NA	LABORATORYSALES&SER.#140294
Pre-Filter 90/100 mm	NA	LABORATORYSALES&SER.#141272
pH paper	6/1/2020	HYDRON LOT#215316
HEM Spike (ICV)		

B1/S1= 5.0ml of 8.043 mg/L HEM SPIKE
HEX= 4.025 mg/L

Form: GN-087 1-44
Rev. Date: 11/4/08

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E091619W1.NO32 Date Analyzed: 09/16/19 Methods: EPA 353.2/LACHAT
Analyst: KI Run ID: GN68

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: KI Date 9/16/19

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 9/17/19

E091619W1 NO32

GN68

Author: Chemistry

Date : 9/16/2019

Original Run Filename: OM_9-16-2019_03-22-02PM.OMN Created: 9/16/2019 3:22:02 PM
Original Run Author's Signature: [Chemistry]
Current Run Filename: OM_9-16-2019_03-22-02PM.OMN Last Modified: 9/16/2019 4:50:25 PM
Current Run Author's Signature: [Chemistry]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 NO32 (mg/L)	Detection Time	MDF	%Rec
STDA	1	S1	5.00	9/16/2019@3:22:52 PM		
STDB	1	S2	2.50	9/16/2019@3:23:59 PM		
STDC	1	S3	1.00	9/16/2019@3:25:07 PM		
STDD	1	S4	0.500	9/16/2019@3:26:15 PM		
STDE	1	S5	0.200	9/16/2019@3:27:22 PM		
STDF	1	S6	0.100	9/16/2019@3:28:29 PM		
STDG	1	S7	0.00	9/16/2019@3:29:36 PM		
EFFCHK	1	1	2.04	9/16/2019@3:30:44 PM		102
	Known Conc:		2.00			
	Calibration:		Table/Fig. : 1			
ICV	1	2	2.02	9/16/2019@3:31:52 PM		101
	Known Conc:		2.00			
ICB	1	3	-0.0619	9/16/2019@3:33:00 PM		
	Known Conc:		0.00			
CCV	1	S9	2.64	9/16/2019@3:34:07 PM		
	Known Conc:		2.50			105.6
CCB	1	S10	-0.0627	9/16/2019@3:35:15 PM		
	Known Conc:		0.00			
GP23681-MB1	1	4	-0.0286	9/16/2019@3:36:23 PM		
GP23681-B1	1	5	1.96	9/16/2019@3:37:30 PM		98
GP23681-S1	1	6	4.82	9/16/2019@3:38:38 PM		
GP23681-S2	1	7	1.08	9/16/2019@3:39:45 PM		
GP23681-D1	1	8	4.13	9/16/2019@3:40:52 PM		
JC94299-2	1	9	4.21	9/16/2019@3:42:00 PM		
JC94883-1	1	10	-0.0483	9/16/2019@3:43:07 PM		
JC94883-3	1	11	3.13e-3	9/16/2019@3:44:14 PM		
JC94883-4 (2)	1	12	11.1	9/16/2019@3:45:21 PM		overrange, see rerun
JC94636-3	1	13	-0.159	9/16/2019@3:46:27 PM		see rerun
CCV	1	S9	2.61	9/16/2019@3:47:35 PM		
	Known Conc:		2.50			104.4
CCB	1	S10	-0.0648	9/16/2019@3:48:42 PM		
	Known Conc:		0.00			
JC94636-4	1	14	0.210	9/16/2019@3:49:50 PM		
JC94636-8	1	15	0.0398	9/16/2019@3:50:56 PM		
JC94636-11	1	16	0.0115	9/16/2019@3:52:04 PM		
JC94636-12	1	17	-0.0267	9/16/2019@3:53:12 PM		
JC94636-13	1	18	0.0447	9/16/2019@3:54:20 PM		
JC94636-3	1	13	-2.21e-3	9/16/2019@3:55:28 PM		
JC94957-1	1	19	0.265	9/16/2019@3:56:34 PM		
JC94517-1	1	20	0.0269	9/16/2019@3:57:42 PM		
JC94517-2	1	21	0.0586	9/16/2019@3:58:50 PM		
JC94517-3	1	22	0.0457	9/16/2019@3:59:57 PM		
CCV	1	S9	2.51	9/16/2019@4:01:04 PM		
	Known Conc:		2.50			100.4
CCB	1	S10	-0.0607	9/16/2019@4:02:12 PM		
	Known Conc:		0.00			
JC94517-4	1	23	0.0117	9/16/2019@4:03:19 PM		
JC94517-5	1	24	9.95e-3	9/16/2019@4:04:27 PM		
JC94537-1A	1	25	0.143	9/16/2019@4:05:34 PM		
JC94557-1	1	26	-4.99e-3	9/16/2019@4:06:41 PM		
JC94557-2	1	27	2.45	9/16/2019@4:07:47 PM		
JC94557-3	1	28	2.62	9/16/2019@4:08:54 PM		
GP23682-MB1	1	29	-0.0611	9/16/2019@4:10:01 PM		
GP23682-B1	1	30	1.95	9/16/2019@4:11:08 PM		97.5
GP23682-S1	1	31	1.01	9/16/2019@4:12:16 PM		
GP23682-S2	1	32	1.58	9/16/2019@4:13:24 PM		
CCV	1	S9	2.61	9/16/2019@4:14:31 PM		
	Known Conc:		2.50			104.4
CCB	1	S10	-0.0638	9/16/2019@4:15:39 PM		
	Known Conc:		0.00			

Author: Chemistry

Date . 9/16/2019

GP23682-D1	1	33	-0.0330	9/16/2019@4:16:46 PM	
JC94557-4	1	34	2.15	9/16/2019@4:17:54 PM	
JC94557-5	1	35	0.543	9/16/2019@4:19:02 PM	
JC94557-6	1	36	0.100	9/16/2019@4:20:10 PM	
JC94557-7	1	37	0.162	9/16/2019@4:21:17 PM	
JC94565-6	1	38	2.72	9/16/2019@4:22:24 PM	
JC94634-18	1	39	-0.0276	9/16/2019@4:23:32 PM	
JC94634-19	1	40	-0.0295	9/16/2019@4:24:39 PM	
JC94634-20	1	41	-0.0348	9/16/2019@4:25:46 PM	
JC94634-21	1	42	0.106	9/16/2019@4:26:53 PM	
CCV	1	S9	2.63	9/16/2019@4:28:00 PM	
	Known Conc:		2.50		
CCB	1	S10	-0.0631	9/16/2019@4:29:08 PM	
	Known Conc:		0.00		
JC94634-22	1	43	4.70	9/16/2019@4:30:15 PM	
JC94634-23	1	44	3.44	9/16/2019@4:31:22 PM	
JC94634-24	1	45	-0.0509	9/16/2019@4:32:28 PM	
JC94634-25	1	46	0.380	9/16/2019@4:33:36 PM	
JC94634-26	1	47	4.28	9/16/2019@4:34:44 PM	
JC94634-27	1	48	4.33	9/16/2019@4:35:52 PM	
JC94634-28	1	49	0.517	9/16/2019@4:37:00 PM	
JC94634-29	1	50	-0.0177	9/16/2019@4:38:07 PM	
JC94634-30	1	51	2.29	9/16/2019@4:39:15 PM	
JC94883-4	1	52	2.00	9/16/2019@4:40:22 PM	20.00
CCV	1	S9	2.43	9/16/2019@4:41:30 PM	
	Known Conc:		2.50		
CCB	1	S10	-0.0630	9/16/2019@4:42:37 PM	
	Known Conc:		0.00		
JC94883-4	1	53	0.998	9/16/2019@4:43:45 PM	40.00
CCV	1	S9	2.61	9/16/2019@4:46:55 PM	
	Known Conc:		2.50		
CCB	1	S10	-0.0624	9/16/2019@4:48:03 PM	
	Known Conc:		0.00		

105.2

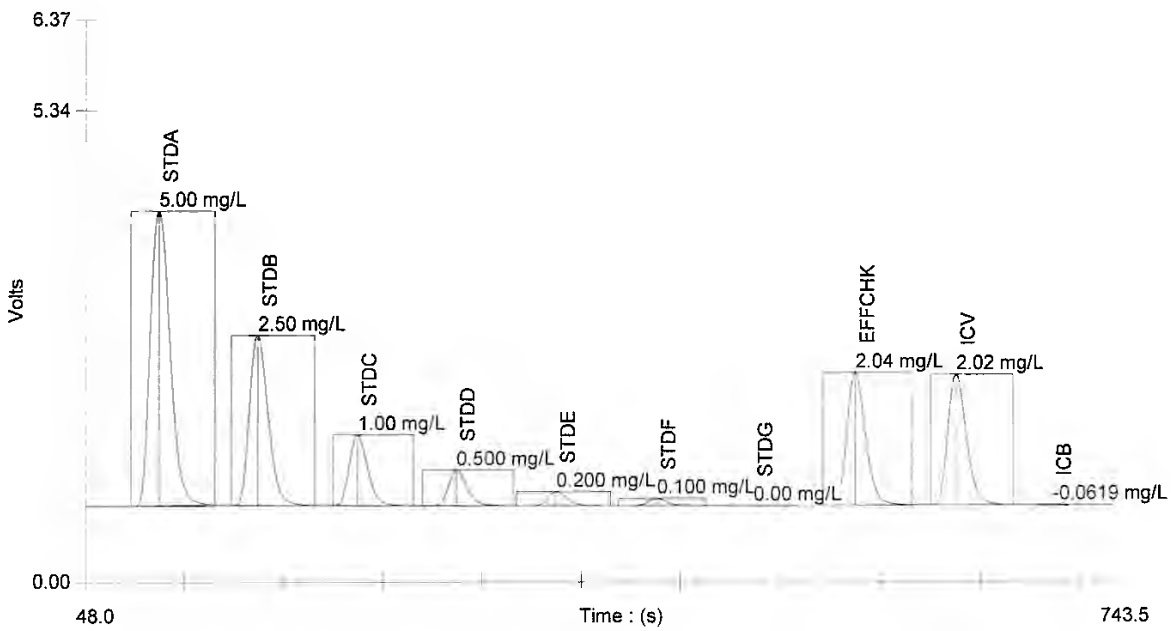
97.2

104.4

9.2

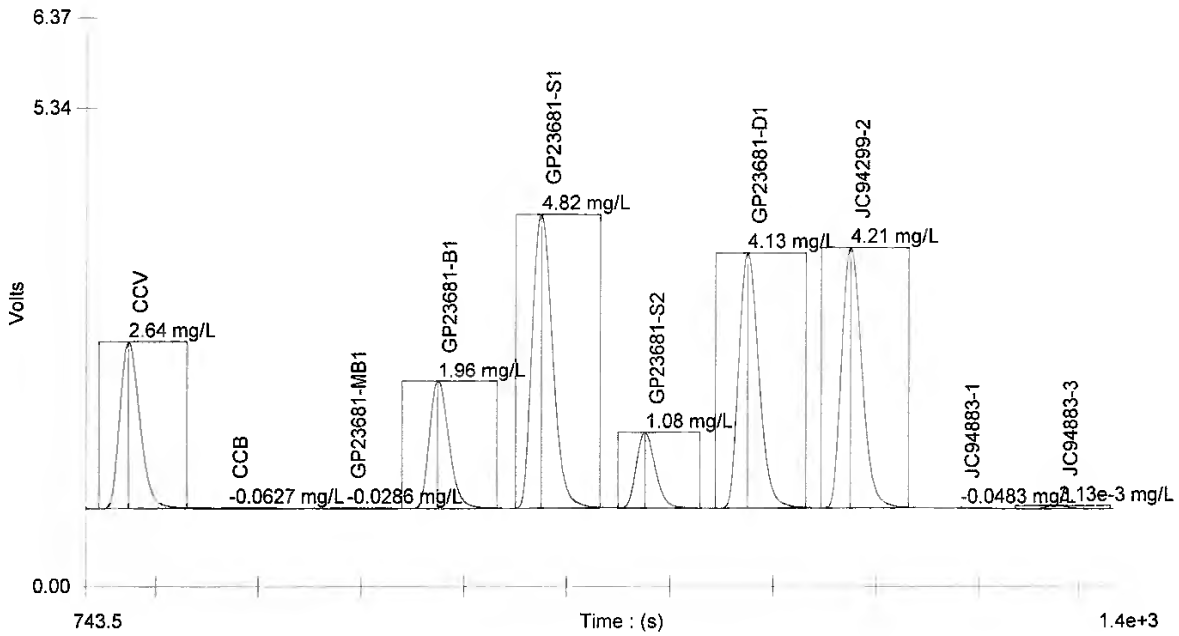
9

Channel 1 - Set: 1 / 8



Author: Chemistry Date : 9/16/2019

Channel 1 - Set: 2 / 8



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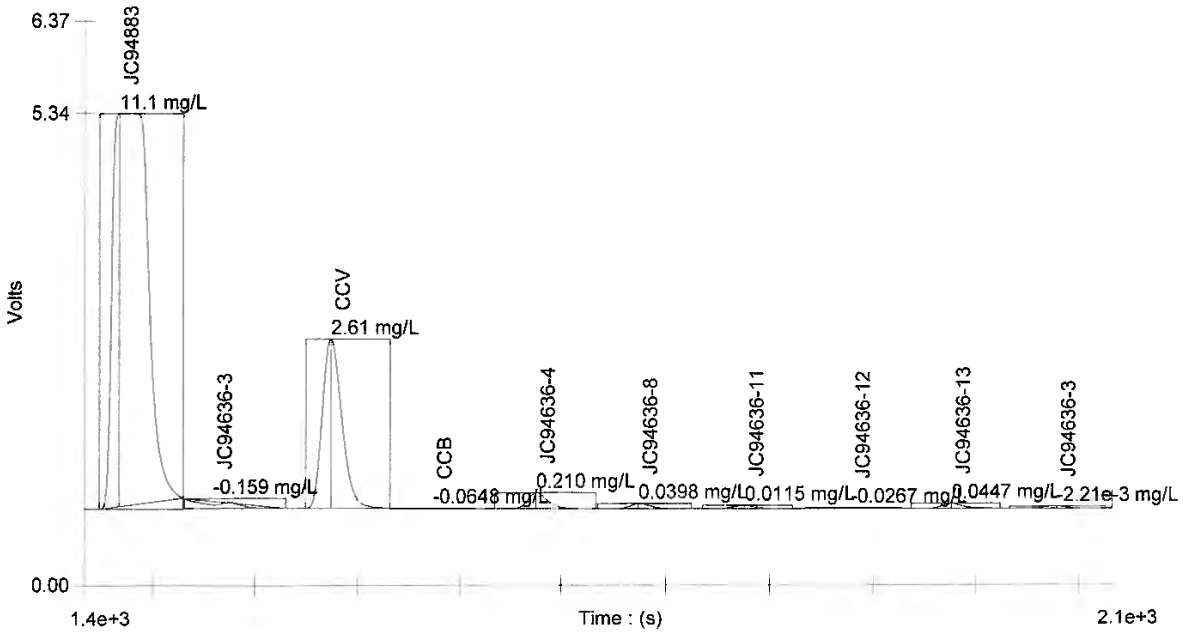
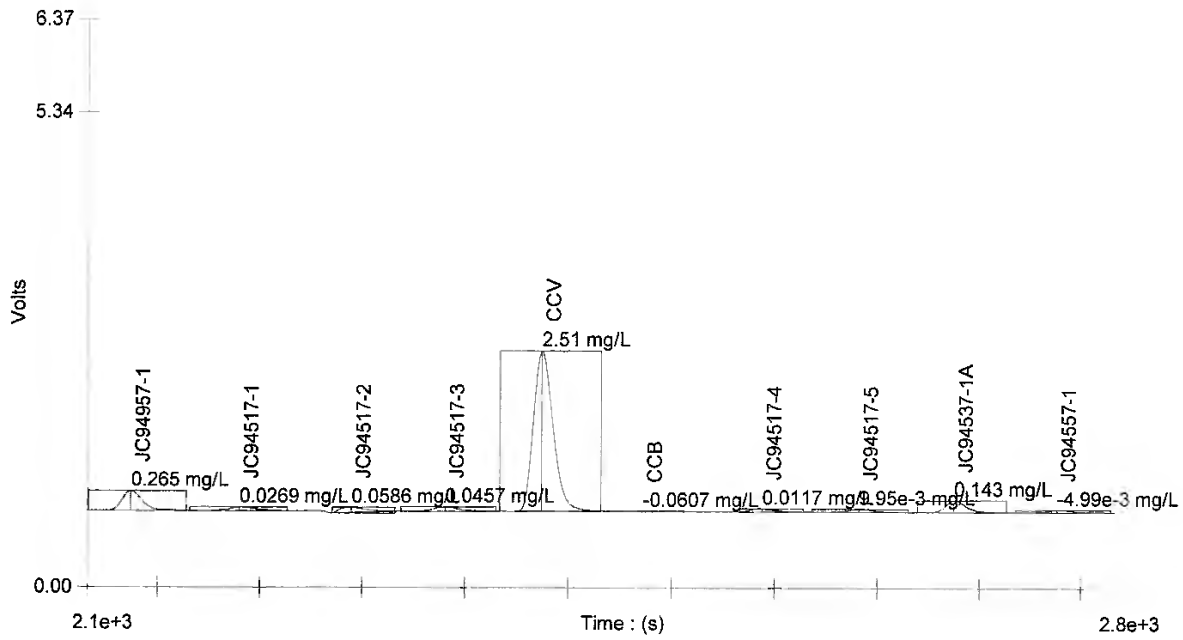


Author: Chemistry

Date : 9/16/2019

Channel 1 - Set: 4 / 8



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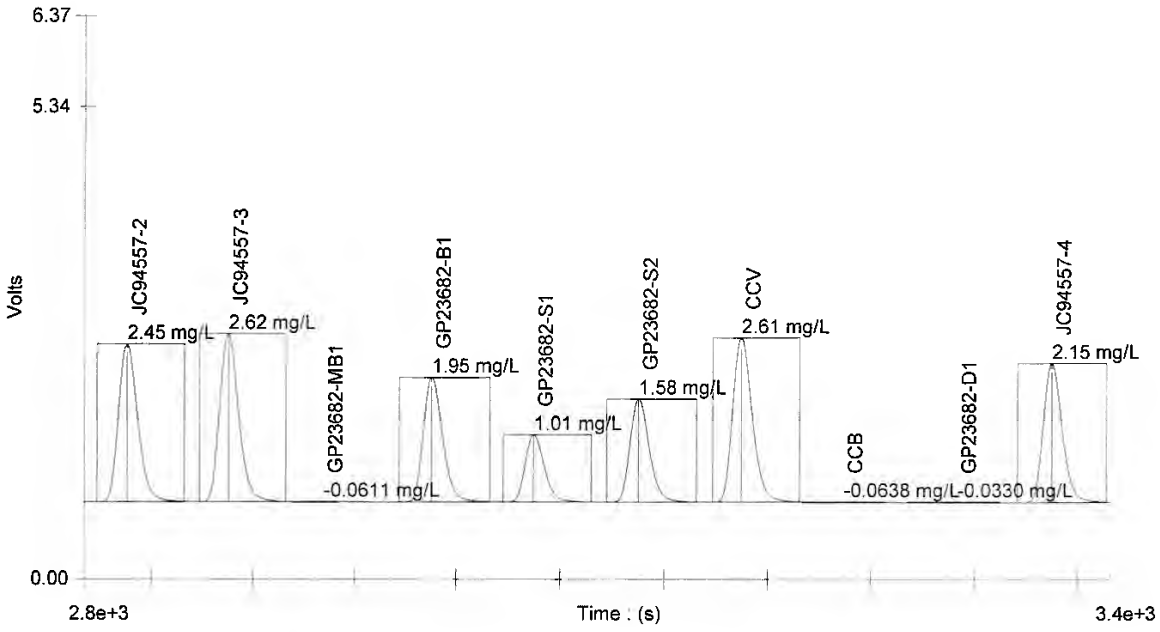
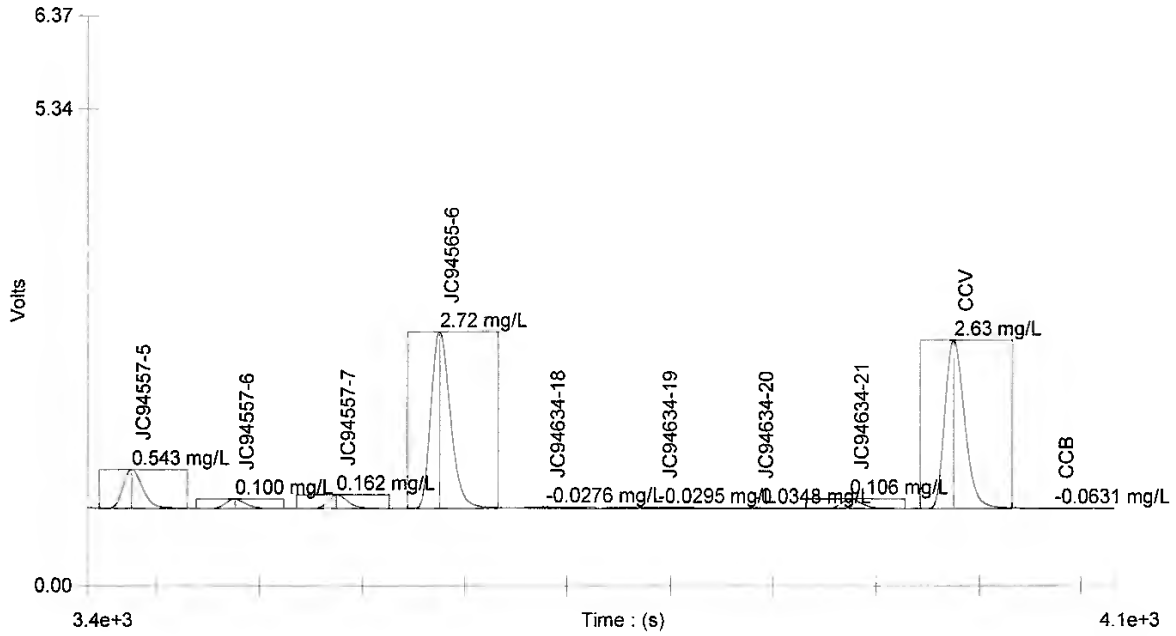


Author: Chemistry Date : 9/16/2019

Channel 1 - Set: 6 / 8



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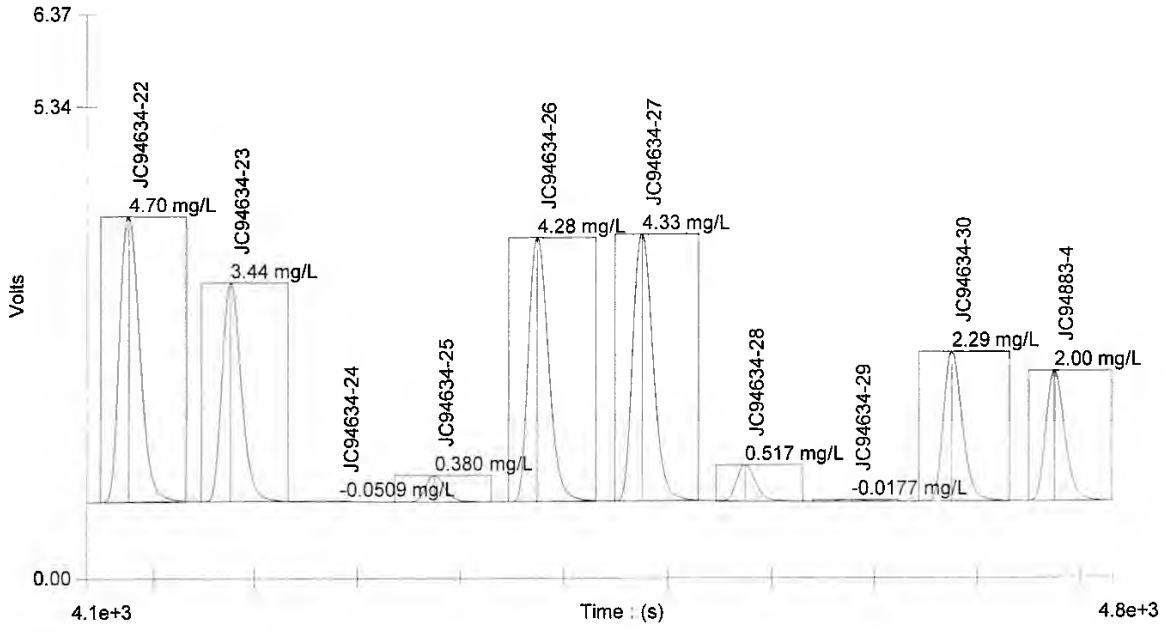


Author: Chemistry

Date : 9/16/2019

Channel 1 - Set: 8 / 8

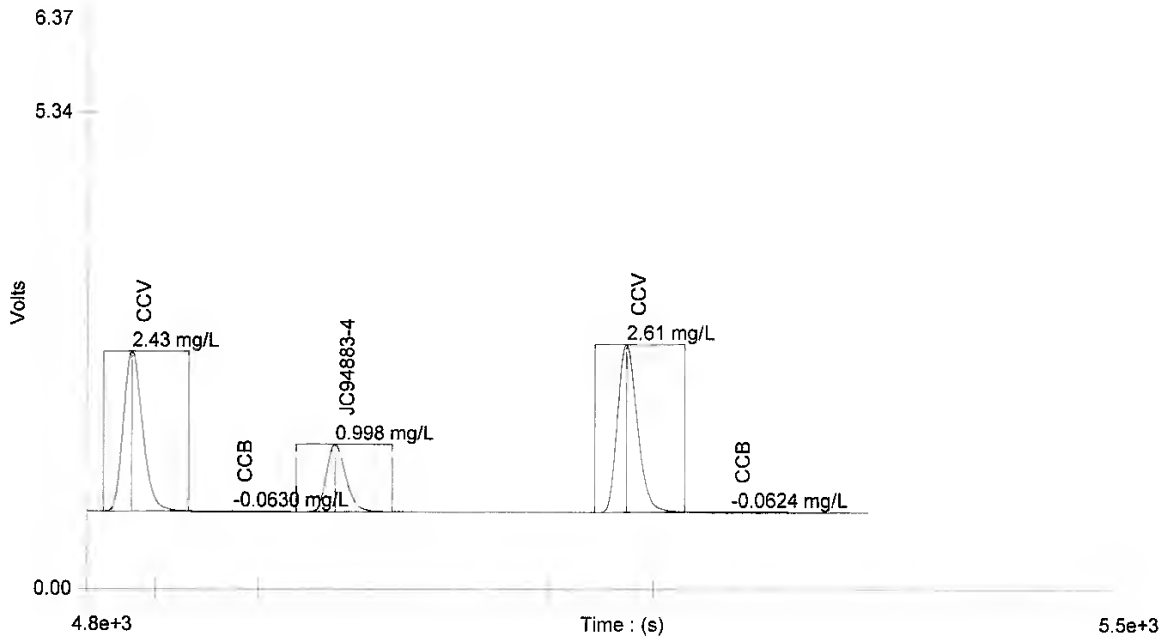
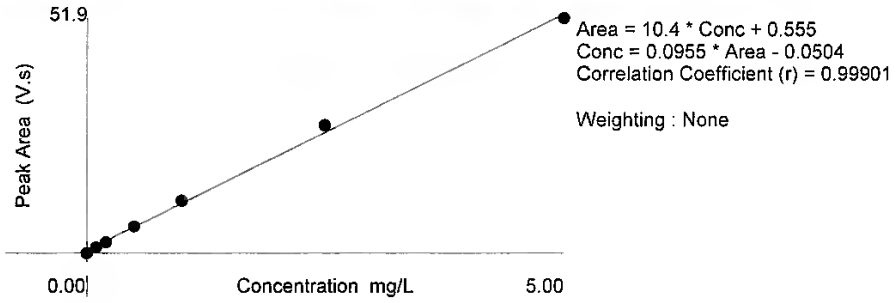


Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	51.9	3.33	0.0	1.7	4.91	9/16/2019	3:22:52 PM
2	2.50	1	28.3	1.93	0.0	-6.1	2.65	9/16/2019	3:23:59 PM
3	1.00	1	11.5	0.802	0.0	-4.9	1.05	9/16/2019	3:25:07 PM
4	0.500	1	5.85	0.406	0.0	-1.3	0.509	9/16/2019	3:26:15 PM
5	0.200	1	2.35	0.159	0.0	11.2	0.174	9/16/2019	3:27:22 PM
6	0.100	1	1.21	0.0812	0.0	24.4	0.0651	9/16/2019	3:28:29 PM
7	0.00	1	-0.0788	-4.98e-3			-0.0579	9/16/2019	3:29:36 PM

Figure : 1 (NO32)



GN68

Reagent Information Log - Nitrate Lachat Autoanalyzer

Reagent	Reagent # or Manufacturer/Lot	Expiration Date
Nitrate Stock Solution	GNE8-58737-NO32	2/5/2020
Ammonium Chloride Buffer Solution	GNE8-58739-NO3	2/5/2020
Sulfanilamide Color Reagent	GNE9-58964-NO3	9/29/2019
1:1 NH4OH	GNE7-58439NO3	1/1/2020
Carrier Solution	GNE5-58132-NO3	11/28/2019
1000 ppm Nitrite Solution	GNE8-58735-NO32	2/5/2020
Nitrate External Stock Solution	GNE8-58736-NO32	2/5/2020

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-43
Rev. Date: 7/19/06

9.2 9

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR NITRATE

GN or GP Number: GN68

Intermediate Standard Description	Stock used to prepare standard	Stock concentration in mg/l	Stock volume used in ml	Diluent (a)	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
100 ppm NO3 intermediate	GNE8-58737-NO32	1000	10	Carrier	100 ml	100	10/12/2019	BM	9/12/2019
100 ppm NO2 Intermediate	GNE8-58737-NO32	1000	10	Carrier	100 ml	100	10/12/2019	BM	9/12/2019
100 ppm NO3 External	GNE8-58736-NO32	1000	10	Carrier	100 ml	100	10/12/2019	BM	9/12/2019

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
5.0 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	5.0	Carrier	100 ml	5.0	9/19/2019	KI	9/12/2019
2.5 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	2.5	Carrier	100 ml	2.5	9/19/2019	KI	9/12/2019
1.0 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	1.0	Carrier	100 ml	1.0	9/19/2019	KI	9/12/2019
0.5 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	5.0	Carrier	100 ml	0.5	9/19/2019	KI	9/12/2019
0.2 mg/l NO3	100 ppm NO3 intermediate	100 mg/l	2.0	Carrier	100 ml	0.2	9/19/2019	KI	9/12/2019
0.1 mg/l NO3	100 ppm NO3 intermediate		1.0	Carrier	100 ml	0.1	9/19/2019	KI	9/12/2019
Effcheck 2.0	100 ppm NO2 Intermediate	100 mg/l	2.0	Carrier	100 ml	2.0	9/19/2019	KI	9/12/2019
ICV	100 ppm NO3 External	100 mg/l	2.0	Carrier	100 ml	2.0	9/19/2019	KI	9/12/2019

(a) Diluent reagent reference number_____Expiration Date_____

**Volume will change with standardization concentration.

Form: GN199-02
Rev. Date: 3/2/18

Analyst: KJ

Product: NO32

Pipette ID: 45

Prep Date: 9/16/19

Balance ID: _____

Batch ID: _____

NO32 Sample Prep Log

Sample ID	Initial Sample Amount	Final Volume	pH5-9
GP23681-B1	2mL 100ppm NO32	100mL carrier	yes
-S1	.5mL 100ppm	50mL JC94299-2	
-S2	↓	50mL JC94636-3	
GP23682-B1	2mL 100ppm NO32	100mL carrier	
-S1	.5mL 100ppm	50mL JC94634-18	
-S2	↓	50mL JC94557-5	
JC94299-2			
JC94883-1			
-3			
-4			
JC94636-3			
-4			
-8			
-11			
-12			
-13			
JC94957-1			
JC94517-1			
-2			
-3			
-4			
-5			
JC94537-1A			
JC94557-1			

Reviewer: _____

Date: _____

Form: GN166-05
Revised: 3/2/18

Analyst: KI

Product: NO32

Pipette ID: 45

Prep Date: 9/16/19

Balance ID: _____

Batch ID: _____

NO32 Sample Prep Log

Sample ID	Initial Sample Amount	Final Volume	pH 5-9
JC94557-2			yes
-3			
-4			
-5			
-6			
-7			
JC94565-6			
JC94634-18			
-19			
-20			
-21			
-22			
-23			
-24			
-25			
-26			
-27			
-28			
-29			
-30			

Reviewer: _____

Date: _____

Form: GN166-05
Revised: 3/2/18

SGS

Analyst KI Product N032 Autopipette # 45

Date 9/16/19 Batch ID Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
JC94883-4	1:20	1	20	
↓	1:40	1	40	

QC Reviewer: [signature] Date: 9/17/19

Form: GN165-01
Rev. Date: 2/25/03

SGS

Test: Nitrogen, Nitrite
Product: NO2
Method: SM4500NO2 B-11 (Aqueous) ◉ Units: mg/l
SM4500NO2 B-11 M (Solids) ○ mg/kg

Analyst: JO
GN Batch ID: GN99662
GP Batch ID: NA
Date: 9/7/2019
Instrument ID: N

Original Calibration Information Calibration Date: 7/26/2019

	Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7
Known:	0.000	0.010	0.025	0.050	0.075	0.100	0.200	
Absorbance	0 000	0 034	0 085	0 173	0.265	0 354	0.696	
Actual Value:	0 000	0.010	0 024	0 050	0 076	0 101	0.199	

Continuing Calibration Check Standards Data: 9/7/2019

	Blank	Std 1	Std 6
Known:	0.000	0.010	0.200
Absorbance:	0 000	0.035	0 699
	9/7/2019		
Recovery:	0 0%	100 3%	100 0%
Actual Value:		0 010	0 200

Correlation Coeff. = 0.99993
Slope = 0.28621
Intercept = 0.00001

Bottle #	Sample ID	Time Analyzed	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	DL	Units	Factor	pH between 5 and 9 (Y or N)
	ICV	13:00	50	50	1	0.351	NA	0.100	0.100	NA	mg/l	NA	
	CCV		50	50	1	0.350	NA	0.100	0.100	NA	mg/l	NA	
	GN99662-MB1		50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
	GN99662-B1		50	50	1	0 134	0.000	0.038	0.038	0.010	mg/l	1	Y
	GN99662-S1		50	50	1	0 146	0.000	0.042	0.042	0.010	mg/l	1	Y
	GN99662-D1		50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
5	JC94537-1A		50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
8	JC94606-1		50	50	1	0.315	0.000	0.090	0.090	0.010	mg/l	1	Y
8	JC94606-2		50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
8	JC94606-3		50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
8	JC94606-4		50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
			50	50	1								
	CCVA	13:10	50	50	1	0.699		0.200	0.200	NA	mg/l	NA	
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
	CCV		50	50	1					NA		NA	
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
	CCVA		50	50	1					NA		NA	

QC JC 94537-1A
BS/MS → 2.0ml of 1ppm → 50ml DI/Sample

Analyst: [signature] Date: 9/7/19 QC Reviewer: [signature] Date: 9/10/19

SGS

Test: **Nitrogen, Nitrite**
Product: **NO2**
Method: **SM18 4500 NO2B (aqueous)**
SM18 4500 NO2B M (solids)

Units: (mg/l) mg/kg

Analyst: TJO
GNBatch ID: GN99662
GPBatch ID: NA
Date: 9/7/19

Preparation Batch QC Summary Units = _____

Method Blank ID: MB1 Date: 9/7/19 Result: <0.01 DL: 0.01 <DL: Yes
Spike Blank ID: BI Date: " Result: 0.038 Spike: 0.04 %Rec: 95
Duplicate ID: JC94537-1 Samp. Result: <0.01 Dup. Result: <0.01 %RPD: 0
MS ID: " Samp. Result: <0.01 MS Result: 0.042 Spike: 0.04 %Rec: 105

Method Blank ID: _____ Date: _____ Result: _____ DL: _____ <DL: _____
Spike Blank ID: _____ Date: _____ Result: _____ Spike: _____ %Rec.: _____
Duplicate ID: _____ Samp. Result: _____ Dup. Result: _____ %RPD: _____
MS ID: _____ Samp. Result: _____ MS Result: _____ Spike: _____ %Rec: _____

Analysis Batch QC Summary Units = _____

ICV (Ext): 9/7/19 Result: 0.1 TV: 0.1 %Rec: 100

CCV : _____ Result: 0.1 TV: 0.1 %Rec.: 100
CCVA : _____ Result: 0.2 TV: 0.2 %Rec.: 100
CCV : _____ Result: _____ TV: _____ %Rec.: _____
CCVA : _____ Result: _____ TV: _____ %Rec.: _____
CCV : _____ Result: _____ TV: _____ %Rec.: _____
CCVA : _____ Result: _____ TV: _____ %Rec.: _____

CCB: _____ Result: _____ DL: _____ <DL: _____
CCB: _____ Result: _____ DL: _____ <DL: _____
CCB: _____ Result: _____ DL: _____ <DL: _____
CCB: _____ Result: _____ DL: _____ <DL: _____
CCB: _____ Result: _____ DL: _____ <DL: _____
CCB: _____ Result: _____ DL: _____ <DL: _____

Reagent Reference Numbers:

see attached

Analyst: [signature] Date: 9/7/19

Comments: _____

Form: GN032-01
Rev. Date:9/4/09]

GN99662

SGS

Reagent Information Log - Nitrite as Nitrogen

Reagent	Reagent # or Manufacturer/Lot
Calibration Source: 1000 mg/l nitrite stock (STD)	ERA LOT#190917 XP:9/30/2019
External Check (ICV)	ERA LOT #020518 XP: 5/30/2020
Spiking Solution Source (1 PPM)	ERA LOT#190917 XP:9/30/2019
Color Reagent	GNE8-58727-NO2 XP: 9/29/2019
NH4OH	FISHER 153331 XP:7/15/21

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN087A-42
Rev. Date:9/7/2019

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: NO2

GN or GP Number: GN99662

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume or weight used with units	Balance or Auto pipet ID (*)	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
(Std.) NO2 10 mg/L	ERA Lot 190917 Exp: sept2019	1000 mg/L	10.0 ml	A	DI water	100 ml	100 mg/L			
	NO2 10 mg/L	100 mg/L	10.0 ml	A	DI water	100 ml	10 mg/L	9/7/2019	JO	9/7/2019
(External)NO2 10 mg/L	ERA Lot 020518 Exp MAY-2020	100 mg/L	1.0 ml	A	DI water	100 ml	1 mg/L	9/7/2019	JO	9/7/2019
	NO2 10 mg/L									

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Balance or Auto pipet ID (*)	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
0.2 mg/L	1.0 mg/L(ERA #190917)	1.0 mg/L	20.0 ml	A	DI water	100 ml	0.2 mg/L	9/7/2019	JO	9/7/2019
0.1 mg/L	1.0 mg/L(ERA #190917)	1.0 mg/L	10.0 ml		DI water	100 ml	0.1 mg/L			
0.075 mg/L	1.0 mg/L(ERA #190917)	1.0 mg/L	7.5 ml		DI water	100 ml	0.075 mg/L			
0.05 mg/L	1.0 mg/L(ERA #190917)	1.0 mg/L	5.0 ml		DI water	100 ml	0.05 mg/L			
0.025 mg/L	1.0 mg/L(ERA #190917)	1.0 mg/L	2.5 ml		DI water	100 ml	0.025 mg/L			
0.01 mg/L	1.0 mg/L(ERA #190917)	1.0 mg/L	1.0 ml	A	DI water	100 ml	0.01 mg/L	9/7/2019	JO	9/7/2019
0 mg/L	NA	NA	NA		NA	100 ml	NA	9/7/2019	JO	9/7/2019
CCV	1.0 mg/L(ERA #190917)	1.0 mg/L	10.0 ml		DI water	100 ml	0.1 mg/L	9/6/2019	CM	9/6/2019
CCVA	1.0 mg/L(ERA #190917)	1.0 mg/L	20.0 ml		DI water	100 ml	0.2 mg/L	9/6/2019	CM	9/6/2019
ICV	1.0 mg/L(ERA #02518)	1.0 mg/L	10.0 ml		DI water	100 ml	0.1 mg/L	9/6/2019	CM	9/6/2019

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Form: GN121-01
Rev. Date: 1/13/09

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: 219090901.TXT Date Analyzed: 09/09/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN99715

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: NV Date 9/10/19

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 9/10/19

Sequence: 219090901
Operator: chemistry

Printed: 9/10/2019 10:04:29 AM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\SEPTEMBER
Timebase: ACCUTEST_SYS#2
#Samples: 65

GN99715

Created: 9/9/2019 9:26:59 AM by chemistry
Last Update: 9/9/2019 12:07:53 PM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
1	BLANKCONF	1		Unknown	20.0	1.0000	Finished	9/9/2019 9:41:14 AM
2	STDA	2		Standard	20.0	1.0000	Finished	8/30/2019 10:58:49 AM
3	STDB	3		Standard	20.0	1.0000	Finished	8/30/2019 12:17:17 PM
4	STDC	4		Standard	20.0	1.0000	Finished	8/30/2019 12:40:47 PM
5	STDD	5		Standard	20.0	1.0000	Finished	8/30/2019 1:04:43 PM
6	STDE	6		Standard	20.0	1.0000	Finished	8/30/2019 1:28:39 PM
7	STDF	7		Standard	20.0	1.0000	Finished	8/30/2019 1:52:34 PM
8	STDG	8		Standard	20.0	1.0000	Finished	8/30/2019 2:16:30 PM
9	ICV	2		Unknown	20.0	1.0000	Finished	9/9/2019 10:04:54 AM
10	CCV	3		Unknown	20.0	1.0000	Finished	9/9/2019 10:28:50 AM
11	CCB	4		Unknown	20.0	1.0000	Finished	9/9/2019 10:52:46 AM
12	MB	5		Unknown	20.0	1.0000	Finished	9/9/2019 11:16:41 AM
13	BSP	6		Unknown	20.0	1.0000	Finished	9/9/2019 11:40:36 AM
14	JC94184-1	7		Unknown	20.0	10.0000	Finished	9/9/2019 12:06:55 PM
15	JC94184-2	8		Unknown	20.0	10.0000	Finished	9/9/2019 12:30:29 PM
16	JC94184-3	9		Unknown	20.0	10.0000	Finished	9/9/2019 1:04:00 PM
17	JC94184-4	10		Unknown	20.0	10.0000	Finished	9/9/2019 1:27:35 PM
18	JC94184-5	11		Unknown	20.0	10.0000	Finished	9/9/2019 1:51:30 PM
19	JC94184-6	12		Unknown	20.0	10.0000	Finished	9/9/2019 2:15:27 PM
20	GP23537-S1	13	JC94330-1	Unknown	20.0	10.0000	Finished	9/9/2019 2:39:23 PM
21	GP23537-D1	14	JC94330-1	Unknown	20.0	10.0000	Finished	9/9/2019 3:03:18 PM
22	CCV	15		Unknown	20.0	1.0000	Finished	9/9/2019 3:27:14 PM
23	CCB	16		Unknown	20.0	1.0000	Finished	9/9/2019 3:51:10 PM
24	JC94330-1	17		Unknown	20.0	10.0000	Finished	9/9/2019 4:15:06 PM
25	JC94330-2	18		Unknown	20.0	10.0000	Finished	9/9/2019 4:39:02 PM
26	JC94330-3	19		Unknown	20.0	10.0000	Finished	9/9/2019 5:02:57 PM
27	GP23537-S2	20	JC94330-4	Unknown	20.0	10.0000	Finished	9/9/2019 5:26:53 PM
28	JC94330-4	21		Unknown	20.0	10.0000	Finished	9/9/2019 5:50:48 PM
29	JC94399-1	22		Unknown	20.0	10.0000	Finished	9/9/2019 6:14:43 PM
30	JC94399-2	23		Unknown	20.0	10.0000	Finished	9/9/2019 6:38:38 PM
31	JC94399-3	24		Unknown	20.0	10.0000	Finished	9/9/2019 7:02:34 PM
32	JC94399-4	25		Unknown	20.0	10.0000	Finished	9/9/2019 7:26:29 PM
33	JC94399-5	26		Unknown	20.0	10.0000	Finished	9/9/2019 7:50:25 PM
34	CCV	27		Unknown	20.0	1.0000	Finished	9/9/2019 8:14:20 PM
35	CCB	28		Unknown	20.0	1.0000	Finished	9/9/2019 8:38:16 PM
36	JC94399-6	29		Unknown	20.0	10.0000	Finished	9/9/2019 9:02:11 PM
37	MB	30		Unknown	20.0	1.0000	Finished	9/9/2019 9:26:07 PM
38	BSP	31		Unknown	20.0	1.0000	Finished	9/9/2019 9:50:02 PM
39	GP23538-S1	32	JC94517-1	Unknown	20.0	10.0000	Finished	9/9/2019 10:13:58 PM
40	GP23538-D1	33	JC94517-1	Unknown	20.0	10.0000	Finished	9/9/2019 10:37:53 PM
41	JC94517-1	34		Unknown	20.0	10.0000	Finished	9/9/2019 11:01:48 PM
42	JC94517-2	35		Unknown	20.0	10.0000	Finished	9/9/2019 11:25:44 PM

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Sequence: 219090901
Operator: chemistry

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\SEPTEMBER
Timebase: ACCUTEST_SYS#2
#Samples: 65

Created: 9/9/2019 9:26:59 AM by chemistry
Last Update: 9/9/2019 12:07:53 PM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
43	JC94517-3	36		Unknown	20.0	10.0000	Finished	9/9/2019 11:49:39 PM
44	JC94517-4	37		Unknown	20.0	10.0000	Finished	9/10/2019 12:13:36 AM
45	JC94517-5	38		Unknown	20.0	10.0000	Finished	9/10/2019 12:37:31 AM
46	CCV	39		Unknown	20.0	1.0000	Finished	9/10/2019 1:01:26 AM
47	CCB	40		Unknown	20.0	1.0000	Finished	9/10/2019 1:25:22 AM
48	JC94560-1	41		Unknown	20.0	3.0000	Finished	9/10/2019 1:49:17 AM
49	JC94560-2	42		Unknown	20.0	3.0000	Finished	9/10/2019 2:13:14 AM
50	JC94560-3	43		Unknown	20.0	2.0000	Finished	9/10/2019 2:37:09 AM
51	JC94335-1	44		Unknown	20.0	3.0000	Finished	9/10/2019 3:01:05 AM
52	GP23513-S1	45	JC94336-1	Unknown	20.0	40.0000	Finished	9/10/2019 3:25:01 AM
53	GP23513-D1	46	JC94336-1	Unknown	20.0	20.0000	Finished	9/10/2019 3:48:56 AM
54	JC94336-1	47		Unknown	20.0	20.0000	Finished	9/10/2019 4:12:52 AM
55	JC94419-1	48		Unknown	20.0	3.0000	Finished	9/10/2019 4:36:47 AM
56	JC94419-4	49		Unknown	20.0	3.0000	Finished	9/10/2019 5:00:42 AM
57	JC94472-1	50		Unknown	20.0	3.0000	Finished	9/10/2019 5:24:38 AM
58	CCV	1		Unknown	20.0	1.0000	Finished	9/10/2019 5:48:35 AM
59	CCB	2		Unknown	20.0	1.0000	Finished	9/10/2019 6:12:30 AM
60	JC94472-2	3		Unknown	20.0	3.0000	Finished	9/10/2019 6:36:25 AM
61	JC94473-1	4		Unknown	20.0	10.0000	Finished	9/10/2019 7:00:21 AM
62	JC94473-3	5		Unknown	20.0	10.0000	Finished	9/10/2019 7:24:16 AM
63	CCV	6		Unknown	20.0	1.0000	Finished	9/10/2019 7:48:11 AM
64	CCB	7		Unknown	20.0	1.0000	Finished	9/10/2019 8:12:08 AM
65	STANDBY	8		Unknown	20.0	1.0000	Finished	9/10/2019 8:36:04 AM

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Sequence: 219090901
Operator: chemistry

Printed: 9/9/2019 12:07:56 PM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\SEPTEMBER
Timebase: ACCUTEST_SYS#2
#Samples: 65

GN99715

Created: 9/9/2019 9:26:59 AM by chemistry
Last Update: 9/9/2019 12:07:53 PM by chemistry

No.	Name	Bot #	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
1	BLANKCONF		1		Unknown	20.0	1.0000	Finished	9/9/2019 9:41:14 AM
2	STDA		2		Standard	20.0	1.0000	Finished	8/30/2019 10:58:49 AM
3	STDB		3		Standard	20.0	1.0000	Finished	8/30/2019 12:17:17 PM
4	STDC		4		Standard	20.0	1.0000	Finished	8/30/2019 12:40:47 PM
5	STDD		5		Standard	20.0	1.0000	Finished	8/30/2019 1:04:43 PM
6	STDE		6		Standard	20.0	1.0000	Finished	8/30/2019 1:28:39 PM
7	STDF		7		Standard	20.0	1.0000	Finished	8/30/2019 1:52:34 PM
8	STDG		8		Standard	20.0	1.0000	Finished	8/30/2019 2:16:30 PM
9	ICV		2		Unknown	20.0	1.0000	Finished	9/9/2019 10:04:54 AM
10	CCV		3		Unknown	20.0	1.0000	Finished	9/9/2019 10:28:50 AM
11	CCB		4		Unknown	20.0	1.0000	Finished	9/9/2019 10:52:46 AM
12	MB		5		Unknown	20.0	1.0000	Finished	9/9/2019 11:16:41 AM
13	BSP		6		Unknown	20.0	1.0000	Finished	9/9/2019 11:40:36 AM
	JC94184-1	4	7		Unknown	20.0	10.0000	Running	9/9/2019 12:06:55 PM
15	JC94184-2	4	8		Unknown	20.0	10.0000	Single	
16	JC94184-3	4	9		Unknown	20.0	10.0000	Single	
17	JC94184-4	4	10		Unknown	20.0	10.0000	Single	
18	JC94184-5	4	11		Unknown	20.0	10.0000	Single	
19	JC94184-6	4	12		Unknown	20.0	10.0000	Single	
20	GP23537-S1	11	13	JC94330-1	Unknown	20.0	10.0000	Single	
21	GP23537-D1	11	14	JC94330-1	Unknown	20.0	10.0000	Single	
22	CCV		15		Unknown	20.0	1.0000	Single	
23	CCB		16		Unknown	20.0	1.0000	Single	
24	JC94330-1	11	17		Unknown	20.0	10.0000	Single	
25	JC94330-2	4	18		Unknown	20.0	10.0000	Single	
26	JC94330-3	4	19		Unknown	20.0	10.0000	Single	
27	GP23537-S2	4	20	JC94330-4	Unknown	20.0	10.0000	Single	
28	JC94330-4	4	21		Unknown	20.0	10.0000	Single	
29	JC94399-1	7	22		Unknown	20.0	10.0000	Single	
30	JC94399-2	7	23		Unknown	20.0	10.0000	Single	
31	JC94399-3	7	24		Unknown	20.0	10.0000	Single	
32	JC94399-4	7	25		Unknown	20.0	10.0000	Single	
33	JC94399-5	7	26		Unknown	20.0	10.0000	Single	
34	CCV		27		Unknown	20.0	1.0000	Single	
35	CCB		28		Unknown	20.0	1.0000	Single	
36	JC94399-6	7	29		Unknown	20.0	10.0000	Single	
37	MB		30		Unknown	20.0	1.0000	Single	
38	BSP		31		Unknown	20.0	1.0000	Single	
39	GP23538-S1	9	32	JC94517-1	Unknown	20.0	10.0000	Single	
40	GP23538-D1	9	33	JC94517-1	Unknown	20.0	10.0000	Single	
41	JC94517-1	9	34		Unknown	20.0	10.0000	Single	
42	JC94517-2	8	35		Unknown	20.0	10.0000	Single	

GP23537 (1)

GP23538 (1)

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9.4

Sequence: 219090901
Operator: chemistry Printed: 9/9/2019 11:59:36 AM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\SEPTEMBER
Timebase: ACCUTEST_SYS#2 Created: 9/9/2019 9:26:59 AM by chemistry
#Samples: 65 Last Update: 9/9/2019 11:59:27 AM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
43	JC94517-3	36		Unknown	20.0	10.0000	Single	
44	JC94517-4	37		Unknown	20.0	10.0000	Single	
45	JC94517-5	38		Unknown	20.0	10.0000	Single	
46	CCV	39		Unknown	20.0	1.0000	Single	
47	CCB	40		Unknown	20.0	1.0000	Single	
48	JC94560-1	41		Unknown	20.0	3.0000	Single	
49	JC94560-2	42		Unknown	20.0	3.0000	Single	
50	JC94560-3	43		Unknown	20.0	2.0000	Single	
51	JC94335-1	44		Unknown	20.0	3.0000	Single	
52	GP23513-S1	45	JC94336-1	Unknown	20.0	40.0000	Single	
53	GP23513-D1	46	JC94336-1	Unknown	20.0	20.0000	Single	
54	JC94336-1	47		Unknown	20.0	20.0000	Single	
55	JC94419-1	48		Unknown	20.0	3.0000	Single	
56	JC94419-4	49		Unknown	20.0	3.0000	Single	
57	JC94472-1	50		Unknown	20.0	3.0000	Single	
58	CCV	1		Unknown	20.0	1.0000	Single	
59	CCB	2		Unknown	20.0	1.0000	Single	
60	JC94472-2	3		Unknown	20.0	3.0000	Single	
61	JC94473-1	4		Unknown	20.0	10.0000	Single	
62	JC94473-3	5		Unknown	20.0	10.0000	Single	
63	CCV	6		Unknown	20.0	1.0000	Single	
64	CCB	7		Unknown	20.0	1.0000	Single	
65	STANDBY	8		Unknown	20.0	1.0000	Single	

GP23510 (2)

GP23513 (2)

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SGS

Analyst NV

Product Cn1, So4, Bro

Pipette ID 42

Prep Date 9/9/19

Balance ID NA

Batch ID GN99715

Sample Prep Log

Sample ID	Initial Sample Amount	(mL) Final Volume
BSP	0.5mL spiking solution	50

9/10/19

Form: GN166-02
Rev Date 8/5/05

QC Review

Analyst NV Product CN1 Autopipette # 42

Date 9/9/19 Batch ID GN99715 Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
JC94560-1	1:3	10	30	CN1
JC94560-2	1:3	10	30	CN1
JC94560-3	1:2	10	20	CN1
JC94335-1	1:3	10	30	CN1
GP23513-S1	1:40	1	40	CN1 JC94336-1 + 0.4ml spike
GP23513-D1	1:20	1	20	CN1 JC94336-1
JC94336-1	1:20	1	20	CN1 ~~JC~~ NV 9/9/19
JC94419-1	1:3	10	30	CN1
JC94419-4	1:3	10	30	CN1
JC94472-1	1:3	10	30	CN1
JC94472-2	1:3	10	30	CN1
JC94473-1	1:10	5	50	CN1
JC94473 3	1:10	5	50	CN1

QC Reviewer: Date: 9/10/19

Form: GN165-01
Rev. Date: 2/25/03

Analyst NV Product Cl, SO4, Br Autopipette # 42

Date 9/9/19 Batch ID GN99715 Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
JC94184-1	1:10	5	50	difficult matrix
JC94184-2	1:10	5	50	difficult matrix
JC94184-3	1:10	5	50	difficult matrix
JC94184-4	1:10	5	50	difficult matrix
JC94184-5	1:10	5	50	difficult matrix
JC94184-6	1:10	5	50	difficult matrix
GP23537-S1	1:10	5	50	difficult matrix JC94330-1 +0.5 mL spike
GP23537-D1	1:10	5	50	difficult matrix JC94330-1
JC94330-1	1:10	5	50	difficult matrix
JC94330-2	1:10	5	50	difficult matrix
JC94330-3	1:10	5	50	difficult matrix
GP23537-S2	1:10	5	50	difficult matrix JC94330-4 +0.5 mL spike
JC94330-4	1:10	5	50	difficult matrix
JC94399-1	1:10	5	50	difficult matrix
JC94399-2	1:10	5	50	difficult matrix
JC94399-3	1:10	5	50	difficult matrix
JC94399-4	1:10	5	50	difficult matrix
JC94399-5	1:10	5	50	difficult matrix
JC94399-6	1:10	5	50	difficult matrix

9/10/19

Form: GN165-01
Rev. Date: 2/25/03

Analyst NV Product CN1, Sal, Bro Autopipette # 42

Date 9/9/19 Batch ID GN99715 Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
GP23538-S1	1:10	5	50	difficult matrix JC94517-1 +0.5 mL spike
GP23538-D1	1:10	5	50	difficult matrix JC94517-1
JC94517-1	1:10	5	50	difficult matrix
JC94517-2	1:10	5	50	difficult matrix
JC94517-3	1:10	5	50	difficult matrix
JC94517-4	1:10	5	50	difficult matrix
JC94517-5	1:10	5	50	difficult matrix

9/10/19

Form: GN165-01
Rev. Date: 2/25/03

SGS

Reagent Information Log - IONC IC2 - Water /Soil

GN Batch ID#: GN99715

Reagent	Reagent # or Manufacturer/Lot	Exp. Date
Standard Intermediate (for Calibration Curve)	GN18-476-207	9/13/2019
Standard Intermediate (for Calibration Curve)		
ICV	GN18-479-68	9/13/2019
Eluent	190332638010	3/26/2021
Standard Intermediate (for Working std/Spikes)	GN18-476-207	9/13/2019
Standard Intermediate (for Working std/Spikes)		
CCV		
Spiking Solution Intermediate (CHL/SO4)		
Spiking Solution Intermediate (F/BRO)		
Spiking Solution (SOUP)		
Filter lot numbers	GREENWOOD #180111044	NA

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

see attached reagent log

Form : GN087A-76
Rev. Date: 4/7/09

9.4

9

REAGENT LOG

GN99715

Spiking Solution Intermediate

	weight (g)	Lot #	Manufacturer	Concentation (mg/L)	Expiration Date	Diluent	Final volume (ml)	Expiration Date	Date
Sodium Chloride	6.594	158655	Fisher	1600	11/14/2022	DI Water	250	9/30/2019	8/30/2019
Potassium Sulfate	7.256	171510	Fisher		1/22/2023			9/30/2019	8/30/2019

Spiking Solution Intermediate

	weight (g)	lot #	Manufacturer	Concentation (mg/L)	Expiration Date	Diluent	Final volume (ml)	Expiration Date (std)	Date
Sodium Bromide	0.1287	148758	Fisher	400	9/18/2020	DI Water	250	9/30/2019	8/30/2019
Sodium Fluoride	0.221	164105	Fisher		10/7/2021			9/30/2019	8/30/2019
Sodium Nitrite	0.4926	154757	Fisher		10/16/2020			9/30/2019	8/30/2019
Sodium Nitrate	0.6068	149397	Fisher		9/18/2020			9/30/2019	8/30/2019
Potassium Phosphate	0.4344	161265	Fisher		1/19/2022			9/30/2019	8/30/2019

Spiking Solution

	Stock Concentation (mg/L)	Stock Expiration Date	Volume Added (ml)	Diluent	Final Volume (ml)	STD Concentration (mg/L)	Expiration Date (std)	Date
Chloride/Sulfate Intermediate	16000	9/30/2019	50	DI Water	100	8000	9/13/2019	9/6/2019
F/No2/No3/OPO 4/Bro Intermedaite	400	9/30/2019	50			200	9/13/2019	9/6/2019

GN99715

REAGENT LOG

Std Intermediate #1

	Volume Added (ml)	Conc. (mg/L)	Stock Reagent Reference Number	Stock Expiration Date	Diluent	Final Volume (ml)	Expiration Date	Date
Fluoride	10	100	GN18-476-202	9/30/2019	DI Water	100	9/13/2019	9/6/2019
Nitrite	10	100	GN18-476-204	9/30/2019			9/13/2019	9/6/2019
Nitrate	10	100	GN18-476-203	9/30/2019			9/13/2019	9/6/2019
Potassium Phosphate	10	100	GN18-476-205	9/30/2019			9/13/2019	9/6/2019

Std Intermediate Bromide

	Volume Added (ml)	Conc. (mg/L)	Stock Reagent Reference Number	Stock Expiration Date	Diluent	Final Volume (ml)	Expiration Date	Date
Bromide	10	100	GN18-476-201	9/30/2019	DI Water	100	9/13/2019	9/6/2019

Std Intermediate #2

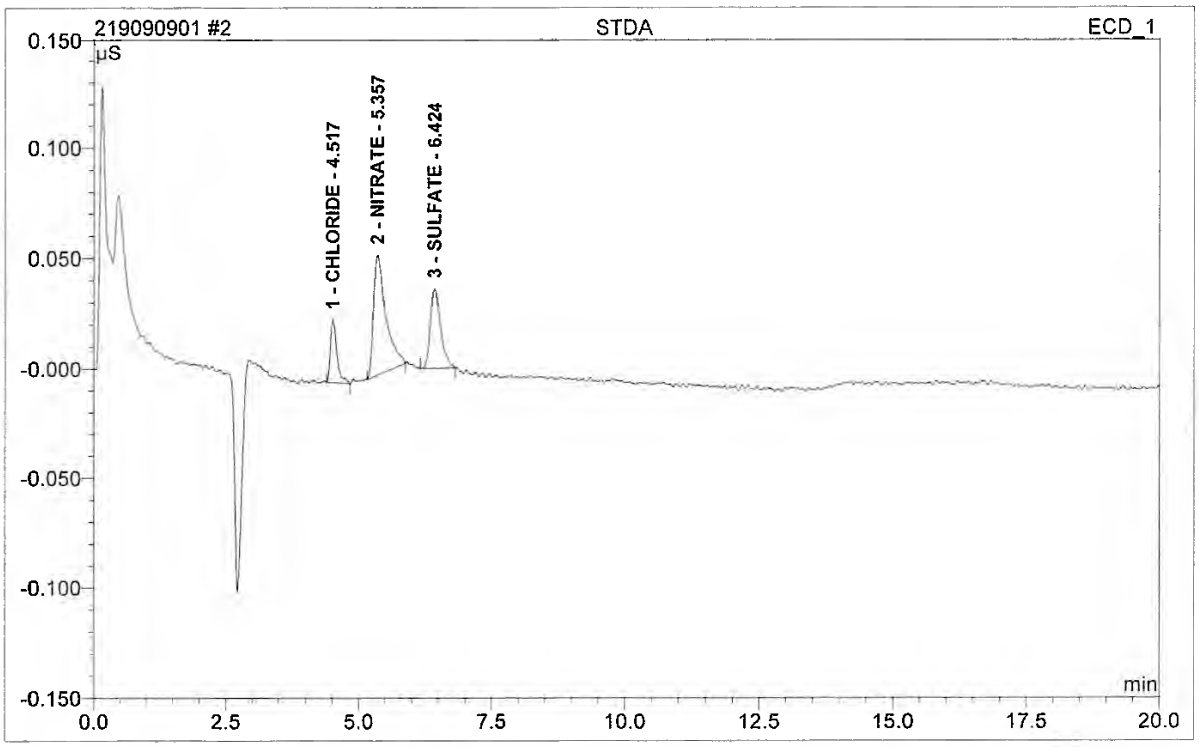
	Volume Added (ml)	Conc. (mg/L)	Stock Reagent Reference Number	Stock Expiration Date	Diluent	Final Volume (ml)	Expiration Date	Date
Std Intermediate #2	20	20	Std Intermediate #1	9/6/2019	DI Water	100	9/13/2019	9/6/2019

CCV

	Stock used	Stock Expiration Date	Volume added (ml)	Diluent	Final Volume (ml)	Concentation (mg/L)	Expiration Date	Date
CCV	4000 ppm Chl/SO4	9/30/2019	10	DI Water	200	200	9/13/2019	9/6/2019
	20 ppm std intermediate #2	9/13/2019	30			3	9/13/2019	9/6/2019
	100 ppm Bro	9/13/2019	6			3	9/13/2019	9/6/2019

2 STDA

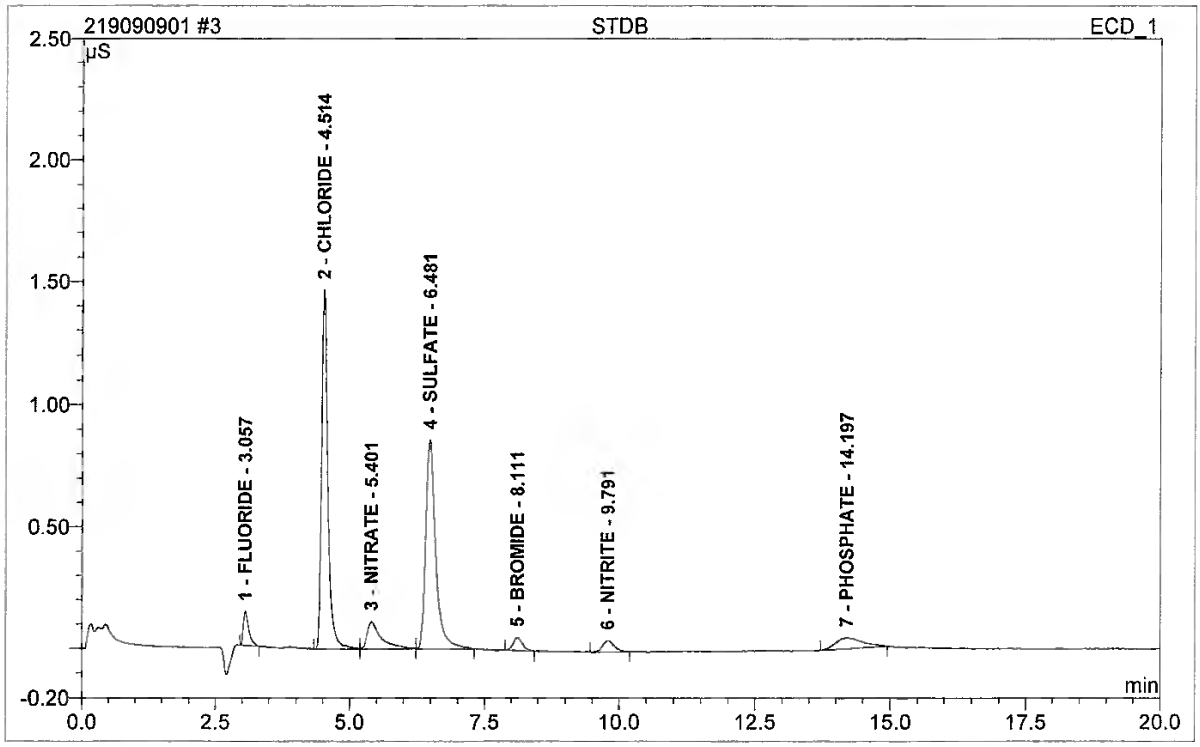
Sample Name:	**STDA**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 10:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.52	CHLORIDE	0.028	0.004	15.33	0.014	BMB
2	5.36	NITRATE	0.054	0.015	54.61	0.024	BMB
3	6.42	SULFATE	0.036	0.008	30.06	0.038	BMB
Total:			0.118	0.027	100.00	0.076	

3 STDB

Sample Name:	**STDB**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 12:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	FLUORIDE	0.141	0.017	3.45	0.036	BMB
2	4.51	CHLORIDE	1.468	0.199	41.26	0.693	BM
3	5.40	NITRATE	0.113	0.035	7.17	0.056	M
4	6.48	SULFATE	0.861	0.184	38.02	0.864	MB
5	8.11	BROMIDE	0.053	0.011	2.26	0.100	BMB
6	9.79	NITRITE	0.047	0.012	2.45	0.017	BMB
7	14.20	PHOSPHATE	0.046	0.026	5.39	0.087	BMB
Total:			2.730	0.483	100.00	1.853	

anions/Integration

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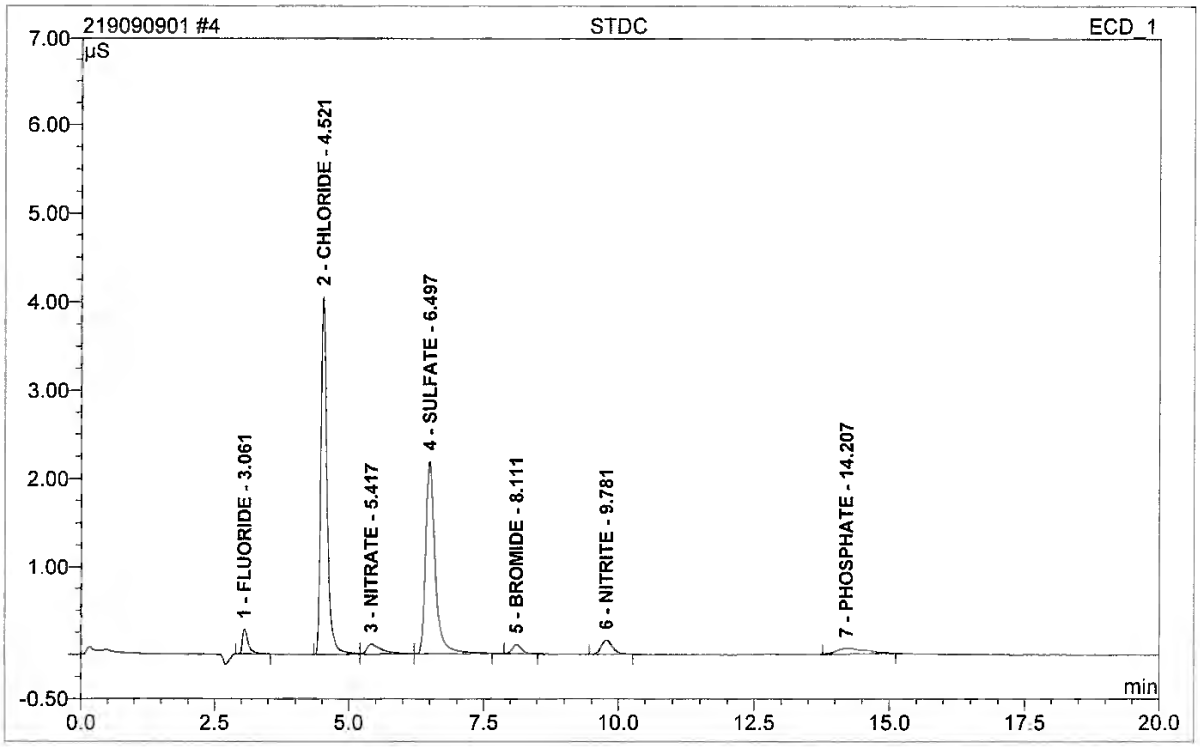
Version 6.80 SR9a Build 2680 (163077)

4 STDC

Sample Name:	**STDC**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 12:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	FLUORIDE	0.278	0.035	2.99	0.076	BMB
2	4.52	CHLORIDE	4.055	0.541	46.36	1.879	BM
3	5.42	NITRATE	0.115	0.038	3.24	0.061	M
4	6.50	SULFATE	2.191	0.450	38.60	2.119	MB
5	8.11	BROMIDE	0.102	0.021	1.80	0.192	BMB
6	9.78	NITRITE	0.159	0.039	3.36	0.057	BMB
7	14.21	PHOSPHATE	0.068	0.043	3.66	0.142	BMB
Total:			6.969	1.167	100.00	4.525	

anions/Integration

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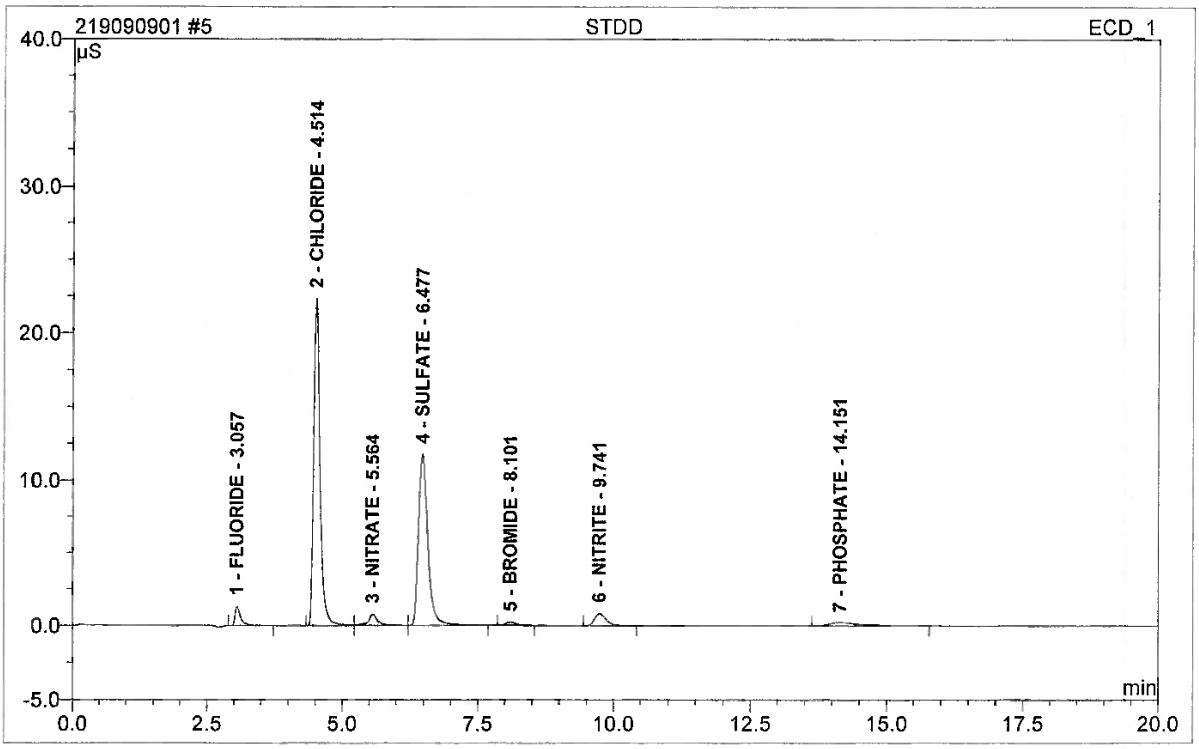
Version 6.80 SR9a Build 2680 (163077)

5 STDD

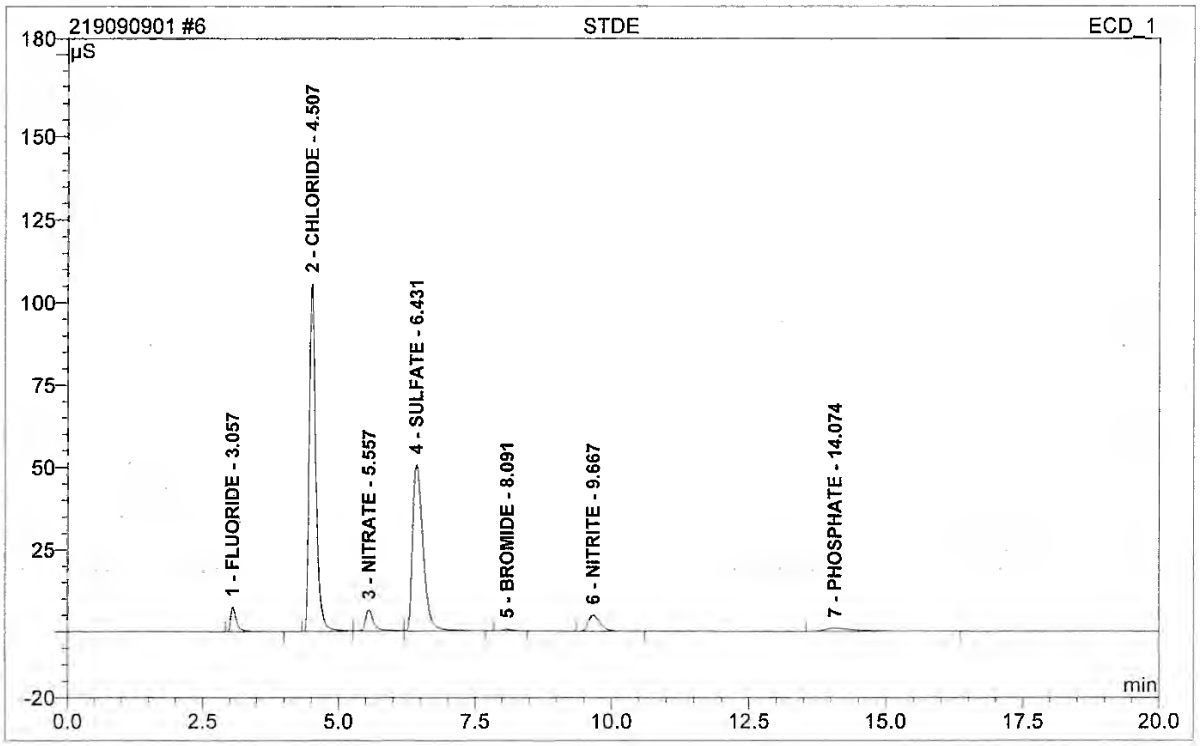
Sample Name:	**STDD**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 13:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	FLUORIDE	1.296	0.159	2.60	0.343	BMB
2	4.51	CHLORIDE	22.290	3.031	49.67	10.529	BM
3	5.56	NITRATE	0.786	0.163	2.67	0.262	M
4	6.48	SULFATE	11.765	2.346	38.44	11.033	MB
5	8.10	BROMIDE	0.215	0.044	0.72	0.402	BMB
6	9.74	NITRITE	0.839	0.207	3.38	0.298	BMB
7	14.15	PHOSPHATE	0.231	0.154	2.52	0.513	BMB
Total:			37.422	6.103	100.00	23.380	

