Appendix G

Laboratory Data Reports

University of Massachusetts Dartmouth
The School for Marine Science and Technology

To: Jamie Lefkowitz
From: David White, QA/QC Officer, Coastal Systems Analytical Facility, SMAST
RE: Analysis Dates, Merrimack River Data, 2010
Date: September 16, 2010

. 7/28/2010: Samples checked in for analysis at 7:00am

Analysis Dates for 2010 Merrimack River Samples		
	Detection Dates	
Parameter	**7/27/2010 samples**	**7/28/2010 samples**
Nitrate + Nitrite*	8/5/2010	8/5/2010
Ammonia	7/28/2010	7/29/2010
Total Dissolved Nitrogen*	8/23/2010	8/9/2010
Ortho-Phosphate	7/28/2010	7/29/2010
Total Phosphorus	7/28/2010	7/29/2010
Chlorophyll a	7/28/2010	7/29/2010
* Samples Stored at -20° C		

Parameter	Matrix	Container	Processing & Storage	Method (Ref)	Units	Lower Detection Limits	Accuracy and Precision >*
Nitrate + Nitrite NO3 + NO2	Surface water, porewater, wastewater	60 CC acid washed polyethylene bottle	Filtered and stored in the dark at 4° C for 48 hrs or -20° C for 28 days (h, i, j, k)	Automated Cadmium Reducation Method (a)	mg/L	0.001	5%
Ammonia NH3	Surface water, porewater, wastewater	60 CC acid washed polyethylene bottle	Filtered and stored in the dark at 4° C for 12-24 hrs	Phenate Method (b)	mg/L	0.001	5%
Total Dissolved Nitrogen TDN (Dissolved Organic Nitrogen) (DON)	Surface water, porewater, wastewater	60 CC acid washed polyethylene bottle	Filtered and stored in the dark at 4° C for 12-24 hrs or -20° C for 28 days (h, i, j, k)	Persulfate Digest & Automated Cadmium Reducation Method (a, c,)	mg/L	0.001	5%
Ortho-Phosphate PO4	Surface water, porewater, wastewater	60 CC acid washed polyethylene bottle	Filtered and stored in the dark at 4° C for 12-24 hrs	Ascorbic Acid Method (d)	mg/L	0.003	5%
Particulate Carbon/Nitrogen POCN	Surface water	1 Liter acid washed polyethylene bottle	Stored at 4°C for 12-24 hrs	Elemental analysis (e)	ug/L	10 ug	10%
Total Phosphorus TP	Surface water, porewater, wastewater	60 CC acid washed polyethylene bottle	Sample acidified and stored at 4°C for 28 days	Persulfate Method (a, c, d)	mg/L	0.002	5%
Alkalinity	Surface water, porewater, wastewater	1 Liter acid washed polyethylene bottle	Stored at 4°C for 12-24 hrs	Titration (f)	Mg/L CaCO3	0.5	5%
Chlorophyll a	Surface water	1 Liter acid washed dark polyethylene bottle	Stored in the dark at 4°C for 12-24 hrs	Cold 90% acetone extract, acid corrected (g)	ug/L	0.05	10%

*Accuracy based on results of laboratory control standard; precision based on relative percent difference of duplicate samples

NA: not applicable

References

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Scheiner, D. 1976. Determination of ammonia and Kjeldahl nitrogen by indophenol method. Water Resources 10: 31-36.
Method 4500-NH3 D. Phenate Method, Standard Methods.

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**************************SMAST Technical Memorandum*************************

To: **Jamie Lefkowitz**
From: **David White, QA/QC Officer, Coastal Systems Analytical Facility, SMAST**
RE: **QAQC Analysis, Merrimack River Data, 2010**
Date: **September 14, 2010**

This Technical Memorandum details the results of an analysis of QAQC data for the 2010 Water Quality Monitoring and Benthic Nutrient Flux programs for the Merrimack River Project. We report the results of our analysis of Laboratory Duplicates and Standard Additions run during sample analyses.

Laboratory Duplicates

The results of our analysis of Laboratory Duplicates for all assays show that the Relative Percent Difference (RPD) of all duplicates ranged from 0% to 17%. This range is within the 20% RPD required by the QAPP. RPD is calculated as the absolute difference between the values of the 2 duplicates divided by the average of the 2 duplicates, the result expressed as a percent:

$RPD = ABS(X_1-X_2)/AVE(X_1,X_2)$, where X_1 and X_2 are the duplicate values.

Standard Additions

The results of our analysis of Standard Additions for all assays show that the Percent Recovery of the added standard ranged from 83.0% to 119.8%. This range is within the 80% to 120% range required by the QAPP. Percent Recovery is calculated as the difference between the quantity, the number of moles of the analyte measured in the sample plus the standard addition (spike) minus the number of moles in the sample without the spike, this quantity being divided by the number of moles in the added spike. The result is expressed as a percent:

% Recovery = [(moles of sample+spike)-(moles of sample)]/(moles of spike)

CDM-Merrimack River
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contact: Jamie Lefkowitz

Sampling Event: JULY 2010- LOW FLOWS

PROJECT	EVENT	SAMPLE ID	DATE	Salinity	PO4 (mg/L)	TP (mg/L)	NH4 (mg/L)	NOX (mg/L)	DIN (mg/L)	DON (mg/L)	TSS (mg/L)	POC (mg/L)	PON (mg/L)	C/N Ratio	CHl-a (ug/L)	Phaeo (ug/L)	CHL-a / Phaeo Ratio (Chla/ Chla + Phaeo)	Total Pigment (Chla + Phaeo)	D.O. mg/L	CBOD5 (mg/L)	CBOD20 (mg/L)
CDM-Merrimack River	May 2010- Low Flows	M001	7/27/2010	N/A	0.003	0.009	0.014	0.129	0.143	0.268	0.52	0.18	0.014	14.32	0.39	0.33	0.54	0.72	9.16	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T002	7/27/2010	N/A	0.003	0.004	0.010	0.156	0.166	0.173	0.40	0.11	0.011	11.61	0.16	0.09	0.64	0.26	8.02	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T003	7/27/2010	N/A	0.017	0.028	0.093	0.223	0.316	0.209	0.41	0.12	0.014	10.14	0.43	0.63	0.40	1.07	8.03	<2.0	<2.0
CDM-Merrimack River	May 2010- Low Flows	T004	7/27/2010	N/A	0.014	0.068	0.080	0.183	0.263	0.246	1.41	0.14	0.015	10.52	0.50	0.27	0.65	0.77	8.07	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M005	7/27/2010	N/A	0.011	0.020	0.060	0.169	0.228	0.204	0.48	0.13	0.015	10.61	0.62	0.23	0.73	0.85	8.34	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M006	7/27/2010	N/A	0.019	0.029	0.056	0.197	0.253	0.167	0.89	0.27	0.033	9.40	0.51	0.30	0.63	0.81	8.04	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M007	7/27/2010	N/A	0.014	0.027	0.049	0.176	0.225	0.182	0.56	0.14	0.015	11.12	0.59	0.18	0.77	0.77	8.36	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M008	7/27/2010	N/A	0.008	0.021	0.020	0.156	0.176	0.223	0.75	0.19	0.024	9.22	0.58	0.41	0.59	0.98	8.57	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M009	7/27/2010	N/A	0.003	0.015	0.009	0.107	0.115	0.186	3.00	0.83	0.090	10.74	0.70	0.46	0.60	1.16	8.60	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T010	7/27/2010	N/A	0.003	0.008	0.014	0.121	0.135	0.151	0.78	0.16	0.015	11.87	0.28	0.22	0.57	0.50	9.34	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T011	7/27/2010	N/A	0.003	0.014	0.012	0.083	0.096	0.220	1.65	0.33	0.043	9.07	0.83	0.43	0.66	1.25	7.89	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M012	7/27/2010	N/A	0.003	0.009	0.010	0.087	0.097	0.206	1.28	0.29	0.031	10.92	0.59	0.48	0.55	1.07	8.61	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M013	7/27/2010	N/A	0.005	0.019	0.006	0.101	0.107	0.243	2.13	0.42	0.047	10.37	1.14	0.58	0.66	1.73	8.43	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M014	7/27/2010	N/A	0.003	0.013	0.005	0.101	0.106	0.198	1.30	0.30	0.031	11.30	0.76	0.41	0.65	1.17	8.39	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T015	7/27/2010	N/A	0.003	0.013	0.015	0.020	0.035	0.245	2.03	0.37	0.038	11.32	0.76	1.30	0.37	2.06	7.93	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M016	7/27/2010	N/A	0.003	0.012	<0.001	0.067	0.067	0.237	2.70	0.37	0.043	9.86	1.39	0.82	0.63	2.21	8.24	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M017	7/27/2010	N/A	0.003	0.017	0.005	0.069	0.074	0.298	6.45	0.81	0.096	9.83	5.79	1.27	0.82	7.06	7.79	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M018	7/27/2010	N/A	0.003	0.014	0.012	0.076	0.089	0.236	3.10	0.69	0.073	10.99	3.47	2.22	0.61	5.68	7.55	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M019	7/27/2010	N/A	0.005	0.025	0.028	0.082	0.110	0.297	3.90	0.91	0.106	10.08	3.36	2.04	0.62	5.41	8.23	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M020	7/27/2010	N/A	0.003	0.020	0.018	0.082	0.099	0.359	3.00	0.59	0.052	13.09	2.37	2.01	0.54	4.38	7.82	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T021	7/27/2010	N/A	0.003	0.009	0.006	0.014	0.020	0.283	1.55	0.37	0.041	10.58	0.84	0.62	0.57	1.46	7.71	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T022	7/27/2010	N/A	0.003	0.014	0.003	0.059	0.062	0.353	1.53	0.32	0.036	10.45	0.95	1.06	0.47	2.01	8.06	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M023	7/27/2010	N/A	0.003	0.013	0.013	0.083	0.096	0.294	1.85	0.45	0.051	10.27	1.93	0.93	0.67	2.86	7.63	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M024	7/27/2010	N/A	0.003	0.016	0.037	0.095	0.132	0.558	2.70	0.59	0.068	10.08	2.63	1.50	0.64	4.13	7.47	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M025	7/27/2010	N/A	0.003	0.020	0.009	0.091	0.099	0.259	3.00	0.69	0.085	9.48	4.11	0.82	0.83	4.93	7.88	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M026	7/27/2010	N/A	0.003	0.020	0.016	0.095	0.111	0.308	2.35	0.57	0.074	9.10	3.01	1.27	0.70	4.29	8.00	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T027	7/27/2010	N/A	0.006	0.020	0.016	0.082	0.098	0.301	1.05	0.21	0.028	8.91	0.99	1.44	0.41	2.43	7.81	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T028	7/27/2010	N/A	0.003	0.019	<0.001	0.003	0.004	0.244	1.47	0.35	0.041	9.79	0.61	0.67	0.48	1.28	7.87	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M029	7/27/2010	N/A	0.003	0.017	0.009	0.052	0.061	0.296	1.57	0.54	0.072	8.77	1.87	1.00	0.65	2.87	8.24	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M030	7/27/2010	N/A	0.047	0.072	0.549	0.134	0.683	0.278	2.67	0.64	0.090	8.26	2.81	0.92	0.75	3.73	7.46	<2.0	<2.0
CDM-Merrimack River	May 2010- Low Flows	M031	7/27/2010	N/A	0.012	0.032	0.148	0.106	0.254	0.225	1.83	0.43	0.068	7.38	2.99	1.18	0.72	4.17	8.77	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M032	7/27/2010	N/A	0.009	0.034	0.141	0.115	0.256	0.202	2.00	0.42	0.058	8.40	3.19	2.04	0.61	5.24	8.17	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M033	7/27/2010	N/A	0.009	0.038	0.123	0.118	0.240	0.399	2.43	0.63	0.070	10.57	2.41	1.06	0.69	3.47	8.67	<2.0	4
CDM-Merrimack River	May 2010- Low Flows	M034	7/27/2010	N/A	0.011	0.033	0.172	0.129	0.301	0.241	2.00	0.51	0.066	9.01	3.00	1.80	0.62	4.81	5.77	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T035	7/27/2010	N/A	0.005	0.019	0.023	0.055	0.078	0.490	0.82	0.25	0.040	7.35	1.47	1.25	0.54	2.72	7.79	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M036	7/27/2010	N/A	0.003	0.032	0.081	0.143	0.225	0.419	2.93	0.66	0.101	7.63	3.55	1.35	0.72	4.90	NS	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M037	7/27/2010	N/A	0.005	0.020	0.073	0.140	0.213	0.380	2.37	0.65	0.104	7.23	3.69	1.01	0.78	4.71	NS	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M038	7/27/2010	N/A	0.003	0.019	0.020	0.127	0.147	0.235	1.90	0.47	0.064	8.63	4.69	1.54	0.75	6.23	7.80	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M039	7/27/2010	N/A	0.005	0.026	0.032	0.127	0.159	0.644	2.60	0.74	0.099	8.69	5.71	1.77	0.76	7.48	NS	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M040	7/27/2010	N/A	0.003	0.025	0.024	0.127	0.151	0.514	6.85	0.76	0.104	8.59	8.38	1.37	0.86	9.76	NS	2.4	NS
CDM-Merrimack River	May 2010- Low Flows	M041	7/27/2010	N/A	0.009	0.033	0.110	0.122	0.232	0.483	2.90	0.87	0.108	9.40	8.72	1.30	0.87	10.02	8.23	2.4	41
CDM-Merrimack River	May 2010- Low Flows	M042	7/27/2010	N/A	0.011	0.033	0.150	0.127	0.276	0.837	3.55	0.96	0.134	8.35	8.84	1.81	0.83	10.65	NS	3.9	NS
CDM-Merrimack River	May 2010- Low Flows	M043	7/27/2010	N/A	0.006	0.022	0.085	0.178	0.263	0.239	2.30	0.67	0.101	7.83	8.50	2.51	0.77	11.01	7.89	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T044	7/27/2010	N/A	0.005	0.019	0.001	0.209	0.210	0.231	1.15	0.26	0.035	8.77	0.92	2.06	0.31	2.98	8.66	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M045	7/27/2010	N/A	0.005	0.025	0.040	0.184	0.225	0.347	2.40	0.85	0.126	7.85	12.01	3.12	0.79	15.13	8.68	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T046	7/27/2010	N/A	0.005	0.019	0.007	0.088	0.095	0.293	1.08	0.29	0.040	8.52	1.68	1.84	0.48	3.52	7.65	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M047	7/27/2010	N/A	0.003	0.016	0.023	0.179	0.201	0.315	2.75	0.99	0.145	7.93	9.18	3.26	0.74	12.44	7.99	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M048	7/27/2010	N/A	0.003	0.014	0.023	0.177	0.200	0.347	2.85	0.92	0.126	8.54	9.18	3.80	0.71	12.98	8.01	<2.0	4.0
CDM-Merrimack River	May 2010- Low Flows	M049	7/27/2010	N/A	0.003	0.017	0.012	0.174	0.187	0.455	3.30	1.11	0.154	8.38	5.32	10.70	0.33	16.02	8.19	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M050	7/27/2010	N/A	0.003	0.021	0.018	0.181	0.199	0.242	2.05	0.58	0.093	7.24	6.46	7.77	0.45	14.23	7.74	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M051	7/27/2010	N/A	0.003	0.017	0.018	0.162	0.180	0.231	2.00	0.60	0.088	7.92	5.66	7.76	0.42	13.43	7.75	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M052	7/27/2010	N/A	0.003	0.019	0.025	0.151	0.177	0.429	1.90	0.56	0.085	7.64	5.21	7.59	0.41	12.80	7.39	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M053	7/27/2010	N/A	0.003	0.026	<0.001	0.140	0.141	0.270	2.60	0.88	0.117	8.83	8.27	4.71	0.64	12.98	8.34	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M054	7/27/2010	N/A	0.003	0.025	0.008	0.129	0.137	0.446	2.80	0.98	0.138	8.28	9.74	4.04	0.71	13.78	8.88	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M055	7/27/2010	N/A	0.003	0.026	0.011	0.127	0.138	0.240	2.73	0.89	0.124	8.35	7.25	4.65	0.61	11.90	8.01	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T056	7/27/2010	N/A	0.003	0.016	0.014	0.156	0.169	0.293	1.80	0.58	0.076	8.97	3.77	2.14	0.64	5.92	7.75	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M057	7/27/2010	N/A	0.003	0.020	0.009	0.152	0.161	0.323	2.70	0.76	0.107	8.31	6.34	3.86	0.62	10.20	8.20	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M058	7/27/2010	N/A	0.003	0.021	0.010	0.186	0.196	0.224	5.00	1.52	0.231	7.69	6.12	2.92	0.68	9.04	8.20	<2.0	>2.0
CDM-Merrimack River	May 2010- Low Flows	T059	7/27/2010	N/A	0.006	0.020	0.015	0.072	0.088	0.379	1.85	0.38	0.046	9.53	1.36	1.93	0.41	3.28	7.68	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M060	7/27/2010	N/A	0.035	0.074	0.338	0.213	0.551	0.257	6.35	2.13	0.209	11.90	5.78	3.62	0.61	9.40	8.53	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M061	7/27/2010	N/A	0.022	0.065	0.248	0.230	0.478	0.282	2.72	0.81	0.144	6.59	6.91	3.83	0.64	10.74	8.58	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M062	7/27/2010	N/A	0.014	0.062	0.140	0.269	0.410	0.395	4.55	1.33	0.185	8.37	9.06	3.29	0.73	12.35	7.18	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M063	7/27/2010	N/A	0.006	0.038	0.091	0.259	0.351	0.285	3.07	0.89	0.134	7.79	7.93	3.88	0.67	11.81	7.70	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T064	7/27/2010	N/A	0.014	0.042	0.014	0.399	0.413	0.324	3.62	0.62	0.084	8.60	4.36	3.20	0.58	7.56	7.71	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M065	7/27/2010	N/A	0.006	0.044	0.109	0.266	0.375	0.256	3.65	1.11	0.176	7.37	12.46	10.81	0.54	23.27	8.05	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M066	7/27/2010	N/A	0.022	0.060	0.067	0.310	0.376	0.377	4.45	1.49	0.267	6.49	15.63	4.06	0.79	19.69	8.45	<2.0	5.2
CDM-Merrimack River	May 2010- Low Flows	M067	7/27/2010	N/A	0.006	0.040	0.036	0.252	0.288	0.335	4.65	1.55	0.249	7.26	17.22	3.19	0.84	20.41	7.96	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T068	7/27/2010	N/A	0.009	0.031	0.005	0.670	0.674	0.401	2.23	0.49	0.078	7.34	3.64	1.77	0.67	5.41	7.79	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	T069	7/27/2010	N/A	0.003	0.017	0.027	0.331	0.357	0.274	2.78	0.57	0.085	7.80	2.27	2.57	0.47	4.83	7.23	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M070	7/27/2010	N/A	0.005	0.036	0.001	0.255	0.256	0.316	6.30	2.19	0.313	8.15	20.85	9.94	0.68	30.79	9.10	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M071	7/27/2010	N/A	0.008	0.046	0.036	0.287	0.322	0.520	7.30	2.45	0.313	9.12	16.09	12.91	0.55	29.00	9.28	2.9	5.9
CDM-Merrimack River	May 2010- Low Flows	M072	7/27/2010	N/A	0.009	0.055	0.014	0.343	0.357	0.327	5.80	2.17	0.298	8.49	19.26	14.57	0.57	33.83	9.22	<2.0	NS

PROJECT	EVENT	SAMPLE ID	DATE	Salinity	PO4 (mg/L)	TP (mg/L)	NH4 (mg/L)	NOX (mg/L)	DIN (mg/L)	DON (mg/L)	TSS (mg/L)	POC (mg/L)	PON (mg/L)	C/N Ratio	CHl-a (ug/L)	Phaeo (ug/L)	CHL-a / Phaeo Ratio (Chla/ Chla + Phaeo)	Total Pigment (Chla + Phaeo)	D.O. mg/L	CBOD5 (mg/L)	CBOD20 (mg/L)
CDM-Merrimack River	May 2010- Low Flows	M104B	7/27/2010	N/A	0.253	<0.002	0.001	0.449	0.450	0.249	0.16	0.05	0.008	7.22	<0.05	0.23	NA	0.25	NS	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M116B	7/27/2010	N/A	0.003	<0.002	0.072	0.001	0.073	0.134	0.10	0.03	0.004	7.89	0.07	0.15	0.31	0.22	NS	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M131B	7/27/2010	N/A	0.003	<0.002	0.071	0.001	0.072	0.065	0.10	0.03	0.003	14.29	0.07	0.16	0.31	0.24	NS	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M1041B	7/27/2010	N/A	0.003	0.004	0.034	0.002	0.037	0.138	0.01	0.03	0.004	8.02	<0.05	0.07	NA	0.10	NS	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M172B	7/27/2010	N/A	<0.003	<0.002	0.074	0.002	0.076	0.113	0.07	0.03	0.002	14.16	0.05	0.10	0.34	0.15	NS	<2.0	<2.0
CDM-Merrimack River	May 2010- Low Flows	M204D	7/27/2010	N/A	0.014	0.054	0.072	0.177	0.249	0.314	0.43	0.13	0.014	10.63	0.42	0.33	0.56	0.74	8.49	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M226D	7/27/2010	N/A	0.003	0.021	0.016	0.094	0.111	0.305	2.75	0.61	0.076	9.36	3.08	1.07	0.74	4.15	7.23	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M231D	7/27/2010	N/A	0.011	0.025	0.142	0.103	0.245	0.213	2.37	0.54	0.064	9.80	2.82	1.03	0.73	3.85	7.75	<2.0	<2.0
CDM-Merrimack River	May 2010- Low Flows	M272D	7/27/2010	N/A	0.009	0.051	0.012	0.338	0.351	0.382	6.80	2.30	0.326	8.23	17.45	15.31	0.53	32.76	9.26	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M2036D	7/27/2010	N/A	0.003	0.031	0.086	0.142	0.228	0.454	2.90	0.70	0.092	8.81	3.02	1.51	0.67	4.54	7.63	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M3042R	7/27/2010	N/A	0.003	0.003	0.091	0.006	0.098	0.630	0.26	0.10	0.008	14.41	<0.05	0.12	NA	0.14	NS	2.6	NS
CDM-Merrimack River	May 2010- Low Flows	M304R	7/27/2010	N/A	0.003	<0.002	<0.001	0.232	0.233	0.170	0.16	0.05	0.003	19.14	3.02	1.51	0.67	4.54	NS	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M317R	7/27/2010	N/A	<0.003	<0.002	0.075	0.003	0.078	0.123	0.07	0.05	0.004	14.86	<0.05	0.22	NA	0.25	NS	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	M330R	7/27/2010	N/A	0.003	<0.002	0.074	0.002	0.076	0.074	0.80	0.19	0.029	7.92	<0.05	0.17	NA	0.19	NS	<2.0	<2.0
CDM-Merrimack River	May 2010- Low Flows	M372R	7/27/2010	N/A	<0.003	<0.002	0.074	0.001	0.075	0.095	0.17	0.06	0.007	9.65	<0.05	0.10	NA	0.12	NS	<2.0	NS
CDM-Merrimack River	May 2010- Low Flows	LINCOLN WW	7/28/2010	N/A	3.182	3.956	15.664	2.432	18.096	0.136	10.20	4.60	0.664	8.08	NS	NS	NS	NS	NS	4.5	10
CDM-Merrimack River	May 2010- Low Flows	WOODSTOCK WW	7/28/2010	N/A	3.493	4.181	0.209	9.492	9.701	0.912	7.70	3.04	0.526	6.74	NS	NS	NS	NS	NS	<2.0	5.5
CDM-Merrimack River	May 2010- Low Flows	PLYVILL WW	7/28/2010	N/A	4.195	5.520	3.163	16.828	19.991	0.466	10.60	3.98	0.643	7.22	NS	NS	NS	NS	NS	8.2	14
CDM-Merrimack River	May 2010- Low Flows	BRISTOL WW	7/28/2010	N/A	5.767	6.657	2.984	16.852	19.835	0.751	13.00	4.73	0.768	7.19	NS	NS	NS	NS	NS	7.5	11
CDM-Merrimack River	May 2010- Low Flows	FRANKLIN (WINN) WW	7/28/2010	N/A	2.837	3.956	33.712	0.395	34.107	<0.001	26.60	10.29	1.912	6.28	NS	NS	NS	NS	NS	12	18
CDM-Merrimack River	May 2010- Low Flows	MERR CO WW	7/28/2010	N/A	5.329	5.859	7.380	2.607	9.987	1.053	8.30	3.20	0.526	7.09	NS	NS	NS	NS	NS	3.8	7
CDM-Merrimack River	May 2010- Low Flows	PENA WW	7/28/2010	N/A	3.395	4.738	1.855	1.364	3.219	1.444	11.60	4.33	0.745	6.78	NS	NS	NS	NS	NS	6.4	13
CDM-Merrimack River	May 2010- Low Flows	HALL ST. WW	7/28/2010	N/A	2.337	3.364	26.879	0.207	27.087	<0.001	23.80	8.89	1.659	6.25	NS	NS	NS	NS	NS	12	18
CDM-Merrimack River	May 2010- Low Flows	LLENSTOWN (SUNCOOK)WW	7/28/2010	N/A	5.288	5.979	6.737	2.636	9.373	1.881	13.00	5.45	1.065	5.97	NS	NS	NS	NS	NS	11	8.1
CDM-Merrimack River	May 2010- Low Flows	HOOKSETT WW	7/28/2010	N/A	2.493	3.944	15.602	3.733	19.335	<0.001	26.20	10.28	1.908	6.29	NS	NS	NS	NS	NS	18	60
CDM-Merrimack River	May 2010- Low Flows	MANCH WW	7/28/2010	N/A	3.050	4.264	16.740	3.465	20.204	0.895	16.10	6.82	1.266	6.28	NS	NS	NS	NS	NS	9.9	18
CDM-Merrimack River	May 2010- Low Flows	DERRY WW	7/28/2010	N/A	4.609	5.461	3.666	16.478	20.144	0.099	14.27	5.70	0.989	6.72	NS	NS	NS	NS	NS	6.4	18
CDM-Merrimack River	May 2010- Low Flows	MERR WW	7/28/2010	N/A	7.791	10.910	0.258	15.700	15.958	0.519	27.40	9.24	1.579	6.83	NS	NS	NS	NS	NS	9.6	19
CDM-Merrimack River	May 2010- Low Flows	NASHUA WW	7/28/2010	N/A	1.263	2.097	14.680	16.121	30.801	1.088	6.87	2.53	0.458	6.44	NS	NS	NS	NS	NS	8.8	20

CDM-Merrimack River
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Sampling Event: September 2010- LOW FLOWS

PROJECT	EVENT	SAMPLE ID	QC	DATE	PO4 (mg/L)	TP (mg/L)	NH4 (mg/L)	NOX (mg/L)	DIN (mg/L)	DON (mg/L)	POC (mg/L)	PON (mg/L)	C/N Ratio	TON (mg/L)	TN (mg/L)	D.O. uM	D.O. mg/L
CDM-Merrimack River	Sept 2010- Low Flows	M001		9/21/2010	<0.003	0.011	0.074	0.126	0.201	0.235	0.153	0.011	15.73	0.246	0.447	335.06	5.361
CDM-Merrimack River	Sept 2010- Low Flows	M005		9/21/2010	0.009	0.015	0.055	0.168	0.223	0.241	0.187	0.017	13.21	0.257	0.480	301.06	4.817
CDM-Merrimack River	Sept 2010- Low Flows	M006		9/21/2010	0.012	0.015	0.074	0.183	0.257	0.326	0.235	0.028	9.76	0.354	0.611	315.75	5.052
CDM-Merrimack River	Sept 2010- Low Flows	M007		9/21/2010	0.012	0.017	0.050	0.178	0.229	0.215	0.167	0.015	13.04	0.230	0.459	322.69	5.163
CDM-Merrimack River	Sept 2010- Low Flows	M008		9/21/2010	0.008	0.011	0.022	0.173	0.195	0.233	0.199	0.019	12.17	0.252	0.447	320.88	5.134
CDM-Merrimack River	Sept 2010- Low Flows	M009		9/21/2010	0.003	0.009	0.019	0.150	0.169	0.222	0.255	0.026	11.47	0.248	0.417	285.88	4.574
CDM-Merrimack River	Sept 2010- Low Flows	M012		9/21/2010	0.003	0.006	0.098	0.125	0.223	0.192	0.237	0.025	11.17	0.217	0.440	318.50	5.096
CDM-Merrimack River	Sept 2010- Low Flows	M013		9/21/2010	0.008	0.013	0.007	0.132	0.139	0.185	0.318	0.028	13.21	0.213	0.352	309.56	4.953
CDM-Merrimack River	Sept 2010- Low Flows	M016		9/21/2010	0.003	0.008	0.007	0.086	0.093	0.228	0.398	0.047	9.94	0.275	0.367	270.56	4.329
CDM-Merrimack River	Sept 2010- Low Flows	M017		9/21/2010	0.003	0.007	0.006	0.085	0.091	0.217	0.686	0.088	9.05	0.305	0.396	266.50	4.264
CDM-Merrimack River	Sept 2010- Low Flows	M018		9/21/2010	0.003	0.012	0.017	0.117	0.134	0.191	0.572	0.068	9.89	0.259	0.393	278.75	4.46
CDM-Merrimack River	Sept 2010- Low Flows	M019		9/21/2010	0.008	0.016	0.023	0.149	0.172	0.191	0.532	0.059	10.49	0.250	0.422	272.69	4.363
CDM-Merrimack River	Sept 2010- Low Flows	M020		9/21/2010	0.005	0.011	0.028	0.153	0.181	0.168	0.425	0.047	10.54	0.215	0.396	284.63	4.554
CDM-Merrimack River	Sept 2010- Low Flows	M023		9/21/2010	0.004	0.014	0.002	0.113	0.115	0.180	0.364	0.044	9.67	0.224	0.339	278.06	4.449
CDM-Merrimack River	Sept 2010- Low Flows	M024		9/21/2010	0.005	0.011	0.008	0.098	0.105	0.282	0.457	0.059	9.09	0.341	0.446	287.38	4.598
CDM-Merrimack River	Sept 2010- Low Flows	M025		9/21/2010	0.003	0.009	<0.001	0.100	0.100	0.199	0.480	0.063	8.89	0.262	0.362	273.38	4.374
CDM-Merrimack River	Sept 2010- Low Flows	M026		9/21/2010	0.005	0.011	0.019	0.103	0.121	0.415	0.488	0.064	8.97	0.479	0.600	294.31	4.709
CDM-Merrimack River	Sept 2010- Low Flows	M029		9/21/2010	0.005	0.008	0.022	0.090	0.112	0.352	0.451	0.052	10.12	0.404	0.516	208.06	3.329
CDM-Merrimack River	Sept 2010- Low Flows	M030		9/21/2010	0.014	0.025	0.077	0.101	0.178	0.370	0.582	0.072	9.38	0.443	0.621	284.63	4.554
CDM-Merrimack River	Sept 2010- Low Flows	M031		9/21/2010	0.033	0.041	0.168	0.142	0.310	0.228	0.301	0.038	9.12	0.267	0.577	271.50	4.344
CDM-Merrimack River	Sept 2010- Low Flows	M032		9/21/2010	0.031	0.042	0.137	0.161	0.298	0.203	0.265	0.033	9.27	0.236	0.533	313.25	5.012
CDM-Merrimack River	Sept 2010- Low Flows	M033		9/21/2010	0.031	0.038	0.158	0.184	0.341	0.263	0.339	0.042	9.39	0.306	0.647	263.81	4.221
CDM-Merrimack River	Sept 2010- Low Flows	M034		9/21/2010	0.035	0.045	0.180	0.182	0.362	0.271	0.462	0.052	10.41	0.323	0.685	258.38	4.134
CDM-Merrimack River	Sept 2010- Low Flows	M036		9/21/2010	0.003	0.017	0.018	0.150	0.168	0.328	0.538	0.073	8.57	0.401	0.569	283.75	4.54
CDM-Merrimack River	Sept 2010- Low Flows	M037		9/21/2010	0.007	0.023	0.039	0.174	0.214	0.371	0.433	0.059	8.52	0.430	0.644	266.63	4.266
CDM-Merrimack River	Sept 2010- Low Flows	M038		9/21/2010	0.006	0.022	0.019	0.166	0.186	0.230	0.344	0.047	8.51	0.277	0.463	271.50	4.344
CDM-Merrimack River	Sept 2010- Low Flows	M039		9/21/2010	0.003	0.015	0.010	0.142	0.152	0.243	0.319	0.046	8.07	0.289	0.442	282.63	4.522
CDM-Merrimack River	Sept 2010- Low Flows	M040		9/21/2010	0.005	0.023	0.024	0.150	0.174	0.454	0.405	0.051	9.26	0.506	0.680	284.88	4.558
CDM-Merrimack River	Sept 2010- Low Flows	M041		9/21/2010	0.005	0.023	0.123	0.146	0.269	0.432	0.468	0.070	7.79	0.502	0.771	275.75	4.412
CDM-Merrimack River	Sept 2010- Low Flows	M042		9/21/2010	0.048	0.067	0.188	0.156	0.344	0.217	0.472	0.072	7.61	0.289	0.633	270.75	4.332
CDM-Merrimack River	Sept 2010- Low Flows	M043		9/21/2010	0.055	0.069	0.179	0.187	0.366	0.229	0.443	0.065	7.93	0.294	0.660	291.31	4.661
CDM-Merrimack River	Sept 2010- Low Flows	M045		9/21/2010	0.032	0.048	0.146	0.189	0.335	0.233	0.458	0.065	8.28	0.298	0.633	283.44	4.535
CDM-Merrimack River	Sept 2010- Low Flows	M047		9/21/2010	0.020	0.034	0.094	0.200	0.294	0.242	0.398	0.051	9.01	0.294	0.588	248.19	3.971
CDM-Merrimack River	Sept 2010- Low Flows	M048		9/21/2010	0.026	0.039	0.133	0.224	0.357	0.372	0.411	0.060	7.99	0.432	0.790	239.69	3.835
CDM-Merrimack River	Sept 2010- Low Flows	M049		9/21/2010	0.025	0.041	0.115	0.221	0.336	0.261	0.344	0.042	9.44	0.303	0.639	248.81	3.981
CDM-Merrimack River	Sept 2010- Low Flows	M050		9/21/2010	0.027	0.035	0.117	0.245	0.362	0.271	0.254	0.027	10.96	0.298	0.660	268.375	4.294
CDM-Merrimack River	Sept 2010- Low Flows	M051		9/21/2010	0.032	0.037	0.138	0.260	0.398	0.267	0.184	0.019	11.00	0.286	0.685	232.75	3.724
CDM-Merrimack River	Sept 2010- Low Flows	M052		9/21/2010	0.031	0.041	0.158	0.269	0.427	0.270	0.217	0.025	10.31	0.295	0.722	259.38	4.15
CDM-Merrimack River	Sept 2010- Low Flows	M053		9/21/2010	0.030	0.038	0.166	0.265	0.431	0.258	0.380	0.047	9.53	0.304	0.736	247.5625	3.961
CDM-Merrimack River	Sept 2010- Low Flows	M054		9/21/2010	0.023	0.031	0.158	0.244	0.402	0.348	0.245	0.029	9.69	0.378	0.779	228.75	3.66
CDM-Merrimack River	Sept 2010- Low Flows	M055		9/21/2010	0.023	0.033	0.131	0.265	0.397	0.548	0.383	0.055	8.06	0.604	1.001	265.88	4.254
CDM-Merrimack River	Sept 2010- Low Flows	M057		9/21/2010	0.019	0.028	0.100	0.288	0.388	0.349	0.342	0.036	11.07	0.385	0.774	287.75	4.604
CDM-Merrimack River	Sept 2010- Low Flows	M058		9/21/2010	0.021	0.047	0.110	0.301	0.411	0.270	1.247	0.133	10.97	0.403	0.814	NS	NS

PROJECT	EVENT	SAMPLE ID	QC	DATE	PO4 (mg/L)	TP (mg/L)	NH4 (mg/L)	NOX (mg/L)	DIN (mg/L)	DON (mg/L)	POC (mg/L)	PON (mg/L)	C/N Ratio	TON (mg/L)	TN (mg/L)	D.O. uM	D.O. mg/L
CDM-Merrimack River	Sept 2010- Low Flows	M060		9/21/2010	0.055	0.064	0.320	0.323	0.643	0.304	0.407	0.063	7.57	0.366	1.010	304.56	4.873
CDM-Merrimack River	Sept 2010- Low Flows	M061		9/21/2010	0.066	0.082	0.417	0.336	0.753	0.358	0.406	0.060	7.94	0.418	1.171	271.00	4.336
CDM-Merrimack River	Sept 2010- Low Flows	M062		9/21/2010	0.070	0.083	0.324	0.419	0.743	0.369	0.433	0.060	8.44	0.429	1.172	254.63	4.074
CDM-Merrimack River	Sept 2010- Low Flows	M065		9/21/2010	0.047	0.065	0.184	0.425	0.608	0.320	0.444	0.065	8.00	0.385	0.994	252.69	4.043
CDM-Merrimack River	Sept 2010- Low Flows	M066		9/21/2010	0.067	0.088	0.218	0.501	0.719	0.290	0.498	0.060	9.70	0.350	1.069	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	M067		9/21/2010	0.060	0.078	0.191	0.486	0.677	0.476	0.384	0.054	8.24	0.530	1.206	244.63	3.914
CDM-Merrimack River	Sept 2010- Low Flows	M070		9/21/2010	0.048	0.067	0.155	0.515	0.671	0.389	0.423	0.062	7.96	0.451	1.122	259.69	4.155
CDM-Merrimack River	Sept 2010- Low Flows	M071		9/21/2010	0.053	0.076	0.330	0.606	0.937	0.416	0.480	0.066	8.51	0.482	1.419	241.50	3.864
CDM-Merrimack River	Sept 2010- Low Flows	M072		9/21/2010	0.071	0.102	0.494	0.721	1.215	0.418	0.504	0.072	8.13	0.490	1.705	250.81	4.013
CDM-Merrimack River	Sept 2010- Low Flows	T002		9/21/2010	0.002	0.008	0.003	0.157	0.160	0.188	0.113	0.009	14.44	0.197	0.357	323.06	5.169
CDM-Merrimack River	Sept 2010- Low Flows	T003		9/21/2010	0.015	0.026	0.102	0.208	0.310	0.223	0.181	0.015	13.71	0.238	0.548	320.81	5.133
CDM-Merrimack River	Sept 2010- Low Flows	T004		9/21/2010	0.014	0.022	0.088	0.181	0.269	0.183	0.141	0.015	11.09	0.198	0.467	312.38	4.998
CDM-Merrimack River	Sept 2010- Low Flows	T010		9/21/2010	<0.003	0.006	0.038	0.114	0.153	0.166	0.205	0.017	13.87	0.183	0.336	291.56	4.665
CDM-Merrimack River	Sept 2010- Low Flows	T011		9/21/2010	<0.003	0.009	0.010	0.099	0.109	0.198	0.377	0.037	11.78	0.235	0.344	286.69	4.587
CDM-Merrimack River	Sept 2010- Low Flows	T015		9/21/2010	<0.003	0.009	0.009	0.010	0.019	0.246	0.283	0.029	11.32	0.275	0.294	265.31	4.245
CDM-Merrimack River	Sept 2010- Low Flows	T021		9/21/2010	<0.003	0.005	0.013	0.014	0.027	0.226	0.214	0.023	10.96	0.249	0.275	258.56	4.137
CDM-Merrimack River	Sept 2010- Low Flows	T022		9/21/2010	<0.003	0.004	0.003	0.094	0.096	0.197	0.224	0.024	11.06	0.221	0.317	297.13	4.754
CDM-Merrimack River	Sept 2010- Low Flows	T027		9/21/2010	0.005	0.012	0.034	0.380	0.415	0.172	0.461	0.045	12.08	0.216	0.631	251.56	4.025
CDM-Merrimack River	Sept 2010- Low Flows	T028		9/21/2010	<0.003	0.013	0.011	0.012	0.023	0.379	0.313	0.037	9.74	0.416	0.439	279.94	4.479
CDM-Merrimack River	Sept 2010- Low Flows	T035		9/21/2010	<0.003	0.010	0.014	0.047	0.062	0.281	0.210	0.028	8.89	0.309	0.370	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	T044		9/21/2010	0.002	0.010	0.002	0.288	0.290	0.170	0.225	0.028	9.24	0.198	0.488	313.06	5.009
CDM-Merrimack River	Sept 2010- Low Flows	T046		9/21/2010	0.013	0.032	0.064	0.181	0.245	0.293	0.560	0.074	8.82	0.367	0.612	263.63	4.218
CDM-Merrimack River	Sept 2010- Low Flows	T056		9/21/2010	<0.003	0.013	0.015	0.335	0.350	0.262	0.339	0.044	8.92	0.307	0.657	268.88	4.302
CDM-Merrimack River	Sept 2010- Low Flows	T059		9/21/2010	0.004	0.018	0.022	0.065	0.086	0.337	ND	ND	ND	ND	ND	257.81	4.125
CDM-Merrimack River	Sept 2010- Low Flows	T064		9/21/2010	0.018	0.043	0.061	0.652	0.713	0.375	0.541	0.077	8.22	0.452	1.164	345.31	5.525
CDM-Merrimack River	Sept 2010- Low Flows	T068		9/21/2010	0.005	0.017	0.020	0.874	0.894	0.532	0.736	0.095	9.01	0.627	1.521	282.31	4.517
CDM-Merrimack River	Sept 2010- Low Flows	T069		9/21/2010	0.005	0.023	0.055	0.344	0.399	0.463	0.594	0.075	9.28	0.538	0.937	248.88	3.982
CDM-Merrimack River	Sept 2010- Low Flows	M101B	BLANK	9/21/2010	<0.003	0.002	0.017	0.001	0.018	0.078	0.051	0.003	17.64	0.081	0.099	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	M109B	BLANK	9/21/2010	<0.003	<0.002	0.015	<0.001	0.016	0.118	0.050	0.004	14.31	0.122	0.138	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	M128B	BLANK	9/21/2010	<0.003	0.002	0.011	0.001	0.012	0.080	0.074	0.005	16.94	0.085	0.097	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	M141B	BLANK	9/21/2010	<0.003	0.002	0.014	<0.001	0.014	0.066	0.063	0.007	10.80	0.072	0.086	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	M165B	BLANK	9/21/2010	<0.003	<0.002	0.014	0.001	0.015	0.097	0.053	0.005	13.14	0.102	0.117	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	M201D	DUP	9/21/2010	<0.003	0.010	0.145	0.127	0.272	0.260	0.126	0.012	12.10	0.273	0.544	315.1875	5.043
CDM-Merrimack River	Sept 2010- Low Flows	M209D	DUP	9/21/2010	0.003	0.009	0.011	0.152	0.162	0.233	0.250	0.025	11.74	0.258	0.420	284.5625	4.553
CDM-Merrimack River	Sept 2010- Low Flows	M228D	DUP	9/21/2010	<0.003	0.012	0.009	0.015	0.023	0.281	0.303	0.038	9.39	0.318	0.342	300.56	4.809
CDM-Merrimack River	Sept 2010- Low Flows	M241D	DUP	9/21/2010	0.005	0.021	0.050	0.148	0.198	0.488	0.465	0.064	8.52	0.551	0.749	263.81	4.221
CDM-Merrimack River	Sept 2010- Low Flows	M265D	DUP	9/21/2010	0.051	0.066	0.173	0.446	0.619	0.336	0.379	0.054	8.26	0.389	1.008	238.94	3.823
CDM-Merrimack River	Sept 2010- Low Flows	M301R	RINSE	9/21/2010	<0.003	<0.002	0.020	0.001	0.021	0.116	0.051	0.002	26.38	0.118	0.139	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	M309R	RINSE	9/21/2010	<0.003	<0.002	0.013	0.001	0.014	0.110	0.050	0.004	15.92	0.113	0.127	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	M328R	RINSE	9/21/2010	<0.003	0.002	0.018	0.002	0.020	0.121	0.109	0.011	11.77	0.131	0.151	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	M341R	RINSE	9/21/2010	<0.003	0.002	0.023	0.005	0.028	0.291	0.111	0.012	10.57	0.303	0.331	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	M365R	RINSE	9/21/2010	<0.003	<0.002	0.034	0.003	0.036	0.207	0.068	0.005	15.29	0.213	0.249	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	ALLENS/SUNCOOK		9/22/2010	7.422	9.045	3.753	8.759	12.512	2.817	10.545	1.793	6.86	4.610	17.122	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	BRISTOL		9/22/2010	5.163	5.153	0.590	20.459	21.050	0.919	3.094	0.567	6.37	1.486	22.536	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	DERRY		9/22/2010	4.836	5.011	1.541	16.314	17.854	0.010	4.571	0.598	8.91	0.608	18.463	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	HALL ST		9/22/2010	4.179	4.698	28.810	0.550	29.360	<0.001	6.324	1.127	6.55	1.127	29.336	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	HOOKSETT		9/22/2010	3.845	4.456	30.215	0.479	30.695	<0.001	11.145	2.239	5.81	2.239	30.488	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	LINCOLN		9/22/2010	3.969	3.587	21.451	1.899	23.350	<0.001	3.192	0.510	7.30	0.510	22.186	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	MANCH		9/22/2010	3.269	3.324	21.036	3.678	24.714	<0.001	5.508	1.065	6.03	1.066	24.483	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	MERR		9/22/2010	0.426	0.827	0.223	12.951	13.173	1.150	2.786	0.316	10.30	1.465	14.639	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	MERR CO		9/22/2010	9.099	8.963	6.121	3.303	9.425	1.880	2.162	0.251	10.05	2.131	11.556	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	NASHUA		9/22/2010	1.869	2.155	21.724	17.517	39.241	<0.001	3.421	0.636	6.28	0.636	37.939	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	PENA		9/22/2010	3.522	4.175	1.203	1.833	3.036	1.468	3.832	0.623	7.18	2.091	5.127	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	PLYVILL		9/22/2010	5.246	5.495	10.153	14.041	24.194	0.149	5.701	0.923	7.21	1.072	25.266	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	WINN/FRANKLIN		9/22/2010	4.010	4.518	23.578	6.111	29.689	1.256	4.635	0.761	7.11	2.017	31.706	NS	NS
CDM-Merrimack River	Sept 2010- Low Flows	WOODSTOCK		9/22/2010	2.528	2.670	0.161	7.088	7.249	0.917	2.643	0.432	7.14	1.349	8.598	NS	NS

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Water Microbiology Laboratory Report

September 27, 2010

Jamie Lefkowitz
Water Sources Manager
600 Suffolk Street, 5th Floor
Lowell, MA 01854

Project Number: 10070046

Project: Merrimack River
Analysis: E. Coli Defined Substrate
Analyst: Nathan Raines

Date Samples Received by the Laboratory: 07/27/2010

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I method, A107 / 9223.

If you have any questions please call me at 617-918-8609.

Sincerely,

David F. McDonald
Biology Laboratory Manager

Water Microbiology Laboratory
Data Qualifier Codes

J = Estimate
H = Exceeds holding time
I = Exceeds incubation time
At = Atypical overgrowth
S = Lost sample
V = Insufficient sample volume
TNTC = Too numerous to count
MB = Media blank
+++ = Positive control
- - - = Negative control
SP = Spiked Sample
L = Estimated, result below reporting limit (RL)
ND = Not Detected, result less than RL
D = Lab Duplicate
P = Plate counts outside preferred range

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

Merrimack River

E. Coli Defined Substrate

Matrix: Water

Sample Number	Lab ID	Date of Collection	Date of Analysis	Compound	Concentration MPN/100 mL	RL MPN/100 mL	Qualifier
M001	AB08289	07/27/10 9:20 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**34**	4	J H
M006	AB08262	07/27/10 7:23 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**8**	4	
M013	AB08260	07/27/10 6:01 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**58**	4	
M016	AB08258	07/27/10 5:02 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**73**	4	J H
M017	AB08257	07/27/10 5:46 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**30**	4	J H
M018	AB08265	07/27/10 8:57 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**4**	4	
M019	AB08259	07/27/10 7:58 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**4**	4	
M020	AB08287	07/27/10 11:20 a	07/27/10 12:20 pm	E. Coli Defined Substrate	**12**	4	
M023	AB08256	07/27/10 7:02 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**34**	4	
M024	AB08288	07/27/10 8:47 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**30**	4	J H
M025	AB08255	07/27/10 7:49 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**30**	4	
M029	AB08284	07/27/10 12:10 p	07/27/10 12:20 pm	E. Coli Defined Substrate	**16**	4	
M030	AB08269	07/27/10 6:25 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**73**	4	
M032	AB08286	07/27/10 9:30 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**53**	4	J H
M033	AB08272	07/27/10 7:30 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**68**	4	
M034	AB08273	07/27/10 8:00 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**64**	4	
M037	AB08270	07/27/10 6:40 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**54**	4	
M038	AB08285	07/27/10 10:45 a	07/27/10 12:20 pm	E. Coli Defined Substrate	**68**	4	
M039	AB08279	07/27/10 11:23 a	07/27/10 12:20 pm	E. Coli Defined Substrate	**80**	4	
M040	AB08282	07/27/10 11:58 a	07/27/10 12:20 pm	E. Coli Defined Substrate	**74**	4	
M041	AB08283	07/27/10 9:55 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**68**	4	
M042	AB08281	07/27/10 9:20 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**64**	4	
M047-G	AB08248	07/27/10 5:58 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**34**	4	J H
M048-G	AB08249	07/27/10 6:07 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**8**	4	
M049-G	AB08250	07/27/10 6:21 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**16**	4	J H
M04S-G	AB08246	07/27/10 6:33 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**30**	4	J H
M050	AB08277	07/27/10 10:30 a	07/27/10 12:20 pm	E. Coli Defined Substrate	ND	4	
M051	AB08276	07/27/10 9:48 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**12**	4	
M052	AB08278	07/27/10 8:13 an	07/27/10 12:20 pm	E. Coli Defined Substrate	ND	4	
M053	AB08274	07/27/10 7:40 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**4**	4	
M054	AB08275	07/27/10 7:30 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**4**	4	
M055	AB08253	07/27/10 8:45 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**8**	4	
M058	AB08252	07/27/10 7:02 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**85**	4	
M061	AB08298	07/27/10 2:00 pr	07/27/10 12:20 pm	E. Coli Defined Substrate	**25**	4	
M062	AB08297	07/27/10 12:00 p	07/27/10 12:20 pm	E. Coli Defined Substrate	**30**	4	
M063	AB08296	07/27/10 12:30 p	07/27/10 3:35 pm	E. Coli Defined Substrate	**44**	4	
M065	AB08300	07/27/10 10:55 a	07/27/10 12:20 pm	E. Coli Defined Substrate	**122**	4	
M066	AB08266	07/27/10 5:44 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**49**	4	J H
M071	AB08267	07/27/10 7:10 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**30**	4	
M140	AB08280	07/27/10 12:30 p	07/27/10 2:00 pm	E. Coli Defined Substrate	ND	4	
M165	AB08299	07/27/10 9:20 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**16**	4	J H
M2T004-D	AB08291	07/27/10 11:04 a	07/27/10 12:20 pm	E. Coli Defined Substrate	**4**	4	
M3T004 B	AB08292	07/27/10 12:00 p	07/27/10 12:20 pm	E. Coli Defined Substrate	ND	4	
MIT004 B	AB08293	07/27/10 12:00 p	07/27/10 12:20 pm	E. Coli Defined Substrate	ND	4	
T002	AB08264	07/27/10 6:12 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**4**	4	J H
T003	AB08263	07/27/10 6:56 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**34**	4	
T004	AB08290	07/27/10 10:30 a	07/27/10 12:20 pm	E. Coli Defined Substrate	**4**	4	

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

Merrimack River

E. Coli Defined Substrate

Matrix: Water

Sample Number	Lab ID	Date of Collection	Date of Analysis	Compound	Concentration MPN/100 mL	RL MPN/100 mL	Qualifier
T010-G	AB08294	07/27/10 12:30 p	07/27/10 3:35 pm	E. Coli Defined Substrate	**8**	4	
T011	AB08261	07/27/10 6:54 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**127**	4	
T015-G	AB08295	07/27/10 11:30 a	07/27/10 12:20 pm	E. Coli Defined Substrate	**54**	4	
T028	AB08268	07/27/10 5:21 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**80**	4	J H
T035	AB08271	07/27/10 7:10 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**39**	4	
T046-G	AB08247	07/27/10 5:46 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**115**	4	J H
T056	AB08254	07/27/10 7:50 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**131**	4	
T064	AB08251	07/27/10 5:35 an	07/27/10 12:20 pm	E. Coli Defined Substrate	**54**	4	J H

Number of Samples: 55

Low Flow Event #2 - Eastern Analytical Laboratory Reported Data

EAI Sample ID:	Client Project ID:	Client Sample ID:	Matrix	Parameter	Result	Units	Date of Analysis	Date of Sampling	Analytical Method	CAS#	Laboratory ID	Laboratory Name	Laboratory Federal ID#	Detection Limit
92912.01	Merrimack	M052	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.01	Merrimack	M052	AqTot	CBOD	< 3	mg/L	9/21/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.01	Merrimack	M052	AqTot	Chlorophyll a	1.3	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.02	Merrimack	M062	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.02	Merrimack	M062	AqTot	CBOD	< 3	mg/L	9/21/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.02	Merrimack	M062	AqTot	Chlorophyll a	2.9	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.03	Merrimack	M058	AqTot	Solids Suspended	12	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.03	Merrimack	M058	AqTot	CBOD	< 3	mg/L	9/21/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.03	Merrimack	M058	AqTot	Chlorophyll a	6.0	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.04	Merrimack	M048	AqTot	Solids Suspended	2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.04	Merrimack	M048	AqTot	CBOD	< 3	mg/L	9/21/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.04	Merrimack	M048	AqTot	Chlorophyll a	2.7	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.05	Merrimack	M041	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.05	Merrimack	M041	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.05	Merrimack	M041	AqTot	CBOD-20	< 3	mg/L	9/22/2010	9/21/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.05	Merrimack	M041	AqTot	Chlorophyll a	3.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.06	Merrimack	M141	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.06	Merrimack	M141	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.06	Merrimack	M141	AqTot	CBOD-20	< 3	mg/L	9/22/2010	9/21/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.06	Merrimack	M141	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.07	Merrimack	M241	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.07	Merrimack	M241	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.07	Merrimack	M241	AqTot	CBOD-20	< 3	mg/L	9/22/2010	9/21/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.07	Merrimack	M241	AqTot	Chlorophyll a	3.8	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.08	Merrimack	M341	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.08	Merrimack	M341	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.08	Merrimack	M341	AqTot	CBOD-20	< 3	mg/L	9/22/2010	9/21/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.08	Merrimack	M341	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.09	Merrimack	M009	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.09	Merrimack	M009	AqTot	CBOD	< 3	mg/L	9/21/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.09	Merrimack	M009	AqTot	Chlorophyll a	1.3	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.10	Merrimack	M006	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.10	Merrimack	M006	AqTot	CBOD	< 3	mg/L	9/21/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.10	Merrimack	M006	AqTot	Chlorophyll a	0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.11	Merrimack	M031	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.11	Merrimack	M031	AqTot	CBOD	< 3	mg/L	9/21/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.11	Merrimack	M031	AqTot	Chlorophyll a	2.3	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.12	Merrimack	M019	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.12	Merrimack	M019	AqTot	CBOD	< 3	mg/L	9/21/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.12	Merrimack	M019	AqTot	Chlorophyll a	3.4	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.13	Merrimack	T003	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.13	Merrimack	T003	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.13	Merrimack	T003	AqTot	CBOD-20	< 3	mg/L	9/22/2010	9/21/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.13	Merrimack	T003	AqTot	Chlorophyll a	0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.14	Merrimack	M033	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.14	Merrimack	M033	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.14	Merrimack	M033	AqTot	CBOD-20	< 3	mg/L	9/22/2010	9/21/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.14	Merrimack	M033	AqTot	Chlorophyll a	2.2	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.15	Merrimack	M034	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.15	Merrimack	M034	AqTot	CBOD	< 3	mg/L	9/21/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.15	Merrimack	M034	AqTot	Chlorophyll a	2.2	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.16	Merrimack	M053	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.16	Merrimack	M053	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.16	Merrimack	M053	AqTot	Chlorophyll a	1.1	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.17	Merrimack	M050	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.17	Merrimack	M050	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000

EAI Sample ID:	Client Project ID:	Client Sample ID:	Matrix	Parameter	Result	Units	Date of Analysis	Date of Sampling	Analytical Method	CAS#	Laboratory ID	Laboratory Name	Laboratory Federal ID#	Detection Limit
92912.17	Merrimack	M050	AqTot	Chlorophyll a	1.4	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.18	Merrimack	M051	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.18	Merrimack	M051	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.18	Merrimack	M051	AqTot	Chlorophyll a	1.1	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.19	Merrimack	M054	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.19	Merrimack	M054	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.19	Merrimack	M054	AqTot	Chlorophyll a	2.0	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.20	Merrimack	M039	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.20	Merrimack	M039	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.20	Merrimack	M039	AqTot	Chlorophyll a	2.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.21	Merrimack	M040	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.21	Merrimack	M040	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.21	Merrimack	M040	AqTot	Chlorophyll a	2.6	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.22	Merrimack	M042	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.22	Merrimack	M042	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.22	Merrimack	M042	AqTot	Chlorophyll a	3.1	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.23	Merrimack	T035	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.23	Merrimack	T035	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.23	Merrimack	T035	AqTot	Chlorophyll a	1.3	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.24	Merrimack	M038	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.24	Merrimack	M038	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.24	Merrimack	M038	AqTot	Chlorophyll a	2.9	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.25	Merrimack	M328	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.25	Merrimack	M328	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.25	Merrimack	M328	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.26	Merrimack	M301	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.26	Merrimack	M301	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.26	Merrimack	M301	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.27	Merrimack	T002	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.27	Merrimack	T002	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.27	Merrimack	T002	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.28	Merrimack	T011	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.28	Merrimack	T011	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.28	Merrimack	T011	AqTot	Chlorophyll a	1.1	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.29	Merrimack	M013	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.29	Merrimack	M013	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.29	Merrimack	M013	AqTot	Chlorophyll a	0.9	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.30	Merrimack	M016	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.30	Merrimack	M016	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.30	Merrimack	M016	AqTot	Chlorophyll a	1.6	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.31	Merrimack	M025	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.31	Merrimack	M025	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.31	Merrimack	M025	AqTot	Chlorophyll a	3.1	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.32	Merrimack	T028	AqTot	Solids Suspended	2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.32	Merrimack	T028	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.32	Merrimack	T028	AqTot	Chlorophyll a	1.1	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.33	Merrimack	T128	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.33	Merrimack	T128	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.33	Merrimack	T128	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.34	Merrimack	T228	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.34	Merrimack	T228	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.34	Merrimack	T228	AqTot	Chlorophyll a	0.9	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.35	Merrimack	M029	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.35	Merrimack	M029	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.35	Merrimack	M029	AqTot	Chlorophyll a	2.2	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.36	Merrimack	T010	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.36	Merrimack	T010	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.36	Merrimack	T010	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.37	Merrimack	M017	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000

EAI Sample ID:	Client Project ID:	Client Sample ID:	Matrix	Parameter	Result	Units	Date of Analysis	Date of Sampling	Analytical Method	CAS#	Laboratory ID	Laboratory Name	Laboratory Federal ID#	Detection Limit
92912.37	Merrimack	M017	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.37	Merrimack	M017	AqTot	Chlorophyll a	8.4	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.38	Merrimack	M018	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.38	Merrimack	M018	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.38	Merrimack	M018	AqTot	Chlorophyll a	4.2	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.39	Merrimack	M020	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.39	Merrimack	M020	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.39	Merrimack	M020	AqTot	Chlorophyll a	2.9	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.40	Merrimack	M023	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.40	Merrimack	M023	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.40	Merrimack	M023	AqTot	Chlorophyll a	2.7	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.41	Merrimack	M001	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.41	Merrimack	M001	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.41	Merrimack	M001	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.42	Merrimack	M201	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.42	Merrimack	M201	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.42	Merrimack	M201	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.43	Merrimack	M036	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.43	Merrimack	M036	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.43	Merrimack	M036	AqTot	Chlorophyll a	2.4	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.44	Merrimack	M037	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.44	Merrimack	M037	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.44	Merrimack	M037	AqTot	Chlorophyll a	2.7	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.45	Merrimack	M032	AqTot	Solids Suspended	< 2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-2.000
92912.45	Merrimack	M032	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.45	Merrimack	M032	AqTot	Chlorophyll a	2.6	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.46	Merrimack	M101	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.46	Merrimack	M101	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.46	Merrimack	M101	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.47	Merrimack	M309	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.47	Merrimack	M309	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.47	Merrimack	M309	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.48	Merrimack	M109	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.48	Merrimack	M109	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.48	Merrimack	M109	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.49	Merrimack	M066	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.49	Merrimack	M066	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.49	Merrimack	M066	AqTot	CBOD-20	< 3	mg/L	9/22/2010	9/21/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.49	Merrimack	M066	AqTot	Chlorophyll a	2.0	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.50	Merrimack	M071	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.50	Merrimack	M071	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.50	Merrimack	M071	AqTot	CBOD-20	< 3	mg/L	9/22/2010	9/21/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.50	Merrimack	M071	AqTot	Chlorophyll a	2.7	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.51	Merrimack	M072	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.51	Merrimack	M072	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.51	Merrimack	M072	AqTot	Chlorophyll a	2.9	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.52	Merrimack	M209	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.52	Merrimack	M209	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.52	Merrimack	M209	AqTot	Chlorophyll a	1.1	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.53	Merrimack	M030	AqTot	Solids Suspended	2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.53	Merrimack	M030	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.53	Merrimack	M030	AqTot	CBOD-20	< 3	mg/L	9/22/2010	9/21/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.53	Merrimack	M030	AqTot	Chlorophyll a	2.0	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.54	Merrimack	M049	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.54	Merrimack	M049	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.54	Merrimack	M049	AqTot	Chlorophyll a	1.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.55	Merrimack	T046	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.55	Merrimack	T046	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.55	Merrimack	T046	AqTot	Chlorophyll a	6.2	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500