6 STDE

Sample Name:	**STDE**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 13:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	FLUORIDE	7.435	0.919	3.04	1.987	BMB
2	4.51	CHLORIDE	105.662	14.919	49.38	51.822	BM
3	5.56	NITRATE	6.437	1.204	3.98	1.938	M
4	6.43	SULFATE	50.598	11.223	37.15	52.785	MB
5	8.09	BROMIDE	0.473	0.095	0.31	0.868	BMB
6	9.67	NITRITE	4.873	1.244	4.12	1.794	BMB
7	14.07	PHOSPHATE	0.963	0.609	2.02	2.030	BMB
Total:			176.441	30.213	100.00	113.223	

anions/Integration

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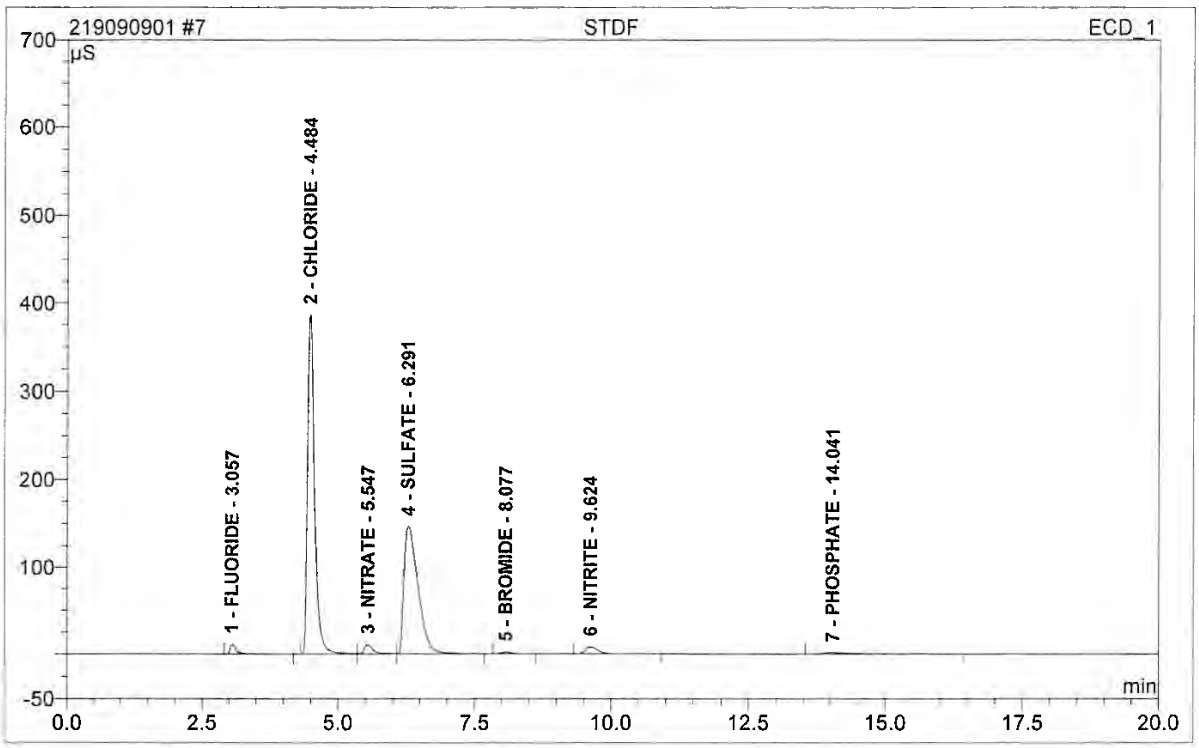
Version 6.80 SR9a Build 2680 (163077)

7 STDF

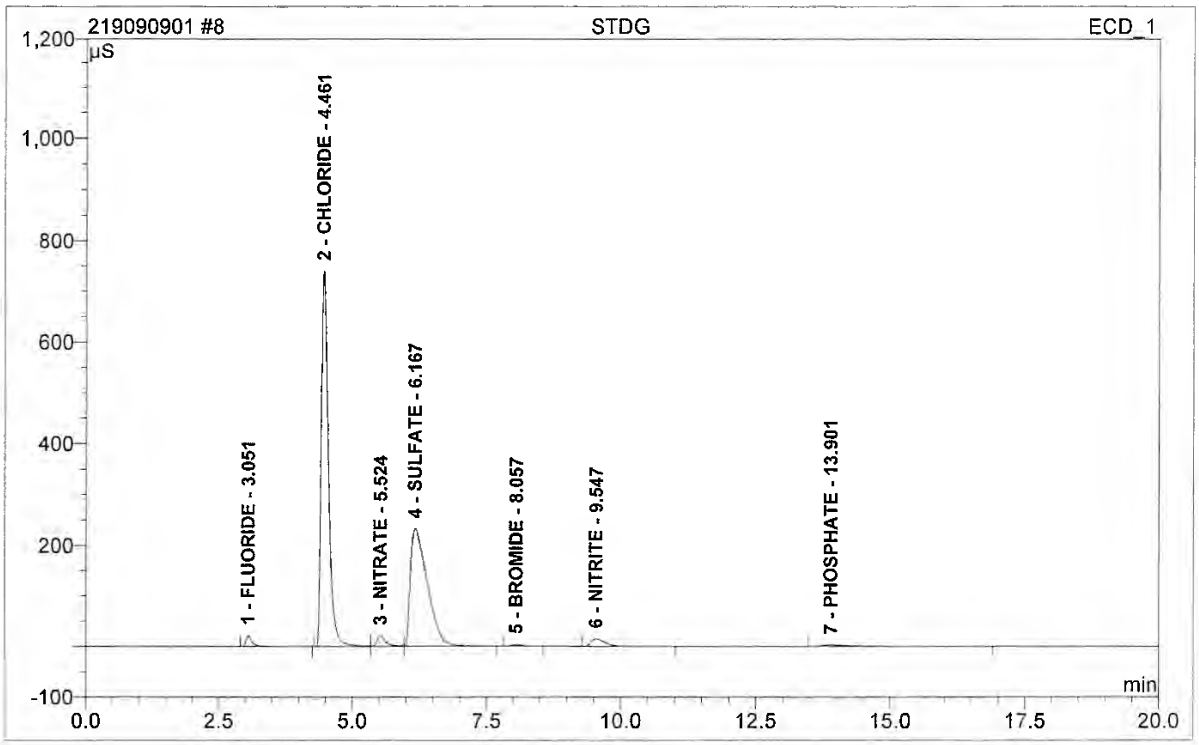
Sample Name:	**STDF**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 13:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



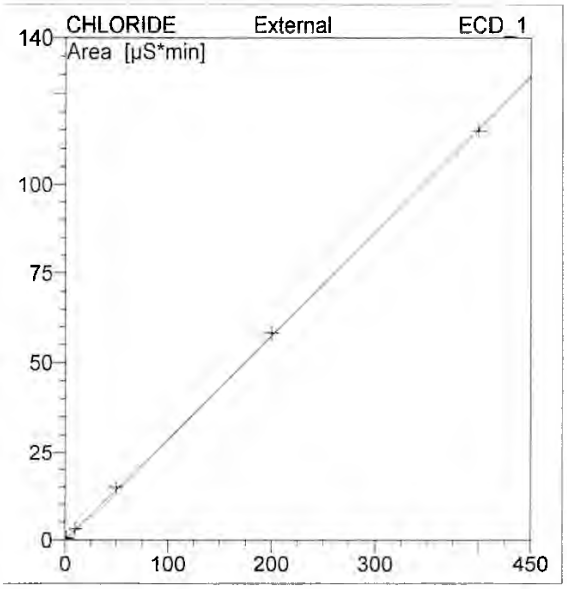
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	FLUORIDE	10.843	1.383	1.28	2.990	BMB
2	4.48	CHLORIDE	386.133	58.221	53.85	202.229	BM
3	5.55	NITRATE	10.358	1.876	1.74	3.021	M
4	6.29	SULFATE	146.331	43.336	40.09	203.821	MB
5	8.08	BROMIDE	1.562	0.311	0.29	2.850	BMB
6	9.62	NITRITE	7.737	2.069	1.91	2.983	BMB
7	14.04	PHOSPHATE	1.441	0.913	0.84	3.045	BMB
Total:			564.404	108.109	100.00	420.938	

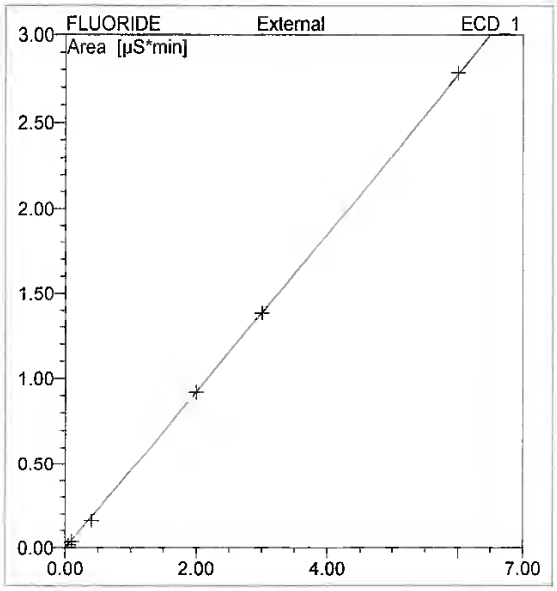
8 STDG

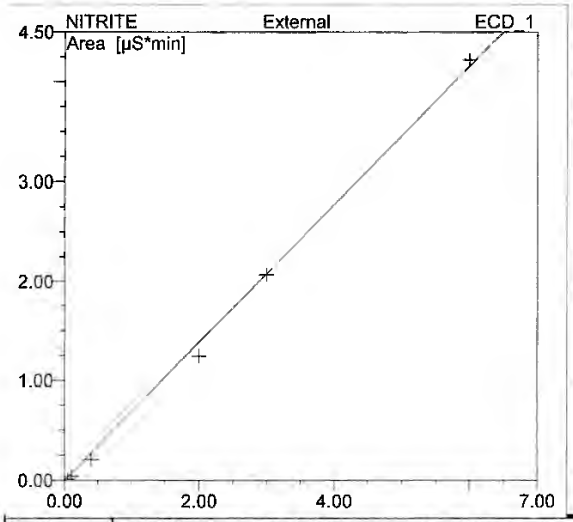
Sample Name:	**STDG**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 14:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

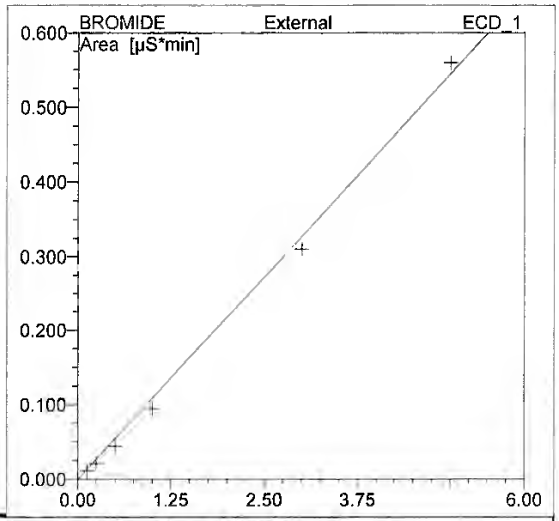


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	FLUORIDE	20.625	2.781	1.31	6.014	BMB
2	4.46	CHLORIDE	739.341	114.768	54.03	398.645	BM
3	5.52	NITRATE	19.856	3.740	1.76	6.020	M
4	6.17	SULFATE	232.125	84.561	39.81	397.714	MB
5	8.06	BROMIDE	2.792	0.559	0.26	5.130	BMB
6	9.55	NITRITE	14.349	4.221	1.99	6.085	BMB
7	13.90	PHOSPHATE	2.673	1.787	0.84	5.959	BMB
Total:			1031.760	212.418	100.00	825.567	

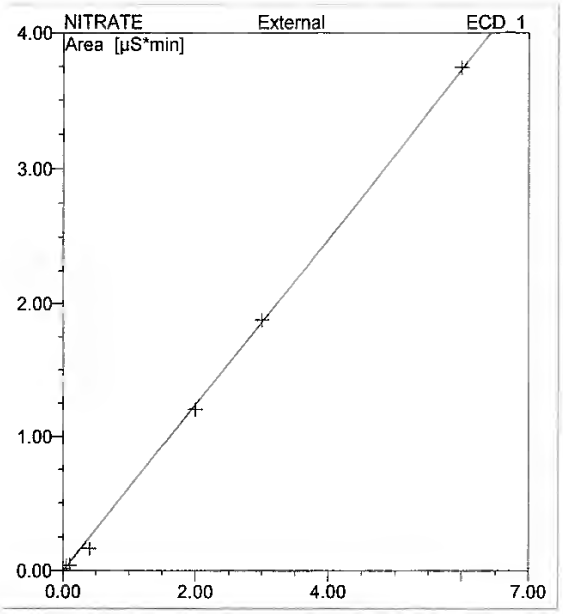


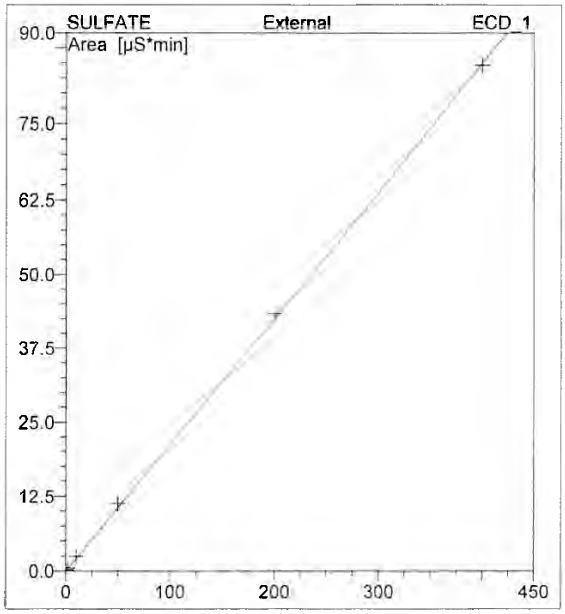


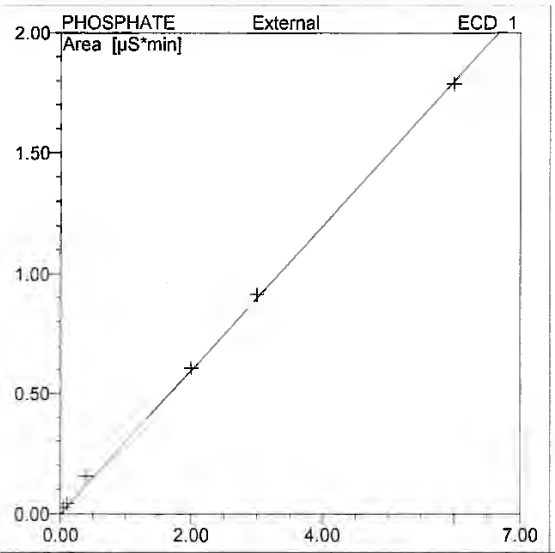




No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	3.05	FLUORIDE	Lin	6	99.9979	0.0000	0.4624	0.0000
2	4.46	CHLORIDE	Lin	7	99.9971	0.0000	0.2879	0.0000
3	5.52	NITRATE	Lin	7	99.9689	0.0000	0.6212	0.0000
4	6.17	SULFATE	Lin	7	99.9922	0.0000	0.2126	0.0000
5	8.06	BROMIDE	Lin	6	99.9105	0.0000	0.1090	0.0000
6	9.55	NITRITE	Lin	6	99.9414	0.0000	0.6937	0.0000
7	13.90	PHOSPHATE	Lin	6	99.9906	0.0000	0.3000	0.0000
Average:					99.9712	0.0000	0.3838	0.0000



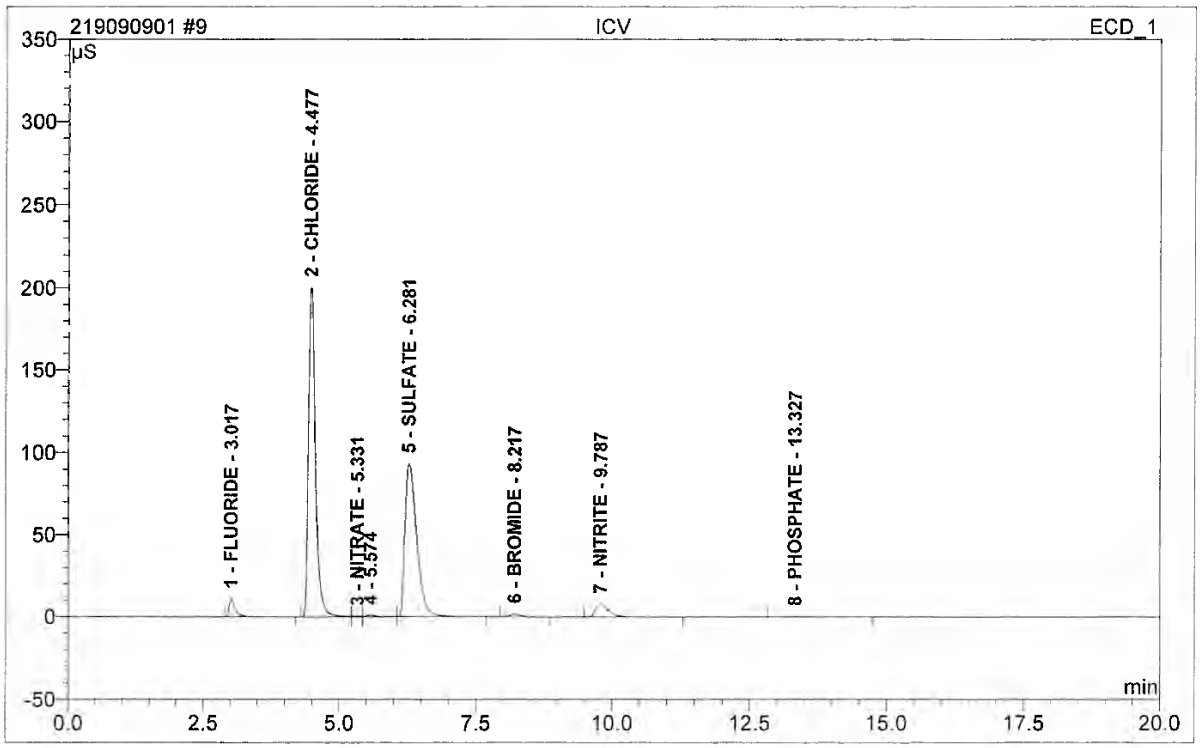




No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	3.05	FLUORIDE	Lin	6	99.9979	0.0000	0.4624	0.0000
2	4.46	CHLORIDE	Lin	7	99.9971	0.0000	0.2879	0.0000
3	5.52	NITRATE	Lin	7	99.9689	0.0000	0.6212	0.0000
4	6.17	SULFATE	Lin	7	99.9922	0.0000	0.2126	0.0000
5	8.06	BROMIDE	Lin	6	99.9105	0.0000	0.1090	0.0000
6	9.55	NITRITE	Lin	6	99.9414	0.0000	0.6937	0.0000
7	13.90	PHOSPHATE	Lin	6	99.9906	0.0000	0.3000	0.0000
Average:					99.9712	0.0000	0.3838	0.0000

9 ICV

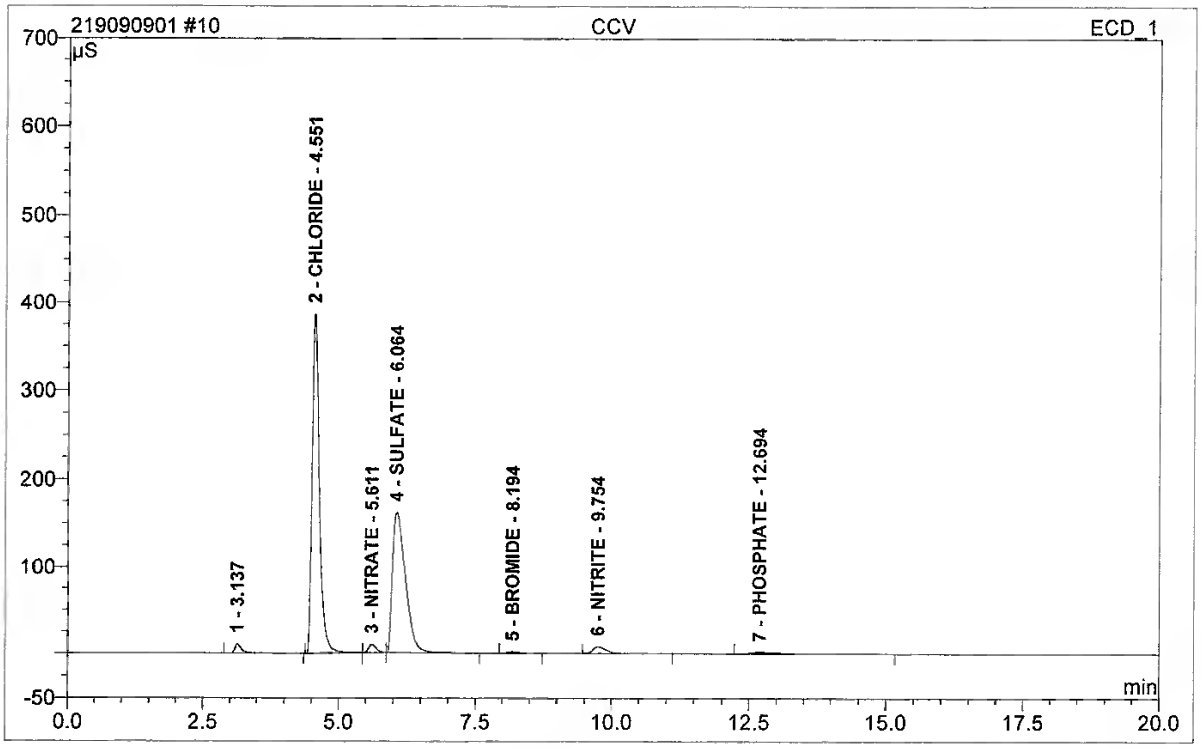
Sample Name:	**ICV**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/9/2019 10:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.02	FLUORIDE	10.767	1.471	2.55	3.181	BMB
2	4.48	CHLORIDE	200.014	30.099	52.16	104.548	BM
3	5.33	NITRATE	0.300	0.056	0.10	0.090	M
4	5.57	n.a.	1.105	0.223	0.39	n.a.	M
5	6.28	SULFATE	93.117	23.153	40.12	108.895	MB
6	8.22	BROMIDE	1.662	0.344	0.60	3.155	BMB
7	9.79	NITRITE	7.868	2.191	3.80	3.159	BMB
8	13.33	PHOSPHATE	0.293	0.169	0.29	0.563	BMB
Total:			315.126	57.707	100.00	223.591	

10 CCV

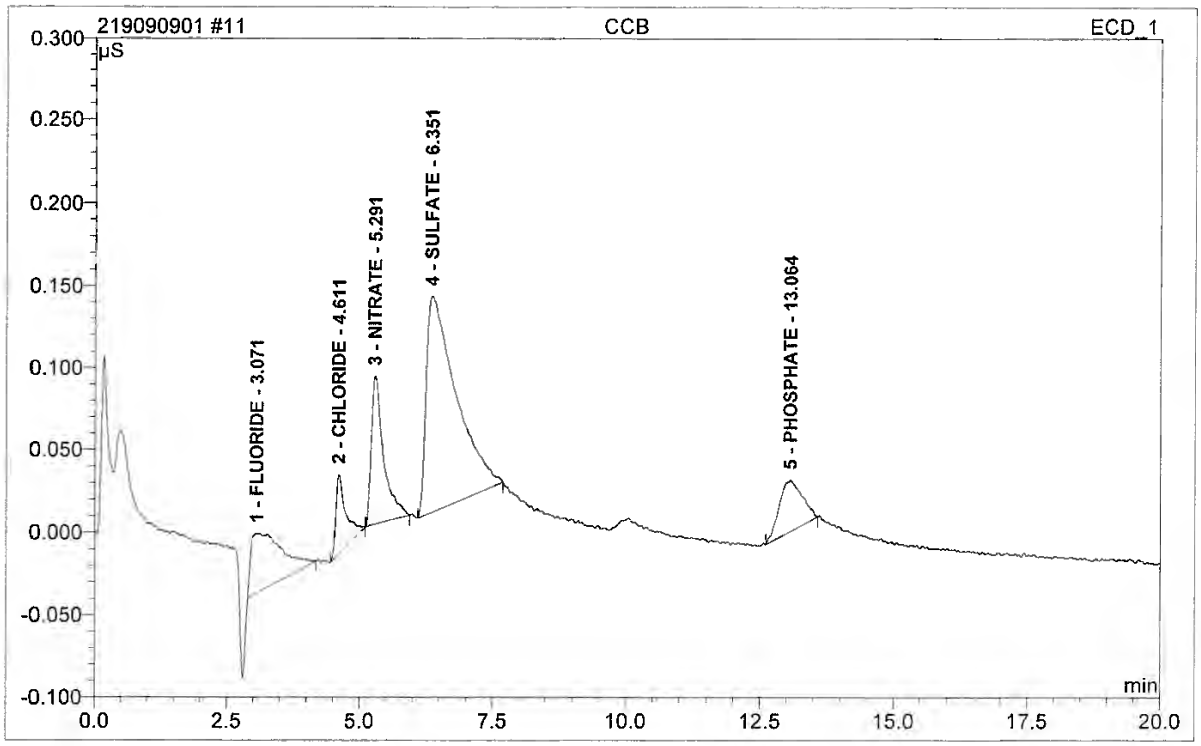
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/9/2019 10:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	10.756	1.502	1.35	n.a.	BMB
2	4.55	CHLORIDE	386.901	60.042	54.05	208.556	BMB
3	5.61	NITRATE	9.822	1.574	1.42	2.534	BMb
4	6.06	SULFATE	161.715	44.344	39.92	208.563	bMB
5	8.19	BROMIDE	1.648	0.340	0.31	3.121	BMB
6	9.75	NITRITE	7.974	2.224	2.00	3.206	BMB
7	12.69	PHOSPHATE	1.826	1.056	0.95	3.519	BMB
Total:			580.642	111.082	100.00	429.499	

11 CCB

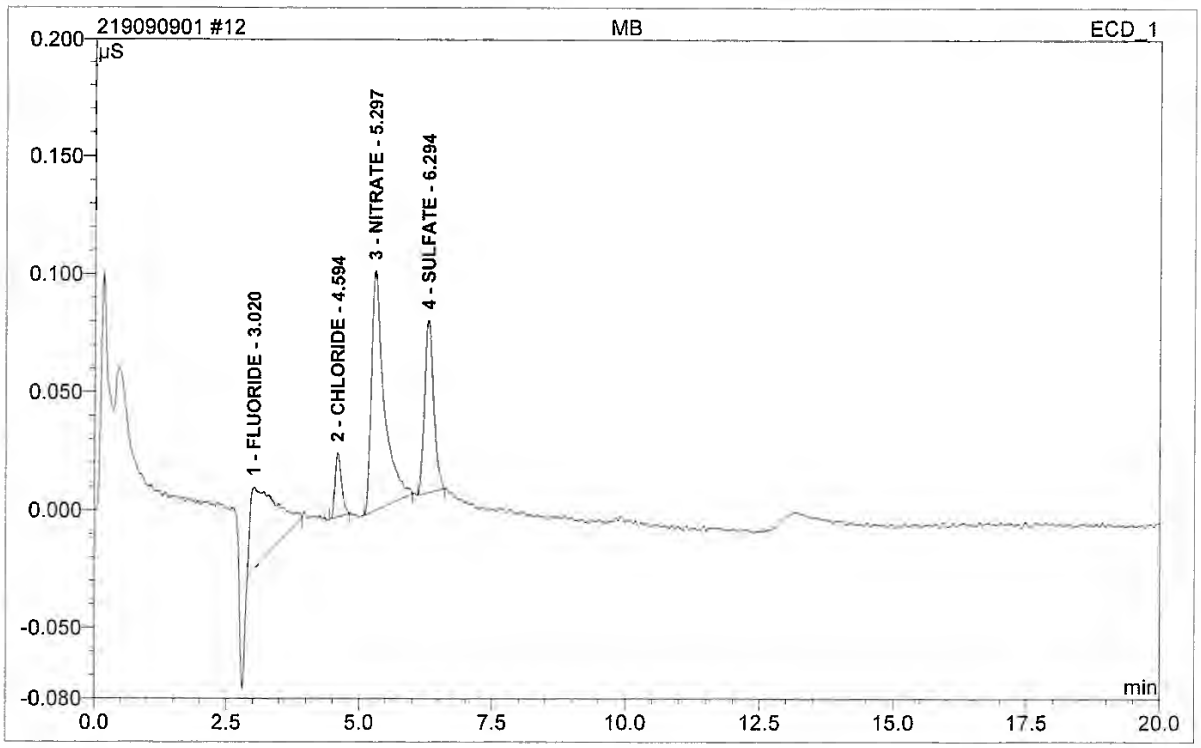
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/9/2019 10:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.07	FLUORIDE	0.036	0.023	14.49	0.049	BMB
2	4.61	CHLORIDE	0.048	0.010	6.58	0.036	BMB
3	5.29	NITRATE	0.090	0.024	15.44	0.039	BMB
4	6.35	SULFATE	0.131	0.084	53.57	0.395	BMB
5	13.06	PHOSPHATE	0.031	0.016	9.93	0.052	BMB
Total:			0.335	0.157	100.00	0.570	

12 MB

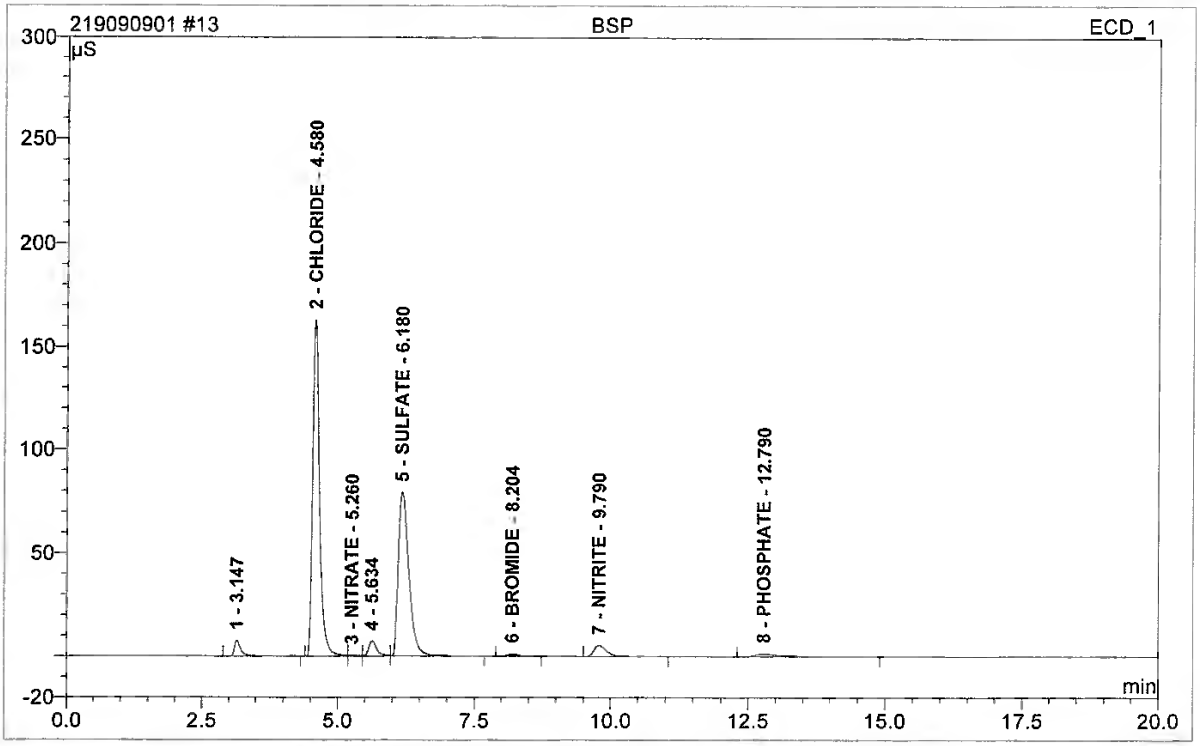
Sample Name:	**MB**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/9/2019 11:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.02	FLUORIDE	0.035	0.018	27.87	0.039	BMB
2	4.59	CHLORIDE	0.027	0.004	5.84	0.013	BMB
3	5.30	NITRATE	0.102	0.028	43.88	0.045	BMB
4	6.29	SULFATE	0.073	0.014	22.42	0.068	BMB
Total:			0.236	0.064	100.00	0.165	

13 BSP

Sample Name:	**BSP**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/9/2019 11:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



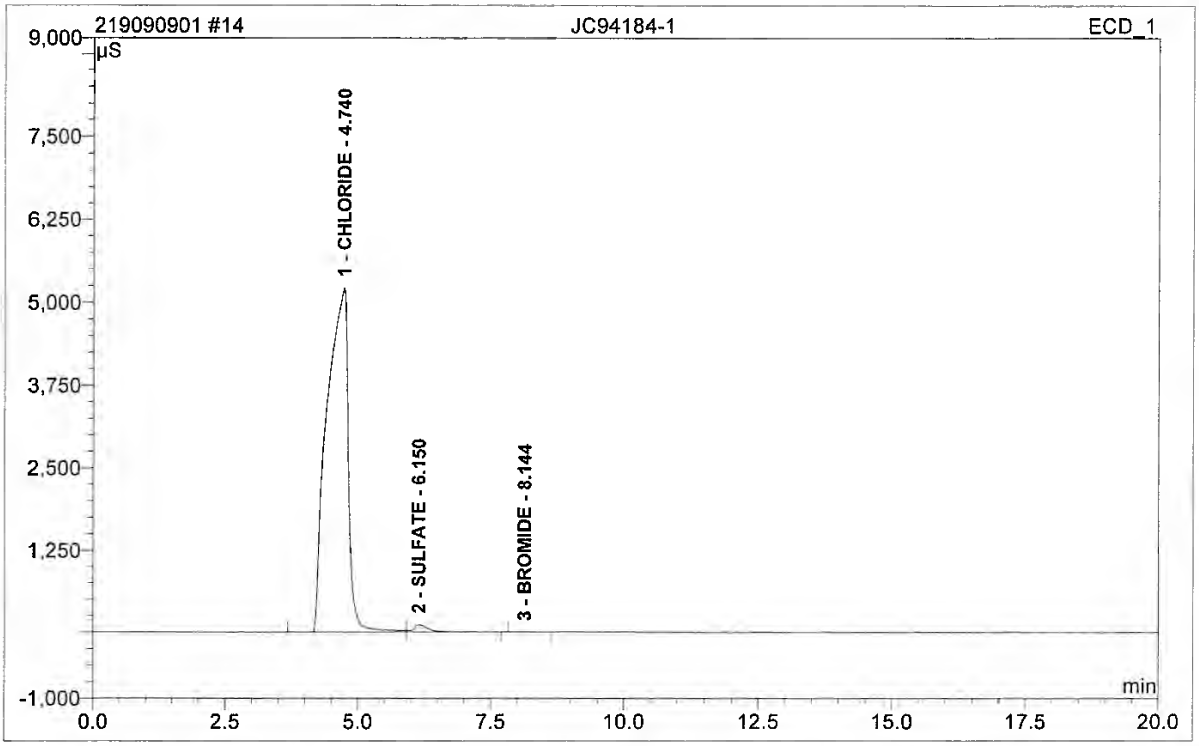
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	7.538	1.017	2.17	n.a.	BMB
2	4.58	CHLORIDE	162.850	24.044	51.39	83.515	BM
3	5.26	NITRATE	0.383	0.085	0.18	0.137	M
4	5.63	n.a.	7.312	1.277	2.73	n.a.	M
5	6.18	SULFATE	79.312	18.027	38.53	84.786	MB
6	8.20	BROMIDE	1.054	0.216	0.46	1.985	BMB
7	9.79	NITRITE	5.287	1.409	3.01	2.031	BMB
8	12.79	PHOSPHATE	1.266	0.709	1.52	2.365	BMB
Total:			265.002	46.785	100.00	174.820	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14 JC94184-1

Sample Name:	**JC94184-1**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 12:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



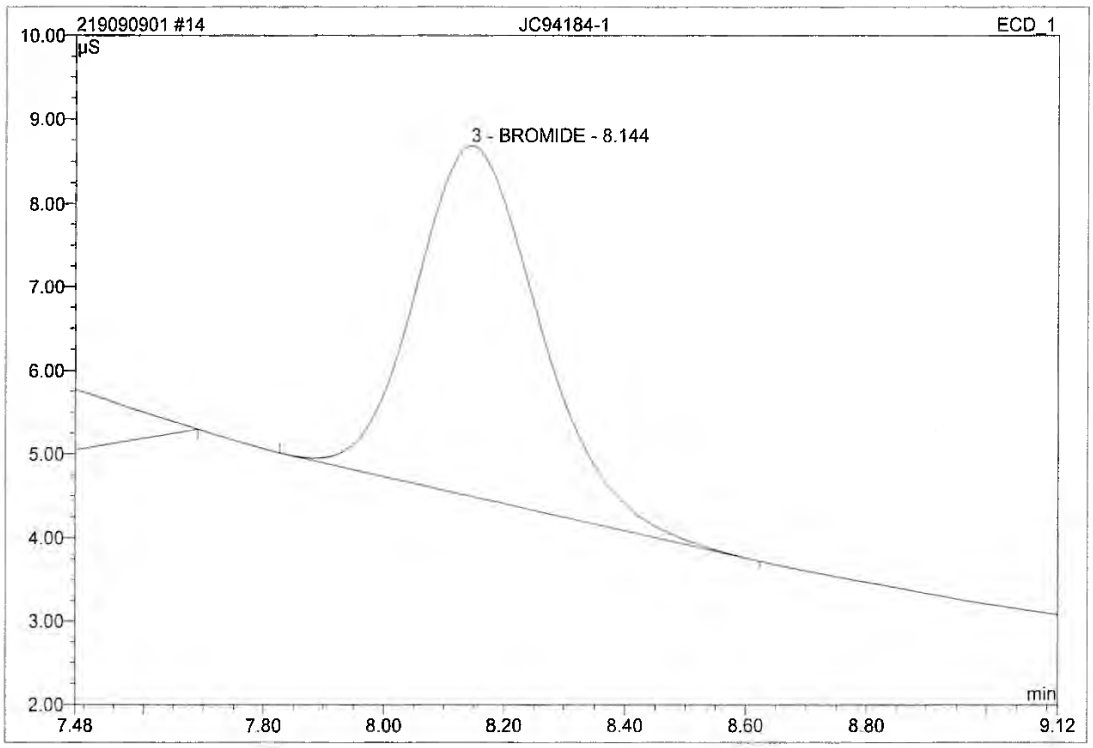
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.74	CHLORIDE	5216.109	2439.804	98.50	84746.350	BM
2	6.15	SULFATE	115.711	36.165	1.46	1700.930	MB
3	8.14	BROMIDE	4.185	1.006	0.04	92.301	BMB
Total:			5336.005	2476.976	100.00	86539.580	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

9/10/2019 9:57 AM

14 JC94184-1

Sample Name:	**JC94184-1**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 12:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



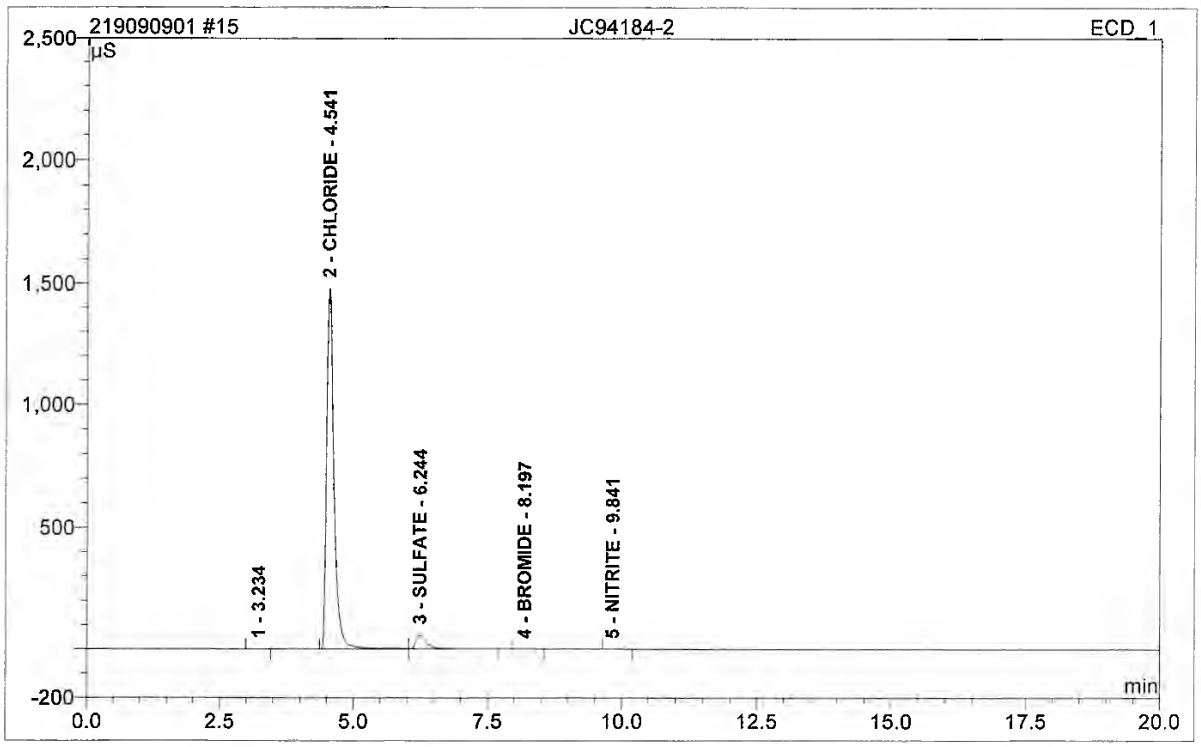
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.74	CHLORIDE	5216.109	2439.804	98.50	#########	BM
2	6.15	SULFATE	115.711	36.165	1.46	1700.930	MB
3	8.14	BROMIDE	4.185	1.006	0.04	92.301	BMB
Total:			5336.005	2476.976	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

15 JC94184-2

Sample Name:	**JC94184-2**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 12:30**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

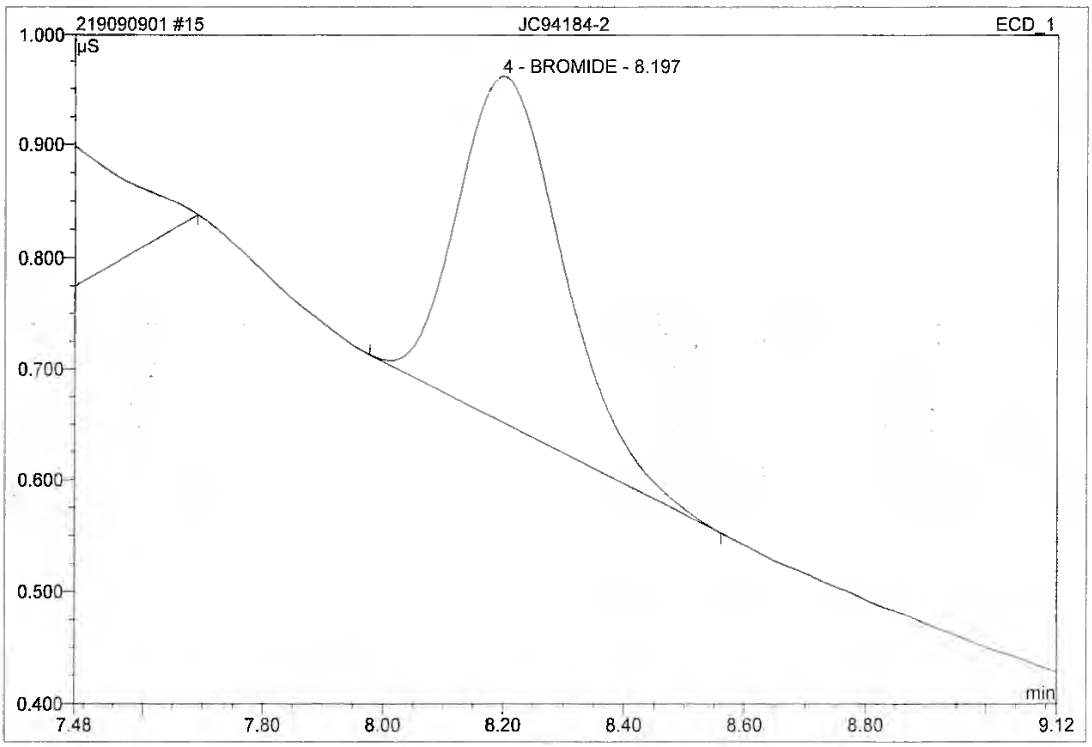


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	n.a.	0.045	0.008	0.00	n.a.	BMB
2	4.54	CHLORIDE	1479.224	236.237	94.50	8205.679	BM
3	6.24	SULFATE	58.306	13.676	5.47	643.223	MB
4	8.20	BROMIDE	0.309	0.063	0.03	5.815	BMB
5	9.84	NITRITE	0.025	0.007	0.00	0.098	BMB
Total:			1537.909	249.991	100.00	8854.815	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

15 JC94184-2

Sample Name:	**JC94184-2**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 12:30**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



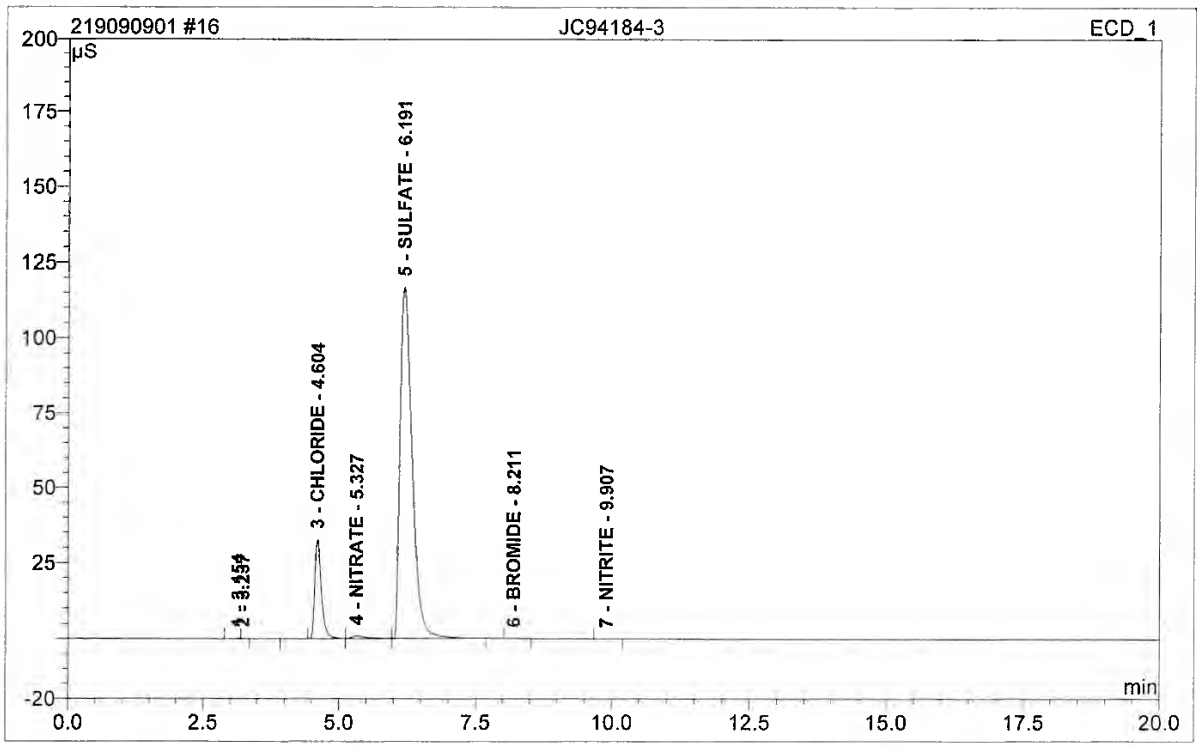
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	n.a.	0.045	0.008	0.00	n.a.	BMB
2	4.54	CHLORIDE	1479.224	236.237	94.50	8205.679	BM
3	6.24	SULFATE	58.306	13.676	5.47	643.223	MB
4	8.20	BROMIDE	0.309	0.063	0.03	5.815	BMB
5	9.84	NITRITE	0.025	0.007	0.00	0.098	BMB
Total:			1537.909	249.991	100.00	8854.815	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

16 JC94184-3

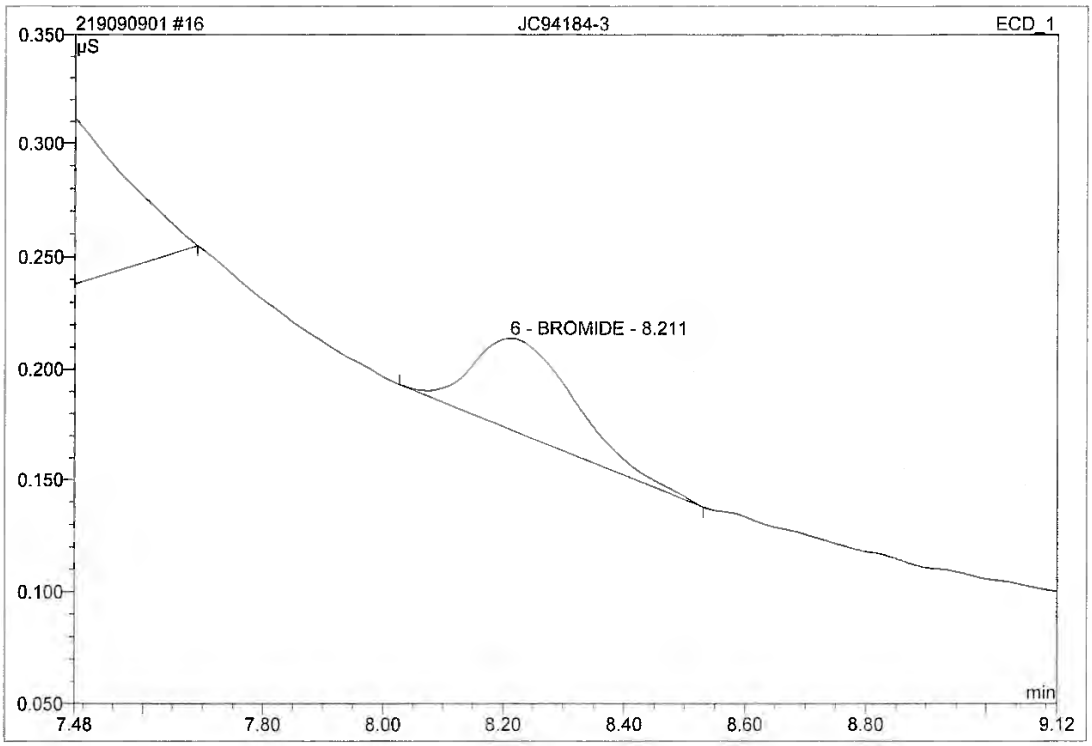
Sample Name:	**JC94184-3**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 13:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	0.076	0.028	0.08	n.a.	BMB
2	3.24	n.a.	0.015	0.001	0.00	n.a.	Rd
3	4.60	CHLORIDE	32.585	4.581	13.20	159.132	BM
4	5.33	NITRATE	0.899	0.306	0.88	4.920	M
5	6.19	SULFATE	116.747	29.767	85.79	1400.012	MB
6	8.21	BROMIDE	0.041	0.008	0.02	0.762	BMB
7	9.91	NITRITE	0.024	0.006	0.02	0.082	BMB
Total:			150.387	34.697	100.00	1564.907	

16 JC94184-3

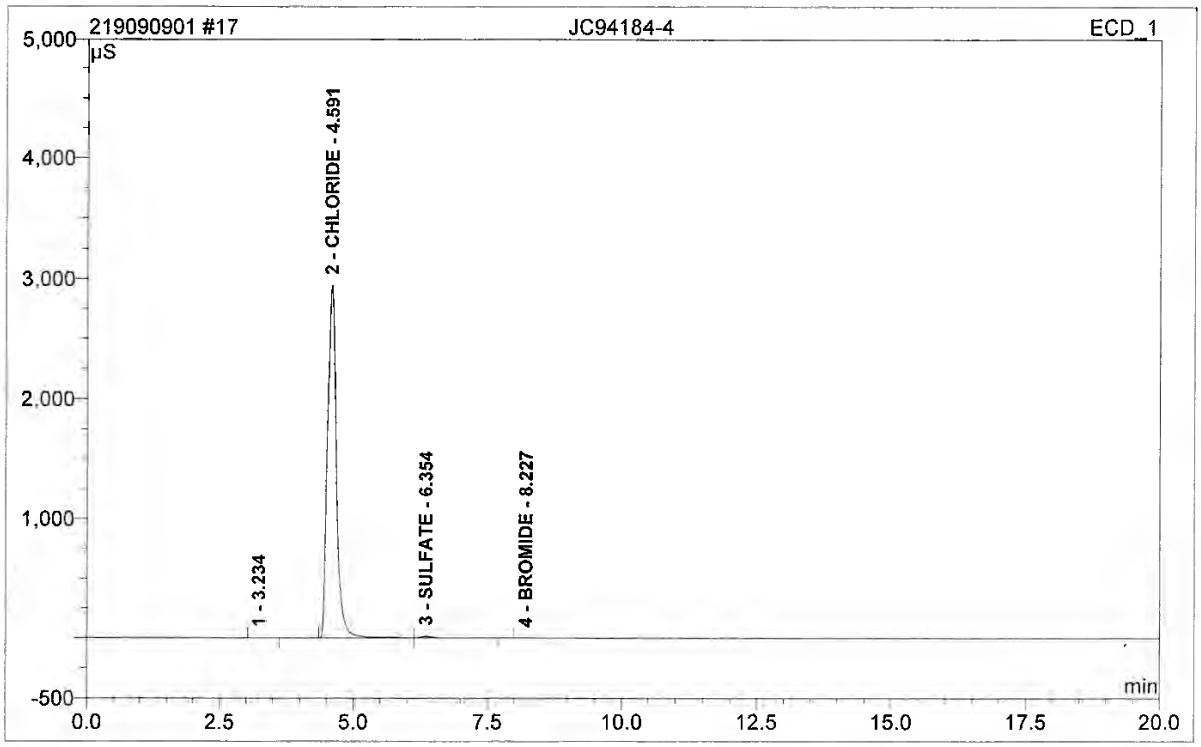
Sample Name:	**JC94184-3**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 13:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	0.076	0.028	0.08	n.a.	BMB
2	3.24	n.a.	0.015	0.001	0.00	n.a.	Rd
3	4.60	CHLORIDE	32.585	4.581	13.20	159.132	BM
4	5.33	NITRATE	0.899	0.306	0.88	4.920	M
5	6.19	SULFATE	116.747	29.767	85.79	1400.012	MB
6	8.21	BROMIDE	0.041	0.008	0.02	0.762	BMB
7	9.91	NITRITE	0.024	0.006	0.02	0.082	BMB
Total:			150.387	34.697	100.00	1564.907	

17 JC94184-4

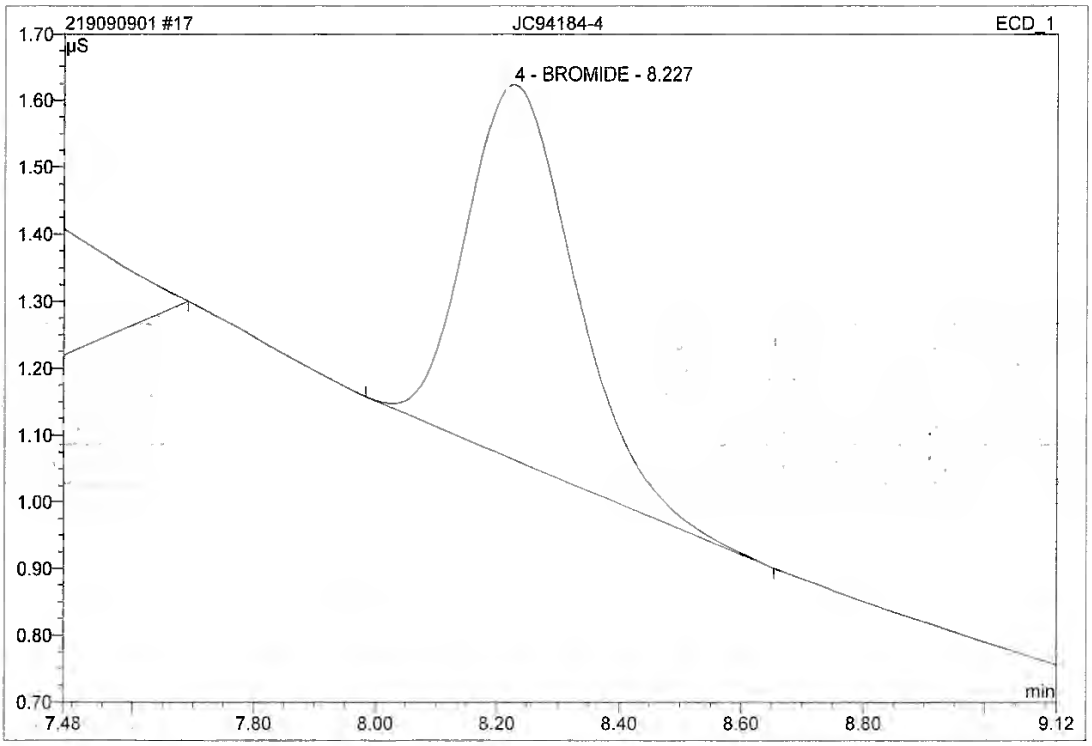
Sample Name:	**JC94184-4**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 13:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	n.a.	0.166	0.030	0.01	n.a.	BMB
2	4.59	CHLORIDE	2943.126	573.326	99.25	19914.415	BM
3	6.35	SULFATE	15.068	4.197	0.73	197.398	MB
4	8.23	BROMIDE	0.559	0.117	0.02	10.704	BMB
Total:			2958.920	577.670	100.00	20122.516	

17 JC94184-4

Sample Name:	**JC94184-4**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 13:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



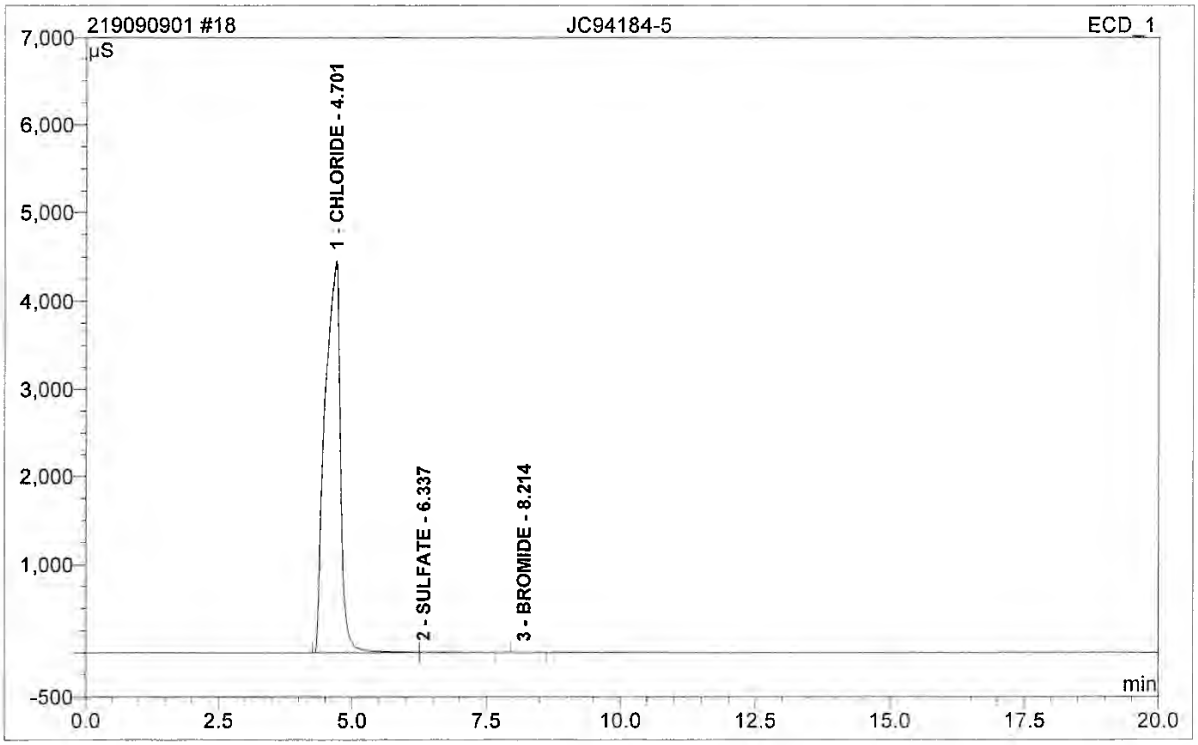
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	n.a.	0.166	0.030	0.01	n.a.	BMB
2	4.59	CHLORIDE	2943.126	573.326	99.25	#########	BM
3	6.35	SULFATE	15.068	4.197	0.73	197.398	MB
4	8.23	BROMIDE	0.559	0.117	0.02	10.704	BMB
Total:			2958.920	577.670	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

18 JC94184-5

Sample Name:	**JC94184-5**	*Injection Volume:*	**20.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 13:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



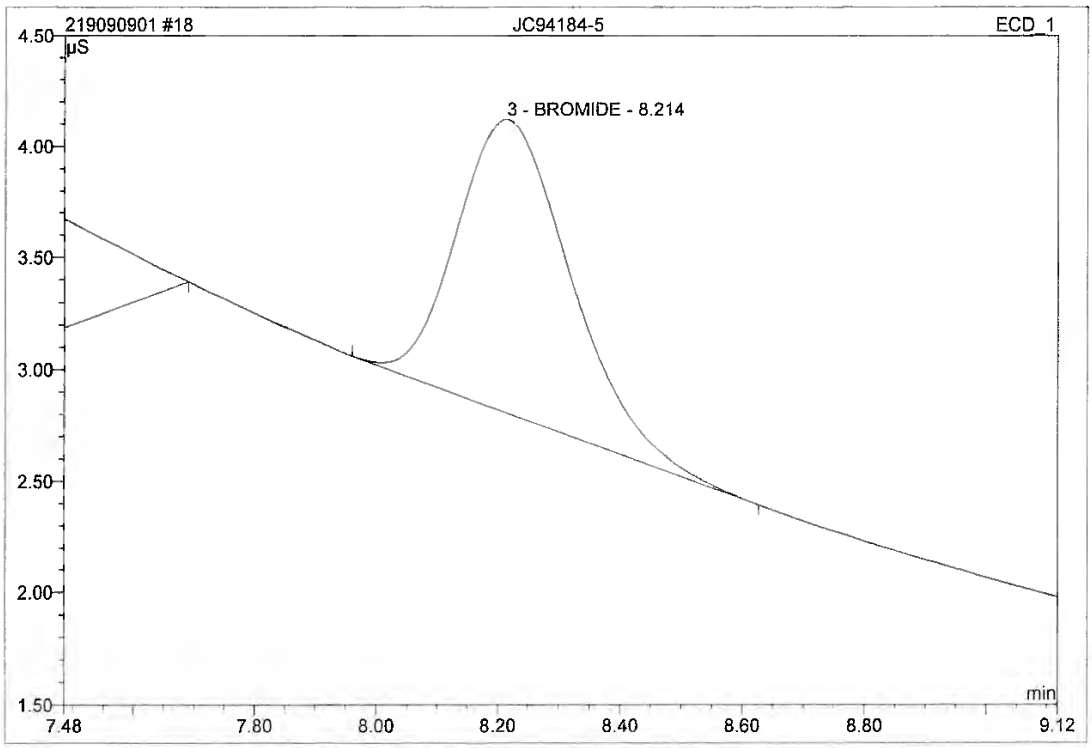
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.70	CHLORIDE	4458.641	1485.888	99.78	51612.178	BM
2	6.34	SULFATE	5.039	3.036	0.20	142.768	MB
3	8.21	BROMIDE	1.312	0.286	0.02	26.212	BMB
Total:			4464.992	1489.210	100.00	51781.158	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

9/10/2019 9:57 AM

18 JC94184-5

Sample Name:	**JC94184-5**	*Injection Volume:*	**20.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 13:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



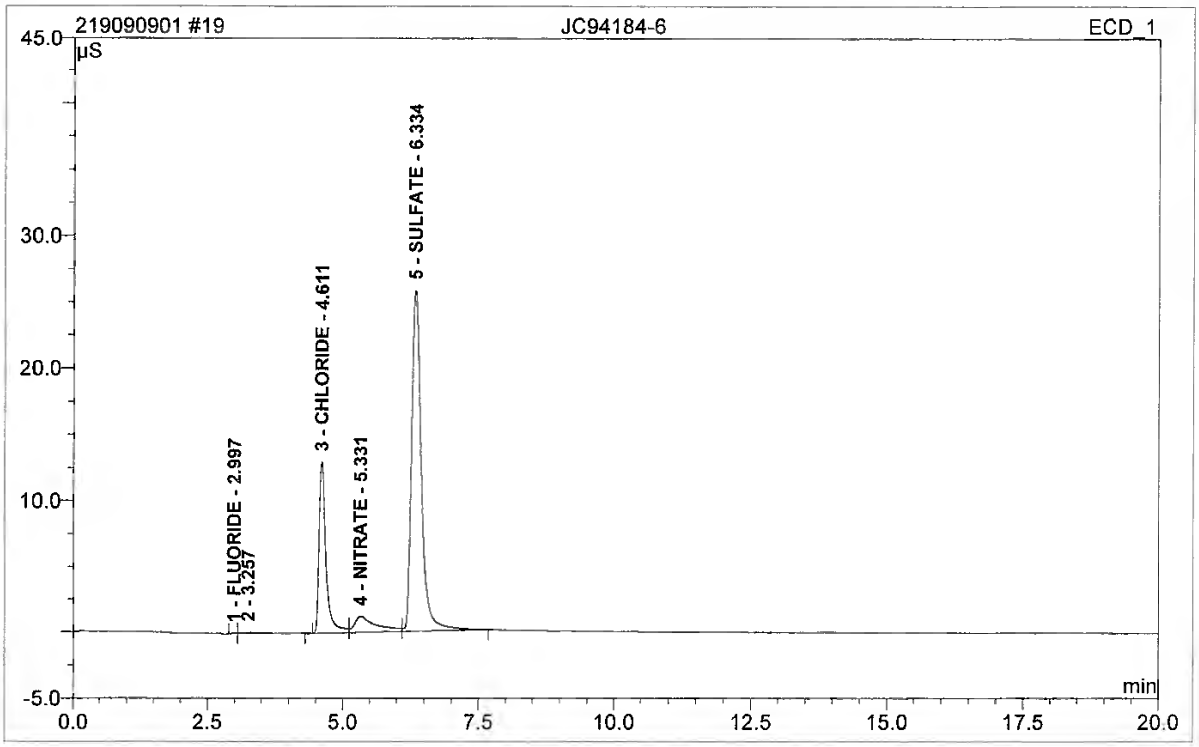
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.70	CHLORIDE	4458.641	1485.888	99.78	#########	BM
2	6.34	SULFATE	5.039	3.036	0.20	142.768	MB
3	8.21	BROMIDE	1.312	0.286	0.02	26.212	BMB
Total:			4464.992	1489.210	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

19 JC94184-6

Sample Name:	**JC94184-6**	*Injection Volume:*	**20.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 14:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

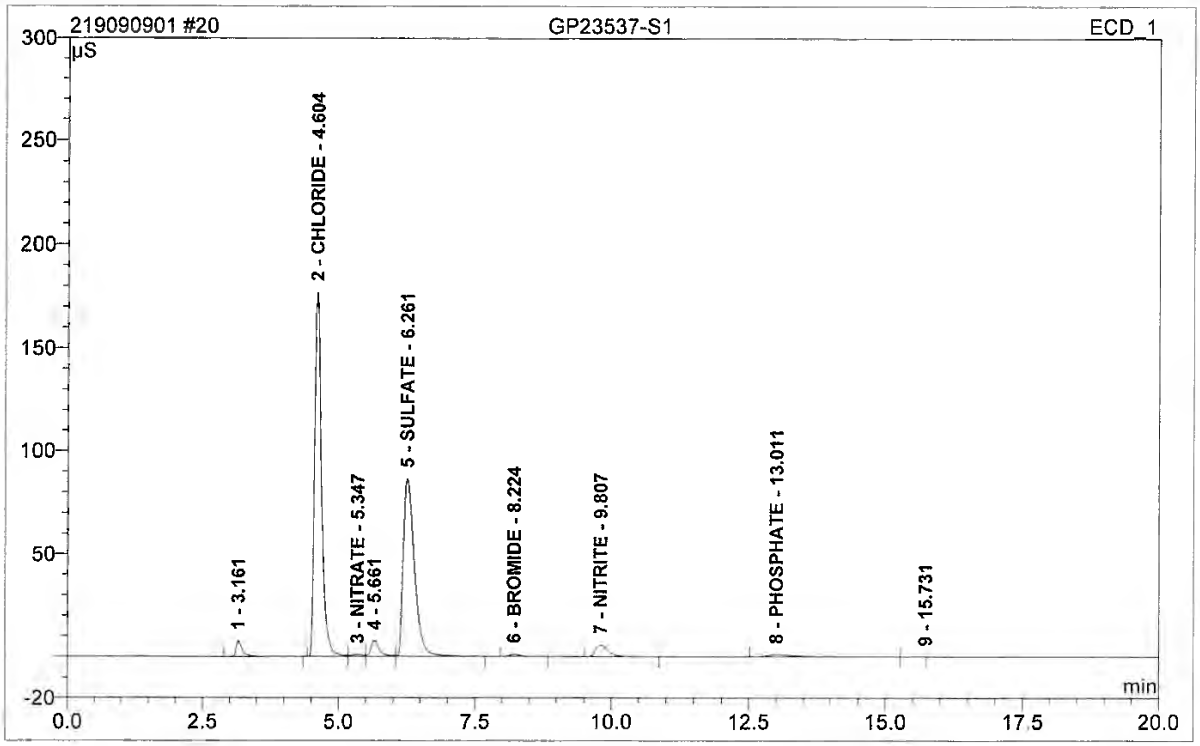


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.00	FLUORIDE	0.038	0.005	0.06	0.104	BM
2	3.26	n.a.	0.089	0.032	0.41	n.a.	MB
3	4.61	CHLORIDE	13.034	1.940	24.33	67.390	BM
4	5.33	NITRATE	1.225	0.565	7.08	9.092	M
5	6.33	SULFATE	25.815	5.434	68.13	255.562	MB
Total:			40.202	7.976	100.00	332.148	

20 GP23537-S1

JC94330-1

Sample Name:	**GP23537-S1**	*Injection Volume:*	**20.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 14:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.16	n.a.	7.452	1.014	1.96	n.a.	BMB
2	4.60	CHLORIDE	176.815	26.169	50.64	908.961	BM
3	5.35	NITRATE	1.001	0.244	0.47	3.933	M
4	5.66	n.a.	7.718	1.406	2.72	n.a.	M
5	6.26	SULFATE	86.423	20.411	39.50	959.986	MB
6	8.22	BROMIDE	1.064	0.217	0.42	19.929	BMB
7	9.81	NITRITE	5.678	1.499	2.90	21.608	BMB
8	13.01	PHOSPHATE	1.072	0.710	1.37	23.667	BM
9	15.73	n.a.	0.000	0.004	0.01	n.a.	MB
Total:			287.224	51.673	100.00	1938.084	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

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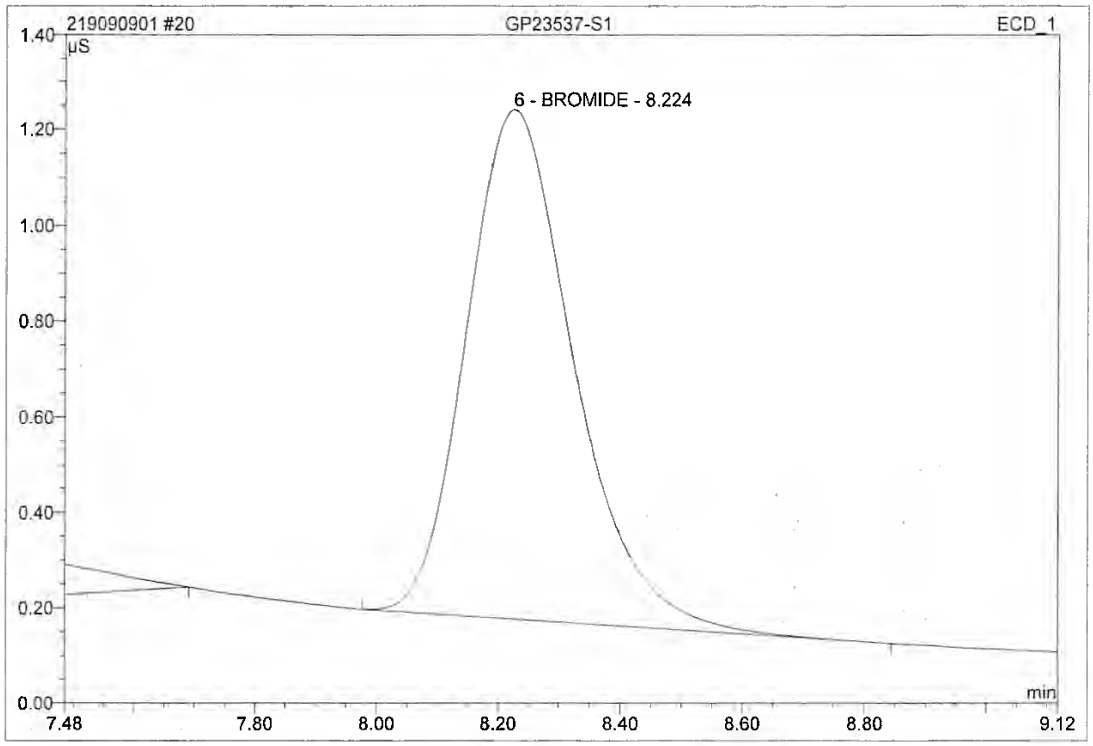
20 GP23537-S1

JC94330-1

Sample Name:	**GP23537-S1**	*Injection Volume:*	**20.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 14:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.16	n.a.	7.452	1.014	1.96	n.a.	BMB
2	4.60	CHLORIDE	176.815	26.169	50.64	908.961	BM
3	5.35	NITRATE	1.001	0.244	0.47	3.933	M
4	5.66	n.a.	7.718	1.406	2.72	n.a.	M
5	6.26	SULFATE	86.423	20.411	39.50	959.986	MB
6	8.22	BROMIDE	1.064	0.217	0.42	19.929	BMB
7	9.81	NITRITE	5.678	1.499	2.90	21.608	BMB
8	13.01	PHOSPHATE	1.072	0.710	1.37	23.667	BM
9	15.73	n.a.	0.000	0.004	0.01	n.a.	MB
Total:			287.224	51.673	100.00	1938.084	

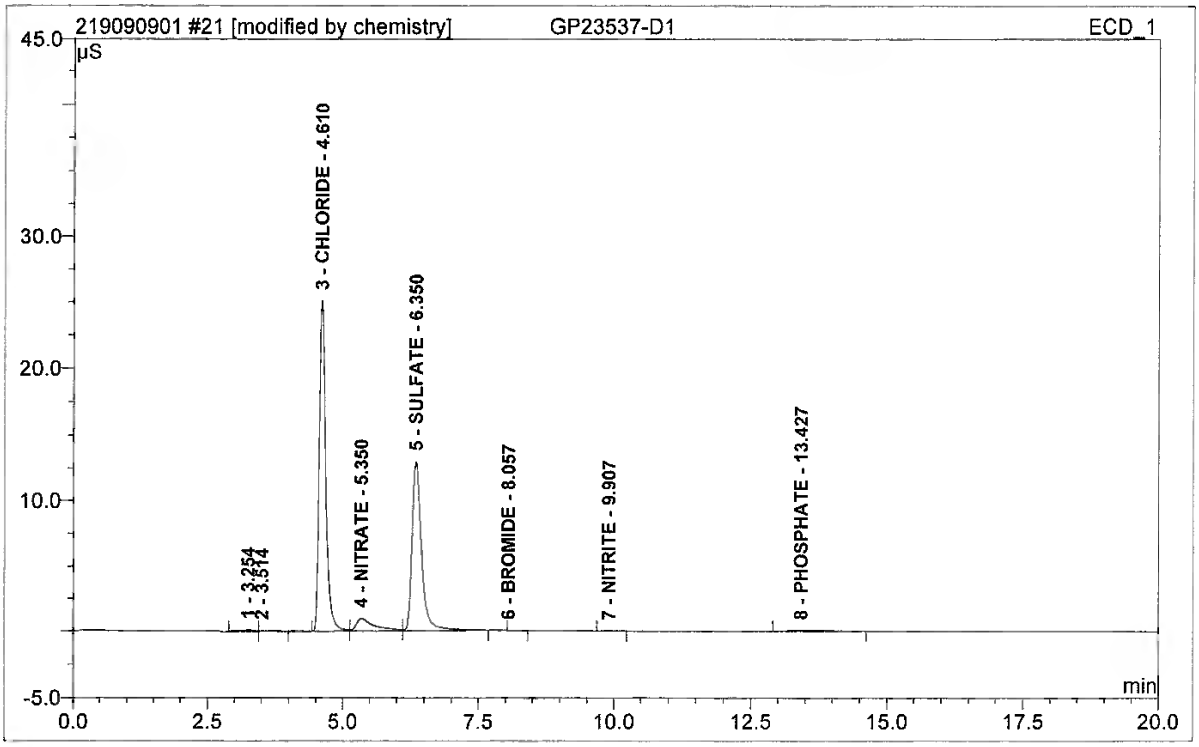
DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

21 GP23537-D1

JC94330-1

Sample Name:	**GP23537-D1**	*Injection Volume:*	**20.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 15:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.127	0.031	0.47	n.a.	BM
2	3.51	n.a.	0.035	0.008	0.12	n.a.	MB
3	4.61	CHLORIDE	25.124	3.523	53.35	122.378	BM
4	5.35	NITRATE	0.950	0.358	5.43	5.770	M
5	6.35	SULFATE	12.962	2.633	39.87	123.822	MB
6	8.06	BROMIDE	0.001	0.001	0.02	0.100	BMB*
7	9.91	NITRITE	0.024	0.006	0.09	0.082	BMB
8	13.43	PHOSPHATE	0.060	0.044	0.66	1.460	BMB
Total:			39.282	6.603	100.00	253.611	

missed peak
MM 9/10/19

anions/Integration

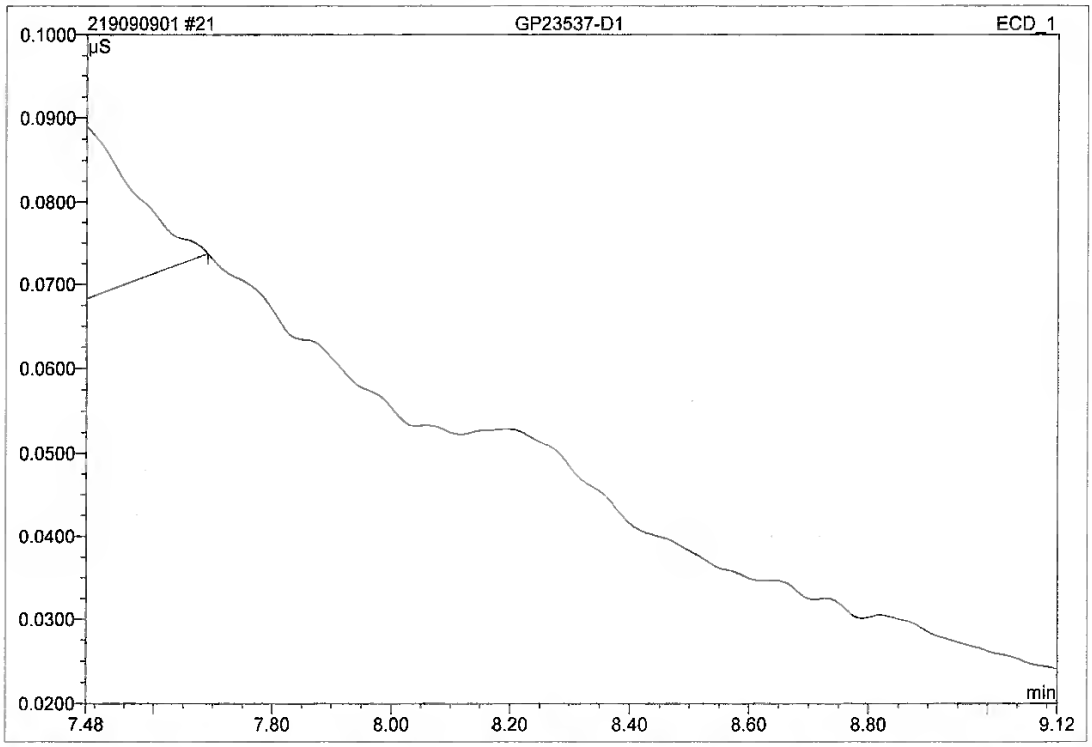
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