EAI Sample ID:	Client Project ID:	Client Sample ID:	Matrix	Parameter	Result	Units	Date of Analysis	Date of Sampling	Analytical Method	CAS#	Laboratory ID	Laboratory Name	Laboratory Federal ID#	Detection Limit
92912.56	Merrimack	M012	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.56	Merrimack	M012	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.56	Merrimack	M012	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.57	Merrimack	M005	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.57	Merrimack	M005	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.57	Merrimack	M005	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.58	Merrimack	T004	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.58	Merrimack	T004	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.58	Merrimack	T004	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.59	Merrimack	M026	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.59	Merrimack	M026	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.59	Merrimack	M026	AqTot	Chlorophyll a	3.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.60	Merrimack	T027	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.60	Merrimack	T027	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.60	Merrimack	T027	AqTot	Chlorophyll a	0.6	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.61	Merrimack	M024	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.61	Merrimack	M024	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.61	Merrimack	M024	AqTot	Chlorophyll a	2.7	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.62	Merrimack	T068	AqTot	Solids Suspended	2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.62	Merrimack	T068	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.62	Merrimack	T068	AqTot	Chlorophyll a	4.6	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.63	Merrimack	T069	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.63	Merrimack	T069	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.63	Merrimack	T069	AqTot	Chlorophyll a	3.3	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.64	Merrimack	M070	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.64	Merrimack	M070	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.64	Merrimack	M070	AqTot	Chlorophyll a	2.0	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.65	Merrimack	M365	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.65	Merrimack	M365	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.65	Merrimack	M365	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.66	Merrimack	M045	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.66	Merrimack	M045	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.66	Merrimack	M045	AqTot	Chlorophyll a	2.8	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.67	Merrimack	M043	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.67	Merrimack	M043	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.67	Merrimack	M043	AqTot	Chlorophyll a	2.8	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.68	Merrimack	T044	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.68	Merrimack	T044	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.68	Merrimack	T044	AqTot	Chlorophyll a	0.6	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.69	Merrimack	M047	AqTot	Solids Suspended	2	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.69	Merrimack	M047	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.69	Merrimack	M047	AqTot	Chlorophyll a	2.2	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.70	Merrimack	M055	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.70	Merrimack	M055	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.70	Merrimack	M055	AqTot	Chlorophyll a	1.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.71	Merrimack	T064	AqTot	Solids Suspended	3	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.71	Merrimack	T064	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.71	Merrimack	T064	AqTot	Chlorophyll a	6.1	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.72	Merrimack	M057	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.72	Merrimack	M057	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.72	Merrimack	M057	AqTot	Chlorophyll a	1.3	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.73	Merrimack	M065	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.73	Merrimack	M065	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.73	Merrimack	M065	AqTot	Chlorophyll a	2.0	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.74	Merrimack	M265	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.74	Merrimack	M265	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.74	Merrimack	M265	AqTot	Chlorophyll a	2.0	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.75	Merrimack	M165	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.75	Merrimack	M165	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000

EAI Sample ID:	Client Project ID:	Client Sample ID:	Matrix	Parameter	Result	Units	Date of Analysis	Date of Sampling	Analytical Method	CAS#	Laboratory ID	Laboratory Name	Laboratory Federal ID#	Detection Limit
92912.75	Merrimack	M165	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.76	Merrimack	M061	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.76	Merrimack	M061	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.76	Merrimack	M061	AqTot	Chlorophyll a	1.8	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.77	Merrimack	M067	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.77	Merrimack	M067	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.77	Merrimack	M067	AqTot	Chlorophyll a	1.8	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.78	Merrimack	T056	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.78	Merrimack	T056	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.78	Merrimack	T056	AqTot	Chlorophyll a	2.6	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.79	Merrimack	T059	AqTot	Solids Suspended	1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.79	Merrimack	T059	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.79	Merrimack	T059	AqTot	Chlorophyll a	3.0	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.80	Merrimack	M060	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.80	Merrimack	M060	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.80	Merrimack	M060	AqTot	Chlorophyll a	2.2	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.81	Merrimack	T021	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.81	Merrimack	T021	AqTot	CBOD	< 3	mg/L	9/22/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.81	Merrimack	T021	AqTot	Chlorophyll a	0.6	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.82	Merrimack	M008	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.82	Merrimack	M008	AqTot	CBOD	< 3	mg/L	9/28/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.82	Merrimack	M008	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.83	Merrimack	M007	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.83	Merrimack	M007	AqTot	CBOD	< 3	mg/L	9/28/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.83	Merrimack	M007	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.84	Merrimack	T015	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.84	Merrimack	T015	AqTot	CBOD	< 3	mg/L	9/28/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.84	Merrimack	T015	AqTot	Chlorophyll a	0.8	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500
92912.85	Merrimack	T022	AqTot	Solids Suspended	< 1	mg/L	9/22/2010	9/21/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92912.85	Merrimack	T022	AqTot	CBOD	< 3	mg/L	9/28/2010	9/21/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92912.85	Merrimack	T022	AqTot	Chlorophyll a	< 0.5	mg/m3	9/21/2010	9/21/2010	10200H3		EAINH	Eastern Analytical, Inc.	03-0277639	-0.500

Low Flow Event #2 - Eastern Analytical Laboratory Reported Data

EAI Sample ID:	Client Project ID:	Client Sample ID:	Matrix	Parameter	Result	Units	Date of Analysis	Date of Sampling	Analytical Method	CAS#	Laboratory ID	Laboratory Name	Laboratory Federal ID#	Detection Limit
92989.01	Merrimack WWTF	Plymouth Village W	AqTot	Solids Suspended	12	mg/L	40445	40443	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.01	Merrimack WWTF	Plymouth Village W	AqTot	CBOD	8	mg/L	40444	40443	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-6.000
92989.01	Merrimack WWTF	Plymouth Village W	AqTot	CBOD-20	19	mg/L	40444	40443	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.02	Merrimack WWTF	Lincoln WWTF	AqTot	Solids Suspended	6	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.02	Merrimack WWTF	Lincoln WWTF	AqTot	CBOD	3	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.02	Merrimack WWTF	Lincoln WWTF	AqTot	CBOD-20	9	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.03	Merrimack WWTF	Woodstock WWTF	AqTot	Solids Suspended	5	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.03	Merrimack WWTF	Woodstock WWTF	AqTot	CBOD	< 3	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.03	Merrimack WWTF	Woodstock WWTF	AqTot	CBOD-20	5	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.04	Merrimack WWTF	Bristol WWTF	AqTot	Solids Suspended	6	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.04	Merrimack WWTF	Bristol WWTF	AqTot	CBOD	< 3	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.04	Merrimack WWTF	Bristol WWTF	AqTot	CBOD-20	6	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.05	Merrimack WWTF	Winnipesaukee Ri	AqTot	Solids Suspended	10	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.05	Merrimack WWTF	Winnipesaukee Ri	AqTot	CBOD	8	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-6.000
92989.05	Merrimack WWTF	Winnipesaukee Ri	AqTot	CBOD-20	28	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.06	Merrimack WWTF	Merrimack County	AqTot	Solids Suspended	4	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.06	Merrimack WWTF	Merrimack County	AqTot	CBOD	< 3	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.06	Merrimack WWTF	Merrimack County	AqTot	CBOD-20	7	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.07	Merrimack WWTF	Concord WWTF	AqTot	Solids Suspended	12	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.07	Merrimack WWTF	Concord WWTF	AqTot	CBOD	7	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-6.000
92989.07	Merrimack WWTF	Concord WWTF	AqTot	CBOD-20	17	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.08	Merrimack WWTF	Penacook Sewage	AqTot	Solids Suspended	8	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.08	Merrimack WWTF	Penacook Sewage	AqTot	CBOD	4	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.08	Merrimack WWTF	Penacook Sewage	AqTot	CBOD-20	8	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.09	Merrimack WWTF	Suncook / Allensto	AqTot	Solids Suspended	15	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.09	Merrimack WWTF	Suncook / Allensto	AqTot	CBOD	5	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.09	Merrimack WWTF	Suncook / Allensto	AqTot	CBOD-20	24	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.10	Merrimack WWTF	Hooksett WWTP	AqTot	Solids Suspended	25	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.10	Merrimack WWTF	Hooksett WWTP	AqTot	CBOD	19	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-6.000
92989.10	Merrimack WWTF	Hooksett WWTP	AqTot	CBOD-20	39	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.11	Merrimack WWTF	Derry WWTF	AqTot	Solids Suspended	10	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.11	Merrimack WWTF	Derry WWTF	AqTot	CBOD	< 3	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.11	Merrimack WWTF	Derry WWTF	AqTot	CBOD-20	9	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.12	Merrimack WWTF	Merrimack WWTF	AqTot	Solids Suspended	8	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.12	Merrimack WWTF	Merrimack WWTF	AqTot	CBOD	4	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.12	Merrimack WWTF	Merrimack WWTF	AqTot	CBOD-20	8	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.13	Merrimack WWTF	Nashua WWTP	AqTot	Solids Suspended	7	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.13	Merrimack WWTF	Nashua WWTP	AqTot	CBOD	4	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.13	Merrimack WWTF	Nashua WWTP	AqTot	CBOD-20	13	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.14	Merrimack WWTF	Manchester WWTF	AqTot	Solids Suspended	11	mg/L	9/24/2010	9/22/2010	2540D	z	EAINH	Eastern Analytical, Inc.	03-0277639	-1.000
92989.14	Merrimack WWTF	Manchester WWTF	AqTot	CBOD	5	mg/L	9/23/2010	9/22/2010	5210B	z	EAINH	Eastern Analytical, Inc.	03-0277639	-3.000
92989.14	Merrimack WWTF	Manchester WWTF	AqTot	CBOD-20	12	mg/L	9/23/2010	9/22/2010	5210B		EAINH	Eastern Analytical, Inc.	03-0277639	-3.000

MWH Laboratories
A Division of MWH Americas, Inc.

750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

CDM
50 Hampshire Street
Cambridge, MA 02139-1548
Attention: Jamie Lefkowitz
Fax: 617-452-8566

Date of Issue
08/21/2009

MWH LABORATORIES

ACCREDITED IN ACCORDANCE WITH nelac 01114CA

Report#: 310978
Project: MERRIMACK-RIVER
Group: DW Study

TDF: Thomas.D.French

Project Manager

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Hits Reports, Comments, QC Summary, QC Report and Regulatory Forms. This report shall not be reproduced except in full, without the written approval of the laboratory.

MWH Laboratories

750 Royal Oaks Drive Suite 100, Monrovia, Ca 91016
Phone 626-386-1100/Fax: 626-386-1101

Acknowledgement of Samples Received

CDM
50 Hampshire Street
Cambridge, MA 02139-1548
Attn: Jamie Lefkowitz
Phone: 617-452-6591

Customer Code: CDM-MA
Group #: 310978
Project #: MERRIMACK-RIVER
Sample Group: DW Study
Project Manager: Thomas.D.French
Phone: 480-778-1558

The following samples were received from you on **July 30, 2009**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample #	Sample Id	Sample Date
200907300216	AMOSKFAG ST ROUND 1	29-Jul-2009 1050

@MTBE9	@SPMELOW	Algae Enumeration
Algae Identification	CLO41PPB	Dissolved Organic Carbon
Iron Total ICAP	Manganese Total ICAP/MS	PH (H3=past HT not compliant)
Total Organic Carbon	UV absorbance at 254 nm	

200907300217	TRAVEL BLANK - HOLD	29-Jul-2009 0000

@MTBE9 TB

Test Description

@MTBE9 -- Volatile Organics by GCMS
@MTBE9 TB -- Volatile Organics by GCMS
@SPMELOW -- Taste and Odor Cmpds Low Level

MWH Laboratories
MONTGOMERY WATSON HARZA

750 Royal Oaks, Suite 100
Monrovia, California 91016
Phone: (626) 386-1100
(800) 566-5227
Fax: (626) 386-1101

CHAIN OF CUSTODY RECORD

310978

MWH LABS USE ONLY:

LOGIN COMMENTS: Rec. over Temp.

SAMPLES CHECKED AGAINST COC BY:

SAMPLES LOGGED IN BY: JM

SAMPLE TEMP WHEN REC'D AT LAB: 14 (Compliance: 6°C or Below)

CONDITION OF BLUE ICE: FROZEN ✓ PARTIALLY FROZEN ___ THAWED ___

SAMPLES REC'D DAY OF COLLECTION? ☐ (check for yes)

TO BE COMPLETED BY SAMPLER:

COMPANY, UTILITY or PROJECT:	SYSTEM #:	COMPLIANCE SAMPLES - Requires state forms (check for yes) ☐	NON-COMPLIANCE SAMPLES (check for yes) ☒
CDM MERRIMACK			REGULATION INVOLVED:
MWH LABS CLIENT CODE:	P.O.# / JOB # / PROJECT :	Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION	(eg. SDWA, Phase V, NPDES, FDA,...)
SAMPLER PRINTED NAME AND SIGNATURE: J LEFKOWITZ	TAT requested: rush by adv notice only STD___ 1 week ___ 3 day ___ 2 day___ 1 day ___	SEE ATTACHED BOTTLE ORDER FOR ANALYSES ☒ (check for yes), OR LIST ANALYSES REQUIRED BELOW (enter number of bottles sent for each test for each sample):	

Rec'd 7/29/09 07/30/09 15:53

SAMPLE DATE	SAMPLE TIME	STATION # or LOCATION	SITE NAME OR SAMPLE I.D.	MATRIX *	GRAB	COMP	SAMPLER COMMENTS
7/29	10:50A	AMOSKEAG ST	ROUND 1	RSW	✓		
	3/24			RSW	✓		
				RSW	✓		
				RSW	✓		
				RSW	✓		
				RSW	✓		
				RSW	✓		
				RSW	✓		
				RSW	✓		

This portion can be removed for recipient's records.

Date 7/29/09 FedEx Tracking Number 869081321200

Sender's Name X JAMIE LEFKOWITZ Phone 617 452-6000

Company CDM

Address 50 HAMPSHIRE ST Dept/Floor/Suite/Room

City CAMBRIDGE State MA ZIP 02139-1548

Your Internal Billing Reference 50919-66485-6162.004.102.TSK03

*** MATRIX TYPES:**

RSW = Raw Surface Water; RGW = Raw Ground Water; CFW = Chlor(am)inated Finished Water; FW = Other Finished Water; CWW = Chlorinated Waste Water; WW = Other Waste Water; BW = Bottled Water; SW = Storm Water; SO = Soil; SL = Sludge

	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
RELINQUISHED BY:	J LEFKOWITZ	JAMIE LEFKOWITZ	CDM	7/29/09	1:15 PM
RECEIVED BY:					
RELINQUISHED BY:					
RECEIVED BY:		Jaclyn Mott	MWH	7.30.09	1120
RELINQUISHED BY:					
RECEIVED BY:					

C-O-C# _____ PAGE ___ OF ___

MWH Laboratories, a Division of MWH Americas, Inc.
750 Royal Oaks Drive Suite 100
Monrovia, CA 91016 (626) 386-1100 FAX (626) 386-1124

Bottle Order for CDM, Inc.

Group#
Date Sampled
Date Received

Thomas.D.French Your MWHL Project Manager

BO #: 6722
Created By: TDF
Order Date: 06/18/2009

Sampler: please return this paper with your samples

Client Code CDM-MA
Project Code MERRIMACK-RIVER Bottle Orders
Group Name DW Study
PO# / Job#

Bottle Orders

Ship By: 06/18/2009

Ship Sample Kits to

CDM
50 Hampshire Street
Cambridge, MA 02139-1548

Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

Send Report to

CDM, Inc.
50 Hampshire Street
Cambridge, MA 02139-1548

Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

Billing Address

CDM, Inc.
50 Hampshire Street
Cambridge, MA 02139-1548

Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

# of Samples	Tests	Qteline#	Bottles - Qty for each sample, type & preservative if any	UN DOT #
1	@MTBE9		3 40ml amber glass vial 4drops 6N HCL (36%)	
1	@MTBE9 TB		2 40ml amber glass vial 4drops of 1:1 HCL + H2O	
1	@SPMELOW		4 40ml amber glass vial no preservative	
1	Algae Enumeration, Algae Identification		1 500ml poly sterilized no preservative	
1	CLO41PPB		1 125ml poly CLO4 - no preservative	
1	Dissolved Organic Carbon, UV absorbance at 254 nm		1 125ml amber glass no preservative	
1	Iron Total ICAP, Manganese Total ICAP/MS		1 250ml acid rinsed 1ml HNO3 (18%)	
1	PH (H3=past HT not compliant)		1 125ml poly no preservative	
1	Total Organic Carbon		1 125ml amber glass 0.5ml H2SO4 (50%)	

Comments

Include COC, sampling/packing, blue ice. Client is responsible for return shipment to MWH Laboratories, 750 Royal Oaks Drive, Monrovia, CA 91016. (626) 386 1100.

Code	Status	Date Shipped	Via	Tracking #	# of Coolers	Prepared By

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1 800 566 LABS (1 800 566 5227)

Laboratory Comments
Report: #310978

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

The Comments Report may be blank if there are no comments for this report.

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Laboratory
Hits Report: 310978

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

Samples Received on:
07/30/2009

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
		200907300216 AMOSKFAG ST ROUND 1				
08/11/2009 14:27	Algae Enumeration		62		#/ml	1
08/11/2009 14:27	Algae Identification		See Com		Not Appl.	
07/31/2009 22:30	Dissolved Organic Carbon		1.1		mg/L	0.3
07/30/2009 15:22	Dissolved UV Abs. at 254 nm		0.23		cm -1	0.009
07/31/2009 19:53	Geosmin		3.2		ng/L	1
08/18/2009 22:37	Iron Total ICAP		0.45	0.3	mg/L	0.02
08/10/2009 20:02	Manganese Total ICAP/MS		24	50	ug/L	2
07/30/2009 16:15	PH (H3=past HT not compliant)		6.9		Units	0.1
07/31/2009 22:55	Total Organic Carbon		5.8		mg/L	1.5

SUMMARY OF POSITIVE DATA ONLY

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Laboratory Data
Report: 310978

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

Samples Received on:
07/30/2009

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
AMOSKFAG ST ROUND 1 (200907300216)						**Sampled on 07/29/2009 1050**		
			EPA 200.8 - ICPMS Metals					
	08/10/2009 20:02	519556	(EPA 200.8)	Manganese Total ICAP/MS	24	ug/L	2	1
			EPA 200.7 - ICP Metals					
	08/18/2009 22:37	520965	(EPA 200.7)	Iron Total ICAP	0.45	mg/L	0.02	1
			SM 10900 - Algae Identification					
	08/11/2009 14:27	519805	(SM 10900)	Algae Identification	See Comments	Not Appl.		1
			SM 10200F - Algae Enumeration					
	08/11/2009 14:27	519746	(SM 10200F)	Algae Enumeration	62	#/ml	1	1
			SM5310C/E415.3 - Total Organic Carbon					
	07/31/2009 22:55	518286	(SM5310C/E415.3)	Total Organic Carbon	5.8	mg/L	1.5	5
			SM 5310C - Dissolved Organic Carbon					
	07/31/2009 22:30	518455	(SM 5310C)	Dissolved Organic Carbon	1.1	mg/L	0.3	1
			SM 5910 - Dissolved UV Abs. at 254 nm					
	07/30/2009 15:22	518443	(SM 5910)	Dissolved UV Abs. at 254 nm	0.23	cm -1	0.009	1
			SM 6040D - Taste and Odor Cmpds Low Level					
	07/31/2009 19:53	518402	(SM 6040D)	Geosmin	3.2	ng/L	1	1
	07/31/2009 19:53	518402	(SM 6040D)	Methylisoborneol	ND	ng/L	1	1
	07/31/2009 19:53	518402	(SM 6040D)	Isobutyl methoxypyrazine	115	%		1
	07/31/2009 19:53	518402	(SM 6040D)	Isopropyl methoxypyrazine	105	%		1
			EPA 314.0 - Perchlorate with 0.5 ppb DL					
	08/03/2009 23:33	518771	(EPA 314.0)	Perchlorate	ND	ug/L	0.5	1
			EPA 524.2 - Volatile Organics by GCMS					
7/31/2009	07/31/2009 19:29	518740	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
7/31/2009	07/31/2009 19:29	518740	(EPA 524.2)	1,2-Dichloroethane-d4	97	%		1
			SM4500-HB - PH (H3=past HT not compliant)					
	07/30/2009 16:15	518587	(SM4500-HB)	PH (H3=past HT not compliant)	6.9	Units	0.1	1
TRAVEL BLANK - HOLD (200907300217)						**Sampled on 07/29/2009 0000**		
			EPA 524.2 - Volatile Organics by GCMS					
7/31/2009	05/19/2009 11:55	518740	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	NA	ug/L	0.5	1
7/31/2009	05/19/2009 11:55	518740	(EPA 524.2)	1,2-Dichloroethane-d4	NA	%		1

Rounding on totals after summation.
(c) - indicates calculated results

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QC Ref # 518286 - Total Organic Carbon — **Analysis Date: 07/31/2009**
200907300216 AMOSKFAG ST ROUND 1 — Analyzed by: KXS

QC Ref # 518402 - Taste and Odor Cmpds Low Level — **Analysis Date: 07/31/2009**
200907300216 AMOSKFAG ST ROUND 1 — Analyzed by: DLO

QC Ref # 518443 - Dissolved UV Abs. at 254 nm — **Analysis Date: 07/30/2009**
200907300216 AMOSKFAG ST ROUND 1 — Analyzed by: KXS

QC Ref # 518455 - Dissolved Organic Carbon — **Analysis Date: 07/31/2009**
200907300216 AMOSKFAG ST ROUND 1 — Analyzed by: KXS

QC Ref # 518587 - PH (H3=past HT not compliant) — **Analysis Date: 07/30/2009**
200907300216 AMOSKFAG ST ROUND 1 — Analyzed by: SAR

QC Ref # 518740 - Volatile Organics by GCMS — **Analysis Date: 07/31/2009**
200907300216 AMOSKFAG ST ROUND 1 — Analyzed by: MAD
200907300217 TRAVEL BLANK - HOLD — Analyzed by: MAD

QC Ref # 518771 - Perchlorate with 0.5 ppb DL — **Analysis Date: 08/03/2009**
200907300216 AMOSKFAG ST ROUND 1 — Analyzed by: VXT

QC Ref # 519556 - ICPMS Metals — **Analysis Date: 08/10/2009**
200907300216 AMOSKFAG ST ROUND 1 — Analyzed by: LUPE

QC Ref # 519746 - Algae Enumeration — **Analysis Date: 08/11/2009**
200907300216 AMOSKFAG ST ROUND 1 — Analyzed by: NWM

QC Ref # 519805 - Algae Identification — **Analysis Date: 08/11/2009**
200907300216 AMOSKFAG ST ROUND 1 — Analyzed by: NWM

QC Ref # 520965 - ICP Metals — **Analysis Date: 08/18/2009**
200907300216 AMOSKFAG ST ROUND 1 — Analyzed by: CSK

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QC Report: 310978

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 518286 - Total Organic Carbon by SM5310C/E415.3							**Analysis Date: 07/31/2009**		
LCS3	Total Organic Carbon		5.0	4.84	mg/L	97	(90-110)		
LCS4	Total Organic Carbon		5.0	4.91	mg/L	98	(90-110)	20	1.8
MBLK	Total Organic Carbon			<0.3	mg/L				
MRL_CHK	Total Organic Carbon		0.2	0.198	mg/L	99	(50-150)		
MS_200907300095	Total Organic Carbon	3.7	4.0	7.51	mg/L	96	(80-120)		
MS_2ND_200907290483	Total Organic Carbon	1.4	2.0	3.33	mg/L	99	(80-120)		
MSD_200907300095	Total Organic Carbon	3.7	4.0	7.62	mg/L	99	(80-120)	20	2.8
QC Ref# 518402 - Taste and Odor Cmpds Low Level by SM 6040D							**Analysis Date: 07/31/2009**		
LCS1	Geosmin		10	9.99	ng/L	100	(75-125)		
MBLK	Geosmin			<1	ng/L				
MRLLW	Geosmin		1.0	0.758	ng/L	76	(50-150)		
MS_200907310063	Geosmin	1.8	10	13.3	ng/L	115	(70-130)		
MSD_200907310063	Geosmin	1.8	10	10.8	ng/L	90	(70-130)	20	**25**
LCS1	Isobutyl methoxypyrazine (I)			94.0	%	94	(50-150)		
MBLK	Isobutyl methoxypyrazine (I)			98.0	%	98	(50-150)		
MRLLW	Isobutyl methoxypyrazine (I)			84.0	%	84	(50-150)		
MS_200907310063	Isobutyl methoxypyrazine (I)			91.0	%	91	(50-150)		
MSD_200907310063	Isobutyl methoxypyrazine (I)			105	%	105	(50-150)		
LCS1	Isopropyl methoxy pyrazine (S)			101	%	101	(70-130)		
MBLK	Isopropyl methoxy pyrazine (S)			107	%	107	(70-130)		
MRLLW	Isopropyl methoxy pyrazine (S)			115	%	115	(70-130)		
MS_200907310063	Isopropyl methoxy pyrazine (S)			118	%	118	(70-130)		
MSD_200907310063	Isopropyl methoxy pyrazine (S)			102	%	102	(70-130)		
LCS1	Methylisoborneol		10	11.0	ng/L	110	(75-125)		
MBLK	Methylisoborneol			<1	ng/L				
MRLLW	Methylisoborneol		1.0	1.29	ng/L	129	(50-150)		
MS_200907310063	Methylisoborneol	ND	10	9.37	ng/L	94	(70-130)		
MSD_200907310063	Methylisoborneol	ND	10	8.98	ng/L	90	(70-130)	20	4.1
QC Ref# 518443 - Dissolved UV Abs. at 254 nm by SM 5910							**Analysis Date: 07/30/2009**		
DUP1_200907300216	UV absorbance at 254 nm	0.23		0.230	cm -1		(0-15)	15	0.0
LCS1	UV absorbance at 254 nm		0.37	0.410	cm -1	111	(83-121)		
MBLK	UV absorbance at 254 nm			<0.004	cm -1				
MRL_CHK	UV absorbance at 254 nm		0.009	0.00800	cm -1	89	(85-115)		
QC Ref# 518455 - Dissolved Organic Carbon by SM 5310C							**Analysis Date: 07/31/2009**		
LCS3	Dissolved Organic Carbon		5.0	4.84	mg/L	97	(90-110)		
LCS4	Dissolved Organic Carbon		5.0	4.91	mg/L	98	(90-110)	20	1.8
MBLK	Dissolved Organic Carbon			<0.3	mg/L				

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
(S) Indicates surrogate compound.
(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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QC Report: 310978

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(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Dissolved Organic Carbon		0.2	0.198	mg/L	99	(50-150)		
MS_200908050865	Dissolved Organic Carbon	3.7	4.0	7.51	mg/L	96	(80-120)		
MS_2ND_200908050866	Dissolved Organic Carbon	1.4	2.0	3.33	mg/L	99	(70-130)		
MSD_200908050865	Dissolved Organic Carbon	3.7	4.0	7.62	mg/L	99	(80-120)	20	2.8
QC Ref# 518587 - PH (H3=past HT not compliant) by SM4500-HB							**Analysis Date: 07/30/2009**		
DUP1_200907310119	PH (H3=past HT not compliant)	8.0		7.99	Units		(0-20)	20	0.13
LCS1	PH (H3=past HT not compliant)		6.0	6.00	Units	100	(98-102)		
LCS2	PH (H3=past HT not compliant)		6.0	6.01	Units	100	(98-102)	20	0.17
QC Ref# 518740 - Volatile Organics by GCMS by EPA 524.2							**Analysis Date: 05/19/2009**		
LCS1	1,1,1,2-Tetrachloroethane		5.0	5.47	ug/L	109	(70-130)		
LCS2	1,1,1,2-Tetrachloroethane		5.0	5.5	ug/L	110	(70-130)	20	0.55
MBLK	1,1,1,2-Tetrachloroethane			<0.25	ug/L				
MRL_CHK	1,1,1,2-Tetrachloroethane		0.5	0.490	ug/L	98	(50-150)		
LCS1	1,1,1-Trichloroethane		5.0	4.97	ug/L	99	(70-130)		
LCS2	1,1,1-Trichloroethane		5.0	5.08	ug/L	102	(70-130)	20	2.2
MBLK	1,1,1-Trichloroethane			<0.25	ug/L				
MRL_CHK	1,1,1-Trichloroethane		0.5	0.510	ug/L	102	(50-150)		
LCS1	1,1,2,2-Tetrachloroethane		5.0	4.8	ug/L	96	(70-130)		
LCS2	1,1,2,2-Tetrachloroethane		5.0	4.99	ug/L	100	(70-130)	20	3.9
MBLK	1,1,2,2-Tetrachloroethane			<0.25	ug/L				
MRL_CHK	1,1,2,2-Tetrachloroethane		0.5	0.540	ug/L	108	(50-150)		
LCS1	1,1,2-Trichloroethane		5.0	4.43	ug/L	89	(70-130)		
LCS2	1,1,2-Trichloroethane		5.0	4.82	ug/L	96	(70-130)	20	8.4
MBLK	1,1,2-Trichloroethane			<0.25	ug/L				
MRL_CHK	1,1,2-Trichloroethane		0.5	0.470	ug/L	94	(50-150)		
LCS1	1,1-Dichloroethane		5.0	4.76	ug/L	95	(70-130)		
LCS2	1,1-Dichloroethane		5.0	4.78	ug/L	96	(70-130)	20	0.42
MBLK	1,1-Dichloroethane			<0.25	ug/L				
MRL_CHK	1,1-Dichloroethane		0.5	0.490	ug/L	98	(50-150)		
LCS1	1,1-Dichloroethylene		5.0	5.53	ug/L	111	(70-130)		
LCS2	1,1-Dichloroethylene		5.0	5.54	ug/L	111	(70-130)	20	0.18
MBLK	1,1-Dichloroethylene			<0.25	ug/L				
MRL_CHK	1,1-Dichloroethylene		0.5	0.570	ug/L	114	(50-150)		
LCS1	1,1-Dichloropropene		5.0	4.81	ug/L	96	(70-130)		
LCS2	1,1-Dichloropropene		5.0	4.96	ug/L	99	(70-130)	20	3.1
MBLK	1,1-Dichloropropene			<0.25	ug/L				
MRL_CHK	1,1-Dichloropropene		0.5	0.470	ug/L	94	(50-150)		
LCS1	1,2,3-Trichlorobenzene		5.0	5.16	ug/L	103	(70-130)		

Spike recovery is already corrected for native results.
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CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	1,2,3-Trichlorobenzene		5.0	5.13	ug/L	103	(70-130)	20	0.58
MBLK	1,2,3-Trichlorobenzene			<0.25	ug/L				
MRL_CHK	1,2,3-Trichlorobenzene		0.5	0.420	ug/L	84	(50-150)		
LCS1	1,2,3-Trichloropropane		5.0	4.29	ug/L	86	(70-130)		
LCS2	1,2,3-Trichloropropane		5.0	4.66	ug/L	93	(70-130)	20	8.3
MBLK	1,2,3-Trichloropropane			<0.25	ug/L				
MRL_CHK	1,2,3-Trichloropropane		0.5	0.480	ug/L	96	(50-150)		
LCS1	1,2,4-Trichlorobenzene		5.0	5.05	ug/L	101	(70-130)		
LCS2	1,2,4-Trichlorobenzene		5.0	5.06	ug/L	101	(70-130)	20	0.20
MBLK	1,2,4-Trichlorobenzene			<0.25	ug/L				
MRL_CHK	1,2,4-Trichlorobenzene		0.5	0.450	ug/L	90	(50-150)		
LCS1	1,2,4-Trimethylbenzene		5.0	5.44	ug/L	109	(70-130)		
LCS2	1,2,4-Trimethylbenzene		5.0	5.55	ug/L	111	(70-130)	20	2.0
MBLK	1,2,4-Trimethylbenzene			<0.25	ug/L				
MRL_CHK	1,2,4-Trimethylbenzene		0.5	0.540	ug/L	108	(50-150)		
LCS1	1,2-Dichloroethane		5.0	4.46	ug/L	89	(70-130)		
LCS2	1,2-Dichloroethane		5.0	4.38	ug/L	88	(70-130)	20	1.8
MBLK	1,2-Dichloroethane			<0.25	ug/L				
MRL_CHK	1,2-Dichloroethane		0.5	0.440	ug/L	88	(50-150)		
LCS1	1,2-Dichloroethane-d4 (S)			91.4	%	91	(70-130)		
LCS2	1,2-Dichloroethane-d4 (S)			89.4	%	89	(70-130)		
MBLK	1,2-Dichloroethane-d4 (S)			96.4	%	96	(70-130)		
MRL_CHK	1,2-Dichloroethane-d4 (S)			87.6	%	88	(70-130)		
LCS1	1,2-Dichloropropane		5.0	4.4	ug/L	88	(70-130)		
LCS2	1,2-Dichloropropane		5.0	4.67	ug/L	93	(70-130)	20	6.0
MBLK	1,2-Dichloropropane			<0.25	ug/L				
MRL_CHK	1,2-Dichloropropane		0.5	0.440	ug/L	88	(50-150)		
LCS1	1,3,5-Trimethylbenzene		5.0	5.43	ug/L	109	(70-130)		
LCS2	1,3,5-Trimethylbenzene		5.0	5.69	ug/L	114	(70-130)	20	4.7
MBLK	1,3,5-Trimethylbenzene			<0.25	ug/L				
MRL_CHK	1,3,5-Trimethylbenzene		0.5	0.510	ug/L	102	(50-150)		
LCS1	1,3-Dichloropropane		5.0	4.6	ug/L	92	(70-130)		
LCS2	1,3-Dichloropropane		5.0	4.78	ug/L	96	(70-130)	20	3.8
MBLK	1,3-Dichloropropane			<0.25	ug/L				
MRL_CHK	1,3-Dichloropropane		0.5	0.500	ug/L	100	(50-150)		
LCS1	2,2-Dichloropropane		5.0	4.77	ug/L	95	(70-130)		
LCS2	2,2-Dichloropropane		5.0	4.92	ug/L	98	(70-130)	20	3.1
MBLK	2,2-Dichloropropane			<0.25	ug/L				
MRL_CHK	2,2-Dichloropropane		0.5	0.470	ug/L	94	(50-150)		

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QC Report: 310978

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	2-Butanone (MEK)		50	43.5	ug/L	87	(70-130)		
LCS2	2-Butanone (MEK)		50	48.0	ug/L	96	(70-130)	20	8.7
MBLK	2-Butanone (MEK)			<2.5	ug/L				
MRL_CHK	2-Butanone (MEK)		5.0	3.97	ug/L	79	(50-150)		
LCS1	4-Bromofluorobenzene (S)			111	%	111	(70-130)		
LCS2	4-Bromofluorobenzene (S)			112	%	112	(70-130)		
MBLK	4-Bromofluorobenzene (S)			114	%	114	(70-130)		
MRL_CHK	4-Bromofluorobenzene (S)			110	%	110	(70-130)		
LCS1	4-Methyl-2-Pentanone (MIBK)		50	43.1	ug/L	86	(70-130)		
LCS2	4-Methyl-2-Pentanone (MIBK)		50	45.5	ug/L	91	(70-130)	20	5.4
MBLK	4-Methyl-2-Pentanone (MIBK)			<2.5	ug/L				
MRL_CHK	4-Methyl-2-Pentanone (MIBK)		5.0	4.03	ug/L	81	(50-150)		
LCS1	Benzene		5.0	4.81	ug/L	96	(70-130)		
LCS2	Benzene		5.0	4.77	ug/L	95	(70-130)	20	0.84
MBLK	Benzene			<0.25	ug/L				
MRL_CHK	Benzene		0.5	0.480	ug/L	96	(50-150)		
LCS1	Bromobenzene		5.0	5.41	ug/L	108	(70-130)		
LCS2	Bromobenzene		5.0	5.54	ug/L	111	(70-130)	20	2.4
MBLK	Bromobenzene			<0.25	ug/L				
MRL_CHK	Bromobenzene		0.5	0.560	ug/L	112	(50-150)		
LCS1	Bromochloromethane		5.0	5.08	ug/L	102	(70-130)		
LCS2	Bromochloromethane		5.0	4.78	ug/L	96	(70-130)	20	6.1
MBLK	Bromochloromethane			<0.25	ug/L				
MRL_CHK	Bromochloromethane		0.5	0.420	ug/L	84	(50-150)		
LCS1	Bromodichloromethane		5.0	4.17	ug/L	83	(70-130)		
LCS2	Bromodichloromethane		5.0	4.45	ug/L	89	(70-130)	20	6.5
MBLK	Bromodichloromethane			<0.25	ug/L				
MRL_CHK	Bromodichloromethane		0.5	0.460	ug/L	92	(50-150)		
LCS1	Bromoethane		5.0	5.38	ug/L	108	(70-130)		
LCS2	Bromoethane		5.0	5.99	ug/L	120	(70-130)	20	11
MBLK	Bromoethane			<0.25	ug/L				
MRL_CHK	Bromoethane		0.5	0.540	ug/L	108	(50-150)		
LCS1	Bromoform		5.0	5.13	ug/L	103	(70-130)		
LCS2	Bromoform		5.0	4.98	ug/L	100	(70-130)	20	3.0
MBLK	Bromoform			<0.25	ug/L				
MRL_CHK	Bromoform		0.5	0.540	ug/L	108	(50-150)		
LCS1	Bromomethane (Methyl Bromide)		5.0	4.87	ug/L	97	(70-130)		
LCS2	Bromomethane (Methyl Bromide)		5.0	4.34	ug/L	87	(70-130)	20	12
MBLK	Bromomethane (Methyl Bromide)			<0.25	ug/L				

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
(S) Indicates surrogate compound.
(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 310978

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Bromomethane (Methyl Bromide)		0.5	0.450	ug/L	90	(50-150)		
LCS1	Carbon Tetrachloride		5.0	5.02	ug/L	100	(70-130)		
LCS2	Carbon Tetrachloride		5.0	5.13	ug/L	103	(70-130)	20	2.2
MBLK	Carbon Tetrachloride			<0.25	ug/L				
MRL_CHK	Carbon Tetrachloride		0.5	0.550	ug/L	110	(50-150)		
LCS1	Chlorobenzene		5.0	5.31	ug/L	106	(70-130)		
LCS2	Chlorobenzene		5.0	5.32	ug/L	106	(70-130)	20	0.19
MBLK	Chlorobenzene			<0.25	ug/L				
MRL_CHK	Chlorobenzene		0.5	0.560	ug/L	112	(50-150)		
LCS1	Chlorodibromomethane		5.0	5.19	ug/L	104	(70-130)		
LCS2	Chlorodibromomethane		5.0	4.89	ug/L	98	(70-130)	20	6.0
MBLK	Chlorodibromomethane			<0.25	ug/L				
MRL_CHK	Chlorodibromomethane		0.5	0.510	ug/L	102	(50-150)		
LCS1	Chloroethane		5.0	5.14	ug/L	103	(70-130)		
LCS2	Chloroethane		5.0	4.69	ug/L	94	(70-130)	20	9.2
MBLK	Chloroethane			<0.25	ug/L				
MRL_CHK	Chloroethane		0.5	0.550	ug/L	110	(50-150)		
LCS1	Chloroform (Trichloromethane)		5.0	4.69	ug/L	94	(70-130)		
LCS2	Chloroform (Trichloromethane)		5.0	4.84	ug/L	97	(70-130)	20	3.1
MBLK	Chloroform (Trichloromethane)			<0.25	ug/L				
MRL_CHK	Chloroform (Trichloromethane)		0.5	0.520	ug/L	104	(50-150)		
LCS1	Chloromethane(Methyl Chloride)		5.0	3.89	ug/L	78	(70-130)		
LCS2	Chloromethane(Methyl Chloride)		5.0	4.1	ug/L	82	(70-130)	20	5.3
MBLK	Chloromethane(Methyl Chloride)			<0.25	ug/L				
MRL_CHK	Chloromethane(Methyl Chloride)		0.5	0.450	ug/L	90	(50-150)		
LCS1	cis-1,2-Dichloroethylene		5.0	5.14	ug/L	103	(70-130)		
LCS2	cis-1,2-Dichloroethylene		5.0	5.27	ug/L	105	(70-130)	20	2.5
MBLK	cis-1,2-Dichloroethylene			<0.25	ug/L				
MRL_CHK	cis-1,2-Dichloroethylene		0.5	0.520	ug/L	104	(50-150)		
LCS1	cis-1,3-Dichloropropene		5.0	4.44	ug/L	89	(70-130)		
LCS2	cis-1,3-Dichloropropene		5.0	4.37	ug/L	87	(70-130)	20	1.6
MBLK	cis-1,3-Dichloropropene			<0.25	ug/L				
MRL_CHK	cis-1,3-Dichloropropene		0.5	0.490	ug/L	98	(50-150)		
LCS1	Di-isopropyl ether		5.0	4.44	ug/L	89	(70-130)		
LCS2	Di-isopropyl ether		5.0	4.38	ug/L	88	(70-130)	20	1.4
MBLK	Di-isopropyl ether			<1.5	ug/L				
MRL_CHK	Di-isopropyl ether		0.5	0.450	ug/L	90	(50-150)		
LCS1	Dibromomethane		5.0	5.02	ug/L	100	(70-130)		
LCS2	Dibromomethane		5.0	4.86	ug/L	97	(70-130)	20	3.2

Spike recovery is already corrected for native results.
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RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 310978

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Dibromomethane			<0.25	ug/L				
MRL_CHK	Dibromomethane		0.5	0.500	ug/L	100	(50-150)		
LCS1	Dichlorodifluoromethane		5.0	5.72	ug/L	114	(70-130)		
LCS2	Dichlorodifluoromethane		5.0	5.68	ug/L	114	(70-130)	20	0.70
MBLK	Dichlorodifluoromethane			<0.25	ug/L				
MRL_CHK	Dichlorodifluoromethane		0.5	0.530	ug/L	106	(50-150)		
LCS1	Dichloromethane		5.0	4.91	ug/L	98	(70-130)		
LCS2	Dichloromethane		5.0	5.03	ug/L	101	(70-130)	20	2.4
MBLK	Dichloromethane			<0.25	ug/L				
MRL_CHK	Dichloromethane		0.5	0.550	ug/L	110	(50-150)		
LCS1	Ethyl benzene		5.0	5.19	ug/L	104	(70-130)		
LCS2	Ethyl benzene		5.0	5.5	ug/L	110	(70-130)	20	5.8
MBLK	Ethyl benzene			<0.25	ug/L				
MRL_CHK	Ethyl benzene		0.5	0.510	ug/L	102	(50-150)		
LCS1	Hexachlorobutadiene		5.0	4.83	ug/L	97	(70-130)		
LCS2	Hexachlorobutadiene		5.0	4.92	ug/L	98	(70-130)	20	1.9
MBLK	Hexachlorobutadiene			<0.25	ug/L				
MRL_CHK	Hexachlorobutadiene		0.5	0.480	ug/L	96	(50-150)		
LCS1	Isopropylbenzene		5.0	6.6	ug/L	**132**	(70-130)		
LCS2	Isopropylbenzene		5.0	6.9	ug/L	**138**	(70-130)	20	4.4
MBLK	Isopropylbenzene			<0.25	ug/L				
MRL_CHK	Isopropylbenzene		0.5	0.540	ug/L	108	(50-150)		
LCS1	m,p-Xylenes		10	10.4	ug/L	104	(70-130)		
LCS2	m,p-Xylenes		10	10.8	ug/L	108	(70-130)	20	3.8
MBLK	m,p-Xylenes			<0.25	ug/L				
MRL_CHK	m,p-Xylenes		1.0	0.880	ug/L	88	(50-150)		
LCS1	m-Dichlorobenzene (1,3-DCB)		5.0	5.27	ug/L	105	(70-130)		
LCS2	m-Dichlorobenzene (1,3-DCB)		5.0	5.67	ug/L	113	(70-130)	20	7.3
MBLK	m-Dichlorobenzene (1,3-DCB)			<0.25	ug/L				
MRL_CHK	m-Dichlorobenzene (1,3-DCB)		0.5	0.520	ug/L	104	(50-150)		
LCS1	Methyl Tert-butyl ether (MTBE)		5.0	4.56	ug/L	91	(70-130)		
LCS2	Methyl Tert-butyl ether (MTBE)		5.0	4.72	ug/L	94	(70-130)	20	3.5
MBLK	Methyl Tert-butyl ether (MTBE)			<0.25	ug/L				
MRL_CHK	Methyl Tert-butyl ether (MTBE)		0.5	0.430	ug/L	86	(50-150)		
LCS1	n-Butylbenzene		5.0	4.59	ug/L	92	(70-130)		
LCS2	n-Butylbenzene		5.0	4.63	ug/L	93	(70-130)	20	0.87
MBLK	n-Butylbenzene			<0.25	ug/L				
MRL_CHK	n-Butylbenzene		0.5	0.420	ug/L	84	(50-150)		
LCS1	n-Propylbenzene		5.0	5.68	ug/L	114	(70-130)		

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(S) Indicates surrogate compound.
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RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 310978

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	n-Propylbenzene		5.0	5.82	ug/L	116	(70-130)	20	2.4
MBLK	n-Propylbenzene			<0.25	ug/L				
MRL_CHK	n-Propylbenzene		0.5	0.550	ug/L	110	(50-150)		
LCS1	Naphthalene		5.0	4.65	ug/L	93	(70-130)		
LCS2	Naphthalene		5.0	4.78	ug/L	96	(70-130)	20	2.8
MBLK	Naphthalene			<0.25	ug/L				
MRL_CHK	Naphthalene		0.5	0.600	ug/L	120	(50-150)		
LCS1	o-Chlorotoluene		5.0	5.53	ug/L	111	(70-130)		
LCS2	o-Chlorotoluene		5.0	5.76	ug/L	115	(70-130)	20	4.1
MBLK	o-Chlorotoluene			<0.25	ug/L				
MRL_CHK	o-Chlorotoluene		0.5	0.590	ug/L	118	(50-150)		
LCS1	o-Dichlorobenzene (1,2-DCB)		5.0	4.88	ug/L	98	(70-130)		
LCS2	o-Dichlorobenzene (1,2-DCB)		5.0	4.93	ug/L	99	(70-130)	20	1.0
MBLK	o-Dichlorobenzene (1,2-DCB)			<0.25	ug/L				
MRL_CHK	o-Dichlorobenzene (1,2-DCB)		0.5	0.520	ug/L	104	(50-150)		
LCS1	o-Xylene		5.0	4.99	ug/L	100	(70-130)		
LCS2	o-Xylene		5.0	5.24	ug/L	105	(70-130)	20	4.9
MBLK	o-Xylene			<0.25	ug/L				
MRL_CHK	o-Xylene		0.5	0.500	ug/L	100	(50-150)		
LCS1	p-Chlorotoluene		5.0	5.49	ug/L	110	(70-130)		
LCS2	p-Chlorotoluene		5.0	5.62	ug/L	112	(70-130)	20	2.3
MBLK	p-Chlorotoluene			<0.25	ug/L				
MRL_CHK	p-Chlorotoluene		0.5	0.530	ug/L	106	(50-150)		
LCS1	p-Dichlorobenzene (1,4-DCB)		5.0	5.38	ug/L	108	(70-130)		
LCS2	p-Dichlorobenzene (1,4-DCB)		5.0	5.65	ug/L	113	(70-130)	20	4.9
MBLK	p-Dichlorobenzene (1,4-DCB)			<0.25	ug/L				
MRL_CHK	p-Dichlorobenzene (1,4-DCB)		0.5	0.520	ug/L	104	(50-150)		
LCS1	p-Isopropyltoluene		5.0	5.33	ug/L	107	(70-130)		
LCS2	p-Isopropyltoluene		5.0	5.33	ug/L	107	(70-130)	20	0.0
MBLK	p-Isopropyltoluene			<0.25	ug/L				
MRL_CHK	p-Isopropyltoluene		0.5	0.500	ug/L	100	(50-150)		
LCS1	sec-Butylbenzene		5.0	5.44	ug/L	109	(70-130)		
LCS2	sec-Butylbenzene		5.0	5.51	ug/L	110	(70-130)	20	1.3
MBLK	sec-Butylbenzene			<0.25	ug/L				
MRL_CHK	sec-Butylbenzene		0.5	0.540	ug/L	108	(50-150)		
LCS1	Styrene		5.0	4.13	ug/L	83	(70-130)		
LCS2	Styrene		5.0	4.39	ug/L	88	(70-130)	20	6.1
MBLK	Styrene			<0.25	ug/L				
MRL_CHK	Styrene		0.5	0.430	ug/L	86	(50-150)		

Spike recovery is already corrected for native results.
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(S) Indicates surrogate compound.
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RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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QC Report: 310978

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	tert-amyl Methyl Ether		5.0	4.3	ug/L	86	(70-130)		
LCS2	tert-amyl Methyl Ether		5.0	4.45	ug/L	89	(70-130)	20	3.4
MBLK	tert-amyl Methyl Ether			<1.5	ug/L				
MRL_CHK	tert-amyl Methyl Ether		0.5	0.400	ug/L	80	(50-150)		
LCS1	tert-Butyl Ethyl Ether		5.0	4.37	ug/L	87	(70-130)		
LCS2	tert-Butyl Ethyl Ether		5.0	4.58	ug/L	92	(70-130)	20	4.7
MBLK	tert-Butyl Ethyl Ether			<1.5	ug/L				
MRL_CHK	tert-Butyl Ethyl Ether		0.5	0.400	ug/L	80	(50-150)		
LCS1	tert-Butylbenzene		5.0	5.26	ug/L	105	(70-130)		
LCS2	tert-Butylbenzene		5.0	5.37	ug/L	107	(70-130)	20	2.1
MBLK	tert-Butylbenzene			<0.25	ug/L				
MRL_CHK	tert-Butylbenzene		0.5	0.540	ug/L	108	(50-150)		
LCS1	Tetrachloroethylene (PCE)		5.0	5.37	ug/L	107	(70-130)		
LCS2	Tetrachloroethylene (PCE)		5.0	5.35	ug/L	107	(70-130)	20	0.37
MBLK	Tetrachloroethylene (PCE)			<0.25	ug/L				
MRL_CHK	Tetrachloroethylene (PCE)		0.5	0.580	ug/L	116	(50-150)		
LCS1	Toluene		5.0	5.06	ug/L	101	(70-130)		
LCS2	Toluene		5.0	5.13	ug/L	103	(70-130)	20	1.4
MBLK	Toluene			<0.25	ug/L				
MRL_CHK	Toluene		0.5	0.530	ug/L	106	(50-150)		
LCS1	Toluene-d8 (S)			102	%	102	(70-130)		
LCS2	Toluene-d8 (S)			103	%	103	(70-130)		
MBLK	Toluene-d8 (S)			104	%	104	(70-130)		
MRL_CHK	Toluene-d8 (S)			109	%	109	(70-130)		
LCS1	trans-1,2-Dichloroethylene		5.0	5.63	ug/L	113	(70-130)		
LCS2	trans-1,2-Dichloroethylene		5.0	5.47	ug/L	109	(70-130)	20	2.9
MBLK	trans-1,2-Dichloroethylene			<0.25	ug/L				
MRL_CHK	trans-1,2-Dichloroethylene		0.5	0.500	ug/L	100	(50-150)		
LCS1	trans-1,3-Dichloropropene		5.0	4.52	ug/L	90	(70-130)		
LCS2	trans-1,3-Dichloropropene		5.0	4.28	ug/L	86	(70-130)	20	5.5
MBLK	trans-1,3-Dichloropropene			<0.25	ug/L				
MRL_CHK	trans-1,3-Dichloropropene		0.5	0.440	ug/L	88	(50-150)		
LCS1	Trichloroethylene (TCE)		5.0	5.28	ug/L	106	(70-130)		
LCS2	Trichloroethylene (TCE)		5.0	5.47	ug/L	109	(70-130)	20	3.5
MBLK	Trichloroethylene (TCE)			<0.25	ug/L				
MRL_CHK	Trichloroethylene (TCE)		0.5	0.540	ug/L	108	(50-150)		
LCS1	Trichlorofluoromethane		5.0	5.32	ug/L	106	(70-130)		
LCS2	Trichlorofluoromethane		5.0	5.33	ug/L	107	(70-130)	20	0.19
MBLK	Trichlorofluoromethane			<0.25	ug/L				

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RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Trichlorofluoromethane		0.5	0.440	ug/L	88	(50-150)		
LCS1	Trichlorotrifluoroethane(Freon		5.0	4.83	ug/L	97	(70-130)		
LCS2	Trichlorotrifluoroethane(Freon		5.0	4.91	ug/L	98	(70-130)	20	1.6
MBLK	Trichlorotrifluoroethane(Freon			<0.25	ug/L				
MRL_CHK	Trichlorotrifluoroethane(Freon		0.5	0.540	ug/L	108	(50-150)		
LCS1	Vinyl chloride (VC)		5.0	4.51	ug/L	90	(70-130)		
LCS2	Vinyl chloride (VC)		5.0	4.58	ug/L	92	(70-130)	20	1.5
MBLK	Vinyl chloride (VC)			<0.15	ug/L				
MRL_CHK	Vinyl chloride (VC)		0.5	0.450	ug/L	90	(50-150)		
QC Ref# 518771 - Perchlorate with 0.5 ppb DL by EPA 314.0							**Analysis Date: 08/03/2009**		
LCS1	Perchlorate- 0.5 ppb		25	24.0	ug/L	96	(85-115)		
LCS2	Perchlorate- 0.5 ppb		25	24.3	ug/L	97	(85-115)	15	1.2
MBLK	Perchlorate- 0.5 ppb			<0.25	ug/L				
MRL_CHK	Perchlorate- 0.5 ppb		0.5	0.457	ug/L	92	(70-130)		
MS1_200908041097	Perchlorate- 0.5 ppb	ND	1.0	0.834	ug/L	83	(70-130)		
MSD1_200908041097	Perchlorate- 0.5 ppb	ND	1.0	0.905	ug/L	91	(70-130)	15	8.2
QC Ref# 519556 - ICPMS Metals by EPA 200.8							**Analysis Date: 08/10/2009**		
LCS1	Antimony Total ICAP/MS		50	48.3	ug/L	97	(85-115)		
LCS2	Antimony Total ICAP/MS		50	47.9	ug/L	96	(85-115)	20	0.83
MBLK	Antimony Total ICAP/MS			<1	ug/L				
MRL_CHK	Antimony Total ICAP/MS		1.0	0.890	ug/L	89	(50-150)		
MS_200907290242	Antimony Total ICAP/MS		50	50.9	ug/L	102	(70-130)		
MS_200907290246	Antimony Total ICAP/MS		50	49.4	ug/L	99	(70-130)		
MSD_200907290242	Antimony Total ICAP/MS		50	51.6	ug/L	103	(70-130)	20	0.98
MSD_200907290246	Antimony Total ICAP/MS		50	48.8	ug/L	98	(70-130)	20	1.2
LCS1	Arsenic Total ICAP/MS		20	19.2	ug/L	96	(85-115)		
LCS2	Arsenic Total ICAP/MS		20	18.9	ug/L	95	(85-115)	20	1.6
MBLK	Arsenic Total ICAP/MS			<1	ug/L				
MRL_CHK	Arsenic Total ICAP/MS		1.0	1.25	ug/L	125	(50-150)		
MS_200907290242	Arsenic Total ICAP/MS	ND	20	20.4	ug/L	99	(70-130)		
MS_200907290246	Arsenic Total ICAP/MS	2.7	20	23.0	ug/L	101	(70-130)		
MSD_200907290242	Arsenic Total ICAP/MS	ND	20	21.1	ug/L	102	(70-130)	20	3.0
MSD_200907290246	Arsenic Total ICAP/MS	2.7	20	22.5	ug/L	99	(70-130)	20	2.3
LCS1	Barium Total ICAP/MS		100	102	ug/L	102	(85-115)		
LCS2	Barium Total ICAP/MS		100	99.4	ug/L	99	(85-115)	20	2.6
MBLK	Barium Total ICAP/MS			<2	ug/L				
MRL_CHK	Barium Total ICAP/MS		2.0	2.24	ug/L	112	(50-150)		
MS_200907290242	Barium Total ICAP/MS		100	123	ug/L	123	(70-130)		

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(S) Indicates surrogate compound.
(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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QC Report: 310978

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_200907290246	Barium Total ICAP/MS		100	99.4	ug/L	99	(70-130)		
MSD_200907290242	Barium Total ICAP/MS		100	125	ug/L	125	(70-130)	20	1.6
MSD_200907290246	Barium Total ICAP/MS		100	98.5	ug/L	99	(70-130)	20	0.91
LCS1	Cadmium Total ICAP/MS		20	19.9	ug/L	100	(85-115)		
LCS2	Cadmium Total ICAP/MS		20	19.5	ug/L	98	(85-115)	20	2.0
MBLK	Cadmium Total ICAP/MS			<0.5	ug/L				
MRL_CHK	Cadmium Total ICAP/MS		0.5	0.478	ug/L	96	(50-150)		
MS_200907290242	Cadmium Total ICAP/MS	ND	20	19.5	ug/L	98	(70-130)		
MS_200907290246	Cadmium Total ICAP/MS	ND	20	19.0	ug/L	95	(70-130)		
MSD_200907290242	Cadmium Total ICAP/MS	ND	20	19.7	ug/L	99	(70-130)	20	1.0
MSD_200907290246	Cadmium Total ICAP/MS	ND	20	18.9	ug/L	94	(70-130)	20	1.1
LCS1	Chromium Total ICAP/MS		100	95.1	ug/L	95	(85-115)		
LCS2	Chromium Total ICAP/MS		100	94.1	ug/L	94	(85-115)	20	1.1
MBLK	Chromium Total ICAP/MS			<1	ug/L				
MRL_CHK	Chromium Total ICAP/MS		1.0	1.29	ug/L	129	(50-150)		
MS_200907290242	Chromium Total ICAP/MS	1.0	100	92.4	ug/L	91	(70-130)		
MS_200907290246	Chromium Total ICAP/MS	ND	100	93.2	ug/L	93	(70-130)		
MSD_200907290242	Chromium Total ICAP/MS	1.0	100	93.3	ug/L	92	(70-130)	20	0.98
MSD_200907290246	Chromium Total ICAP/MS	ND	100	91.9	ug/L	91	(70-130)	20	1.4
LCS1	Copper Total ICAP/MS		100	93.3	ug/L	93	(85-115)		
LCS2	Copper Total ICAP/MS		100	92.2	ug/L	92	(85-115)	20	1.2
MBLK	Copper Total ICAP/MS			<2	ug/L				
MRL_CHK	Copper Total ICAP/MS		2.0	2.1	ug/L	105	(50-150)		
MS_200907290242	Copper Total ICAP/MS	4.4	100	90.3	ug/L	86	(70-130)		
MS_200907290246	Copper Total ICAP/MS	ND	100	87.0	ug/L	85	(70-130)		
MSD_200907290242	Copper Total ICAP/MS	4.4	100	90.7	ug/L	86	(70-130)	20	0.47
MSD_200907290246	Copper Total ICAP/MS	ND	100	86.2	ug/L	85	(70-130)	20	0.94
LCS1	Lead Total ICAP/MS		20	18.1	ug/L	91	(85-115)		
LCS2	Lead Total ICAP/MS		20	19.8	ug/L	99	(85-115)	20	9.0
MBLK	Lead Total ICAP/MS			<0.5	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.519	ug/L	104	(50-150)		
MS_200907290242	Lead Total ICAP/MS	0.51	20	20.9	ug/L	102	(70-130)		
MS_200907290246	Lead Total ICAP/MS	ND	20	20.5	ug/L	102	(70-130)		
MSD_200907290242	Lead Total ICAP/MS	0.51	20	21.1	ug/L	103	(70-130)	20	0.98
MSD_200907290246	Lead Total ICAP/MS	ND	20	20.3	ug/L	101	(70-130)	20	0.99
LCS1	Manganese Total ICAP/MS		50	46.5	ug/L	93	(85-115)		
LCS2	Manganese Total ICAP/MS		50	46.0	ug/L	92	(85-115)	20	1.1
MBLK	Manganese Total ICAP/MS			<2	ug/L				
MRL_CHK	Manganese Total ICAP/MS		2.0	2.08	ug/L	104	(50-150)		

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RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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QC Report: 310978