9.4

21 GP23537-D1

JC94330-1

Sample Name:	**GP23537-D1**	*Injection Volume:*	**20.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 15:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.127	0.031	0.47	n.a	BM
2	3.51	n.a.	0.035	0.008	0.12	n.a.	MB
3	4.61	CHLORIDE	25.124	3.523	53.36	122.378	BM
4	5.35	NITRATE	0.950	0.358	5.43	5.770	M
5	6.35	SULFATE	12.962	2.633	39.87	123.822	MB
6	9.91	NITRITE	0.024	0.006	0.09	0.082	BMB
7	13.43	PHOSPHATE	0.060	0.044	0.66	1.460	BMB
Total:			39.281	6.602	100.00	253.511	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

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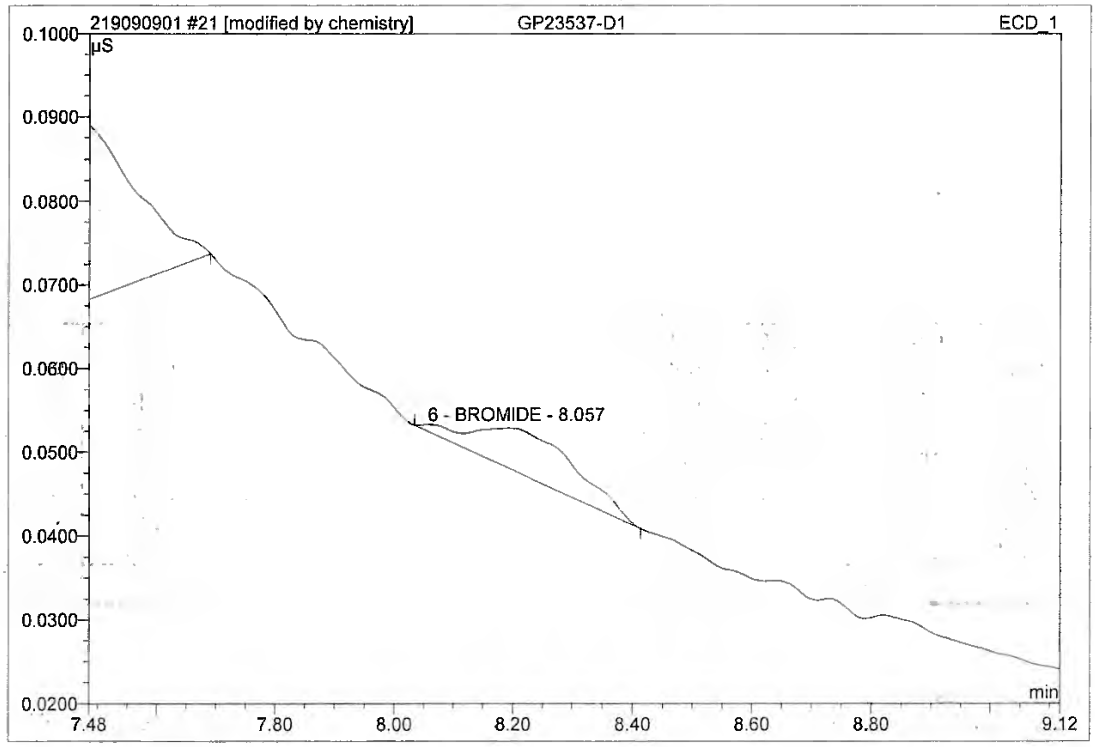
21 GP23537-D1

JC94330-1

Sample Name:	**GP23537-D1**	*Injection Volume:*	**20.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 15:03**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



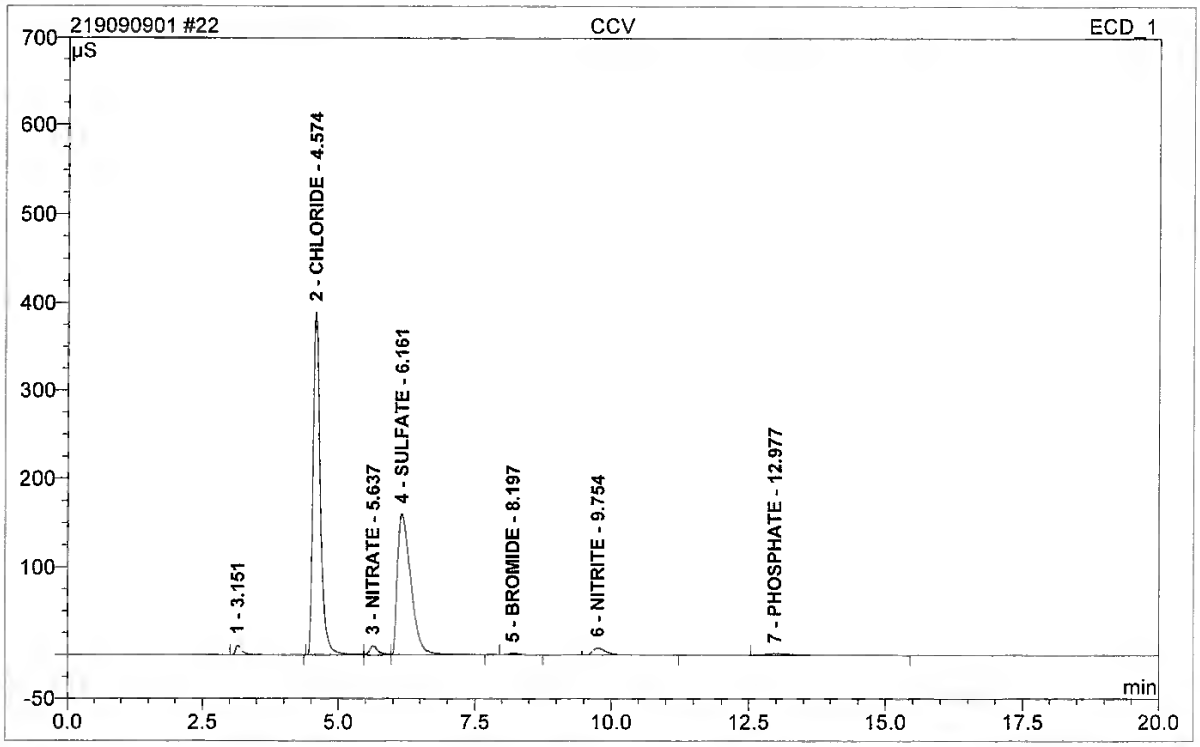
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.127	0.031	0.47	n.a.	BM
2	3.51	n.a.	0.035	0.008	0.12	n.a.	MB
3	4.61	CHLORIDE	25.124	3.523	53.35	122.378	BM
4	5.35	NITRATE	0.950	0.358	5.43	5.770	M
5	6.35	SULFATE	12.962	2.633	39.87	123.822	MB
6	8.06	BROMIDE	0.001	0.001	0.02	0.100	BMB*
7	9.91	NITRITE	0.024	0.006	0.09	0.082	BMB
8	13.43	PHOSPHATE	0.060	0.044	0.66	1.460	BMB
Total:			39.282	6.603	100.00	253.611	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

22 CCV

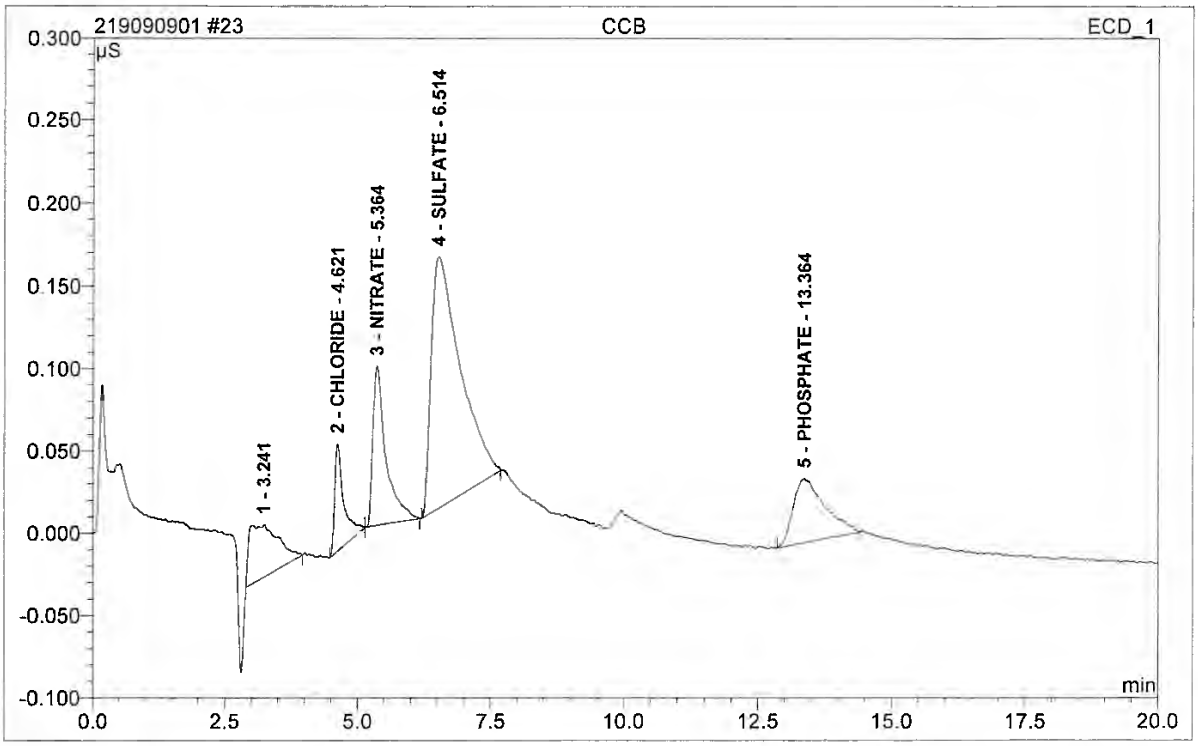
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/9/2019 15:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	10.960	1.501	1.33	n.a.	BMB
2	4.57	CHLORIDE	389.347	60.623	53.67	210.574	BM
3	5.64	NITRATE	10.495	1.877	1.66	3.021	M
4	6.16	SULFATE	160.114	45.311	40.12	213.111	MB
5	8.20	BROMIDE	1.668	0.341	0.30	3.124	BMB
6	9.75	NITRITE	8.119	2.242	1.99	3.233	BMB
7	12.98	PHOSPHATE	1.763	1.055	0.93	3.517	BMB
Total:			582.466	112.950	100.00	436.580	

23 CCB

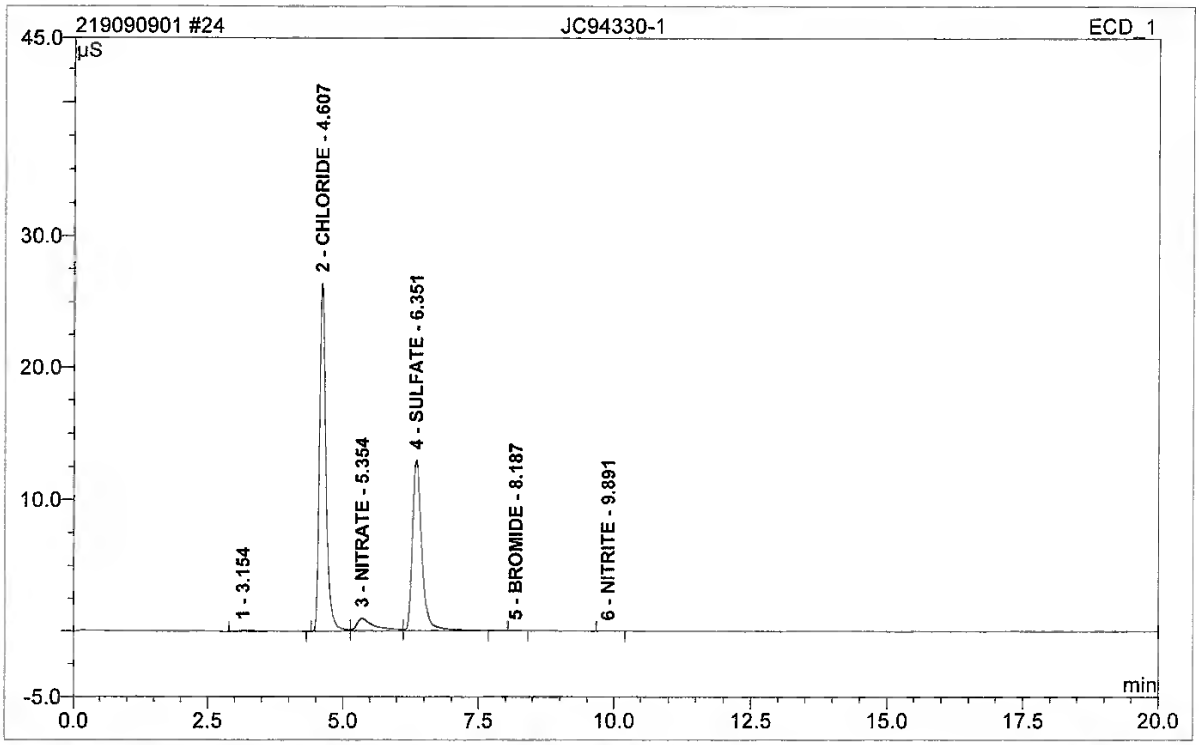
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/9/2019 15:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.032	0.020	11.11	n.a.	BMB
2	4.62	CHLORIDE	0.065	0.013	7.07	0.045	BMB
3	5.36	NITRATE	0.096	0.028	15.11	0.045	bMB
4	6.51	SULFATE	0.152	0.096	52.07	0.450	BMB
5	13.36	PHOSPHATE	0.039	0.027	14.63	0.090	BMB
Total:			0.384	0.184	100.00	0.630	

24 JC94330-1

Sample Name:	**JC94330-1**	*Injection Volume:*	**20.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 16:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	0.066	0.029	0.43	n.a.	BMB
2	4.61	CHLORIDE	26.405	3.702	55.11	128.571	BM
3	5.35	NITRATE	0.962	0.364	5.41	5.852	M
4	6.35	SULFATE	12.981	2.617	38.97	123.089	MB
5	8.19	BROMIDE	0.007	0.001	0.02	0.117	BMB
6	9.89	NITRITE	0.016	0.004	0.06	0.057	BMB
Total:			40.436	6.716	100.00	257.687	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

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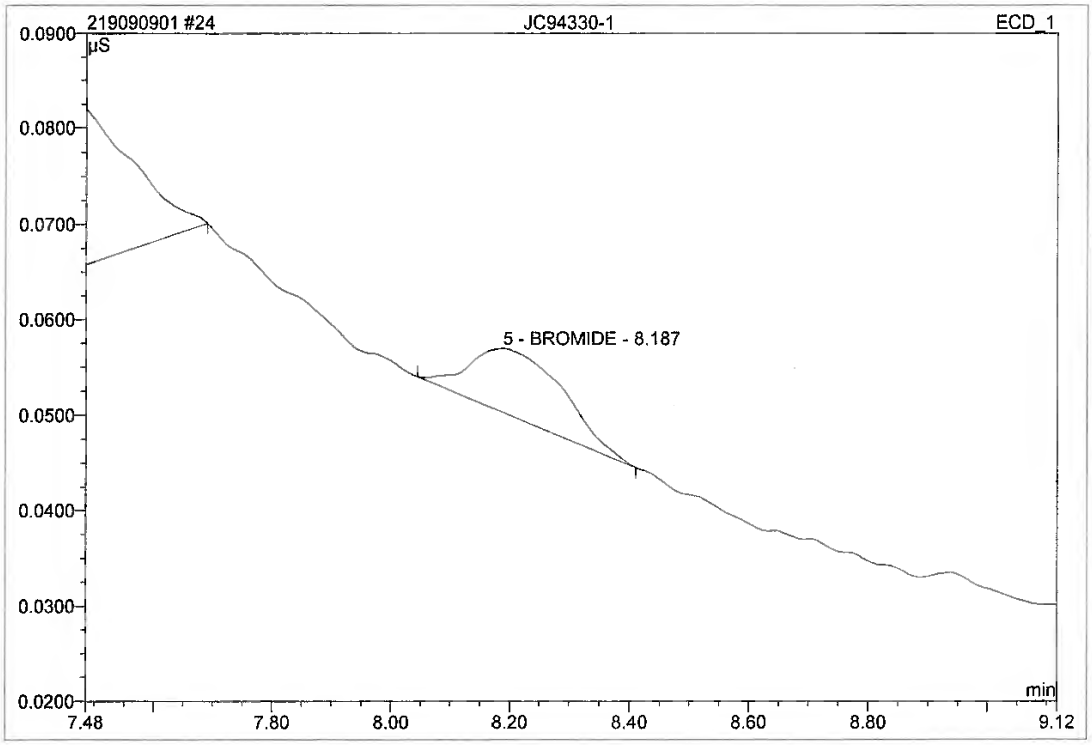
24 JC94330-1

Sample Name:	**JC94330-1**	*Injection Volume:*	**20.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 16:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



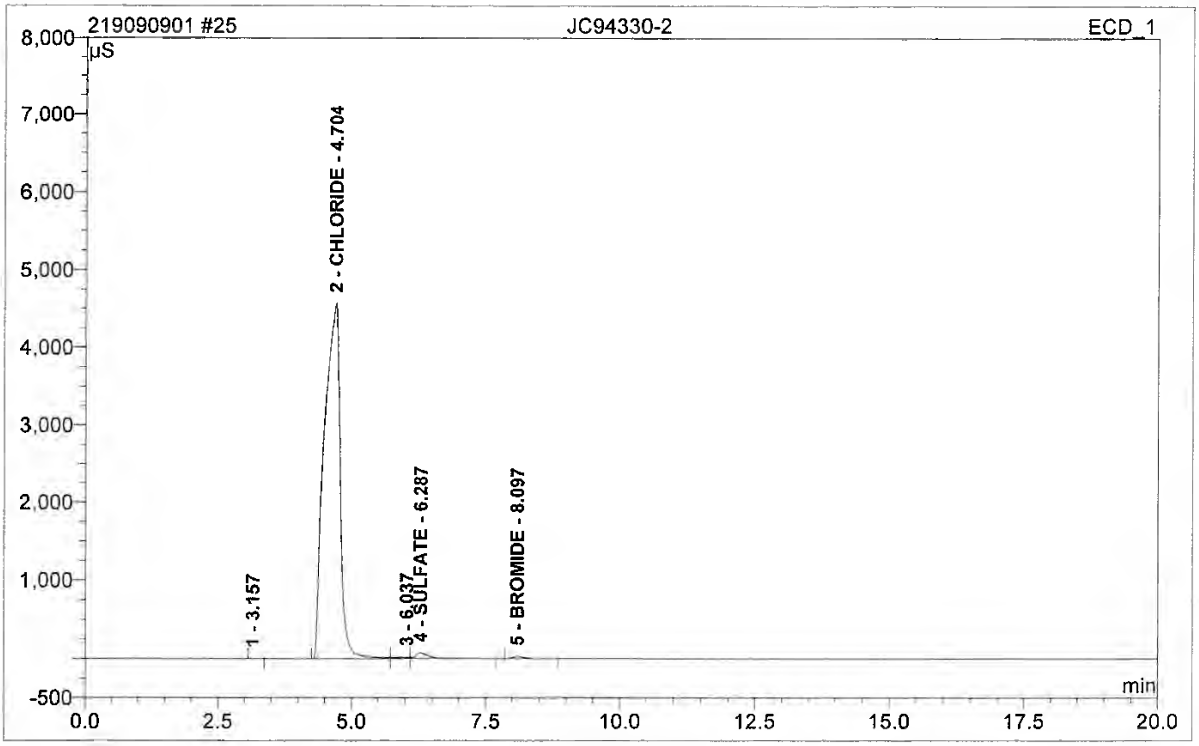
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	0.066	0.029	0.43	n.a.	BMB
2	4.61	CHLORIDE	26.405	3.702	55.11	128.571	BM
3	5.35	NITRATE	0.962	0.364	5.41	5.852	M
4	6.35	SULFATE	12.981	2.617	38.97	123.089	MB
5	8.19	BROMIDE	0.007	0.001	0.02	0.117	BMB
6	9.89	NITRITE	0.016	0.004	0.06	0.057	BMB
Total:			40.436	6.716	100.00	257.687	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

25 JC94330-2

Sample Name:	**JC94330-2**	*Injection Volume:*	**20.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 16:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



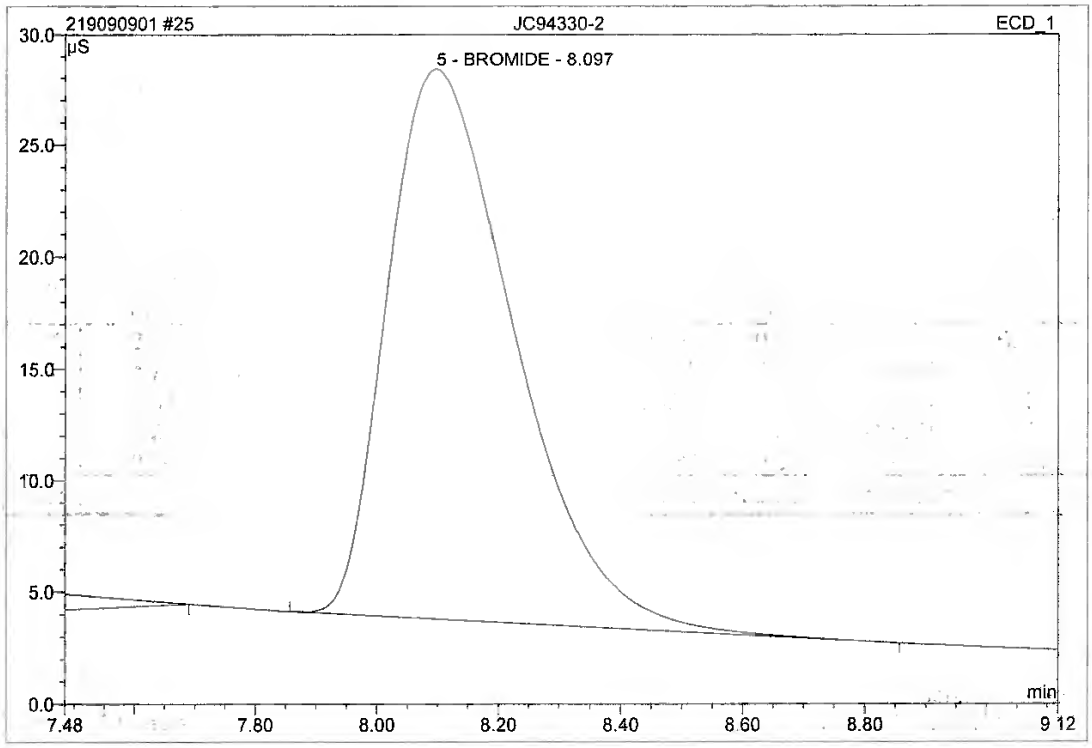
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.16	n.a.	0.028	0.004	0.00	n.a.	BMB
2	4.70	CHLORIDE	4567.387	1573.927	97.92	54670.203	BM
3	6.04	n.a.	16.242	5.273	0.33	n.a.	M
4	6.29	SULFATE	74.270	22.162	1.38	1042.329	MB
5	8.10	BROMIDE	24.606	5.963	0.37	546.849	BMB
Total:			4682.533	1607.330	100.00	56259.381	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

9/10/2019 9:58 AM

25 JC94330-2

Sample Name:	**JC94330-2**	*Injection Volume:*	**20.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 16:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



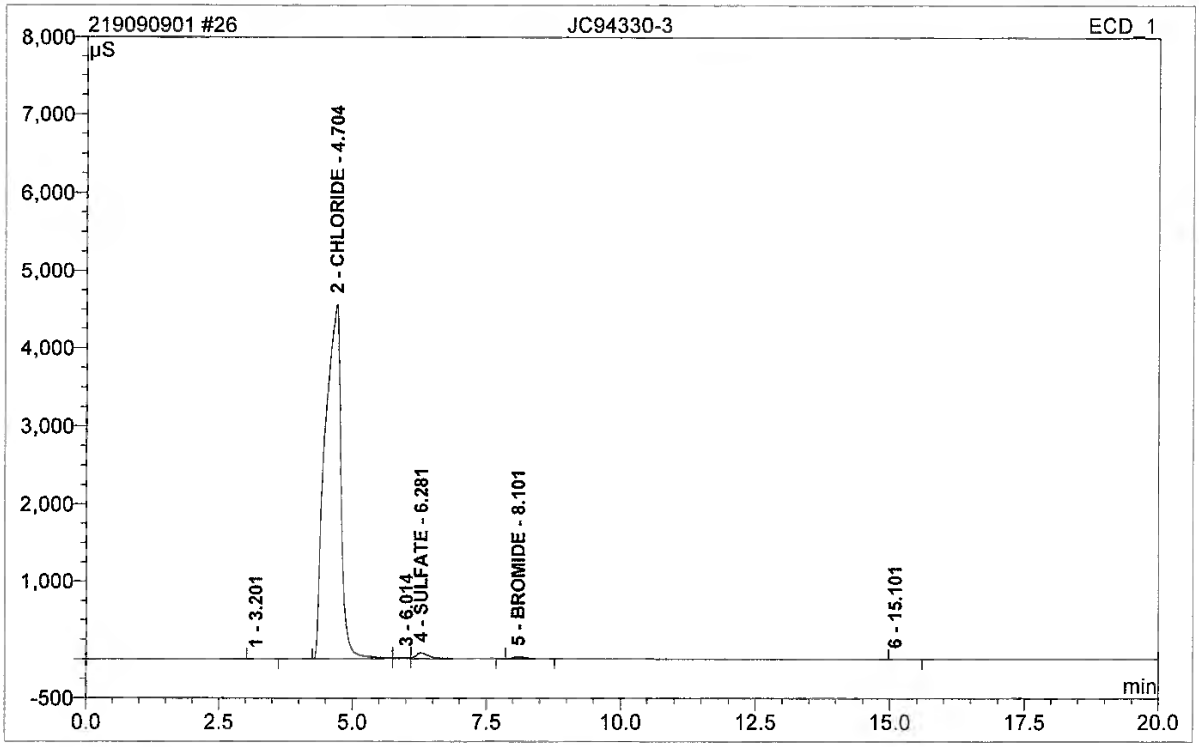
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.16	n.a.	0.028	0.004	0.00	n.a.	BMB
2	4.70	CHLORIDE	4567.387	1573.927	97.92	#########	BM
3	6.04	n.a.	16.242	5.273	0.33	n.a.	M
4	6.29	SULFATE	74.270	22.162	1.38	1042.329	MB
5	8.10	BROMIDE	24.606	5.963	0.37	546.849	BMB
Total:			4682.533	1607.330	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

26 JC94330-3

Sample Name:	**JC94330-3**	*Injection Volume:*	**20.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 17:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



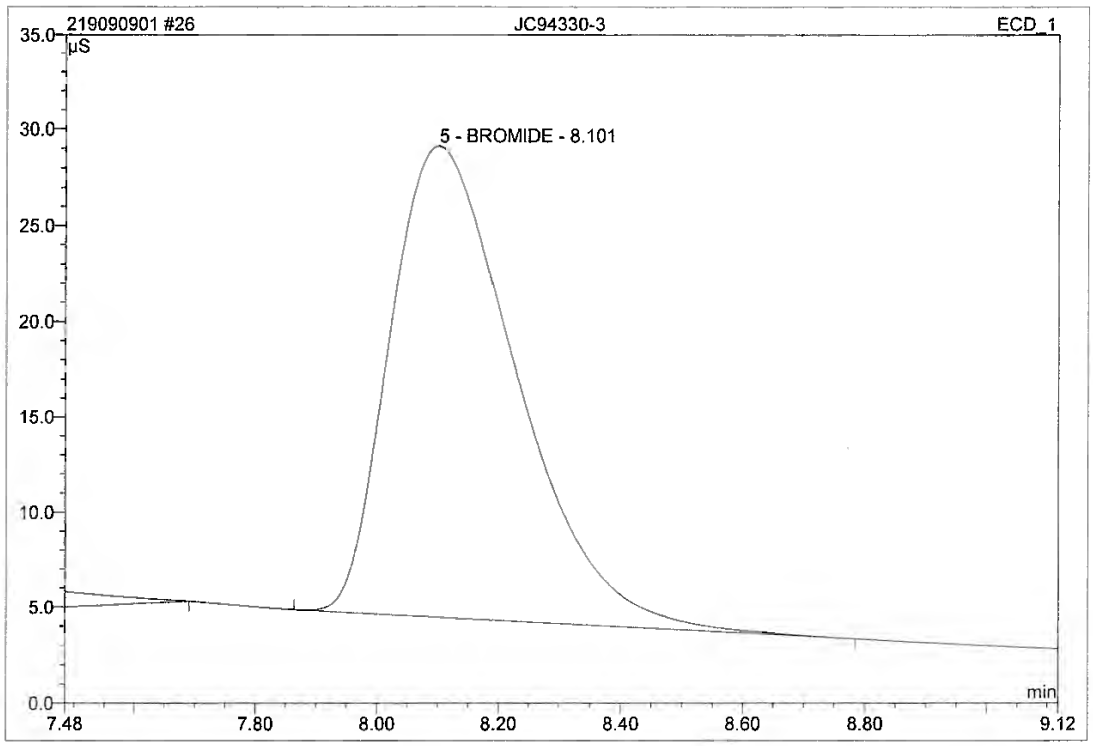
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.20	n.a.	0.209	0.043	0.00	n.a.	BMB
2	4.70	CHLORIDE	4565.531	1578.663	97.85	54834.677	BM
3	6.01	n.a.	17.420	5.479	0.34	n.a.	M
4	6.28	SULFATE	75.307	23.208	1.44	1091.523	MB
5	8.10	BROMIDE	24.663	5.965	0.37	547.024	BMB
6	15.10	n.a.	0.018	0.004	0.00	n.a.	BMB
Total:			4683.148	1613.361	100.00	56473.225	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

9/10/2019 9:58 AM

26 JC94330-3

Sample Name:	**JC94330-3**	*Injection Volume:*	**20.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 17:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.20	n.a.	0.209	0.043	0.00	n.a.	BMB
2	4.70	CHLORIDE	4565.531	1578.663	97.85	#########	BM
3	6.01	n.a.	17.420	5.479	0.34	n.a.	M
4	6.28	SULFATE	75.307	23.208	1.44	1091.523	MB
5	8.10	BROMIDE	24.663	5.965	0.37	547.024	BMB
6	15.10	n.a.	0.018	0.004	0.00	n.a.	BMB
Total:			4683.148	1613.361	100.00	#########	

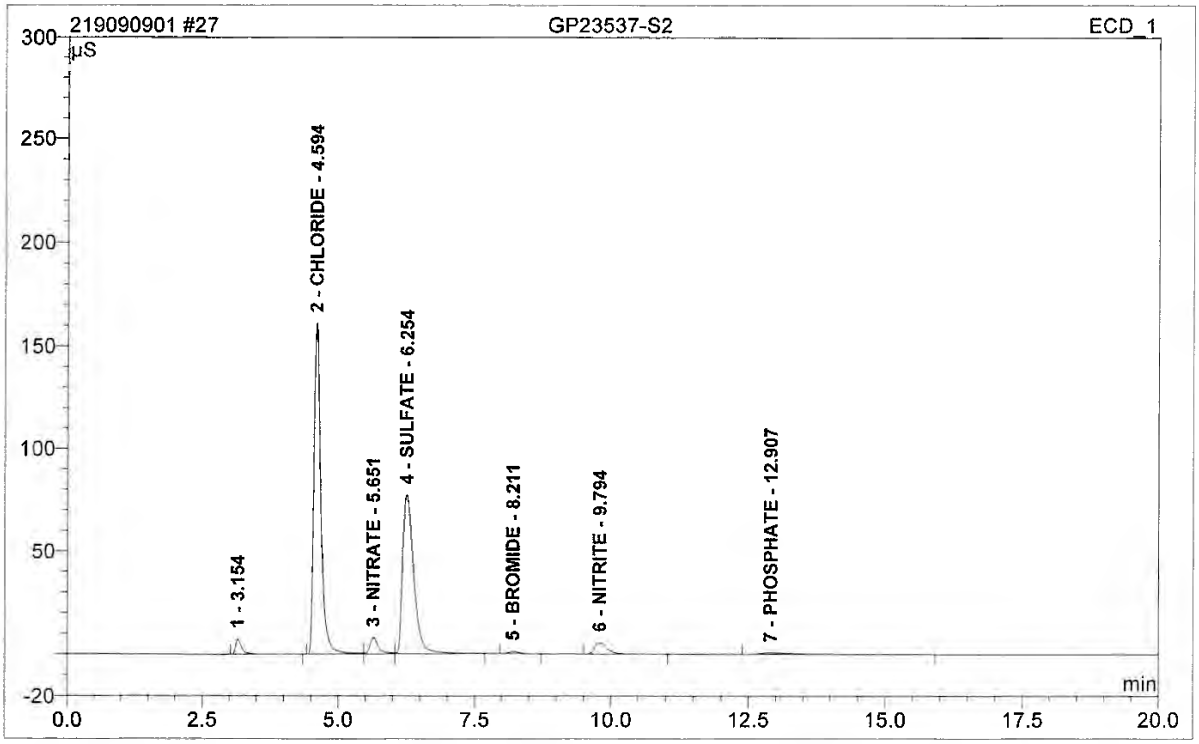
DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

27 GP23537-S2

JC94330-4

Sample Name:	**GP23537-S2**	*Injection Volume:*	**20.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 17:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	7.448	0.997	2.11	n.a.	BMB
2	4.59	CHLORIDE	161.014	24.171	51.08	839.570	BM
3	5.65	NITRATE	7.945	1.504	3.18	24.208	M
4	6.25	SULFATE	77.366	18.229	38.52	857.367	MB
5	8.21	BROMIDE	1.103	0.227	0.48	20.830	BMB
6	9.79	NITRITE	5.649	1.519	3.21	21.902	BMB
7	12.91	PHOSPHATE	0.798	0.671	1.42	22.369	BMB
Total:			261.324	47.319	100.00	1786.245	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

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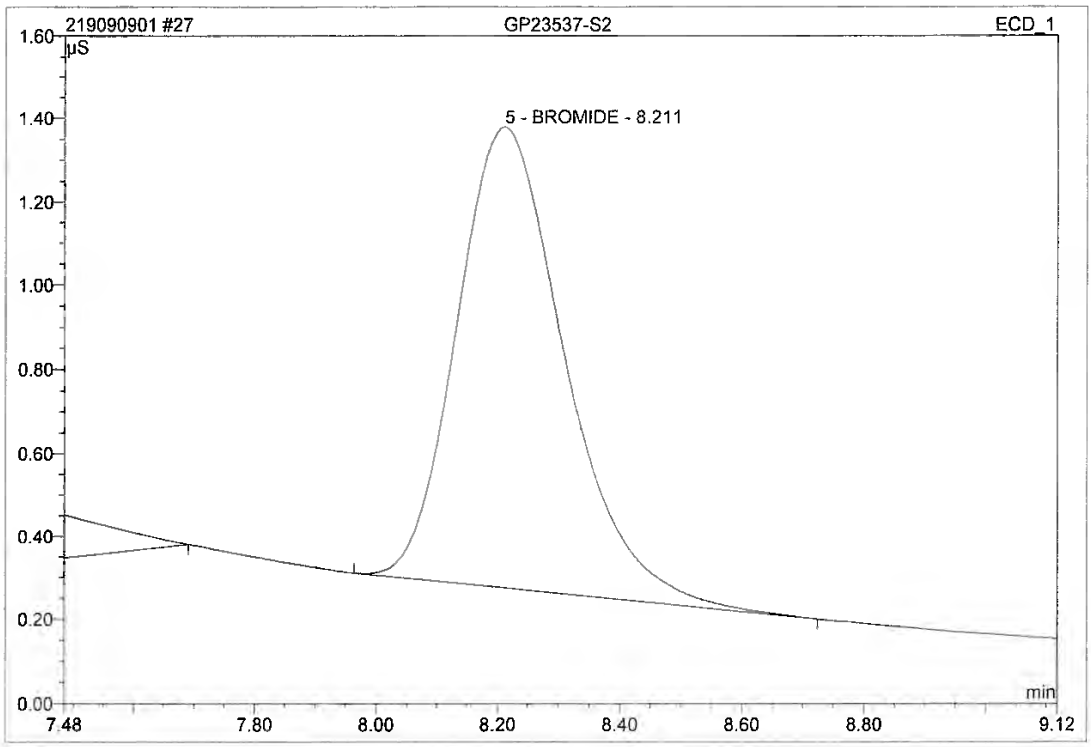
27 GP23537-S2

JC94330-4

Sample Name:	**GP23537-S2**	*Injection Volume:*	**20.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 17:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



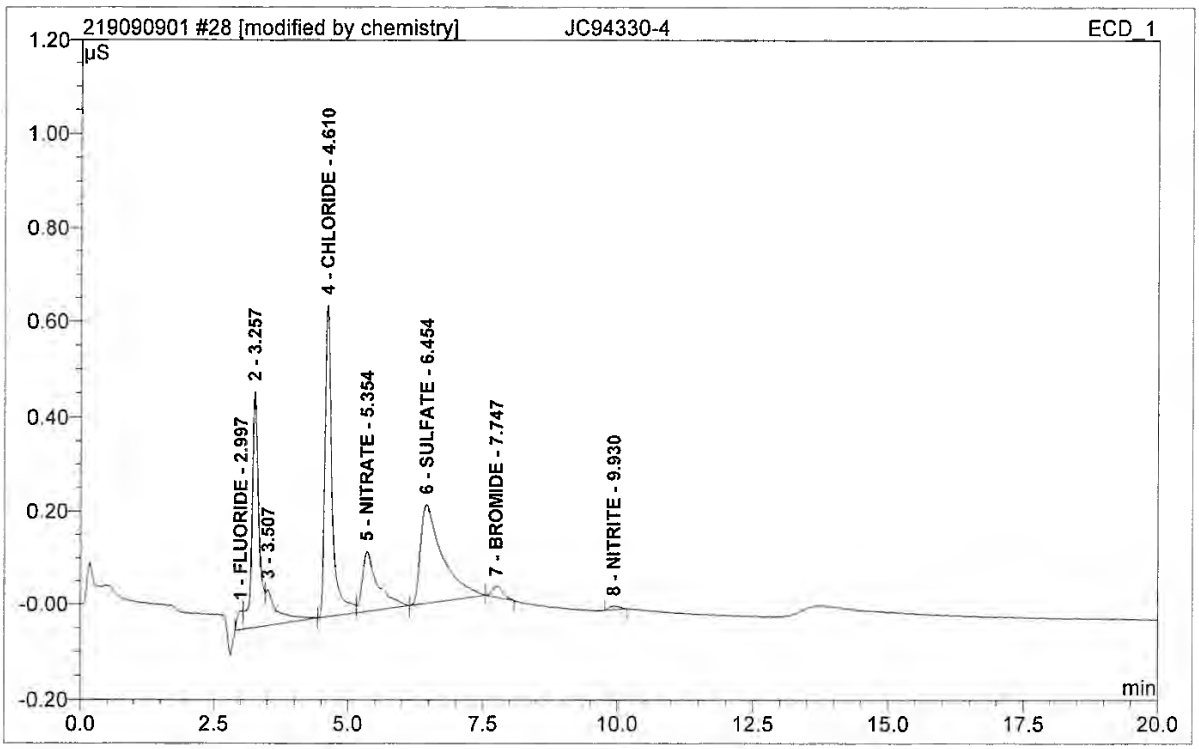
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	7.448	0.997	2.11	n.a.	BMB
2	4.59	CHLORIDE	161.014	24.171	51.08	839.570	BM
3	5.65	NITRATE	7.945	1.504	3.18	24.208	M
4	6.25	SULFATE	77.366	18.229	38.52	857.367	MB
5	8.21	BROMIDE	1.103	0.227	0.48	20.830	BMB
6	9.79	NITRITE	5.649	1.519	3.21	21.902	BMB
7	12.91	PHOSPHATE	0.798	0.671	1.42	22.369	BMB
Total:			261.324	47.319	100.00	1786.245	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

28 JC94330-4

Sample Name:	**JC94330-4**	*Injection Volume:*	**20.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 17:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.00	FLUORIDE	0.039	0.004	1.27	0.097	BM
2	3.26	n.a.	0.501	0.075	21.15	n.a.	M
3	3.51	n.a.	0.077	0.020	5.59	n.a.	MB
4	4.61	CHLORIDE	0.661	0.103	29.20	3.577	BM
5	5.35	NITRATE	0.129	0.044	12.37	0.702	MB
6	6.45	SULFATE	0.212	0.100	28.35	4.701	BMB
7	7.75	BROMIDE	0.022	0.005	1.56	0.504	BMB*
8	9.93	NITRITE	0.008	0.002	0.51	0.026	BMB
Total:			1.648	0.353	100.00	9.607	

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anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

9.4
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Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

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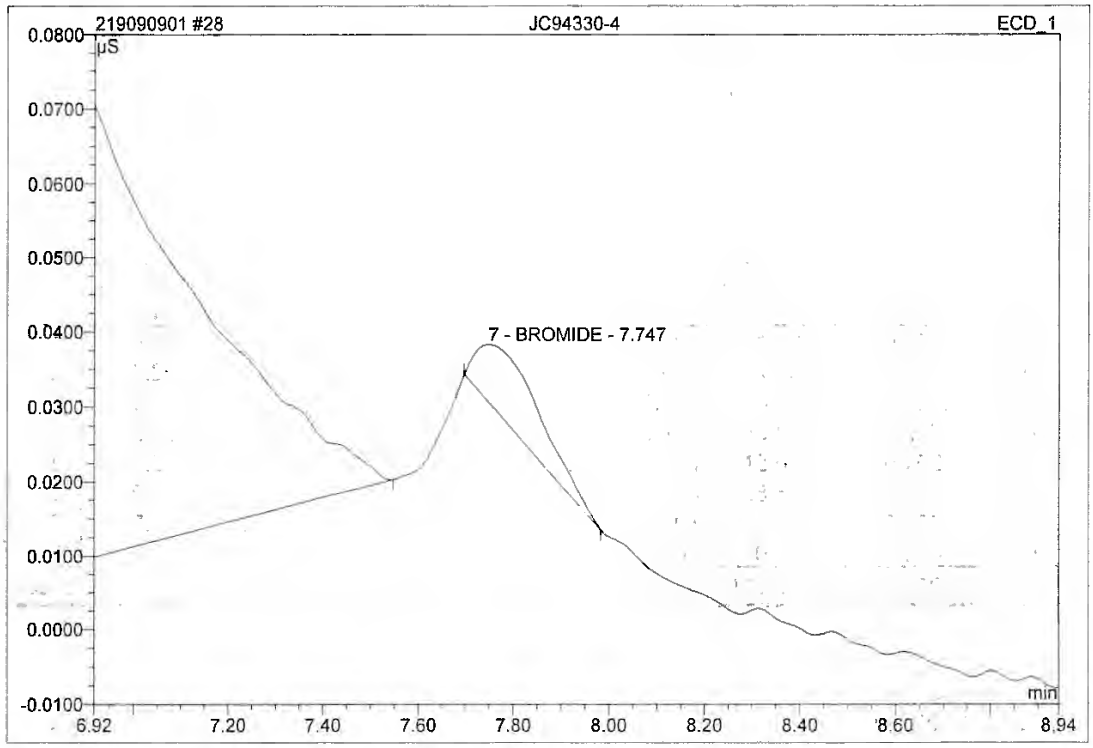
28 JC94330-4

Sample Name:	**JC94330-4**	*Injection Volume:*	**20.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 17:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.00	FLUORIDE	0.039	0.004	1.29	0.097	BM
2	3.26	n.a.	0.501	0.075	21.39	n.a.	M
3	3.51	n.a.	0.077	0.020	5.65	n.a.	MB
4	4.61	CHLORIDE	0.661	0.103	29.54	3.577	BM
5	5.35	NITRATE	0.129	0.044	12.51	0.702	MB
6	6.45	SULFATE	0.212	0.100	28.68	4.701	BMB
7	7.75	BROMIDE	0.007	0.001	0.42	0.133	BMB
8	9.93	NITRITE	0.008	0.002	0.52	0.026	BMB
Total:			1.633	0.349	100.00	9.236	

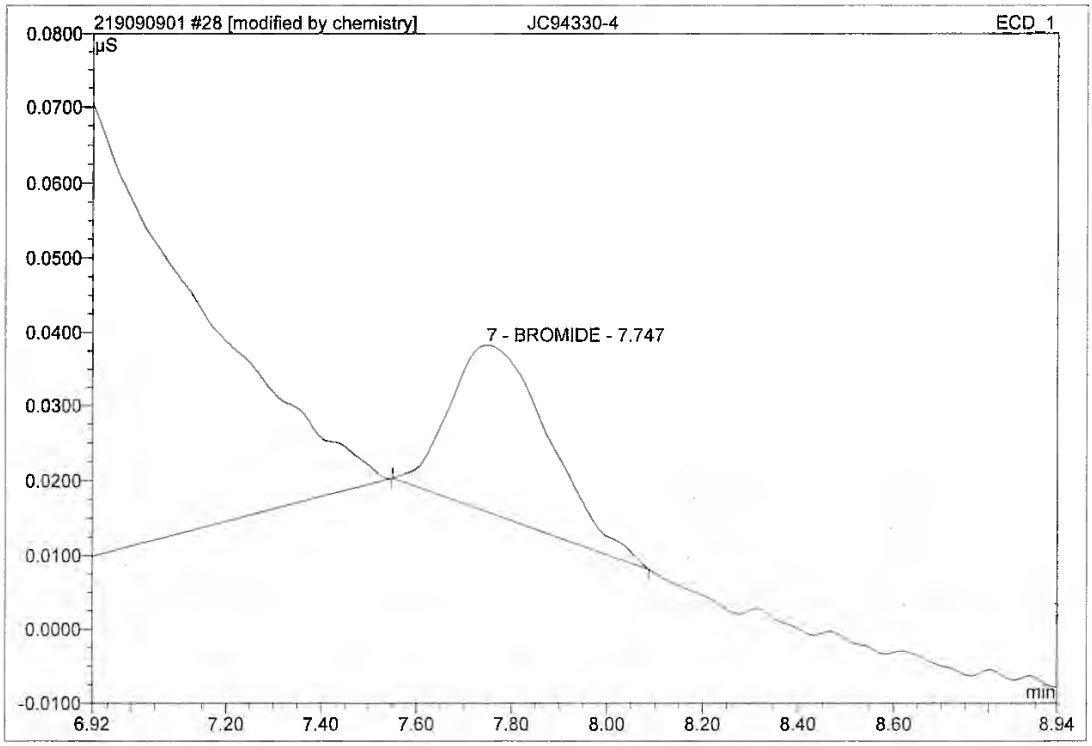
DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

28 JC94330-4

Sample Name:	**JC94330-4**	*Injection Volume:*	**20.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 17:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.00	FLUORIDE	0.039	0.004	1.27	0.097	BM
2	3.26	n.a.	0.501	0.075	21.15	n.a.	M
3	3.51	n.a.	0.077	0.020	5.59	n.a.	MB
4	4.61	CHLORIDE	0.661	0.103	29.20	3.577	BM
5	5.35	NITRATE	0.129	0.044	12.37	0.702	MB
6	6.45	SULFATE	0.212	0.100	28.35	4.701	BMB
7	7.75	BROMIDE	0.022	0.005	1.56	0.504	BMB*
8	9.93	NITRITE	0.008	0.002	0.51	0.026	BMB
Total:			1.648	0.353	100.00	9.607	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

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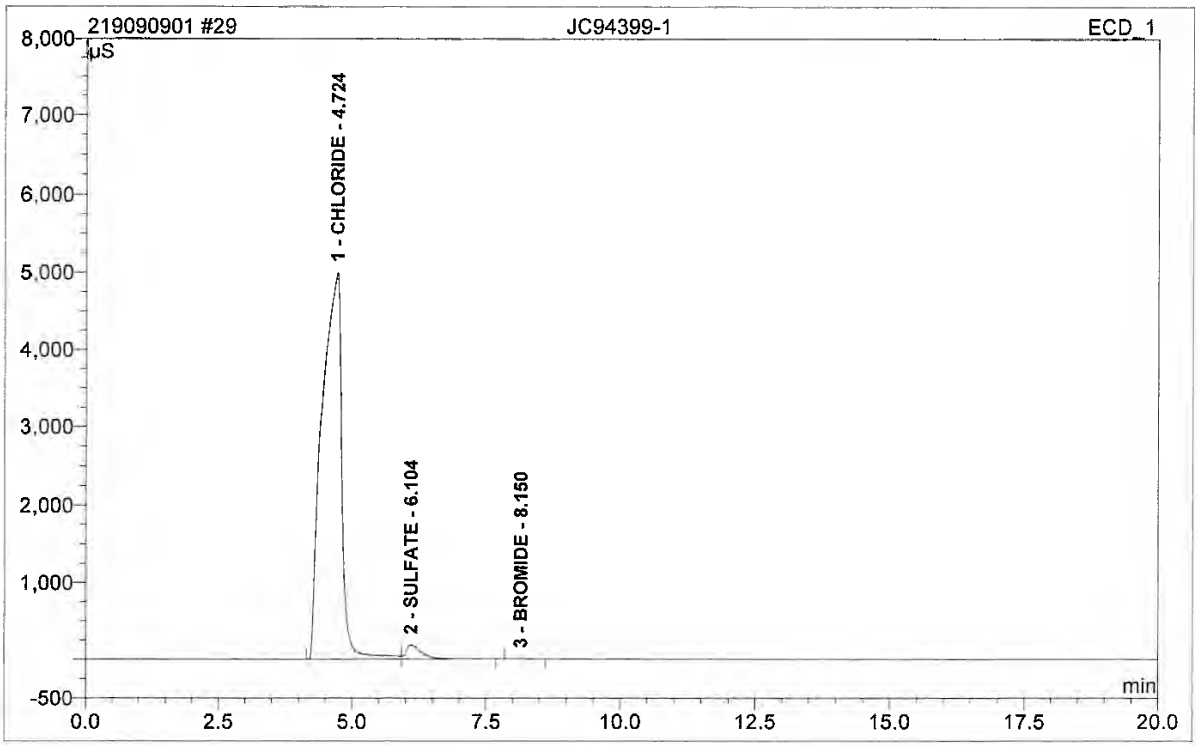
JC94537
Raw Data GN99715: Sulfate page 55 of 104

29 JC94399-1

Sample Name:	**JC94399-1**	*Injection Volume:*	**20.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 18:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

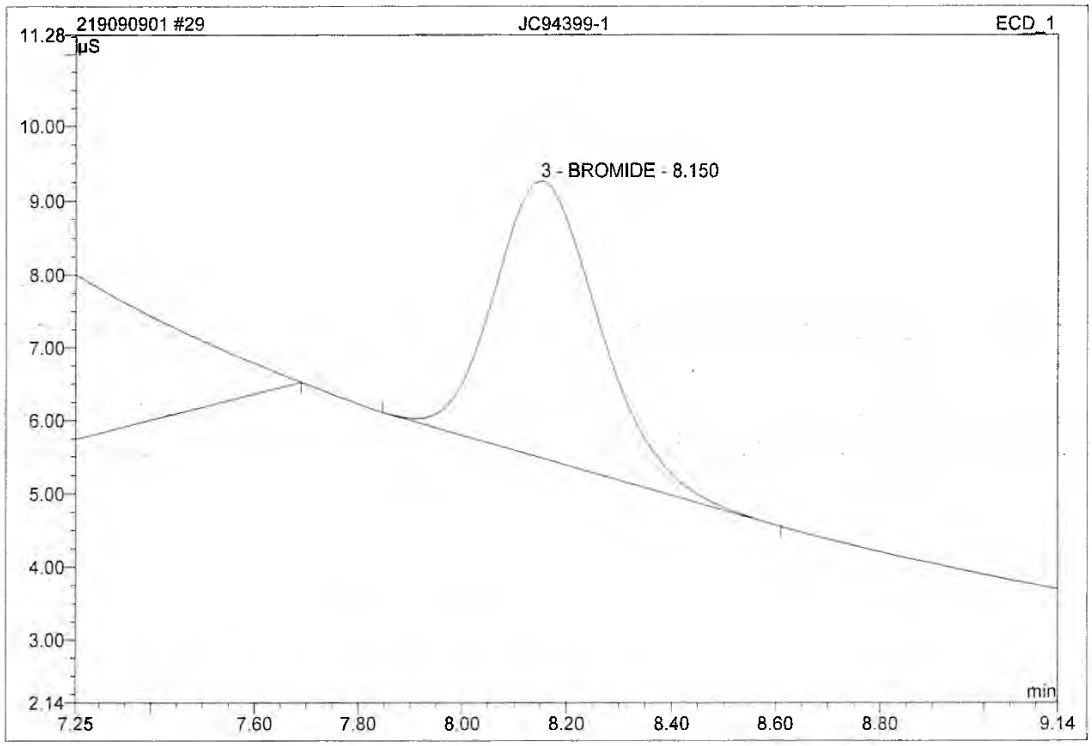


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.72	CHLORIDE	4997.049	2142.825	97.14	74430.805	BM
2	6.10	SULFATE	182.802	62.217	2.82	2926.229	MB
3	8.15	BROMIDE	3.780	0.890	0.04	81.639	BMB
Total:			5183.631	2205.932	100.00	77438.673	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

29 JC94399-1

Sample Name:	**JC94399-1**	*Injection Volume:*	**20.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 18:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.72	CHLORIDE	4997.049	2142.825	97.14	#########	BM
2	6.10	SULFATE	182.802	62.217	2.82	2926.229	MB
3	8.15	BROMIDE	3.780	0.890	0.04	81.639	BMB
Total:			5183.631	2205.932	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

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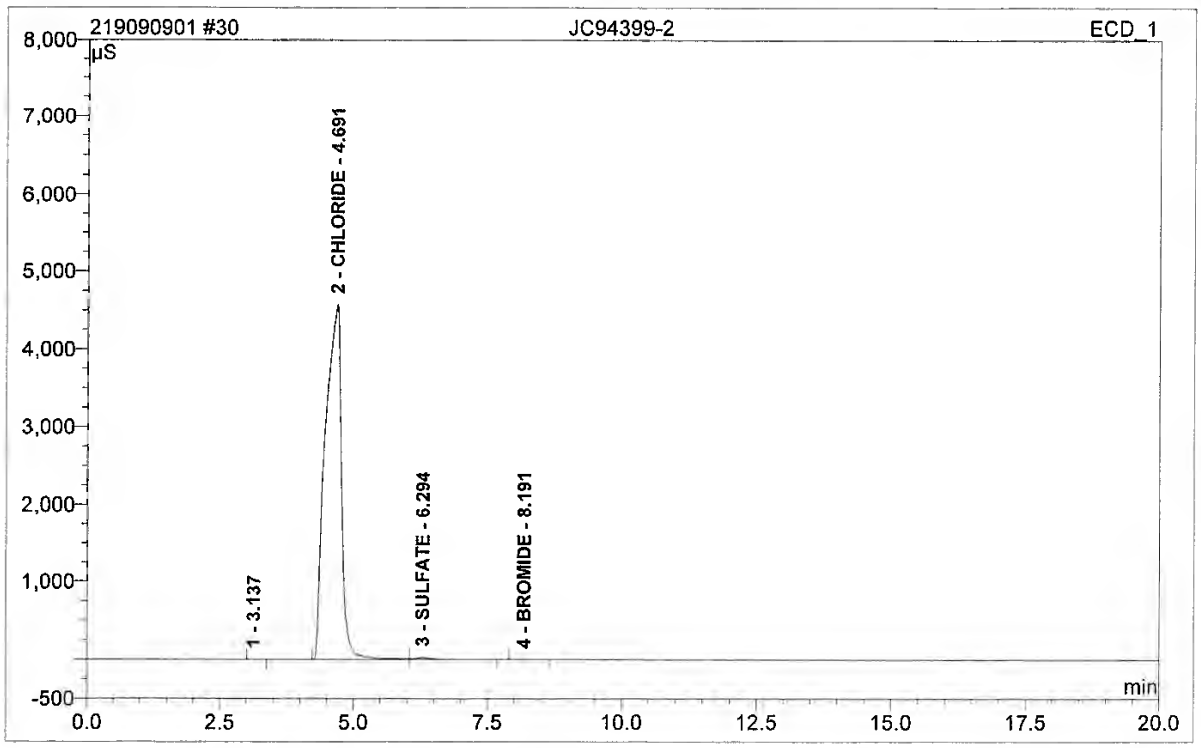
JC94537
Raw Data GN99715: Sulfate page 57 of 104

30 JC94399-2

Sample Name:	**JC94399-2**	*Injection Volume:*	**20.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 18:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



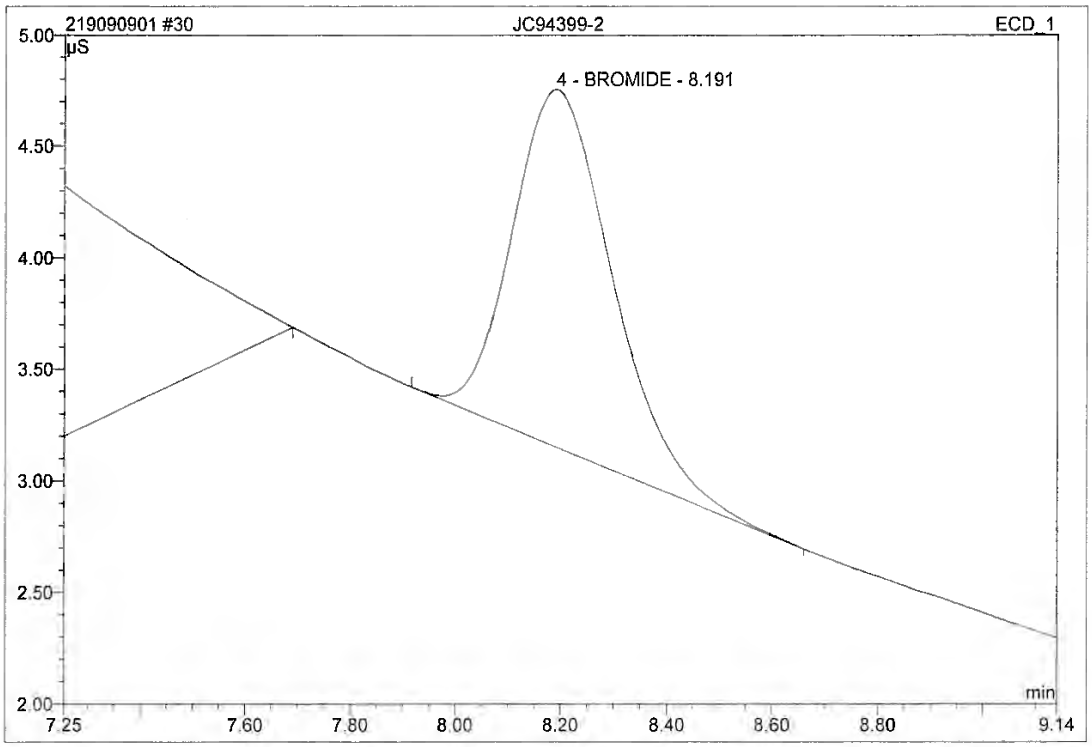
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	0.079	0.014	0.00	n.a.	BMB
2	4.69	CHLORIDE	4571.422	1611.441	99.39	55973.236	BM
3	6.29	SULFATE	25.224	9.482	0.58	445.951	MB
4	8.19	BROMIDE	1.599	0.354	0.02	32.443	BMB
Total:			4598.323	1621.291	100.00	56451.629	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

9/10/2019 9:59 AM

30 JC94399-2

Sample Name:	**JC94399-2**	*Injection Volume:*	**20.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 18:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



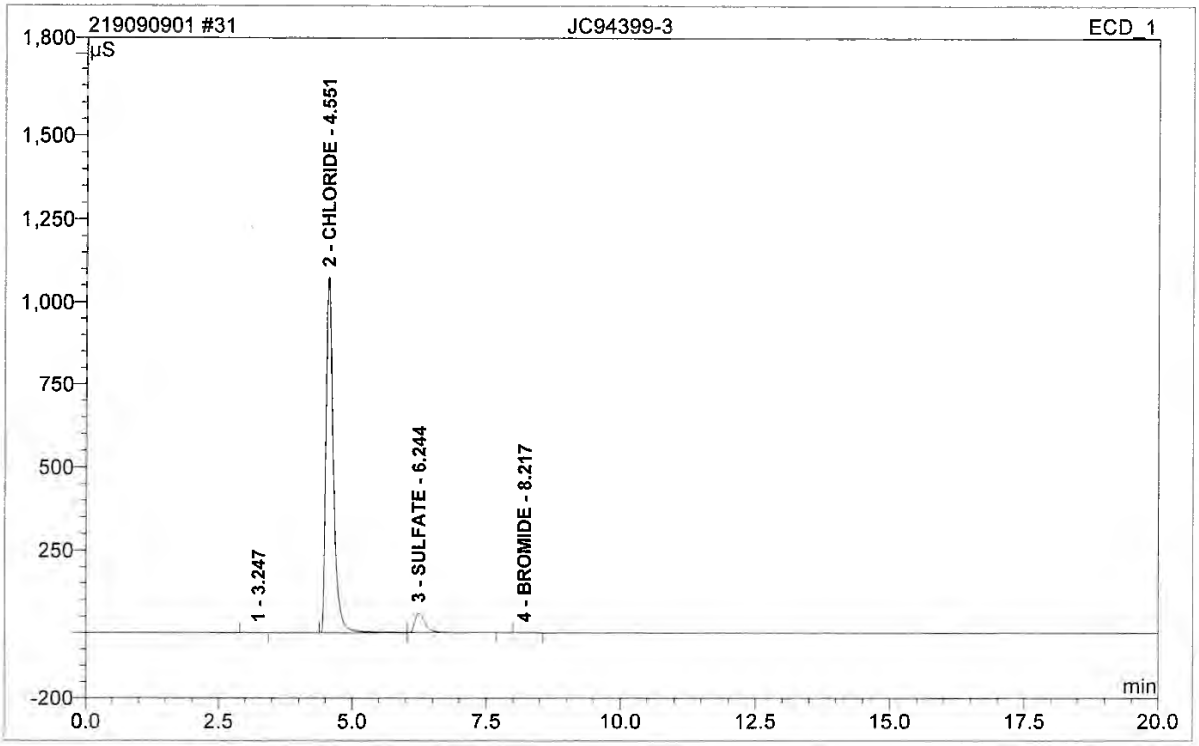
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	0.079	0.014	0.00	n.a.	BMB
2	4.69	CHLORIDE	4571.422	1611.441	99.39	#########	BM
3	6.29	SULFATE	25.224	9.482	0.58	445.951	MB
4	8.19	BROMIDE	1.599	0.354	0.02	32.443	BMB
Total:			4598.323	1621.291	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

31 JC94399-3

Sample Name:	**JC94399-3**	*Injection Volume:*	**20.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 19:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



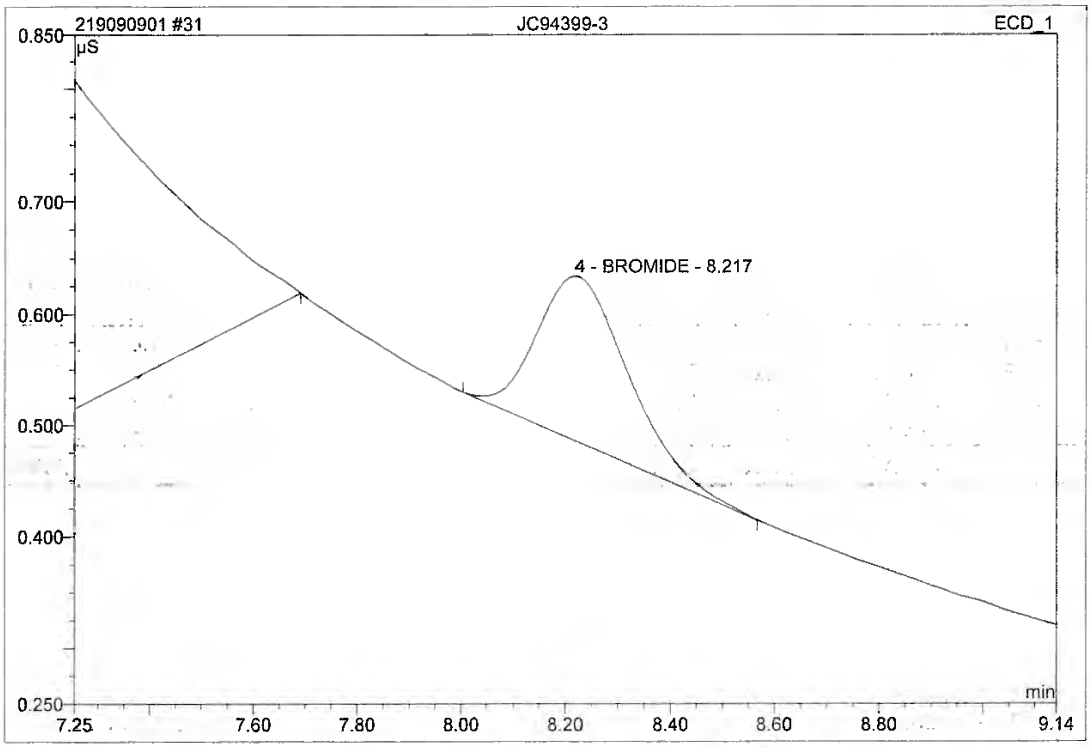
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.039	0.009	0.00	n.a.	BMB
2	4.55	CHLORIDE	1073.554	173.833	92.65	6038.073	BM
3	6.24	SULFATE	59.312	13.759	7.33	647.115	MB
4	8.22	BROMIDE	0.148	0.030	0.02	2.753	BMB
Total:			1133.053	187.630	100.00	6687.940	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

9/10/2019 9:59 AM

31 JC94399-3

Sample Name:	**JC94399-3**	*Injection Volume:*	**20.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 19:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



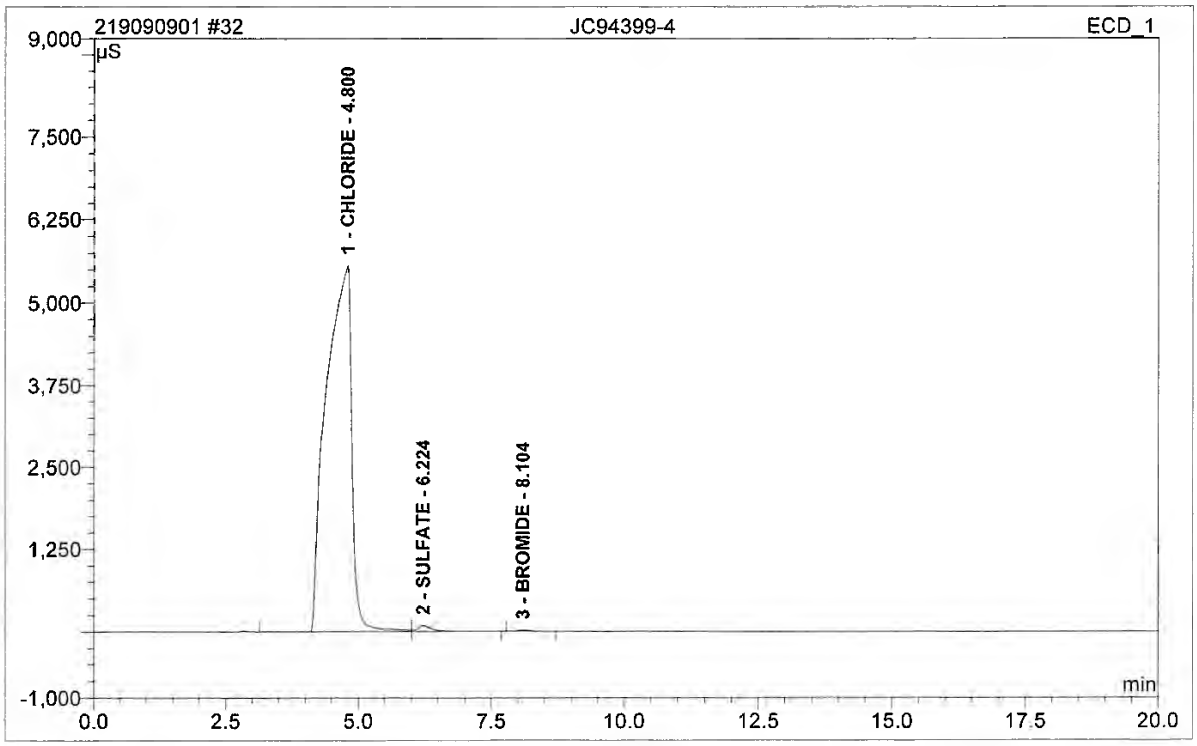
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.039	0.009	0.00	n.a.	BMB
2	4.55	CHLORIDE	1073.554	173.833	92.65	6038.073	BM
3	6.24	SULFATE	59.312	13.759	7.33	647.115	MB
4	8.22	BROMIDE	0.148	0.030	0.02	2.753	BMB
Total:			1133.053	187.630	100.00	6687.940	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

32 JC94399-4

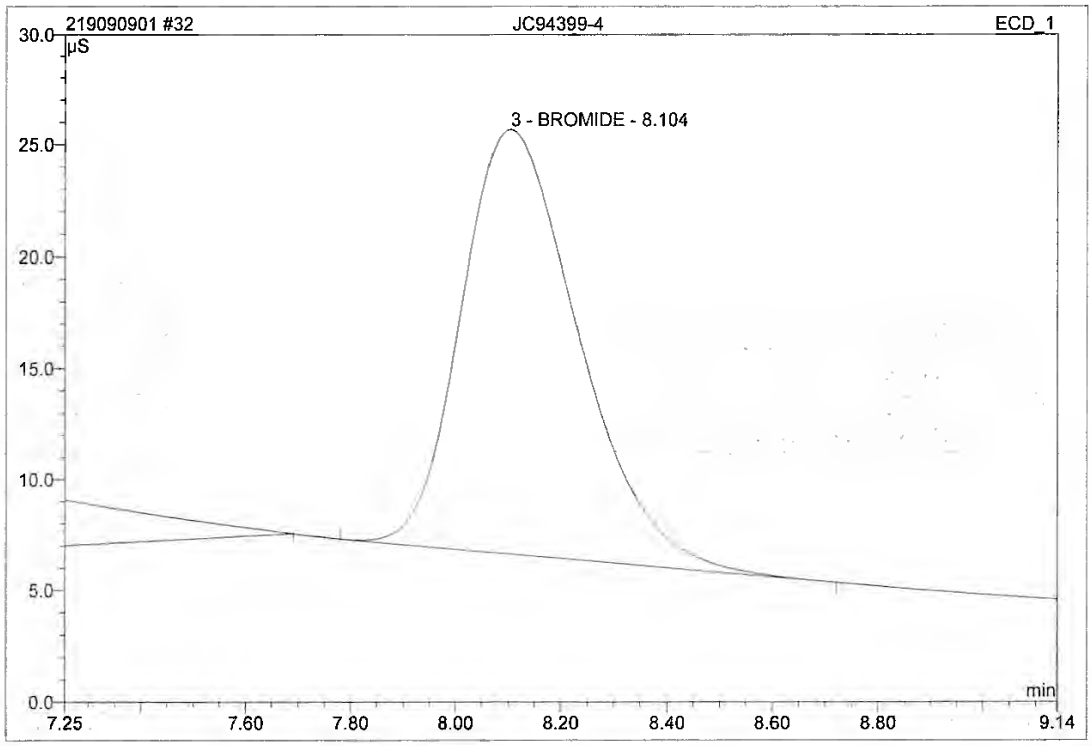
Sample Name:	**JC94399-4**	*Injection Volume:*	**20.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 19:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.80	CHLORIDE	5558.980	3086.657	98.92	107214.724	BM
2	6.22	SULFATE	88.359	28.683	0.92	1349.033	MB
3	8.10	BROMIDE	19.034	4.930	0.16	452.145	BMB
Total:			5666.374	3120.271	100.00	109015.902	

32 JC94399-4

Sample Name:	**JC94399-4**	*Injection Volume:*	**20.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 19:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



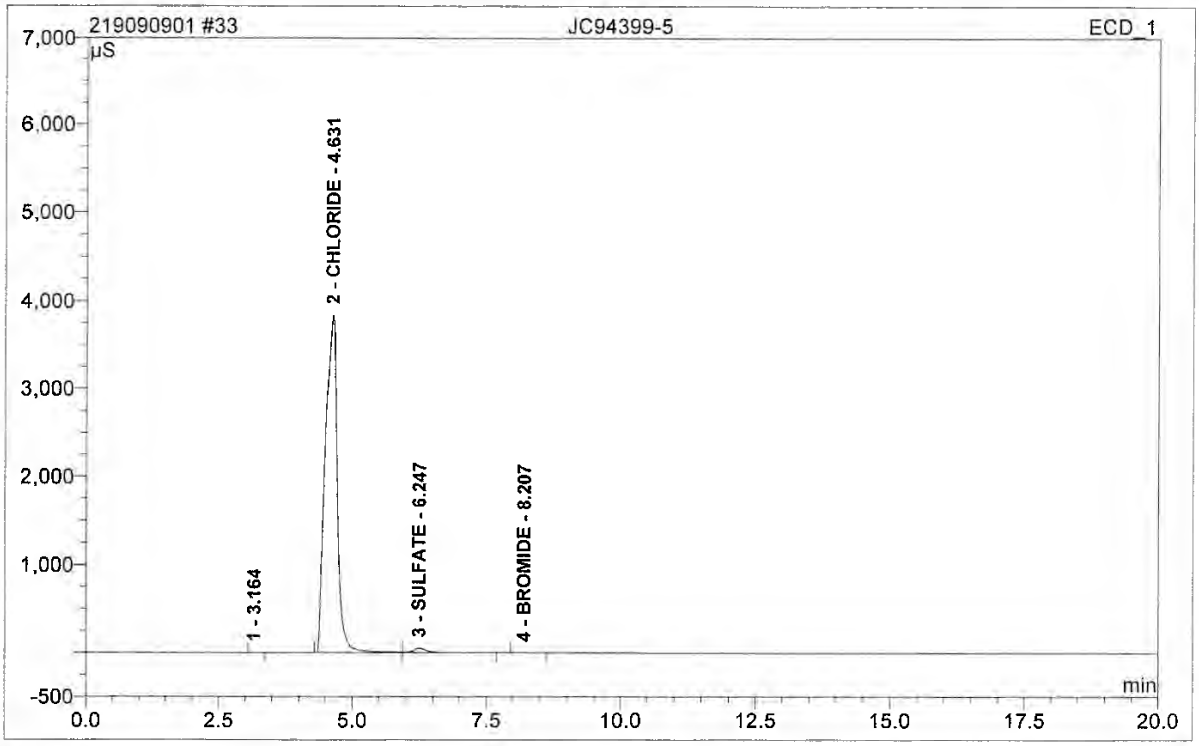
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.80	CHLORIDE	5558.980	3086.657	98.92	#########	BM
2	6.22	SULFATE	88.359	28.683	0.92	1349.033	MB
3	8.10	BROMIDE	19.034	4.930	0.16	452.145	BMB
Total:			5666.374	3120.271	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

33 JC94399-5

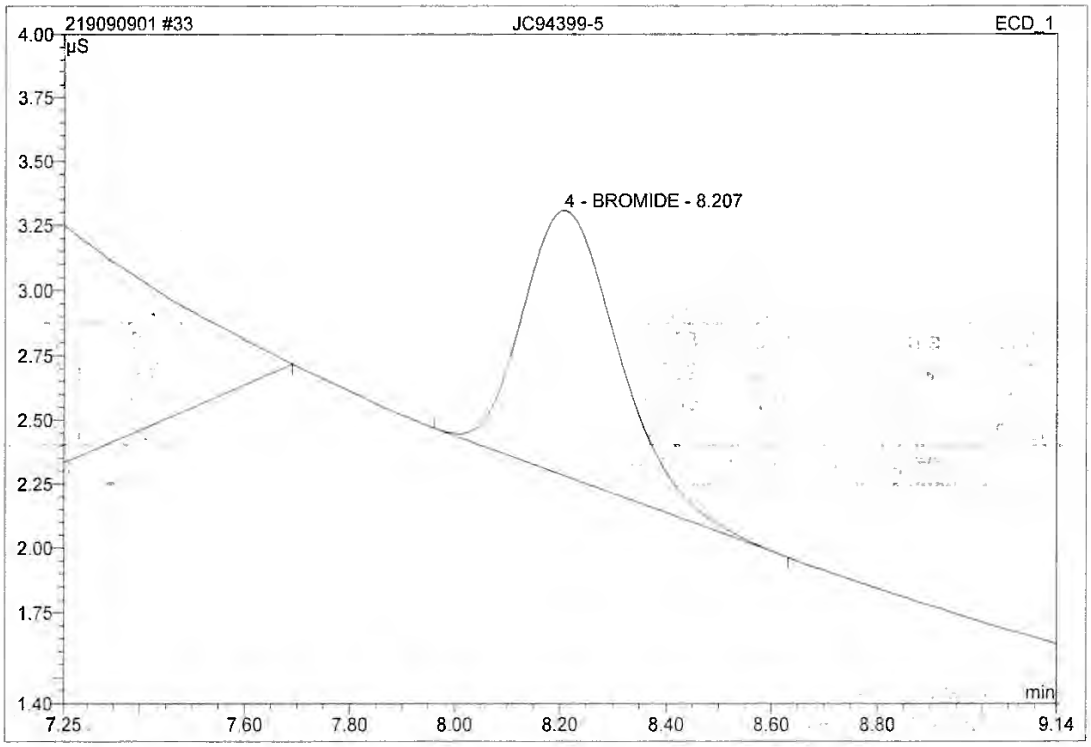
Sample Name:	**JC94399-5**	*Injection Volume:*	**20.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 19:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.16	n.a.	0.019	0.003	0.00	n.a.	BMB
2	4.63	CHLORIDE	3835.964	1001.259	98.46	34778.642	BM
3	6.25	SULFATE	51.714	15.460	1.52	727.109	MB
4	8.21	BROMIDE	1.024	0.218	0.02	20.010	BMB
Total:			3888.721	1016.941	100.00	35525.761	