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_200907290242	Manganese Total ICAP/MS	41	50	85.0	ug/L	87	(70-130)		
MS_200907290246	Manganese Total ICAP/MS	39	50	84.2	ug/L	90	(70-130)		
MSD_200907290242	Manganese Total ICAP/MS	41	50	86.2	ug/L	90	(70-130)	20	2.6
MSD_200907290246	Manganese Total ICAP/MS	39	50	82.6	ug/L	87	(70-130)	20	3.5
LCS1	Molybdenum Total ICAP/MS		100	91.0	ug/L	91	(85-115)		
LCS2	Molybdenum Total ICAP/MS		100	91.1	ug/L	91	(85-115)	20	0.11
MBLK	Molybdenum Total ICAP/MS			<2	ug/L				
MRL_CHK	Molybdenum Total ICAP/MS		2.0	1.34	ug/L	67	(50-150)		
MS_200907290242	Molybdenum Total ICAP/MS		100	100	ug/L	100	(70-130)		
MS_200907290246	Molybdenum Total ICAP/MS		100	98.8	ug/L	99	(70-130)		
MSD_200907290242	Molybdenum Total ICAP/MS		100	102	ug/L	102	(70-130)	20	2.0
MSD_200907290246	Molybdenum Total ICAP/MS		100	98.1	ug/L	98	(70-130)	20	0.71
LCS1	Nickel Total ICAP/MS		50	46.4	ug/L	93	(85-115)		
LCS2	Nickel Total ICAP/MS		50	45.7	ug/L	91	(85-115)	20	1.5
MBLK	Nickel Total ICAP/MS			<5	ug/L				
MRL_CHK	Nickel Total ICAP/MS		5.0	5.24	ug/L	105	(50-150)		
MS_200907290242	Nickel Total ICAP/MS		50	45.9	ug/L	92	(70-130)		
MS_200907290246	Nickel Total ICAP/MS		50	46.3	ug/L	93	(70-130)		
MSD_200907290242	Nickel Total ICAP/MS		50	46.1	ug/L	92	(70-130)	20	0.54
MSD_200907290246	Nickel Total ICAP/MS		50	45.3	ug/L	91	(70-130)	20	2.1
LCS1	Selenium Total ICAP/MS		20	20.4	ug/L	102	(85-115)		
LCS2	Selenium Total ICAP/MS		20	19.9	ug/L	100	(85-115)	20	2.5
MBLK	Selenium Total ICAP/MS			<5	ug/L				
MRL_CHK	Selenium Total ICAP/MS		5.0	5.87	ug/L	117	(50-150)		
MS_200907290242	Selenium Total ICAP/MS	ND	20	21.5	ug/L	98	(70-130)		
MS_200907290246	Selenium Total ICAP/MS	ND	20	21.7	ug/L	101	(70-130)		
MSD_200907290242	Selenium Total ICAP/MS	ND	20	22.1	ug/L	101	(70-130)	20	3.5
MSD_200907290246	Selenium Total ICAP/MS	ND	20	21.0	ug/L	98	(70-130)	20	3.1
LCS1	Thallium Total ICAP/MS		20	18.3	ug/L	92	(85-115)		
LCS2	Thallium Total ICAP/MS		20	20.0	ug/L	100	(85-115)	20	8.9
MBLK	Thallium Total ICAP/MS			<1	ug/L				
MRL_CHK	Thallium Total ICAP/MS		1.0	1.26	ug/L	126	(50-150)		
MS_200907290242	Thallium Total ICAP/MS		20	20.7	ug/L	103	(70-130)		
MS_200907290246	Thallium Total ICAP/MS		20	20.7	ug/L	103	(70-130)		
MSD_200907290242	Thallium Total ICAP/MS		20	20.9	ug/L	105	(70-130)	20	1.9
MSD_200907290246	Thallium Total ICAP/MS		20	20.5	ug/L	103	(70-130)	20	0.0
QC Ref# 520965 - ICP Metals by EPA 200.7							**Analysis Date: 08/18/2009**		
LCS1	Boron Total ICAP		0.5	0.475	mg/L	95	(85-115)		
LCS2	Boron Total ICAP		0.5	0.492	mg/L	98	(85-115)	20	3.5

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(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 310978

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Boron Total ICAP			<0.05	mg/L				
MRL_CHK	Boron Total ICAP		0.05	0.0566	mg/L	113	(50-150)		
MS_200908190216	Boron Total ICAP	0.23	0.5	0.694	mg/L	93	(70-130)		
MS2_200907290244	Boron Total ICAP		0.5	0.563	mg/L	113	(70-130)		
MSD_200908190216	Boron Total ICAP	0.23	0.5	0.706	mg/L	95	(70-130)	20	2.5
MSD2_200907290244	Boron Total ICAP		0.5	0.551	mg/L	110	(70-130)	20	2.7
LCS1	Calcium Total ICAP		50	48.1	mg/L	96	(85-115)		
LCS2	Calcium Total ICAP		50	49.0	mg/L	98	(85-115)	20	1.9
MBLK	Calcium Total ICAP			<1	mg/L				
MRL_CHK	Calcium Total ICAP		1.0	1.08	mg/L	108	(50-150)		
MS_200908190216	Calcium Total ICAP	56	50	100	mg/L	89	(70-130)		
MS2_200907290244	Calcium Total ICAP		50	46.4	mg/L	93	(70-130)		
MSD_200908190216	Calcium Total ICAP	56	50	102	mg/L	92	(70-130)	20	4.0
MSD2_200907290244	Calcium Total ICAP		50	44.5	mg/L	89	(70-130)	20	4.3
LCS1	Iron Total ICAP		5.0	4.6	mg/L	92	(85-115)		
LCS2	Iron Total ICAP		5.0	4.96	mg/L	99	(85-115)	20	7.5
MBLK	Iron Total ICAP			<0.02	mg/L				
MRL_CHK	Iron Total ICAP		0.02	0.0206	mg/L	103	(50-150)		
MS_200908190216	Iron Total ICAP	0.20	5.0	4.95	mg/L	95	(70-130)		
MS2_200907290244	Iron Total ICAP	0.62	5.0	5.47	mg/L	97	(70-130)		
MSD_200908190216	Iron Total ICAP	0.20	5.0	5.05	mg/L	97	(70-130)	20	2.1
MSD2_200907290244	Iron Total ICAP	0.62	5.0	5.21	mg/L	92	(70-130)	20	5.6
LCS1	Iron Total ICAP 10 ppb		5.0	4.6	mg/L	92	(85-115)		
LCS2	Iron Total ICAP 10 ppb		5.0	4.96	mg/L	99	(85-115)	20	7.5
MBLK	Iron Total ICAP 10 ppb			<0.01	mg/L				
MRL_CHK	Iron Total ICAP 10 ppb		0.01	0.0101	mg/L	101	(50-150)		
MS_200908190216	Iron Total ICAP 10 ppb		5.0	4.75	mg/L	95	(70-130)		
MS2_200907290244	Iron Total ICAP 10 ppb		5.0	4.85	mg/L	97	(70-130)		
MSD_200908190216	Iron Total ICAP 10 ppb		5.0	4.85	mg/L	97	(70-130)	20	2.1
MSD2_200907290244	Iron Total ICAP 10 ppb		5.0	4.59	mg/L	92	(70-130)	20	5.6
LCS1	Magnesium Total ICAP		20	19.0	mg/L	95	(85-115)		
LCS2	Magnesium Total ICAP		20	19.5	mg/L	98	(85-115)	20	2.6
MBLK	Magnesium Total ICAP			<0.1	mg/L				
MRL_CHK	Magnesium Total ICAP		0.1	0.105	mg/L	105	(50-150)		
MS_200908190216	Magnesium Total ICAP	13	20	31.5	mg/L	91	(70-130)		
MS2_200907290244	Magnesium Total ICAP	11	20	30.2	mg/L	95	(70-130)		
MSD_200908190216	Magnesium Total ICAP	13	20	32.0	mg/L	93	(70-130)	20	2.7
MSD2_200907290244	Magnesium Total ICAP	11	20	29.3	mg/L	91	(70-130)	20	4.5
LCS1	Potassium Total ICAP		20	18.7	mg/L	94	(85-115)		

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CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Potassium Total ICAP		20	19.1	mg/L	96	(85-115)	20	2.1
MBLK	Potassium Total ICAP			<1	mg/L				
MRL_CHK	Potassium Total ICAP		1.0	1.03	mg/L	103	(50-150)		
MS_200908190216	Potassium Total ICAP	12	20	29.5	mg/L	90	(70-130)		
MS2_200907290244	Potassium Total ICAP		20	23.2	mg/L	116	(70-130)		
MSD_200908190216	Potassium Total ICAP	12	20	30.2	mg/L	93	(70-130)	20	3.6
MSD2_200907290244	Potassium Total ICAP		20	22.4	mg/L	112	(70-130)	20	3.5
LCS1	Sodium Total ICAP		50	47.3	mg/L	95	(85-115)		
LCS2	Sodium Total ICAP		50	48.3	mg/L	97	(85-115)	20	2.1
MBLK	Sodium Total ICAP			<1	mg/L				
MRL_CHK	Sodium Total ICAP		1.0	0.970	mg/L	97	(50-150)		
MS_200908190216	Sodium Total ICAP	91	50	134	mg/L	86	(70-130)		
MS2_200907290244	Sodium Total ICAP	44	50	90.2	mg/L	92	(70-130)		
MSD_200908190216	Sodium Total ICAP	91	50	136	mg/L	90	(70-130)	20	4.6
MSD2_200907290244	Sodium Total ICAP	44	50	88.4	mg/L	89	(70-130)	20	4.0

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RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

LONGVIEW
GROUP#310888
LAB# 200907290333

PREDOMINANT ALGAE:

Stephanodiscus 31%
Melosira 30%
Synedra 12%
Scenedesmus 8%

OTHER ALGAE:

Agmenellum
Ankistrodesmus
Closteriopsis
Coelastrum
Crucigenia
Cyclotella
Dictyosphaeria
Glenodinium
Gloeocystis
Gyrosigma
Kirchneriella
Navicula
Nitzschia
Oscillatoria
Pinnularia
Staurastrum
Treuberia
Unidentified flagellates

LONGVIEW
GROUP: 310889
LAB# 200907290334

PREDOMINANT ALGAE:

Synedra 33%
Mougeotia 21%
Unidentified flagellates 10%
Phormidium 7%

OTHER ALGAE:

Achnanthes
Anabaena
Ankistrodesmus
Aphanizomenon
Chroococcus
Closteriopsis
Closterium
Crucigenia
Cryptomonas
Glenodinium
Gloeocystis
Navicula
Nitzschia
Oscillatoria
Phacus
Scenedesmus
Staurastrum
Stephanodiscus
Trachelomonas

CDM-MA

GROUP# 310978

LAB# 200907300216

PREDOMINANT ALGAE:

Unidentified flagellates 21%
Navicula 15%
Synedra 10%
Gloeocystis 6%

OTHER ALGAE:

Achnanthes
Asterionella
Closteriopsis
Cocconeis
Cosmarium
Crucigenia
Cryptomonas
Cylindrospermopsis
Diatoma
Gloeocystis
Gomphonema
Melosira
Nitzschia
Pediastrum
Pinnularia
Scenedesmus
Stephanodiscus

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Laboratory Report

for

CDM
50 Hampshire Street
Cambridge, MA 02139-1548
Attention: Jamie Lefkowitz
Fax: 617-452-8566

Date of Issue
09/08/2009

MWH LABORATORIES

ACCREDITED IN ACCORDANCE WITH nelac 01114CA

Report#: 312922
Project: MERRIMACK-RIVER
Group: DW Study

TDF: Thomas.D.French

Project Manager

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Hits Reports, Comments, QC Summary, QC Report and Regulatory Forms. This report shall not be reproduced except in full, without the written approval of the laboratory.

MWH Laboratories

750 Royal Oaks Drive Suite 100, Monrovia, Ca 91016
Phone 626-386-1100/Fax: 626-386-1101

Acknowledgement of Samples Received

CDM
50 Hampshire Street
Cambridge, MA 02139-1548
Attn: Jamie Lefkowitz
Phone: 617-452-6591

Customer Code: CDM-MA
Group #: 312922
Project #: MERRIMACK-RIVER
Sample Group: DW Study
Project Manager: Thomas.D.French
Phone: 480-778-1558

The following samples were received from you on **August 25, 2009**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample #	Sample Id	Sample Date
200908250149	DW2	24-Aug-2009 1200

@MTBE9	@SPMELOW	Actinomycetes
Algae Enumeration	Algae Identification	CLO41PPB
Dissolved Organic Carbon	Iron Total ICAP	Manganese Total ICAP/MS
PH (H3=past HT not compliant)	Total Organic Carbon	UV absorbance at 254 nm

200908250150	MTBE - TRAVEL BLANK - HOLD	24-Aug-2009 0000

@MTBE9 TB

Test Description

@MTBE9 -- Volatile Organics by GCMS
@MTBE9 TB -- Volatile Organics by GCMS
@SPMELOW -- Taste and Odor Cmpds Low Level

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CHAIN OF CUSTODY RECORD

312922

MWH LABS USE ONLY:

LOGIN COMMENTS: _____

SAMPLES CHECKED AGAINST COC BY: JS

SAMPLES LOGGED IN BY: MD

SAMPLE TEMP WHEN REC'D AT LAB: 6° (Compliance: 4 +/- 2°C)

SAMPLES REC'D DAY OF COLLECTION? ☐ (check for yes)

CONDITION OF BLUE ICE: FROZEN ___ ✓ PARTIALLY FROZEN ___ THAWED ___

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: CDM

PROJECT CODE:

MWH LABS CLIENT CODE: | COC ID:

SAMPLE GROUP:

SAMPLER PRINTED NAME AND SIGNATURE: JAMIE LEFKOWITZ

TAT requested: rush by adv notice only
STD___ 1 wk ___ 3 day __ 2 day___ 1 day __

(check for yes) *(check for yes)*

COMPLIANCE SAMPLES - Requires state forms ☐ NON-COMPLIANCE SAMPLES ☒ REGULATION INVOLVED:

Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA,...)

SEE ATTACHED BOTTLE ORDER FOR ANALYSES ☒ (check for yes), ***OR***

list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)

SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX *	Field Data	Field Data	ALGAE	PUC-TO	ACTIN	SAMPLER COMMENTS
8/24/09	12:00PM	DW2					X	X	X	FCUP 8/25/09 11:15
	3/16									

This portion can be removed for recipient's records.

Date 8/24/2009 FedEx Tracking Number 869859229850

Sender's Name JAMIE LEFKOWITZ Phone 617 452-6000

Company CDM

Address 50 HAMPSHIRE ST Dept./Floor/Suite/Room

City CAMBRIDGE State MA ZIP 02139-1548

Your Internal Billing Reference 30919-66485-6162.004.102.TSK(

*** MATRIX TYPES:** RSW = Raw Surface Water; RGW = Raw Ground Water; CFW = Chlor(am)inated Finished Water; FW = Other Finished Water; SEAW = Sea Water; WW = Waste Water; BW = Bottled Water; SW = Storm Water; SO = Soil; SL = Sludge; O = Other - Please Identify

	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
RELINQUISHED BY:	J LEFKOWITZ	Jamie Lefkowitz	CDM	8/24/09	2:30 PM
RECEIVED BY:	[illegible] Sanchez	Joe Sanchez	MWH	8/25/09	10:00
RELINQUISHED BY:					
RECEIVED BY:					

C-O-C# _____

PAGE ____ OF ____

MWH Laboratories, a Division of MWH Americas, Inc.
750 Royal Oaks Drive Suite 100
Monrovia, CA 91016 (626) 386-1100 FAX (626) 386-1124

Bottle Order for CDM, Inc.

Group#

Date Sampled

Date Received

Thomas.D.French Your MWHL Project Manager

Client Code CDM-MA

Project Code MERRIMACK-RIVER Bottle Orders

Group Name DW Study

PO# / Job#

BO #: 7912

Created By: TDF

Order Date: 08/07/2009

Sampler: please return this paper with your samples

Bottle Orders

Ship By: 08/11/2009

Ship Sample Kits to

CDM
50 Hampshire Street
Cambridge, MA 02139-1548

Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

Send Report to

CDM
50 Hampshire Street
Cambridge, MA 02139-1548

Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

Billing Address

CDM
50 Hampshire Street
Cambridge, MA 02139-1548

Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

# of Samples	Tests	Qteline#	Bottles - Qty for each sample, type & preservative if any	UN DOT #
1	@MTBE9		3 40ml amber glass vial 4drops 6N HCL (36%)	
1	@MTBE9 TB		2 40ml amber glass vial 4drops of 1:1 HCL + H2O	
1	@SPMELOW		4 40ml amber glass vial no preservative	
1	Actinomycetes		1 100ml poly sterilized 0.25ml thio (8%)	
1	Algae Enumeration, Algae Identification		1 500ml poly sterilized no preservative	
1	CLO41PPB		1 125ml poly CLO4 - no preservative	
1	Dissolved Organic Carbon, UV absorbance at 254 nm		1 125ml amber glass no preservative	
1	Iron Total ICAP, Manganese Total ICAP/MS		1 250ml acid rinsed 1ml HNO3 (18%)	
1	PH (H3=past HT not compliant)		1 125ml poly no preservative	
1	Total Organic Carbon		1 125ml amber glass 0.5ml H2SO4 (50%)	

Comments

Include COC, sampling/packing, blue ice. Client is responsible for return shipment to MWH Laboratories, 750 Royal Oaks Drive, Monrovia, CA 91016. (626) 386 1100.

Code	Status	Date Shipped	Via	Tracking #	# of Coolers	Prepared By

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750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
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Fax: 626 386 1101
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Laboratory Comments
Report: #312922

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

The Comments Report may be blank if there are no comments for this report.

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Laboratory
Hits Report: 312922

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

Samples Received on:
08/25/2009

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
		200908250149 DW2				
08/25/2009 15:10	Actinomycetes		1.0		CFU/ml	
09/03/2009 16:58	Algae Enumeration		110		#/ml	1
09/03/2009 16:58	Algae Identification		See Com		Not Appl.	
08/28/2009 13:36	Dissolved Organic Carbon		3.2		mg/L	0.3
08/25/2009 16:13	Dissolved UV Abs. at 254 nm		0.11		cm -1	0.009
08/26/2009 22:24	Geosmin		7.7		ng/L	1
08/27/2009 0::05	Iron Total ICAP		0.31	0.3	mg/L	0.02
08/28/2009 23:19	Manganese Total ICAP/MS		23	50	ug/L	2
08/26/2009 22:24	Methylisoborneol		1.1		ng/L	1
08/25/2009 16:22	PH (H3=past HT not compliant)		7.1		Units	0.1
08/28/2009 14:04	Total Organic Carbon		3.2		mg/L	0.3

SUMMARY OF POSITIVE DATA ONLY

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Laboratory Data
Report: 312922

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

Samples Received on:
08/25/2009

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
DW2 (200908250149)						**Sampled on 08/24/2009 1200**		
			EPA 200.8 - ICPMS Metals					
	08/28/2009 23:19	522212	(EPA 200.8)	Manganese Total ICAP/MS	23	ug/L	2	1
			EPA 200.7 - ICP Metals					
	08/27/2009 0::05	522000	(EPA 200.7)	Iron Total ICAP	0.31	mg/L	0.02	1
			SM 10900 - Algae Identification					
	09/03/2009 16:58	522841	(SM 10900)	Algae Identification	See Comments	Not Appl.		1
			SM 10200F - Algae Enumeration					
	09/03/2009 16:58	522840	(SM 10200F)	Algae Enumeration	110	#/ml	1	1
			SM 9250B - Actinomycetes					
	08/25/2009 15:10	522450	(SM 9250B)	Actinomycetes	1.0	CFU/ml		1
			SM5310C/E415.3 - Total Organic Carbon					
	08/28/2009 14:04	522009	(SM5310C/E415.3)	Total Organic Carbon	3.2	mg/L	0.3	1
			SM 5310C - Dissolved Organic Carbon					
	08/28/2009 13:36	522006	(SM 5310C)	Dissolved Organic Carbon	3.2	mg/L	0.3	1
			SM 5910 - Dissolved UV Abs. at 254 nm					
	08/25/2009 16:13	521605	(SM 5910)	Dissolved UV Abs. at 254 nm	0.11	cm -1	0.009	1
			SM 6040D - Taste and Odor Cmpds Low Level					
	08/26/2009 22:24	521621	(SM 6040D)	Geosmin	7.7	ng/L	1	1
	08/26/2009 22:24	521621	(SM 6040D)	Methylisoborneol	1.1	ng/L	1	1
	08/26/2009 22:24	521621	(SM 6040D)	Isobutyl methoxypyrazine	97	%		1
	08/26/2009 22:24	521621	(SM 6040D)	Isopropyl methoxypyrazine	97	%		1
			EPA 314.0 - Perchlorate with 0.5 ppb DL					
	09/01/2009 12:13	522403	(EPA 314.0)	Perchlorate	ND	ug/L	0.5	1
			EPA 524.2 - Volatile Organics by GCMS					
8/25/2009	08/25/2009 17:53	521691	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
8/25/2009	08/25/2009 17:53	521691	(EPA 524.2)	1,2-Dichloroethane-d4	109	%		1
			SM4500-HB - PH (H3=past HT not compliant)					
	08/25/2009 16:22	521631	(SM4500-HB)	PH (H3=past HT not compliant)	7.1	Units	0.1	1
MTBE - TRAVEL BLANK - HOLD (200908250150)						**Sampled on 08/24/2009 0000**		
			EPA 524.2 - Volatile Organics by GCMS					
8/25/2009	08/25/2009 12:11	521691	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	NA	ug/L	0.5	1
8/25/2009	08/25/2009 12:11	521691	(EPA 524.2)	1,2-Dichloroethane-d4	NA	%		1

Rounding on totals after summation.
(c) - indicates calculated results

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CDM

QC Ref # 521605 - Dissolved UV Abs. at 254 nm — **Analysis Date: 08/25/2009**

200908250149	DW2	Analyzed by: KXS

QC Ref # 521621 - Taste and Odor Cmpds Low Level — **Analysis Date: 08/26/2009**

200908250149	DW2	Analyzed by: DLO

QC Ref # 521631 - PH (H3=past HT not compliant) — **Analysis Date: 08/25/2009**

200908250149	DW2	Analyzed by: SAR

QC Ref # 521691 - Volatile Organics by GCMS — **Analysis Date: 08/25/2009**

200908250149	DW2	Analyzed by: MCB
200908250150	MTBE - TRAVEL BLANK - HOLD	Analyzed by: MCB

QC Ref # 522000 - ICP Metals — **Analysis Date: 08/27/2009**

200908250149	DW2	Analyzed by: CSK

QC Ref # 522006 - Dissolved Organic Carbon — **Analysis Date: 08/28/2009**

200908250149	DW2	Analyzed by: KXS

QC Ref # 522009 - Total Organic Carbon — **Analysis Date: 08/28/2009**

200908250149	DW2	Analyzed by: KXS

QC Ref # 522212 - ICPMS Metals — **Analysis Date: 08/28/2009**

200908250149	DW2	Analyzed by: DYH

QC Ref # 522403 - Perchlorate with 0.5 ppb DL — **Analysis Date: 09/01/2009**

200908250149	DW2	Analyzed by: MCE

QC Ref # 522450 - Actinomycetes — **Analysis Date: 08/25/2009**

200908250149	DW2	Analyzed by: PAB

QC Ref # 522840 - Algae Enumeration — **Analysis Date: 09/03/2009**

200908250149	DW2	Analyzed by: NWM

QC Ref # 522841 - Algae Identification — **Analysis Date: 09/03/2009**

200908250149	DW2	Analyzed by: NWM

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Laboratory
QC Report: 312922

CDM, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 521605 - Dissolved UV Abs. at 254 nm by SM 5910							**Analysis Date: 08/25/2009**		
DUP1_200908250149	UV absorbance at 254 nm	0.11		0.105	cm -1		(0-15)	15	0.0
LCS1	UV absorbance at 254 nm		0.37	0.400	cm -1	109	(83-121)		
MBLK	UV absorbance at 254 nm			<0.004	cm -1				
MRL_CHK	UV absorbance at 254 nm		0.009	0.00800	cm -1	89	(85-115)		
QC Ref# 521621 - Taste and Odor Cmpds Low Level by SM 6040D							**Analysis Date: 08/26/2009**		
LCS1	Geosmin		10	10.3	ng/L	103	(75-125)		
MBLK	Geosmin			<1	ng/L				
MRLLW	Geosmin		1.0	1.19	ng/L	119	(50-150)		
MS_200908260140	Geosmin	2.8	10	14.7	ng/L	119	(70-130)		
MSD_200908260140	Geosmin	2.8	10	14.3	ng/L	115	(70-130)	20	3.4
LCS1	Isobutyl methoxypyrazine (I)			99.0	%	99	(50-150)		
MBLK	Isobutyl methoxypyrazine (I)			101	%	101	(50-150)		
MRLLW	Isobutyl methoxypyrazine (I)			102	%	102	(50-150)		
MS_200908260140	Isobutyl methoxypyrazine (I)			106	%	106	(50-150)		
MSD_200908260140	Isobutyl methoxypyrazine (I)			98.0	%	98	(50-150)		
LCS1	Isopropyl methoxy pyrazine (S)			121	%	121	(70-130)		
MBLK	Isopropyl methoxy pyrazine (S)			120	%	120	(70-130)		
MRLLW	Isopropyl methoxy pyrazine (S)			108	%	108	(70-130)		
MS_200908260140	Isopropyl methoxy pyrazine (S)			111	%	111	(70-130)		
MSD_200908260140	Isopropyl methoxy pyrazine (S)			111	%	111	(70-130)		
LCS1	Methylisoborneol		10	8.51	ng/L	85	(75-125)		
MBLK	Methylisoborneol			<1	ng/L				
MRLLW	Methylisoborneol		1.0	1.31	ng/L	131	(50-150)		
MS_200908260140	Methylisoborneol	ND	10	10.6	ng/L	106	(70-130)		
MSD_200908260140	Methylisoborneol	ND	10	10.5	ng/L	105	(70-130)	20	0.95
QC Ref# 521631 - PH (H3=past HT not compliant) by SM4500-HB							**Analysis Date: 08/25/2009**		
DUP1_200908250158	PH (H3=past HT not compliant)	7.2		7.12	Units		(0-20)	20	0.42
LCS1	PH (H3=past HT not compliant)		6.0	6.03	Units	101	(98-102)		
LCS2	PH (H3=past HT not compliant)		6.0	6.06	Units	101	(98-102)	20	0.50
QC Ref# 521691 - Volatile Organics by GCMS by EPA 524.2							**Analysis Date: 08/25/2009**		
LCS1	1,2-Dichloroethane-d4 (S)			110	%	110	(70-130)		
LCS2	1,2-Dichloroethane-d4 (S)			112	%	112	(70-130)		
MBLK	1,2-Dichloroethane-d4 (S)			116	%	116	(70-130)		
MRL_CHK	1,2-Dichloroethane-d4 (S)			111	%	111	(70-130)		
LCS1	4-Bromofluorobenzene (S)			98.4	%	98	(70-130)		
LCS2	4-Bromofluorobenzene (S)			99.2	%	99	(70-130)		
MBLK	4-Bromofluorobenzene (S)			100	%	100	(70-130)		

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
(S) Indicates surrogate compound.
(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 312922

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	4-Bromofluorobenzene (S)			100	%	100	(70-130)		
LCS1	Bromodichloromethane		5.0	4.64	ug/L	93	(70-130)		
LCS2	Bromodichloromethane		5.0	4.77	ug/L	95	(70-130)	20	2.8
MBLK	Bromodichloromethane			<0.25	ug/L				
MRL_CHK	Bromodichloromethane		0.5	0.500	ug/L	100	(50-150)		
LCS1	Bromoform		5.0	5.04	ug/L	101	(70-130)		
LCS2	Bromoform		5.0	5.03	ug/L	101	(70-130)	20	0.20
MBLK	Bromoform			<0.25	ug/L				
MRL_CHK	Bromoform		0.5	0.750	ug/L	150	(50-150)		
LCS1	Chlorodibromomethane		5.0	5.05	ug/L	101	(70-130)		
LCS2	Chlorodibromomethane		5.0	5.25	ug/L	105	(70-130)	20	3.9
MBLK	Chlorodibromomethane			<0.25	ug/L				
MRL_CHK	Chlorodibromomethane		0.5	0.570	ug/L	114	(50-150)		
LCS1	Chloroform (Trichloromethane)		5.0	5.2	ug/L	104	(70-130)		
LCS2	Chloroform (Trichloromethane)		5.0	5.14	ug/L	103	(70-130)	20	1.2
MBLK	Chloroform (Trichloromethane)			<0.25	ug/L				
MRL_CHK	Chloroform (Trichloromethane)		0.5	0.630	ug/L	126	(50-150)		
LCS1	Methyl Tert-butyl ether (MTBE)		5.0	5.04	ug/L	101	(70-130)		
LCS2	Methyl Tert-butyl ether (MTBE)		5.0	5.2	ug/L	104	(70-130)	20	3.1
MBLK	Methyl Tert-butyl ether (MTBE)			<0.25	ug/L				
MRL_CHK	Methyl Tert-butyl ether (MTBE)		0.5	0.530	ug/L	106	(50-150)		
LCS1	Tetrachloroethylene (PCE)		5.0	4.61	ug/L	92	(70-130)		
LCS2	Tetrachloroethylene (PCE)		5.0	4.55	ug/L	91	(70-130)	20	1.3
MBLK	Tetrachloroethylene (PCE)			<0.25	ug/L				
MRL_CHK	Tetrachloroethylene (PCE)		0.5	0.610	ug/L	122	(50-150)		
LCS1	Toluene-d8 (S)			104	%	104	(70-130)		
LCS2	Toluene-d8 (S)			104	%	104	(70-130)		
MBLK	Toluene-d8 (S)			100	%	100	(70-130)		
MRL_CHK	Toluene-d8 (S)			101	%	101	(70-130)		
LCS1	Trichloroethylene (TCE)		5.0	4.97	ug/L	99	(70-130)		
LCS2	Trichloroethylene (TCE)		5.0	4.9	ug/L	98	(70-130)	20	1.4
MBLK	Trichloroethylene (TCE)			<0.25	ug/L				
MRL_CHK	Trichloroethylene (TCE)		0.5	0.520	ug/L	104	(50-150)		
QC Ref# 522000 - ICP Metals by EPA 200.7							**Analysis Date: 08/26/2009**		
LCS1	Boron Total ICAP		0.5	0.456	mg/L	91	(85-115)		
LCS2	Boron Total ICAP		0.5	0.465	mg/L	93	(85-115)	20	2.0
MBLK	Boron Total ICAP			<0.05	mg/L				
MRL_CHK	Boron Total ICAP		0.05	0.0429	mg/L	86	(50-150)		
MS_200908250366	Boron Total ICAP		0.5	0.508	mg/L	102	(70-130)		

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
(S) Indicates surrogate compound.
(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 312922