33 JC94399-5

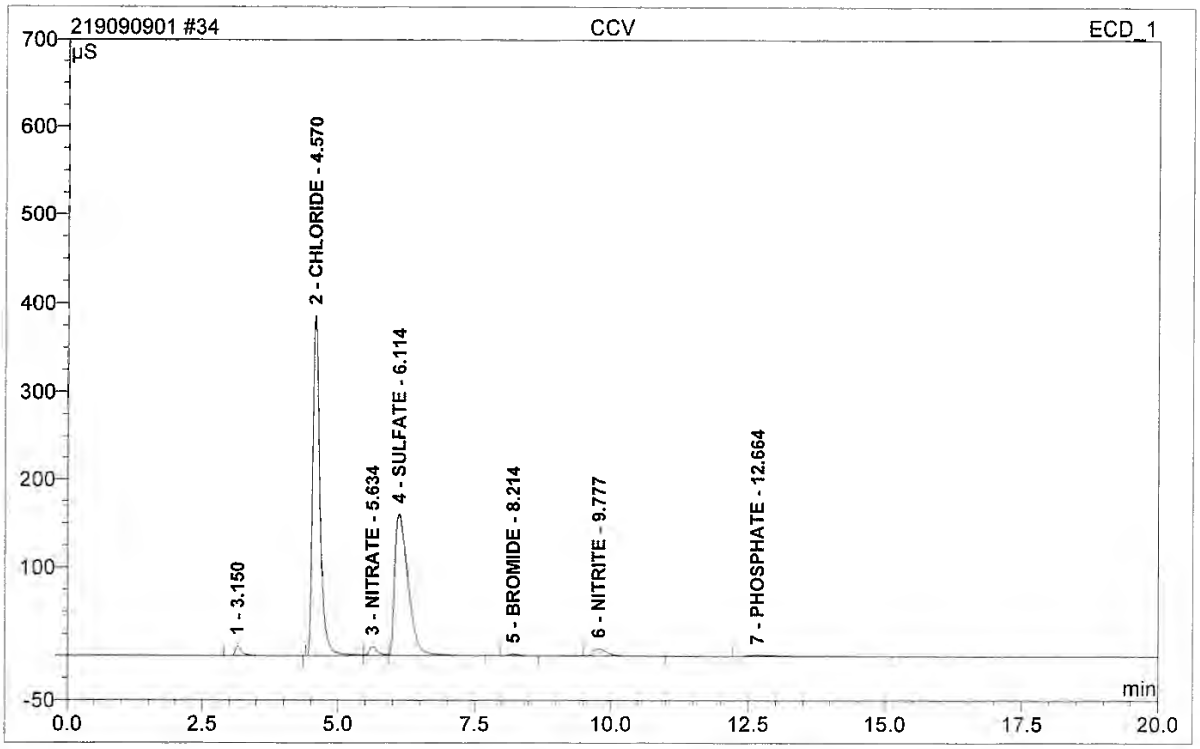
Sample Name:	**JC94399-5**	*Injection Volume:*	**20.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 19:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.16	n.a.	0.019	0.003	0.00	n.a.	BMB
2	4.63	CHLORIDE	3835.964	1001.259	98.46	#########	BM
3	6.25	SULFATE	51.714	15.460	1.52	727.109	MB
4	8.21	BROMIDE	1.024	0.218	0.02	20.010	BMB
Total:			3888.721	1016.941	100.00	#########	

34 CCV

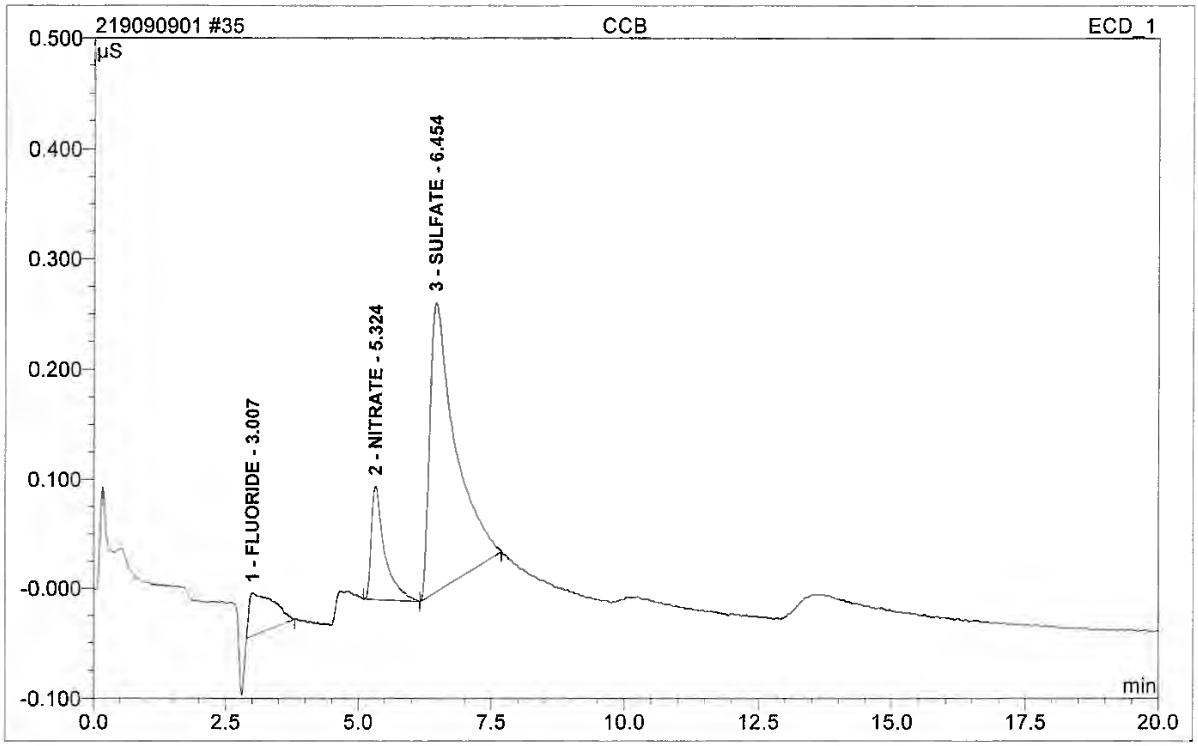
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/9/2019 20:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	10.916	1.513	1.34	n.a.	BMB
2	4.57	CHLORIDE	386.060	60.589	53.64	210.456	BM
3	5.63	NITRATE	10.616	1.925	1.70	3.100	M
4	6.11	SULFATE	160.515	45.402	40.19	213.538	MB
5	8.21	BROMIDE	1.693	0.350	0.31	3.210	BMB
6	9.78	NITRITE	8.042	2.246	1.99	3.238	BMB
7	12.66	PHOSPHATE	1.291	0.933	0.83	3.111	BMB
Total:			579.134	112.959	100.00	436.652	

35 CCB

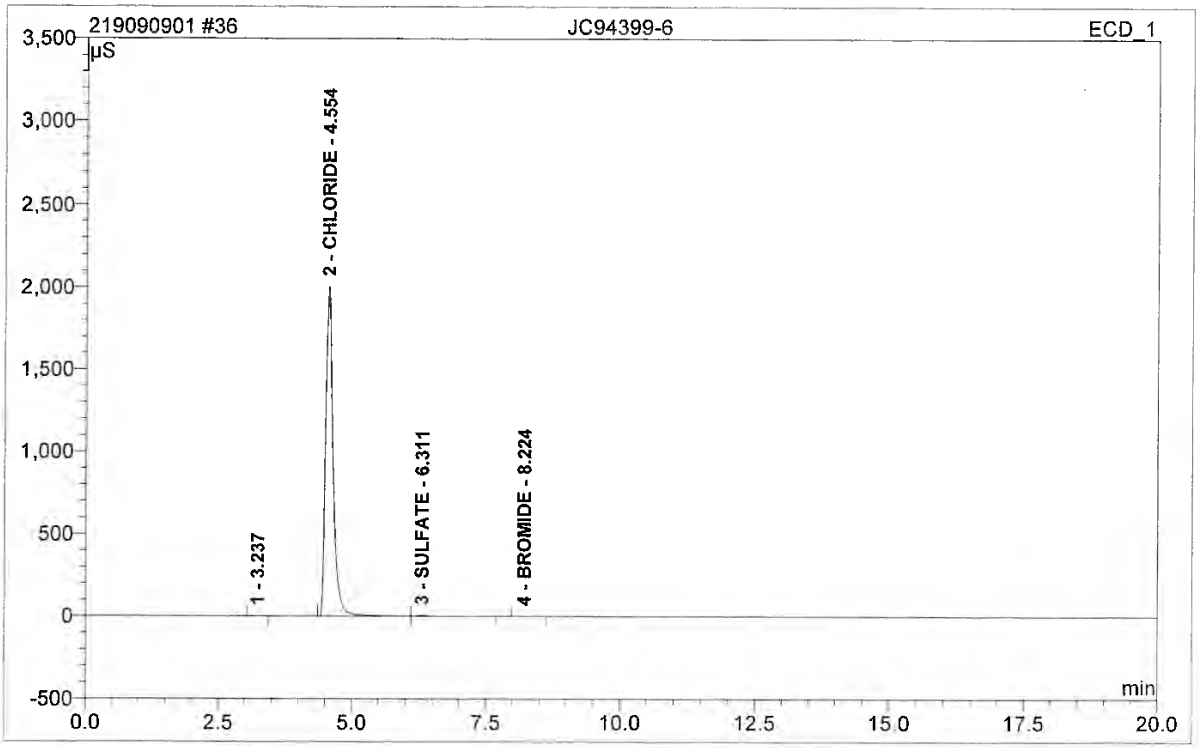
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/9/2019 20:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.01	FLUORIDE	0.040	0.020	10.12	0.043	BMB
2	5.32	NITRATE	0.104	0.030	15.34	0.049	BMB
3	6.45	SULFATE	0.264	0.147	74.54	0.693	BMB
Total:			0.407	0.198	100.00	0.785	

36 JC94399-6

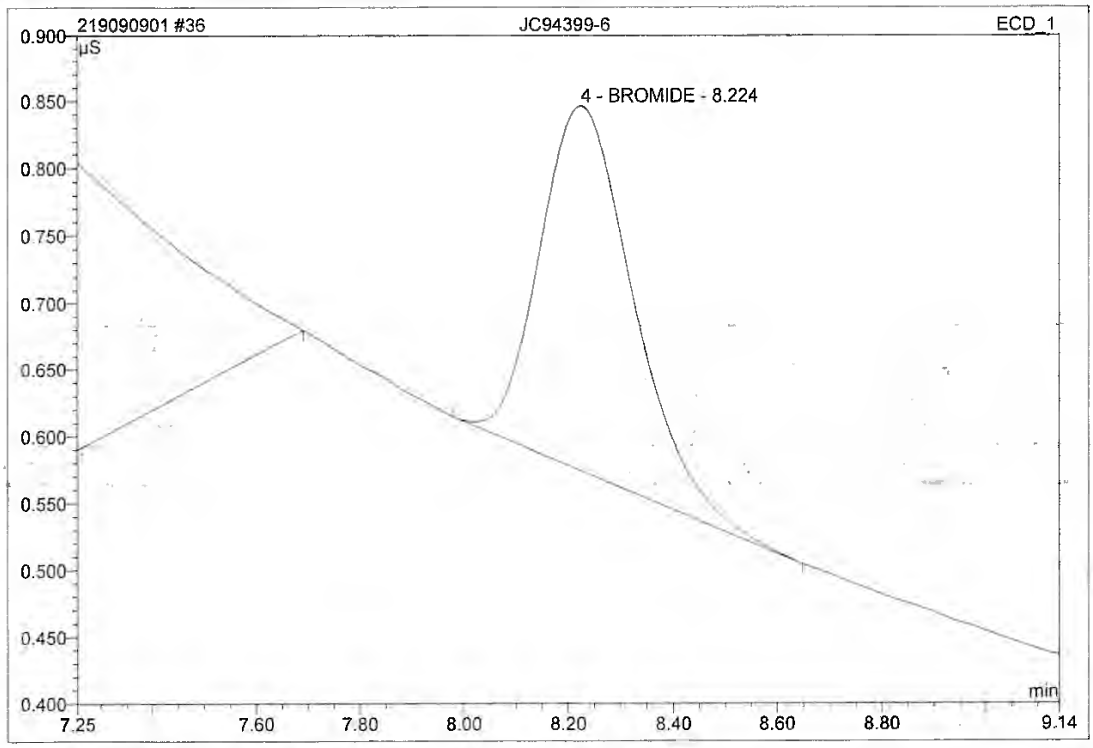
Sample Name:	**JC94399-6**	*Injection Volume:*	**20.0**
Vial Number:	**29**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 21:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.081	0.013	0.00	n.a.	BMB
2	4.55	CHLORIDE	2002.614	325.851	99.46	11318.400	BM
3	6.31	SULFATE	5.381	1.686	0.51	79.316	MB
4	8.22	BROMIDE	0.272	0.057	0.02	5.201	BMB
Total:			2008.348	327.607	100.00	11402.917	

36 JC94399-6

Sample Name:	**JC94399-6**	*Injection Volume:*	**20.0**
Vial Number:	**29**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 21:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



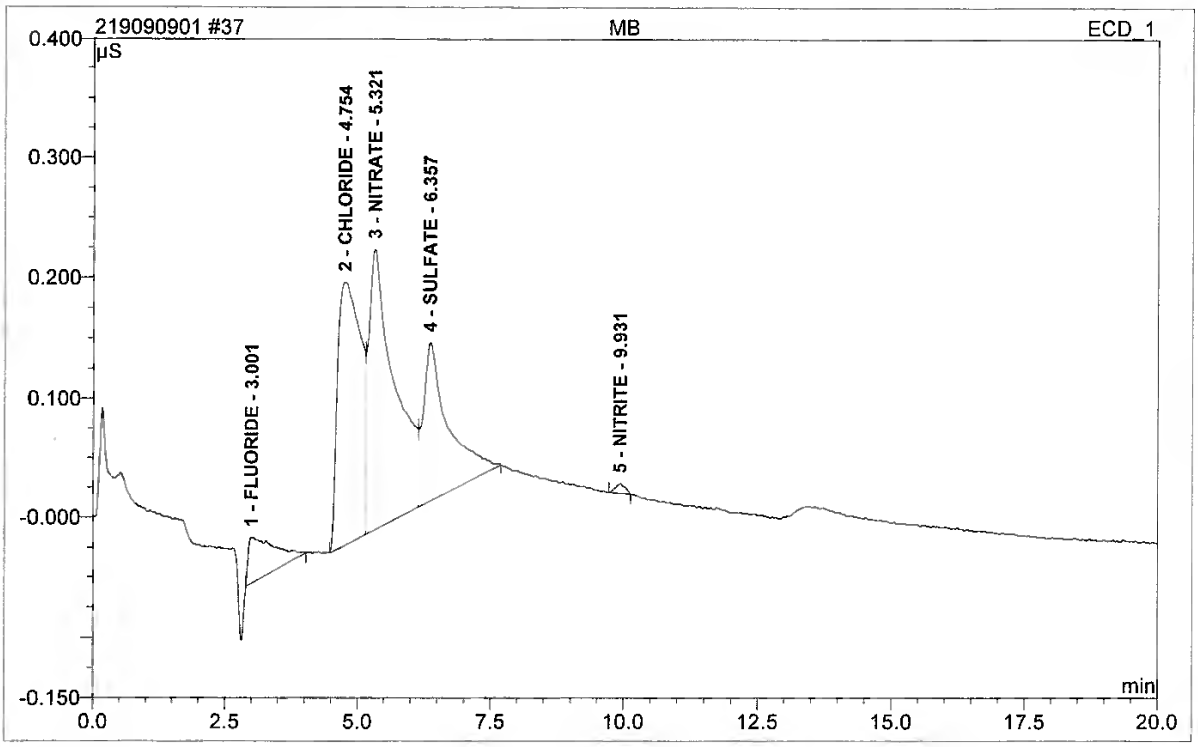
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.081	0.013	0.00	n.a.	BMB
2	4.55	CHLORIDE	2002.614	325.851	99.46	#########	BM
3	6.31	SULFATE	5.381	1.686	0.51	79.316	MB
4	8.22	BROMIDE	0.272	0.057	0.02	5.201	BMB
Total:			2008.348	327.607	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

37 MB

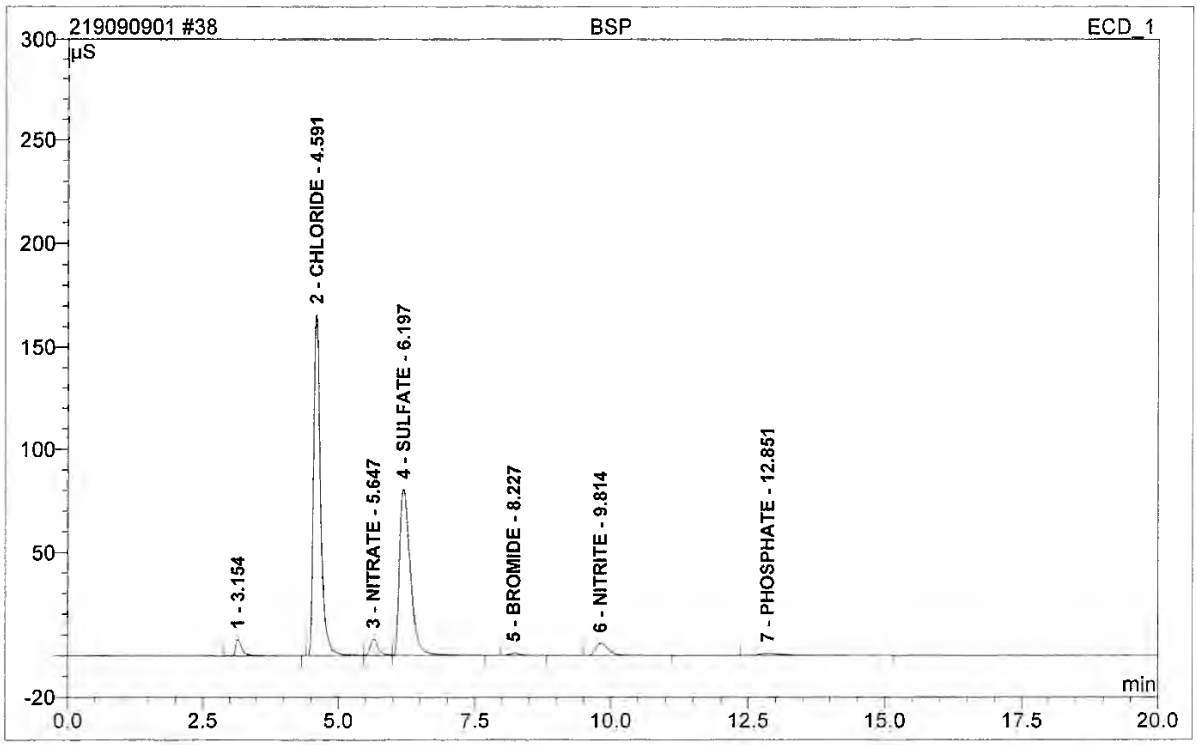
Sample Name:	**MB**	*Injection Volume:*	**20.0**
Vial Number:	**30**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/9/2019 21:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.00	FLUORIDE	0.038	0.021	6.14	0.045	BMB
2	4.75	CHLORIDE	0.219	0.110	32.52	0.381	BM
3	5.32	NITRATE	0.234	0.132	39.19	0.213	M
4	6.36	SULFATE	0.133	0.073	21.62	0.343	MB
5	9.93	NITRITE	0.008	0.002	0.53	0.003	BMB
Total:			0.632	0.337	100.00	0.984	

38 BSP

Sample Name:	**BSP**	*Injection Volume:*	**20.0**
Vial Number:	**31**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/9/2019 21:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	7.809	1.055	2.19	n.a.	BMB
2	4.59	CHLORIDE	165.601	24.679	51.25	85.722	BM
3	5.65	NITRATE	7.792	1.363	2.83	2.194	M
4	6.20	SULFATE	80.464	18.599	38.63	87.475	MB
5	8.23	BROMIDE	1.101	0.227	0.47	2.083	BMB
6	9.81	NITRITE	5.783	1.568	3.26	2.260	BMB
7	12.85	PHOSPHATE	0.993	0.659	1.37	2.198	BMB
Total:			269.543	48.150	100.00	181.932	

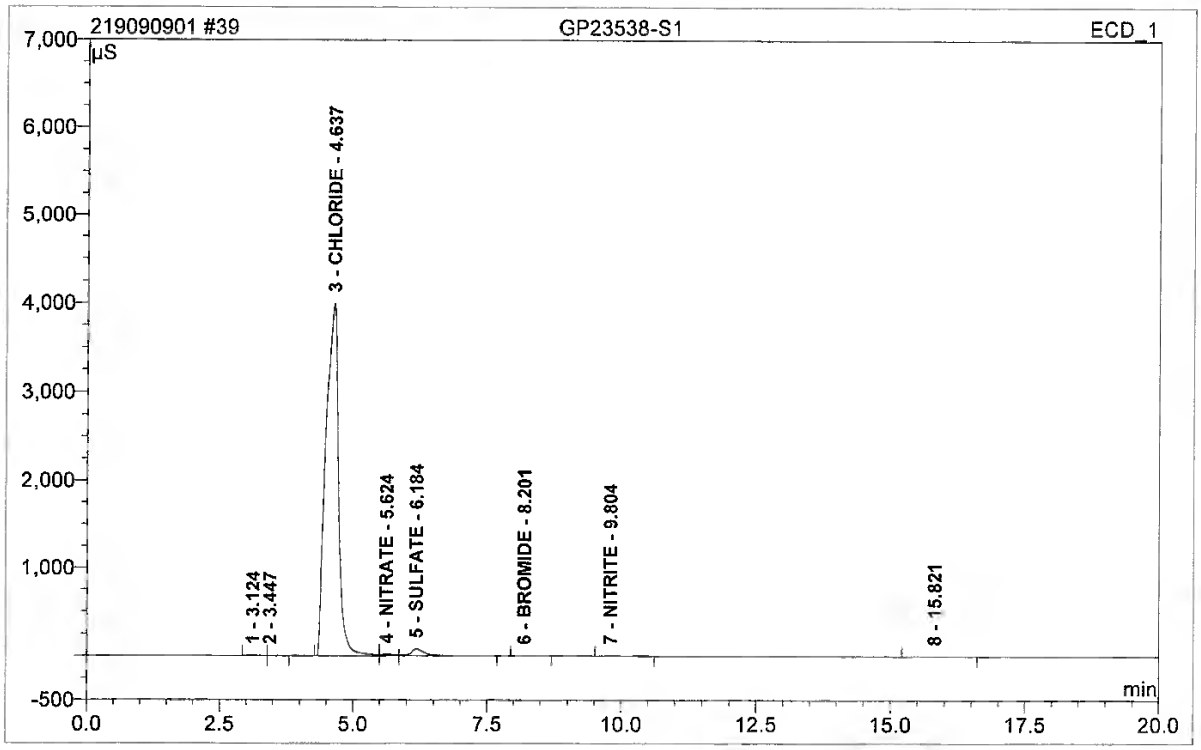
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

39 GP23538-S1

JC94517-1

Sample Name:	**GP23538-S1**	*Injection Volume:*	**20.0**
Vial Number:	**32**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 22:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.12	n.a.	3.962	0.772	0.07	n.a.	BM
2	3.45	n.a.	0.312	0.054	0.00	n.a.	MB
3	4.64	CHLORIDE	3996.940	1101.274	97.36	38252.644	BM
4	5.62	NITRATE	15.594	4.210	0.37	67.776	M
5	6.18	SULFATE	73.850	22.627	2.00	1064.224	MB
6	8.20	BROMIDE	2.244	0.487	0.04	44.671	BMB
7	9.80	NITRITE	5.678	1.566	0.14	22.569	BMB
8	15.82	n.a.	0.320	0.144	0.01	n.a.	BMB
Total:			4098.901	1131.134	100.00	39451.884	

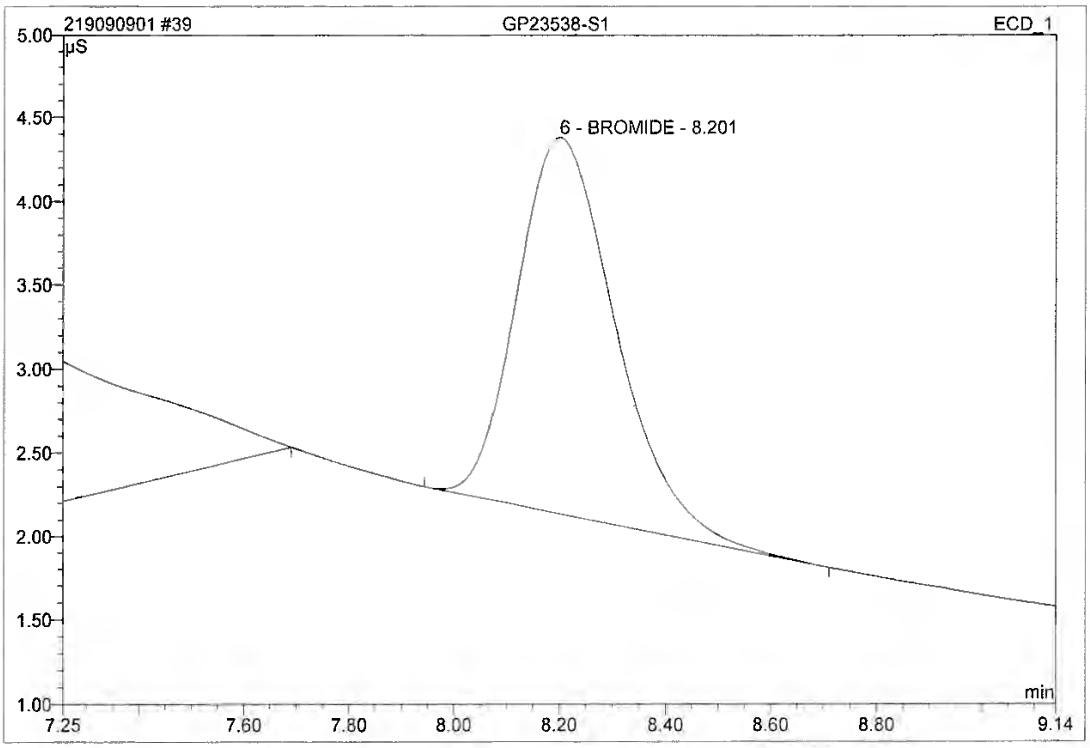
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

39 GP23538-S1

JC94517-1

Sample Name:	**GP23538-S1**	*Injection Volume:*	**20.0**
Vial Number:	**32**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 22:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.12	n.a.	3.962	0.772	0.07	n.a.	BM
2	3.45	n.a.	0.312	0.054	0.00	n.a	MB
3	4.64	CHLORIDE	3996.940	1101.274	97.36	#########	BM
4	5.62	NITRATE	15.594	4.210	0.37	67.776	M
5	6.18	SULFATE	73.850	22.627	2.00	1064.224	MB
6	8.20	BROMIDE	2.244	0.487	0.04	44.671	BMB
7	9.80	NITRITE	5.678	1.566	0.14	22.569	BMB
8	15.82	n.a.	0.320	0.144	0.01	n.a.	BMB
Total:			4098.901	1131.134	100.00	#########	

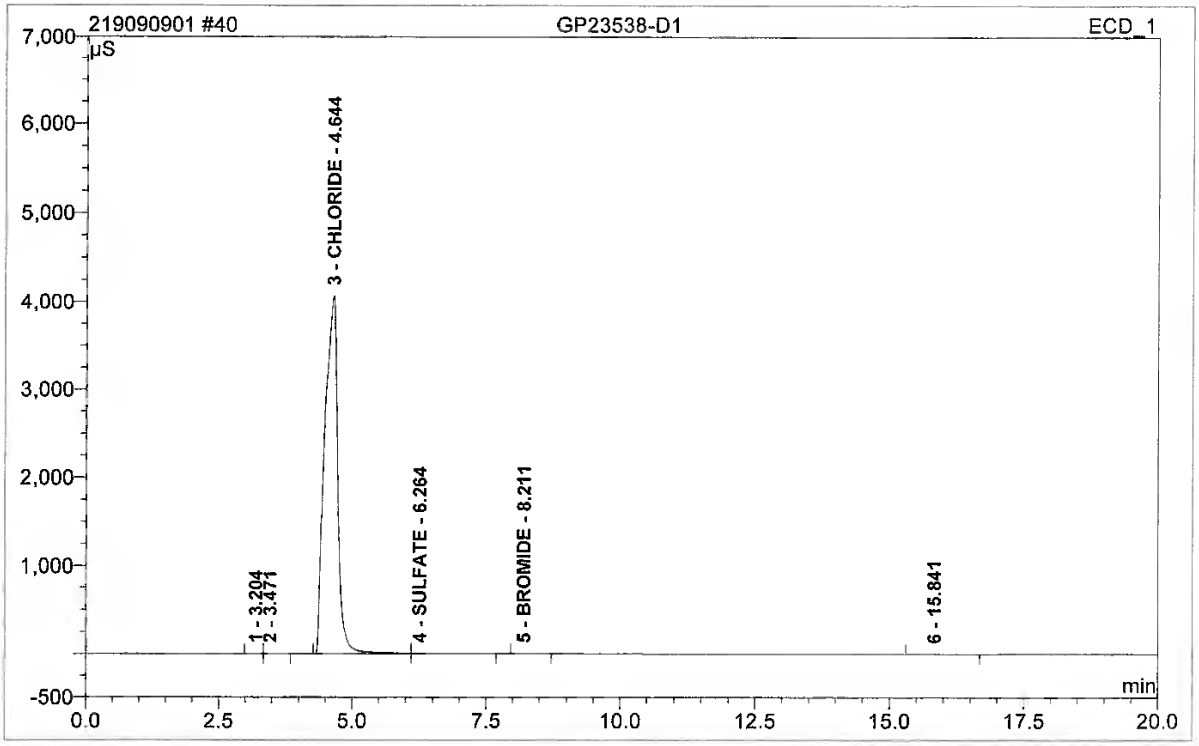
DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

40 GP23538-D1

JC94517-1

Sample Name:	**GP23538-D1**	*Injection Volume:*	**20.0**
Vial Number:	**33**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 22:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.20	n.a.	0.198	0.039	0.00	n.a.	BM
2	3.47	n.a.	0.258	0.051	0.00	n.a.	MB
3	4.64	CHLORIDE	4060.827	1152.927	99.65	40046.787	BM
4	6.26	SULFATE	6.619	3.513	0.30	165.221	MB
5	8.21	BROMIDE	1.133	0.245	0.02	22.512	BMB
6	15.84	n.a.	0.339	0.154	0.01	n.a.	BMB
Total:			4069.372	1156.929	100.00	40234.520	

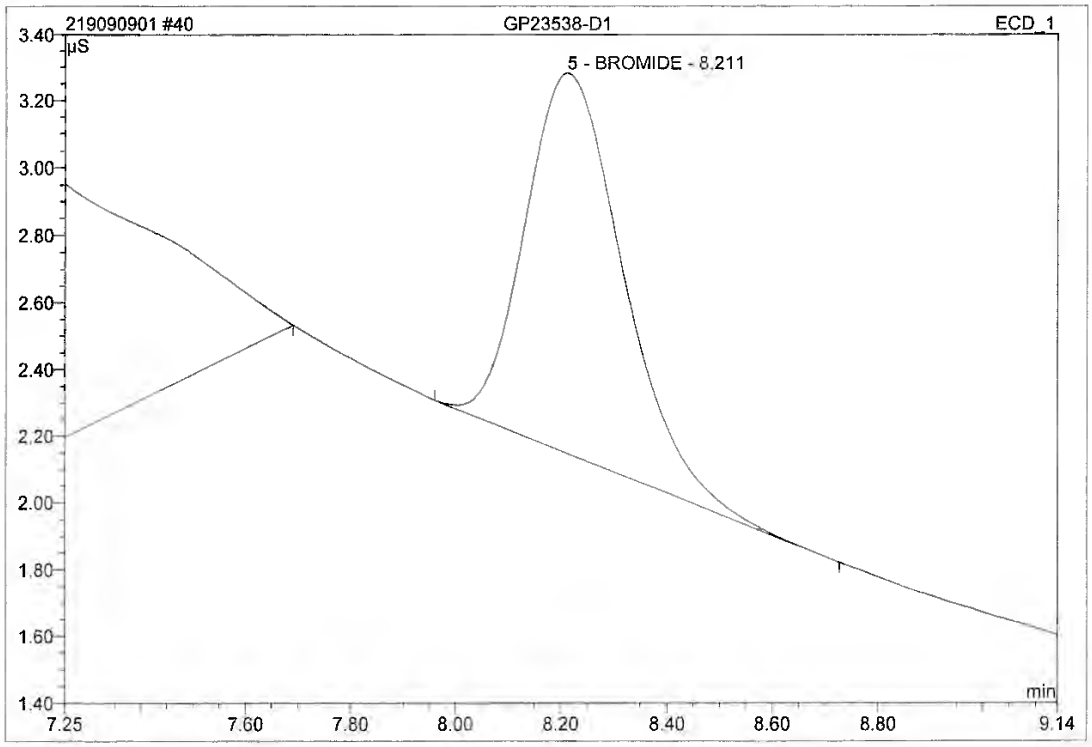
Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

9/10/2019 10:00 AM

40 GP23538-D1

JC94517-1

Sample Name:	**GP23538-D1**	*Injection Volume:*	**20.0**
Vial Number:	**33**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 22:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



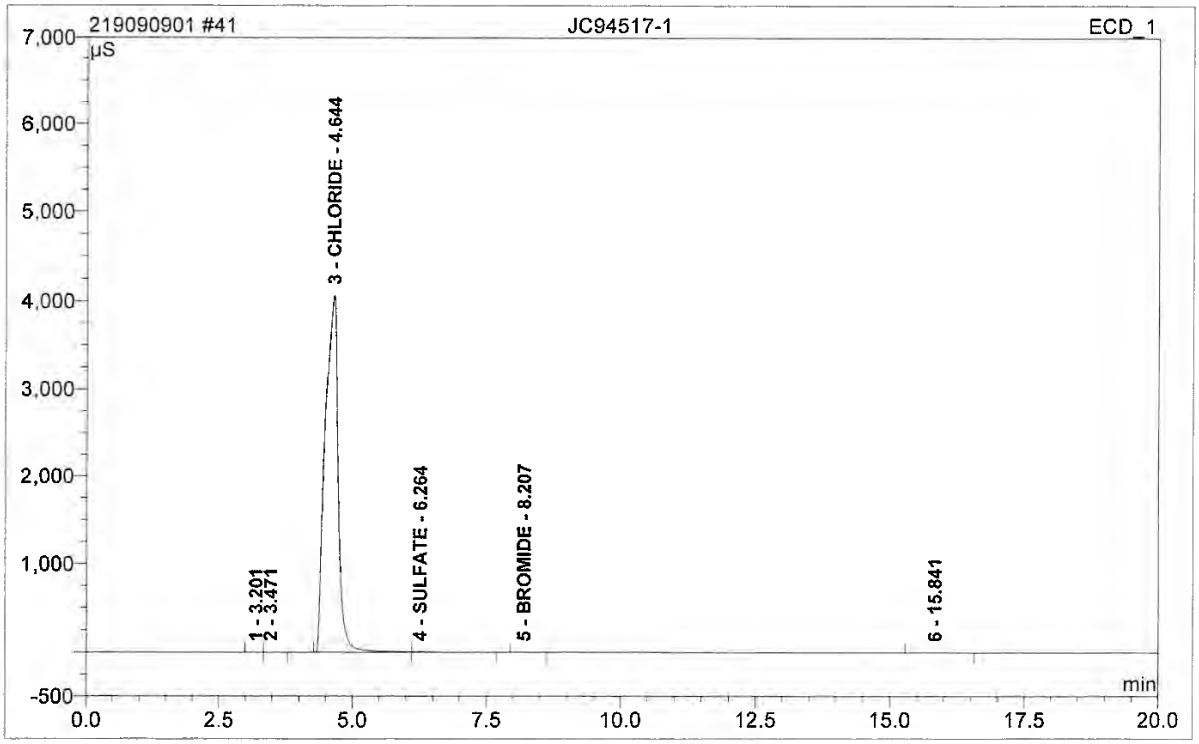
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.20	n.a.	0.198	0.039	0.00	n.a.	BM
2	3.47	n.a.	0.258	0.051	0.00	n.a.	MB
3	4.64	CHLORIDE	4060.827	1152.927	99.65	#########	BM
4	6.26	SULFATE	6.619	3.513	0.30	165.221	MB
5	8.21	BROMIDE	1.133	0.245	0.02	22.512	BMB
6	15.84	n.a.	0.339	0.154	0.01	n.a.	BMB
Total:			4069.372	1156.929	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

41 JC94517-1

Sample Name:	**JC94517-1**	*Injection Volume:*	**20.0**
Vial Number:	**34**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 23:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



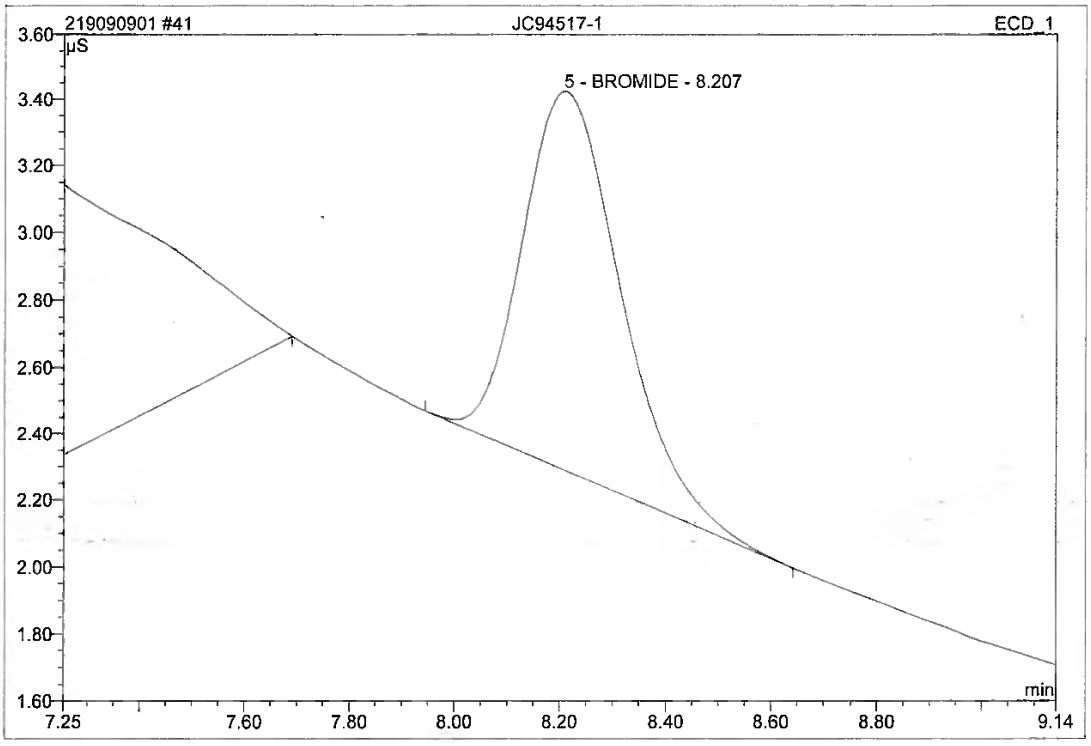
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.20	n.a.	0.138	0.028	0.00	n.a.	BM
2	3.47	n.a.	0.245	0.048	0.00	n.a.	MB
3	4.64	CHLORIDE	4061.218	1153.902	99.65	40080.656	BM
4	6.26	SULFATE	6.714	3.628	0.31	170.614	MB
5	8.21	BROMIDE	1.133	0.246	0.02	22.577	BMB
6	15.84	n.a.	0.340	0.154	0.01	n.a.	BMB
Total:			4069.789	1158.005	100.00	40273.847	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

41 JC94517-1

Sample Name:	**JC94517-1**	*Injection Volume:*	**20.0**
Vial Number:	**34**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 23:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



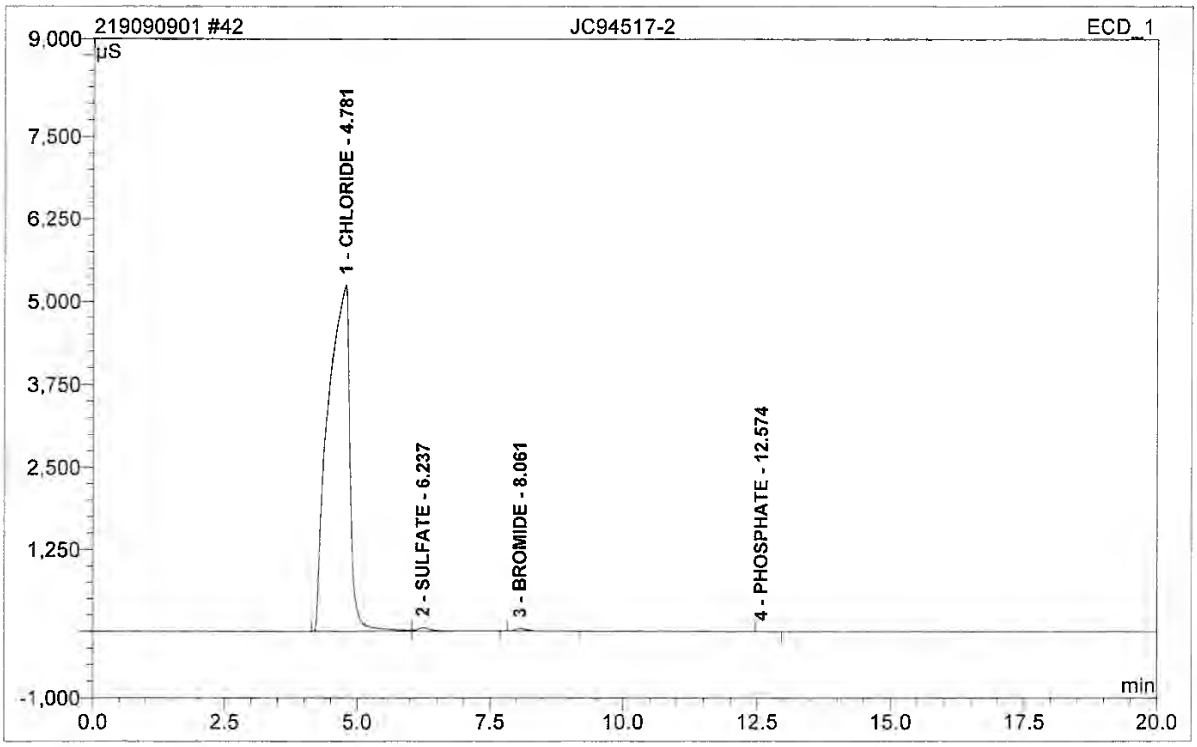
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.20	n.a.	0.138	0.028	0.00	n.a.	BM
2	3.47	n.a.	0.245	0.048	0.00	n.a.	MB
3	4.64	CHLORIDE	4061.218	1153.902	99.65	#########	BM
4	6.26	SULFATE	6.714	3.628	0.31	170.614	MB
5	8.21	BROMIDE	1.133	0.246	0.02	22.577	BMB
6	15.84	n.a.	0.340	0.154	0.01	n.a.	BMB
Total:			4069.789	1158.005	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

42 JC94517-2

Sample Name:	**JC94517-2**	*Injection Volume:*	**20.0**
Vial Number:	**35**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 23:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



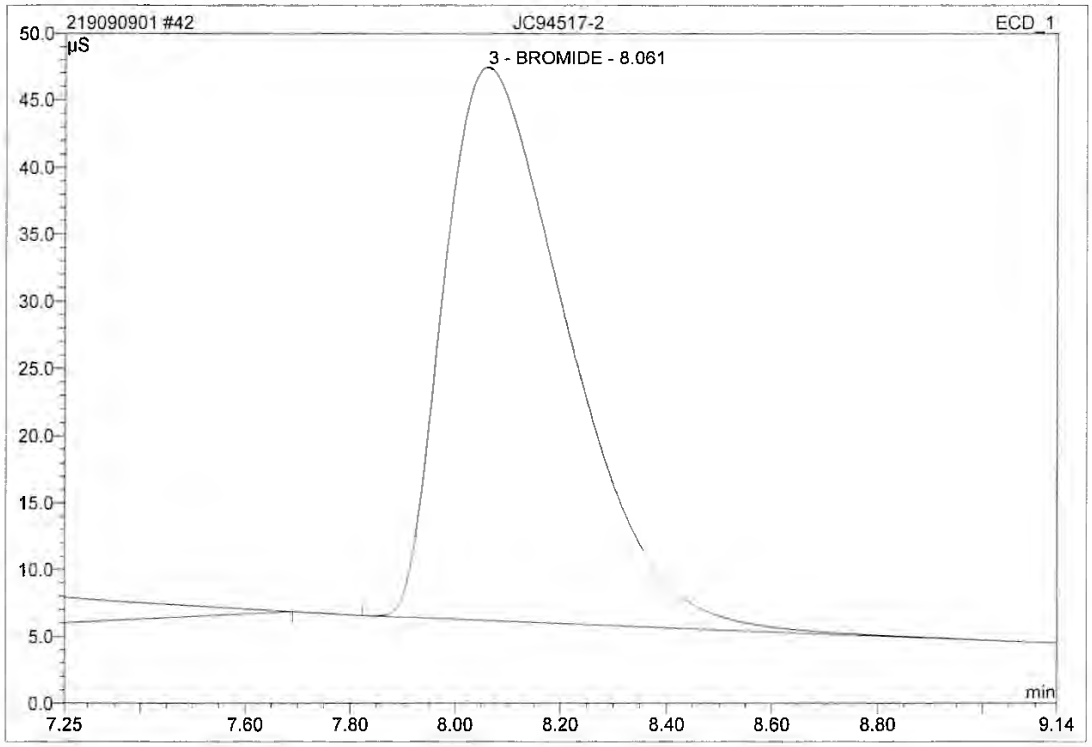
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.78	CHLORIDE	5247.087	2502.716	98.81	86931.565	BM
2	6.24	SULFATE	55.407	18.695	0.74	879.262	MB
3	8.06	BROMIDE	41.221	11.320	0.45	1038.111	BMB
4	12.57	PHOSPHATE	0.041	0.010	0.00	0.321	BMB
Total:			5343.755	2532.739	100.00	88849.260	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

9/10/2019 10:00 AM

42 JC94517-2

Sample Name:	**JC94517-2**	*Injection Volume:*	**20.0**
Vial Number:	**35**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 23:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



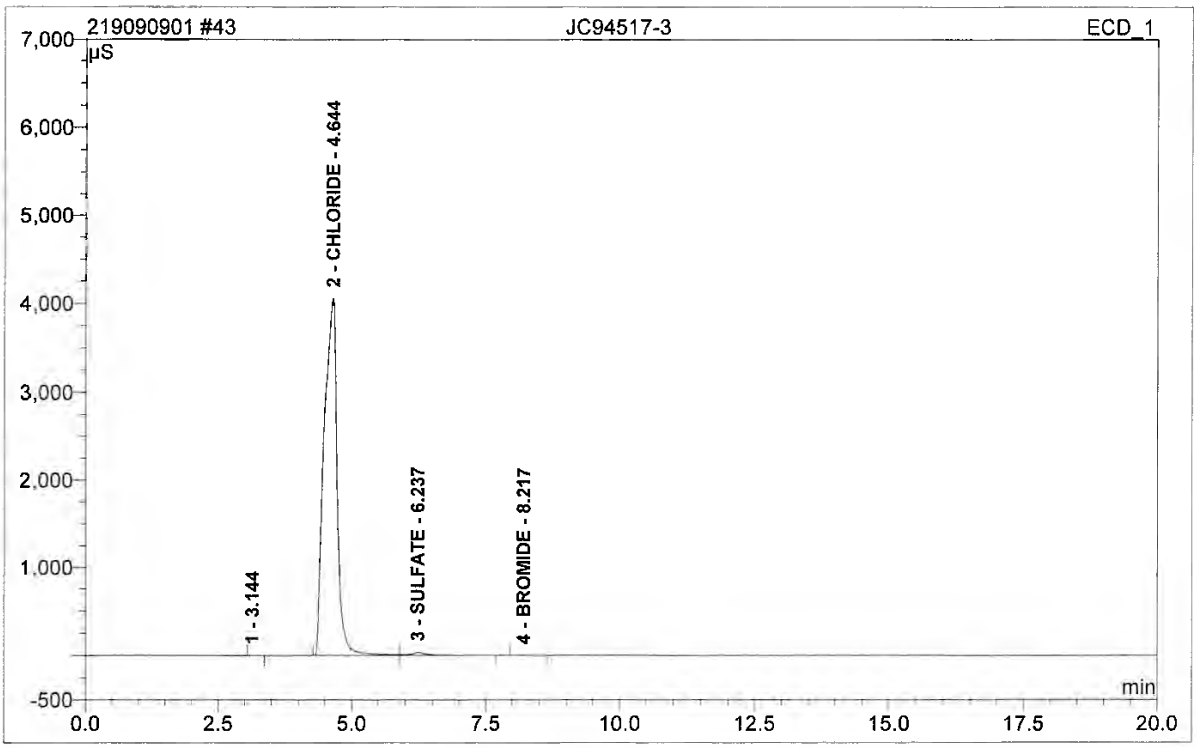
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.78	CHLORIDE	5247.087	2502.716	98.81	#########	BM
2	6.24	SULFATE	55.407	18.695	0.74	879.262	MB
3	8.06	BROMIDE	41.221	11.320	0.45	1038.111	BMB
4	12.57	PHOSPHATE	0.041	0.010	0.00	0.321	BMB
Total:			5343.755	2532.739	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

43 JC94517-3

Sample Name:	**JC94517-3**	*Injection Volume:*	**20.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 23:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	0.021	0.004	0.00	n.a.	BMB
2	4.64	CHLORIDE	4056.319	1150.572	98.93	39965.000	BM
3	6.24	SULFATE	34.269	12.219	1.05	574.680	MB
4	8.22	BROMIDE	1.119	0.243	0.02	22.299	BMB
Total:			4091.729	1163.037	100.00	40561.980	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

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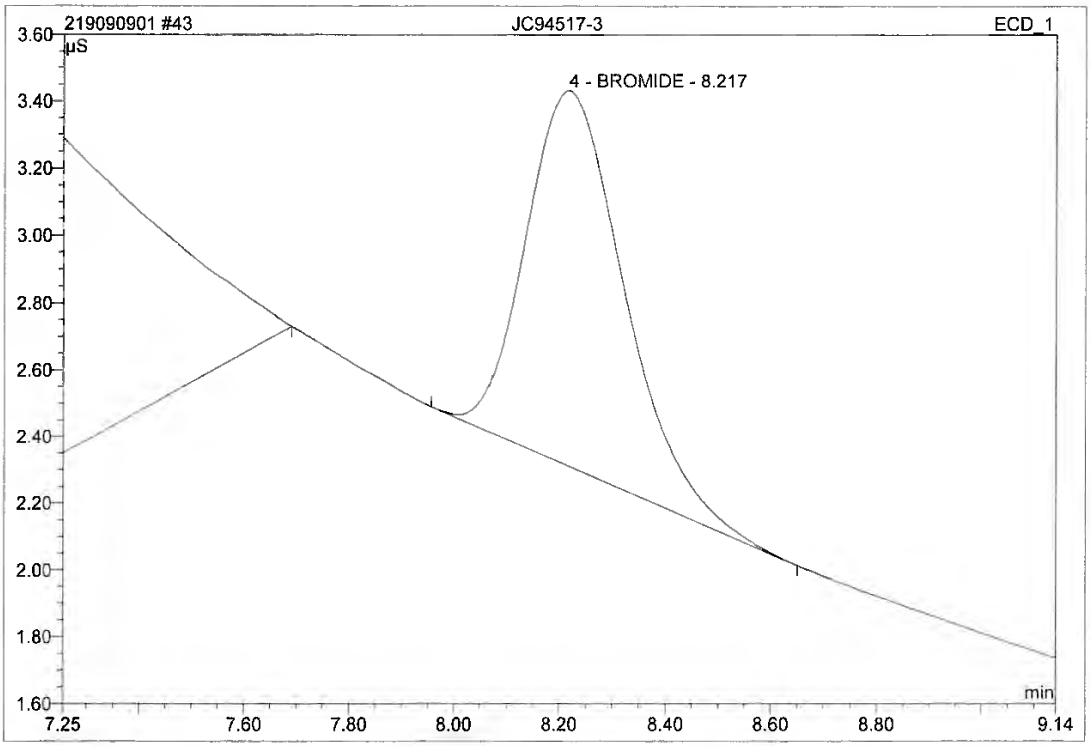
43 JC94517-3

Sample Name:	**JC94517-3**	*Injection Volume:*	**20.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/9/2019 23:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



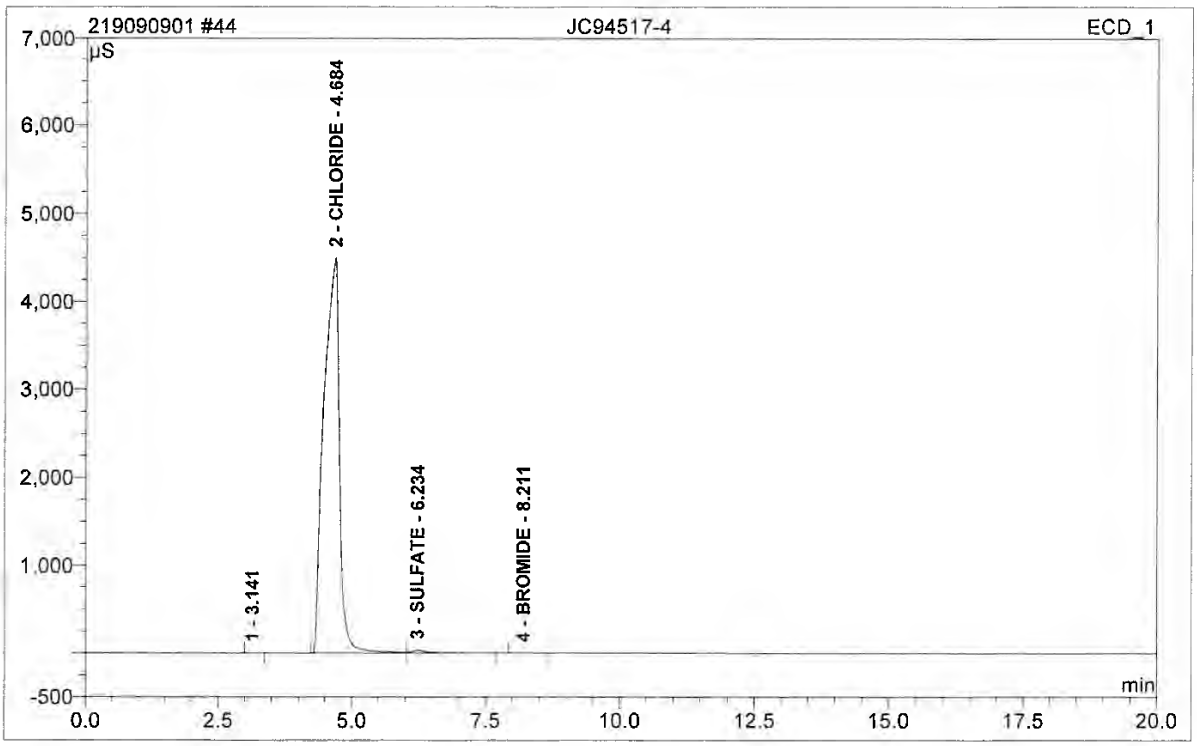
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	0.021	0.004	0.00	n.a.	BMB
2	4.64	CHLORIDE	4056.319	1150.572	98.93	#########	BM
3	6.24	SULFATE	34.269	12.219	1.05	574.680	MB
4	8.22	BROMIDE	1.119	0.243	0.02	22.299	BMB
Total:			4091.729	1163.037	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

44 JC94517-4

Sample Name:	**JC94517-4**	*Injection Volume:*	**20.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/10/2019 0:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	0.075	0.012	0.00	n.a.	BMB
2	4.68	CHLORIDE	4493.672	1522.643	99.23	52888.846	BM
3	6.23	SULFATE	31.984	11.487	0.75	540.254	MB
4	8.21	BROMIDE	1.591	0.352	0.02	32.276	BMB
Total:			4527.322	1534.494	100.00	53461.375	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

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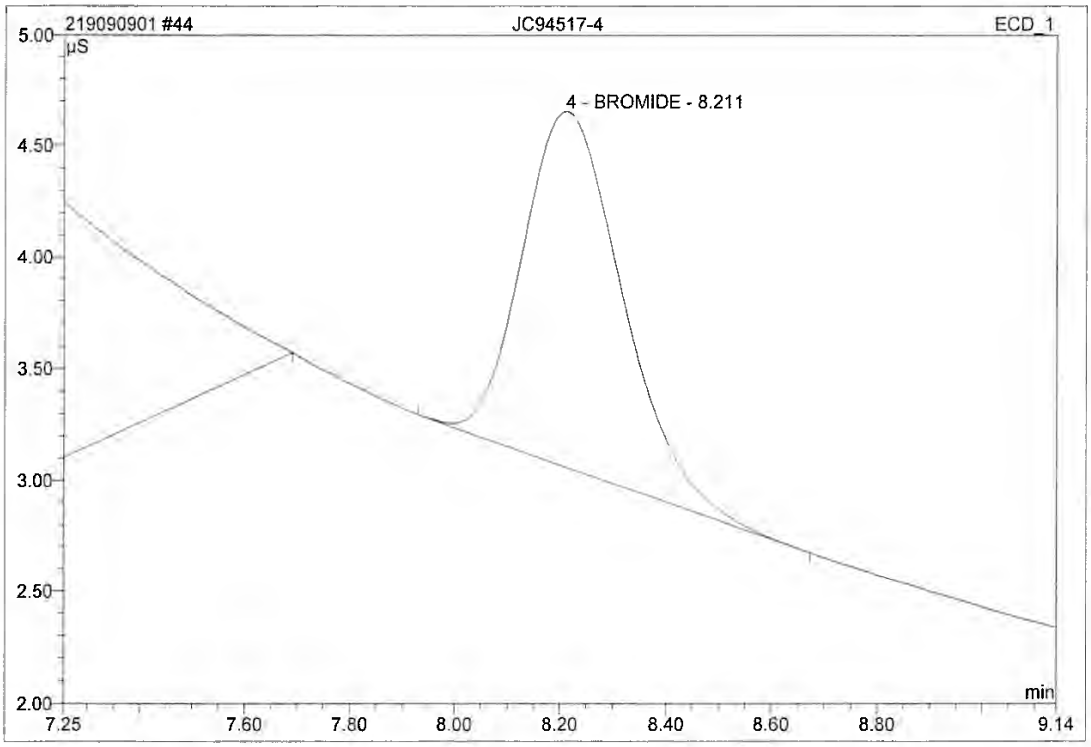
44 JC94517-4

Sample Name:	**JC94517-4**	*Injection Volume:*	**20.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/10/2019 0:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	0.075	0.012	0.00	n.a.	BMB
2	4.68	CHLORIDE	4493.672	1522.643	99.23	#########	BM
3	6.23	SULFATE	31.984	11.487	0.75	540.254	MB
4	8.21	BROMIDE	1.591	0.352	0.02	32.276	BMB
Total:			4527.322	1534.494	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
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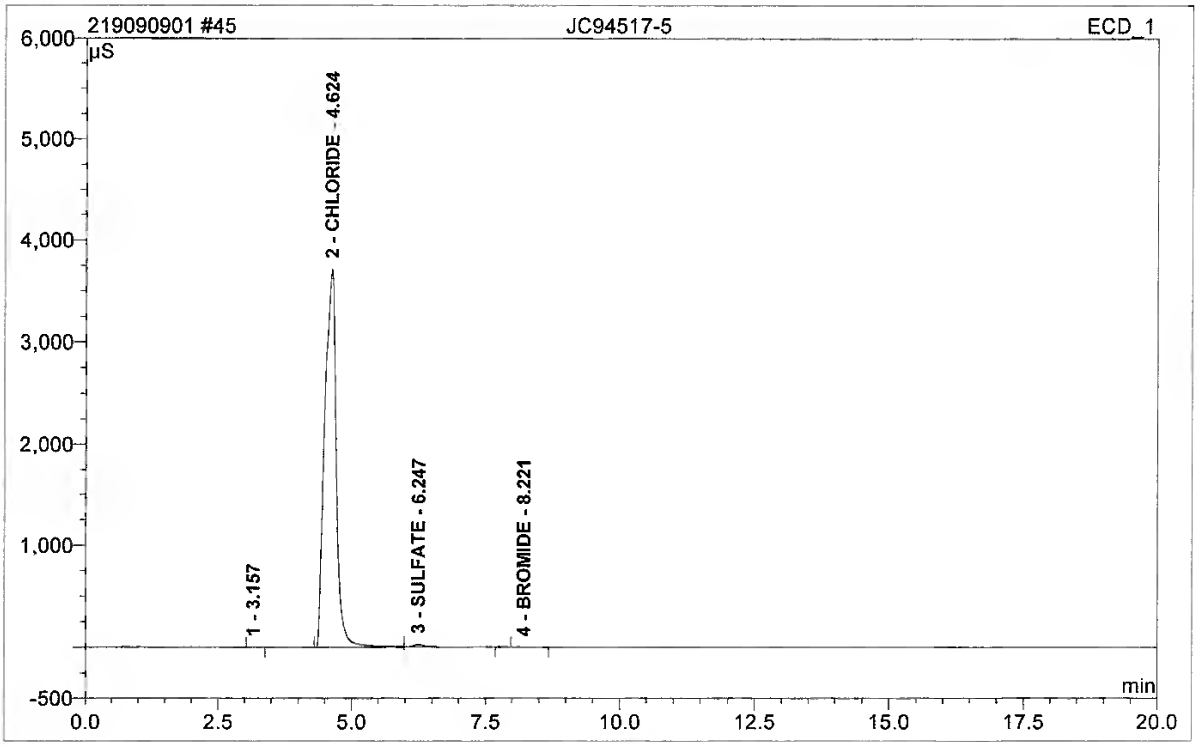
45 JC94517-5

Sample Name:	**JC94517-5**	*Injection Volume:*	**20.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/10/2019 0:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



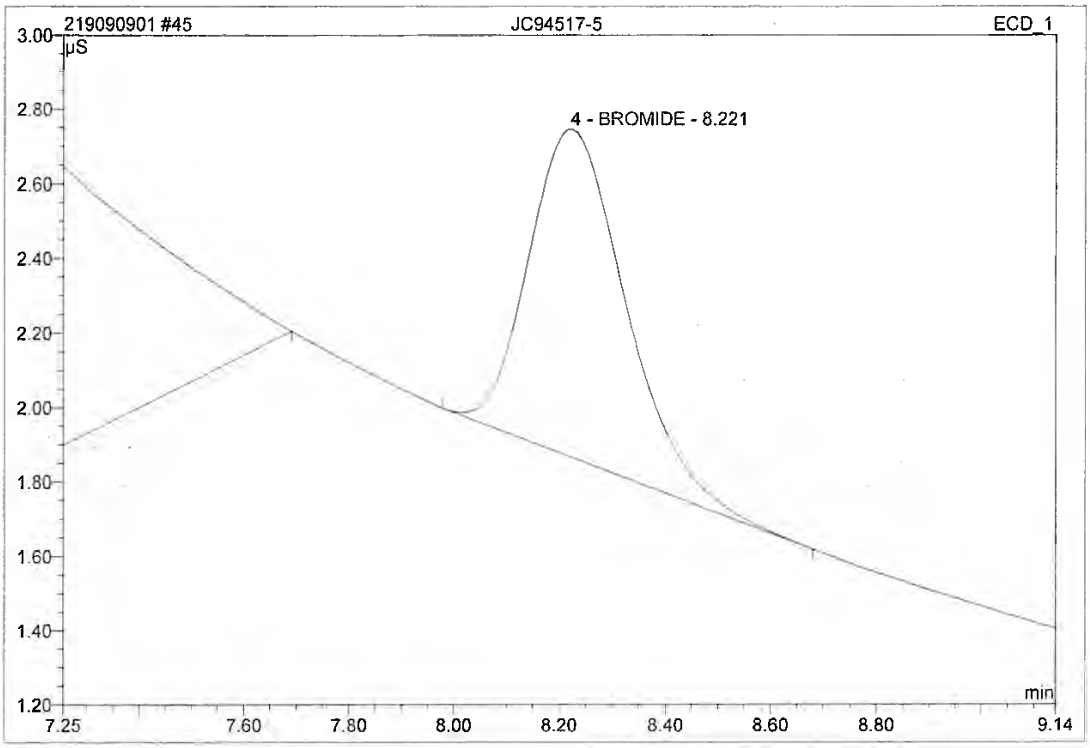
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.16	n.a.	0.022	0.004	0.00	n.a.	BMB
2	4.62	CHLORIDE	3713.295	933.931	99.09	32440.003	BM
3	6.25	SULFATE	24.942	8.369	0.89	393.593	MB
4	8.22	BROMIDE	0.878	0.187	0.02	17.179	BMB
Total:			3739.137	942.491	100.00	32850.775	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219090901

9/10/2019 10:00 AM

45 JC94517-5

Sample Name:	**JC94517-5**	*Injection Volume:*	**20.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/10/2019 0:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



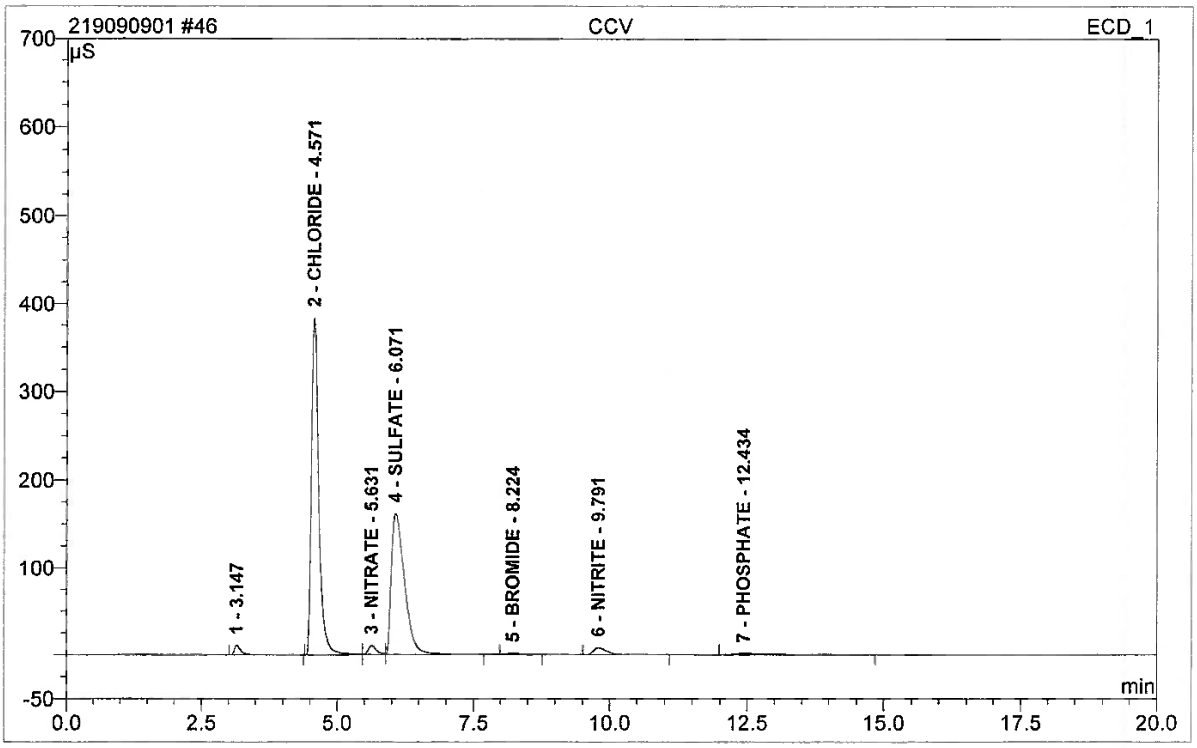
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.16	n.a.	0.022	0.004	0.00	n.a.	BMB
2	4.62	CHLORIDE	3713.295	933.931	99.09	#########	BM
3	6.25	SULFATE	24.942	8.369	0.89	393.593	MB
4	8.22	BROMIDE	0.878	0.187	0.02	17.179	BMB
Total:			3739.137	942.491	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

46 CCV

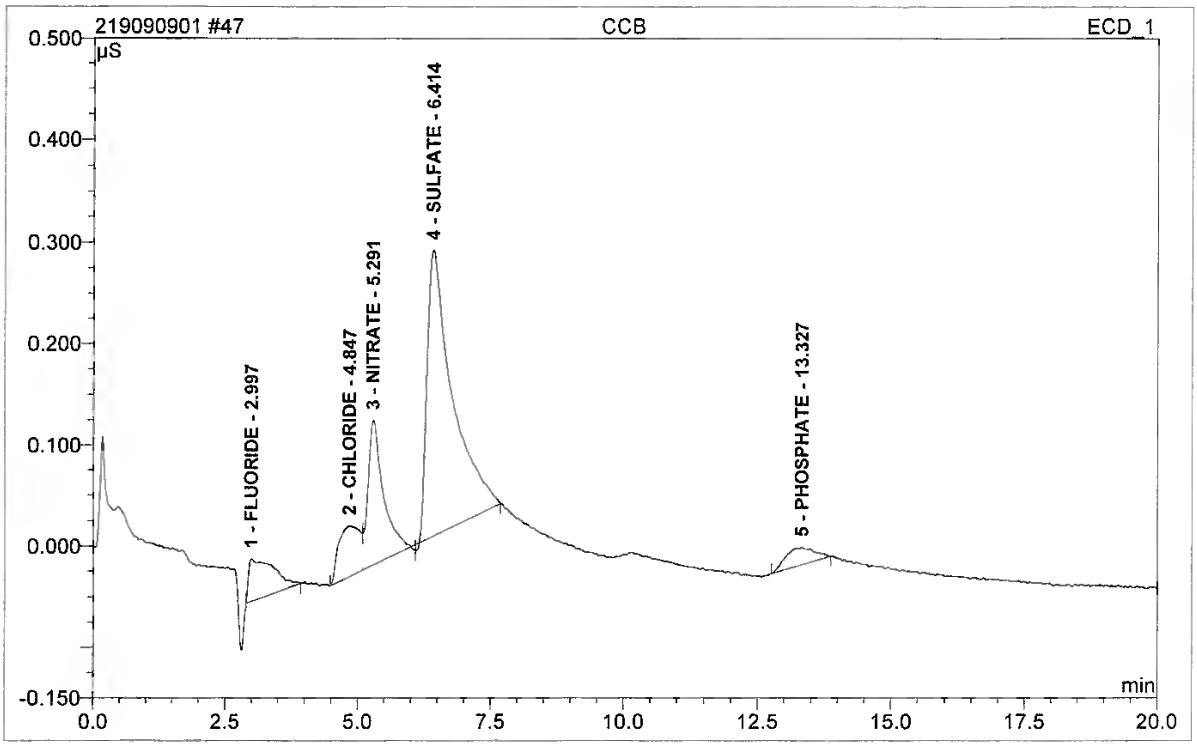
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**39**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 1:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	10.960	1.518	1.34	n.a.	BMB
2	4.57	CHLORIDE	383.798	60.564	53.51	210.369	BM
3	5.63	NITRATE	10.614	1.904	1.68	3.066	M
4	6.07	SULFATE	162.233	45.476	40.18	213.886	MB
5	8.22	BROMIDE	1.692	0.352	0.31	3.229	BMB
6	9.79	NITRITE	8.000	2.252	1.99	3.247	BMB
7	12.43	PHOSPHATE	1.568	1.110	0.98	3.701	BMB
Total:			578.866	113.177	100.00	437.497	

47 CCB

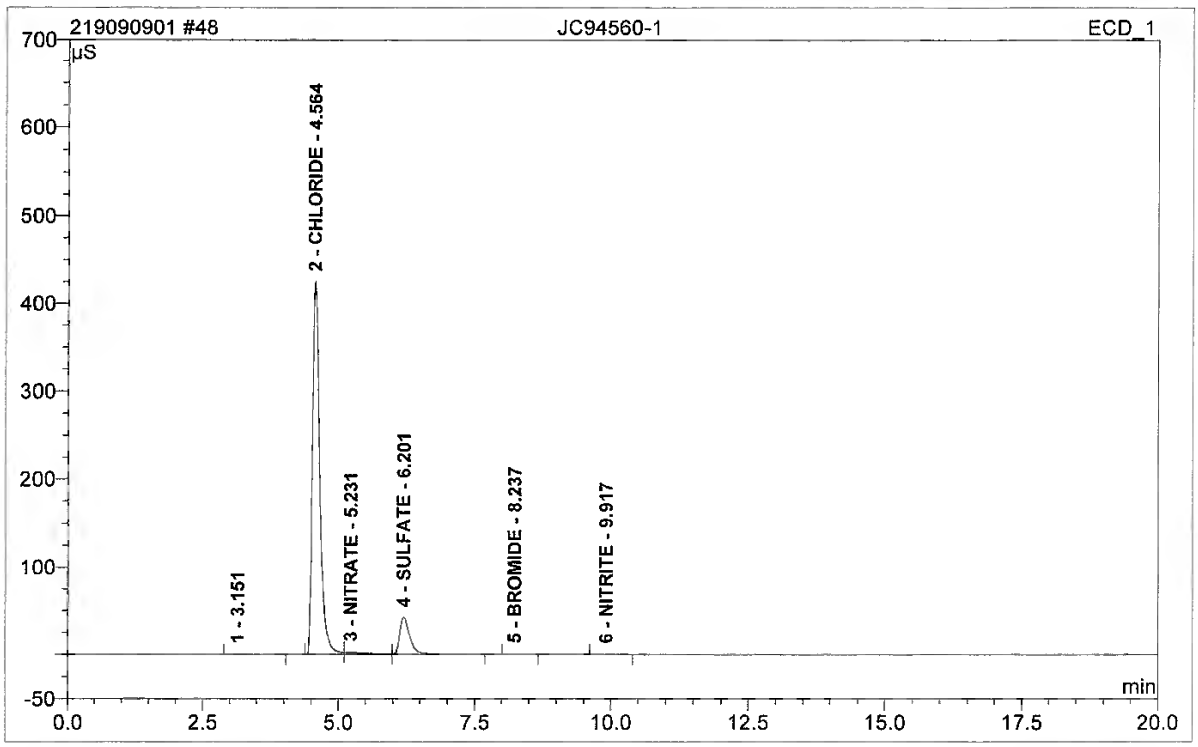
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**40**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 1:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.00	FLUORIDE	0.042	0.022	8.40	0.047	BMB
2	4.85	CHLORIDE	0.050	0.023	8.77	0.079	BM
3	5.29	NITRATE	0.143	0.049	18.83	0.079	M
4	6.41	SULFATE	0.282	0.155	59.71	0.730	MB
5	13.33	PHOSPHATE	0.017	0.011	4.28	0.037	BMB
Total:			0.533	0.260	100.00	0.972	

48 JC94560-1

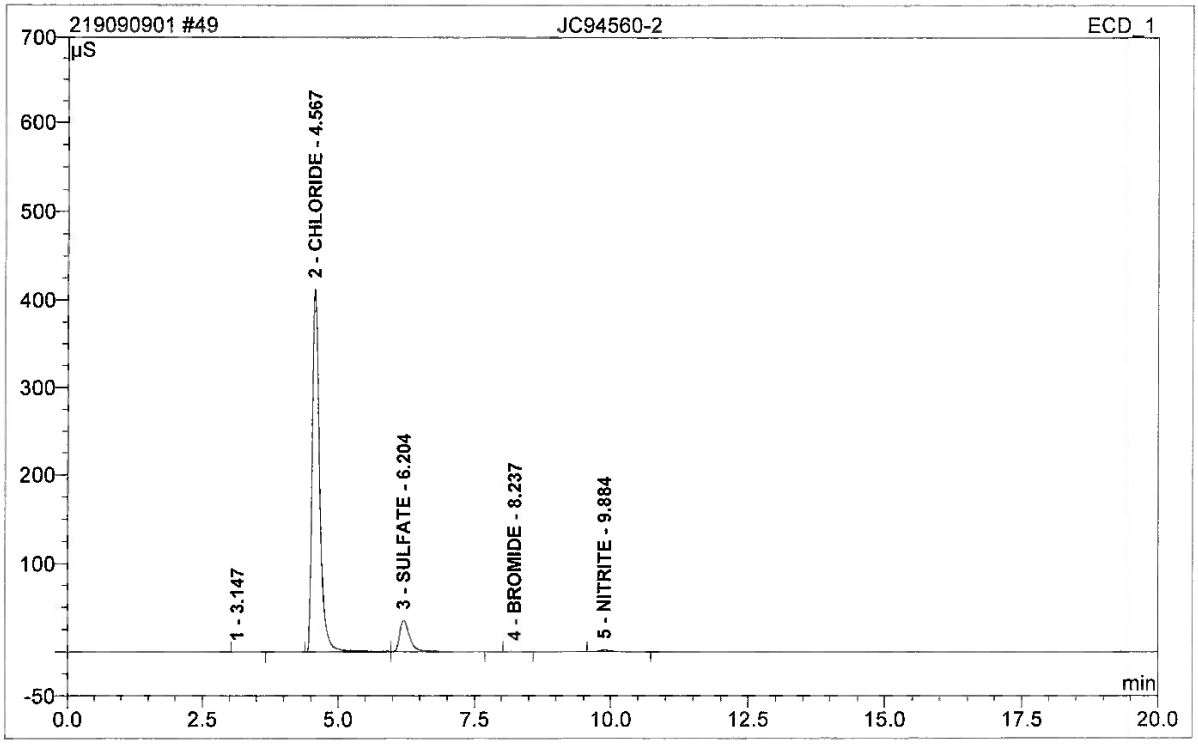
Sample Name:	**JC94560-1**	*Injection Volume:*	**20.0**
Vial Number:	**41**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**9/10/2019 1:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	0.092	0.032	0.04	n.a.	BMB
2	4.56	CHLORIDE	424.542	66.794	86.70	696.028	BM
3	5.23	NITRATE	2.387	1.066	1.38	5.150	M
4	6.20	SULFATE	41.742	9.034	11.73	127.471	MB
5	8.24	BROMIDE	0.227	0.047	0.06	1.286	BMB
6	9.92	NITRITE	0.283	0.071	0.09	0.307	BMB
Total:			469.273	77.045	100.00	830.242	

49 JC94560-2

Sample Name:	**JC94560-2**	*Injection Volume:*	**20.0**
Vial Number:	**42**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**9/10/2019 2:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



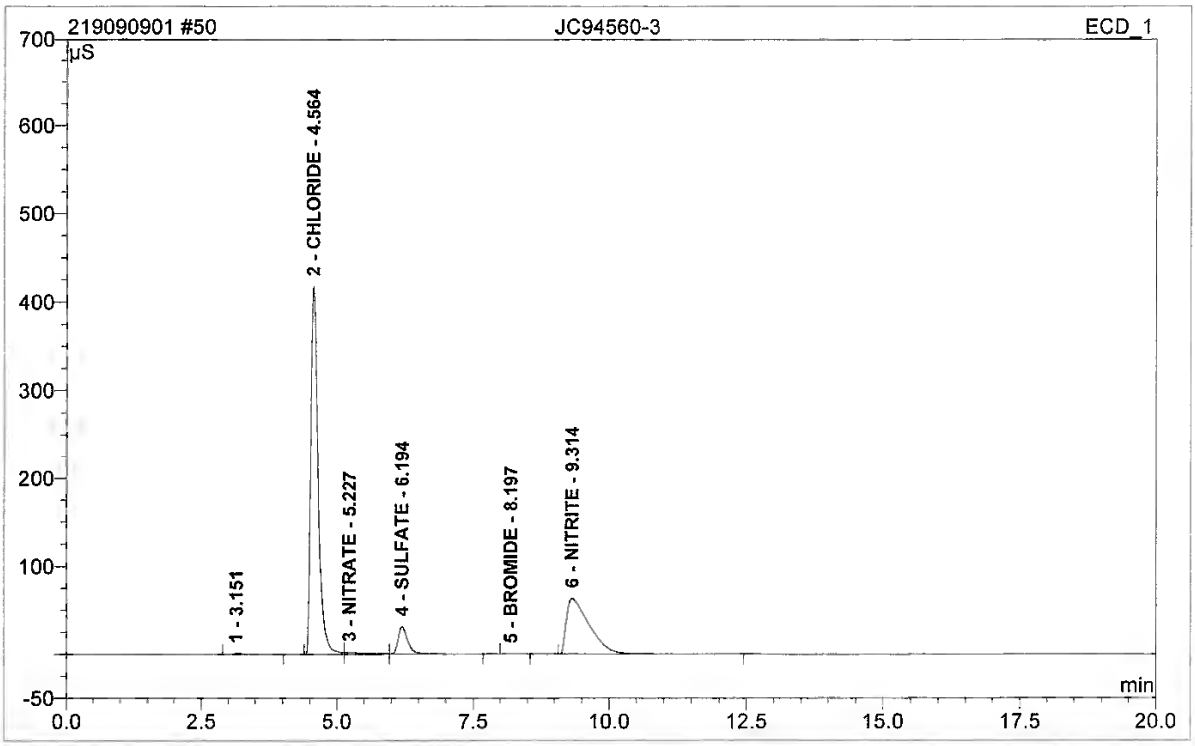
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	0.110	0.019	0.03	n.a.	BMB
2	4.57	CHLORIDE	412.308	65.834	88.97	686.019	BM
3	6.20	SULFATE	35.324	7.650	10.34	107.936	MB
4	8.24	BROMIDE	0.094	0.019	0.03	0.533	BMB
5	9.88	NITRITE	1.861	0.476	0.64	2.060	BMB
Total:			449.697	73.998	100.00	796.548	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

50 JC94560-3

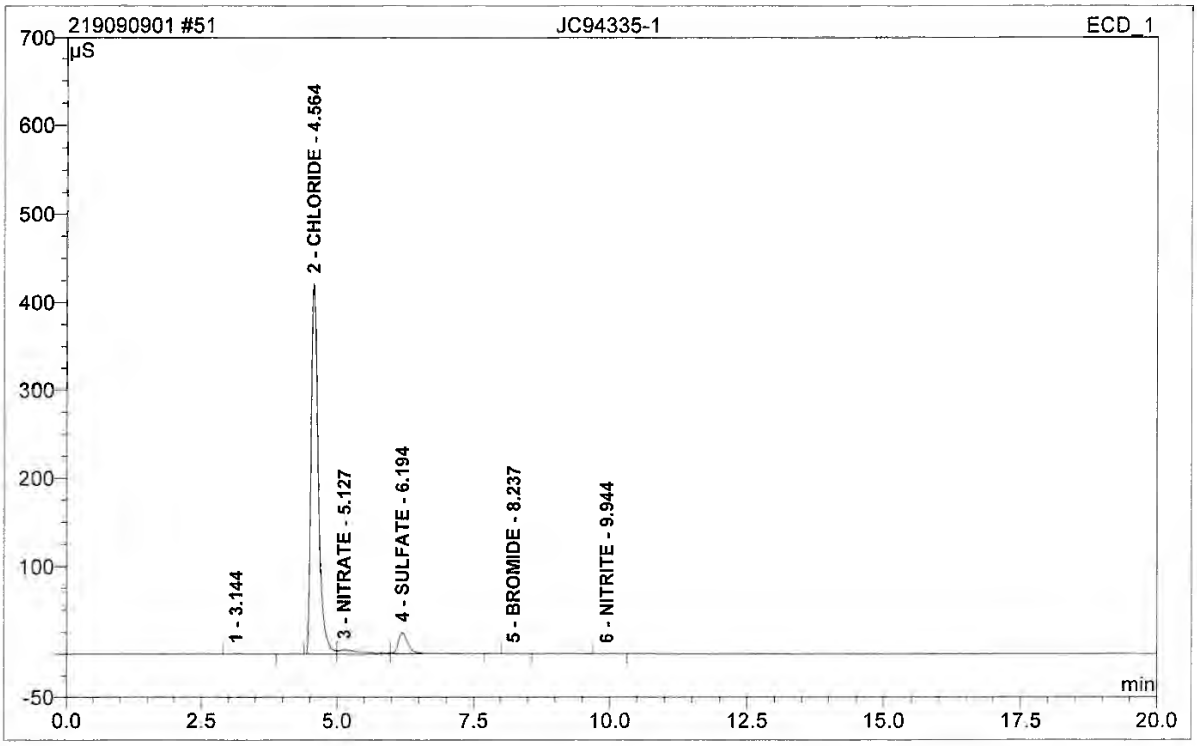
Sample Name:	**JC94560-3**	*Injection Volume:*	**20.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**2.0000**
Recording Time:	**9/10/2019 2:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	0.557	0.126	0.12	n.a.	BMB
2	4.56	CHLORIDE	416.562	65.458	63.00	454.735	BM
3	5.23	NITRATE	1.895	0.810	0.78	2.609	M
4	6.19	SULFATE	30.862	6.506	6.26	61.202	MB
5	8.20	BROMIDE	0.045	0.009	0.01	0.167	BMB
6	9.31	NITRITE	62.723	30.984	29.82	89.332	BMB
Total:			512.645	103.894	100.00	608.045	

51 JC94335-1

Sample Name:	**JC94335-1**	*Injection Volume:*	**20.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**9/10/2019 3:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	0.344	0.067	0.09	n.a.	BMB
2	4.56	CHLORIDE	420.580	65.359	89.57	681.067	BM
3	5.13	NITRATE	4.620	2.328	3.19	11.244	M
4	6.19	SULFATE	24.203	5.193	7.12	73.268	MB
5	8.24	BROMIDE	0.067	0.014	0.02	0.379	BMB
6	9.94	NITRITE	0.047	0.012	0.02	0.052	BMB
Total:			449.862	72.972	100.00	766.009	

anions/Integration

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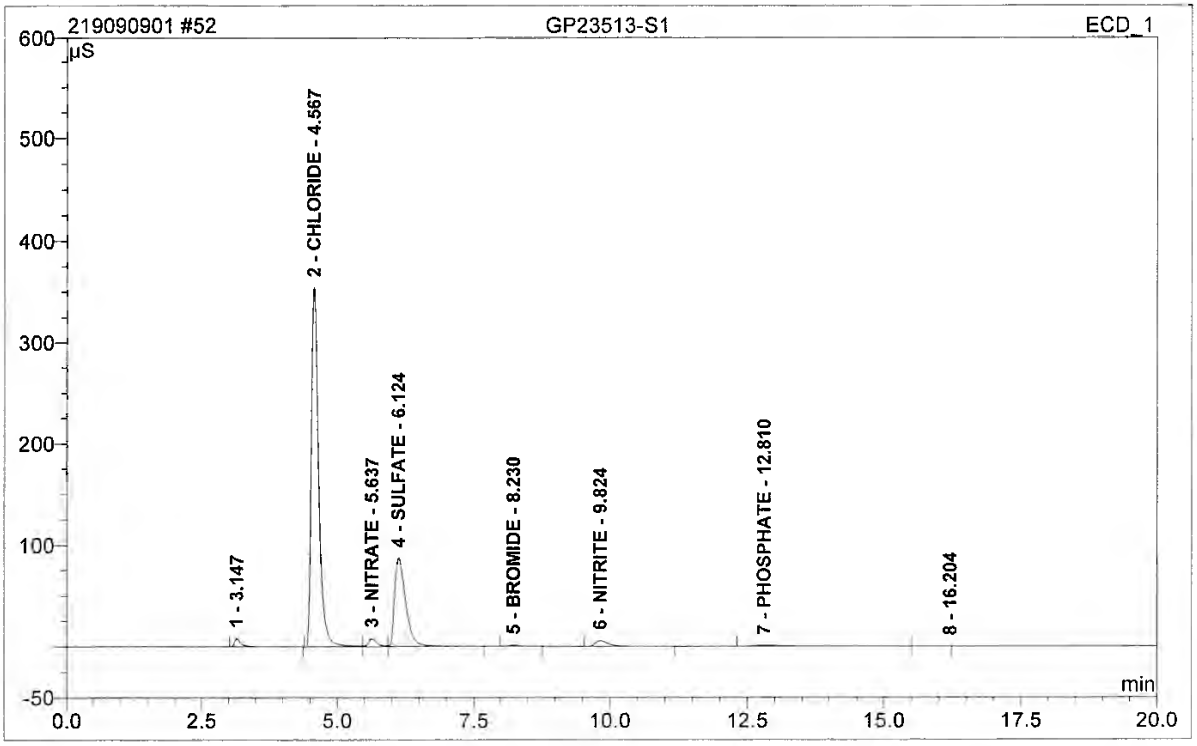
52 GP23513-S1

JC94336-1

Sample Name:	**GP23513-S1**	*Injection Volume:*	**20.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**40.0000**
Recording Time:	**9/10/2019 3:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

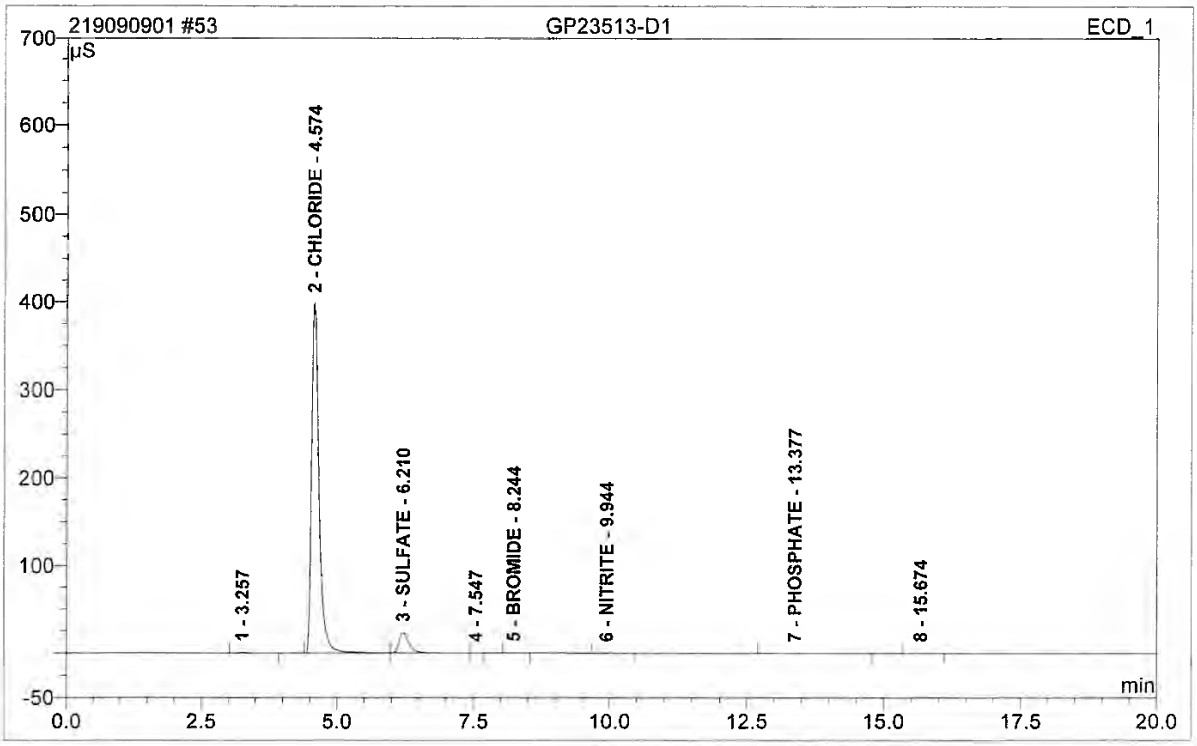


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	7.981	1.134	1.39	n.a.	BMB
2	4.57	CHLORIDE	353.921	55.633	68.34	7729.678	BM
3	5.64	NITRATE	7.882	1.435	1.76	92.400	M
4	6.12	SULFATE	87.076	20.603	25.31	3875.989	MB
5	8.23	BROMIDE	1.122	0.233	0.29	85.389	BMB
6	9.82	NITRITE	5.629	1.539	1.89	88.741	BMB
7	12.81	PHOSPHATE	0.881	0.822	1.01	109.548	BM
8	16.20	n.a.	0.000	0.013	0.02	n.a.	MB
Total:			464.491	81.411	100.00	11981.744	

53 GP23513-D1

JC94336-1

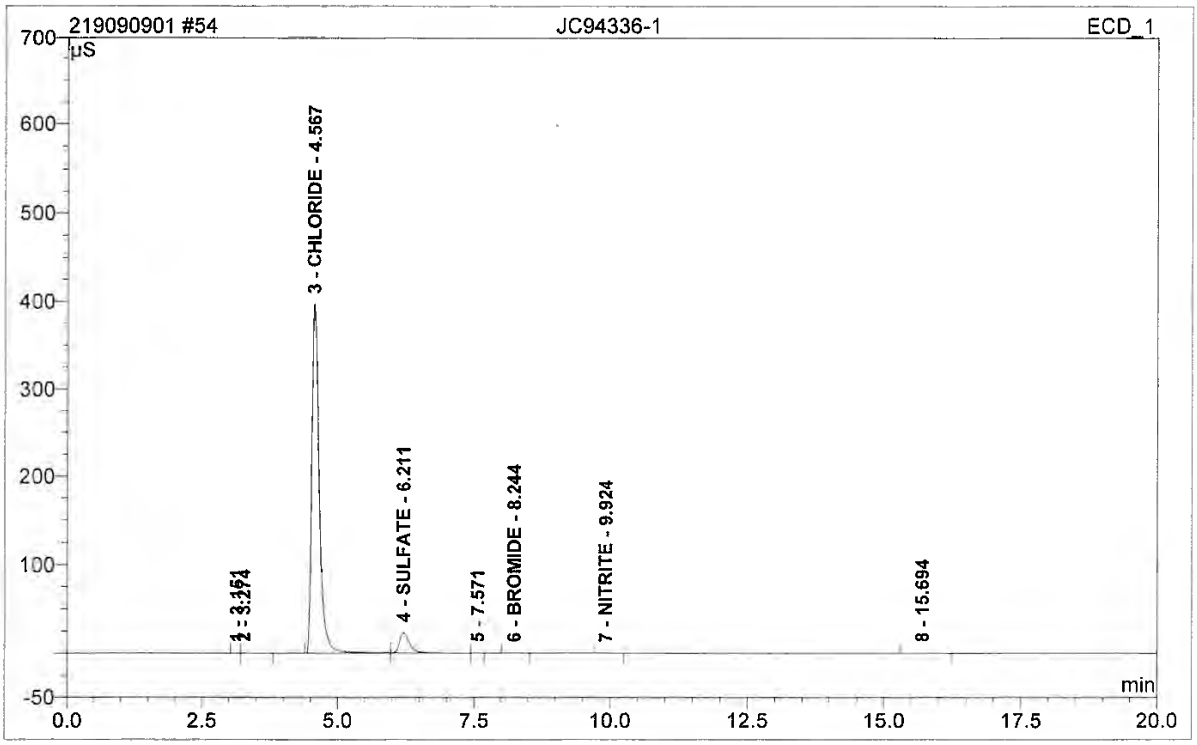
Sample Name:	**GP23513-D1**	*Injection Volume:*	**20.0**
Vial Number:	**46**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**20.0000**
Recording Time:	**9/10/2019 3:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.26	n.a.	0.563	0.102	0.15	n.a.	BMB
2	4.57	CHLORIDE	398.079	63.592	92.50	4417.754	BM
3	6.21	SULFATE	22.734	4.940	7.19	464.724	M
4	7.55	n.a.	0.032	0.006	0.01	n.a.	MB
5	8.24	BROMIDE	0.067	0.014	0.02	2.504	BMB
6	9.94	NITRITE	0.048	0.013	0.02	0.369	BMB
7	13.38	PHOSPHATE	0.076	0.076	0.11	5.078	BMB
8	15.67	n.a.	0.017	0.007	0.01	n.a.	BMB
Total:			421.616	68.750	100.00	4890.429	

54 JC94336-1

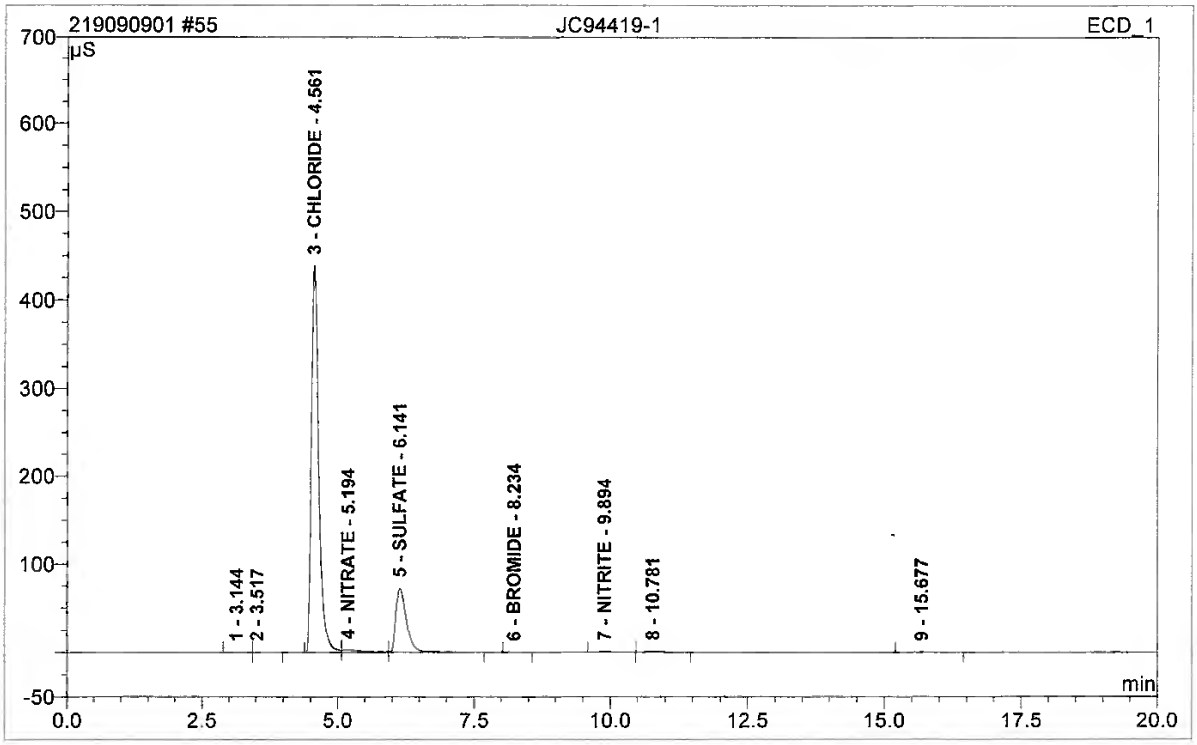
Sample Name:	**JC94336-1**	*Injection Volume:*	**20.0**
Vial Number:	**47**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**20.0000**
Recording Time:	**9/10/2019 4:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	0.132	0.014	0.02	n.a.	BM
2	3.27	n.a.	0.141	0.026	0.04	n.a.	MB
3	4.57	CHLORIDE	396.529	63.445	92.58	4407.532	BM
4	6.21	SULFATE	23.091	5.009	7.31	471.209	M
5	7.57	n.a.	0.029	0.006	0.01	n.a.	MB
6	8.24	BROMIDE	0.066	0.013	0.02	2.443	BMB
7	9.92	NITRITE	0.037	0.009	0.01	0.262	BMB
8	15.69	n.a.	0.020	0.008	0.01	n.a.	BMB
Total:			420.044	68.530	100.00	4881.447	

55 JC94419-1

Sample Name:	**JC94419-1**	*Injection Volume:*	**20.0**
Vial Number:	**48**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**9/10/2019 4:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	0.157	0.034	0.04	n.a.	BM
2	3.52	n.a.	0.028	0.007	0.01	n.a.	MB
3	4.56	CHLORIDE	438.814	69.071	78.81	719.748	BM
4	5.19	NITRATE	3.022	1.350	1.54	6.518	M
5	6.14	SULFATE	72.275	16.468	18.79	232.365	MB
6	8.23	BROMIDE	0.081	0.017	0.02	0.460	BMB
7	9.89	NITRITE	1.020	0.254	0.29	1.097	BMB
8	10.78	n.a.	1.247	0.354	0.40	n.a.	BMB
9	15.68	n.a.	0.193	0.083	0.09	n.a.	BMB
Total:			516.837	87.637	100.00	960.188	

anions/Integration

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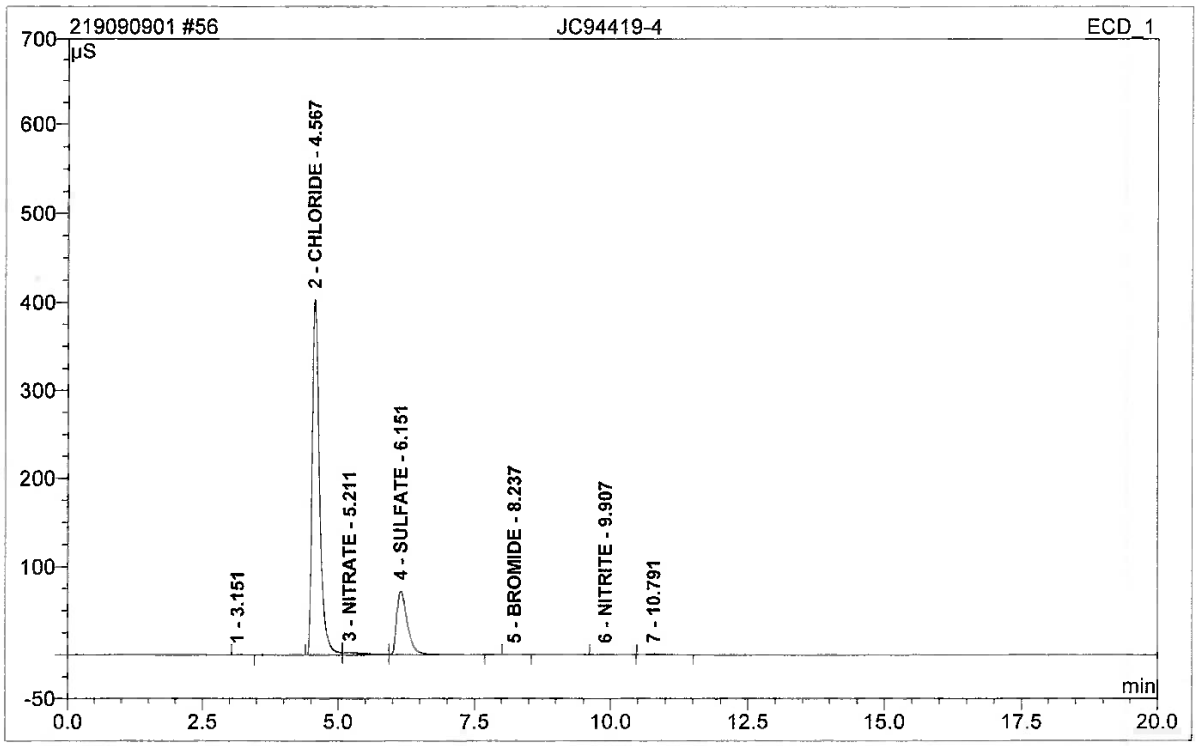
56 JC94419-4

Sample Name:	**JC94419-4**	*Injection Volume:*	**20.0**
Vial Number:	**49**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**9/10/2019 5:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



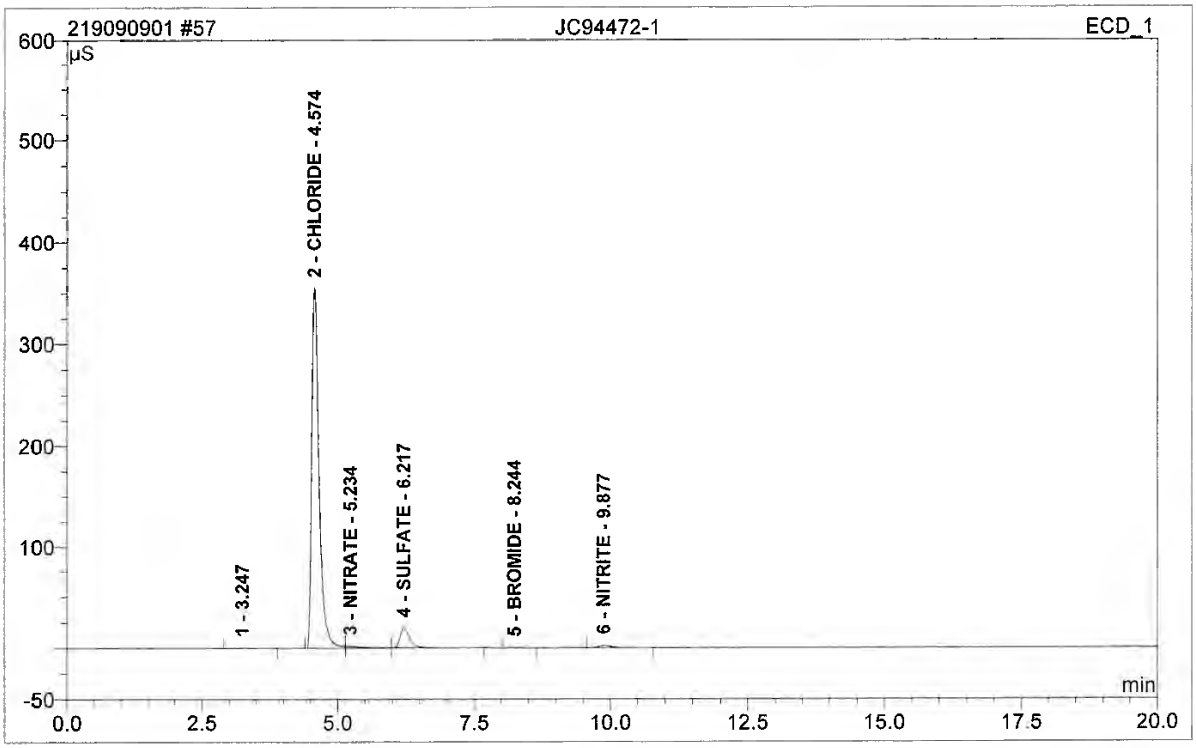
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	0.129	0.025	0.03	n.a.	BMB
2	4.57	CHLORIDE	402.986	63.198	77.69	658.549	BM
3	5.21	NITRATE	2.717	1.198	1.47	5.788	M
4	6.15	SULFATE	72.094	16.426	20.19	231.773	MB
5	8.24	BROMIDE	0.070	0.014	0.02	0.389	BMB
6	9.91	NITRITE	0.709	0.177	0.22	0.764	BMB
7	10.79	n.a.	1.071	0.304	0.37	n.a.	BMB
Total:			479.775	81.342	100.00	897.263	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

57 JC94472-1

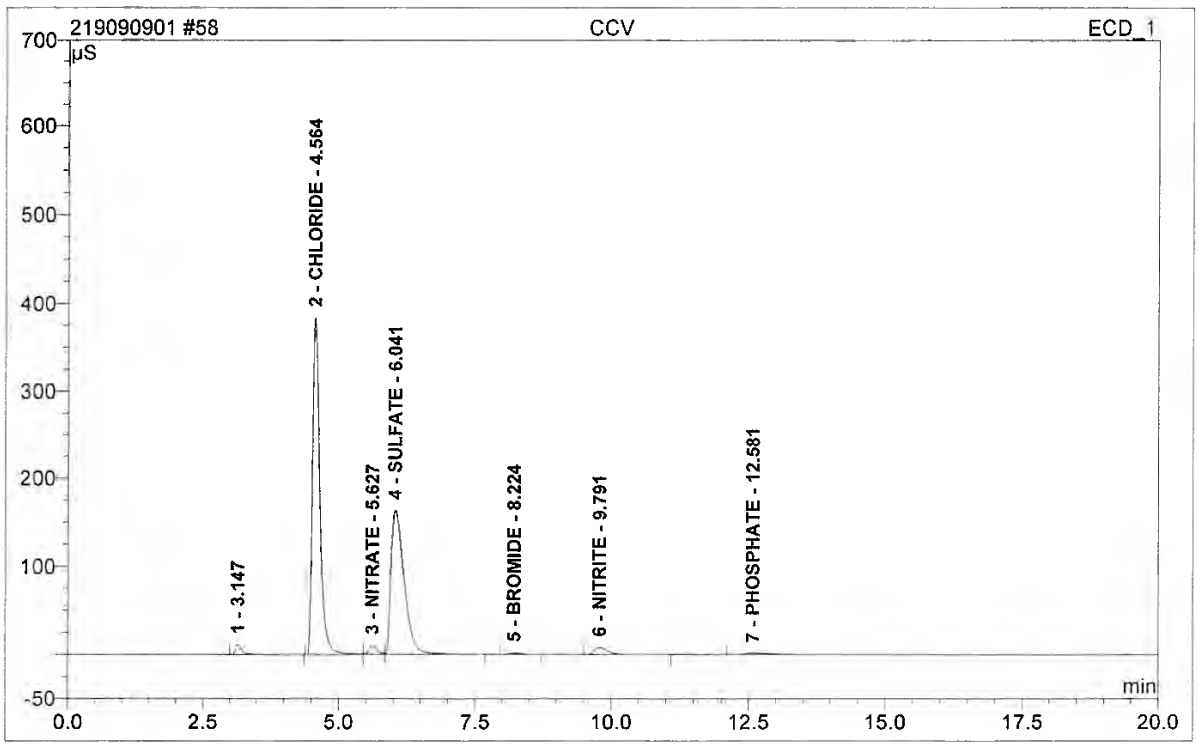
Sample Name:	**JC94472-1**	*Injection Volume:*	**20.0**
Vial Number:	**50**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**9/10/2019 5:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.443	0.088	0.14	n.a.	BMB
2	4.57	CHLORIDE	354.765	55.625	90.89	579.640	BM
3	5.23	NITRATE	1.719	0.751	1.23	3.626	M
4	6.22	SULFATE	19.311	4.127	6.74	58.227	MB
5	8.24	BROMIDE	0.129	0.027	0.04	0.744	BMB
6	9.88	NITRITE	2.269	0.581	0.95	2.514	BMB
Total:			378.636	61.199	100.00	644.751	

58 CCV

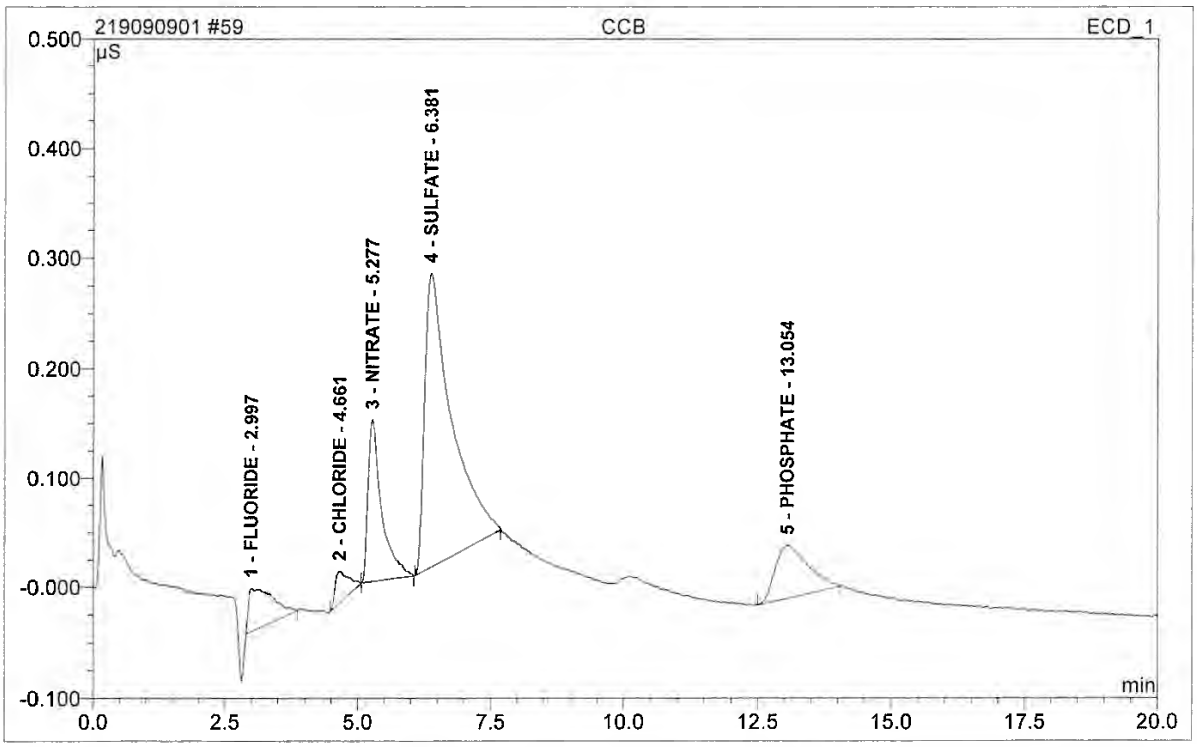
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 5:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	11.254	1.568	1.39	n.a.	BMB
2	4.56	CHLORIDE	383.570	60.481	53.51	210.081	BM
3	5.63	NITRATE	10.447	1.820	1.61	2.929	M
4	6.04	SULFATE	163.543	45.388	40.16	213.471	MB
5	8.22	BROMIDE	1.675	0.348	0.31	3.192	BMB
6	9.79	NITRITE	7.984	2.259	2.00	3.256	BMB
7	12.58	PHOSPHATE	1.750	1.166	1.03	3.887	BMB
Total:			580.223	113.030	100.00	436.816	

59 CCB

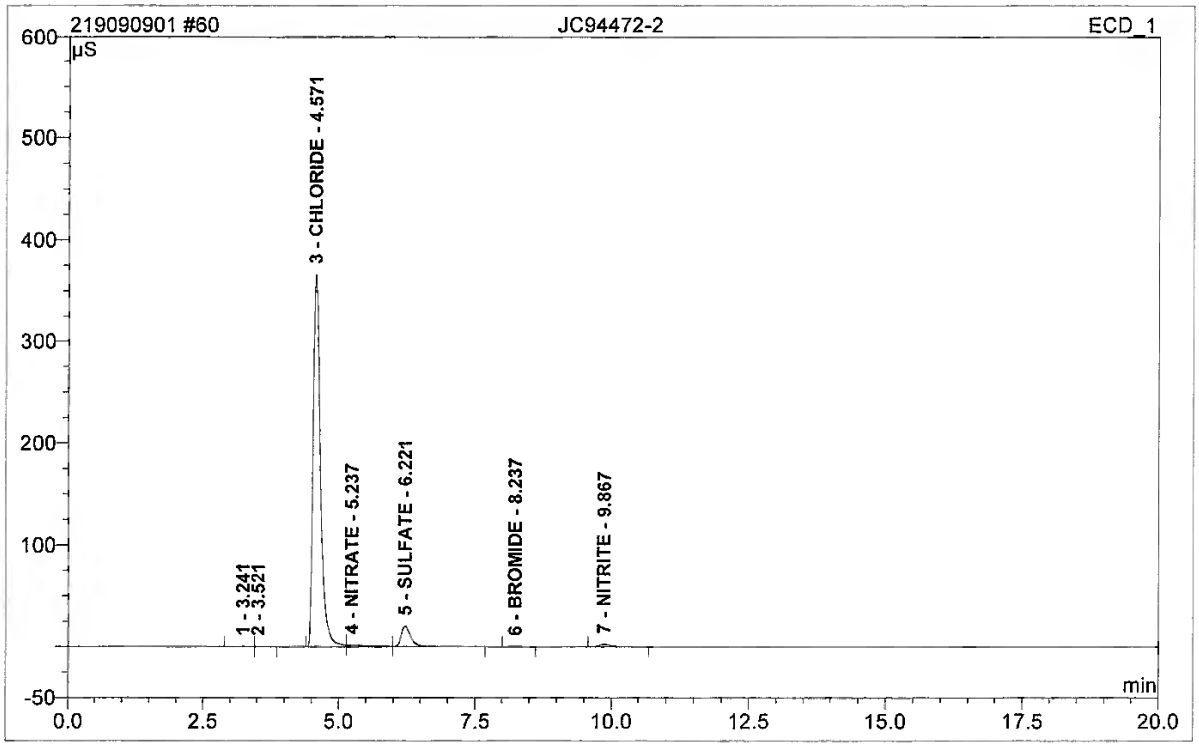
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 6:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.00	FLUORIDE	0.039	0.019	7.31	0.042	BMB
2	4.66	CHLORIDE	0.028	0.008	3.11	0.028	BMB
3	5.28	NITRATE	0.148	0.044	16.89	0.072	bMB
4	6.38	SULFATE	0.267	0.157	59.75	0.740	BMB
5	13.05	PHOSPHATE	0.048	0.034	12.95	0.114	BMB
Total:			0.531	0.263	100.00	0.995	

60 JC94472-2

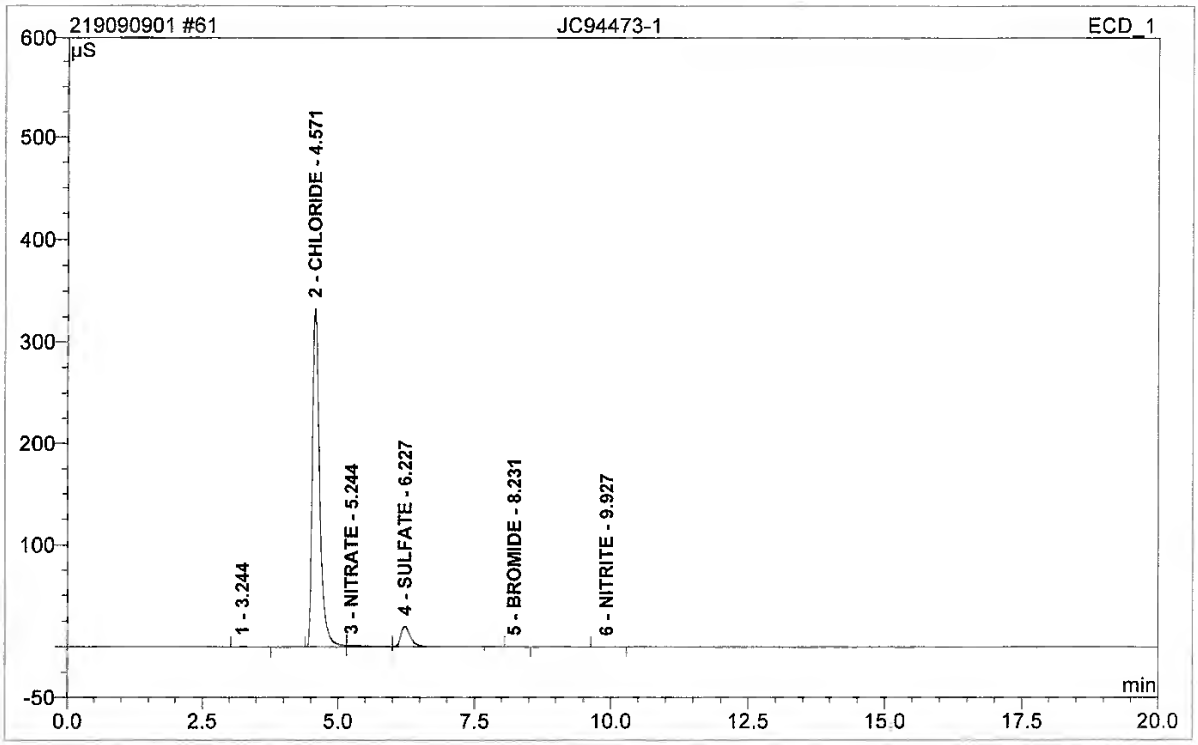
Sample Name:	**JC94472-2**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**3.0000**
Recording Time:	**9/10/2019 6:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.235	0.052	0.08	n.a.	BM
2	3.52	n.a.	0.038	0.007	0.01	n.a.	MB
3	4.57	CHLORIDE	366.250	57.556	90.99	599.761	BM
4	5.24	NITRATE	1.752	0.766	1.21	3.697	M
5	6.22	SULFATE	19.960	4.242	6.71	59.855	MB
6	8.24	BROMIDE	0.134	0.028	0.04	0.768	BMB
7	9.87	NITRITE	2.351	0.603	0.95	2.607	BMB
Total:			390.720	63.254	100.00	666.689	

61 JC94473-1

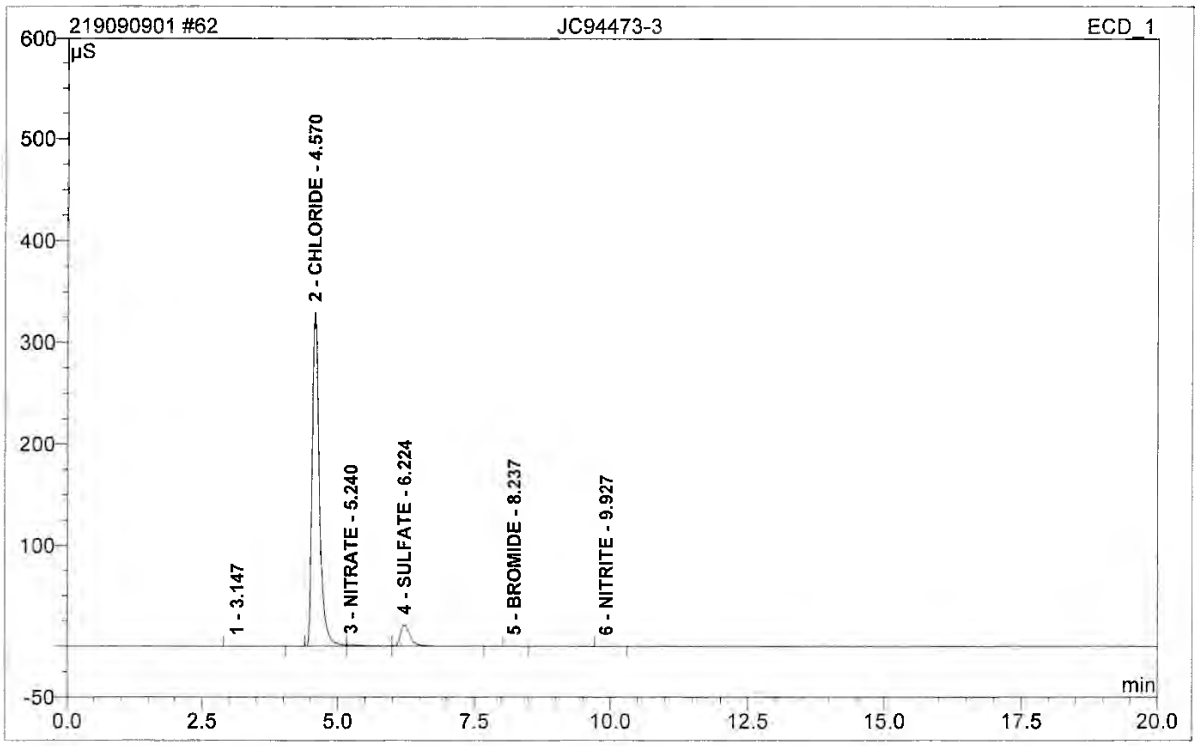
Sample Name:	**JC94473-1**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/10/2019 7:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.416	0.072	0.13	n.a.	BMB
2	4.57	CHLORIDE	332.979	52.146	91.18	1811.289	BM
3	5.24	NITRATE	1.528	0.673	1.18	10.830	M
4	6.23	SULFATE	19.941	4.268	7.46	200.738	MB
5	8.23	BROMIDE	0.043	0.009	0.02	0.793	BMB
6	9.93	NITRITE	0.093	0.023	0.04	0.328	BMB
Total:			354.999	57.191	100.00	2023.979	

62 JC94473-3

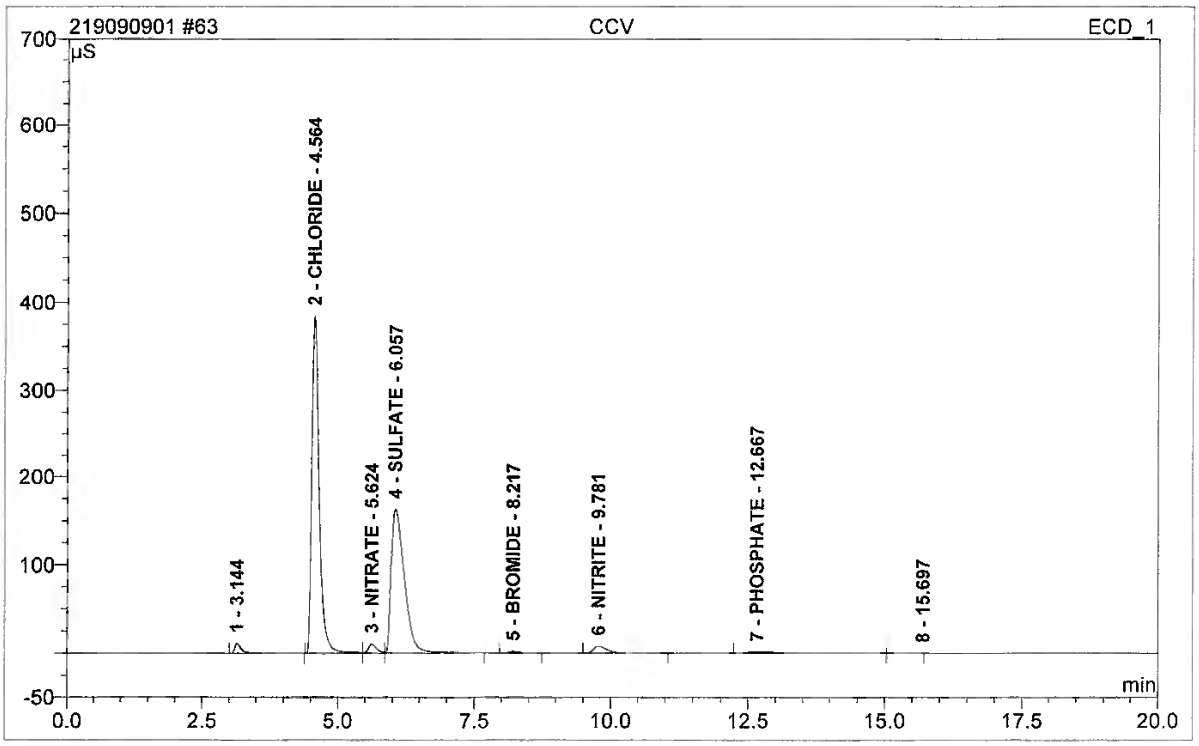
Sample Name:	**JC94473-3**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/10/2019 7:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	0.123	0.034	0.06	n.a.	BMB
2	4.57	CHLORIDE	329.382	51.570	90.96	1791.263	BM
3	5.24	NITRATE	1.431	0.614	1.08	9.886	M
4	6.22	SULFATE	20.889	4.464	7.87	209.957	MB
5	8.24	BROMIDE	0.043	0.009	0.02	0.796	BMB
6	9.93	NITRITE	0.023	0.006	0.01	0.084	BMB
Total:			351.890	56.697	100.00	2011.985	

63 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 7:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	11.232	1.564	1.38	n.a.	BMB
2	4.56	CHLORIDE	383.930	60.549	53.52	210.316	BM
3	5.62	NITRATE	10.430	1.833	1.62	2.951	M
4	6.06	SULFATE	162.978	45.413	40.14	213.591	MB
5	8.22	BROMIDE	1.682	0.350	0.31	3.207	BMB
6	9.78	NITRITE	8.029	2.268	2.00	3.269	BMB
7	12.67	PHOSPHATE	1.727	1.158	1.02	3.861	BM
8	15.70	n.a.	0.000	0.009	0.01	n.a.	MB
Total:			580.008	113.143	100.00	437.195	

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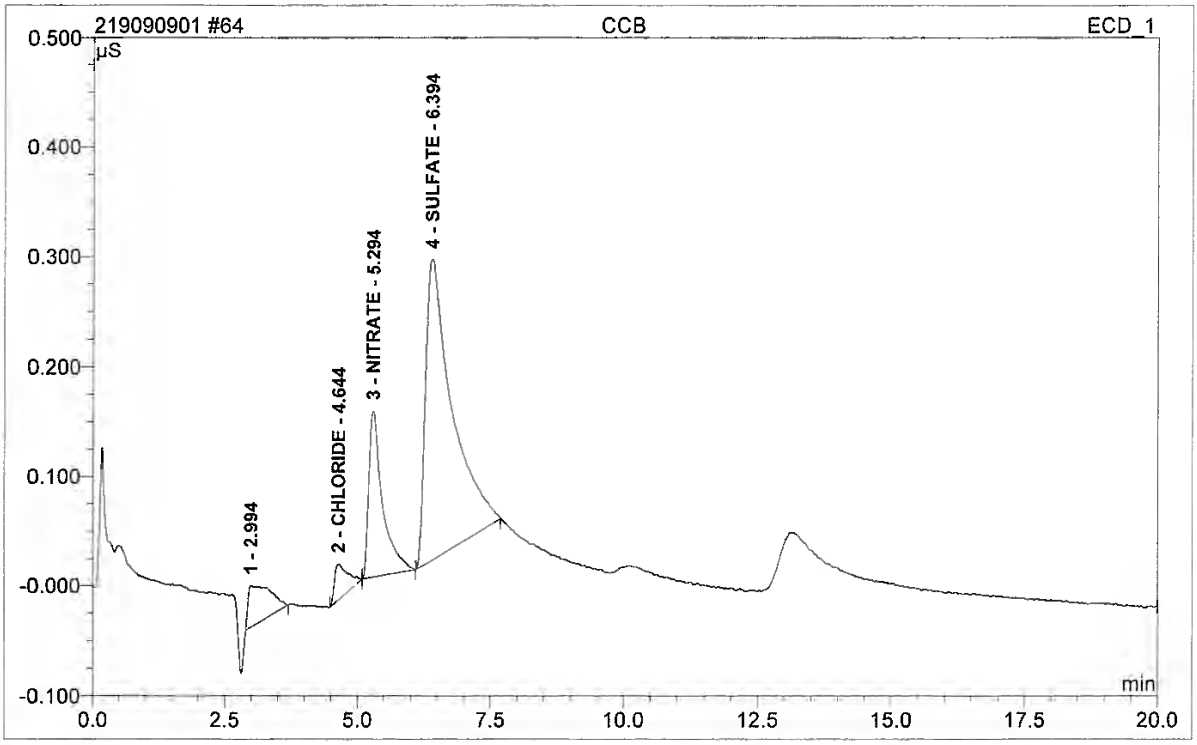
64 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 8:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	n.a.	0.037	0.017	7.27	n.a.	BMB
2	4.64	CHLORIDE	0.033	0.009	3.96	0.032	BMB
3	5.29	NITRATE	0.152	0.046	20.03	0.074	bMB
4	6.39	SULFATE	0.274	0.158	68.73	0.745	BMB
Total:			0.496	0.231	100.00	0.851	

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: 219091001.TXT Date Analyzed: 09/10/19 Methods: EPA 300/SW846 9056A
Analyst: NV Run ID: GN99771

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: NV Date 9/11/19

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 9/11/19

Sequence: 219091001
Operator: chemistry

Printed: 9/11/2019 9:51:42 AM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\SEPTEMBER
Timebase: ACCUTEST_SYS#2
#Samples: 57

GN99771

Created: 9/10/2019 9:55:51 AM by chemistry
Last Update: 9/10/2019 1:09:04 PM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
1	BLANKCONF	1		Unknown	20.0	1.0000	Finished	9/10/2019 10:22:53 AM
2	STDA	2		Standard	20.0	1.0000	Finished	8/30/2019 10:58:49 AM
3	STDB	3		Standard	20.0	1.0000	Finished	8/30/2019 12:17:17 PM
4	STDC	4		Standard	20.0	1.0000	Finished	8/30/2019 12:40:47 PM
5	STDD	5		Standard	20.0	1.0000	Finished	8/30/2019 1:04:43 PM
6	STDE	6		Standard	20.0	1.0000	Finished	8/30/2019 1:28:39 PM
7	STDF	7		Standard	20.0	1.0000	Finished	8/30/2019 1:52:34 PM
8	STDG	8		Standard	20.0	1.0000	Finished	8/30/2019 2:16:30 PM
9	ICV	2		Unknown	20.0	1.0000	Finished	9/10/2019 10:46:23 AM
10	CCV	3		Unknown	20.0	1.0000	Finished	9/10/2019 11:10:19 AM
11	CCB	4		Unknown	20.0	1.0000	Finished	9/10/2019 11:34:14 AM
12	MB	5		Unknown	20.0	1.0000	Finished	9/10/2019 11:58:09 AM
13	BSP	6		Unknown	20.0	1.0000	Finished	9/10/2019 12:22:05 PM
14	JC94184-1	7		Unknown	20.0	30.0000	Finished	9/10/2019 12:46:00 PM
15	JC94184-1	8		Unknown	20.0	400.0000	Finished	9/10/2019 1:09:57 PM
16	JC94184-2	9		Unknown	20.0	40.0000	Finished	9/10/2019 1:33:53 PM
17	JC94184-4	10		Unknown	20.0	100.0000	Finished	9/10/2019 1:57:48 PM
18	JC94184-5	11		Unknown	20.0	200.0000	Finished	9/10/2019 2:21:44 PM
19	JC94184-6	12		Unknown	20.0	1.0000	Finished	9/10/2019 2:45:39 PM
20	GP23537-S1	13	JC94330-1	Unknown	20.0	1.0000	Finished	9/10/2019 3:09:35 PM
21	GP23537-D1	14	JC94330-1	Unknown	20.0	1.0000	Finished	9/10/2019 3:33:31 PM
22	CCV	15		Unknown	20.0	1.0000	Finished	9/10/2019 3:57:27 PM
23	CCB	16		Unknown	20.0	1.0000	Finished	9/10/2019 4:21:23 PM
24	JC94330-1	17		Unknown	20.0	1.0000	Finished	9/10/2019 4:45:18 PM
25	JC94330-2	18		Unknown	20.0	200.0000	Finished	9/10/2019 5:09:14 PM
26	JC94330-3	19		Unknown	20.0	200.0000	Finished	9/10/2019 5:33:09 PM
27	GP23537-S2	20	JC94330-4	Unknown	20.0	1.0000	Finished	9/10/2019 5:57:05 PM
28	JC94330-4	21		Unknown	20.0	1.0000	Finished	9/10/2019 6:21:00 PM
29	JC94399-1	22		Unknown	20.0	30.0000	Finished	9/10/2019 6:44:56 PM
30	JC94399-1	23		Unknown	20.0	400.0000	Finished	9/10/2019 7:08:53 PM
31	JC94399-2	24		Unknown	20.0	200.0000	Finished	9/10/2019 7:32:49 PM
32	JC94399-3	25		Unknown	20.0	30.0000	Finished	9/10/2019 7:56:44 PM
33	JC94399-4	26		Unknown	20.0	200.0000	Finished	9/10/2019 8:20:40 PM
34	CCV	27		Unknown	20.0	1.0000	Finished	9/10/2019 8:44:35 PM
35	CCB	28		Unknown	20.0	1.0000	Finished	9/10/2019 9:08:31 PM
36	JC94399-4	29		Unknown	20.0	500.0000	Finished	9/10/2019 9:32:27 PM
37	JC94399-5	30		Unknown	20.0	200.0000	Finished	9/10/2019 9:56:23 PM
38	JC94399-6	31		Unknown	20.0	50.0000	Finished	9/10/2019 10:20:18 PM
39	MB	32		Unknown	20.0	1.0000	Finished	9/10/2019 10:44:15 PM
40	BSP	33		Unknown	20.0	1.0000	Finished	9/10/2019 11:08:10 PM
41	GP23538-S1	34	JC94517-1	Unknown	20.0	400.0000	Finished	9/10/2019 11:32:06 PM
42	GP23538-D1	35	JC94517-1	Unknown	20.0	200.0000	Finished	9/10/2019 11:56:01 PM

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Sequence: 219091001
Operator: chemistry

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\SEPTEMBER
Timebase: ACCUTEST_SYS#2
#Samples: 57

Created: 9/10/2019 9:55:51 AM by chemistry
Last Update: 9/11/2019 10:06:58 AM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
43	JC94517-1	36		Unknown	20.0	200.0000	Finished	9/11/2019 12:19:57 AM
44	JC94517-2	37		Unknown	20.0	500.0000	Finished	9/11/2019 12:43:54 AM
45	JC94517-3	38		Unknown	20.0	200.0000	Finished	9/11/2019 1:07:50 AM
46	CCV	39		Unknown	20.0	1.0000	Finished	9/11/2019 1:31:45 AM
47	CCB	40		Unknown	20.0	1.0000	Finished	9/11/2019 1:55:41 AM
48	JC94517-4	41		Unknown	20.0	200.0000	Finished	9/11/2019 2:19:36 AM
49	JC94517-5	42		Unknown	20.0	200.0000	Finished	9/11/2019 2:43:32 AM
50	JC94606-1	43		Unknown	20.0	10.0000	Finished	9/11/2019 3:07:29 AM
51	JC94606-2	44		Unknown	20.0	10.0000	Finished	9/11/2019 3:31:26 AM
52	JC94606-3	45		Unknown	20.0	10.0000	Finished	9/11/2019 3:55:22 AM
53	JC94606-4	46		Unknown	20.0	10.0000	Finished	9/11/2019 4:19:18 AM
54	JC94537-1A	47		Unknown	20.0	1.0000	Finished	9/11/2019 4:43:14 AM
55	CCV	48		Unknown	20.0	1.0000	Finished	9/11/2019 5:07:09 AM
56	CCB	49		Unknown	20.0	1.0000	Finished	9/11/2019 5:31:05 AM
57	STANDBY	50		Unknown	20.0	1.0000	Finished	9/11/2019 5:55:00 AM

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Sequence: 219091001 Page 1 of 4
Operator: chemistry Printed: 9/10/2019 11:40:00 AM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\SEPTEMBER
Timebase: ACCUTEST_SYS#2 GN99771 Created: 9/10/2019 9:55:51 AM by chemistry
#Samples: 56 Last Update: 9/10/2019 10:28:59 AM by chemistry

No.	Name	Bot #	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
1	BLANKCONF		1		Unknown	20.0	1.0000	Finished	9/10/2019 10:22:53 AM
2	STDA		2		Standard	20.0	1.0000	Finished	8/30/2019 10:58:49 AM
3	STDB		3		Standard	20.0	1.0000	Finished	8/30/2019 12:17:17 PM
4	STDC		4		Standard	20.0	1.0000	Finished	8/30/2019 12:40:47 PM
5	STDD		5		Standard	20.0	1.0000	Finished	8/30/2019 1:04:43 PM
6	STDE		6		Standard	20.0	1.0000	Finished	8/30/2019 1:28:39 PM
7	STDF		7		Standard	20.0	1.0000	Finished	8/30/2019 1:52:34 PM
8	STDG		8		Standard	20.0	1.0000	Finished	8/30/2019 2:16:30 PM
9	ICV		2		Unknown	20.0	1.0000	Finished	9/10/2019 10:46:23 AM
10	CCV		3		Unknown	20.0	1.0000	Finished	9/10/2019 11:10:19 AM
▶	CCB		4		Unknown	20.0	1.0000	Running	9/10/2019 11:34:14 AM
12	MB		5		Unknown	20.0	1.0000	Single	
13	BSP		6		Unknown	20.0	1.0000	Single	
14	JC94184-1	4	7		Unknown	20.0	30.0000	Single	
15	JC94184-1	4	8		Unknown	20.0	400.0000	Single	
16	JC94184-2	4	9		Unknown	20.0	40.0000	Single	
17	JC94184-4	4	10		Unknown	20.0	100.0000	Single	
18	JC94184-5	4	11		Unknown	20.0	200.0000	Single	
19	JC94184-6	4	12		Unknown	20.0	1.0000	Single	
20	GP23537-S1	12	13	JC94330-1	Unknown	20.0	1.0000	Single	
21	GP23537-D1	12	14	JC94330-1	Unknown	20.0	1.0000	Single	
22	CCV		15		Unknown	20.0	1.0000	Single	
23	CCB		16		Unknown	20.0	1.0000	Single	
24	JC94330-1	12	17		Unknown	20.0	1.0000	Single	
25	JC94330-2	4	18		Unknown	20.0	200.0000	Single	
26	JC94330-3	4	19		Unknown	20.0	200.0000	Single	
27	GP23537-S2	4	20	JC94330-4	Unknown	20.0	1.0000	Single	
28	JC94330-4	4	21		Unknown	20.0	1.0000	Single	
29	JC94399-1	7	22		Unknown	20.0	30.0000	Single	
30	JC94399-1	7	23		Unknown	20.0	400.0000	Single	
31	JC94399-2	7	24		Unknown	20.0	200.0000	Single	
32	JC94399-3	7	25		Unknown	20.0	30.0000	Single	
33	JC94399-4	7	26		Unknown	20.0	200.0000	Single	
34	CCV		27		Unknown	20.0	1.0000	Single	
35	CCB		28		Unknown	20.0	1.0000	Single	
36	JC94399-4	7	29		Unknown	20.0	500.0000	Single	
37	JC94399-5	7	30		Unknown	20.0	200.0000	Single	
38	JC94399-6	7	31		Unknown	20.0	50.0000	Single	
39	MB		32		Unknown	20.0	1.0000	Single	
40	BSP		33		Unknown	20.0	1.0000	Single	
41	GP23538-S1	8	34	JC94517-1	Unknown	20.0	400.0000	Single	
42	GP23538-D1	8	35	JC94517-1	Unknown	20.0	200.0000	Single	

GP23537 (2)

GP23538 (2)

9.5

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Sequence: 219091001
Operator: chemistry

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\Anions 2019\SEPTEMBER
Timebase: ACCUTEST_SYS#2 Created: 9/10/2019 9:55:51 AM by chemistry
#Samples: 57 Last Update: 9/10/2019 1:09:04 PM by chemistry

No.	Name	Pos.	Comment	Type	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time
43	JC94517-1 8	36		Unknown	20.0	200.0000	Single	
44	JC94517-2 7	37		Unknown	20.0	500.0000	Single	
45	JC94517-3 7	38		Unknown	20.0	200.0000	Single	
46	CCV	39		Unknown	20.0	1.0000	Single	
47	CCB	40		Unknown	20.0	1.0000	Single	
48	JC94517-4 7	41		Unknown	20.0	200.0000	Single	
49	JC94517-5 7	42		Unknown	20.0	200.0000	Single	
50	JC94606-1 7	43		Unknown	20.0	10.0000	Single	
51	JC94606-2 7	44		Unknown	20.0	10.0000	Single	
52	JC94606-3 7	45		Unknown	20.0	10.0000	Single	
53	JC94606-4 7	46		Unknown	20.0	10.0000	Single	
54	JC94537-1A 5	47		Unknown	20.0	~~10.0000~~	Single	NO DILS
55	CCV	48		Unknown	20.0	1.0000	Single	
56	CCB	49		Unknown	20.0	1.0000	Single	
57	STANDBY	50		Unknown	20.0	1.0000	Single	

9.5
9

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SGS

Analyst NV

Product Cl, SO4, Br

Pipette ID 42

Prep Date 9/10/19

Balance ID NA

Batch ID GN99771

Sample Prep Log

Sample ID	Initial Sample Amount	Final Volume
BSP	0.5mL spiking solution	50mL

9.5

9

Form: GN166-02
Rev. Date 8/5/05

QC Review

Analyst NV Product Cnl, Bro, Soy Autopipette # 42

Date 9/10/19 Batch ID GN99771 Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
JC94184-1	1:400	0.25	100	Cnl
JC94184-1	1:30	1	30	Bro
JC94184-2	1:40	1	40	Cnl
JC94184-4	1:100	0.5	50	Cnl
JC94184-5	1:200	0.5	100	Cnl
JC94184-6	1			rerun straight
GP23537-S1	1			rerun straight
GP23537-D1	1			rerun straight
JC94330-1	1			rerun straight
JC94330-2	1:200	0.5	100	Cnl + Bro
JC94330-3	1:200	0.5	100	Cnl + Bro
GP23537S2	1			rerun straight
JC94330-4	1			rerun straight
JC94399-1	1:400	0.25	100	Cnl
JC94399-1	1:30	1	30	Bro
JC94399-2	1:200	0.5	100	Cnl
JC94399-3	1:30	1	30	Cnl
JC94399-4	1:500	0.2	100	Cnl
JC94399-4	1:200	0.5	100	Bro
JC94399-5	1:200	0.5	100	Cnl
JC94399-6	1:50	1	50	Cnl

QC Reviewer: [signature] Date: 9/10/19

Form: GN165-01
Rev. Date: 2/25/03

Analyst NV Product Cnl, SO4, Bro Autopipette # 42

Date 9/10/19 Batch ID GN99771 Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
GP23538-S1	1:400	0.25	100	Cnl JC94517-1 + 1mL spike
GP23538-D1	1:200	0.5	100	Cnl JC94517-1
JC94517-1	1:200	0.5	100	Cnl
JC94517-2	1:500	0.2	100	Cnl + Bro
JC94517-3	1:200	0.5	100	Cnl
JC94517-4	1:200	0.5	100	Cnl
JC94517-5	1:200	0.5	100	Cnl
JC94606-1	1:10	5	50	difficult matrix
JC94606-2	1:10	5	50	difficult matrix
JC94606-3	1:10	5	50	difficult matrix
JC94606-4	1:10	5	50	difficult matrix

QC Reviewer: Date: 9/10/19

Form: GN165-01
Rev. Date: 2/25/03

SGS

Reagent Information Log - IONC IC2 - Water /Soil

GN Batch ID#: GN99771

Reagent	Reagent # or Manufacturer/Lot	Exp. Date
Standard Intermediate (for Calibration Curve)	GN18-476-207	9/13/2019
Standard Intermediate (for Calibration Curve)		
ICV	GN18-479-68	9/13/2019
Eluent	190332638010	3/26/2021
Standard Intermediate (for Working std/Spikes)	GN18-476-207	9/13/2019
Standard Intermediate (for Working std/Spikes)		
CCV		
Spiking Solution Intermediate (CHL/SO4)		
Spiking Solution Intermediate (F/BRO)		
Spiking Solution (SOUP)		
Filter lot numbers	GREENWOOD #180111044	NA

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

See reagent log

Form : GN087A-76
Rev. Date: 4/7/09

9.5

GN99771

REAGENT LOG

Std Intermediate #1

	Volume Added (ml)	Conc. (mg/L)	Stock Reagent Reference Number	Stock Expiration Date	Diluent	Final Volume (ml)	Expiration Date	Date
Fluoride	10	100	GN18-476-202	9/30/2019	DI Water	100	9/13/2019	9/6/2019
Nitrite	10	100	GN18-476-204	9/30/2019			9/13/2019	9/6/2019
Nitrate	10	100	GN18-476-203	9/30/2019			9/13/2019	9/6/2019
Potassium Phosphate	10	100	GN18-476-205	9/30/2019			9/13/2019	9/6/2019

Std Intermediate Bromide

	Volume Added (ml)	Conc. (mg/L)	Stock Reagent Reference Number	Stock Expiration Date	Diluent	Final Volume (ml)	Expiration Date	Date
Bromide	10	100	GN18-476-201	9/30/2019	DI Water	100	9/13/2019	9/6/2019

Std Intermediate #2

	Volume Added (ml)	Conc. (mg/L)	Stock Reagent Reference Number	Stock Expiration Date	Diluent	Final Volume (ml)	Expiration Date	Date
Std Intermediate #2	20	20	Std Intermediate #1	9/6/2019	DI Water	100	9/13/2019	9/6/2019

CCV

	Stock used	Stock Expiration Date	Volume added (ml)	Diluent	Final Volume (ml)	Concentation (mg/L)	Expiration Date	Date
CCV	4000 ppm Chl/SO4	9/30/2019	10	DI Water	200	200	9/13/2019	9/6/2019
	20 ppm std intermediate #2	9/13/2019	30			3	9/13/2019	9/6/2019
	100 ppm Bro	9/13/2019	6			3	9/13/2019	9/6/2019

REAGENT LOG

GN99771

Spiking Solution Intermediate

	weight (g)	Lot #	Manufacturer	Concentation (mg/L)	Expiration Date	Diluent	Final volume (ml)	Expiration Date	Date
Sodium Chloride	6.594	158655	Fisher	1600	11/14/2022	DI Water	250	9/30/2019	8/30/2019
Potassium Sulfate	7.256	171510	Fisher		1/22/2023			9/30/2019	8/30/2019

Spiking Solution Intermediate

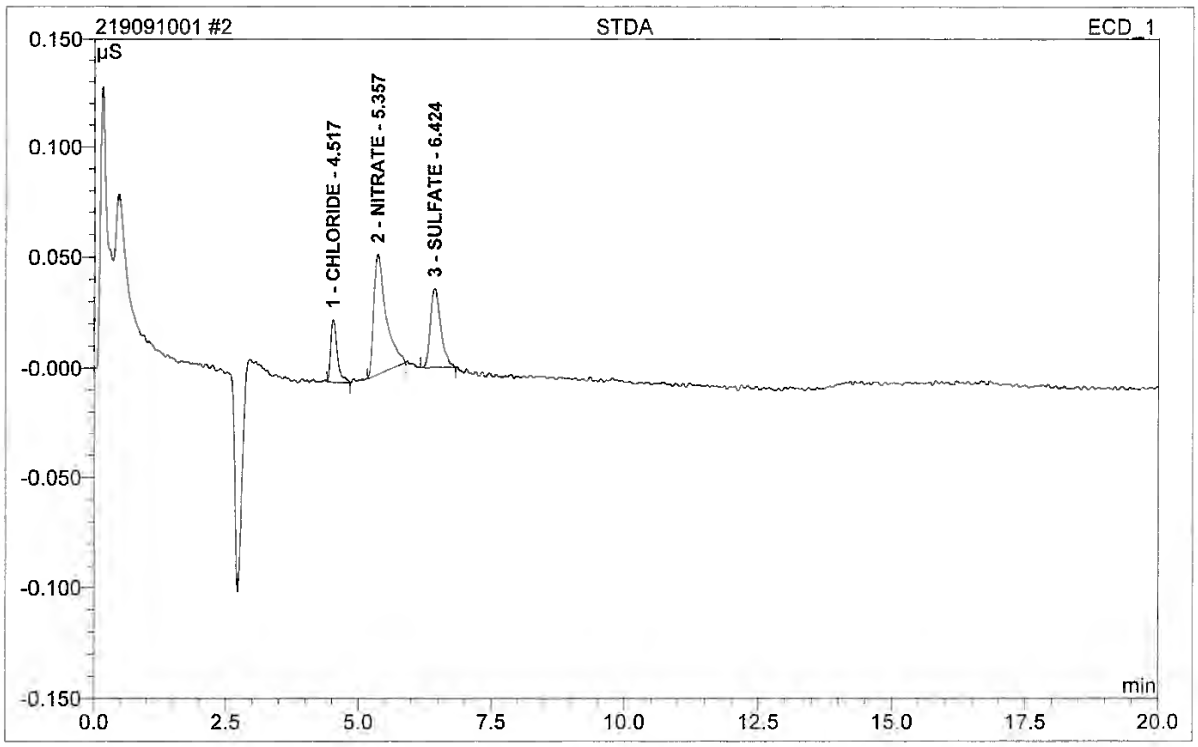
	weight (g)	lot #	Manufacturer	Concentation (mg/L)	Expiration Date	Diluent	Final volume (ml)	Expiration Date (std)	Date
Sodium Bromide	0.1287	148758	Fisher	400	9/18/2020	DI Water	250	9/30/2019	8/30/2019
Sodium Fluoride	0.221	164105	Fisher		10/7/2021			9/30/2019	8/30/2019
Sodium Nitrite	0.4926	154757	Fisher		10/16/2020			9/30/2019	8/30/2019
Sodium Nitrate	0.6068	149397	Fisher		9/18/2020			9/30/2019	8/30/2019
Potassium Phosphate	0.4344	161265	Fisher		1/19/2022			9/30/2019	8/30/2019

Spiking Solution

	Stock Concentation (mg/L)	Stock Expiration Date	Volume Added (ml)	Diluent	Final Volume (ml)	STD Concentration (mg/L)	Expiration Date (std)	Date
Chloride/Sulfate Intermediate	16000	9/30/2019	50	DI Water	100	8000	9/13/2019	9/6/2019
F/No2/No3/OPO 4/Bro Intermedaite	400	9/30/2019	50			200	9/13/2019	9/6/2019

2 STDA

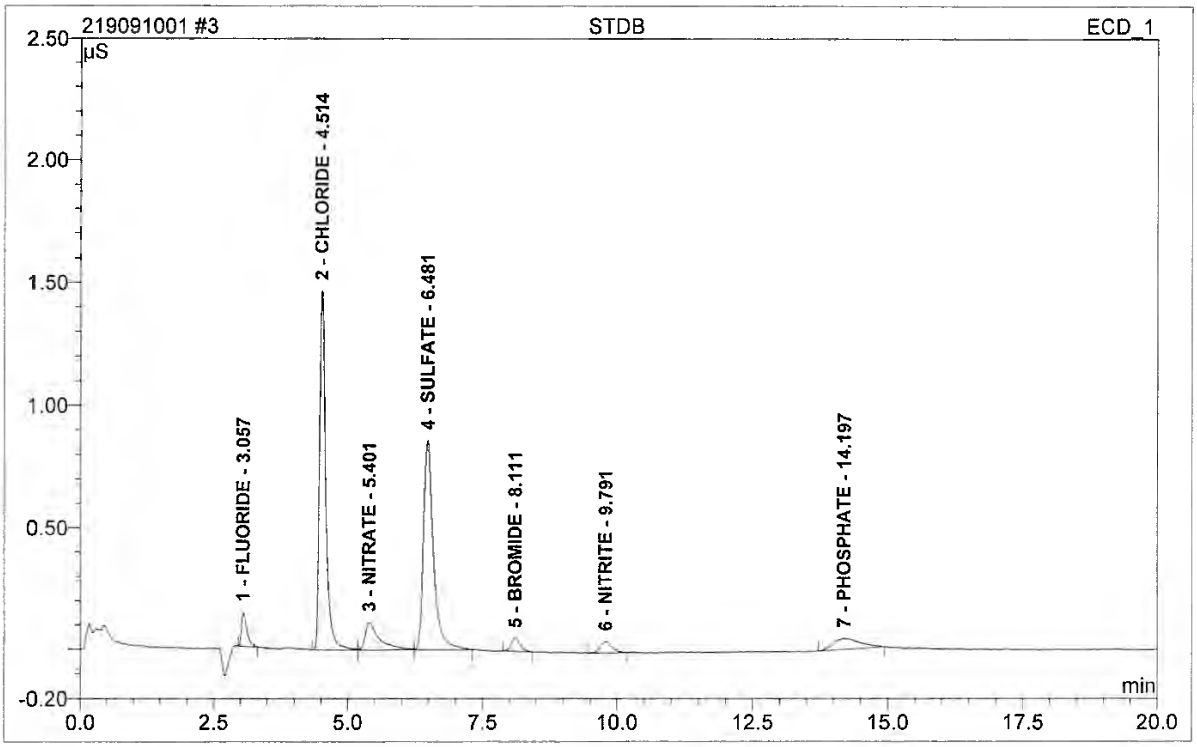
Sample Name:	**STDA**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 10:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.52	CHLORIDE	0.028	0.004	15.33	0.014	BMB
2	5.36	NITRATE	0.054	0.015	54.61	0.024	BMB
3	6.42	SULFATE	0.036	0.008	30.06	0.038	BMB
Total:			0.118	0.027	100.00	0.076	