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS2_200908240032	Boron Total ICAP	0.61	0.5	1.1	mg/L	99	(70-130)		
MSD_200908250366	Boron Total ICAP		0.5	0.503	mg/L	101	(70-130)	20	0.99
MSD2_200908240032	Boron Total ICAP	0.61	0.5	1.11	mg/L	100	(70-130)	20	1.0
LCS1	Calcium Total ICAP		50	49.1	mg/L	98	(85-115)		
LCS2	Calcium Total ICAP		50	51.3	mg/L	103	(85-115)	20	4.4
MBLK	Calcium Total ICAP			<1	mg/L				
MRL_CHK	Calcium Total ICAP		1.0	0.960	mg/L	96	(50-150)		
MS_200908250366	Calcium Total ICAP		50	54.2	mg/L	108	(70-130)		
MS2_200908240032	Calcium Total ICAP		50	50.5	mg/L	101	(70-130)		
MSD_200908250366	Calcium Total ICAP		50	54.5	mg/L	109	(70-130)	20	0.92
MSD2_200908240032	Calcium Total ICAP		50	49.6	mg/L	99	(70-130)	20	1.8
LCS1	Iron Total ICAP		5.0	4.87	mg/L	98	(85-115)		
LCS2	Iron Total ICAP		5.0	5.04	mg/L	101	(85-115)	20	3.4
MBLK	Iron Total ICAP			<0.02	mg/L				
MRL_CHK	Iron Total ICAP		0.02	0.0205	mg/L	103	(50-150)		
MS_200908250366	Iron Total ICAP	0.055	5.0	5.29	mg/L	105	(70-130)		
MS2_200908240032	Iron Total ICAP		5.0	5.16	mg/L	103	(70-130)		
MSD_200908250366	Iron Total ICAP	0.055	5.0	5.26	mg/L	104	(70-130)	20	0.96
MSD2_200908240032	Iron Total ICAP		5.0	5.18	mg/L	104	(70-130)	20	0.97
LCS1	Magnesium Total ICAP		20	20.1	mg/L	100	(85-115)		
LCS2	Magnesium Total ICAP		20	20.7	mg/L	103	(85-115)	20	2.9
MBLK	Magnesium Total ICAP			<0.1	mg/L				
MRL_CHK	Magnesium Total ICAP		0.1	0.0961	mg/L	96	(50-150)		
MS_200908250366	Magnesium Total ICAP		20	20.4	mg/L	102	(70-130)		
MS2_200908240032	Magnesium Total ICAP		20	20.5	mg/L	102	(70-130)		
MSD_200908250366	Magnesium Total ICAP		20	20.2	mg/L	101	(70-130)	20	0.99
MSD2_200908240032	Magnesium Total ICAP		20	20.7	mg/L	103	(70-130)	20	0.98
LCS1	Potassium Total ICAP		20	19.6	mg/L	98	(85-115)		
LCS2	Potassium Total ICAP		20	20.1	mg/L	100	(85-115)	20	2.5
MBLK	Potassium Total ICAP			<1	mg/L				
MRL_CHK	Potassium Total ICAP		1.0	1.00	mg/L	100	(50-150)		
MS_200908250366	Potassium Total ICAP		20	24.6	mg/L	123	(70-130)		
MS2_200908240032	Potassium Total ICAP		20	21.5	mg/L	108	(70-130)		
MSD_200908250366	Potassium Total ICAP		20	24.3	mg/L	122	(70-130)	20	0.82
MSD2_200908240032	Potassium Total ICAP		20	21.8	mg/L	109	(70-130)	20	0.92
LCS1	Sodium Total ICAP		50	49.7	mg/L	100	(85-115)		
LCS2	Sodium Total ICAP		50	50.6	mg/L	101	(85-115)	20	1.8
MBLK	Sodium Total ICAP			<1	mg/L				
MRL_CHK	Sodium Total ICAP		1.0	0.922	mg/L	92	(50-150)		

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RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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QC Report: 312922

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_200908250366	Sodium Total ICAP		50	52.3	mg/L	105	(70-130)		
MS2_200908240032	Sodium Total ICAP		50	45.8	mg/L	92	(70-130)		
MSD_200908250366	Sodium Total ICAP		50	51.0	mg/L	102	(70-130)	20	2.9
MSD2_200908240032	Sodium Total ICAP		50	46.1	mg/L	92	(70-130)	20	0.65
QC Ref# 522006 - Dissolved Organic Carbon by SM 5310C							**Analysis Date: 08/28/2009**		
LCS3	Dissolved Organic Carbon		5.0	5.03	mg/L	101	(90-110)		
LCS4	Dissolved Organic Carbon		5.0	5.07	mg/L	101	(90-110)	20	1.4
MBLK	Dissolved Organic Carbon			<0.3	mg/L				
MRL_CHK	Dissolved Organic Carbon		0.2	0.216	mg/L	108	(50-150)		
MS_200908310022	Dissolved Organic Carbon	0.92	4.0	4.94	mg/L	100	(80-120)		
MSD_200908310022	Dissolved Organic Carbon	0.92	4.0	4.78	mg/L	96	(80-120)	20	3.7
QC Ref# 522009 - Total Organic Carbon by SM5310C/E415.3							**Analysis Date: 08/28/2009**		
LCS3	Total Organic Carbon		5.0	5.03	mg/L	101	(90-110)		
LCS4	Total Organic Carbon		5.0	5.07	mg/L	101	(90-110)	20	1.4
MBLK	Total Organic Carbon			<0.3	mg/L				
MRL_CHK	Total Organic Carbon		0.2	0.216	mg/L	108	(50-150)		
MS_200908250095	Total Organic Carbon	0.92	4.0	4.94	mg/L	100	(80-120)		
MSD_200908250095	Total Organic Carbon	0.92	4.0	4.78	mg/L	96	(80-120)	20	3.7
QC Ref# 522212 - ICPMS Metals by EPA 200.8							**Analysis Date: 08/28/2009**		
LCS1	Aluminum Total ICAP/MS		200	206	ug/L	103	(85-115)		
LCS2	Aluminum Total ICAP/MS		200	202	ug/L	101	(85-115)	20	2.0
MBLK	Aluminum Total ICAP/MS			<20	ug/L				
MRL_CHK	Aluminum Total ICAP/MS		20	19.1	ug/L	95	(50-150)		
MS2_200908250434	Aluminum Total ICAP/MS		200	178	ug/L	89	(70-130)		
MSD2_200908250434	Aluminum Total ICAP/MS		200	184	ug/L	92	(70-130)	20	3.1
LCS1	Antimony Total ICAP/MS		50	48.7	ug/L	97	(85-115)		
LCS2	Antimony Total ICAP/MS		50	48.4	ug/L	97	(85-115)	20	0.62
MBLK	Antimony Total ICAP/MS			<1	ug/L				
MRL_CHK	Antimony Total ICAP/MS		1.0	0.953	ug/L	95	(50-150)		
MS_200908250130	Antimony Total ICAP/MS		100	96.0	ug/L	96	(70-130)		
MS2_200908250434	Antimony Total ICAP/MS		50	44.2	ug/L	89	(70-130)		
MSD_200908250130	Antimony Total ICAP/MS		100	96.1	ug/L	96	(70-130)	20	0.10
MSD2_200908250434	Antimony Total ICAP/MS		50	45.7	ug/L	91	(70-130)	20	3.1
LCS1	Arsenic Total ICAP/MS		20	20.8	ug/L	104	(85-115)		
LCS2	Arsenic Total ICAP/MS		20	20.6	ug/L	103	(85-115)	20	0.97
MBLK	Arsenic Total ICAP/MS			<1	ug/L				
MRL_CHK	Arsenic Total ICAP/MS		1.0	0.999	ug/L	100	(50-150)		

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QC Report: 312922

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_200908250130	Arsenic Total ICAP/MS	ND	40	42.2	ug/L	104	(70-130)		
MS2_200908250434	Arsenic Total ICAP/MS		20	21.8	ug/L	109	(70-130)		
MSD_200908250130	Arsenic Total ICAP/MS	ND	40	42.2	ug/L	104	(70-130)	20	0.0
MSD2_200908250434	Arsenic Total ICAP/MS		20	22.5	ug/L	112	(70-130)	20	2.7
LCS1	Barium Total ICAP/MS		100	96.2	ug/L	96	(85-115)		
LCS2	Barium Total ICAP/MS		100	96.1	ug/L	96	(85-115)	20	0.10
MBLK	Barium Total ICAP/MS			<2	ug/L				
MRL_CHK	Barium Total ICAP/MS		2.0	1.87	ug/L	94	(50-150)		
MS_200908250130	Barium Total ICAP/MS		200	186	ug/L	93	(70-130)		
MS2_200908250434	Barium Total ICAP/MS		100	86.4	ug/L	86	(70-130)		
MSD_200908250130	Barium Total ICAP/MS		200	184	ug/L	92	(70-130)	20	1.1
MSD2_200908250434	Barium Total ICAP/MS		100	88.7	ug/L	89	(70-130)	20	2.6
LCS1	Beryllium Total ICAP/MS		5.0	4.77	ug/L	95	(85-115)		
LCS2	Beryllium Total ICAP/MS		5.0	4.75	ug/L	95	(85-115)	20	0.42
MBLK	Beryllium Total ICAP/MS			<1	ug/L				
MRL_CHK	Beryllium Total ICAP/MS		1.0	0.947	ug/L	95	(50-150)		
MS_200908250130	Beryllium Total ICAP/MS		10	10.9	ug/L	109	(70-130)		
MS2_200908250434	Beryllium Total ICAP/MS		5.0	4.69	ug/L	94	(70-130)		
MSD_200908250130	Beryllium Total ICAP/MS		10	10.8	ug/L	108	(70-130)	20	0.92
MSD2_200908250434	Beryllium Total ICAP/MS		5.0	4.85	ug/L	97	(70-130)	20	3.4
LCS1	Cadmium Total ICAP/MS		20	19.7	ug/L	98	(85-115)		
LCS2	Cadmium Total ICAP/MS		20	19.6	ug/L	98	(85-115)	20	0.0
MBLK	Cadmium Total ICAP/MS			<0.5	ug/L				
MRL_CHK	Cadmium Total ICAP/MS		0.5	0.500	ug/L	100	(50-150)		
MS_200908250130	Cadmium Total ICAP/MS		40	37.2	ug/L	93	(70-130)		
MS2_200908250434	Cadmium Total ICAP/MS		20	18.2	ug/L	91	(70-130)		
MSD_200908250130	Cadmium Total ICAP/MS		40	37.2	ug/L	93	(70-130)	20	0.11
MSD2_200908250434	Cadmium Total ICAP/MS		20	18.5	ug/L	93	(70-130)	20	1.9
LCS1	Chromium Total ICAP/MS		100	94.9	ug/L	95	(85-115)		
LCS2	Chromium Total ICAP/MS		100	94.0	ug/L	94	(85-115)	20	0.95
MBLK	Chromium Total ICAP/MS			<1	ug/L				
MRL_CHK	Chromium Total ICAP/MS		1.0	0.929	ug/L	93	(50-150)		
MS_200908250130	Chromium Total ICAP/MS		200	166	ug/L	83	(70-130)		
MS2_200908250434	Chromium Total ICAP/MS		100	83.5	ug/L	84	(70-130)		
MSD_200908250130	Chromium Total ICAP/MS		200	166	ug/L	83	(70-130)	20	0.0
MSD2_200908250434	Chromium Total ICAP/MS		100	86.5	ug/L	87	(70-130)	20	3.5
LCS1	Copper Total ICAP/MS		100	94.4	ug/L	94	(85-115)		
LCS2	Copper Total ICAP/MS		100	93.2	ug/L	93	(85-115)	20	1.3
MBLK	Copper Total ICAP/MS			<2	ug/L				

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QC Report: 312922

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Copper Total ICAP/MS		2.0	1.97	ug/L	99	(50-150)		
MS_200908250130	Copper Total ICAP/MS		200	176	ug/L	88	(70-130)		
MS2_200908250434	Copper Total ICAP/MS		100	78.7	ug/L	79	(70-130)		
MSD_200908250130	Copper Total ICAP/MS		200	176	ug/L	88	(70-130)	20	0.0
MSD2_200908250434	Copper Total ICAP/MS		100	80.8	ug/L	81	(70-130)	20	2.6
LCS1	Lead Total ICAP/MS		20	19.7	ug/L	99	(85-115)		
LCS2	Lead Total ICAP/MS		20	19.6	ug/L	98	(85-115)	20	0.51
MBLK	Lead Total ICAP/MS			<0.5	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.493	ug/L	99	(50-150)		
MS_200908250130	Lead Total ICAP/MS		40	36.3	ug/L	91	(70-130)		
MS2_200908250434	Lead Total ICAP/MS		20	16.9	ug/L	85	(70-130)		
MSD_200908250130	Lead Total ICAP/MS		40	36.1	ug/L	90	(70-130)	20	0.55
MSD2_200908250434	Lead Total ICAP/MS		20	17.5	ug/L	87	(70-130)	20	3.3
LCS1	Manganese Total ICAP/MS		50	52.9	ug/L	106	(85-115)		
LCS2	Manganese Total ICAP/MS		50	52.3	ug/L	105	(85-115)	20	1.1
MBLK	Manganese Total ICAP/MS			<2	ug/L				
MRL_CHK	Manganese Total ICAP/MS		2.0	1.86	ug/L	93	(50-150)		
MS_200908250130	Manganese Total ICAP/MS		100	92.2	ug/L	92	(70-130)		
MS2_200908250434	Manganese Total ICAP/MS	ND	50	46.5	ug/L	93	(70-130)		
MSD_200908250130	Manganese Total ICAP/MS		100	91.5	ug/L	92	(70-130)	20	0.76
MSD2_200908250434	Manganese Total ICAP/MS	ND	50	48.4	ug/L	96	(70-130)	20	3.9
LCS1	Nickel Total ICAP/MS		50	47.9	ug/L	96	(85-115)		
LCS2	Nickel Total ICAP/MS		50	47.7	ug/L	95	(85-115)	20	0.42
MBLK	Nickel Total ICAP/MS			<5	ug/L				
MRL_CHK	Nickel Total ICAP/MS		5.0	4.61	ug/L	92	(50-150)		
MS_200908250130	Nickel Total ICAP/MS		100	82.4	ug/L	82	(70-130)		
MS2_200908250434	Nickel Total ICAP/MS		50	40.2	ug/L	80	(70-130)		
MSD_200908250130	Nickel Total ICAP/MS		100	82.4	ug/L	82	(70-130)	20	0.0
MSD2_200908250434	Nickel Total ICAP/MS		50	41.7	ug/L	83	(70-130)	20	3.7
LCS1	Selenium Total ICAP/MS		20	21.6	ug/L	108	(85-115)		
LCS2	Selenium Total ICAP/MS		20	21.9	ug/L	110	(85-115)	20	1.4
MBLK	Selenium Total ICAP/MS			<5	ug/L				
MRL_CHK	Selenium Total ICAP/MS		5.0	5.19	ug/L	104	(50-150)		
MS_200908250130	Selenium Total ICAP/MS		40	49.1	ug/L	123	(70-130)		
MSD_200908250130	Selenium Total ICAP/MS		40	48.2	ug/L	121	(70-130)	20	1.6
LCS1	Silver Total ICAP/MS		50	53.6	ug/L	107	(85-115)		
LCS2	Silver Total ICAP/MS		50	53.9	ug/L	108	(85-115)	20	0.37
MBLK	Silver Total ICAP/MS			<0.5	ug/L				
MRL_CHK	Silver Total ICAP/MS		0.5	0.432	ug/L	86	(50-150)		

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CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_200908250130	Silver Total ICAP/MS		100	90.9	ug/L	91	(70-130)		
MS2_200908250434	Silver Total ICAP/MS		50	42.0	ug/L	84	(70-130)		
MSD_200908250130	Silver Total ICAP/MS		100	90.9	ug/L	91	(70-130)	20	0.0
MSD2_200908250434	Silver Total ICAP/MS		50	44.8	ug/L	90	(70-130)	20	6.3
LCS1	Thallium Total ICAP/MS		20	19.9	ug/L	100	(85-115)		
LCS2	Thallium Total ICAP/MS		20	19.8	ug/L	99	(85-115)	20	0.50
MBLK	Thallium Total ICAP/MS			<1	ug/L				
MRL_CHK	Thallium Total ICAP/MS		1.0	0.956	ug/L	96	(50-150)		
MS_200908250130	Thallium Total ICAP/MS		40	37.9	ug/L	95	(70-130)		
MS2_200908250434	Thallium Total ICAP/MS		20	17.4	ug/L	87	(70-130)		
MSD_200908250130	Thallium Total ICAP/MS		40	38.2	ug/L	95	(70-130)	20	0.53
MSD2_200908250434	Thallium Total ICAP/MS		20	18.0	ug/L	90	(70-130)	20	2.9
LCS1	Vanadium Total ICAP/MS		100	103	ug/L	103	(85-115)		
LCS2	Vanadium Total ICAP/MS		100	102	ug/L	102	(85-115)	20	0.98
MBLK	Vanadium Total ICAP/MS			<3	ug/L				
MRL_CHK	Vanadium Total ICAP/MS		3.0	2.75	ug/L	92	(50-150)		
MS_200908250130	Vanadium Total ICAP/MS		200	184	ug/L	92	(70-130)		
MS2_200908250434	Vanadium Total ICAP/MS		100	95.0	ug/L	95	(70-130)		
MSD_200908250130	Vanadium Total ICAP/MS		200	184	ug/L	92	(70-130)	20	0.0
MSD2_200908250434	Vanadium Total ICAP/MS		100	97.5	ug/L	98	(70-130)	20	2.6
LCS1	Zinc Total ICAP/MS		100	101	ug/L	101	(85-115)		
LCS2	Zinc Total ICAP/MS		100	97.9	ug/L	98	(85-115)	20	3.1
MBLK	Zinc Total ICAP/MS			<20	ug/L				
MRL_CHK	Zinc Total ICAP/MS		20	19.8	ug/L	99	(50-150)		
MS_200908250130	Zinc Total ICAP/MS		200	209	ug/L	105	(70-130)		
MS2_200908250434	Zinc Total ICAP/MS		100	94.0	ug/L	94	(70-130)		
MSD_200908250130	Zinc Total ICAP/MS		200	202	ug/L	101	(70-130)	20	3.9
MSD2_200908250434	Zinc Total ICAP/MS		100	98.0	ug/L	98	(70-130)	20	4.2
QC Ref# 522403 - Perchlorate with 0.5 ppb DL by EPA 314.0							**Analysis Date: 09/01/2009**		
DUP_200908260332	Perchlorate- 0.5 ppb	ND		ND	ug/L		(0-15)		
ICCS	Perchlorate- 0.5 ppb		1.0	0.990	ug/L	99	(85-115)		
LCS1	Perchlorate- 0.5 ppb		25	24.7	ug/L	99	(85-115)		
LCS2	Perchlorate- 0.5 ppb		25	25.1	ug/L	100	(85-115)	15	1.6
MBLK	Perchlorate- 0.5 ppb			<0.25	ug/L				
MRL_CHK	Perchlorate- 0.5 ppb		0.5	0.417	ug/L	83	(70-130)		
MRLHI	Perchlorate- 0.5 ppb		1.0	1.19	ug/L	119	(75-125)		
MS1_200908260332	Perchlorate- 0.5 ppb	ND	1.0	0.726	ug/L	73	(70-130)		
MSD1_200908260332	Perchlorate- 0.5 ppb	ND	1.0	0.732	ug/L	73	(70-130)	15	0.82

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CLIENT: CDM
GROUP: 312922

Lab# 200908250149

PREDOMINANT ALGAE:
Unidentified Flagellates 24%
Synedra 14%
Navicula 10%
Nitzschia 8%

OTHER ALGAE:
Achnanthes
Anabaena
Ankistrodesmus
Closteriopsis
Closterium
Cocconeis
Cryptomonas
Cymbella
Diatoma
Dinobryon
Elakatothrix
Glenodinium
Gloeocapsa
Gloeocystis
Mallomonas
Scenedesmus
Stephanodiscus

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Laboratory Report

for

CDM
50 Hampshire Street
Cambridge, MA 02139-1548
Attention: Jamie Lefkowitz
Fax: 617-452-8566

Date of Issue
11/21/2009

MWH LABORATORIES

ACCREDITED IN ACCORDANCE WITH nelac 01114CA

Report#: 318113
Project: MERRIMACK-RIVER
Group: DW Study

TDF: Thomas.D.French

Project Manager

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Hits Reports, Comments, QC Summary, QC Report and Regulatory Forms. This report shall not be reproduced except in full, without the written approval of the laboratory.

MWH Laboratories

750 Royal Oaks Drive Suite 100, Monrovia, Ca 91016
Phone 626-386-1100/Fax: 626-386-1101

Acknowledgement of Samples Received

CDM
50 Hampshire Street
Cambridge, MA 02139-1548
Attn: Jamie Lefkowitz
Phone: 617-452-6591

Customer Code: CDM-MA
Group #: 318113
Project #: MERRIMACK-RIVER
Sample Group: DW Study
Project Manager: Thomas.D.French
Phone: (480) 778-1558

The following samples were received from you on **October 29, 2009**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample #	Sample Id	Sample Date
200910290258	AMOSK-DW4	28-Oct-2009 1100

@MTBE9	@SPMELOW	Actinomycetes
Algae Enumeration	Algae Identification	CLO41PPB
Dissolved Organic Carbon	Iron Total ICAP	Manganese Total ICAP/MS
PH (H3=past HT not compliant)	Total Organic Carbon	UV absorbance at 254 nm

200910290259	MTBE - TRAVEL BLANK - HOLD	28-Oct-2009 0000

@MTBE9 TB

Test Description

@MTBE9 -- Volatile Organics by GCMS
@MTBE9 TB -- Volatile Organics by GCMS
@SPMELOW -- Taste and Odor Cmpds Low Level

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CHAIN OF CUSTODY RECORD

318113

MWH LABS USE ONLY:

LOGIN COMMENTS: ______

SAMPLES CHECKED AGAINST COC BY: JS

SAMPLES LOGGED IN BY: ______

SAMPLE TEMP WHEN REC'D AT LAB: 6°C (Compliance: 4 +/- 2*C)

SAMPLES REC'D DAY OF COLLECTION? ☐ (check for yes)

CONDITION OF BLUE ICE: FROZEN ✓ PARTIALLY FROZEN ___ THAWED ___

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME:	PROJECT CODE:
MWH LABS CLIENT CODE: / COC ID:	SAMPLE GROUP:
SAMPLER PRINTED NAME AND SIGNATURE:	TAT requested: rush by adv notice only STD___ 1 wk ___ 3 day __ 2 day___ 1 day __

COMPLIANCE SAMPLES ☐ (check for yes) - Requires state forms ☐
NON-COMPLIANCE SAMPLES ☐ (check for yes)
REGULATION INVOLVED: (eg. SDWA, Phase V, NPDES, FDA,...)
Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION

SEE ATTACHED BOTTLE ORDER FOR ANALYSES ☐ (check for yes), OR
list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)

SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX *	Field Data	Field Data	ALGAE (LGA)	NCD	SAMPLER COMMENTS
10/28	1100	AMOSK	DW4						SPM 10/29/09 12:03
	3/15								

FedEx Tracking Number 869859228327
Date 10/28/09
Sender's Name JAMIE LEFKOWITZ Phone 617 452-6000
Company CDM
Address 50 HAMPSHIRE ST
City CAMBRIDGE State MA ZIP 02139-1548
Your Internal Billing Reference 50919-66485-6462.664.102.TSKC

* **MATRIX TYPES:** RSW = Raw Surface Water; RGW = Raw Ground Water; CFW = Chlor(am)inated Finished Water; FW = Other Finished Water; SEAW = Sea Water; WW = Waste Water; BW = Bottled Water; SW = Storm Water; SO = Soil; SL = Sludge; O = Other - Please Identify

	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
RELINQUISHED BY:					
RECEIVED BY:	Joe Sanchez	Joe Sanchez	MWH	102809	11:02
RELINQUISHED BY:					
RECEIVED BY:					

C-O-C# ______ PAGE ____ OF ____

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Monrovia, CA 91016 (626) 386-1100 FAX (626) 386-1124

Bottle Order for CDM, Inc.

Group#

Date Sampled

Date Received

Thomas.D.French Your MWHL Project Manager

Client Code CDM-MA

Project Code MERRIMACK-RIVER Bottle Orders

Group Name DW Study

PO# / Job#

BO #: 9515

Created By: TDF

Order Date: 09/24/2009

Bottle Orders

Sampler: please return this paper with your samples

Ship By:
10/09/2009

Ship Sample Kits to

CDM
50 Hampshire Street
Cambridge, MA 02139-1548

Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

Send Report to

CDM
50 Hampshire Street
Cambridge, MA 02139-1548

Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

Billing Address

CDM
50 Hampshire Street
Cambridge, MA 02139-1548

Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

# of Samples	Tests	Qteline#	Bottles - Qty for each sample, type & preservative if any	UN DOT #
1	@MTBE9		3 40ml amber glass vial 4drops 6N HCL (36%)	
1	@MTBE9 TB		2 40ml amber glass vial 4drops of 1:1 HCL + H2O	
1	@SPMELOW		4 40ml amber glass vial no preservative	
1	Actinomycetes		1 100ml poly sterilized 0.25ml thio (8%)	
1	Algae Enumeration, Algae Identification		1 500ml poly sterilized no preservative	
1	CLO41PPB		1 125ml poly CLO4 - no preservative	
1	Dissolved Organic Carbon, UV absorbance at 254 nm		1 125ml amber glass no preservative	
1	Iron Total ICAP, Manganese Total ICAP/MS		1 250ml acid rinsed 1ml HNO3 (18%)	
1	PH (H3=past HT not compliant)		1 125ml poly no preservative	
1	Total Organic Carbon		1 125ml amber glass 0.5ml H2SO4 (50%)	

Comments

Include COC, sampling/packing, blue ice. Client is responsible for return shipment to MWH Laboratories, 750 Royal Oaks Drive, Monrovia, CA 91016. (626) 386 1100.

Code	Status	Date Shipped	Via	Tracking #	# of Coolers	Prepared By

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CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

Flags Legend:

R7 - LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

The Comments Report may be blank if there are no comments for this report.

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Laboratory
Hits Report: 318113

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

Samples Received on:
10/29/2009

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
		200910290258 **AMOSK-DW4**				
11/05/2009	13:00 Actinomycetes		5.0		CFU/ml	
11/02/2009	16:28 Algae Enumeration		130		#/ml	1
11/02/2009	16:28 Algae Identification		See Comments		Not Appl.	
11/03/2009	22:36 Dissolved Organic Carbon		7.3		mg/L	1.5
10/29/2009	13:27 Dissolved UV Abs. at 254 nm		0.29		cm -1	0.009
11/03/2009	14:19 Geosmin		5.1		ng/L	1
11/13/2009	02:01 Iron Total ICAP		0.40	0.3	mg/L	0.02
11/10/2009	15:28 Manganese Total ICAP/MS		42	50	ug/L	2
10/30/2009	16:28 PH (H3=past HT not compliant)		6.6		Units	0.1
11/03/2009	23:00 Total Organic Carbon		7.6		mg/L	1.5

SUMMARY OF POSITIVE DATA ONLY

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Laboratory Data
Report: 318113

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

Samples Received on:
10/29/2009

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
AMOSK-DW4 (200910290258)						**Sampled on 10/28/2009 1100**		
			EPA 200.8 - ICPMS Metals					
	11/10/2009 15:28	530782	(EPA 200.8)	Manganese Total ICAP/MS	42	ug/L	2	1
			EPA 200.7 - ICP Metals					
	11/13/2009 02:01	531219	(EPA 200.7)	Iron Total ICAP	0.40	mg/L	0.02	1
			SM 10900 - Algae Identification					
	11/02/2009 16:28	529973	(SM 10900)	Algae Identification	See Comments	Not Appl.		1
			SM 10200F - Algae Enumeration					
	11/02/2009 16:28	529972	(SM 10200F)	Algae Enumeration	130	#/ml	1	1
			SM 9250B - Actinomycetes					
10/28/2009	11/05/2009 13:00	530306	(SM 9250B)	Actinomycetes	5.0	CFU/ml		1
			SM5310C/E415.3 - Total Organic Carbon					
	11/03/2009 23:00	529871	(SM5310C/E415.3)	Total Organic Carbon	7.6	mg/L	1.5	5
			SM 5310C - Dissolved Organic Carbon					
10/29/2009	11/03/2009 22:36	529873	(SM 5310C)	Dissolved Organic Carbon	7.3	mg/L	1.5	5
			SM 5910 - Dissolved UV Abs. at 254 nm					
	10/29/2009 13:27	529546	(SM 5910)	Dissolved UV Abs. at 254 nm	0.29	cm -1	0.009	1
			SM 6040D - Taste and Odor Cmpds Low Level					
11/3/2009	11/03/2009 14:19	529442	(SM 6040D)	Geosmin	5.1	ng/L	1	1
11/3/2009	11/03/2009 14:19	529442	(SM 6040D)	Methylisoborneol	ND (R7)	ng/L	1	1
11/3/2009	11/03/2009 14:19	529442	(SM 6040D)	Isobutyl methoxypyrazine	84	%		1
11/3/2009	11/03/2009 14:19	529442	(SM 6040D)	Isopropyl methoxypyrazine	100	%		1
			EPA 314.0 - Perchlorate with 0.5 ppb DL					
	11/04/2009 03:18	530120	(EPA 314.0)	Perchlorate	ND	ug/L	0.5	1
			EPA 524.2 - Volatile Organics by GCMS					
10/30/2009	10/30/2009 14:58	529771	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
10/30/2009	10/30/2009 14:58	529771	(EPA 524.2)	1,2-Dichloroethane-d4	110	%		1
			SM4500-HB - PH (H3=past HT not compliant)					
	10/30/2009 16:28	529763	(SM4500-HB)	PH (H3=past HT not compliant)	6.6	Units	0.1	1
MTBE - TRAVEL BLANK - HOLD (200910290259)						**Sampled on 10/28/2009 0000**		
			EPA 524.2 - Volatile Organics by GCMS					
10/30/2009	10/30/2009 14:12	529771	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
10/30/2009	10/30/2009 14:12	529771	(EPA 524.2)	1,2-Dichloroethane-d4	108	%		1

Rounding on totals after summation.
(c) - indicates calculated results

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QC Ref # 529442 - Taste and Odor Cmpds Low Level — **Analysis Date: 11/03/2009**
200910290258 AMOSK-DW4 — Analyzed by: KAM

QC Ref # 529546 - Dissolved UV Abs. at 254 nm — **Analysis Date: 10/29/2009**
200910290258 AMOSK-DW4 — Analyzed by: KXS

QC Ref # 529763 - PH (H3=past HT not compliant) — **Analysis Date: 10/30/2009**
200910290258 AMOSK-DW4 — Analyzed by: NEM