3 STDB

Sample Name:	**STDB**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 12:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	FLUORIDE	0.141	0.017	3.45	0.036	BMB
2	4.51	CHLORIDE	1.468	0.199	41.26	0.693	BM
3	5.40	NITRATE	0.113	0.035	7.17	0.056	M
4	6.48	SULFATE	0.861	0.184	38.02	0.864	MB
5	8.11	BROMIDE	0.053	0.011	2.26	0.100	BMB
6	9.79	NITRITE	0.047	0.012	2.45	0.017	BMB
7	14.20	PHOSPHATE	0.046	0.026	5.39	0.087	BMB
Total:			2.730	0.483	100.00	1.853	

anions/Integration

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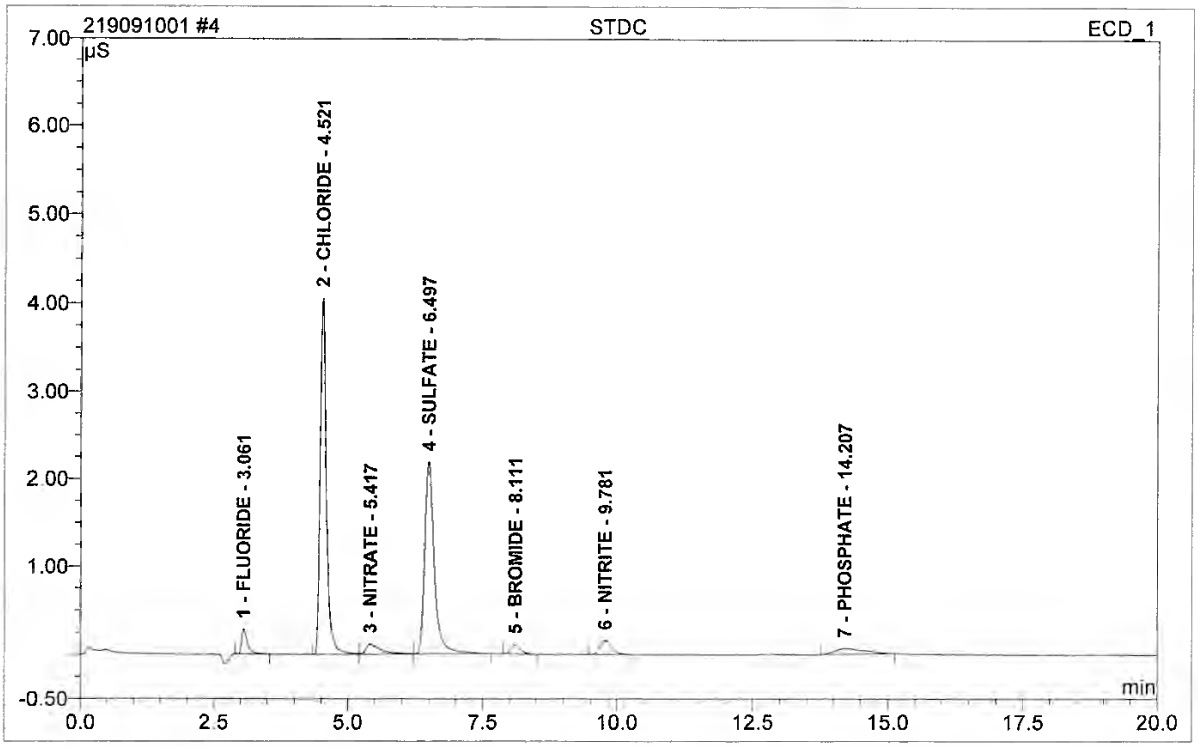
Version 6.80 SR9a Build 2680 (163077)

4 STDC

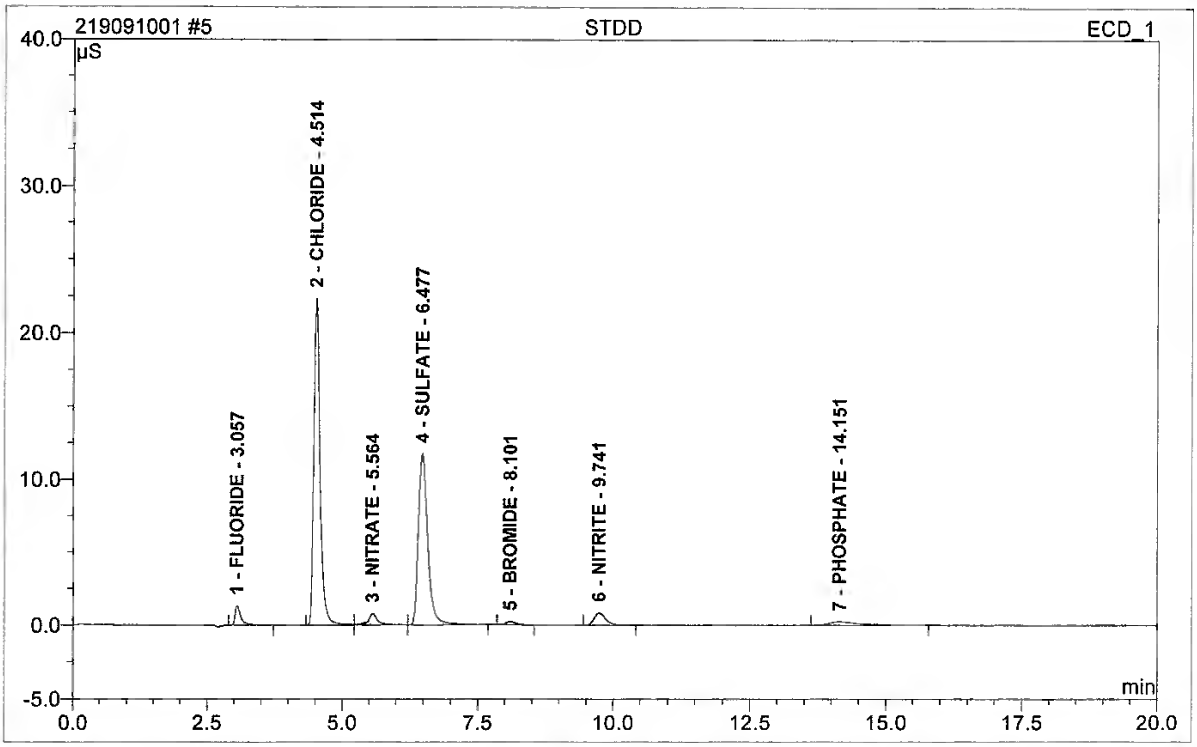
Sample Name:	**STDC**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 12:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	FLUORIDE	0.278	0.035	2.99	0.076	BMB
2	4.52	CHLORIDE	4.055	0.541	46.36	1.879	BM
3	5.42	NITRATE	0.115	0.038	3.24	0.061	M
4	6.50	SULFATE	2.191	0.450	38.60	2.119	MB
5	8.11	BROMIDE	0.102	0.021	1.80	0.192	BMB
6	9.78	NITRITE	0.159	0.039	3.36	0.057	BMB
7	14.21	PHOSPHATE	0.068	0.043	3.66	0.142	BMB
Total:			6.969	1.167	100.00	4.525	

5 STDD

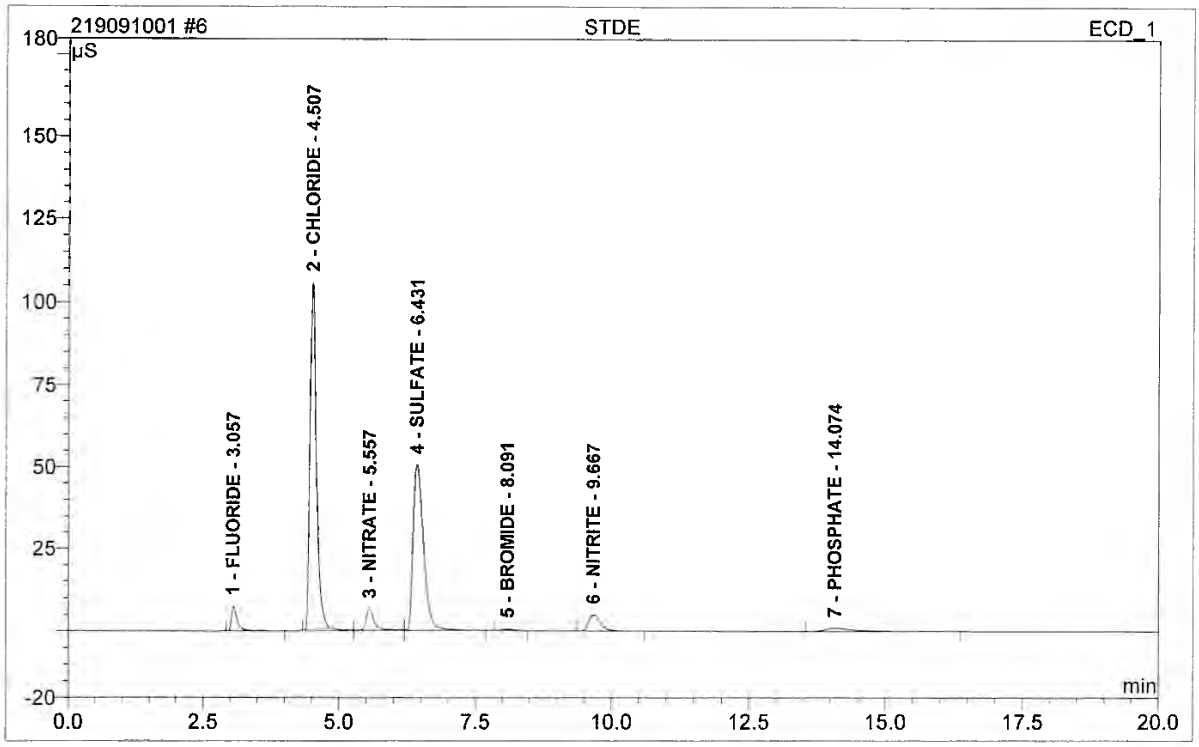
Sample Name:	**STDD**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 13:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	FLUORIDE	1.296	0.159	2.60	0.343	BMB
2	4.51	CHLORIDE	22.290	3.031	49.67	10.529	BM
3	5.56	NITRATE	0.786	0.163	2.67	0.262	M
4	6.48	SULFATE	11.765	2.346	38.44	11.033	MB
5	8.10	BROMIDE	0.215	0.044	0.72	0.402	BMB
6	9.74	NITRITE	0.839	0.207	3.38	0.298	BMB
7	14.15	PHOSPHATE	0.231	0.154	2.52	0.513	BMB
Total:			37.422	6.103	100.00	23.380	

6 STDE

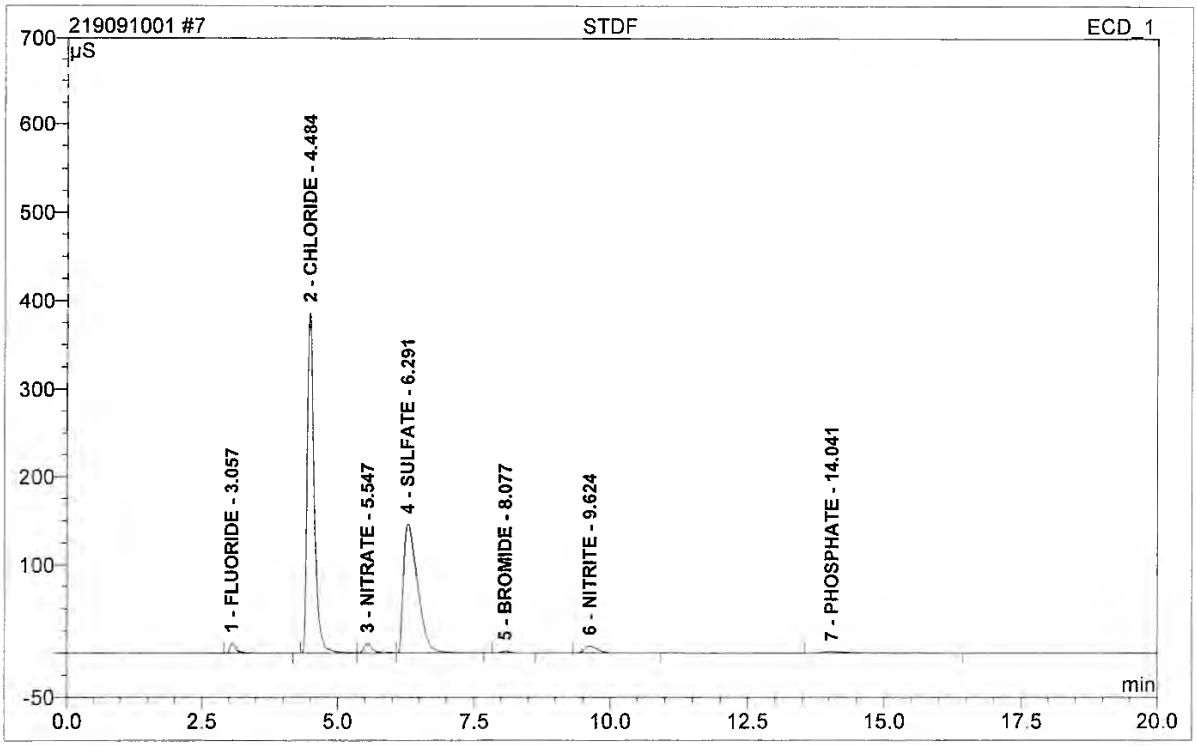
Sample Name:	**STDE**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 13:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	FLUORIDE	7.435	0.919	3.04	1.987	BMB
2	4.51	CHLORIDE	105.662	14.919	49.38	51.822	BM
3	5.56	NITRATE	6.437	1.204	3.98	1.938	M
4	6.43	SULFATE	50.598	11.223	37.15	52.785	MB
5	8.09	BROMIDE	0.473	0.095	0.31	0.868	BMB
6	9.67	NITRITE	4.873	1.244	4.12	1.794	BMB
7	14.07	PHOSPHATE	0.963	0.609	2.02	2.030	BMB
Total:			176.441	30.213	100.00	113.223	

7 STDF

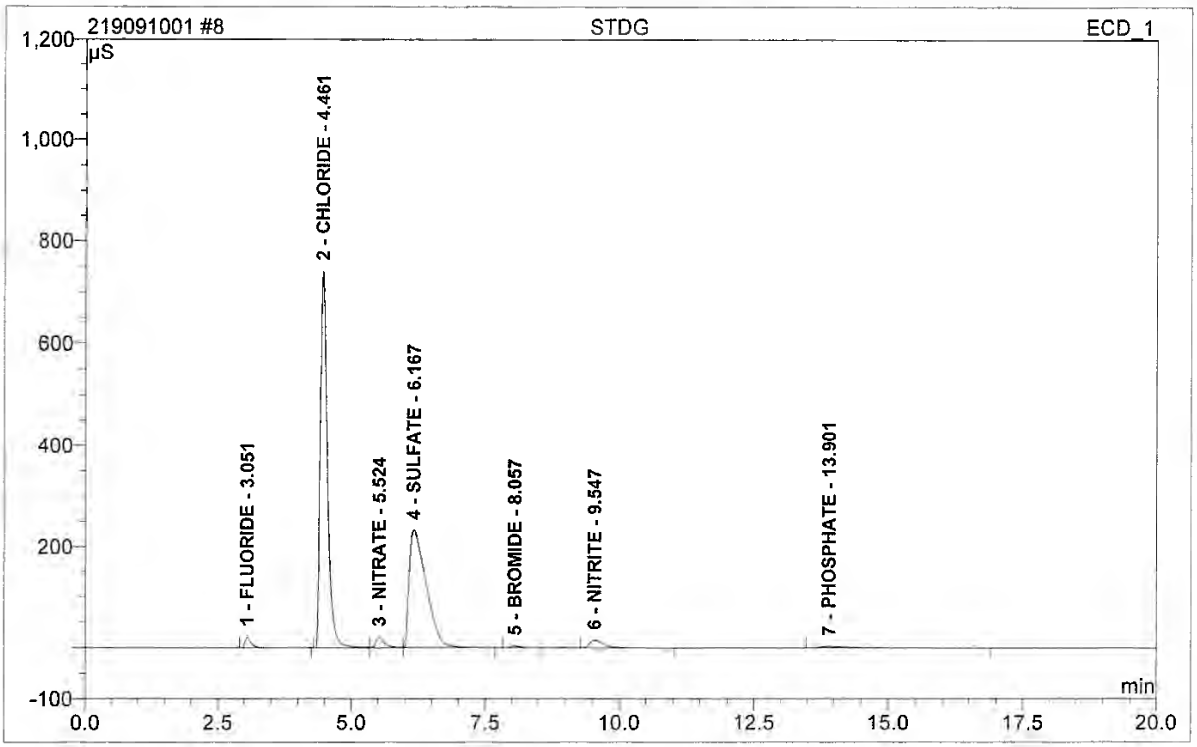
Sample Name:	**STDF**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 13:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



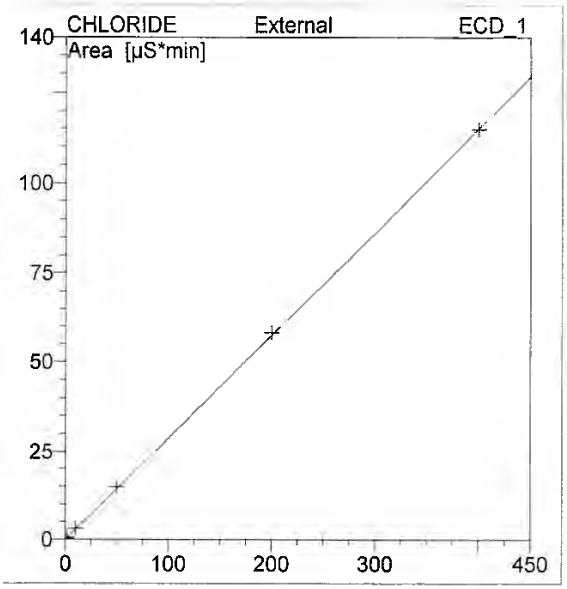
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.06	FLUORIDE	10.843	1.383	1.28	2.990	BMB
2	4.48	CHLORIDE	386.133	58.221	53.85	202.229	BM
3	5.55	NITRATE	10.358	1.876	1.74	3.021	M
4	6.29	SULFATE	146.331	43.336	40.09	203.821	MB
5	8.08	BROMIDE	1.562	0.311	0.29	2.850	BMB
6	9.62	NITRITE	7.737	2.069	1.91	2.983	BMB
7	14.04	PHOSPHATE	1.441	0.913	0.84	3.045	BMB
Total:			564.404	108.109	100.00	420.938	

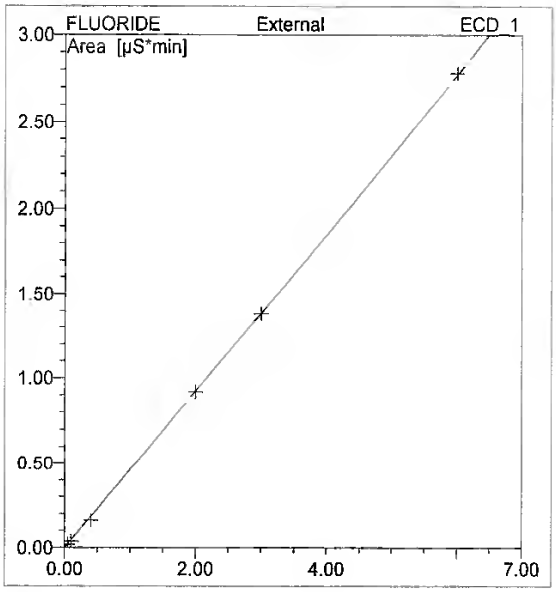
8 STDG

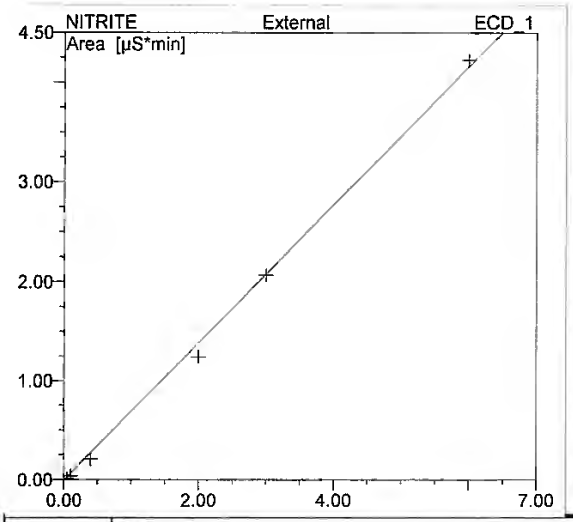
Sample Name:	**STDG**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**8/30/2019 14:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

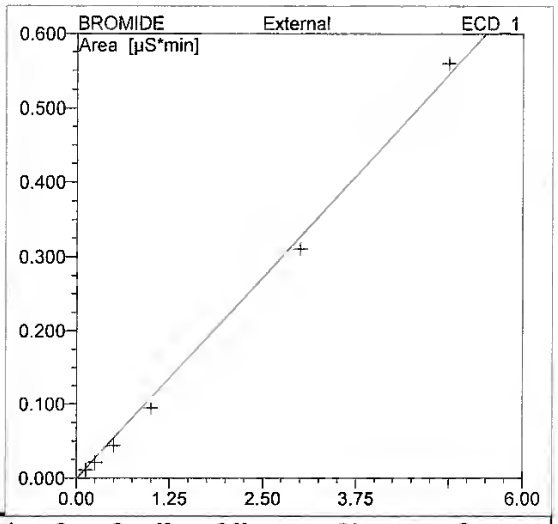


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.05	FLUORIDE	20.625	2.781	1.31	6.014	BMB
2	4.46	CHLORIDE	739.341	114.768	54.03	398.645	BM
3	5.52	NITRATE	19.856	3.740	1.76	6.020	M
4	6.17	SULFATE	232.125	84.561	39.81	397.714	MB
5	8.06	BROMIDE	2.792	0.559	0.26	5.130	BMB
6	9.55	NITRITE	14.349	4.221	1.99	6.085	BMB
7	13.90	PHOSPHATE	2.673	1.787	0.84	5.959	BMB
Total:			1031.760	212.418	100.00	825.567	

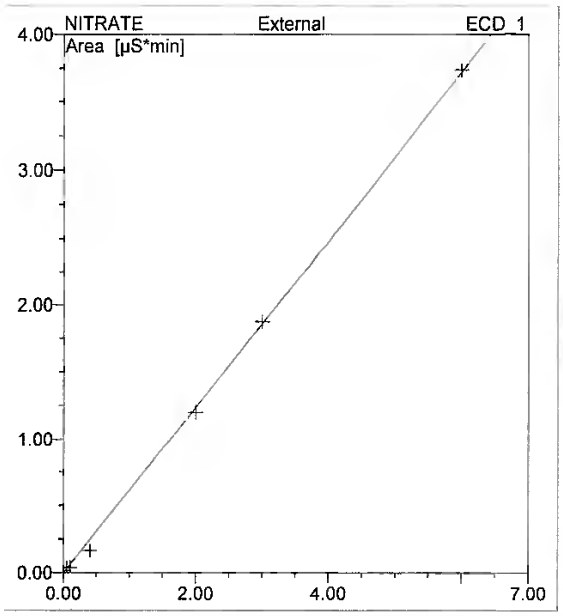


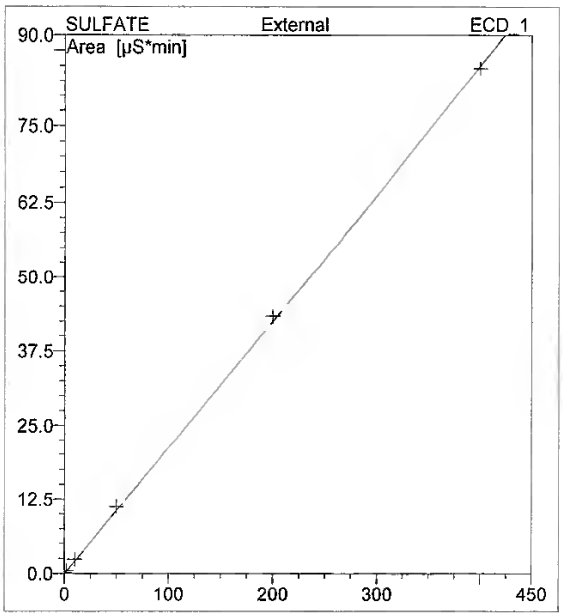


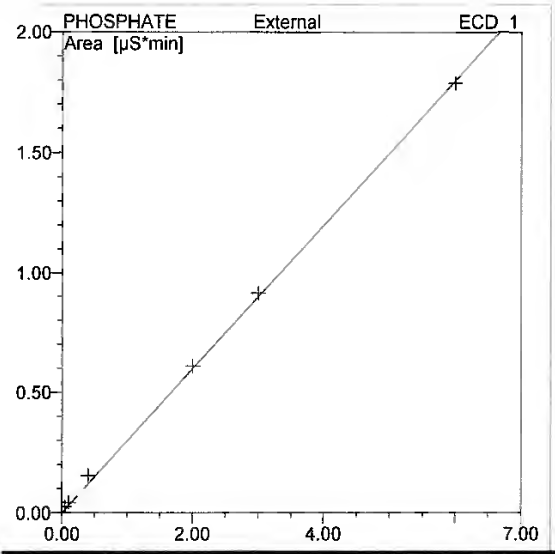




No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	3.05	FLUORIDE	Lin	6	99.9979	0.0000	0.4624	0.0000
2	4.46	CHLORIDE	Lin	7	99.9971	0.0000	0.2879	0.0000
3	5.52	NITRATE	Lin	7	99.9689	0.0000	0.6212	0.0000
4	6.17	SULFATE	Lin	7	99.9922	0.0000	0.2126	0.0000
5	8.06	BROMIDE	Lin	6	99.9105	0.0000	0.1090	0.0000
6	9.55	NITRITE	Lin	6	99.9414	0.0000	0.6937	0.0000
7	13.90	PHOSPHATE	Lin	6	99.9906	0.0000	0.3000	0.0000
Average:					99.9712	0.0000	0.3838	0.0000







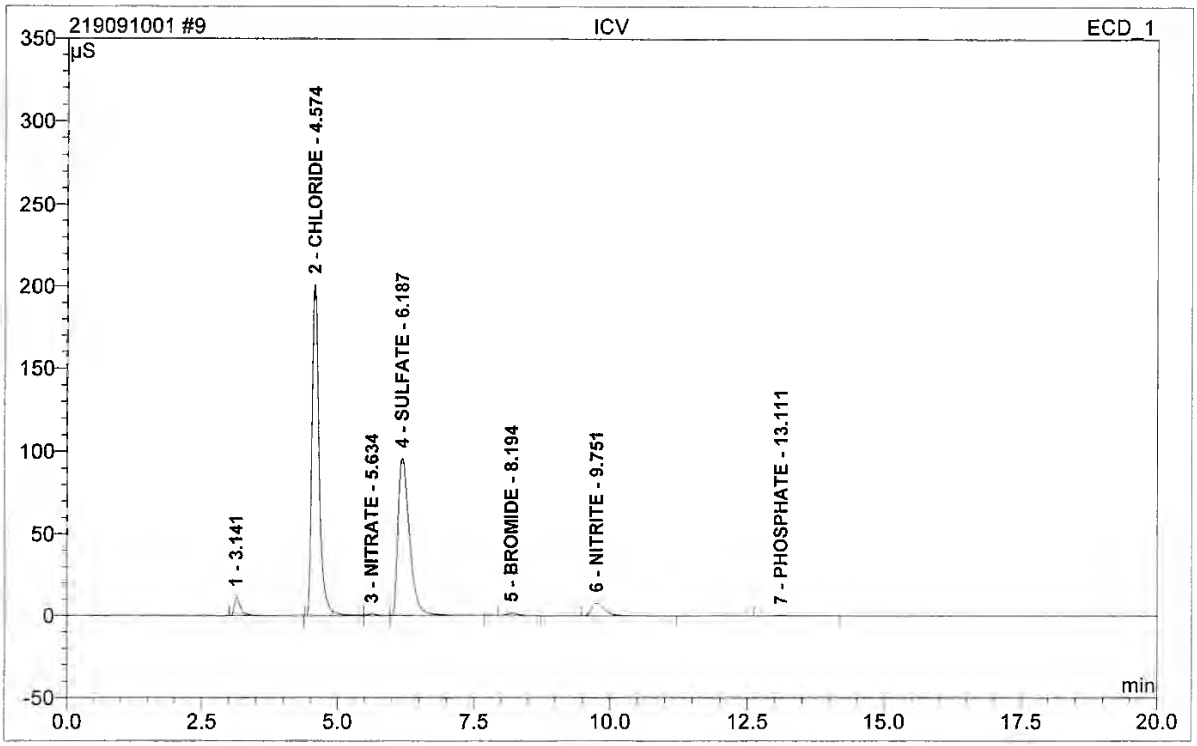
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	3.05	FLUORIDE	Lin	6	99.9979	0.0000	0.4624	0.0000
2	4.46	CHLORIDE	Lin	7	99.9971	0.0000	0.2879	0.0000
3	5.52	NITRATE	Lin	7	99.9689	0.0000	0.6212	0.0000
4	6.17	SULFATE	Lin	7	99.9922	0.0000	0.2126	0.0000
5	8.06	BROMIDE	Lin	6	99.9105	0.0000	0.1090	0.0000
6	9.55	NITRITE	Lin	6	99.9414	0.0000	0.6937	0.0000
7	13.90	PHOSPHATE	Lin	6	99.9906	0.0000	0.3000	0.0000
Average:					99.9712	0.0000	0.3838	0.0000

anions/Calibration(Curr.Peak)

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

9 ICV

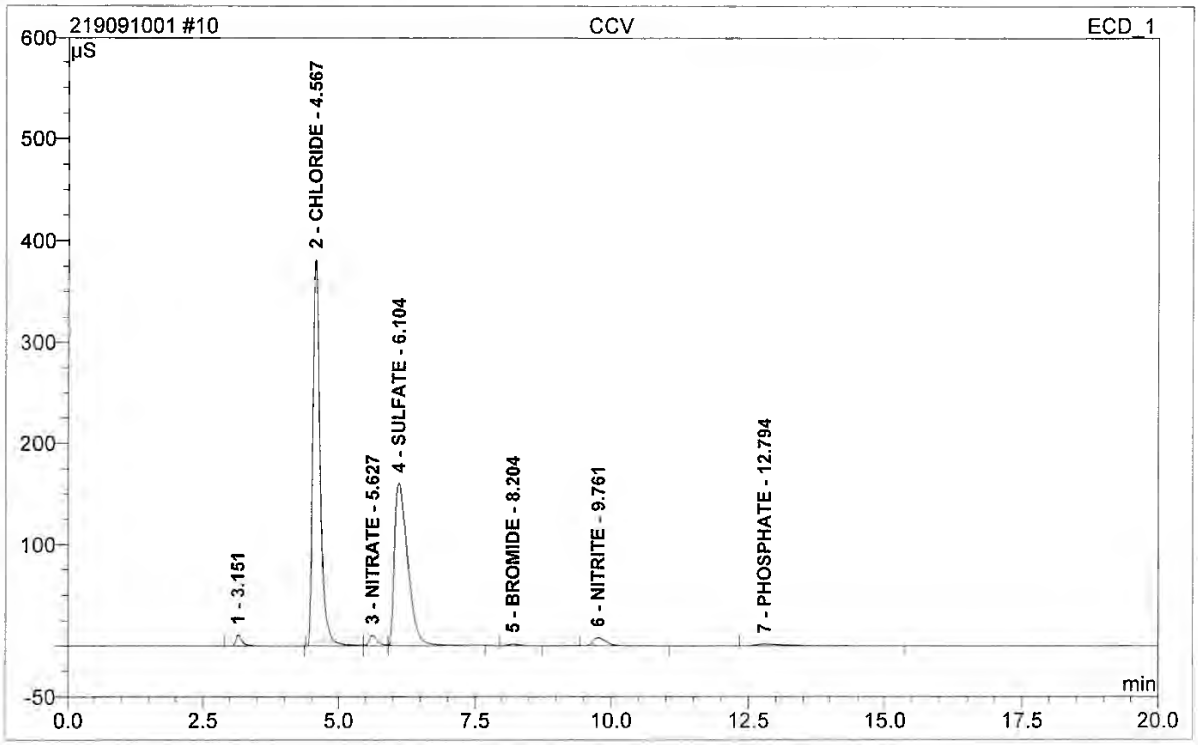
Sample Name:	**ICV**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 10:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	11.050	1.530	2.62	n.a.	BMB
2	4.57	CHLORIDE	200.878	30.800	52.66	106.985	BM
3	5.63	NITRATE	1.106	0.214	0.37	0.345	M
4	6.19	SULFATE	95.668	23.232	39.72	109.266	MB
5	8.19	BROMIDE	1.656	0.342	0.58	3.134	BMB
6	9.75	NITRITE	7.808	2.188	3.74	3.154	BMB
7	13.11	PHOSPHATE	0.296	0.179	0.31	0.597	BMB
Total:			318.462	58.485	100.00	223.481	

10 CCV

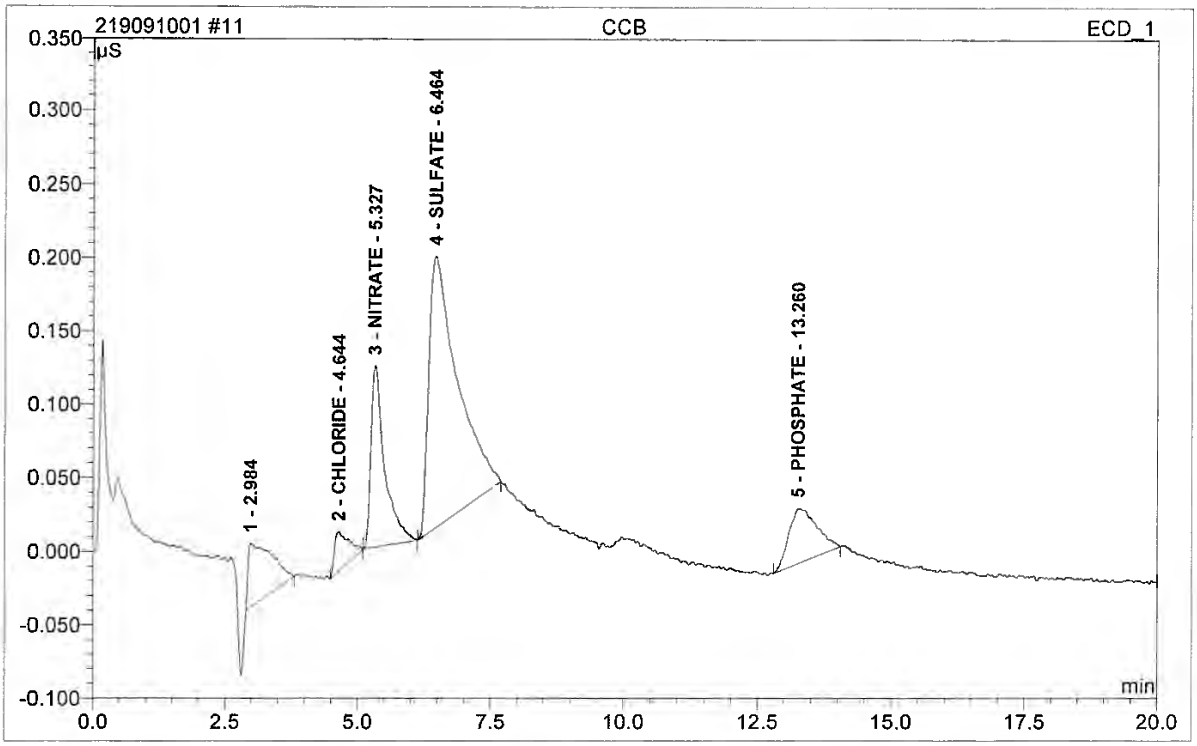
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 11:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	10.788	1.524	1.36	n.a.	BMB
2	4.57	CHLORIDE	381.521	60.280	53.60	209.383	BM
3	5.63	NITRATE	10.303	1.855	1.65	2.987	M
4	6.10	SULFATE	160.452	45.104	40.11	212.136	MB
5	8.20	BROMIDE	1.639	0.338	0.30	3.099	BMB
6	9.76	NITRITE	7.980	2.230	1.98	3.215	BMB
7	12.79	PHOSPHATE	1.784	1.129	1.00	3.764	BMB
Total:			574.468	112.460	100.00	434.583	

11 CCB

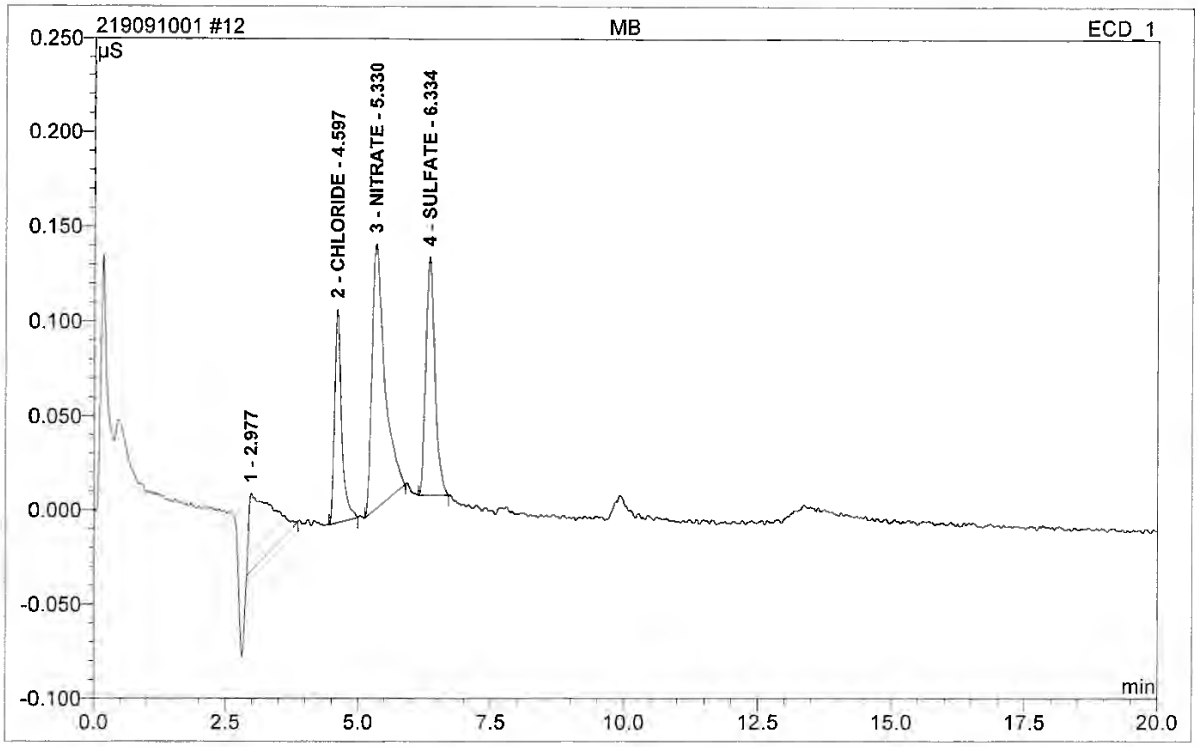
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 11:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.98	n.a.	0.043	0.021	10.45	n.a.	BMB
2	4.64	CHLORIDE	0.027	0.008	4.04	0.028	BMB
3	5.33	NITRATE	0.123	0.037	18.19	0.059	bMB
4	6.46	SULFATE	0.185	0.114	56.26	0.537	BMB
5	13.26	PHOSPHATE	0.037	0.022	11.05	0.075	BMB
Total:			0.415	0.203	100.00	0.700	

12 MB

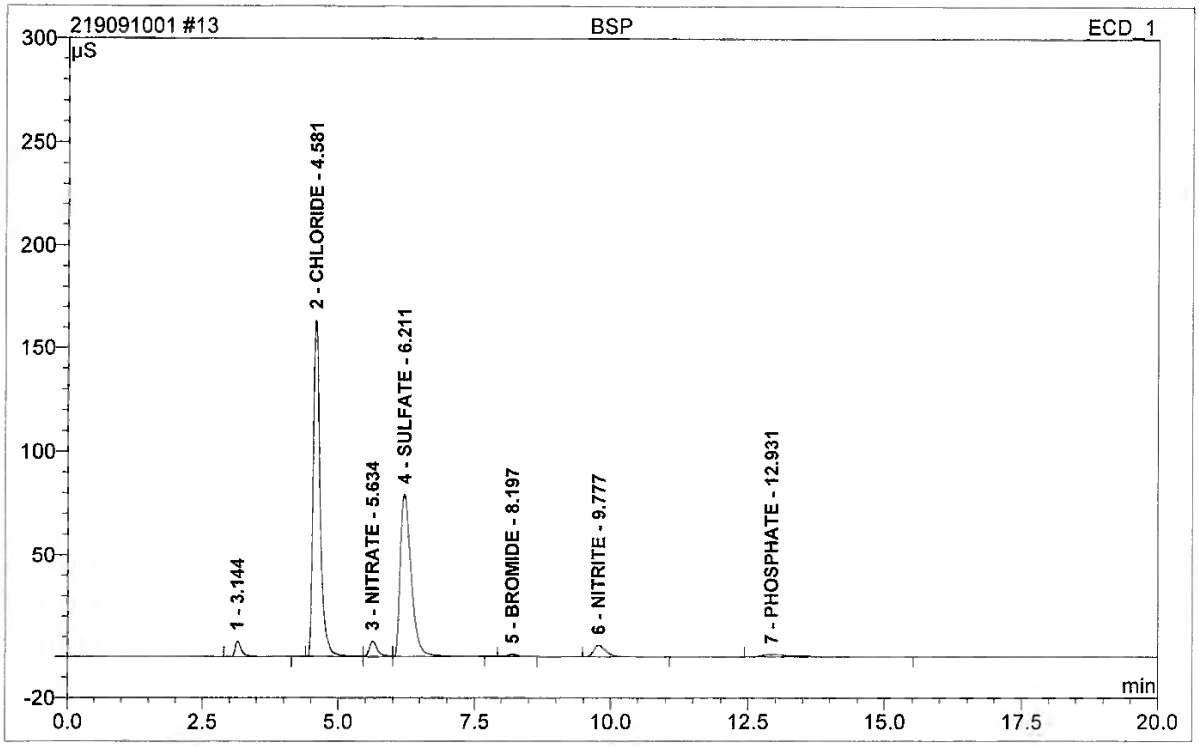
Sample Name:	**MB**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 11:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.98	n.a.	0.041	0.019	19.02	n.a.	BMB
2	4.60	CHLORIDE	0.113	0.017	17.18	0.060	BMB
3	5.33	NITRATE	0.140	0.039	38.82	0.063	BMB
4	6.33	SULFATE	0.126	0.025	24.98	0.118	BMB
Total:			0.420	0.101	100.00	0.241	

13 BSP

Sample Name:	**BSP**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 12:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



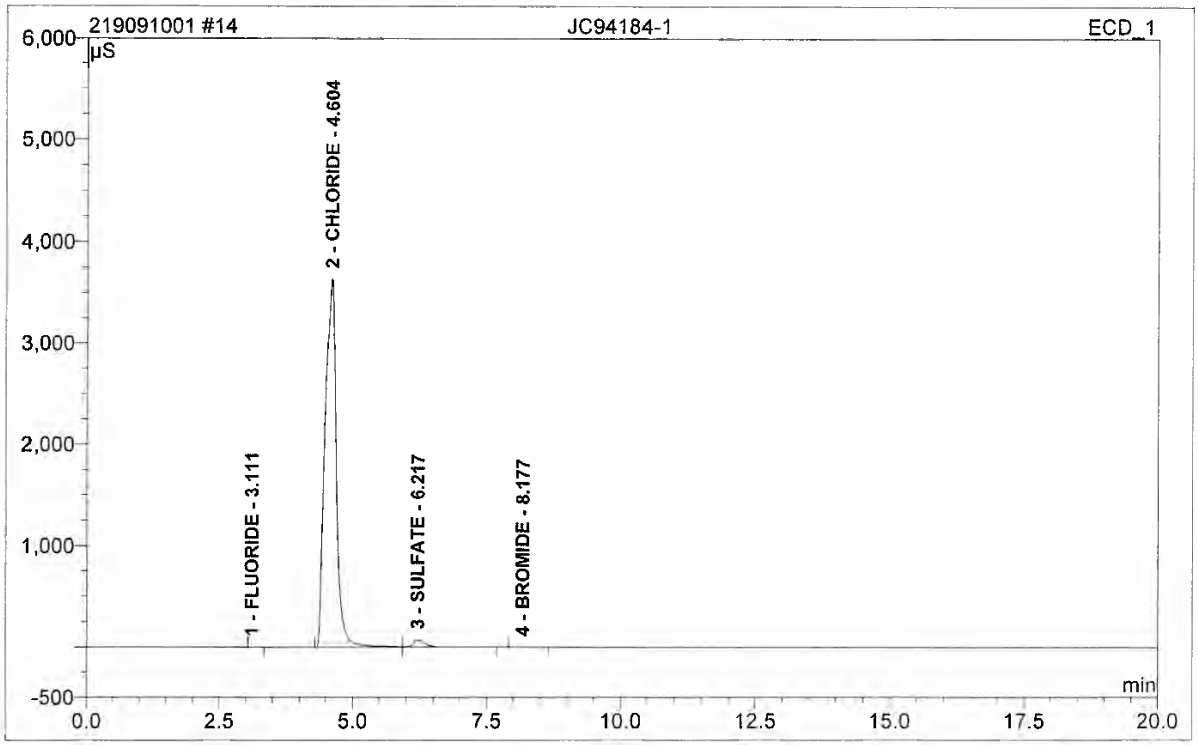
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	7.735	1.054	2.20	n.a.	BMB
2	4.58	CHLORIDE	163.586	24.570	51.24	85.344	BM
3	5.63	NITRATE	7.621	1.347	2.81	2.169	M
4	6.21	SULFATE	79.359	18.425	38.42	86.659	MB
5	8.20	BROMIDE	1.056	0.217	0.45	1.991	BMB
6	9.78	NITRITE	5.708	1.544	3.22	2.226	BMB
7	12.93	PHOSPHATE	1.252	0.793	1.65	2.644	BMB
Total:			266.317	47.952	100.00	181.034	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14 JC94184-1

Sample Name:	**JC94184-1**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**30.0000**
Recording Time:	**9/10/2019 12:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

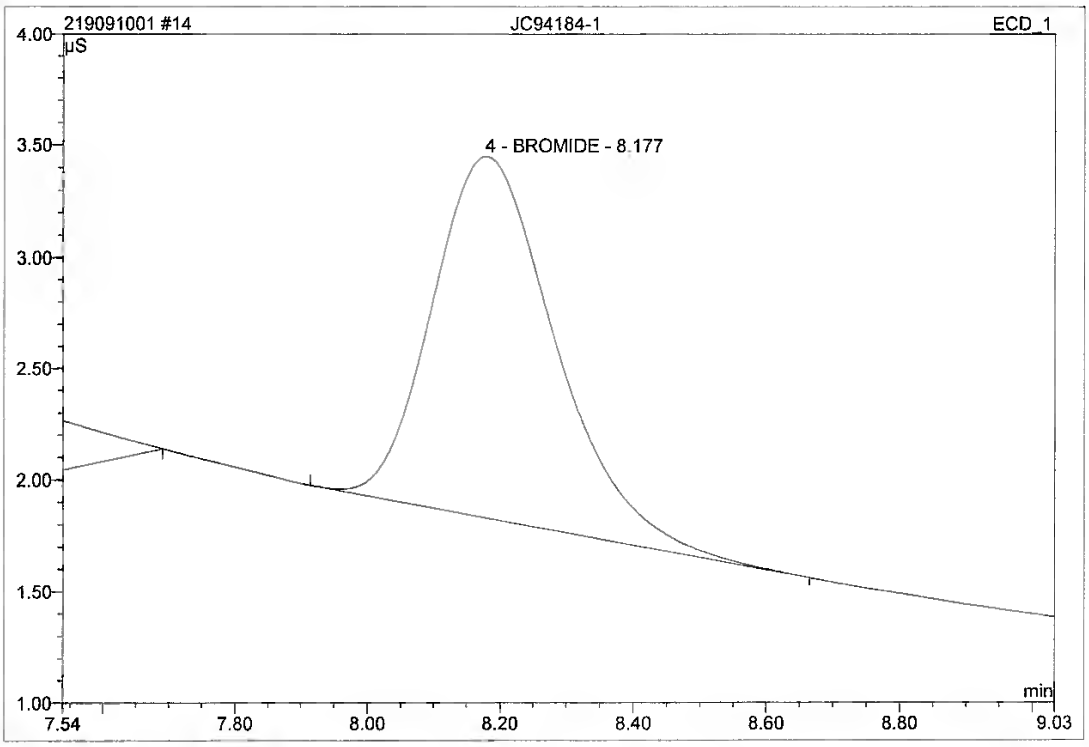


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.11	FLUORIDE	0.010	0.002	0.00	0.140	BMB
2	4.60	CHLORIDE	3634.109	892.110	97.82	92962.011	BM
3	6.22	SULFATE	71.189	19.492	2.14	2750.264	MB
4	8.18	BROMIDE	1.620	0.349	0.04	96.145	BMB
Total:			3706.928	911.953	100.00	95808.561	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

14 JC94184-1

Sample Name:	**JC94184-1**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**30.0000**
Recording Time:	**9/10/2019 12:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



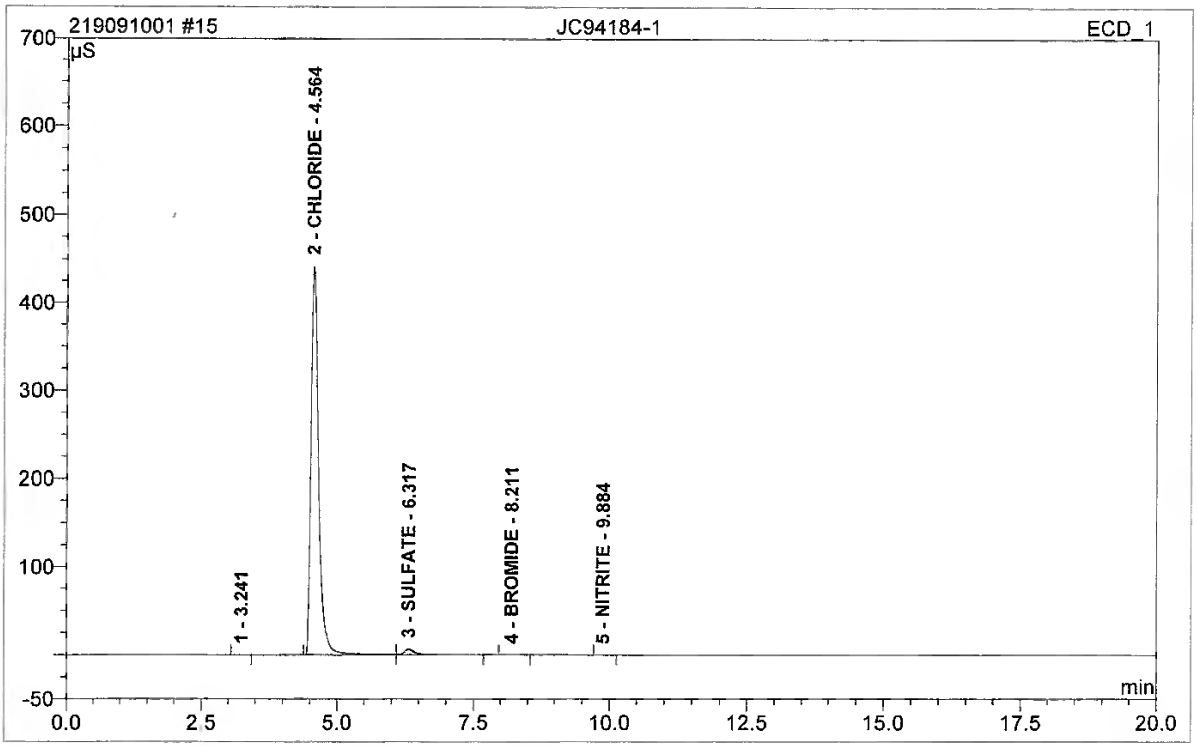
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.11	FLUORIDE	0.010	0.002	0.00	0.140	BMB
2	4.60	CHLORIDE	3634.109	892.110	97.82	#########	BM
3	6.22	SULFATE	71.189	19.492	2.14	2750.264	MB
4	8.18	BROMIDE	1.620	0.349	0.04	96.145	BMB
Total:			3706.928	911.953	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

15 JC94184-1

Sample Name:	**JC94184-1**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**400.0000**
Recording Time:	**9/10/2019 13:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



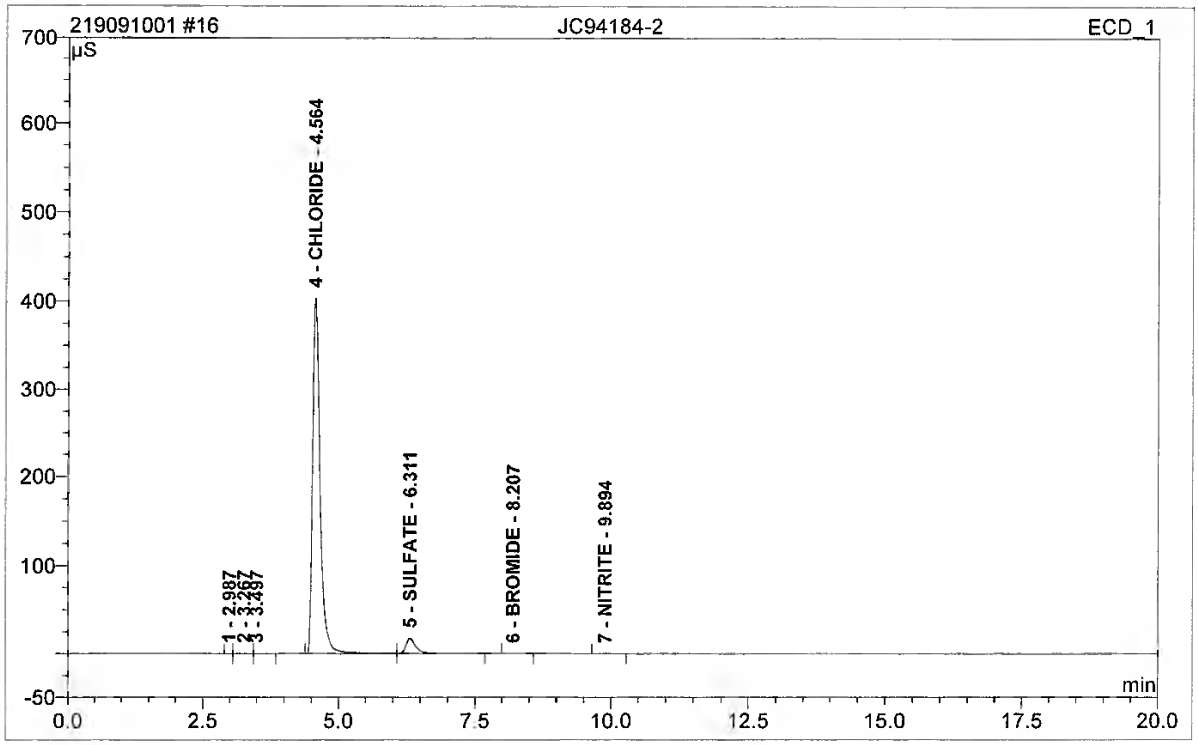
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.028	0.004	0.01	n.a.	BMB
2	4.56	CHLORIDE	441.945	71.684	97.77	99597.193	BM
3	6.32	SULFATE	6.648	1.606	2.19	3020.725	MB
4	8.21	BROMIDE	0.098	0.020	0.03	74.753	BMB
5	9.88	NITRITE	0.014	0.003	0.00	1.746	BMB
Total:			448.733	73.317	100.00	102694.417	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

16 JC94184-2

Sample Name:	**JC94184-2**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**40.0000**
Recording Time:	**9/10/2019 13:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



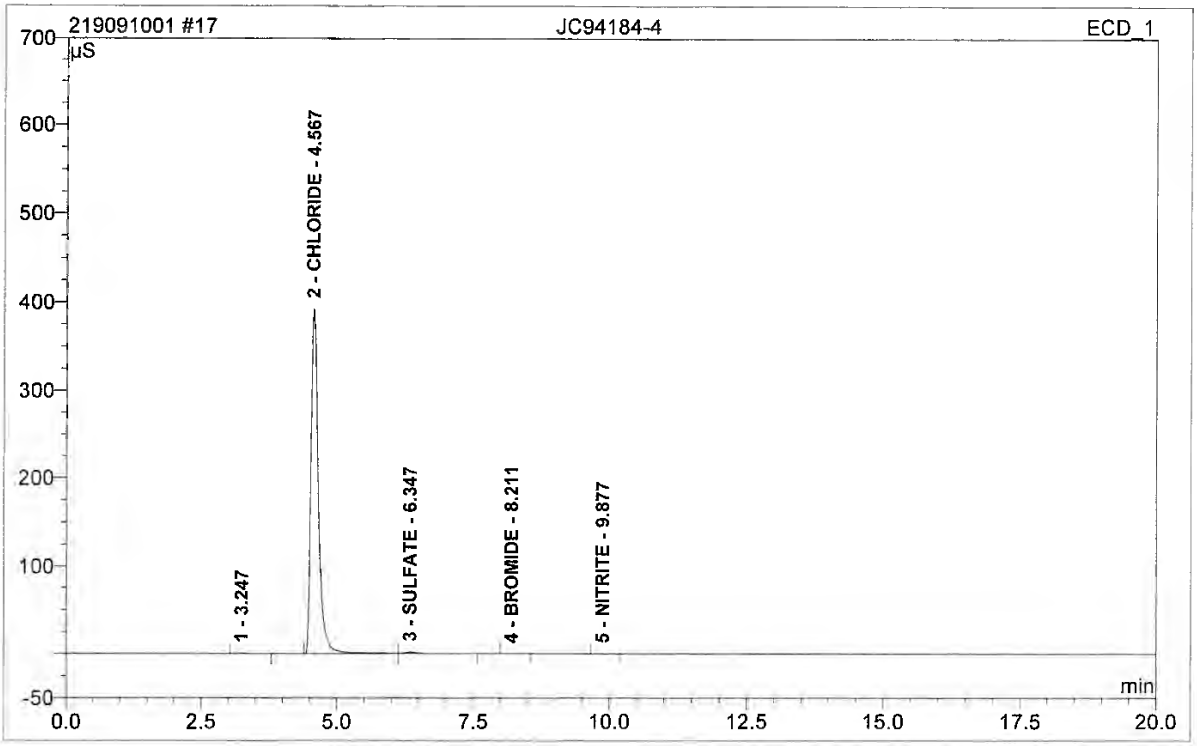
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	n.a.	0.028	0.004	0.01	n.a.	BM
2	3.27	n.a.	0.077	0.017	0.02	n.a.	M
3	3.50	n.a.	0.030	0.006	0.01	n.a.	MB
4	4.56	CHLORIDE	403.533	64.857	94.48	9011.193	BM
5	6.31	SULFATE	17.289	3.743	5.45	704.266	MB
6	8.21	BROMIDE	0.067	0.014	0.02	5.019	BMB
7	9.89	NITRITE	0.036	0.009	0.01	0.531	BMB
Total:			421.061	68.649	100.00	9721.009	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

17 JC94184-4

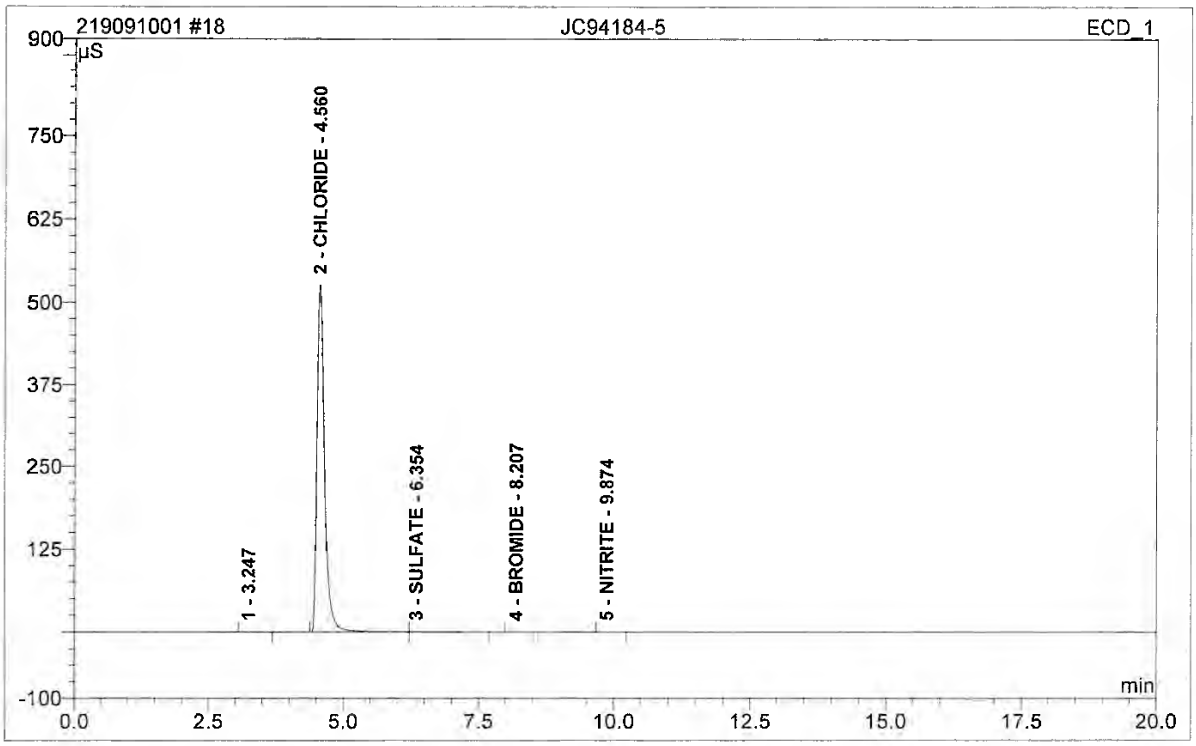
Sample Name:	**JC94184-4**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**100.0000**
Recording Time:	**9/10/2019 13:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.287	0.043	0.07	n.a.	BMB
2	4.57	CHLORIDE	391.715	63.043	99.15	21897.815	BM
3	6.35	SULFATE	1.740	0.487	0.77	228.962	MB
4	8.21	BROMIDE	0.044	0.009	0.01	8.257	BMB
5	9.88	NITRITE	0.015	0.003	0.01	0.500	BMB
Total:			393.801	63.585	100.00	22135.534	

18 JC94184-5

Sample Name:	**JC94184-5**	*Injection Volume:*	**20.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/10/2019 14:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



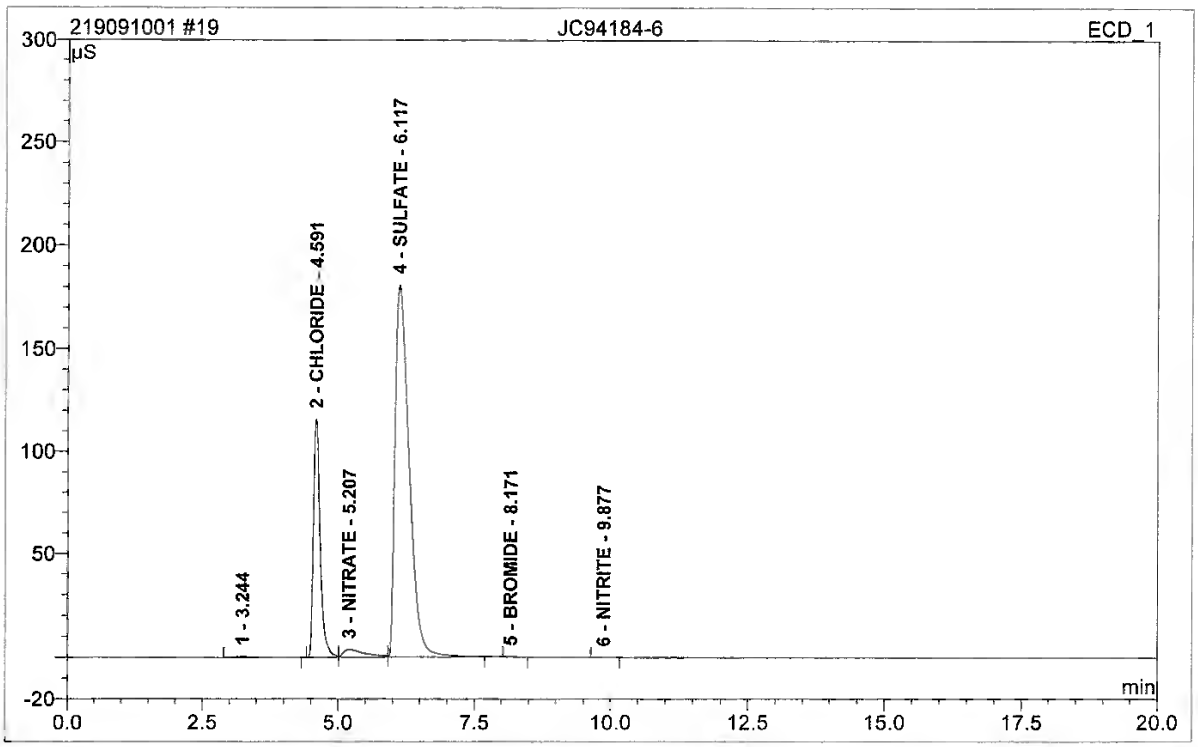
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.110	0.017	0.02	n.a.	BMB
2	4.56	CHLORIDE	526.029	86.039	99.74	59771.411	BM
3	6.35	SULFATE	0.363	0.193	0.22	181.518	MB
4	8.21	BROMIDE	0.052	0.010	0.01	19.236	BMB
5	9.87	NITRITE	0.014	0.003	0.00	0.944	BMB
Total:			526.568	86.263	100.00	59973.109	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

19 JC94184-6

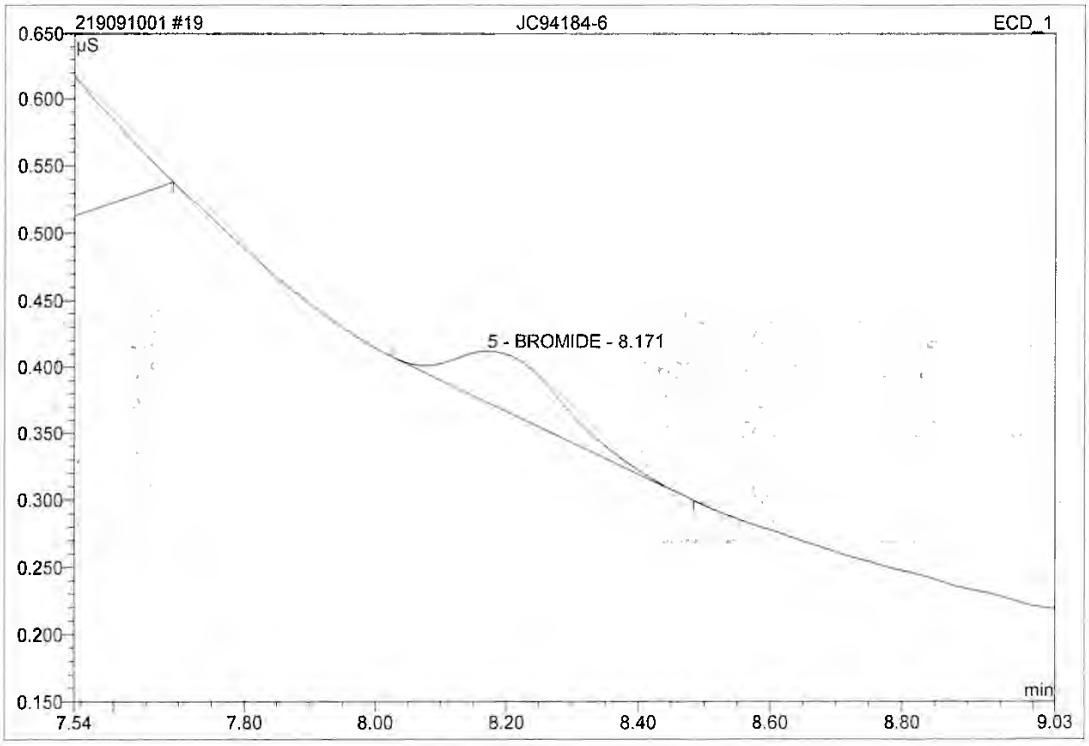
Sample Name:	**JC94184-6**	*Injection Volume:*	**20.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 14:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.562	0.131	0.18	n.a.	BMB
2	4.59	CHLORIDE	115.679	16.683	23.02	57.947	BM
3	5.21	NITRATE	3.718	1.754	2.42	2.824	M
4	6.12	SULFATE	180.807	53.871	74.35	253.369	MB
5	8.17	BROMIDE	0.038	0.008	0.01	0.074	BMB
6	9.88	NITRITE	0.035	0.008	0.01	0.011	BMB
Total:			300.839	72.455	100.00	314.225	

19 JC94184-6

Sample Name:	**JC94184-6**	*Injection Volume:*	**20.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 14:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.562	0.131	0.18	n.a.	BMB
2	4.59	CHLORIDE	115.679	16.683	23.02	57.947	BM
3	5.21	NITRATE	3.718	1.754	2.42	2.824	M
4	6.12	SULFATE	180.807	53.871	74.35	253.369	MB
5	8.17	BROMIDE	0.038	0.008	0.01	0.074	BMB
6	9.88	NITRITE	0.035	0.008	0.01	0.011	BMB
Total:			300.839	72.455	100.00	314.225	

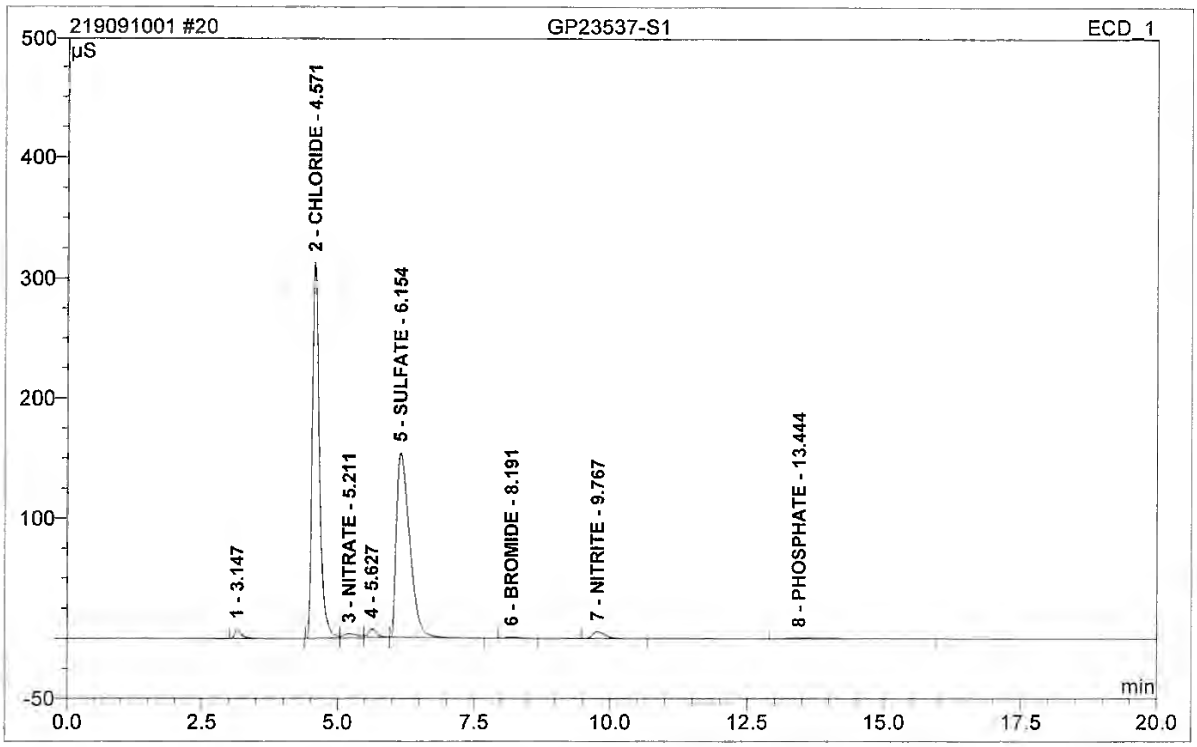
DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

20 GP23537-S1

JC94330-1

Sample Name:	**GP23537-S1**	*Injection Volume:*	**20.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 15:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	7.497	1.103	1.14	n.a.	BMB
2	4.57	CHLORIDE	312.812	47.749	49.37	165.854	BM
3	5.21	NITRATE	3.440	1.133	1.17	1.825	M
4	5.63	n.a.	7.325	1.308	1.35	n.a.	Mb
5	6.15	SULFATE	153.720	43.120	44.58	202.803	bMB
6	8.19	BROMIDE	1.078	0.219	0.23	2.011	BMB
7	9.77	NITRITE	5.691	1.497	1.55	2.158	BMB
8	13.44	PHOSPHATE	0.586	0.595	0.62	1.985	BMB
Total:			492.150	96.725	100.00	376.635	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

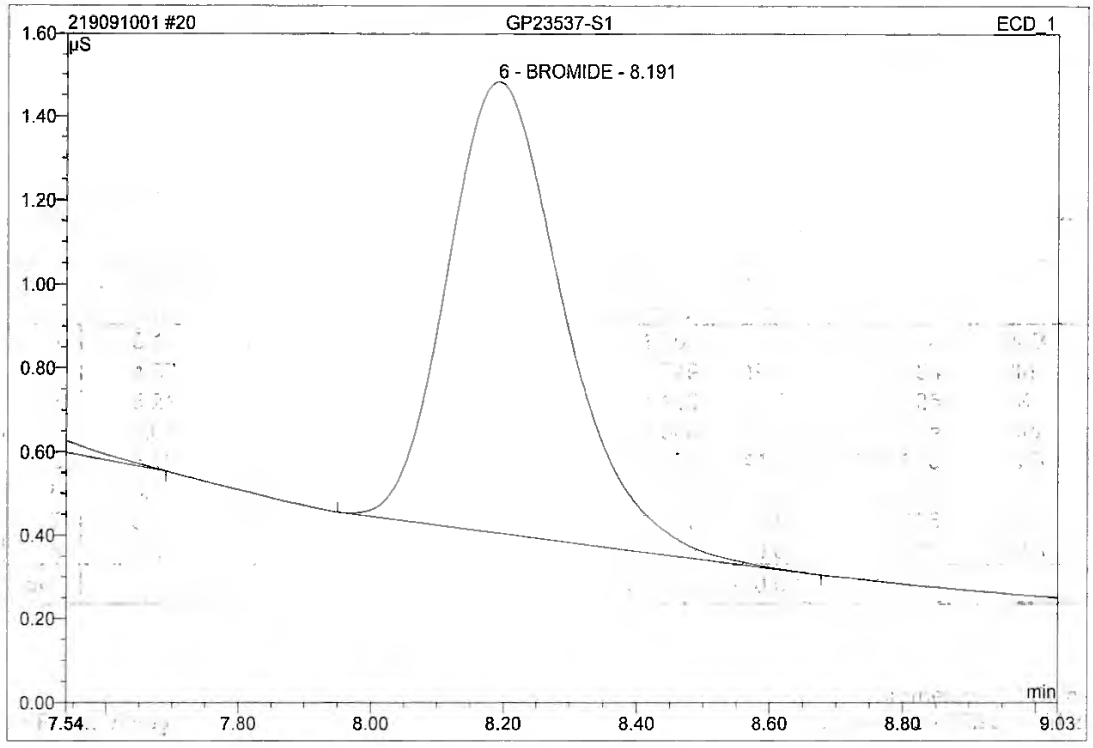
Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

9/11/2019 9:47 AM

20 GP23537-S1

JC94330-1

Sample Name:	**GP23537-S1**	*Injection Volume:*	**20.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 15:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	7.497	1.103	1.14	n.a.	BMB
2	4.57	CHLORIDE	312.812	47.749	49.37	165.854	BM
3	5.21	NITRATE	3.440	1.133	1.17	1.825	M
4	5.63	n.a.	7.325	1.308	1.35	n.a.	Mb
5	6.15	SULFATE	153.720	43.120	44.58	202.803	bMB
6	8.19	BROMIDE	1.078	0.219	0.23	2.011	BMB
7	9.77	NITRITE	5.691	1.497	1.55	2.158	BMB
8	13.44	PHOSPHATE	0.586	0.595	0.62	1.985	BMB
Total:			492.150	96.725	100.00	376.635	

DEFAULT/Integration

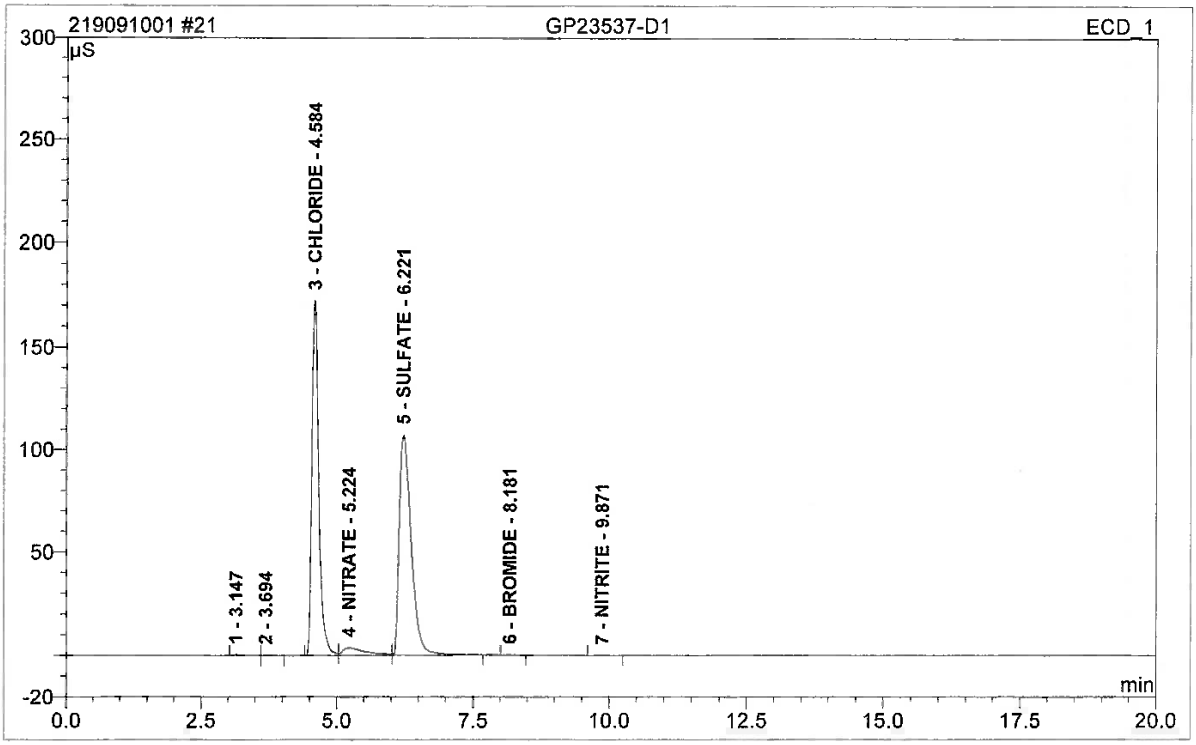
Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

21 GP23537-D1

JC94330-1

Sample Name:	**GP23537-D1**	*Injection Volume:*	**20.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 15:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	0.302	0.049	0.09	n.a.	BM
2	3.69	n.a.	0.026	0.004	0.01	n.a.	MB
3	4.58	CHLORIDE	172.172	25.339	46.56	88.015	BM
4	5.22	NITRATE	3.705	1.829	3.36	2.944	M
5	6.22	SULFATE	107.102	27.179	49.94	127.829	MB
6	8.18	BROMIDE	0.041	0.008	0.01	0.073	BMB
7	9.87	NITRITE	0.083	0.020	0.04	0.029	BMB
Total:			283.431	54.428	100.00	218.891	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

9.5
9

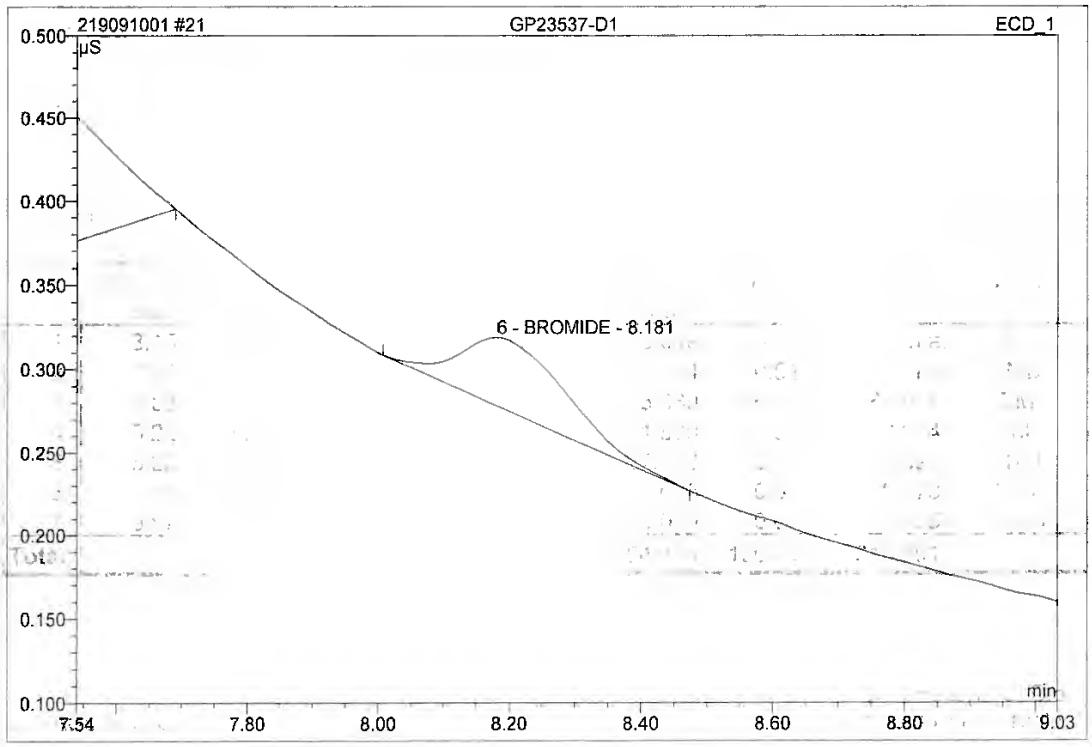
Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

9/11/2019 9:47 AM

21 GP23537-D1

JC94330-1

Sample Name:	**GP23537-D1**	*Injection Volume:*	**20.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 15:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



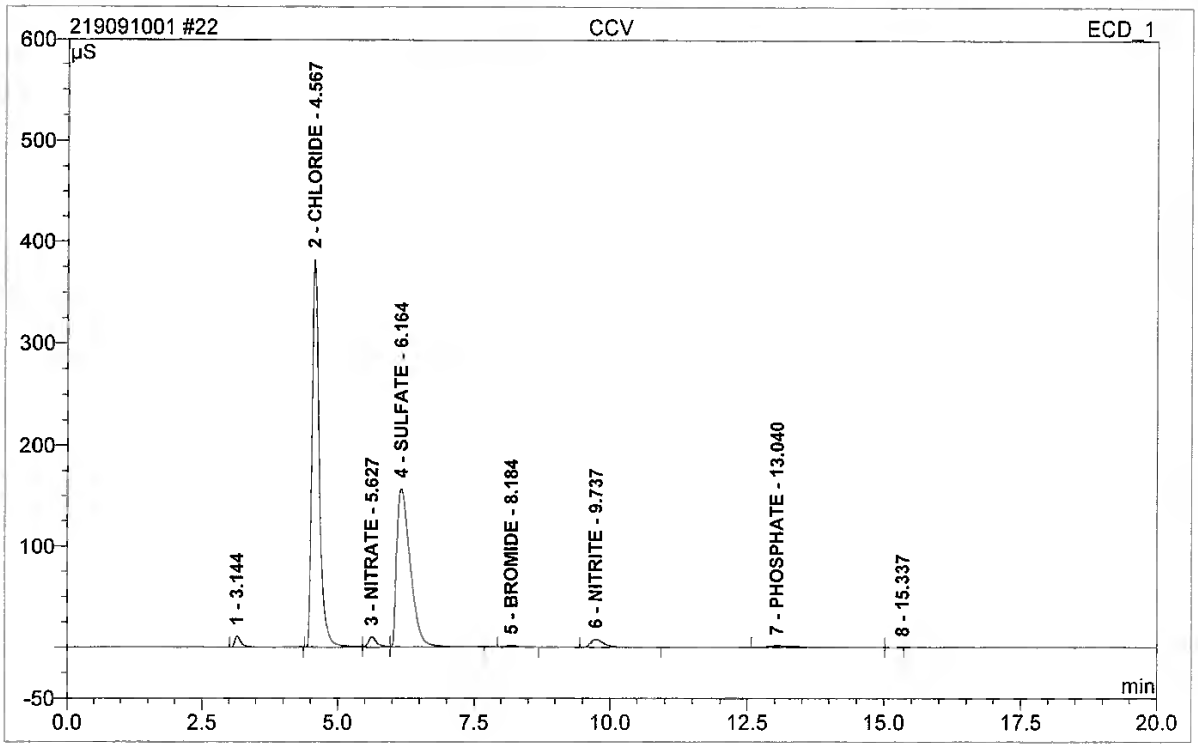
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	0.302	0.049	0.09	n.a.	BM
2	3.69	n.a.	0.026	0.004	0.01	n.a.	MB
3	4.58	CHLORIDE	172.172	25.339	46.56	88.015	BM
4	5.22	NITRATE	3.705	1.829	3.36	2.944	M
5	6.22	SULFATE	107.102	27.179	49.94	127.829	MB
6	8.18	BROMIDE	0.041	0.008	0.01	0.073	BMB
7	9.87	NITRITE	0.083	0.020	0.04	0.029	BMB
Total:			283.431	54.428	100.00	218.891	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

22 CCV

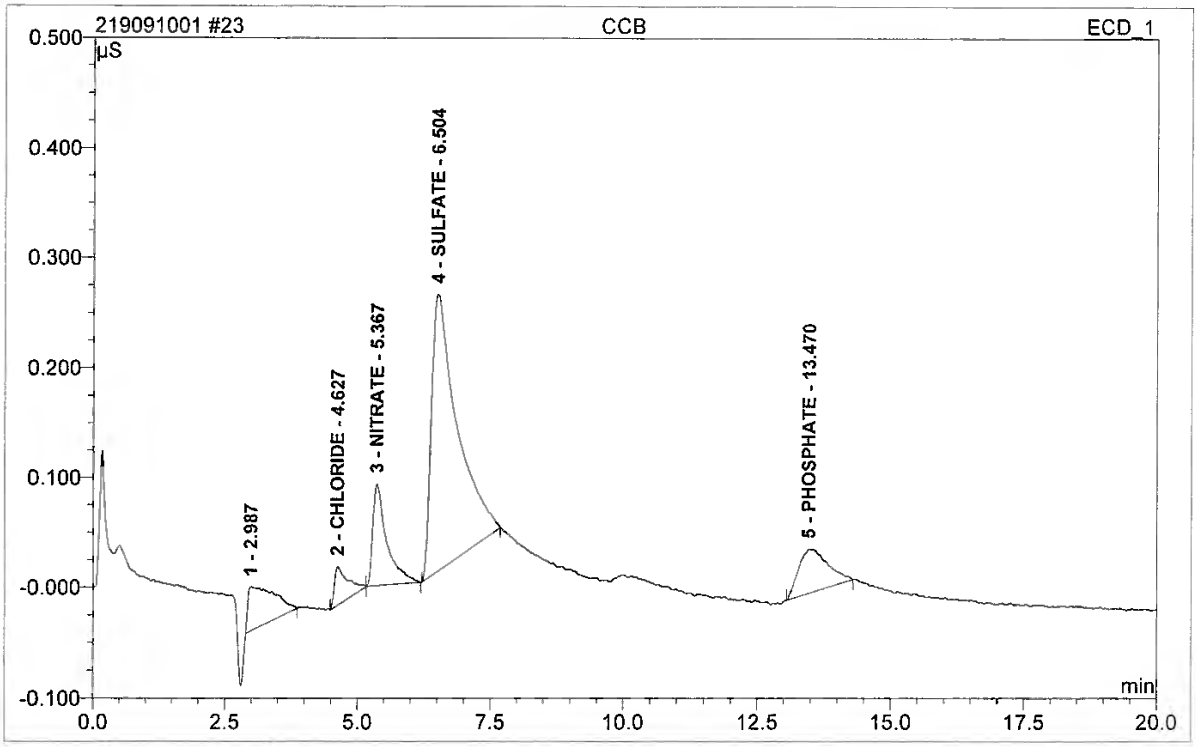
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 15:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	10.953	1.509	1.34	n.a.	BMB
2	4.57	CHLORIDE	382.450	60.234	53.70	209.222	BM
3	5.63	NITRATE	10.254	1.845	1.64	2.970	M
4	6.16	SULFATE	157.533	45.003	40.12	211.662	MB
5	8.18	BROMIDE	1.634	0.336	0.30	3.077	BMB
6	9.74	NITRITE	7.987	2.201	1.96	3.173	BMB
7	13.04	PHOSPHATE	1.601	1.040	0.93	3.466	BM
8	15.34	n.a.	0.000	0.004	0.00	n.a.	MB
Total:			572.411	112.171	100.00	433.570	

23 CCB

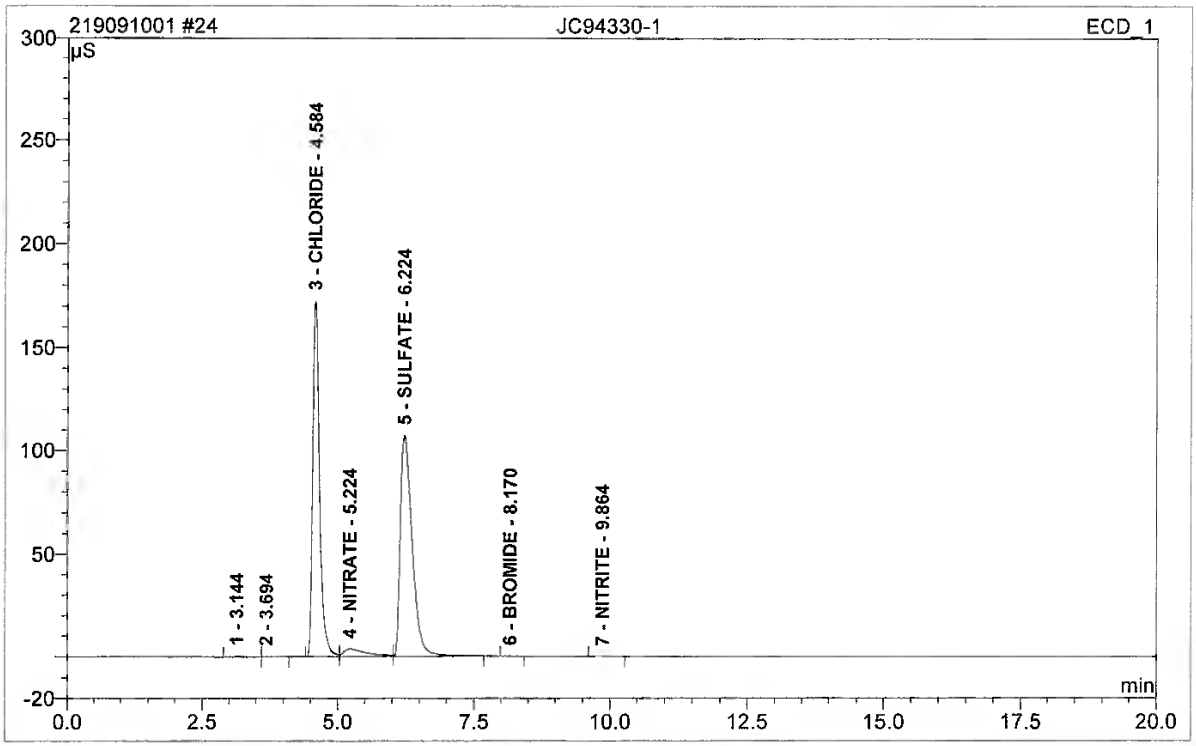
Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 16:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	n.a.	0.039	0.021	9.35	n.a.	BMB
2	4.63	CHLORIDE	0.035	0.010	4.34	0.034	BMB
3	5.37	NITRATE	0.093	0.029	12.59	0.046	bMB
4	6.50	SULFATE	0.252	0.141	62.47	0.665	BMB
5	13.47	PHOSPHATE	0.040	0.025	11.26	0.085	BMB
Total:			0.459	0.226	100.00	0.830	

24 JC94330-1

Sample Name:	**JC94330-1**	*Injection Volume:*	**20.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 16:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	0.318	0.056	0.10	n.a.	BM
2	3.69	n.a.	0.035	0.007	0.01	n.a.	MB
3	4.58	CHLORIDE	172.280	25.350	46.56	88.054	BM
4	5.22	NITRATE	3.700	1.828	3.36	2.943	M
5	6.22	SULFATE	107.273	27.182	49.92	127.843	MB
6	8.17	BROMIDE	0.038	0.008	0.01	0.071	BMB
7	9.86	NITRITE	0.075	0.019	0.03	0.027	BMB
Total:			283.719	54.449	100.00	218.938	

anions/Integration

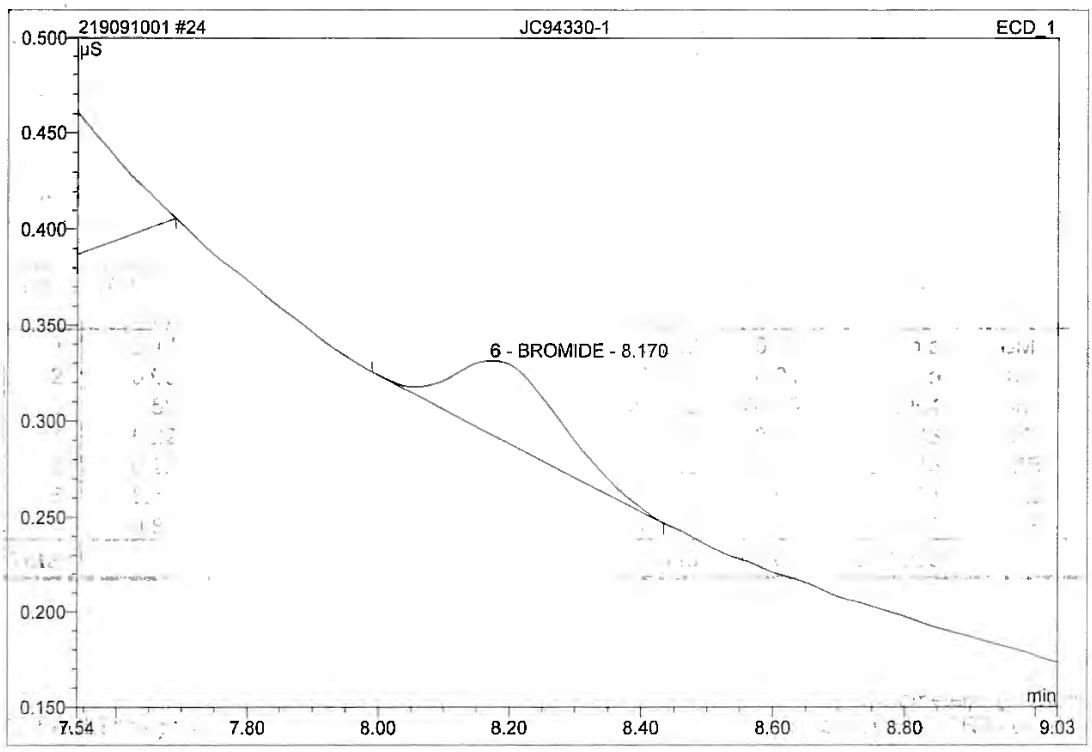
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

9/11/2019 9:47 AM

24 JC94330-1

Sample Name:	**JC94330-1**	*Injection Volume:*	**20.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 16:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



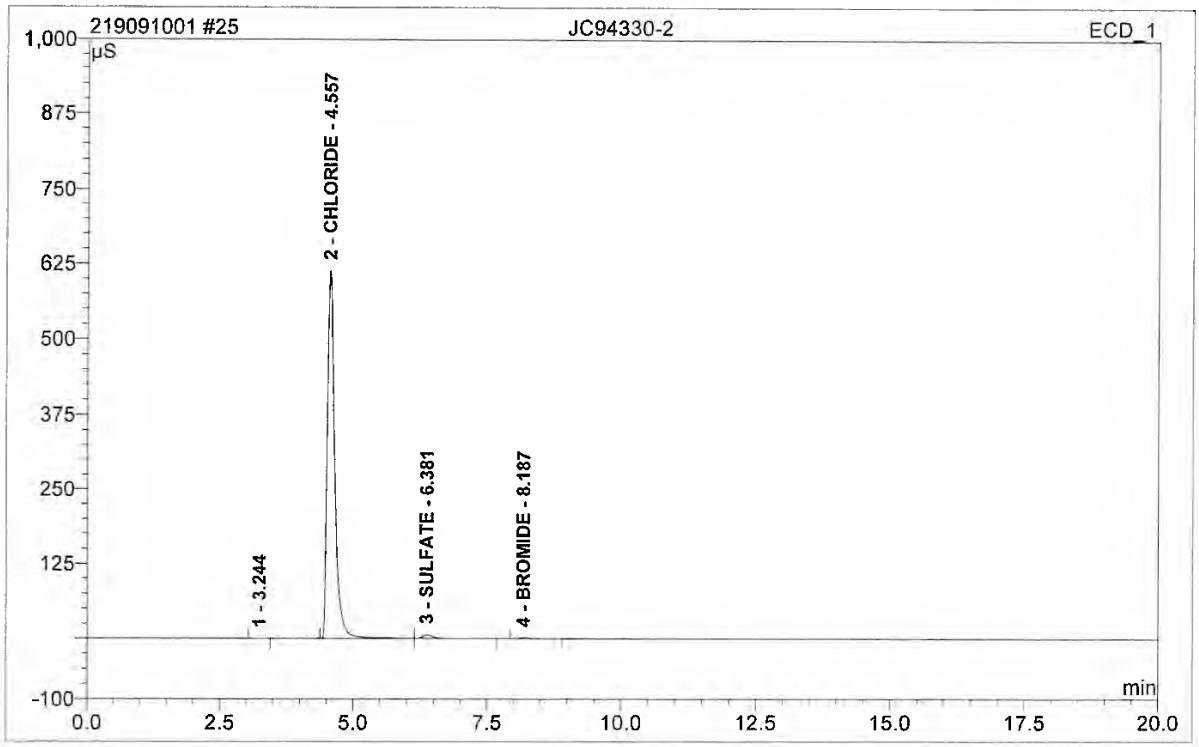
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	0.318	0.056	0.10	n.a.	BM
2	3.69	n.a.	0.035	0.007	0.01	n.a.	MB
3	4.58	CHLORIDE	172.280	25.350	46.56	88.054	BM
4	5.22	NITRATE	3.700	1.828	3.36	2.943	M
5	6.22	SULFATE	107.273	27.182	49.92	127.843	MB
6	8.17	BROMIDE	0.038	0.008	0.01	0.071	BMB
7	9.86	NITRITE	0.075	0.019	0.03	0.027	BMB
Total:			283.719	54.449	100.00	218.938	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

25 JC94330-2

Sample Name:	**JC94330-2**	*Injection Volume:*	**20.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/10/2019 17:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



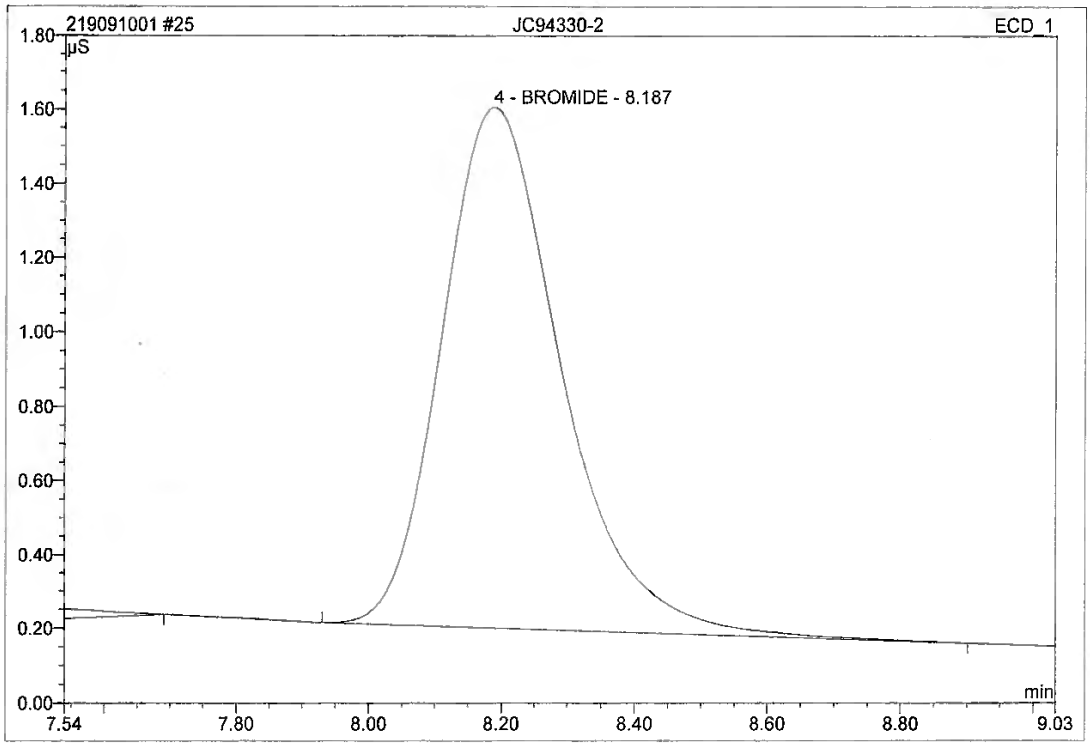
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.021	0.003	0.00	n.a.	BMB
2	4.56	CHLORIDE	612.993	100.270	98.25	69657.656	BM
3	6.38	SULFATE	6.277	1.486	1.46	1398.024	MB
4	8.19	BROMIDE	1.406	0.293	0.29	537.980	BMB
Total:			620.696	102.053	100.00	71593.659	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

9/11/2019 9:47 AM

25 JC94330-2

Sample Name:	**JC94330-2**	*Injection Volume:*	**20.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/10/2019 17:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



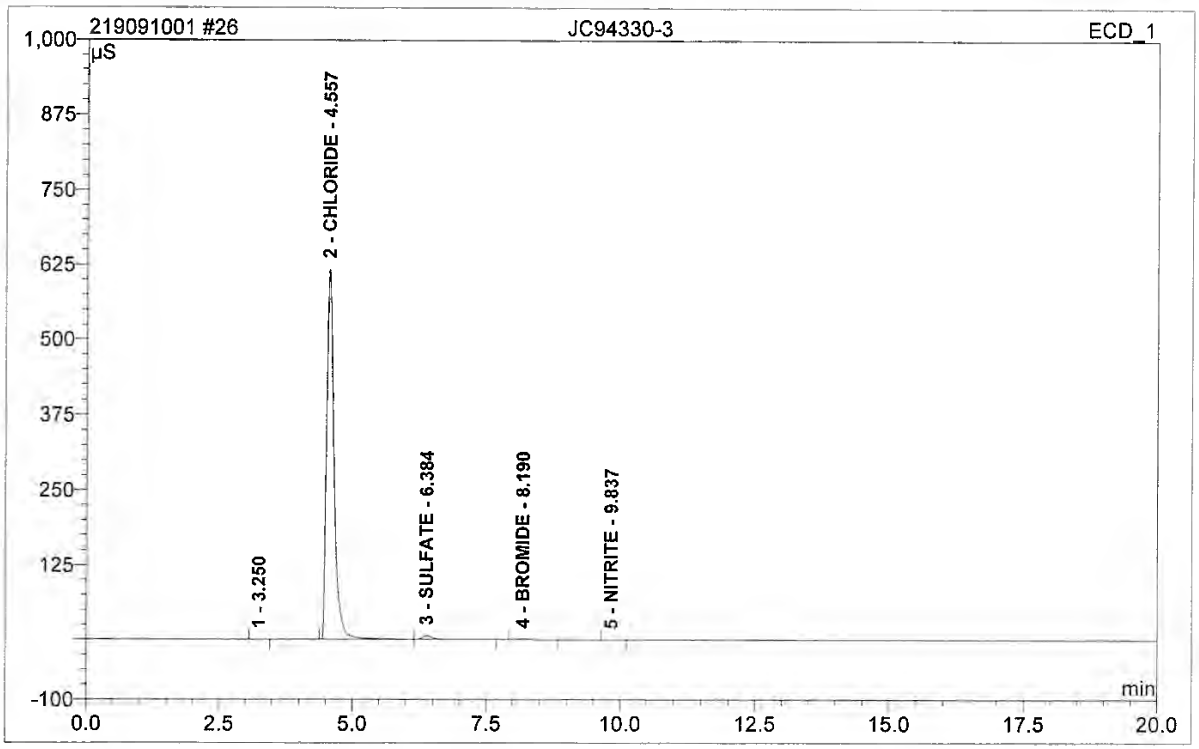
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.021	0.003	0.00	n.a.	BMB
2	4.56	CHLORIDE	612.993	100.270	98.25	#########	BM
3	6.38	SULFATE	6.277	1.486	1.46	1398.024	MB
4	8.19	BROMIDE	1.406	0.293	0.29	537.980	BMB
Total:			620.696	102.053	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

26 JC94330-3

Sample Name:	**JC94330-3**	*Injection Volume:*	**20.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/10/2019 17:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.054	0.007	0.01	n.a.	BMB
2	4.56	CHLORIDE	617.128	101.001	98.25	70165.197	BM
3	6.38	SULFATE	6.335	1.500	1.46	1410.589	MB
4	8.19	BROMIDE	1.417	0.295	0.29	540.953	BMB
5	9.84	NITRITE	0.008	0.002	0.00	0.556	BMB
Total:			624.942	102.804	100.00	72117.296	

anions/Integration

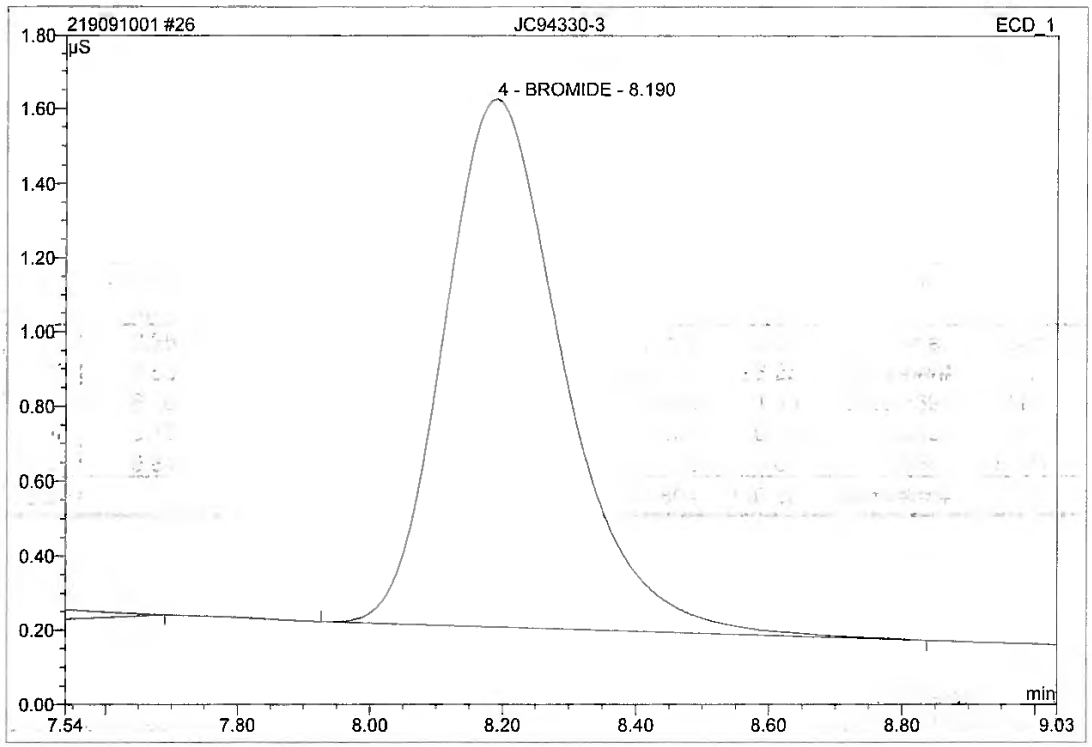
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

9/11/2019 9:47 AM

26 JC94330-3

Sample Name:	**JC94330-3**	*Injection Volume:*	**20.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/10/2019 17:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.054	0.007	0.01	n.a.	BMB
2	4.56	CHLORIDE	617.128	101.001	98.25	#########	BM
3	6.38	SULFATE	6.335	1.500	1.46	1410.589	MB
4	8.19	BROMIDE	1.417	0.295	0.29	540.953	BMB
5	9.84	NITRITE	0.008	0.002	0.00	0.556	BMB
Total:			624.942	102.804	100.00	#########	

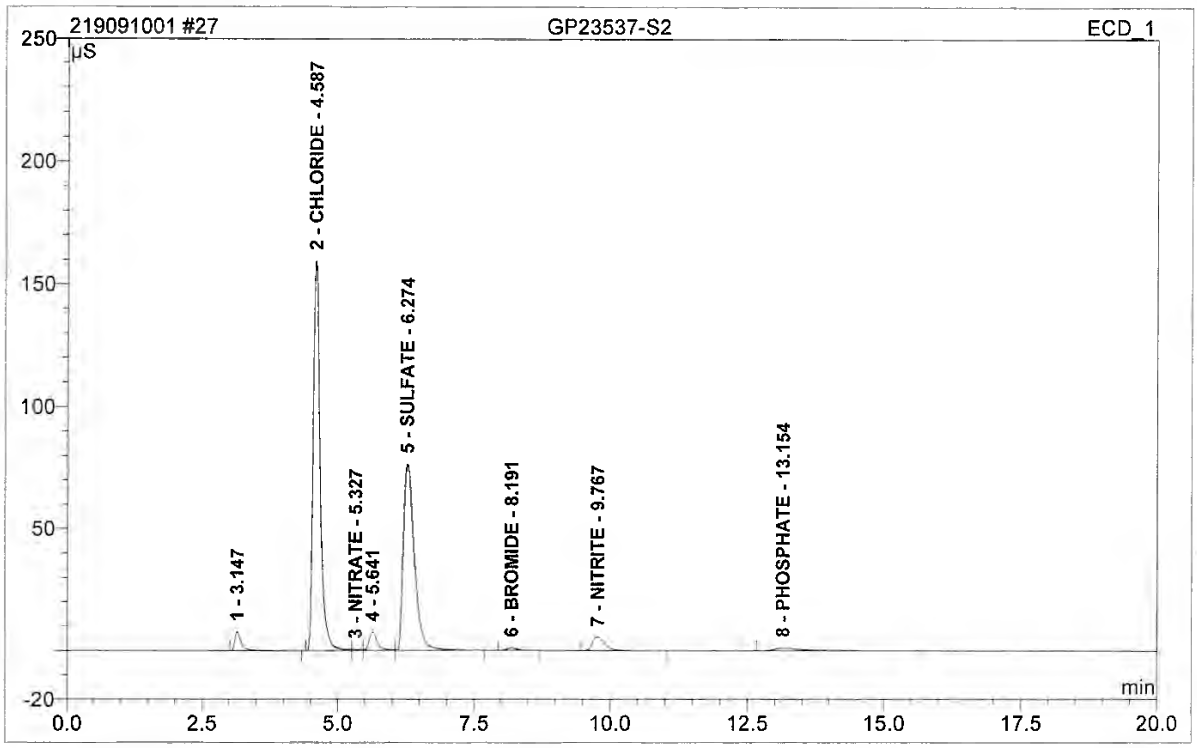
DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

27 GP23537-S2

JC94330-4

Sample Name:	**GP23537-S2**	*Injection Volume:*	**20.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 17:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	7.711	1.052	2.26	n.a.	BMB
2	4.59	CHLORIDE	159.384	23.782	50.98	82.607	BM
3	5.33	NITRATE	0.364	0.070	0.15	0.113	M
4	5.64	n.a.	7.481	1.333	2.86	n.a.	M
5	6.27	SULFATE	76.469	17.927	38.43	84.313	MB
6	8.19	BROMIDE	1.044	0.214	0.46	1.962	BMB
7	9.77	NITRITE	5.603	1.503	3.22	2.167	BMB
8	13.15	PHOSPHATE	1.139	0.771	1.65	2.570	BMB
Total:			259.193	46.653	100.00	173.732	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

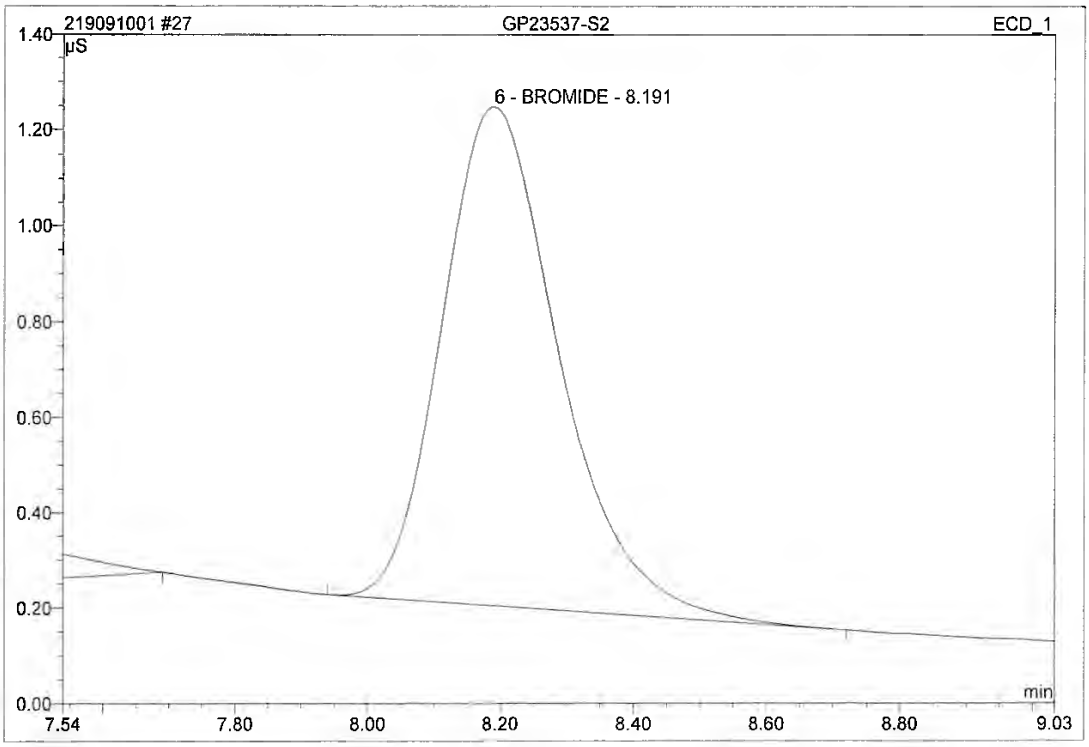
Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

9/11/2019 9:47 AM

27 GP23537-S2

JC94330-4

Sample Name:	**GP23537-S2**	*Injection Volume:*	**20.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 17:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



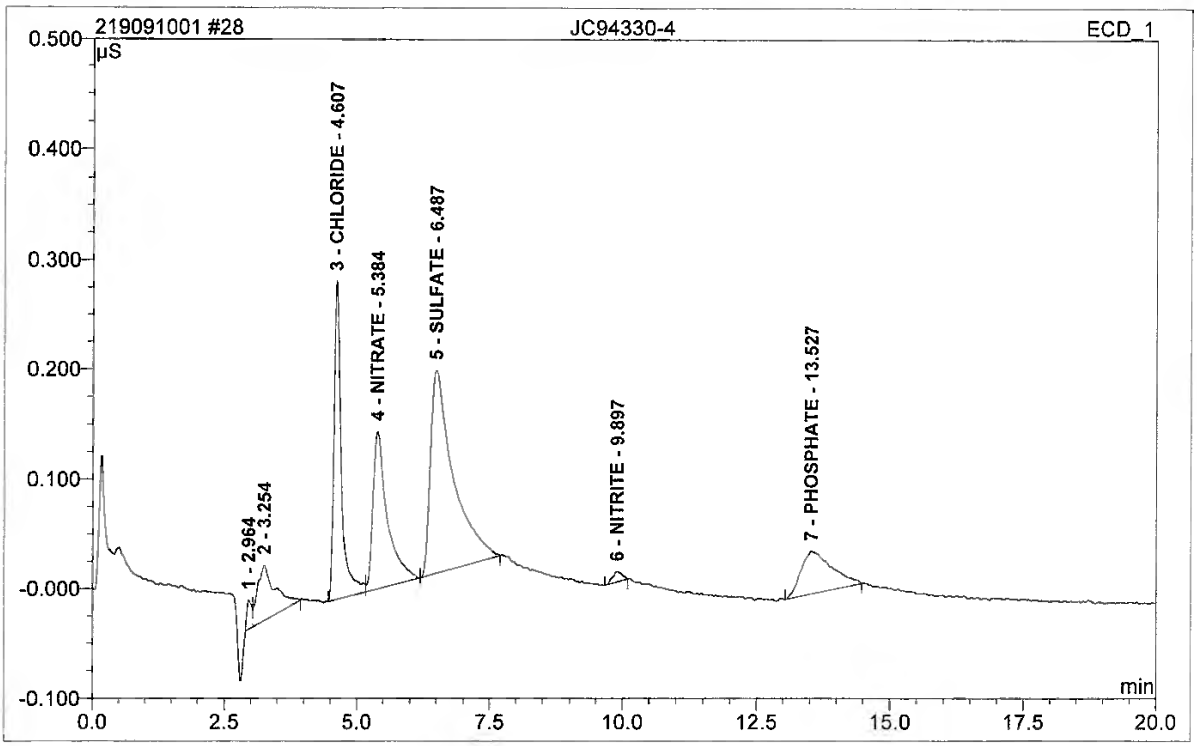
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.15	n.a.	7.711	1.052	2.26	n.a.	BMB
2	4.59	CHLORIDE	159.384	23.782	50.98	82.607	BM
3	5.33	NITRATE	0.364	0.070	0.15	0.113	M
4	5.64	n.a.	7.481	1.333	2.86	n.a.	M
5	6.27	SULFATE	76.469	17.927	38.43	84.313	MB
6	8.19	BROMIDE	1.044	0.214	0.46	1.962	BMB
7	9.77	NITRITE	5.603	1.503	3.22	2.167	BMB
8	13.15	PHOSPHATE	1.139	0.771	1.65	2.570	BMB
Total:			259.193	46.653	100.00	173.732	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

28 JC94330-4

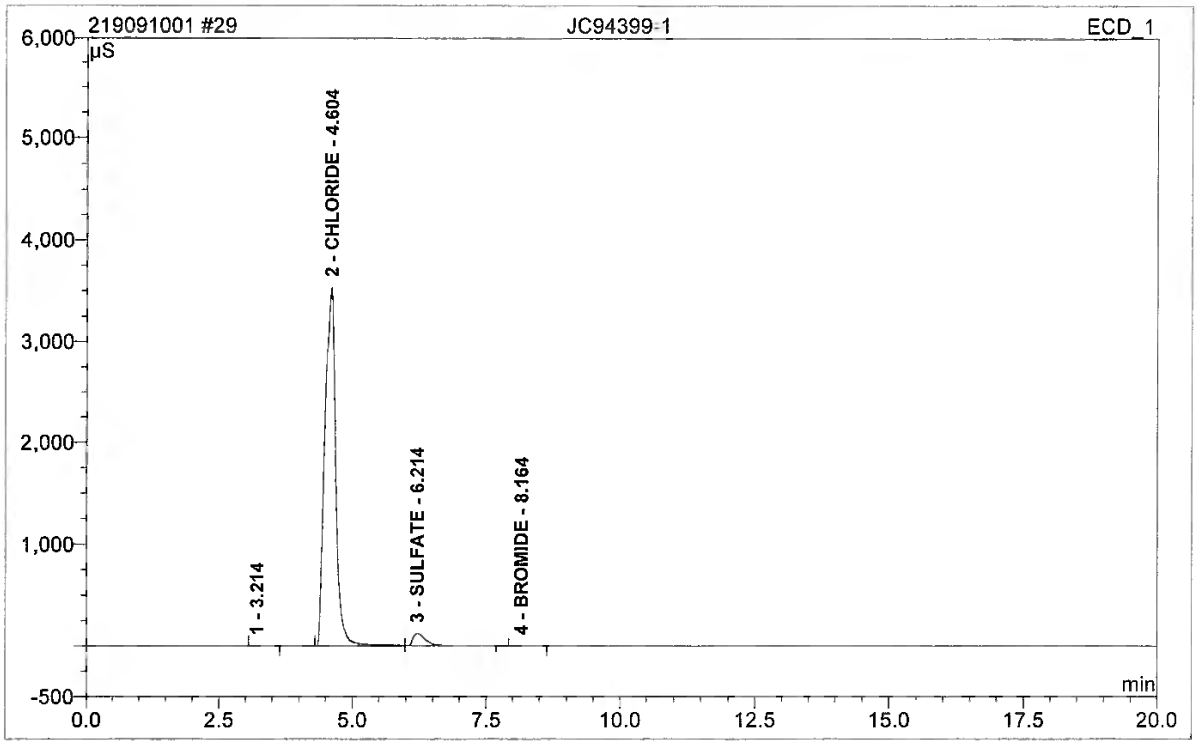
Sample Name:	**JC94330-4**	*Injection Volume:*	**20.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 18:21**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.96	n.a.	0.026	0.003	1.18	n.a.	BM
2	3.25	n.a.	0.050	0.019	8.14	n.a.	MB
3	4.61	CHLORIDE	0.290	0.047	20.07	0.163	BM
4	5.38	NITRATE	0.144	0.045	19.39	0.073	MB
5	6.49	SULFATE	0.184	0.092	39.18	0.432	BMB
6	9.90	NITRITE	0.009	0.002	0.82	0.003	BMB
7	13.53	PHOSPHATE	0.039	0.026	11.23	0.088	BMB
Total:			0.744	0.235	100.00	0.760	

29 JC94399-1

Sample Name:	**JC94399-1**	*Injection Volume:*	**20.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**30.0000**
Recording Time:	**9/10/2019 18:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



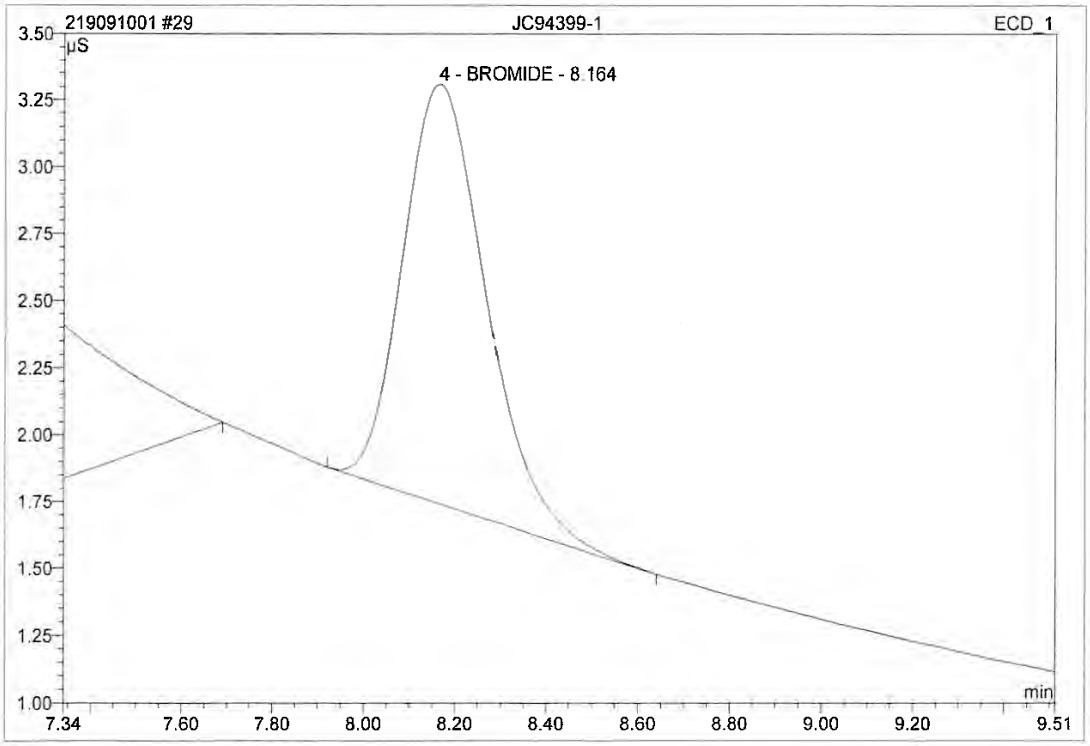
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.21	n.a.	0.221	0.039	0.00	n.a.	BMB
2	4.60	CHLORIDE	3528.215	837.740	96.10	87296.430	BM
3	6.21	SULFATE	120.413	33.614	3.86	4742.806	MB
4	8.16	BROMIDE	1.566	0.335	0.04	92.211	BMB
Total:			3650.415	871.728	100.00	92131.447	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

9/11/2019 9:48 AM

29 JC94399-1

Sample Name:	**JC94399-1**	*Injection Volume:*	**20.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**30.0000**
Recording Time:	**9/10/2019 18:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



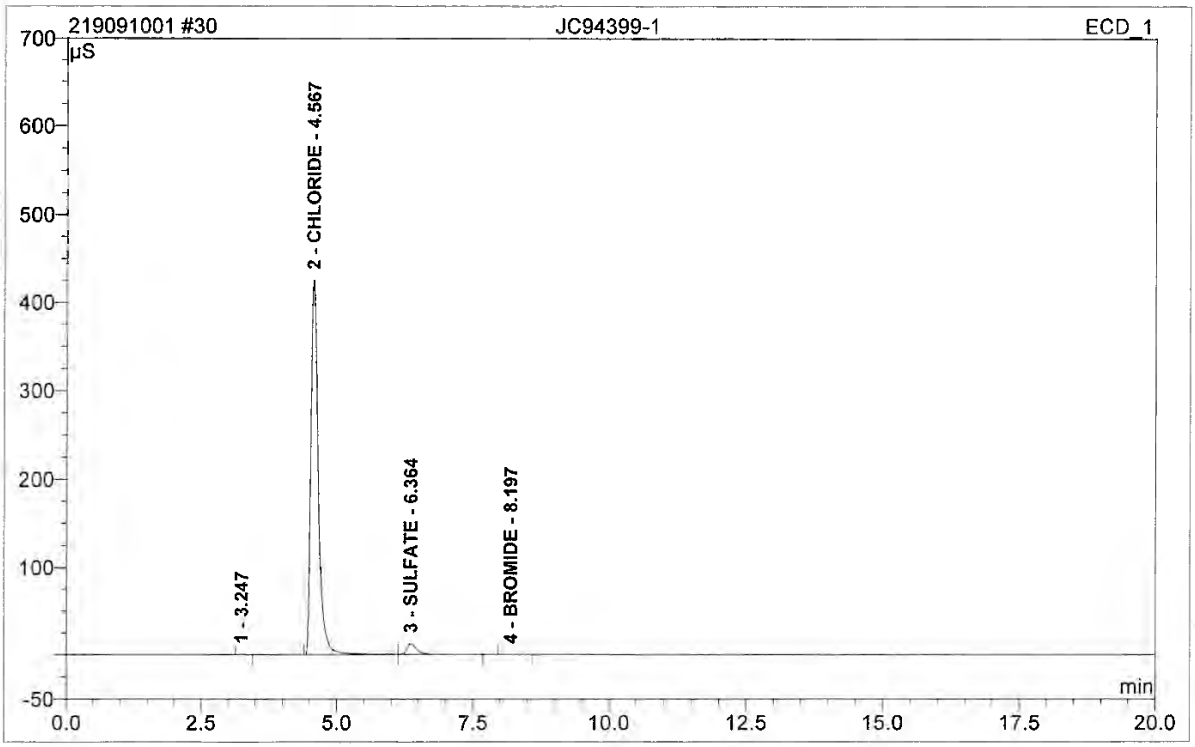
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.21	n.a.	0.221	0.039	0.00	n.a.	BMB
2	4.60	CHLORIDE	3528.215	837.740	96.10	#########	BM
3	6.21	SULFATE	120.413	33.614	3.86	4742.806	MB
4	8.16	BROMIDE	1.566	0.335	0.04	92.211	BMB
Total:			3650.415	871.728	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

30 JC94399-1

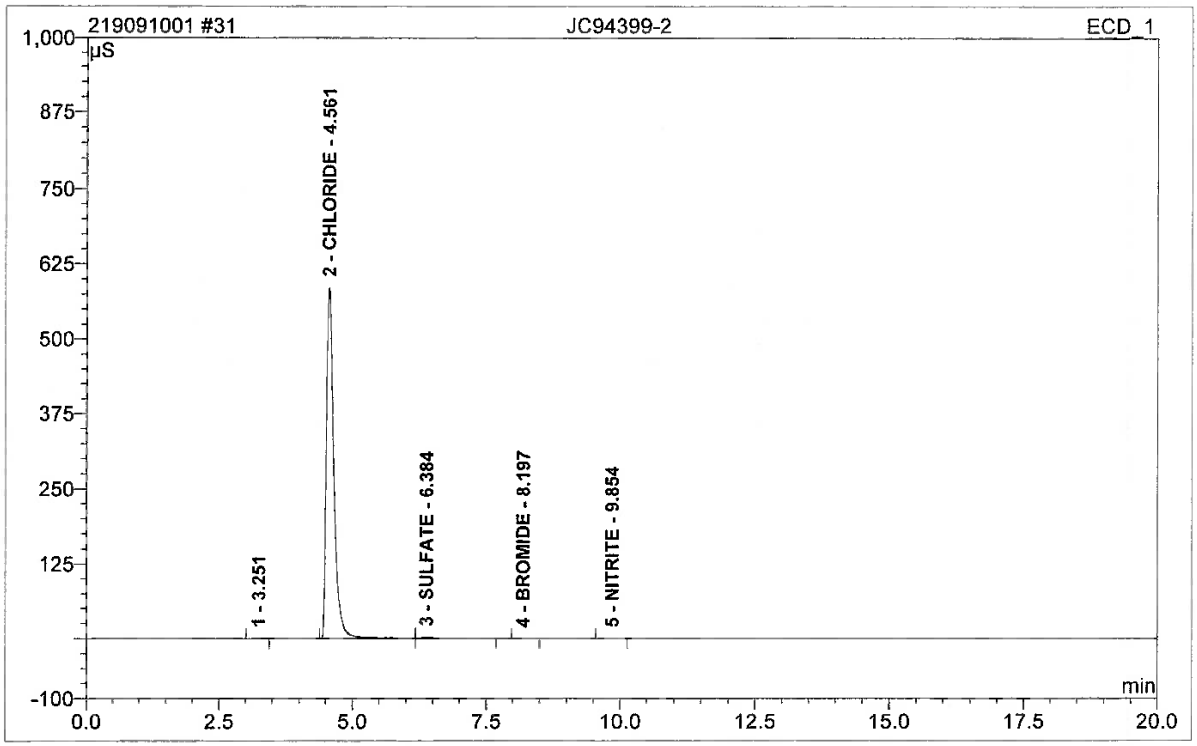
Sample Name:	**JC94399-1**	*Injection Volume:*	**20.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**400.0000**
Recording Time:	**9/10/2019 19:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.116	0.014	0.02	n.a.	BMB
2	4.57	CHLORIDE	425.196	68.389	96.03	95020.007	BM
3	6.36	SULFATE	12.548	2.793	3.92	5255.404	MB
4	8.20	BROMIDE	0.096	0.020	0.03	71.871	BMB
Total:			437.957	71.217	100.00	100347.282	

31 JC94399-2

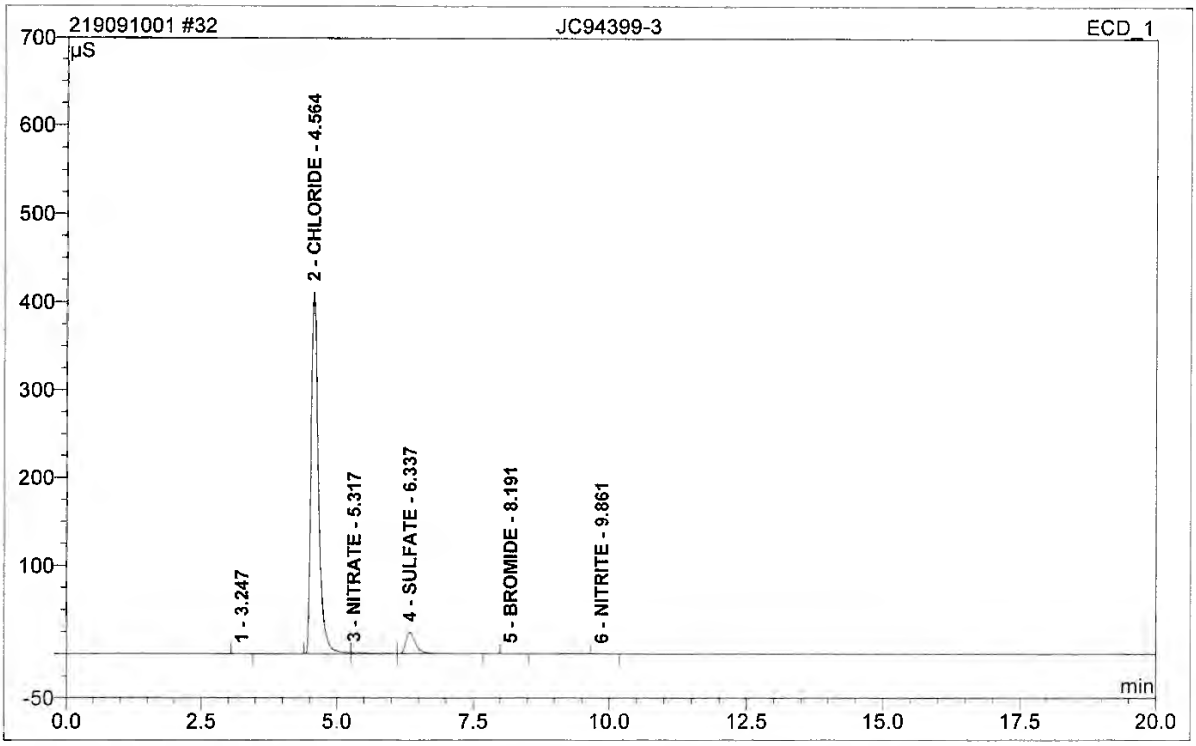
Sample Name:	**JC94399-2**	*Injection Volume:*	**20.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/10/2019 19:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.048	0.007	0.01	n.a.	BMB
2	4.56	CHLORIDE	585.369	95.709	99.35	66488.638	BM
3	6.38	SULFATE	2.091	0.604	0.63	568.343	MB
4	8.20	BROMIDE	0.068	0.013	0.01	24.638	BMB
5	9.85	NITRITE	0.012	0.003	0.00	0.856	BMB
Total:			587.587	96.336	100.00	67082.475	

32 JC94399-3

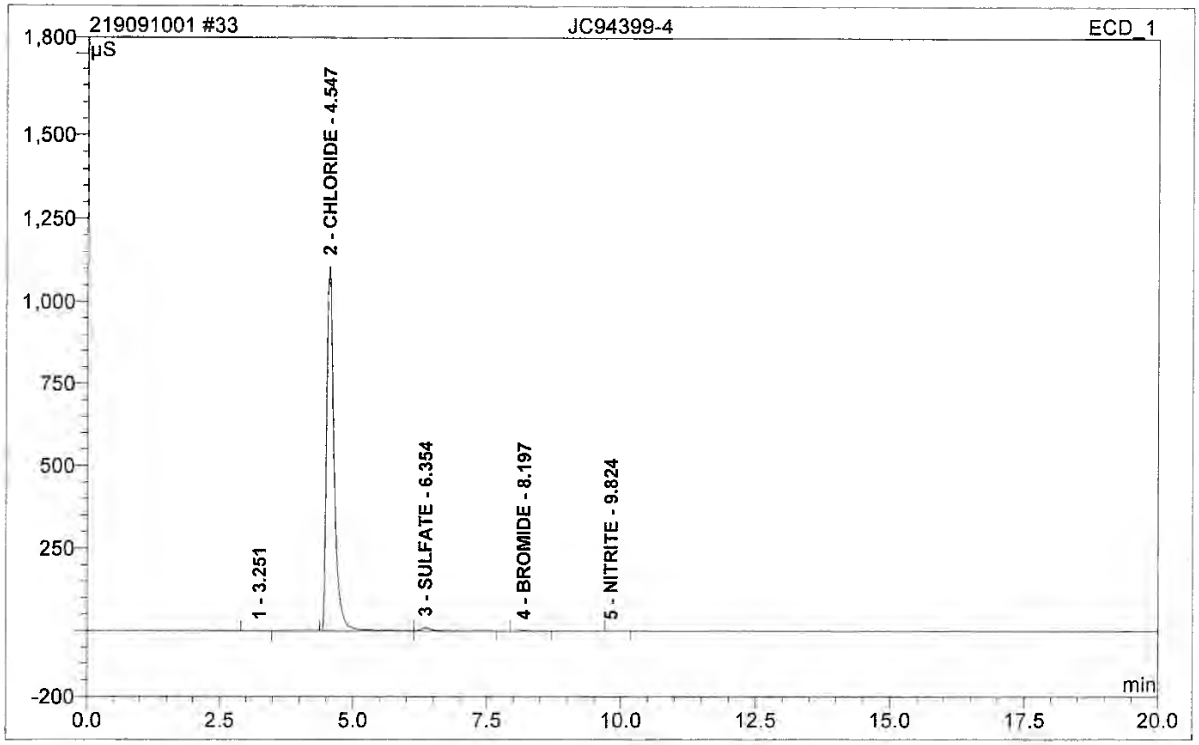
Sample Name:	**JC94399-3**	*Injection Volume:*	**20.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**30.0000**
Recording Time:	**9/10/2019 19:56**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.086	0.011	0.02	n.a.	BMB
2	4.56	CHLORIDE	410.739	65.157	91.86	6789.681	BM
3	5.32	NITRATE	1.243	0.551	0.78	26.608	M
4	6.34	SULFATE	24.253	5.201	7.33	733.863	MB
5	8.19	BROMIDE	0.047	0.010	0.01	2.638	BMB
6	9.86	NITRITE	0.013	0.003	0.00	0.141	BMB
Total:			436.381	70 933	100.00	7552.931	

33 JC94399-4

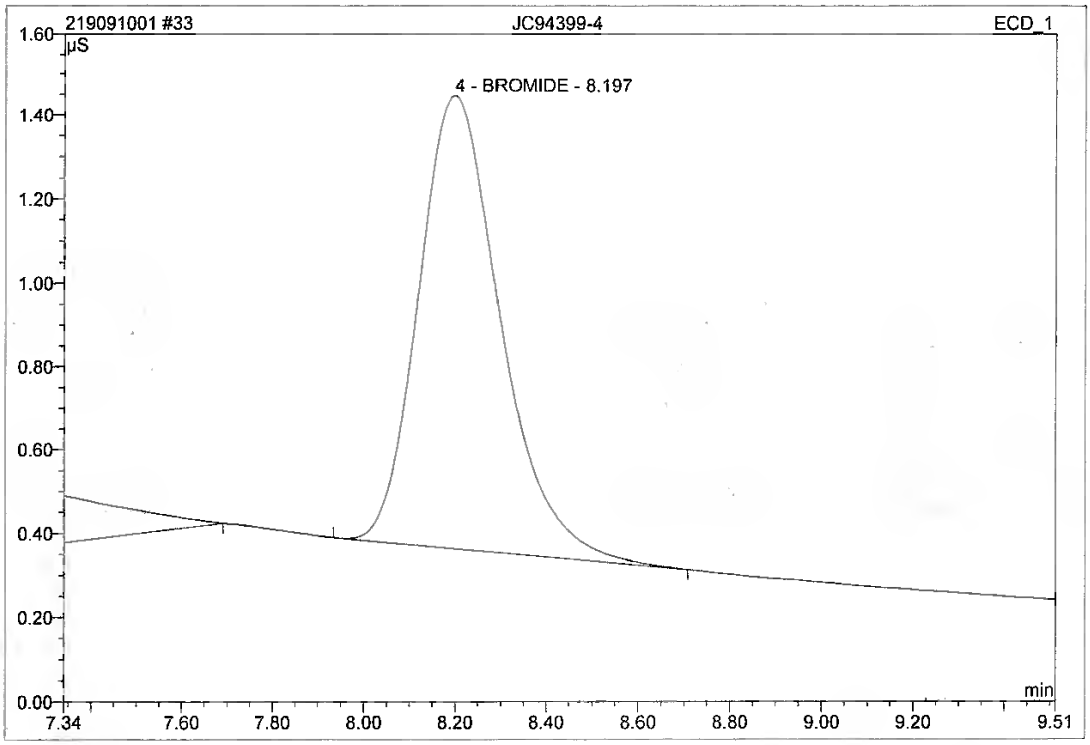
Sample Name:	**JC94399-4**	*Injection Volume:*	**20.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/10/2019 20:20**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.029	0.007	0.00	n.a.	BMB
2	4.55	CHLORIDE	1106.400	180.698	98.55	125530.404	BM
3	6.35	SULFATE	10.263	2.425	1.32	2281.460	MB
4	8.20	BROMIDE	1.084	0.226	0.12	414.498	BMB
5	9.82	NITRITE	0.009	0.002	0.00	0.684	BMB
Total:			1117.784	183.358	100.00	128227.046	

33 JC94399-4

Sample Name:	**JC94399-4**	*Injection Volume:*	**20.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/10/2019 20:20**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



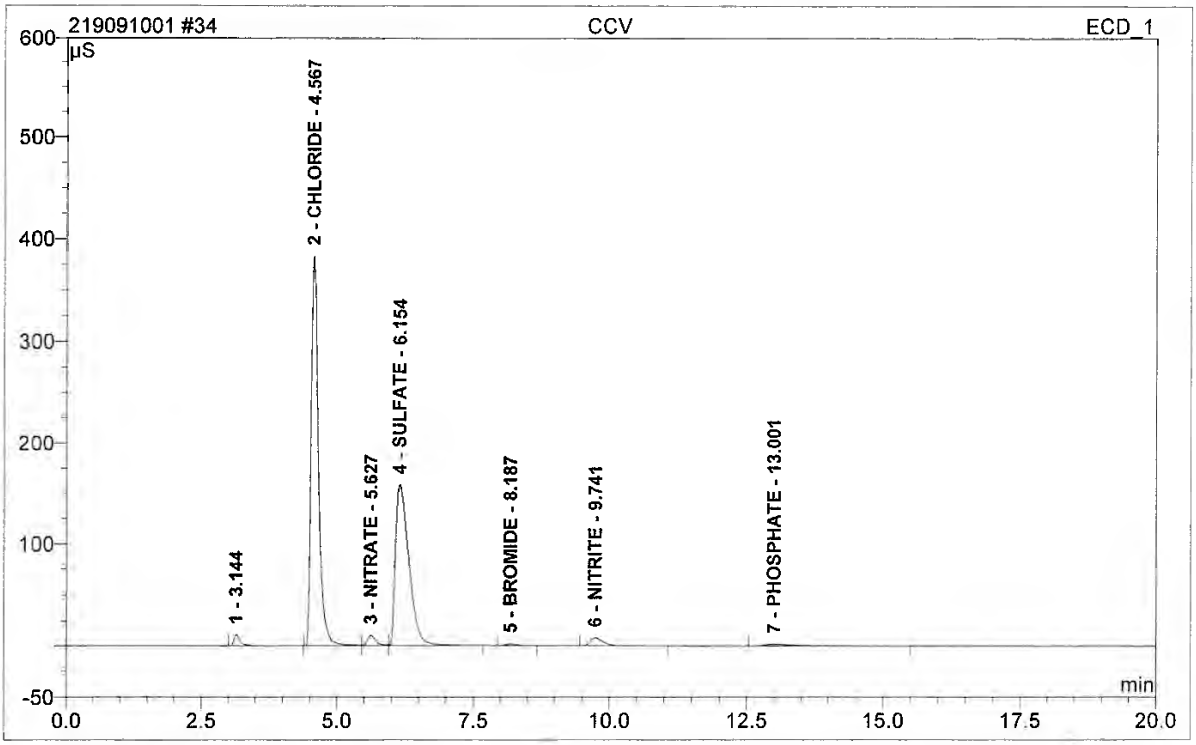
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.029	0.007	0.00	n.a.	BMB
2	4.55	CHLORIDE	1106.400	180.698	98.55	#########	BM
3	6.35	SULFATE	10.263	2.425	1.32	2281.460	MB
4	8.20	BROMIDE	1.084	0.226	0.12	414.498	BMB
5	9.82	NITRITE	0.009	0.002	0.00	0.684	BMB
Total:			1117.784	183.358	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

34 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 20:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



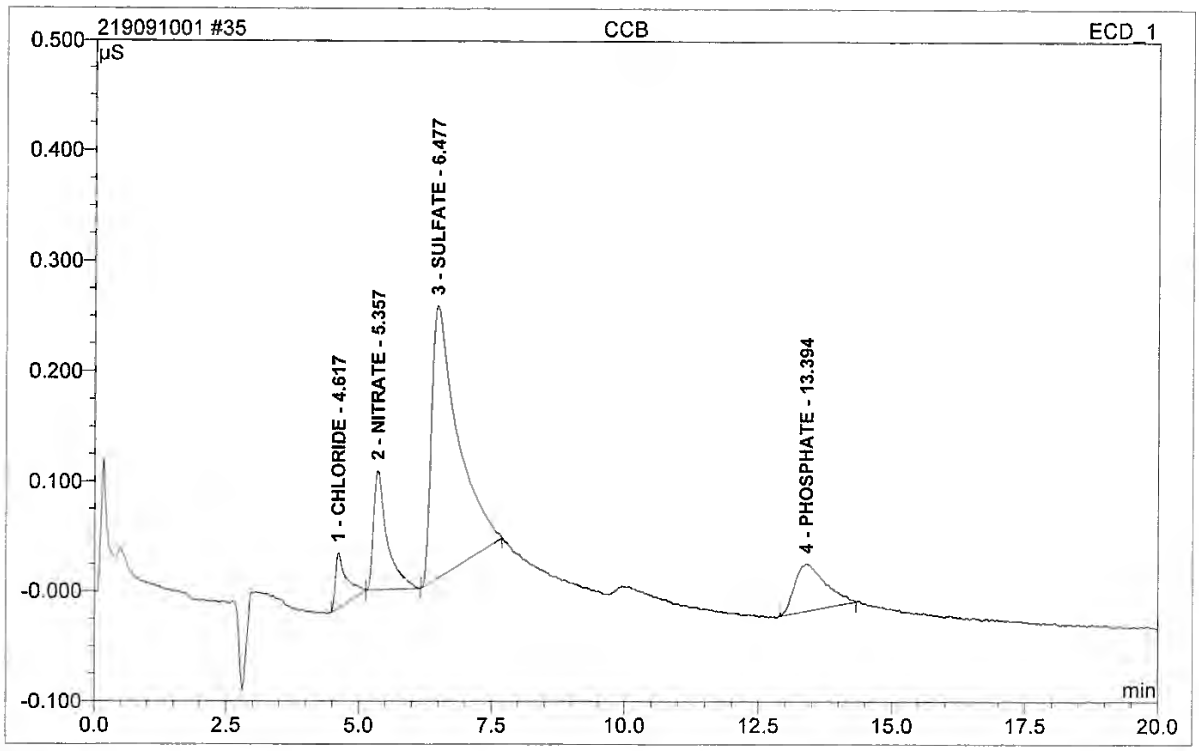
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	11.057	1.528	1.36	n.a.	BMB
2	4.57	CHLORIDE	382.873	60.309	53.59	209.483	BM
3	5.63	NITRATE	10.339	1.871	1.66	3.012	M
4	6.15	SULFATE	158.275	45.114	40.09	212.184	MB
5	8.19	BROMIDE	1.656	0.341	0.30	3.131	BMB
6	9.74	NITRITE	8.014	2.232	1.98	3.217	BMB
7	13.00	PHOSPHATE	1.787	1.139	1.01	3.797	BMB
Total:			574.000	112.534	100.00	434.823	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

35 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 21:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



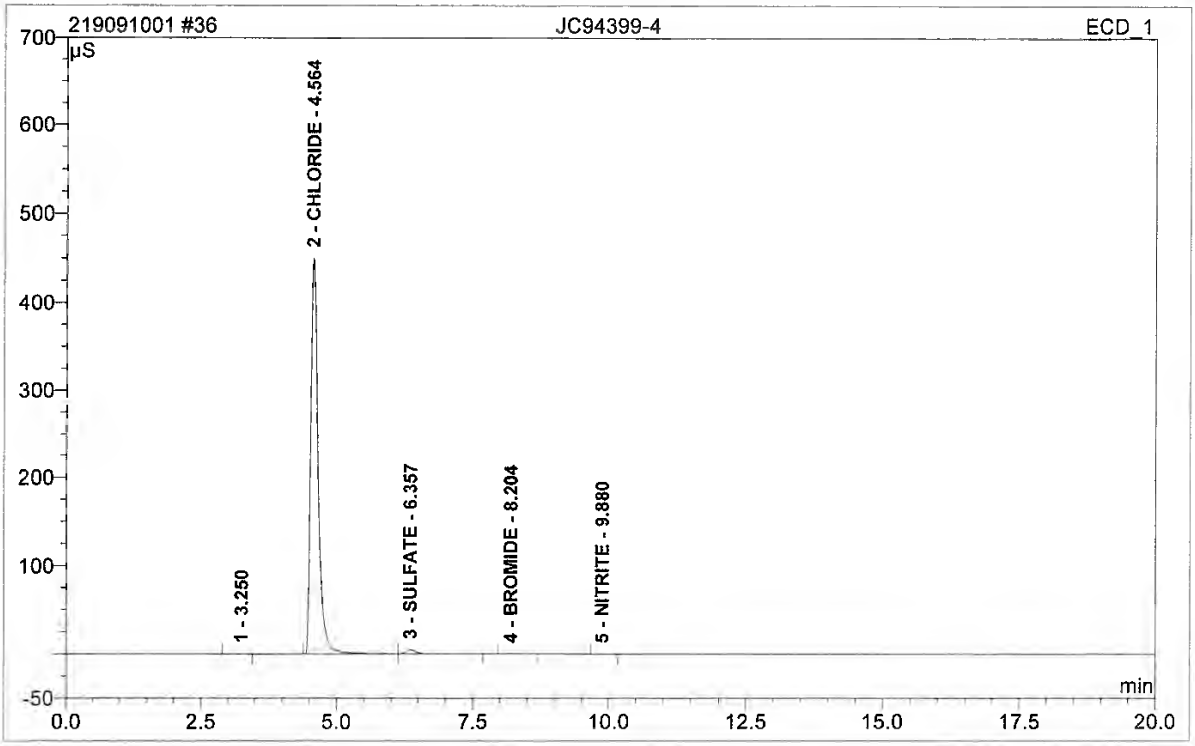
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.62	CHLORIDE	0.050	0.012	5.58	0.041	BMB
2	5.36	NITRATE	0.108	0.032	15.07	0.052	bMB
3	6.48	SULFATE	0.247	0.141	65.94	0.664	BMB
4	13.39	PHOSPHATE	0.043	0.029	13.41	0.096	BMB
Total:			0.449	0.214	100.00	0.853	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

36 JC94399-4

Sample Name:	**JC94399-4**	*Injection Volume:*	**20.0**
Vial Number:	**29**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**500.0000**
Recording Time:	**9/10/2019 21:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



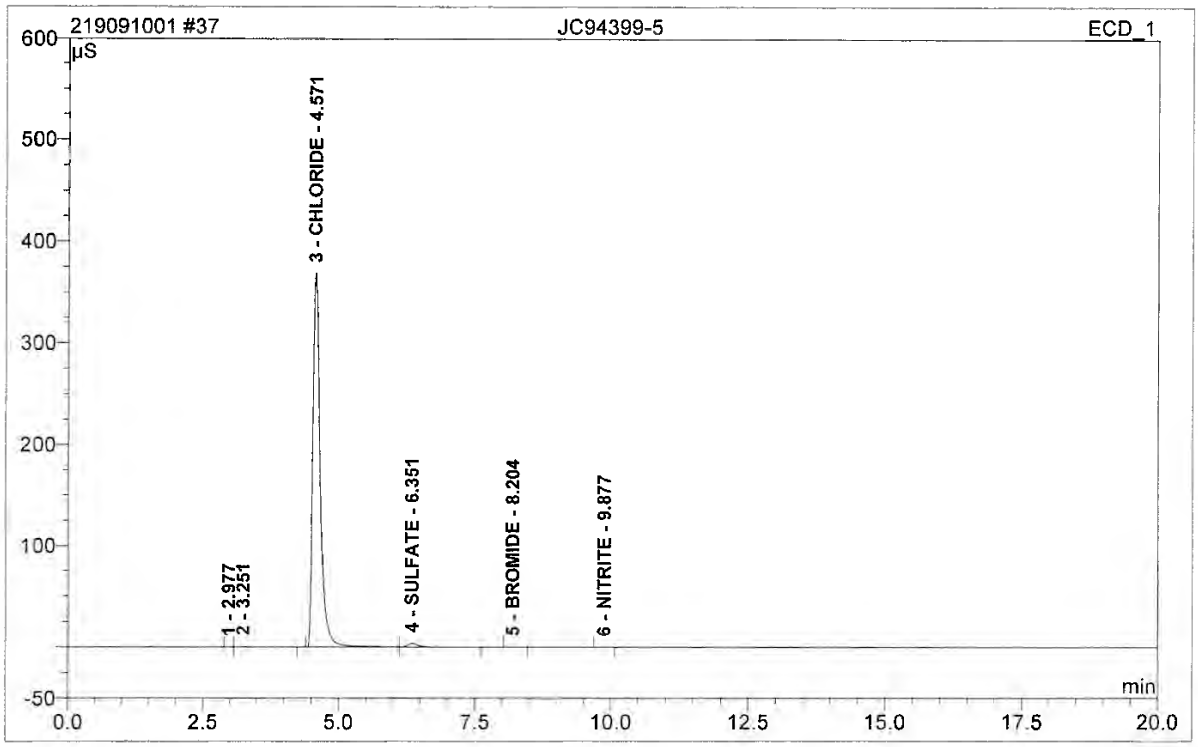
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.069	0.014	0.02	n.a.	BMB
2	4.56	CHLORIDE	449.203	72.418	98.40	125771.251	BM
3	6.36	SULFATE	4.688	1.082	1.47	2544.171	MB
4	8.20	BROMIDE	0.380	0.080	0.11	365.278	BMB
5	9.88	NITRITE	0.013	0.003	0.00	2.176	BMB
Total:			454.352	73.596	100.00	128682.876	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

37 JC94399-5

Sample Name:	**JC94399-5**	*Injection Volume:*	**20.0**
Vial Number:	**30**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/10/2019 21:56**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



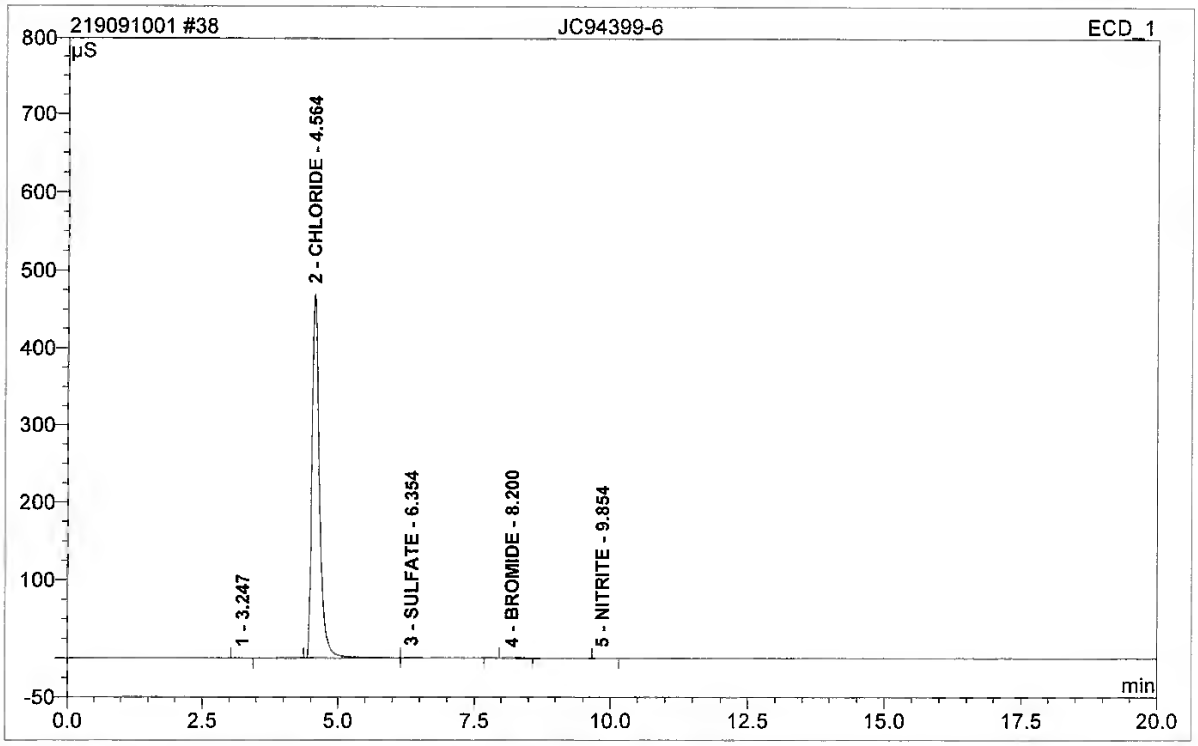
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.98	n.a.	0.027	0.004	0.01	n.a.	BM
2	3.25	n.a.	0.381	0.068	0.11	n.a.	MB
3	4.57	CHLORIDE	368.508	58.873	98.41	40899.035	BM
4	6.35	SULFATE	3.672	0.871	1.46	819.216	MB
5	8.20	BROMIDE	0.040	0.008	0.01	14.027	BMB
6	9.88	NITRITE	0.010	0.002	0.00	0.580	BMB
Total:			372.637	59.826	100.00	41732.859	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