QC Ref # 529771 - Volatile Organics by GCMS — **Analysis Date: 10/30/2009**
200910290258 AMOSK-DW4 — Analyzed by: MAD
200910290259 MTBE - TRAVEL BLANK - HOLD — Analyzed by: MAD

QC Ref # 529871 - Total Organic Carbon — **Analysis Date: 11/03/2009**
200910290258 AMOSK-DW4 — Analyzed by: KXS

QC Ref # 529873 - Dissolved Organic Carbon — **Analysis Date: 11/03/2009**
200910290258 AMOSK-DW4 — Analyzed by: KXS

QC Ref # 529972 - Algae Enumeration — **Analysis Date: 11/02/2009**
200910290258 AMOSK-DW4 — Analyzed by: NWM

QC Ref # 529973 - Algae Identification — **Analysis Date: 11/02/2009**
200910290258 AMOSK-DW4 — Analyzed by: NWM

QC Ref # 530120 - Perchlorate with 0.5 ppb DL — **Analysis Date: 11/04/2009**
200910290258 AMOSK-DW4 — Analyzed by: MCE

QC Ref # 530306 - Actinomycetes — **Analysis Date: 11/05/2009**
200910290258 AMOSK-DW4 — Analyzed by: NWM

QC Ref # 530782 - ICPMS Metals — **Analysis Date: 11/10/2009**
200910290258 AMOSK-DW4 — Analyzed by: LUPE

QC Ref # 530948 - ICP Metals — **Analysis Date: 11/10/2009**
200910290258 AMOSK-DW4 — Analyzed by: VXT

QC Ref # 531219 - ICP Metals — **Analysis Date: 11/13/2009**
200910290258 AMOSK-DW4 — Analyzed by: VXT

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Laboratory
QC Report: 318113

CDM, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 529442 - Taste and Odor Cmpds Low Level by SM 6040D							**Analysis Date: 11/03/2009**		
LCS1	Geosmin		10	10.3	ng/L	103	(75-125)		
LCS2	Geosmin		10	11.8	ng/L	118	(75-125)	20	14
MBLK	Geosmin			<1	ng/L				
MRLLW	Geosmin		1.0	1.04	ng/L	104	(50-150)		
MS_200910290258	Geosmin	5.1	10	16.9	ng/L	117	(70-130)		
MSD_200910290258	Geosmin	5.1	10	17.7	ng/L	125	(70-130)	20	6.6
LCS1	Isobutyl methoxypyrazine (I)			125	%	125	(50-150)		
LCS2	Isobutyl methoxypyrazine (I)			85.0	%	85	(50-150)		
MBLK	Isobutyl methoxypyrazine (I)			78.0	%	78	(50-150)		
MRLLW	Isobutyl methoxypyrazine (I)			81.0	%	81	(50-150)		
MS_200910290258	Isobutyl methoxypyrazine (I)			95.0	%	95	(50-150)		
MSD_200910290258	Isobutyl methoxypyrazine (I)			91.0	%	91	(50-150)		
LCS1	Isopropyl methoxy pyrazine (S)			92.6	%	93	(70-130)		
LCS2	Isopropyl methoxy pyrazine (S)			102	%	102	(70-130)		
MBLK	Isopropyl methoxy pyrazine (S)			91.9	%	92	(70-130)		
MRLLW	Isopropyl methoxy pyrazine (S)			97.4	%	97	(70-130)		
MS_200910290258	Isopropyl methoxy pyrazine (S)			99.2	%	99	(70-130)		
MSD_200910290258	Isopropyl methoxy pyrazine (S)			98.0	%	98	(70-130)		
LCS1	Methylisoborneol		10	7.56	ng/L	76	(75-125)		
LCS2	Methylisoborneol		10	9.76	ng/L	98	(75-125)	20	**25**
MBLK	Methylisoborneol			<1	ng/L				
MRLLW	Methylisoborneol		1.0	1.06	ng/L	106	(50-150)		
MS_200910290258	Methylisoborneol	ND	10	8.1	ng/L	78	(70-130)		
MSD_200910290258	Methylisoborneol	ND	10	9.75	ng/L	95	(70-130)	20	19
QC Ref# 529546 - Dissolved UV Abs. at 254 nm by SM 5910							**Analysis Date: 10/29/2009**		
DUP1_200910290044	UV absorbance at 254 nm	0.11		0.108	cm -1		(0-15)	15	0.0
LCS1	UV absorbance at 254 nm		0.37	0.334	cm -1	91	(83-121)		
MBLK	UV absorbance at 254 nm			<0.004	cm -1				
MRL_CHK	UV absorbance at 254 nm		0.009	0.0100	cm -1	111	(85-115)		
QC Ref# 529763 - PH (H3=past HT not compliant) by SM4500-HB							**Analysis Date: 10/30/2009**		
DUP_200910290153	PH (H3=past HT not compliant)	7.7		7.63	Units		(0-20)	20	0.78
DUP2_200910290336	PH (H3=past HT not compliant)	8.0		8.06	Units		(0-20)	20	0.25
LCS1	PH (H3=past HT not compliant)		6.0	5.99	Units	100	(98-102)		
LCS2	PH (H3=past HT not compliant)		6.0	6.02	Units	100	(98-102)	20	0.50
QC Ref# 529771 - Volatile Organics by GCMS by EPA 524.2							**Analysis Date: 10/30/2009**		

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by **Underlining.**
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
(S) Indicates surrogate compound.
(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 318113

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	1,2-Dichloroethane		5.0	4.87	ug/L	97	(70-130)		
LCS2	1,2-Dichloroethane		5.0	4.62	ug/L	92	(70-130)	20	5.3
MBLK	1,2-Dichloroethane			<0.25	ug/L				
MRL_CHK	1,2-Dichloroethane		0.5	0.570	ug/L	114	(50-150)		
LCS1	1,2-Dichloroethane-d4 (S)			111	%	111	(70-130)		
LCS2	1,2-Dichloroethane-d4 (S)			109	%	109	(70-130)		
MBLK	1,2-Dichloroethane-d4 (S)			111	%	111	(70-130)		
MRL_CHK	1,2-Dichloroethane-d4 (S)			112	%	112	(70-130)		
LCS1	4-Bromofluorobenzene (S)			105	%	105	(70-130)		
LCS2	4-Bromofluorobenzene (S)			103	%	103	(70-130)		
MBLK	4-Bromofluorobenzene (S)			104	%	104	(70-130)		
MRL_CHK	4-Bromofluorobenzene (S)			104	%	104	(70-130)		
LCS1	Bromodichloromethane		5.0	4.39	ug/L	88	(70-130)		
LCS2	Bromodichloromethane		5.0	4.4	ug/L	88	(70-130)	20	0.23
MBLK	Bromodichloromethane			<0.25	ug/L				
MRL_CHK	Bromodichloromethane		0.5	0.530	ug/L	106	(50-150)		
LCS1	Bromoform		5.0	5.04	ug/L	101	(70-130)		
LCS2	Bromoform		5.0	4.74	ug/L	95	(70-130)	20	6.1
MBLK	Bromoform			<0.25	ug/L				
MRL_CHK	Bromoform		0.5	0.570	ug/L	114	(50-150)		
LCS1	Carbon Tetrachloride		5.0	4.47	ug/L	89	(70-130)		
LCS2	Carbon Tetrachloride		5.0	4.25	ug/L	85	(70-130)	20	5.0
MBLK	Carbon Tetrachloride			<0.25	ug/L				
MRL_CHK	Carbon Tetrachloride		0.5	0.500	ug/L	100	(50-150)		
LCS1	Chlorodibromomethane		5.0	4.65	ug/L	93	(70-130)		
LCS2	Chlorodibromomethane		5.0	4.39	ug/L	88	(70-130)	20	5.8
MBLK	Chlorodibromomethane			<0.25	ug/L				
MRL_CHK	Chlorodibromomethane		0.5	0.550	ug/L	110	(50-150)		
LCS1	Chloroform (Trichloromethane)		5.0	4.54	ug/L	91	(70-130)		
LCS2	Chloroform (Trichloromethane)		5.0	4.37	ug/L	87	(70-130)	20	3.8
MBLK	Chloroform (Trichloromethane)			<0.25	ug/L				
MRL_CHK	Chloroform (Trichloromethane)		0.5	0.560	ug/L	112	(50-150)		
LCS1	Methyl Tert-butyl ether (MTBE)		5.0	3.7	ug/L	74	(70-130)		
LCS2	Methyl Tert-butyl ether (MTBE)		5.0	3.66	ug/L	73	(70-130)	20	1.1
MBLK	Methyl Tert-butyl ether (MTBE)			<0.25	ug/L				
MRL_CHK	Methyl Tert-butyl ether (MTBE)		0.5	0.460	ug/L	92	(50-150)		
LCS1	Tetrachloroethylene (PCE)		5.0	4.2	ug/L	84	(70-130)		
LCS2	Tetrachloroethylene (PCE)		5.0	3.97	ug/L	79	(70-130)	20	5.6

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
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(S) Indicates surrogate compound.
(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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QC Report: 318113

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Tetrachloroethylene (PCE)			<0.25	ug/L				
MRL_CHK	Tetrachloroethylene (PCE)		0.5	0.470	ug/L	94	(50-150)		
LCS1	Toluene-d8 (S)			98.8	%	99	(70-130)		
LCS2	Toluene-d8 (S)			98.0	%	98	(70-130)		
MBLK	Toluene-d8 (S)			97.6	%	98	(70-130)		
MRL_CHK	Toluene-d8 (S)			100	%	100	(70-130)		
LCS1	Trichloroethylene (TCE)		5.0	4.31	ug/L	86	(70-130)		
LCS2	Trichloroethylene (TCE)		5.0	4.04	ug/L	81	(70-130)	20	6.5
MBLK	Trichloroethylene (TCE)			<0.25	ug/L				
MRL_CHK	Trichloroethylene (TCE)		0.5	0.550	ug/L	110	(50-150)		
QC Ref# 529871 - Total Organic Carbon by SM5310C/E415.3							**Analysis Date: 11/03/2009**		
LCS3	Total Organic Carbon		5.0	4.94	mg/L	99	(90-110)		
LCS4	Total Organic Carbon		5.0	5.01	mg/L	100	(90-110)	20	0.20
MBLK	Total Organic Carbon			<0.3	mg/L				
MRL_CHK	Total Organic Carbon		0.2	0.186	mg/L	93	(50-150)		
MS_200910290335	Total Organic Carbon	ND	4.0	3.76	mg/L	93	(80-120)		
MS2_200911030001	Total Organic Carbon	ND	2.0	1.98	mg/L	90	(80-120)		
MSD_200910290335	Total Organic Carbon	ND	4.0	3.88	mg/L	96	(80-120)	20	3.0
QC Ref# 529873 - Dissolved Organic Carbon by SM 5310C							**Analysis Date: 11/03/2009**		
LCS3	Dissolved Organic Carbon		5.0	4.94	mg/L	99	(90-110)		
LCS4	Dissolved Organic Carbon		5.0	5.01	mg/L	100	(90-110)	20	0.20
MBLK	Dissolved Organic Carbon			<0.3	mg/L				
MRL_CHK	Dissolved Organic Carbon		0.2	0.186	mg/L	93	(50-150)		
MS_200911030090	Dissolved Organic Carbon	ND	4.0	3.76	mg/L	93	(80-120)		
MSD_200911030090	Dissolved Organic Carbon	ND	4.0	3.88	mg/L	96	(80-120)	20	3.0
QC Ref# 530120 - Perchlorate with 0.5 ppb DL by EPA 314.0							**Analysis Date: 11/03/2009**		
DUP_200910290258	Perchlorate- 0.5 ppb	ND		ND	ug/L		(0-15)		
ICCS	Perchlorate- 0.5 ppb		1.0	0.979	ug/L	98	(85-115)		
LCS1	Perchlorate- 0.5 ppb		25	24.8	ug/L	99	(85-115)		
LCS2	Perchlorate- 0.5 ppb		25	24.7	ug/L	99	(85-115)	15	0.40
MBLK	Perchlorate- 0.5 ppb			<0.25	ug/L				
MRL_CHK	Perchlorate- 0.5 ppb		0.5	0.451	ug/L	90	(70-130)		
MRLHI	Perchlorate- 0.5 ppb		1.0	0.962	ug/L	96	(75-125)		
MS1_200910290258	Perchlorate- 0.5 ppb	ND	1.0	0.916	ug/L	92	(70-130)		
MS1_200911030331	Perchlorate- 0.5 ppb	4.9	1.0	5.75	ug/L	90	(70-130)		
MSD1_200910290258	Perchlorate- 0.5 ppb	ND	1.0	0.926	ug/L	93	(70-130)	15	1.1

Spike recovery is already corrected for native results.
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(I) Indicates internal standard compound.
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RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 318113

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD1_200911030331	Perchlorate- 0.5 ppb	4.9	1.0	5.65	ug/L	80	(70-130)	15	12
QC Ref# 530782 - ICPMS Metals by EPA 200.8						**Analysis Date: 11/07/2009**			
LCS1	Manganese Total ICAP/MS		50	50.5	ug/L	101	(85-115)		
LCS2	Manganese Total ICAP/MS		50	51.4	ug/L	103	(85-115)	20	1.8
MBLK	Manganese Total ICAP/MS			<2	ug/L				
MRL_CHK	Manganese Total ICAP/MS		2.0	2.77	ug/L	139	(50-150)		
MS_200911100478	Manganese Total ICAP/MS	170	50	171	ug/L	**1.1**	(70-130)		
MSD_200911100478	Manganese Total ICAP/MS	170	50	166	ug/L	**0**	(70-130)	20	**110**
QC Ref# 530948 - ICP Metals by EPA 200.7						**Analysis Date: 11/10/2009**			
LCS1	Calcium Dissolved ICAP		50	54.1	mg/L	108	(85-115)		
LCS2	Calcium Dissolved ICAP		50	51.5	mg/L	103	(85-115)	20	4.9
MBLK	Calcium Dissolved ICAP			<1	mg/L				
MRL_CHK	Calcium Dissolved ICAP		1.0	1.05	mg/L	105	(50-150)		
MS_200910290042	Calcium Dissolved ICAP	75	50	123	mg/L	97	(70-130)		
MS2_200910290258	Calcium Dissolved ICAP	2.5	50	55.3	mg/L	106	(70-130)		
MSD_200910290042	Calcium Dissolved ICAP	75	50	123	mg/L	97	(70-130)	20	0.21
MSD2_200910290258	Calcium Dissolved ICAP	2.5	50	54.1	mg/L	103	(70-130)	20	2.9
LCS1	Calcium Total ICAP		50	54.1	mg/L	108	(85-115)		
LCS2	Calcium Total ICAP		50	51.5	mg/L	103	(85-115)	20	4.9
MBLK	Calcium Total ICAP			<1	mg/L				
MRL_CHK	Calcium Total ICAP		1.0	1.05	mg/L	105	(50-150)		
MS_200910290042	Calcium Total ICAP	75	50	123	mg/L	97	(70-130)		
MS2_200910290258	Calcium Total ICAP	2.5	50	55.3	mg/L	106	(70-130)		
MSD_200910290042	Calcium Total ICAP	75	50	123	mg/L	97	(70-130)	20	0.21
MSD2_200910290258	Calcium Total ICAP	2.5	50	54.1	mg/L	103	(70-130)	20	2.9
LCS1	Chromium Total ICAP		1.0	1.07	mg/L	107	(85-115)		
LCS2	Chromium Total ICAP		1.0	1.02	mg/L	102	(85-115)	20	4.8
MBLK	Chromium Total ICAP			<0.01	mg/L				
MRL_CHK	Chromium Total ICAP		0.01	0.0106	mg/L	106	(50-150)		
MS_200910290042	Chromium Total ICAP	0.012	1.0	0.991	mg/L	98	(70-130)		
MS2_200910290258	Chromium Total ICAP	ND	1.0	1.03	mg/L	103	(70-130)		
MSD_200910290042	Chromium Total ICAP	0.012	1.0	0.960	mg/L	95	(70-130)	20	3.2
MSD2_200910290258	Chromium Total ICAP	ND	1.0	0.994	mg/L	99	(70-130)	20	3.7
LCS1	Magnesium Dissolved ICAP		20	21.2	mg/L	106	(85-115)		
LCS2	Magnesium Dissolved ICAP		20	20.4	mg/L	102	(85-115)	20	3.9
MBLK	Magnesium Dissolved ICAP			<0.1	mg/L				

Spike recovery is already corrected for native results.
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RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 318113

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Magnesium Dissolved ICAP		0.1	0.103	mg/L	103	(50-150)		
MS_200910290042	Magnesium Dissolved ICAP	70	20	87.3	mg/L	88	(70-130)		
MS2_200910290258	Magnesium Dissolved ICAP	0.57	20	21.2	mg/L	103	(70-130)		
MSD_200910290042	Magnesium Dissolved ICAP	70	20	86.6	mg/L	85	(70-130)	20	4.3
MSD2_200910290258	Magnesium Dissolved ICAP	0.57	20	20.8	mg/L	101	(70-130)	20	2.0
LCS1	Magnesium Total ICAP		20	21.2	mg/L	106	(85-115)		
LCS2	Magnesium Total ICAP		20	20.4	mg/L	102	(85-115)	20	3.9
MBLK	Magnesium Total ICAP			<0.1	mg/L				
MRL_CHK	Magnesium Total ICAP		0.1	0.103	mg/L	103	(50-150)		
MS_200910290042	Magnesium Total ICAP	70	20	87.3	mg/L	88	(70-130)		
MS2_200910290258	Magnesium Total ICAP	0.57	20	21.2	mg/L	103	(70-130)		
MSD_200910290042	Magnesium Total ICAP	70	20	86.6	mg/L	85	(70-130)	20	4.3
MSD2_200910290258	Magnesium Total ICAP	0.57	20	20.8	mg/L	101	(70-130)	20	2.0
LCS1	Potassium Dissolved ICAP		20	20.5	mg/L	102	(85-115)		
LCS2	Potassium Dissolved ICAP		20	19.7	mg/L	98	(85-115)	20	4.0
MBLK	Potassium Dissolved ICAP			<1	mg/L				
MRL_CHK	Potassium Dissolved ICAP		1.0	0.932	mg/L	93	(50-150)		
MS_200910290042	Potassium Dissolved ICAP	ND	20	21.6	mg/L	103	(70-130)		
MS2_200910290258	Potassium Dissolved ICAP	ND	20	20.5	mg/L	98	(70-130)		
MSD_200910290042	Potassium Dissolved ICAP	ND	20	21.3	mg/L	102	(70-130)	20	0.98
MSD2_200910290258	Potassium Dissolved ICAP	ND	20	20.4	mg/L	97	(70-130)	20	0.82
LCS1	Potassium Total ICAP		20	20.5	mg/L	102	(85-115)		
LCS2	Potassium Total ICAP		20	19.7	mg/L	98	(85-115)	20	4.0
MBLK	Potassium Total ICAP			<1	mg/L				
MRL_CHK	Potassium Total ICAP		1.0	0.932	mg/L	93	(50-150)		
MS_200910290042	Potassium Total ICAP	ND	20	21.6	mg/L	103	(70-130)		
MS2_200910290258	Potassium Total ICAP	ND	20	20.5	mg/L	98	(70-130)		
MSD_200910290042	Potassium Total ICAP	ND	20	21.3	mg/L	102	(70-130)	20	0.98
MSD2_200910290258	Potassium Total ICAP	ND	20	20.4	mg/L	97	(70-130)	20	0.82
QC Ref# 531219 - ICP Metals by EPA 200.7							**Analysis Date: 11/10/2009**		
LCS1	Boron Total ICAP		0.5	0.516	mg/L	103	(85-115)		
LCS2	Boron Total ICAP		0.5	0.494	mg/L	99	(85-115)	20	4.4
MBLK	Boron Total ICAP			<0.05	mg/L				
MRL_CHK	Boron Total ICAP		0.05	0.0500	mg/L	100	(50-150)		
MS_200910290042	Boron Total ICAP	12	0.1	12.8	mg/L	80	(70-130)		
MSD_200910290042	Boron Total ICAP	12	0.1	12.6	mg/L	**40**	(70-130)	20	**67**
LCS1	Calcium Total ICAP		50	54.1	mg/L	108	(85-115)		

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Laboratory
QC Report: 318113

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Calcium Total ICAP		50	51.5	mg/L	103	(85-115)	20	4.9
MBLK	Calcium Total ICAP			<1	mg/L				
MRL_CHK	Calcium Total ICAP		1.0	1.05	mg/L	105	(50-150)		
LCS1	Chromium Total ICAP		1.0	1.07	mg/L	107	(85-115)		
LCS2	Chromium Total ICAP		1.0	1.02	mg/L	102	(85-115)	20	4.8
MBLK	Chromium Total ICAP			<0.01	mg/L				
MRL_CHK	Chromium Total ICAP		0.01	0.0110	mg/L	110	(50-150)		
MS_200910290042	Chromium Total ICAP	ND	0.2	1.01	mg/L	100	(70-130)		
MSD_200910290042	Chromium Total ICAP	ND	0.2	0.980	mg/L	97	(70-130)	20	3.0
LCS1	Iron Total ICAP		5.0	5.36	mg/L	107	(85-115)		
LCS2	Iron Total ICAP		5.0	5.15	mg/L	103	(85-115)	20	4.0
MBLK	Iron Total ICAP			<0.02	mg/L				
MRL_CHK	Iron Total ICAP		0.02	0.0200	mg/L	100	(50-150)		
MS_200910290042	Iron Total ICAP	0.12	1.0	5.25	mg/L	103	(70-130)		
MSD_200910290042	Iron Total ICAP	0.12	1.0	5.19	mg/L	101	(70-130)	20	2.0
LCS1	Magnesium Total ICAP		20	21.2	mg/L	106	(85-115)		
LCS2	Magnesium Total ICAP		20	20.4	mg/L	102	(85-115)	20	3.9
MBLK	Magnesium Total ICAP			<0.1	mg/L				
MRL_CHK	Magnesium Total ICAP		0.1	0.103	mg/L	103	(50-150)		
LCS1	Potassium Total ICAP		20	20.5	mg/L	103	(85-115)		
LCS2	Potassium Total ICAP		20	19.7	mg/L	99	(85-115)	20	4.0
MBLK	Potassium Total ICAP			<1	mg/L				
MRL_CHK	Potassium Total ICAP		1.0	0.932	mg/L	93	(50-150)		
LCS1	Sodium Total ICAP		50	51.3	mg/L	103	(85-115)		
LCS2	Sodium Total ICAP		50	49.4	mg/L	99	(85-115)	20	3.8
MBLK	Sodium Total ICAP			<1	mg/L				
MRL_CHK	Sodium Total ICAP		1.0	1.01	mg/L	101	(50-150)		
MS_200910290042	Sodium Total ICAP	720	10	767	mg/L	98	(70-130)		
MSD_200910290042	Sodium Total ICAP	720	10	756	mg/L	76	(70-130)	20	**25**

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RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

CDM-MA
GROUP# 318113
LAB# 200910290258

PREDOMINANT ALGAE;

Unidentified Flagellates 20%
Navicula 20%
Synedra 13%
Stephanodiscus 8%

OTHER ALGAE:

Achnanthes
Asterionella
Closteriopsis
Cocconeis
Crucigenia
Cryptomonas
Diatoma
Dinobryon
Elakatothrix
Gomphonema
Mougeotia
Nitzschia
Oocystis
Oscillatoria
Peridinium
Scenedesmus

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Laboratory Report

for

CDM
50 Hampshire Street
Cambridge, MA 02139-1548
Attention: Jamie Lefkowitz
Fax: 617-452-8566

Date of Issue
12/05/2009

MWH LABORATORIES

ACCREDITED IN ACCORDANCE WITH nelac 01114CA

Report#: 320075
Project: MERRIMACK-RIVER
Group: DW Study

TDF: Thomas.D.French

Project Manager

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Hits Reports, Comments, QC Summary, QC Report and Regulatory Forms. This report shall not be reproduced except in full, without the written approval of the laboratory.

MWH Laboratories

750 Royal Oaks Drive Suite 100, Monrovia, Ca 91016
Phone 626-386-1100/Fax: 626-386-1101

Acknowledgement of Samples Received

CDM
50 Hampshire Street
Cambridge, MA 02139-1548
Attn: Jamie Lefkowitz
Phone: 617-452-6591

Customer Code: CDM-MA
Group #: 320075
Project #: MERRIMACK-RIVER
Sample Group: DW Study
Project Manager: Thomas.D.French
Phone: (480) 778-1558

The following samples were received from you on **November 24, 2009**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample #	Sample Id	Sample Date
200911240185	AMOSKEAG	23-Nov-2009 1100

@MTBE9	@SPMELOW	Actinomycetes
Algae Enumeration	Algae Identification	CLO41PPB
Dissolved Organic Carbon	Iron Total ICAP	Manganese Total ICAP/MS
PH (H3=past HT not compliant)	Total Organic Carbon	UV absorbance at 254 nm

200911240186	MTBE - TRAVEL BLANK - HOLD	23-Nov-2009 0000

@MTBE9 TB

Test Description

@MTBE9 -- Volatile Organics by GCMS
@MTBE9 TB -- Volatile Organics by GCMS
@SPMELOW -- Taste and Odor Cmpds Low Level

320075

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CHAIN OF CUSTODY RECORD

MWH LABS USE ONLY:

LOGIN COMMENTS: _____

SAMPLES CHECKED AGAINST COC BY: JS

SAMPLES LOGGED IN BY: JS

SAMPLE TEMP WHEN REC'D AT LAB: 2° (Compliance: 4 +/- 2°C)

SAMPLES REC'D DAY OF COLLECTION? ☐ (check for yes)

CONDITION OF BLUE ICE: FROZEN ___ ✓ PARTIALLY FROZEN ___ THAWED ___

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: CDM - MA

PROJECT CODE: MERRIMACK

MWH LABS CLIENT CODE: | COC ID:

SAMPLE GROUP: ROUNDS

SAMPLER PRINTED NAME AND SIGNATURE:

TAT requested: rush by adv notice only
STD___ 1 wk ___ 3 day __ 2 day___ 1 day __

COMPLIANCE SAMPLES (check for yes) ☐
- Requires state forms ☐

NON-COMPLIANCE SAMPLES (check for yes) ☒
REGULATION INVOLVED: (eg. SDWA, Phase V, NPDES, FDA,...)

Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION

SEE ATTACHED BOTTLE ORDER FOR ANALYSES ☒ (check for yes), *OR*

list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)

SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX *	Field Data	Field Data	ALGALACID	ACTIN	SAMPLER COMMENTS
11/23	11:00		AMOSKEAG						GDM 11/24/09 10:37
	3/24								

om This portion can be removed for Recipient's records.

ate 11/23/2009 FedEx Tracking Number 866513078599

ender's ame JAMIE LEFKOWITZ Phone 603 501-1051

Company CDM

Address 50 HAMPSHIRE ST Dept./Floor/Suite/Room

ty CAMBRIDGE State MA ZIP 02139-1548

our Internal Billing Reference 60465.6162.004.102.TSK03

* **MATRIX TYPES:** RSW = Raw Surface Water; RGW = Raw Ground Water; CFW = Chlor(am)inated Finished Water; FW = Other Finished Water; SEAW = Sea Water; WW = Waste Water; BW = Bottled Water; SW = Storm Water; SO = Soil; SL = Sludge; O = Other - Please Identify

	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
RELINQUISHED BY:	Jamie Lefkowitz	JAMIE LEFKOWITZ	CDM	11/23/09	12:00 PM
RECEIVED BY:	Joe Sanchez	Joe Sanchez	MWH	11-24-09	9:59
RELINQUISHED BY:					
RECEIVED BY:					

C-O-C# _____

PAGE _____ OF _____

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Monrovia, CA 91016 (626) 386-1100 FAX (626) 386-1124

Bottle Order for CDM, Inc.

Group#
Date Sampled
Date Received

Thomas.D.French Your MWHL Project Manager

BO #: 10417
Created By: TDF
Order Date: 10/23/2009
Bottle Orders

Sampler: please return this paper with your samples

Client Code CDM-MA
Project Code MERRIMACK-RIVER Bottle Orders
Group Name DW Study
PO# / Job#

Ship By:
11/06/2009

Ship Sample Kits to
CDM
50 Hampshire Street
Cambridge, MA 02139-1548
Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

Send Report to
CDM
50 Hampshire Street
Cambridge, MA 02139-1548
Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

Billing Address
CDM
50 Hampshire Street
Cambridge, MA 02139-1548
Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

# of Samples	Tests	Qteline#	Bottles - Qty for each sample, type & preservative if any	UN DOT #
1	@MTBE9		3 40ml amber glass vial 4drops 6N HCL (36%)	
1	@MTBE9 TB		2 40ml amber glass vial 4drops of 1:1 HCL + H2O	
1	@SPMELOW		4 40ml amber glass vial no preservative	
1	Actinomycetes		1 100ml poly sterilized 0.25ml thio (8%)	
1	Algae Enumeration, Algae Identification		1 500ml poly sterilized no preservative	
1	CLO41PPB		1 125ml poly CLO4 - no preservative	
1	Dissolved Organic Carbon, UV absorbance at 254 nm		1 125ml amber glass no preservative	
1	Iron Total ICAP, Manganese Total ICAP/MS		1 250ml acid rinsed 1ml HNO3 (18%)	
1	PH (H3=past HT not compliant)		1 125ml poly no preservative	
1	Total Organic Carbon		1 125ml amber glass 0.5ml H2SO4 (50%)	

Comments

Include COC, sampling/packing, blue ice. Client is responsible for return shipment to MWH Laboratories, 750 Royal Oaks Drive, Monrovia, CA 91016. (626) 386 1100.

Code	Status	Date Shipped	Via	Tracking #	# of Coolers	Prepared By

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CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

The Comments Report may be blank if there are no comments for this report.