38 JC94399-6

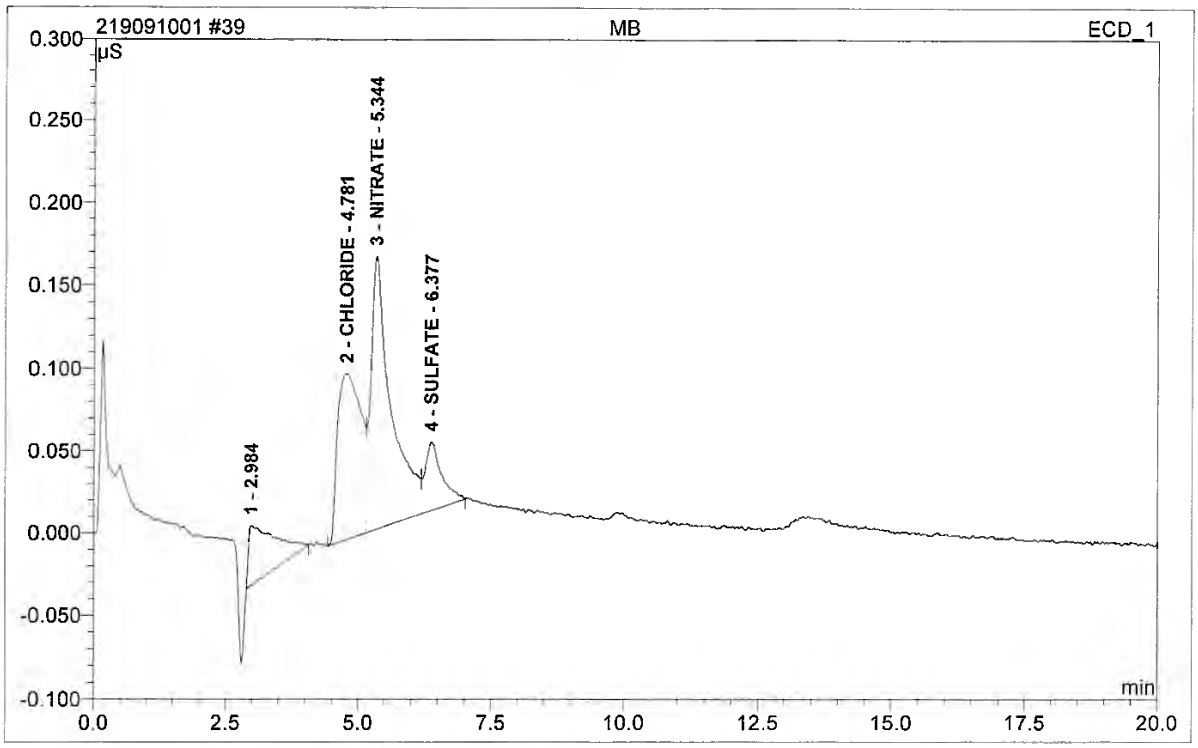
Sample Name:	**JC94399-6**	*Injection Volume:*	**20.0**
Vial Number:	**31**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**50.0000**
Recording Time:	**9/10/2019 22:20**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.031	0.004	0.01	n.a.	BMB
2	4.56	CHLORIDE	469.298	76.088	99.40	13214.539	BM
3	6.35	SULFATE	1.394	0.442	0.58	103.957	MB
4	8.20	BROMIDE	0.053	0.011	0.01	5.117	BMB
5	9.85	NITRITE	0.009	0.002	0.00	0.173	BMB
Total:			470.784	76.548	100.00	13323.786	

39 MB

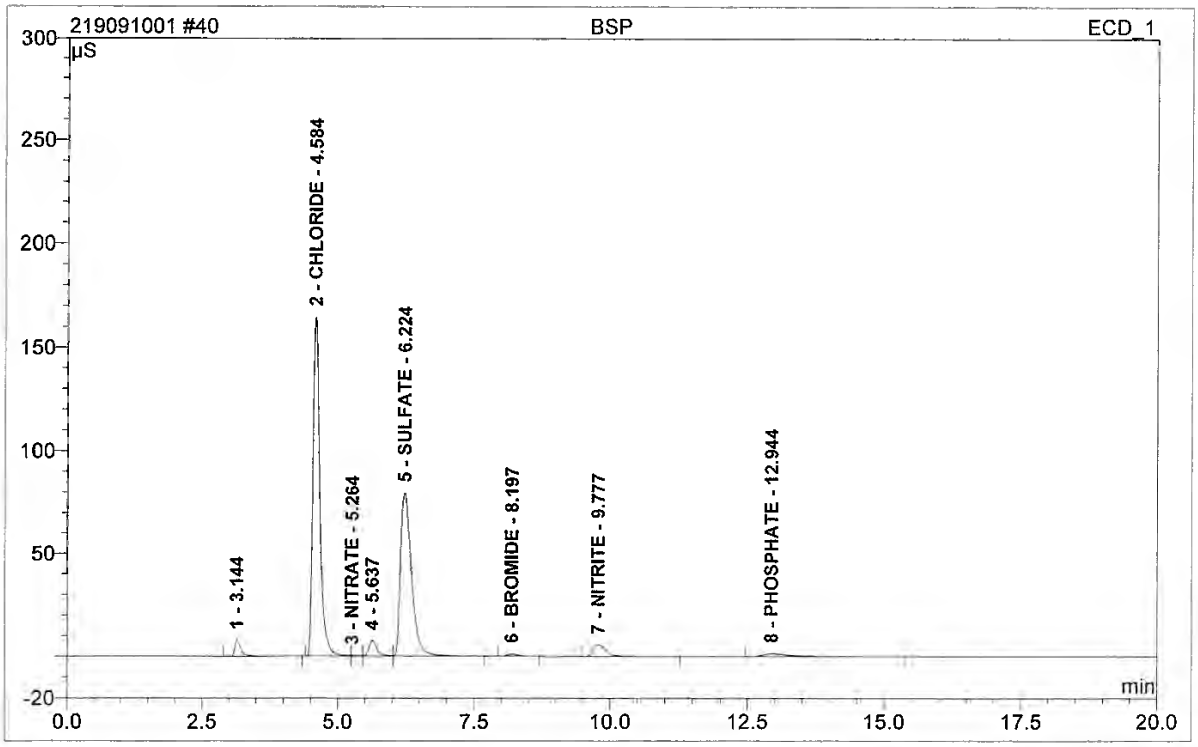
Sample Name:	**MB**	*Injection Volume:*	**20.0**
Vial Number:	**32**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 22:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.98	n.a.	0.036	0.020	12.47	n.a.	BMB
2	4.78	CHLORIDE	0.101	0.051	32.17	0.179	BM
3	5.34	NITRATE	0.165	0.073	45.87	0.118	M
4	6.38	SULFATE	0.042	0.015	9.49	0.071	MB
Total:			0.343	0.160	100.00	0.368	

40 BSP

Sample Name:	**BSP**	*Injection Volume:*	**20.0**
Vial Number:	**33**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/10/2019 23:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

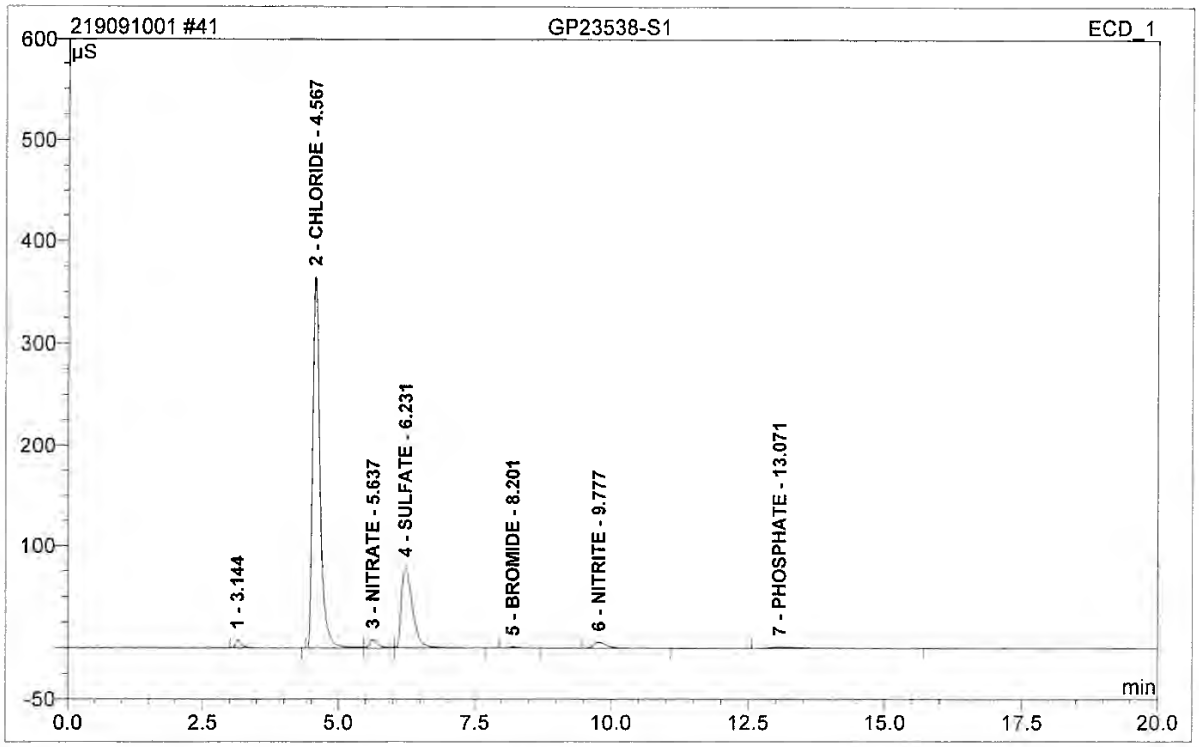


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	7.913	1.076	2.22	n.a.	BMB
2	4.58	CHLORIDE	164.455	24.612	50.91	85.490	BM
3	5.26	NITRATE	0.365	0.066	0.14	0.106	M
4	5.64	n.a.	7.672	1.354	2.80	n.a.	M
5	6.22	SULFATE	79.683	18.594	38.46	87.452	MB
6	8.20	BROMIDE	1.088	0.224	0.46	2.054	BMB
7	9.78	NITRITE	5.742	1.558	3.22	2.247	BMB
8	12.94	PHOSPHATE	1.391	0.861	1.78	2.869	BMB
Total:			268.308	48.344	100.00	180.218	

41 GP23538-S1

JC94517-1

Sample Name:	**GP23538-S1**	*Injection Volume:*	**20.0**
Vial Number:	**34**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**400.0000**
Recording Time:	**9/10/2019 23:32**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	7.582	1.041	1.28	n.a.	BMB
2	4.57	CHLORIDE	364.734	57.540	70.92	79945.996	BM
3	5.64	NITRATE	7.863	1.473	1.82	948.211	M
4	6.23	SULFATE	78.469	18.441	22.73	34693.303	MB
5	8.20	BROMIDE	1.116	0.230	0.28	842.977	BMB
6	9.78	NITRITE	5.700	1.541	1.90	888.850	BMB
7	13.07	PHOSPHATE	1.140	0.865	1.07	1153.661	BMB
Total:			466.604	81.131	100.00	118472.996	

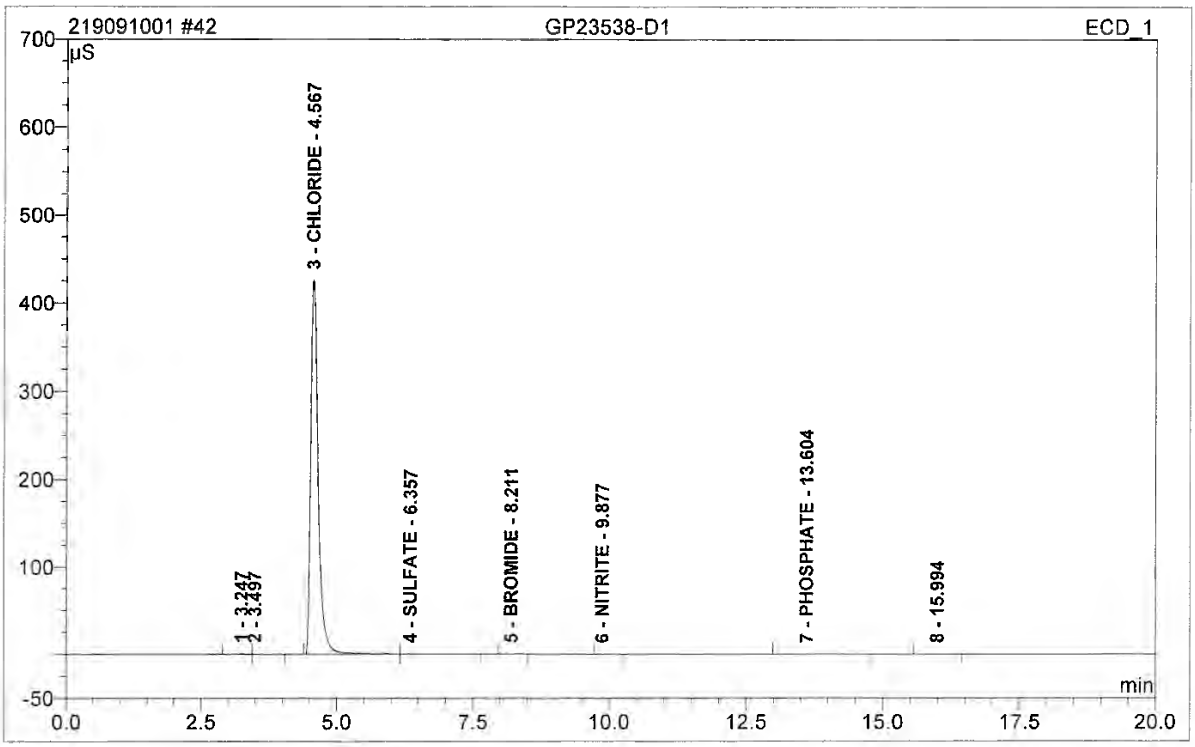
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

42 GP23538-D1

JC94517-1

Sample Name:	**GP23538-D1**	*Injection Volume:*	**20.0**
Vial Number:	**35**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/10/2019 23:56**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



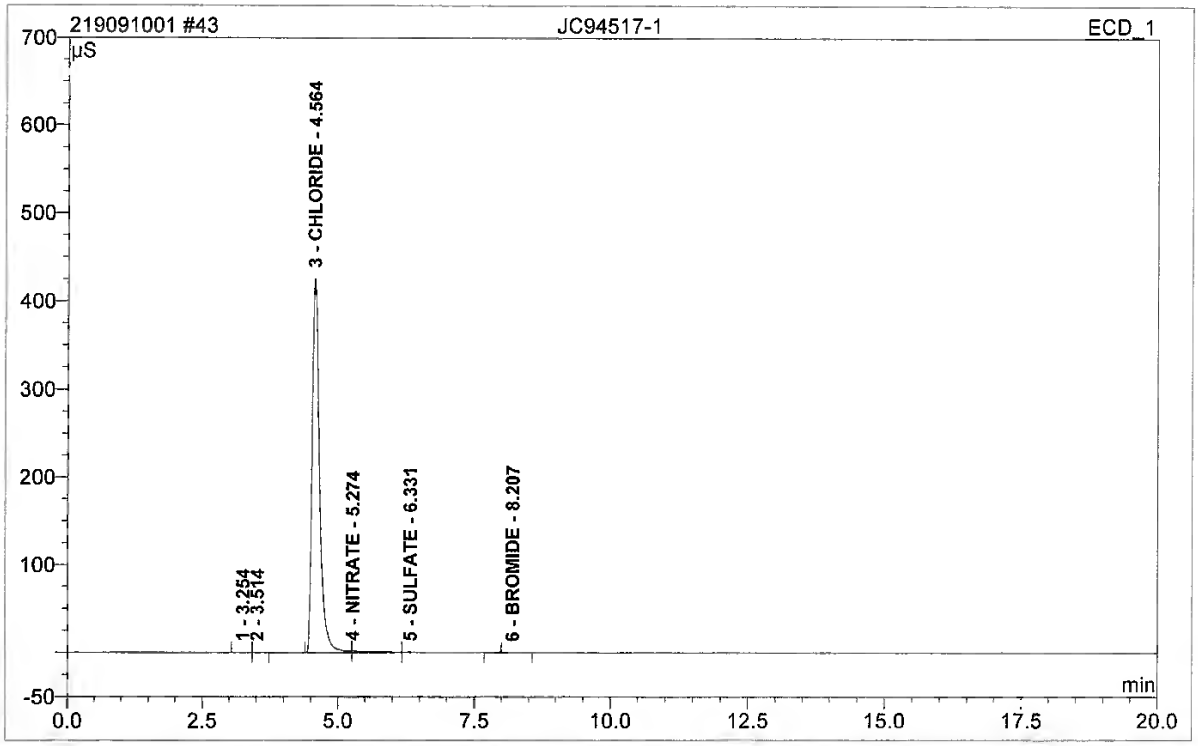
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.613	0.090	0.13	n.a.	BM
2	3.50	n.a.	0.082	0.015	0.02	n.a.	MB
3	4.57	CHLORIDE	425.735	68.629	99.39	47676.126	BM
4	6.36	SULFATE	0.473	0.237	0.34	222.647	MB
5	8.21	BROMIDE	0.048	0.010	0.01	18.249	BMB
6	9.88	NITRITE	0.010	0.002	0.00	0.699	BMB
7	13.60	PHOSPHATE	0.073	0.062	0.09	41.160	BMB
8	15.99	n.a.	0.017	0.007	0.01	n.a.	BMB
Total:			427.050	69.052	100.00	47958.881	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

43 JC94517-1

Sample Name:	**JC94517-1**	*Injection Volume:*	**20.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/11/2019 0:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

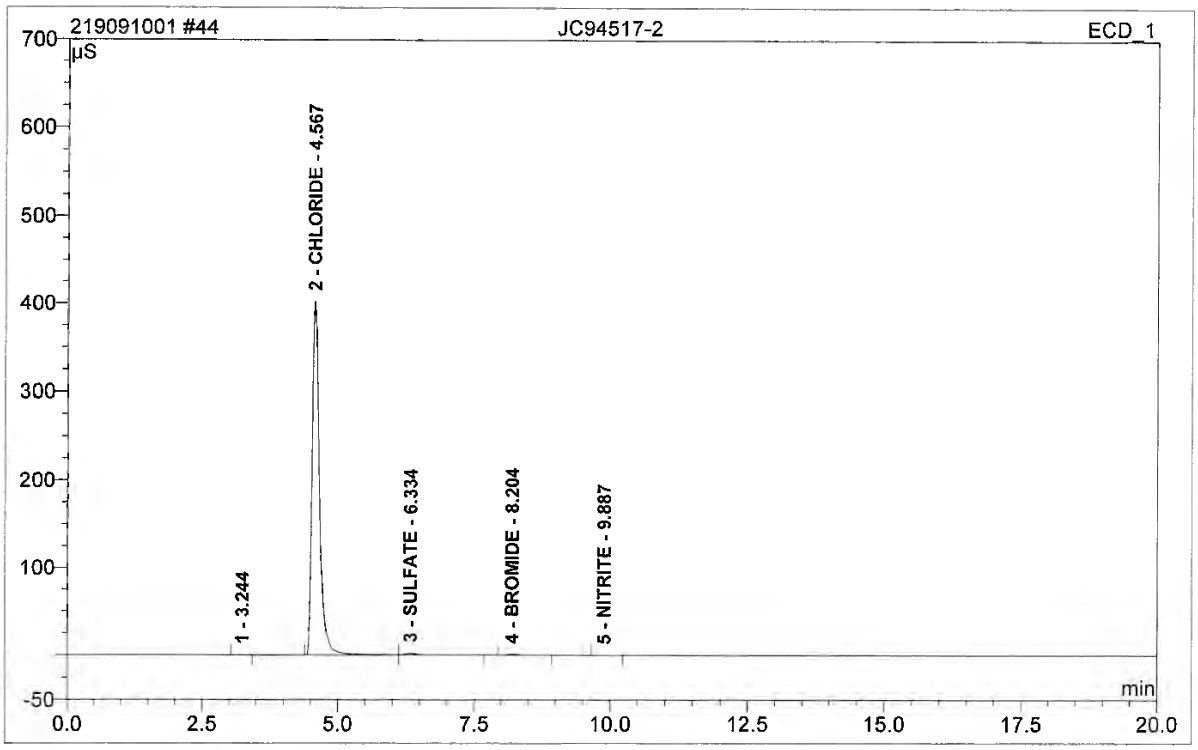


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.026	0.005	0.01	n.a.	BM
2	3.51	n.a.	0.020	0.003	0.00	n.a.	MB
3	4.56	CHLORIDE	425.246	67.909	98.74	47176.098	BM
4	5.27	NITRATE	1.452	0.649	0.94	208.881	M
5	6.33	SULFATE	0.399	0.197	0.29	185.468	MB
6	8.21	BROMIDE	0.048	0.010	0.01	18.581	BMB
Total:			427.192	68.773	100.00	47589.029	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

44 JC94517-2

Sample Name:	**JC94517-2**	*Injection Volume:*	**20.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**500.0000**
Recording Time:	**9/11/2019 0:43**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.020	0.003	0.00	n.a.	BMB
2	4.57	CHLORIDE	402.030	64.643	98.79	112268.263	BM
3	6.33	SULFATE	2.130	0.568	0.87	1334.708	MB
4	8.20	BROMIDE	1.032	0.217	0.33	994.783	BMB
5	9.89	NITRITE	0.025	0.006	0.01	4.453	BMB
Total:			405.236	65.436	100.00	114602.208	

anions/Integration

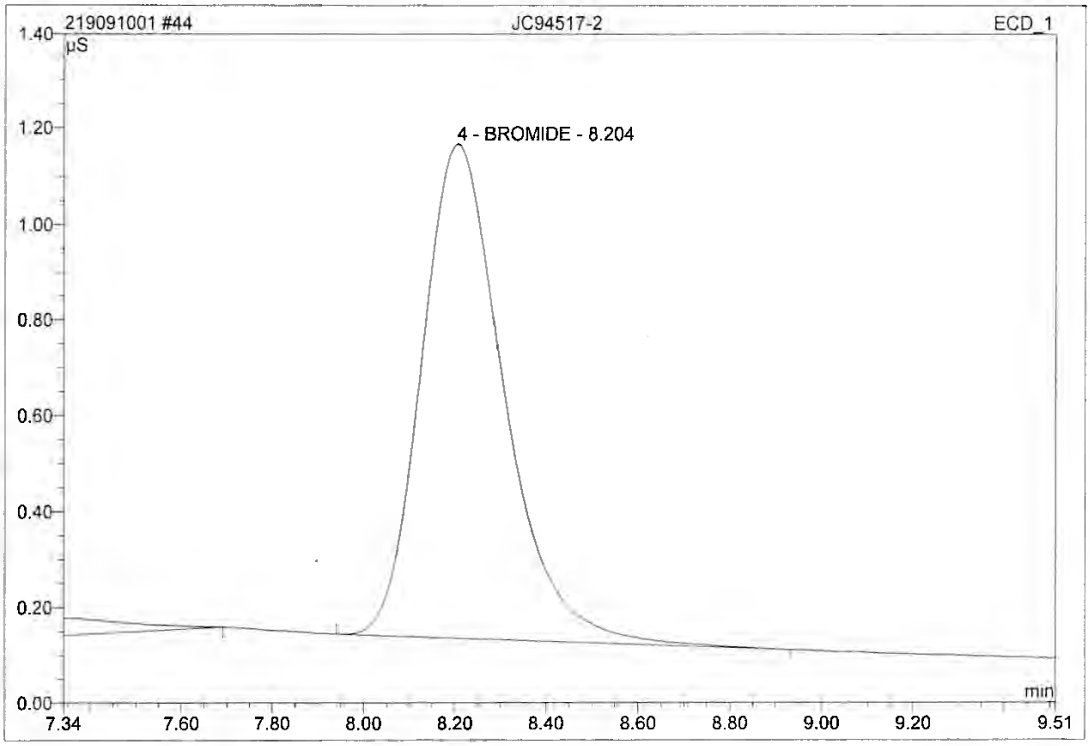
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

9/11/2019 9:48 AM

44 JC94517-2

Sample Name:	**JC94517-2**	*Injection Volume:*	**20.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**500.0000**
Recording Time:	**9/11/2019 0:43**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



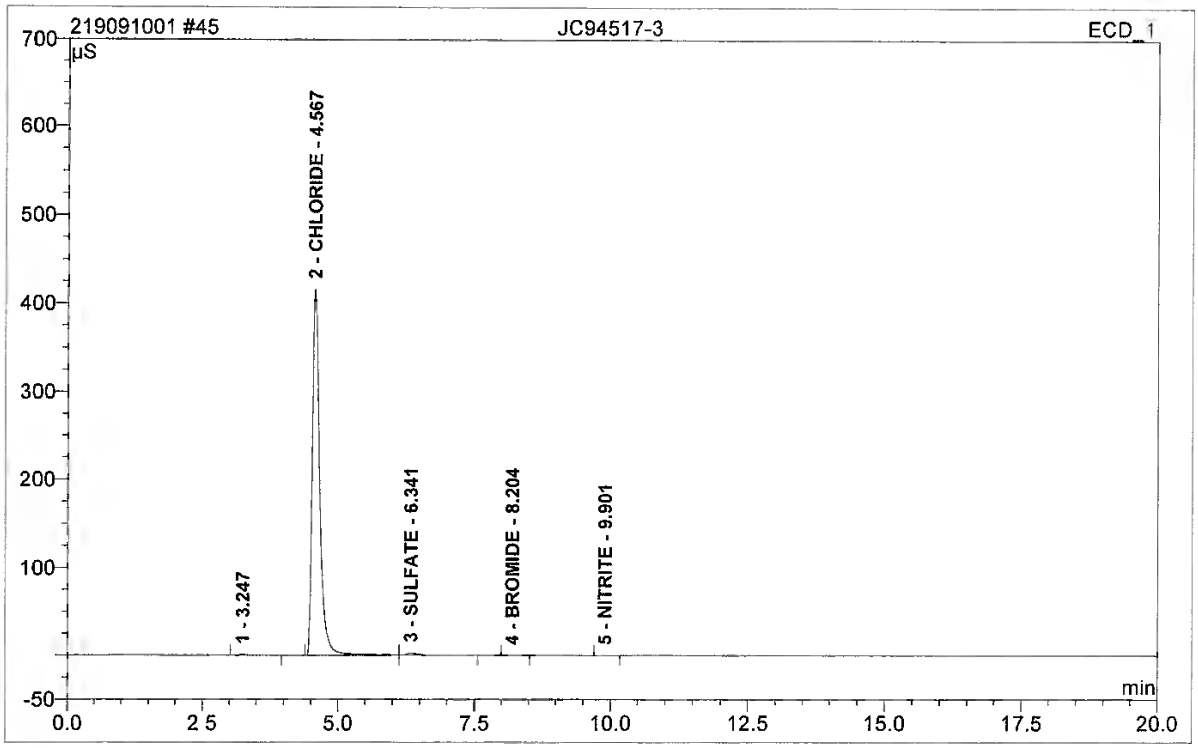
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.020	0.003	0.00	n.a.	BMB
2	4.57	CHLORIDE	402.030	64.643	98.79	#########	BM
3	6.33	SULFATE	2.130	0.568	0.87	1334.708	MB
4	8.20	BROMIDE	1.032	0.217	0.33	994.783	BMB
5	9.89	NITRITE	0.025	0.006	0.01	4.453	BMB
Total:			405.236	65.436	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6 80 SR9a Build 2680 (163077)

45 JC94517-3

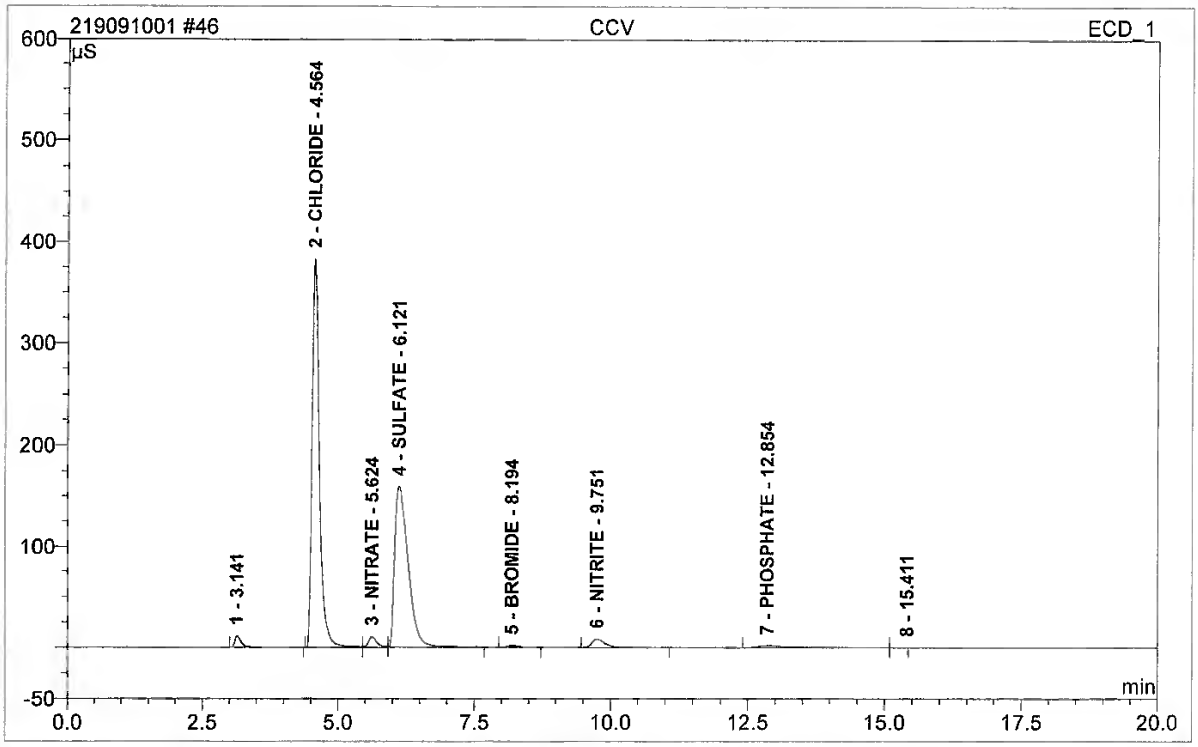
Sample Name:	**JC94517-3**	*Injection Volume:*	**20.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/11/2019 1:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.534	0.079	0.12	n.a.	BMB
2	4.57	CHLORIDE	415.167	66.867	98.93	46452.038	BM
3	6.34	SULFATE	2.502	0.635	0.94	596.848	MB
4	8.20	BROMIDE	0.043	0.009	0.01	16.050	BMB
5	9.90	NITRITE	0.013	0.003	0.00	0.844	BMB
Total:			418.259	67.591	100.00	47065.780	

46 CCV

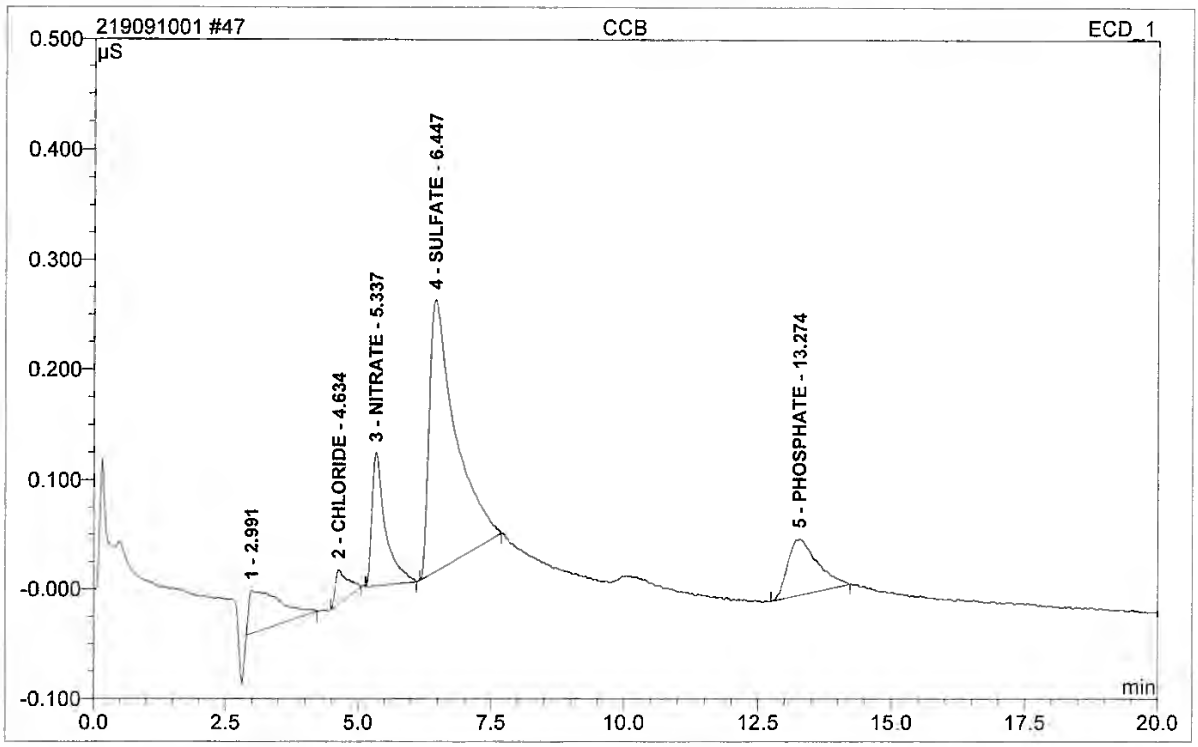
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**39**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/11/2019 1:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	11.078	1.529	1.36	n.a.	BMB
2	4.56	CHLORIDE	382.733	60.392	53.57	209.771	BM
3	5.62	NITRATE	10.326	1.852	1.64	2.982	M
4	6.12	SULFATE	159.569	45.187	40.08	212.528	MB
5	8.19	BROMIDE	1.664	0.344	0.30	3.152	BMB
6	9.75	NITRITE	8.017	2.245	1.99	3.236	BMB
7	12.85	PHOSPHATE	1.922	1.188	1.05	3.962	BM
8	15.41	n.a.	0.000	0.002	0.00	n.a.	MB
Total:			575.309	112.741	100.00	435.631	

47 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**40**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/11/2019 1:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



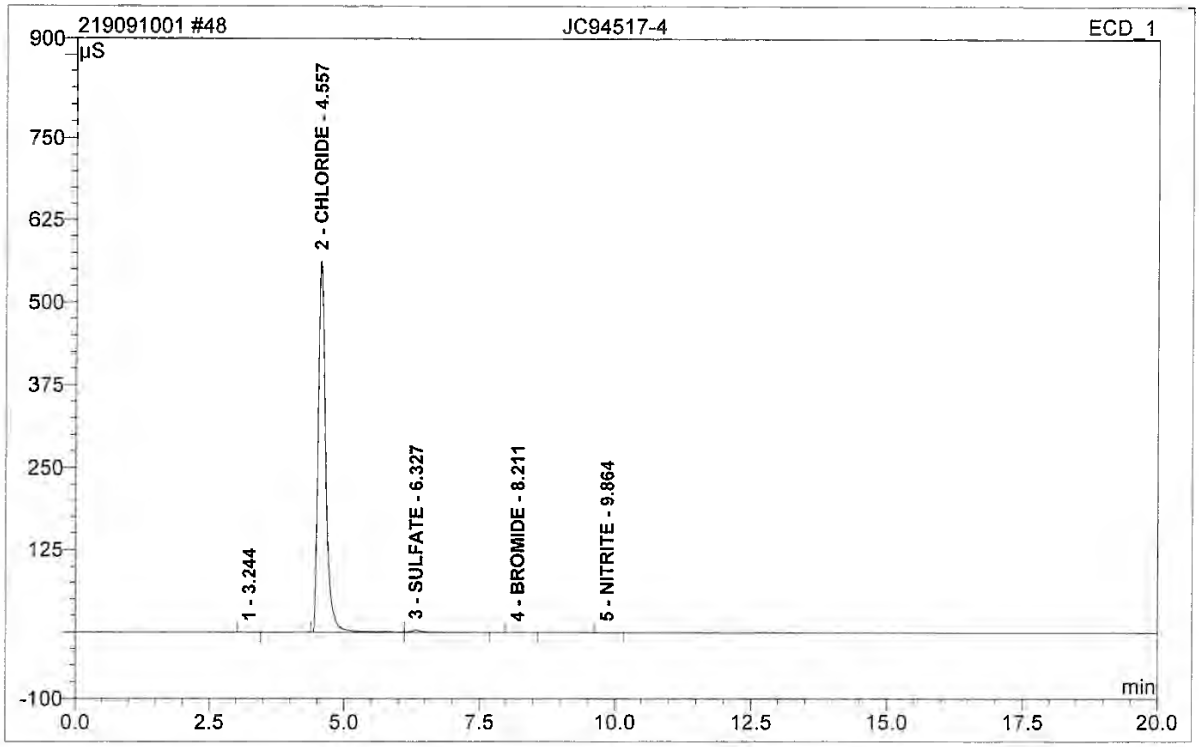
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	n.a.	0.039	0.025	10.29	n.a.	BMB
2	4.63	CHLORIDE	0.031	0.008	3.29	0.028	BMB
3	5.34	NITRATE	0.122	0.036	14.84	0.058	BMB
4	6.45	SULFATE	0.247	0.141	57.74	0.661	BMB
5	13.27	PHOSPHATE	0.052	0.034	13.84	0.112	BMB
Total:			0.491	0.244	100.00	0.860	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

48 JC94517-4

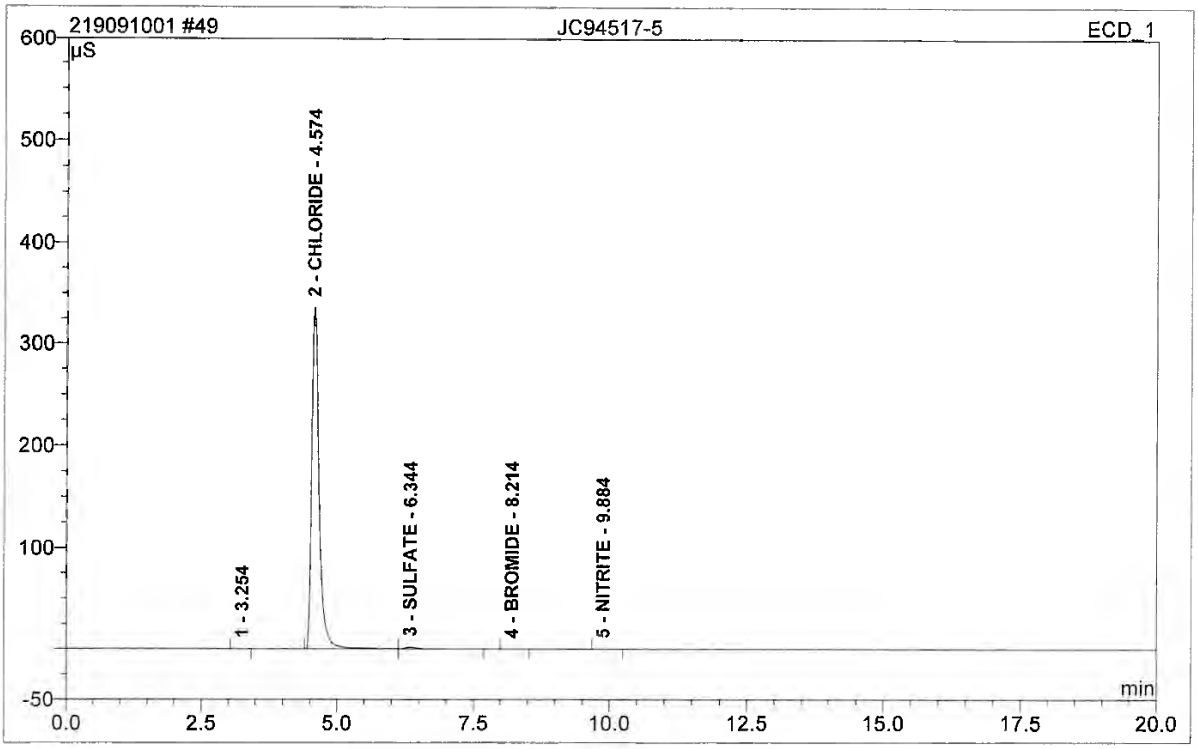
Sample Name:	**JC94517-4**	*Injection Volume:*	**20.0**
Vial Number:	**41**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/11/2019 2:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	n.a.	0.053	0.008	0.01	n.a.	BMB
2	4.56	CHLORIDE	562.287	91.964	99.10	63886.980	BM
3	6.33	SULFATE	3.171	0.808	0.87	760.371	MB
4	8.21	BROMIDE	0.072	0.015	0.02	27.260	BMB
5	9.86	NITRITE	0.011	0.003	0.00	0.779	BMB
Total:			565.594	92.798	100.00	64675.391	

49 JC94517-5

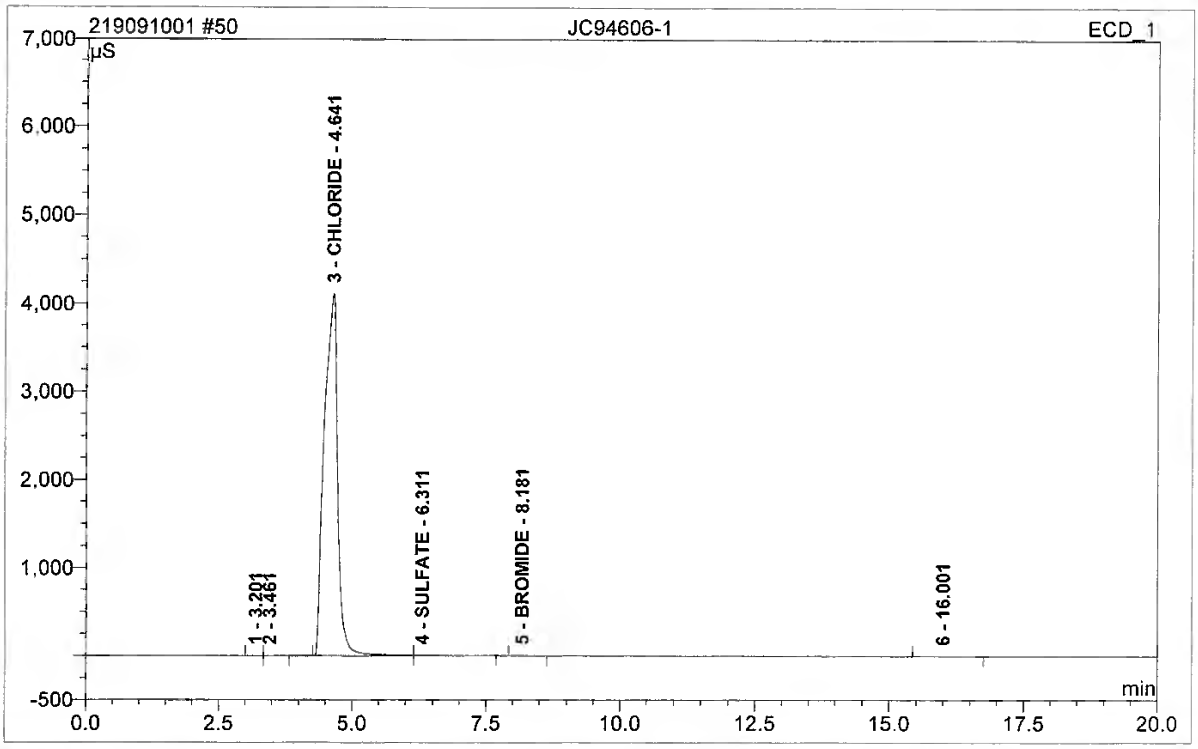
Sample Name:	**JC94517-5**	*Injection Volume:*	**20.0**
Vial Number:	**42**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**200.0000**
Recording Time:	**9/11/2019 2:43**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.018	0.003	0.00	n.a.	BMB
2	4.57	CHLORIDE	335.615	53.563	99.09	37209.807	BM
3	6.34	SULFATE	1.774	0.478	0.88	449.944	MB
4	8.21	BROMIDE	0.035	0.007	0.01	13.133	BMB
5	9.88	NITRITE	0.018	0.004	0.01	1.294	BMB
Total:			337.462	54.055	100.00	37674.177	

50 JC94606-1

Sample Name:	**JC94606-1**	*Injection Volume:*	**20.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/11/2019 3:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.20	n.a.	0.430	0.080	0.01	n.a.	BM
2	3.46	n.a.	0.387	0.077	0.01	n.a.	MB
3	4.64	CHLORIDE	4111.101	1199.483	99.68	41663.907	BM
4	6.31	SULFATE	6.155	3.289	0.27	154.687	MB
5	8.18	BROMIDE	1.083	0.236	0.02	21.670	BMB
6	16.00	n.a.	0.248	0.113	0.01	n.a.	BMB
Total:			4119.404	1203.278	100.00	41840.264	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

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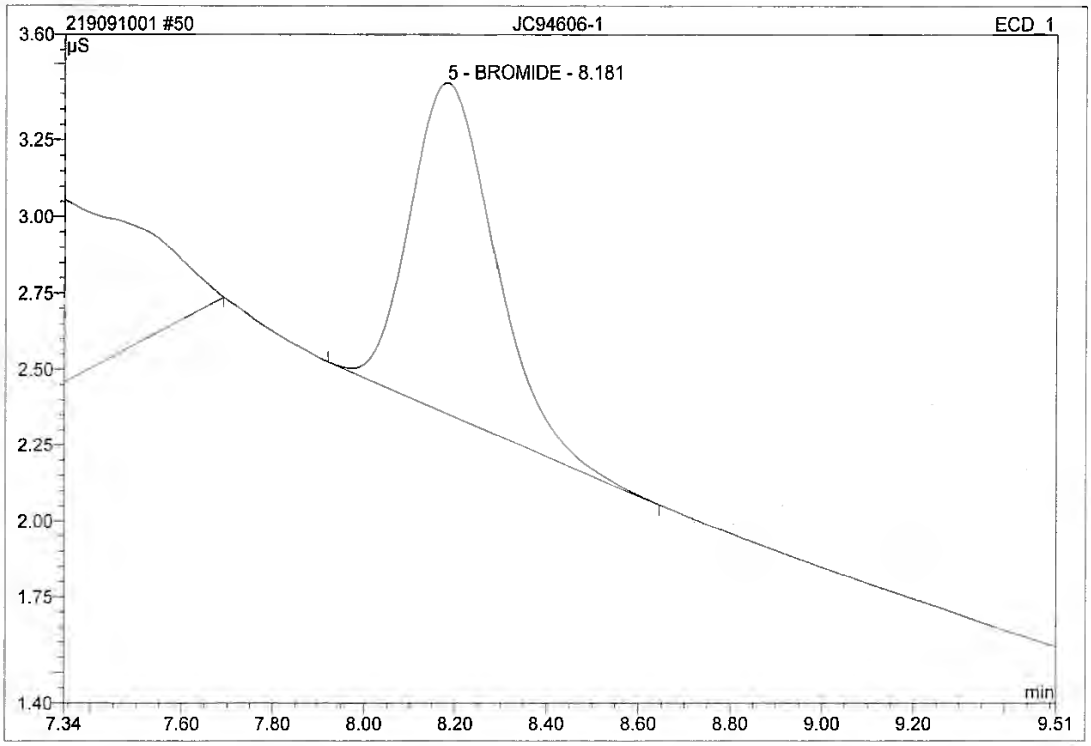
50 JC94606-1

Sample Name:	**JC94606-1**	*Injection Volume:*	**20.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/11/2019 3:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



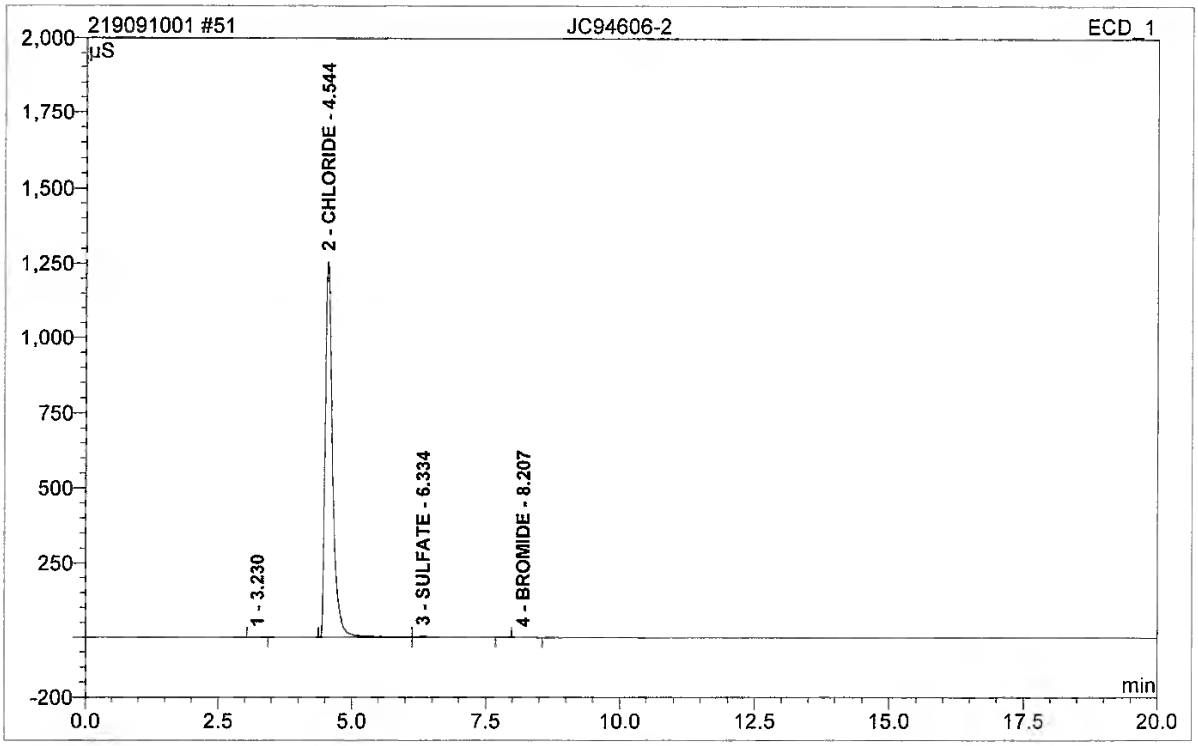
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.20	n.a.	0.430	0.080	0.01	n.a.	BM
2	3.46	n.a.	0.387	0.077	0.01	n.a.	MB
3	4.64	CHLORIDE	4111.101	1199.483	99.68	#########	BM
4	6.31	SULFATE	6.155	3.289	0.27	154.687	MB
5	8.18	BROMIDE	1.083	0.236	0.02	21.670	BMB
6	16.00	n.a.	0.248	0.113	0.01	n.a.	BMB
Total:			4119.404	1203.278	100.00	#########	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

51 JC94606-2

Sample Name:	**JC94606-2**	*Injection Volume:*	**20.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/11/2019 3:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	n.a.	0.052	0.010	0.01	n.a.	BMB
2	4.54	CHLORIDE	1255.691	204.295	99.40	7096.175	BM
3	6.33	SULFATE	3.612	1.180	0.57	55.490	MB
4	8.21	BROMIDE	0.176	0.037	0.02	3.357	BMB
Total:			1259.531	205.522	100.00	7155.023	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

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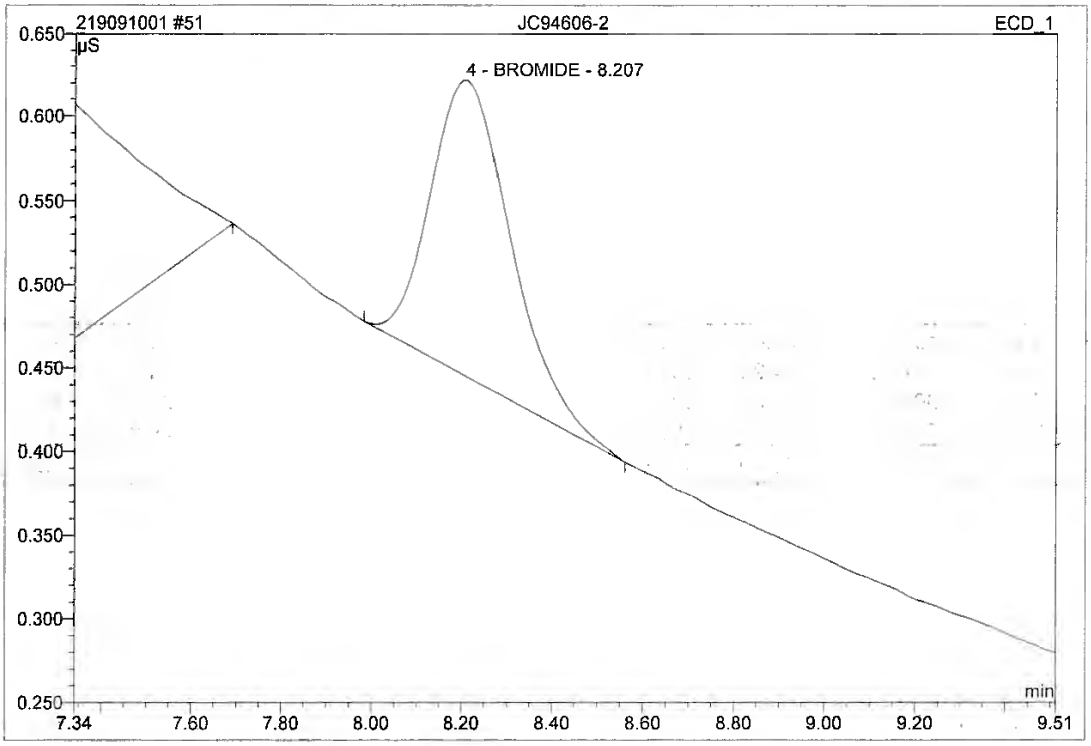
51 JC94606-2

Sample Name:	**JC94606-2**	*Injection Volume:*	**20.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/11/2019 3:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



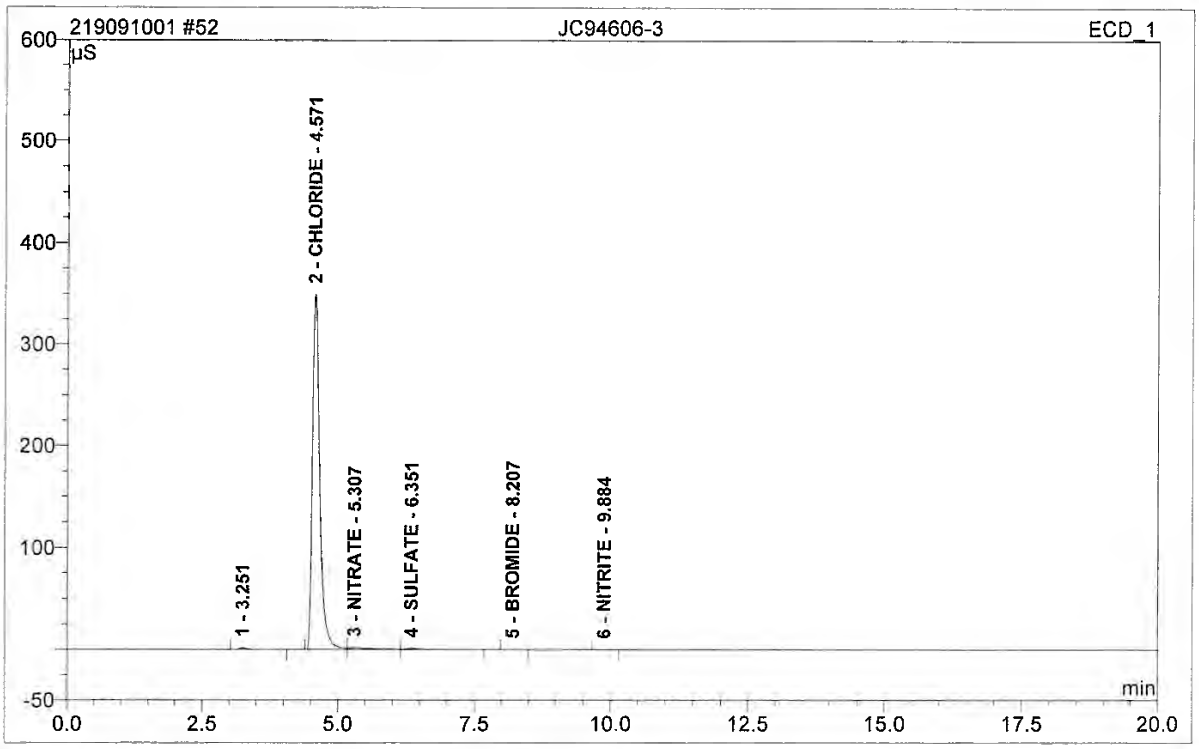
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.23	n.a.	0.052	0.010	0.01	n.a.	BMB
2	4.54	CHLORIDE	1255.691	204.295	99.40	7096.175	BM
3	6.33	SULFATE	3.612	1.180	0.57	55.490	MB
4	8.21	BROMIDE	0.176	0.037	0.02	3.357	BMB
Total:			1259.531	205.522	100.00	7155.023	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

52 JC94606-3

Sample Name:	**JC94606-3**	*Injection Volume:*	**20.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/11/2019 3:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	1.704	0.252	0.45	n.a.	BMB
2	4.57	CHLORIDE	349.287	54.984	97.24	1909.862	BM
3	5.31	NITRATE	1.845	0.902	1.59	14.518	M
4	6.35	SULFATE	1.263	0.392	0.69	18.447	MB
5	8.21	BROMIDE	0.054	0.011	0.02	0.986	BMB
6	9.88	NITRITE	0.015	0.003	0.01	0.049	BMB
Total:			354.168	56.544	100.00	1943.862	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

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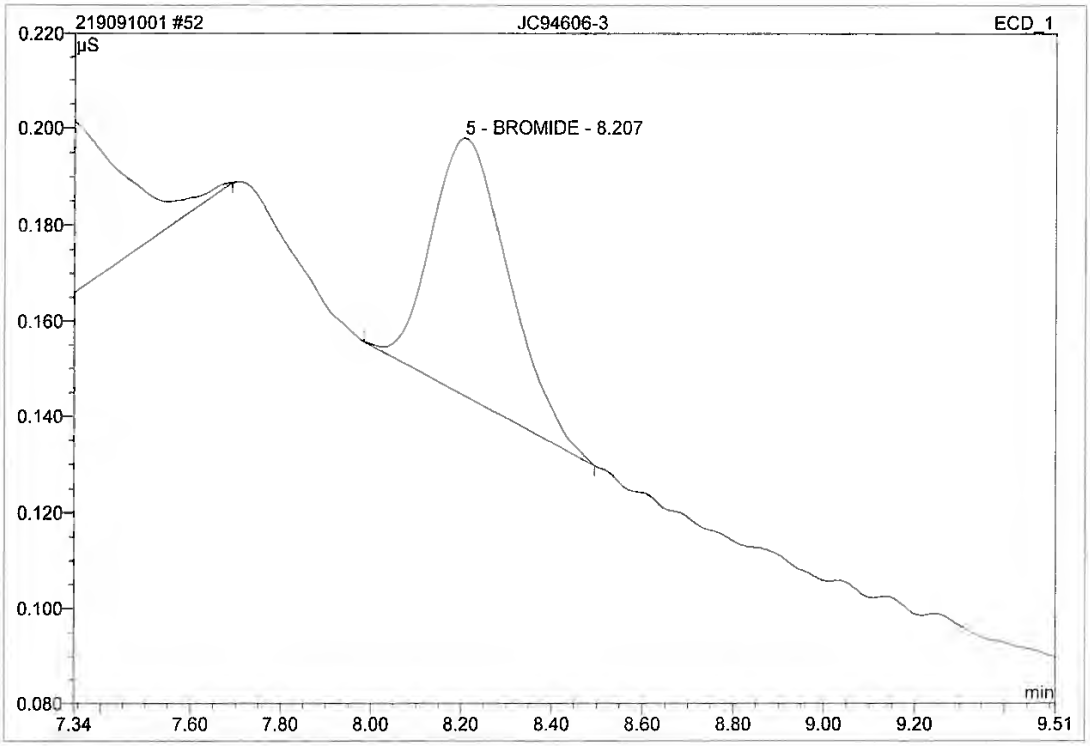
52 JC94606-3

Sample Name:	**JC94606-3**	*Injection Volume:*	**20.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/11/2019 3:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



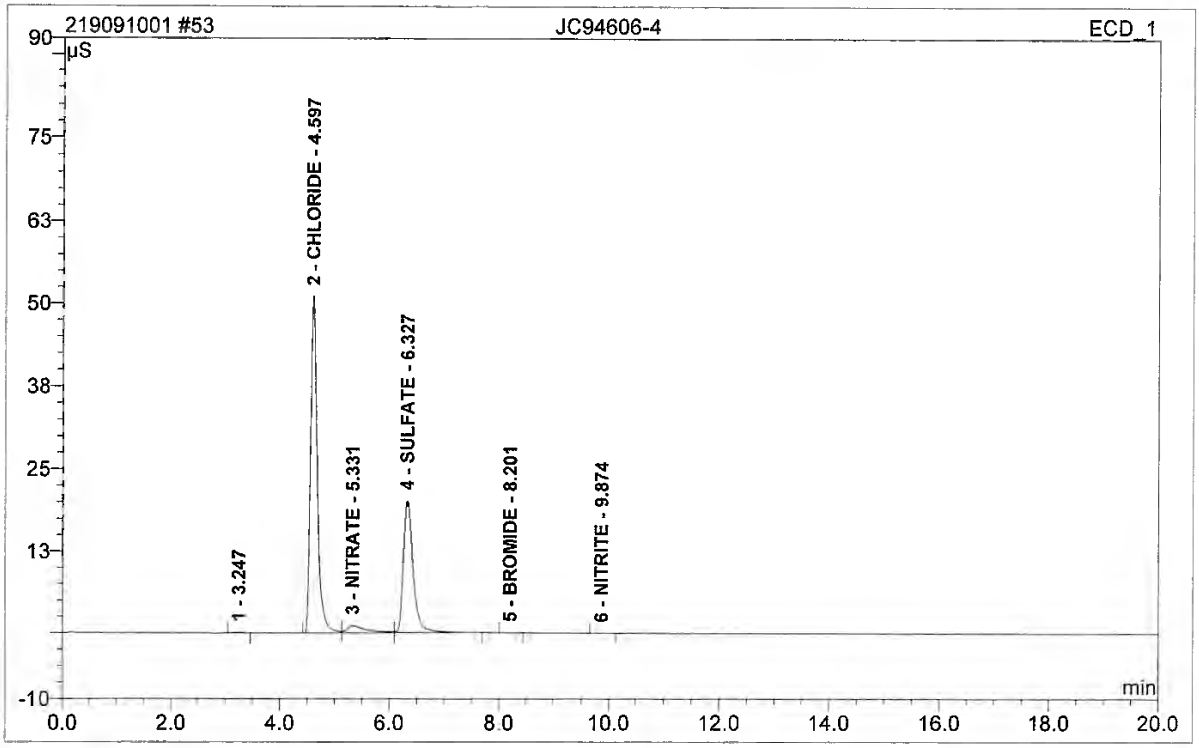
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	1.704	0.252	0.45	n.a.	BMB
2	4.57	CHLORIDE	349.287	54.984	97.24	1909.862	BM
3	5.31	NITRATE	1.845	0.902	1.59	14.518	M
4	6.35	SULFATE	1.263	0.392	0.69	18.447	MB
5	8.21	BROMIDE	0.054	0.011	0.02	0.986	BMB
6	9.88	NITRITE	0.015	0.003	0.01	0.049	BMB
Total:			354.168	56.544	100.00	1943.862	

DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

53 JC94606-4

Sample Name:	**JC94606-4**	*Injection Volume:*	**20.0**
Vial Number:	**46**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/11/2019 4:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**

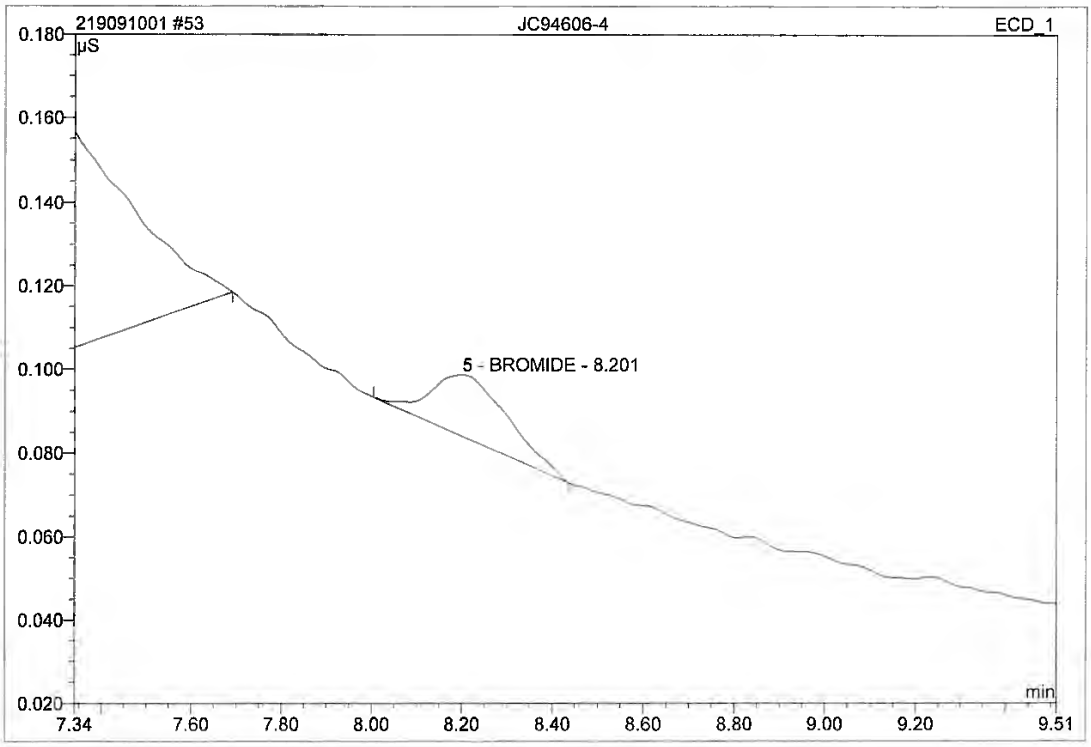


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.058	0.009	0.08	n.a.	BMB
2	4.60	CHLORIDE	51.016	7.376	61.27	256.195	BM
3	5.33	NITRATE	1.124	0.454	3.77	7.310	M
4	6.33	SULFATE	20.163	4.192	34.82	197.159	MB
5	8.20	BROMIDE	0.015	0.003	0.02	0.272	BMB
6	9.87	NITRITE	0.017	0.004	0.03	0.059	BMB
Total:			72.393	12.038	100.00	460.995	

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

53 JC94606-4

Sample Name:	**JC94606-4**	*Injection Volume:*	**20.0**
Vial Number:	**46**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**10.0000**
Recording Time:	**9/11/2019 4:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	n.a.	0.058	0.009	0.08	n.a.	BMB
2	4.60	CHLORIDE	51.016	7.376	61.27	256.195	BM
3	5.33	NITRATE	1.124	0.454	3.77	7.310	M
4	6.33	SULFATE	20.163	4.192	34.82	197.159	MB
5	8.20	BROMIDE	0.015	0.003	0.02	0.272	BMB
6	9.87	NITRITE	0.017	0.004	0.03	0.059	BMB
Total:			72.393	12.038	100.00	460.995	

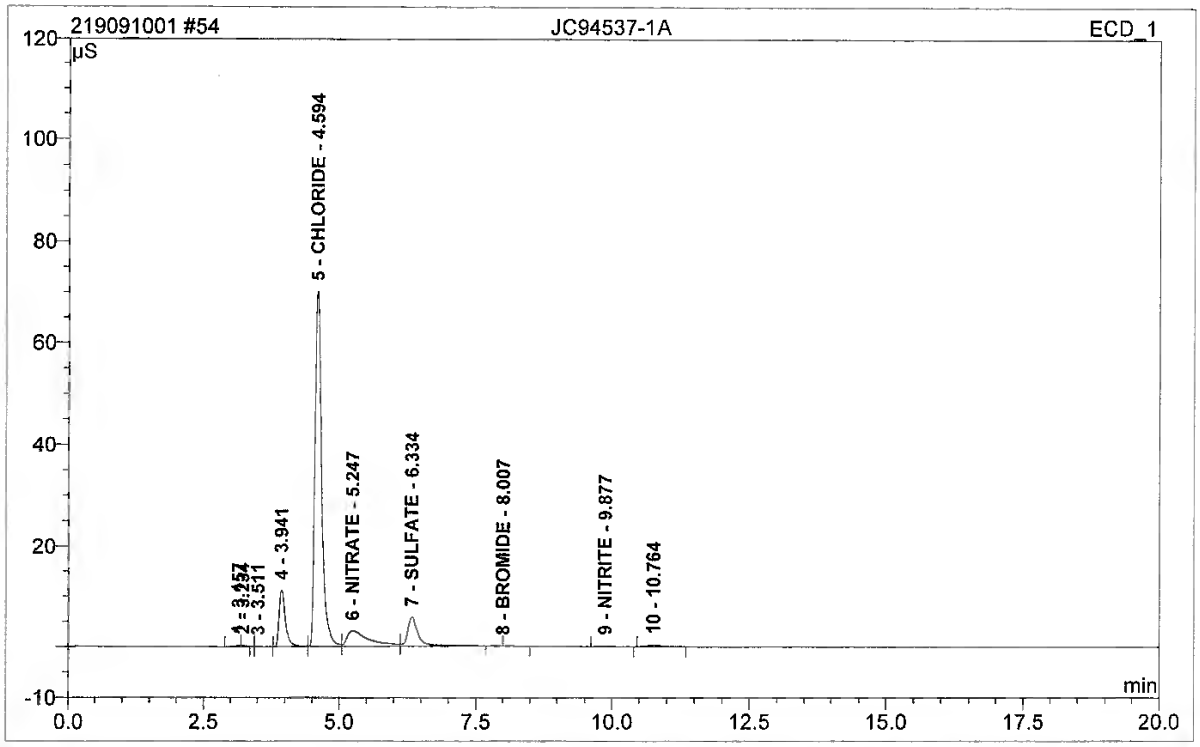
DEFAULT/Integration

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR9a Build 2680 (163077)

Operator:chemistry Timebase:ACCUTEST_SYS#2 Sequence:219091001

54 JC94537-1A

Sample Name:	**JC94537-1A**	*Injection Volume:*	**20.0**
Vial Number:	**47**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/11/2019 4:43**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



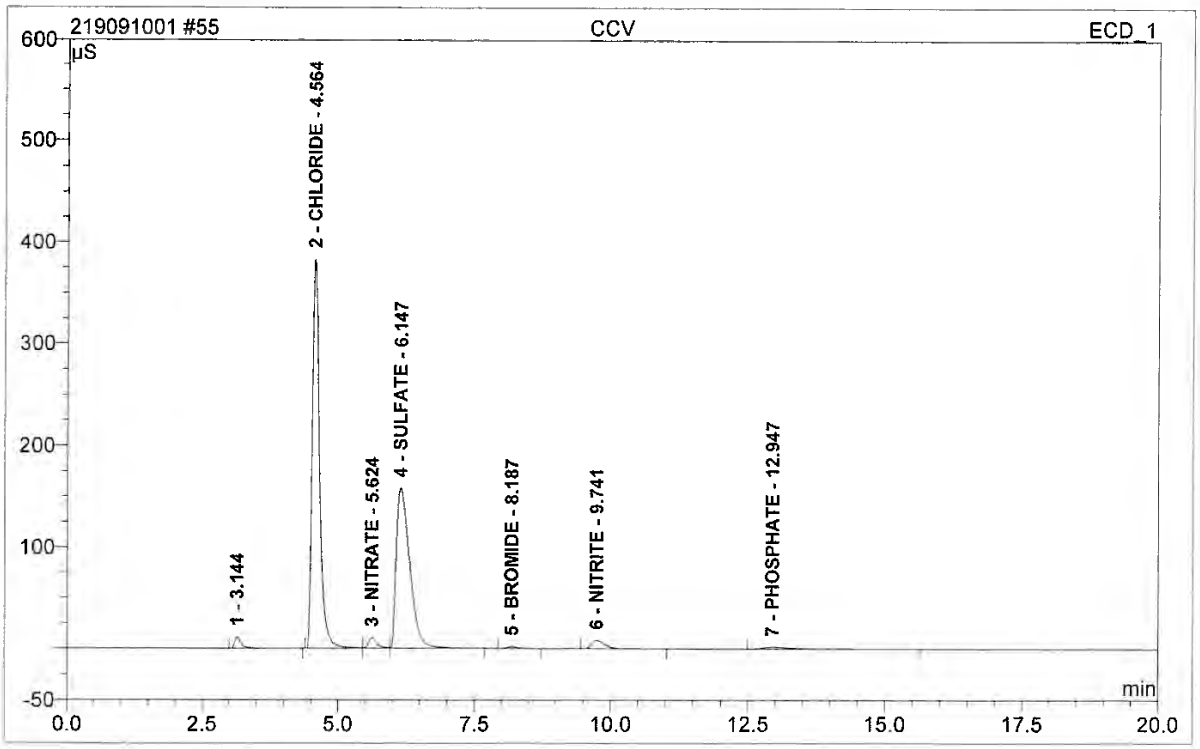
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.16	n.a.	0.255	0.060	0.41	n.a.	BM
2	3.23	n.a.	0.046	0.004	0.03	n.a.	Rd
3	3.51	n.a.	0.061	0.010	0.07	n.a.	MB
4	3.94	n.a.	11.193	1.486	10.27	n.a.	BM
5	4.59	CHLORIDE	70.048	10.059	69.51	34.940	M
6	5.25	NITRATE	2.977	1.424	9.84	2.293	M
7	6.33	SULFATE	5.751	1.288	8.90	6.055	MB
8	8.01	BROMIDE	0.000	0.003	0.02	0.026	BMB
9	9.88	NITRITE	0.147	0.037	0.25	0.053	BMB
10	10.76	n.a.	0.359	0.100	0.69	n.a.	BMB
Total:			90.838	14.470	100.00	43.367	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

55 CCV

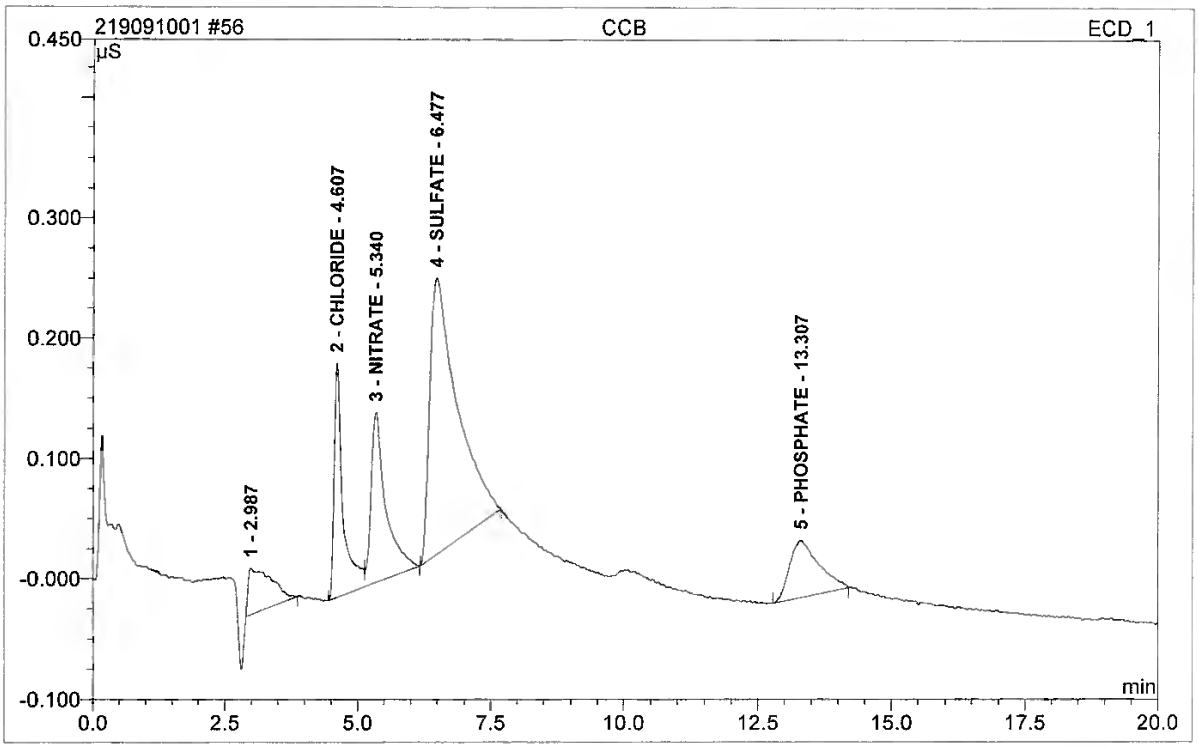
Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**48**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/11/2019 5:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.14	n.a.	11.097	1.532	1.36	n.a.	BMB
2	4.56	CHLORIDE	382.988	60.434	53.61	209.918	BM
3	5.62	NITRATE	10.307	1.859	1.65	2.992	M
4	6.15	SULFATE	158.427	45.169	40.07	212.440	MB
5	8.19	BROMIDE	1.673	0.346	0.31	3.171	BMB
6	9.74	NITRITE	8.048	2.241	1.99	3.231	BMB
7	12.95	PHOSPHATE	1.851	1.157	1.03	3.858	BMB
Total:			574.393	112.738	100.00	435.610	

56 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**49**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions3_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**System3Anions**	*Dilution Factor:*	**1.0000**
Recording Time:	**9/11/2019 5:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.99	n.a.	0.038	0.019	6.85	n.a.	BMB
2	4.61	CHLORIDE	0.194	0.038	14.02	0.132	BM
3	5.34	NITRATE	0.141	0.046	17.07	0.074	MB
4	6.48	SULFATE	0.230	0.137	50.81	0.646	BMB
5	13.31	PHOSPHATE	0.048	0.030	11.26	0.102	BMB
Total:			0.652	0.271	100.00	0.954	

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report



Technical Report for

Sovereign Consulting

Shepley's Hill (SHL), Devens, MA

AC001.M01.05

SGS Job Number: JC94537X

Sampling Date: 09/06/19

Report to:

Sovereign Consulting
9 Payson Road Suite 150
Foxborough, MA 02035
SPassafaro@SovCon.com

ATTN: Steve Passafaro

Total number of pages in report: 62

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp
General Manager

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: JC94537X

Shepley's Hill (SHL), Devens, MA
Project No: AC001.M01.05

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC94537-1AX	09/06/19	09:51	LAP	09/06/19	AQ	Effluent	EFFLUENT