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Laboratory
Hits Report: 320075

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

Samples Received on:
11/24/2009

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
		200911240185 AMOSKEAG				
12/01/2009 14:21	Actinomycetes		2.0		CFU/ml	
11/25/2009 14:03	Algae Enumeration		64		#/ml	1
11/25/2009 14:03	Algae Identification		See Comments		Not Appl.	
11/30/2009 21:11	Dissolved Organic Carbon		4.2		mg/L	0.6
11/24/2009 14:30	Dissolved UV Abs. at 254 nm		0		cm -1	0.009
11/25/2009 11:30	Geosmin		2.3		ng/L	1
12/02/2009 6:17	Iron Total ICAP		0.24	0.3	mg/L	0.02
11/26/2009 00:54	Manganese Total ICAP/MS		22	50	ug/L	2
11/25/2009 12:42	PH (H3=past HT not compliant)		6.90		Units	0.1
11/30/2009 21:36	Total Organic Carbon		4.2		mg/L	0.6

SUMMARY OF POSITIVE DATA ONLY

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Laboratory Data
Report: 320075

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

Samples Received on:
11/24/2009

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
AMOSKEAG (200911240185)						**Sampled on 11/23/2009 1100**		
			EPA 200.8 - ICPMS Metals					
	11/26/2009 00:54	532932	(EPA 200.8)	Manganese Total ICAP/MS	22	ug/L	2	1
			EPA 200.7 - ICP Metals					
	12/02/2009 6:17	533261	(EPA 200.7)	Iron Total ICAP	0.24	mg/L	0.02	1
			SM 10900 - Algae Identification					
	11/25/2009 14:03	532916	(SM 10900)	Algae Identification	See Comments	Not Appl.		1
			SM 10200F - Algae Enumeration					
	11/25/2009 14:03	533148	(SM 10200F)	Algae Enumeration	64	#/ml	1	1
			SM 9250B - Actinomycetes					
11/24/2009	12/01/2009 14:21	533756	(SM 9250B)	Actinomycetes	2.0	CFU/ml		1
			SM5310C/E415.3 - Total Organic Carbon					
	11/30/2009 21:36	533128	(SM5310C/E415.3)	Total Organic Carbon	4.2	mg/L	0.6	2
			SM 5310C - Dissolved Organic Carbon					
11/24/2009	11/30/2009 21:11	533055	(SM 5310C)	Dissolved Organic Carbon	4.2	mg/L	0.6	2
			SM 5910 - Dissolved UV Abs. at 254 nm					
	11/24/2009 14:30	532872	(SM 5910)	Dissolved UV Abs. at 254 nm	0	cm -1	0.009	1
			SM 6040D - Taste and Odor Cmpds Low Level					
11/25/2009	11/25/2009 11:30	532322	(SM 6040D)	Geosmin	2.3	ng/L	1	1
11/25/2009	11/25/2009 11:30	532322	(SM 6040D)	Methylisoborneol	ND	ng/L	1	1
11/25/2009	11/25/2009 11:30	532322	(SM 6040D)	Isobutyl methoxypyrazine	137	%		1
11/25/2009	11/25/2009 11:30	532322	(SM 6040D)	Isopropyl methoxypyrazine	84	%		1
			EPA 314.0 - Perchlorate with 0.5 ppb DL					
	12/01/2009 02:08	533257	(EPA 314.0)	Perchlorate	ND	ug/L	0.5	1
			EPA 524.2 - Volatile Organics by GCMS					
11/24/2009	11/24/2009 20:07	532768	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/24/2009	11/24/2009 20:07	532768	(EPA 524.2)	1,2-Dichloroethane-d4	101	%		1
			SM4500-HB - PH (H3=past HT not compliant)					
	11/25/2009 12:42	532066	(SM4500-HB)	PH (H3=past HT not compliant)	6.90	Units	0.1	1
MTBE - TRAVEL BLANK - HOLD (200911240186)						**Sampled on 11/23/2009 0000**		
			EPA 524.2 - Volatile Organics by GCMS					
11/24/2009	11/24/2009 20:35	532768	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
11/24/2009	11/24/2009 20:35	532768	(EPA 524.2)	1,2-Dichloroethane-d4	102	%		1

Rounding on totals after summation.
(c) - indicates calculated results

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QC Ref # 532066 - PH (H3=past HT not compliant) **Analysis Date: 11/25/2009**
200911240185 AMOSKEAG Analyzed by: NEM

QC Ref # 532322 - Taste and Odor Cmpds Low Level **Analysis Date: 11/25/2009**
200911240185 AMOSKEAG Analyzed by: KAM

QC Ref # 532768 - Volatile Organics by GCMS **Analysis Date: 11/24/2009**
200911240185 AMOSKEAG Analyzed by: KCP
200911240186 MTBE - TRAVEL BLANK - HOLD Analyzed by: KCP

QC Ref # 532872 - Dissolved UV Abs. at 254 nm **Analysis Date: 11/24/2009**
200911240185 AMOSKEAG Analyzed by: KXS

QC Ref # 532916 - Algae Identification **Analysis Date: 11/25/2009**
200911240185 AMOSKEAG Analyzed by: NWM

QC Ref # 532932 - ICPMS Metals **Analysis Date: 11/26/2009**
200911240185 AMOSKEAG Analyzed by: DYH

QC Ref # 533055 - Dissolved Organic Carbon **Analysis Date: 11/30/2009**
200911240185 AMOSKEAG Analyzed by: KXS

QC Ref # 533128 - Total Organic Carbon **Analysis Date: 11/30/2009**
200911240185 AMOSKEAG Analyzed by: KXS

QC Ref # 533148 - Algae Enumeration **Analysis Date: 11/25/2009**
200911240185 AMOSKEAG Analyzed by: NWM

QC Ref # 533257 - Perchlorate with 0.5 ppb DL **Analysis Date: 12/01/2009**
200911240185 AMOSKEAG Analyzed by: MCE

QC Ref # 533261 - ICP Metals **Analysis Date: 12/02/2009**
200911240185 AMOSKEAG Analyzed by: VXT

QC Ref # 533756 - Actinomycetes **Analysis Date: 12/01/2009**
200911240185 AMOSKEAG Analyzed by: NWM

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 532066 - PH (H3=past HT not compliant) by SM4500-HB							**Analysis Date: 11/25/2009**		
DUP_200911240185	PH (H3=past HT not compliant)	6.90		6.9	Units		(0-20)	20	0.29
LCS1	PH (H3=past HT not compliant)		6.0	6.05	Units	101	(98-102)		
LCS2	PH (H3=past HT not compliant)		6.0	6.1	Units	102	(98-102)	20	0.82
QC Ref# 532322 - Taste and Odor Cmpds Low Level by SM 6040D							**Analysis Date: 11/25/2009**		
LCS1	Geosmin		10	9.68	ng/L	97	(75-125)		
LCS2	Geosmin		10	9.34	ng/L	93	(75-125)	20	3.6
MBLK	Geosmin			<1	ng/L				
MRLLW	Geosmin		1.0	0.665	ng/L	67	(50-150)		
MS_200911250004	Geosmin	6.0	10	18.1	ng/L	120	(70-130)		
MSD_200911250004	Geosmin	6.0	10	17.5	ng/L	114	(70-130)	20	5.1
LCS1	Isobutyl methoxypyrazine (I)			89.0	%	89	(50-150)		
LCS2	Isobutyl methoxypyrazine (I)			109	%	109	(50-150)		
MBLK	Isobutyl methoxypyrazine (I)			92.0	%	92	(50-150)		
MRLLW	Isobutyl methoxypyrazine (I)			101	%	101	(50-150)		
MS_200911250004	Isobutyl methoxypyrazine (I)			123	%	123	(50-150)		
MSD_200911250004	Isobutyl methoxypyrazine (I)			125	%	125	(50-150)		
LCS1	Isopropyl methoxy pyrazine (S)			103	%	103	(70-130)		
LCS2	Isopropyl methoxy pyrazine (S)			95.9	%	96	(70-130)		
MBLK	Isopropyl methoxy pyrazine (S)			77.7	%	78	(70-130)		
MRLLW	Isopropyl methoxy pyrazine (S)			92.8	%	93	(70-130)		
MS_200911250004	Isopropyl methoxy pyrazine (S)			99.1	%	99	(70-130)		
MSD_200911250004	Isopropyl methoxy pyrazine (S)			93.2	%	93	(70-130)		
LCS1	Methylisoborneol		10	9.15	ng/L	92	(75-125)		
LCS2	Methylisoborneol		10	10.2	ng/L	102	(75-125)	20	11
MBLK	Methylisoborneol			<1	ng/L				
MRLLW	Methylisoborneol		1.0	0.970	ng/L	97	(50-150)		
MS_200911250004	Methylisoborneol	12	10	23.7	ng/L	112	(70-130)		
MSD_200911250004	Methylisoborneol	12	10	27.9	ng/L	**154**	(70-130)	20	**32**
QC Ref# 532768 - Volatile Organics by GCMS by EPA 524.2							**Analysis Date: 11/24/2009**		
LCS1	1,1,1,2-Tetrachloroethane		5.0	4.7	ug/L	94	(70-130)		
LCS2	1,1,1,2-Tetrachloroethane		5.0	4.68	ug/L	94	(70-130)	20	0.43
MBLK	1,1,1,2-Tetrachloroethane			<0.25	ug/L				
MRL_CHK	1,1,1,2-Tetrachloroethane		0.5	0.530	ug/L	106	(50-150)		
LCS1	1,1,1-Trichloroethane		5.0	4.29	ug/L	86	(70-130)		
LCS2	1,1,1-Trichloroethane		5.0	4.43	ug/L	89	(70-130)	20	3.2
MBLK	1,1,1-Trichloroethane			<0.25	ug/L				

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RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	1,1,1-Trichloroethane		0.5	0.540	ug/L	108	(50-150)		
LCS1	1,1,2,2-Tetrachloroethane		5.0	4.42	ug/L	88	(70-130)		
LCS2	1,1,2,2-Tetrachloroethane		5.0	4.37	ug/L	87	(70-130)	20	1.1
MBLK	1,1,2,2-Tetrachloroethane			<0.25	ug/L				
MRL_CHK	1,1,2,2-Tetrachloroethane		0.5	0.640	ug/L	128	(50-150)		
LCS1	1,1,2-Trichloroethane		5.0	4.77	ug/L	95	(70-130)		
LCS2	1,1,2-Trichloroethane		5.0	4.93	ug/L	99	(70-130)	20	3.3
MBLK	1,1,2-Trichloroethane			<0.25	ug/L				
MRL_CHK	1,1,2-Trichloroethane		0.5	0.580	ug/L	116	(50-150)		
LCS1	1,1-Dichloroethane		5.0	4.69	ug/L	94	(70-130)		
LCS2	1,1-Dichloroethane		5.0	4.5	ug/L	90	(70-130)	20	4.1
MBLK	1,1-Dichloroethane			<0.25	ug/L				
MRL_CHK	1,1-Dichloroethane		0.5	0.600	ug/L	120	(50-150)		
LCS1	1,1-Dichloroethylene		5.0	4.56	ug/L	91	(70-130)		
LCS2	1,1-Dichloroethylene		5.0	4.42	ug/L	88	(70-130)	20	3.1
MBLK	1,1-Dichloroethylene			<0.25	ug/L				
MRL_CHK	1,1-Dichloroethylene		0.5	0.660	ug/L	132	(50-150)		
LCS1	1,1-Dichloropropene		5.0	4.45	ug/L	89	(70-130)		
LCS2	1,1-Dichloropropene		5.0	4.32	ug/L	86	(70-130)	20	3.0
MBLK	1,1-Dichloropropene			<0.25	ug/L				
MRL_CHK	1,1-Dichloropropene		0.5	0.580	ug/L	116	(50-150)		
LCS1	1,2,3-Trichlorobenzene		5.0	4.33	ug/L	87	(70-130)		
LCS2	1,2,3-Trichlorobenzene		5.0	4.4	ug/L	88	(70-130)	20	1.6
MBLK	1,2,3-Trichlorobenzene			<0.25	ug/L				
MRL_CHK	1,2,3-Trichlorobenzene		0.5	0.570	ug/L	114	(50-150)		
LCS1	1,2,3-Trichloropropane		5.0	4.9	ug/L	98	(70-130)		
LCS2	1,2,3-Trichloropropane		5.0	4.47	ug/L	89	(70-130)	20	9.2
MBLK	1,2,3-Trichloropropane			<0.25	ug/L				
MRL_CHK	1,2,3-Trichloropropane		0.5	0.450	ug/L	90	(50-150)		
LCS1	1,2,4-Trichlorobenzene		5.0	4.58	ug/L	92	(70-130)		
LCS2	1,2,4-Trichlorobenzene		5.0	4.53	ug/L	91	(70-130)	20	1.1
MBLK	1,2,4-Trichlorobenzene			<0.25	ug/L				
MRL_CHK	1,2,4-Trichlorobenzene		0.5	0.450	ug/L	90	(50-150)		
LCS1	1,2,4-Trimethylbenzene		5.0	4.37	ug/L	87	(70-130)		
LCS2	1,2,4-Trimethylbenzene		5.0	4.42	ug/L	88	(70-130)	20	1.1
MBLK	1,2,4-Trimethylbenzene			<0.25	ug/L				
MRL_CHK	1,2,4-Trimethylbenzene		0.5	0.560	ug/L	112	(50-150)		
LCS1	1,2-Dichloroethane		5.0	4.5	ug/L	90	(70-130)		

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(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	1,2-Dichloroethane		5.0	4.58	ug/L	92	(70-130)	20	1.8
MBLK	1,2-Dichloroethane			<0.25	ug/L				
MRL_CHK	1,2-Dichloroethane		0.5	0.530	ug/L	106	(50-150)		
LCS1	1,2-Dichloroethane-d4 (S)			104	%	104	(70-130)		
LCS2	1,2-Dichloroethane-d4 (S)			101	%	101	(70-130)		
MBLK	1,2-Dichloroethane-d4 (S)			104	%	104	(70-130)		
MRL_CHK	1,2-Dichloroethane-d4 (S)			102	%	102	(70-130)		
LCS1	1,2-Dichloropropane		5.0	4.64	ug/L	93	(70-130)		
LCS2	1,2-Dichloropropane		5.0	4.6	ug/L	92	(70-130)	20	0.87
MBLK	1,2-Dichloropropane			<0.25	ug/L				
MRL_CHK	1,2-Dichloropropane		0.5	0.610	ug/L	122	(50-150)		
LCS1	1,3,5-Trimethylbenzene		5.0	4.44	ug/L	89	(70-130)		
LCS2	1,3,5-Trimethylbenzene		5.0	4.43	ug/L	89	(70-130)	20	0.23
MBLK	1,3,5-Trimethylbenzene			<0.25	ug/L				
MRL_CHK	1,3,5-Trimethylbenzene		0.5	0.600	ug/L	120	(50-150)		
LCS1	1,3-Dichloropropane		5.0	4.53	ug/L	91	(70-130)		
LCS2	1,3-Dichloropropane		5.0	4.55	ug/L	91	(70-130)	20	0.44
MBLK	1,3-Dichloropropane			<0.25	ug/L				
MRL_CHK	1,3-Dichloropropane		0.5	0.570	ug/L	114	(50-150)		
LCS1	2,2-Dichloropropane		5.0	4.74	ug/L	95	(70-130)		
LCS2	2,2-Dichloropropane		5.0	4.76	ug/L	95	(70-130)	20	0.42
MBLK	2,2-Dichloropropane			<0.25	ug/L				
MRL_CHK	2,2-Dichloropropane		0.5	0.660	ug/L	132	(50-150)		
LCS1	2-Butanone (MEK)		50	51.8	ug/L	104	(70-130)		
LCS2	2-Butanone (MEK)		50	51.6	ug/L	103	(70-130)	20	0.77
MBLK	2-Butanone (MEK)			<2.5	ug/L				
MRL_CHK	2-Butanone (MEK)		5.0	4.44	ug/L	89	(50-150)		
LCS1	4-Bromofluorobenzene (S)			93.0	%	93	(70-130)		
LCS2	4-Bromofluorobenzene (S)			92.2	%	92	(70-130)		
MBLK	4-Bromofluorobenzene (S)			91.4	%	91	(70-130)		
MRL_CHK	4-Bromofluorobenzene (S)			96.2	%	96	(70-130)		
LCS1	4-Methyl-2-Pentanone (MIBK)		50	46.2	ug/L	92	(70-130)		
LCS2	4-Methyl-2-Pentanone (MIBK)		50	45.7	ug/L	92	(70-130)	20	1.1
MBLK	4-Methyl-2-Pentanone (MIBK)			<2.5	ug/L				
MRL_CHK	4-Methyl-2-Pentanone (MIBK)		5.0	5.33	ug/L	107	(50-150)		
LCS1	Benzene		5.0	4.67	ug/L	93	(70-130)		
LCS2	Benzene		5.0	4.66	ug/L	93	(70-130)	20	0.21
MBLK	Benzene			<0.25	ug/L				

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Benzene		0.5	0.570	ug/L	114	(50-150)		
LCS1	Bromobenzene		5.0	4.26	ug/L	85	(70-130)		
LCS2	Bromobenzene		5.0	4.36	ug/L	87	(70-130)	20	2.3
MBLK	Bromobenzene			<0.25	ug/L				
MRL_CHK	Bromobenzene		0.5	0.550	ug/L	110	(50-150)		
LCS1	Bromochloromethane		5.0	4.61	ug/L	92	(70-130)		
LCS2	Bromochloromethane		5.0	4.66	ug/L	93	(70-130)	20	1.1
MBLK	Bromochloromethane			<0.25	ug/L				
MRL_CHK	Bromochloromethane		0.5	0.530	ug/L	106	(50-150)		
LCS1	Bromodichloromethane		5.0	4.58	ug/L	92	(70-130)		
LCS2	Bromodichloromethane		5.0	4.52	ug/L	90	(70-130)	20	1.3
MBLK	Bromodichloromethane			<0.25	ug/L				
MRL_CHK	Bromodichloromethane		0.5	0.560	ug/L	112	(50-150)		
LCS1	Bromoethane		5.0	4.34	ug/L	87	(70-130)		
LCS2	Bromoethane		5.0	4.25	ug/L	85	(70-130)	20	2.1
MBLK	Bromoethane			<0.25	ug/L				
MRL_CHK	Bromoethane		0.5	0.560	ug/L	112	(50-150)		
LCS1	Bromoform		5.0	4.33	ug/L	87	(70-130)		
LCS2	Bromoform		5.0	4.16	ug/L	83	(70-130)	20	4.0
MBLK	Bromoform			<0.25	ug/L				
MRL_CHK	Bromoform		0.5	0.480	ug/L	96	(50-150)		
LCS1	Bromomethane (Methyl Bromide)		5.0	4.66	ug/L	93	(70-130)		
LCS2	Bromomethane (Methyl Bromide)		5.0	4.86	ug/L	97	(70-130)	20	4.2
MBLK	Bromomethane (Methyl Bromide)			<0.25	ug/L				
MRL_CHK	Bromomethane (Methyl Bromide)		0.5	0.640	ug/L	128	(50-150)		
LCS1	Carbon Tetrachloride		5.0	4.25	ug/L	85	(70-130)		
LCS2	Carbon Tetrachloride		5.0	4.25	ug/L	85	(70-130)	20	0.0
MBLK	Carbon Tetrachloride			<0.25	ug/L				
MRL_CHK	Carbon Tetrachloride		0.5	0.500	ug/L	100	(50-150)		
LCS1	Chlorobenzene		5.0	4.67	ug/L	93	(70-130)		
LCS2	Chlorobenzene		5.0	4.65	ug/L	93	(70-130)	20	0.43
MBLK	Chlorobenzene			<0.25	ug/L				
MRL_CHK	Chlorobenzene		0.5	0.540	ug/L	108	(50-150)		
LCS1	Chlorodibromomethane		5.0	4.72	ug/L	94	(70-130)		
LCS2	Chlorodibromomethane		5.0	4.59	ug/L	92	(70-130)	20	2.8
MBLK	Chlorodibromomethane			<0.25	ug/L				
MRL_CHK	Chlorodibromomethane		0.5	0.520	ug/L	104	(50-150)		
LCS1	Chloroethane		5.0	4.96	ug/L	99	(70-130)		

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(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Chloroethane		5.0	4.77	ug/L	95	(70-130)	20	3.9
MBLK	Chloroethane			<0.25	ug/L				
MRL_CHK	Chloroethane		0.5	0.530	ug/L	106	(50-150)		
LCS1	Chloroform (Trichloromethane)		5.0	4.51	ug/L	90	(70-130)		
LCS2	Chloroform (Trichloromethane)		5.0	4.49	ug/L	90	(70-130)	20	0.44
MBLK	Chloroform (Trichloromethane)			<0.25	ug/L				
MRL_CHK	Chloroform (Trichloromethane)		0.5	0.540	ug/L	108	(50-150)		
LCS1	Chloromethane(Methyl Chloride)		5.0	4.93	ug/L	99	(70-130)		
LCS2	Chloromethane(Methyl Chloride)		5.0	4.93	ug/L	99	(70-130)	20	0.0
MBLK	Chloromethane(Methyl Chloride)			<0.25	ug/L				
MRL_CHK	Chloromethane(Methyl Chloride)		0.5	0.530	ug/L	106	(50-150)		
LCS1	cis-1,2-Dichloroethylene		5.0	4.7	ug/L	94	(70-130)		
LCS2	cis-1,2-Dichloroethylene		5.0	4.63	ug/L	93	(70-130)	20	1.5
MBLK	cis-1,2-Dichloroethylene			<0.25	ug/L				
MRL_CHK	cis-1,2-Dichloroethylene		0.5	0.620	ug/L	124	(50-150)		
LCS1	cis-1,3-Dichloropropene		5.0	4.64	ug/L	93	(70-130)		
LCS2	cis-1,3-Dichloropropene		5.0	4.46	ug/L	89	(70-130)	20	4.0
MBLK	cis-1,3-Dichloropropene			<0.25	ug/L				
MRL_CHK	cis-1,3-Dichloropropene		0.5	0.580	ug/L	116	(50-150)		
LCS1	Di-isopropyl ether		5.0	4.48	ug/L	90	(70-130)		
LCS2	Di-isopropyl ether		5.0	4.46	ug/L	89	(70-130)	20	0.45
MBLK	Di-isopropyl ether			<1.5	ug/L				
MRL_CHK	Di-isopropyl ether		0.5	0.530	ug/L	106	(50-150)		
LCS1	Dibromomethane		5.0	4.59	ug/L	92	(70-130)		
LCS2	Dibromomethane		5.0	4.68	ug/L	94	(70-130)	20	1.9
MBLK	Dibromomethane			<0.25	ug/L				
MRL_CHK	Dibromomethane		0.5	0.640	ug/L	128	(50-150)		
LCS1	Dichlorodifluoromethane		5.0	4.56	ug/L	91	(70-130)		
LCS2	Dichlorodifluoromethane		5.0	4.43	ug/L	89	(70-130)	20	2.9
MBLK	Dichlorodifluoromethane			<0.25	ug/L				
MRL_CHK	Dichlorodifluoromethane		0.5	0.620	ug/L	124	(50-150)		
LCS1	Dichloromethane		5.0	4.51	ug/L	90	(70-130)		
LCS2	Dichloromethane		5.0	4.47	ug/L	89	(70-130)	20	0.89
MBLK	Dichloromethane			<0.25	ug/L				
MRL_CHK	Dichloromethane		0.5	0.600	ug/L	120	(50-150)		
LCS1	Ethyl benzene		5.0	4.46	ug/L	89	(70-130)		
LCS2	Ethyl benzene		5.0	4.47	ug/L	89	(70-130)	20	0.22
MBLK	Ethyl benzene			<0.25	ug/L				

Spike recovery is already corrected for native results.
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(S) Indicates surrogate compound.
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RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 320075

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Ethyl benzene		0.5	0.550	ug/L	110	(50-150)		
LCS1	Hexachlorobutadiene		5.0	4.87	ug/L	97	(70-130)		
LCS2	Hexachlorobutadiene		5.0	4.88	ug/L	98	(70-130)	20	0.21
MBLK	Hexachlorobutadiene			<0.25	ug/L				
MRL_CHK	Hexachlorobutadiene		0.5	0.420	ug/L	84	(50-150)		
LCS1	Isopropylbenzene		5.0	4.17	ug/L	83	(70-130)		
LCS2	Isopropylbenzene		5.0	4.16	ug/L	83	(70-130)	20	0.24
MBLK	Isopropylbenzene			<0.25	ug/L				
MRL_CHK	Isopropylbenzene		0.5	0.540	ug/L	108	(50-150)		
LCS1	m,p-Xylenes		10	9.44	ug/L	94	(70-130)		
LCS2	m,p-Xylenes		10	9.49	ug/L	95	(70-130)	20	0.53
MBLK	m,p-Xylenes			<0.25	ug/L				
MRL_CHK	m,p-Xylenes		1.0	1.05	ug/L	105	(50-150)		
LCS1	m-Dichlorobenzene (1,3-DCB)		5.0	4.34	ug/L	87	(70-130)		
LCS2	m-Dichlorobenzene (1,3-DCB)		5.0	4.19	ug/L	84	(70-130)	20	3.5
MBLK	m-Dichlorobenzene (1,3-DCB)			<0.25	ug/L				
MRL_CHK	m-Dichlorobenzene (1,3-DCB)		0.5	0.520	ug/L	104	(50-150)		
LCS1	Methyl Tert-butyl ether (MTBE)		5.0	4.53	ug/L	91	(70-130)		
LCS2	Methyl Tert-butyl ether (MTBE)		5.0	4.58	ug/L	92	(70-130)	20	1.1
MBLK	Methyl Tert-butyl ether (MTBE)			<0.25	ug/L				
MRL_CHK	Methyl Tert-butyl ether (MTBE)		0.5	0.560	ug/L	112	(50-150)		
LCS1	n-Butylbenzene		5.0	4.71	ug/L	94	(70-130)		
LCS2	n-Butylbenzene		5.0	4.57	ug/L	91	(70-130)	20	3.0
MBLK	n-Butylbenzene			<0.25	ug/L				
MRL_CHK	n-Butylbenzene		0.5	0.550	ug/L	110	(50-150)		
LCS1	n-Propylbenzene		5.0	4.33	ug/L	87	(70-130)		
LCS2	n-Propylbenzene		5.0	4.19	ug/L	84	(70-130)	20	3.3
MBLK	n-Propylbenzene			<0.25	ug/L				
MRL_CHK	n-Propylbenzene		0.5	0.580	ug/L	116	(50-150)		
LCS1	Naphthalene		5.0	4.84	ug/L	97	(70-130)		
LCS2	Naphthalene		5.0	4.6	ug/L	92	(70-130)	20	5.1
MBLK	Naphthalene			<0.25	ug/L				
MRL_CHK	Naphthalene		0.5	0.410	ug/L	82	(50-150)		
LCS1	o-Chlorotoluene		5.0	4.42	ug/L	88	(70-130)		
LCS2	o-Chlorotoluene		5.0	4.29	ug/L	86	(70-130)	20	3.0
MBLK	o-Chlorotoluene			<0.25	ug/L				
MRL_CHK	o-Chlorotoluene		0.5	0.540	ug/L	108	(50-150)		
LCS1	o-Dichlorobenzene (1,2-DCB)		5.0	4.6	ug/L	92	(70-130)		

Spike recovery is already corrected for native results.
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(S) Indicates surrogate compound.
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RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 320075

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	o-Dichlorobenzene (1,2-DCB)		5.0	4.59	ug/L	92	(70-130)	20	0.22
MBLK	o-Dichlorobenzene (1,2-DCB)			<0.25	ug/L				
MRL_CHK	o-Dichlorobenzene (1,2-DCB)		0.5	0.510	ug/L	102	(50-150)		
LCS1	o-Xylene		5.0	4.6	ug/L	92	(70-130)		
LCS2	o-Xylene		5.0	4.54	ug/L	91	(70-130)	20	1.3
MBLK	o-Xylene			<0.25	ug/L				
MRL_CHK	o-Xylene		0.5	0.530	ug/L	106	(50-150)		
LCS1	p-Chlorotoluene		5.0	4.38	ug/L	88	(70-130)		
LCS2	p-Chlorotoluene		5.0	4.36	ug/L	87	(70-130)	20	0.46
MBLK	p-Chlorotoluene			<0.25	ug/L				
MRL_CHK	p-Chlorotoluene		0.5	0.610	ug/L	122	(50-150)		
LCS1	p-Dichlorobenzene (1,4-DCB)		5.0	4.18	ug/L	84	(70-130)		
LCS2	p-Dichlorobenzene (1,4-DCB)		5.0	4.21	ug/L	84	(70-130)	20	0.72
MBLK	p-Dichlorobenzene (1,4-DCB)			<0.25	ug/L				
MRL_CHK	p-Dichlorobenzene (1,4-DCB)		0.5	0.510	ug/L	102	(50-150)		
LCS1	p-Isopropyltoluene		5.0	4.41	ug/L	88	(70-130)		
LCS2	p-Isopropyltoluene		5.0	4.33	ug/L	87	(70-130)	20	1.8
MBLK	p-Isopropyltoluene			<0.25	ug/L				
MRL_CHK	p-Isopropyltoluene		0.5	0.570	ug/L	114	(50-150)		
LCS1	sec-Butylbenzene		5.0	4.39	ug/L	88	(70-130)		
LCS2	sec-Butylbenzene		5.0	4.22	ug/L	84	(70-130)	20	4.0
MBLK	sec-Butylbenzene			<0.25	ug/L				
MRL_CHK	sec-Butylbenzene		0.5	0.520	ug/L	104	(50-150)		
LCS1	Styrene		5.0	4.51	ug/L	90	(70-130)		
LCS2	Styrene		5.0	4.49	ug/L	90	(70-130)	20	0.44
MBLK	Styrene			<0.25	ug/L				
MRL_CHK	Styrene		0.5	0.480	ug/L	96	(50-150)		
LCS1	tert-amyl Methyl Ether		5.0	4.29	ug/L	86	(70-130)		
LCS2	tert-amyl Methyl Ether		5.0	4.18	ug/L	84	(70-130)	20	2.6
MBLK	tert-amyl Methyl Ether			<1.5	ug/L				
MRL_CHK	tert-amyl Methyl Ether		0.5	0.530	ug/L	106	(50-150)		
LCS1	tert-Butyl Ethyl Ether		5.0	4.48	ug/L	90	(70-130)		
LCS2	tert-Butyl Ethyl Ether		5.0	4.32	ug/L	86	(70-130)	20	3.6
MBLK	tert-Butyl Ethyl Ether			<1.5	ug/L				
MRL_CHK	tert-Butyl Ethyl Ether		0.5	0.520	ug/L	104	(50-150)		
LCS1	tert-Butylbenzene		5.0	4.38	ug/L	88	(70-130)		
LCS2	tert-Butylbenzene		5.0	4.23	ug/L	85	(70-130)	20	3.5

Spike recovery is already corrected for native results.
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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
(S) Indicates surrogate compound.
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RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 320075

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	tert-Butylbenzene			<0.25	ug/L				
MRL_CHK	tert-Butylbenzene		0.5	0.570	ug/L	114	(50-150)		
LCS1	Tetrachloroethylene (PCE)		5.0	4.61	ug/L	92	(70-130)		
LCS2	Tetrachloroethylene (PCE)		5.0	4.43	ug/L	89	(70-130)	20	4.0
MBLK	Tetrachloroethylene (PCE)			<0.25	ug/L				
MRL_CHK	Tetrachloroethylene (PCE)		0.5	0.560	ug/L	112	(50-150)		
LCS1	Toluene		5.0	4.69	ug/L	94	(70-130)		
LCS2	Toluene		5.0	4.63	ug/L	93	(70-130)	20	1.3
MBLK	Toluene			<0.25	ug/L				
MRL_CHK	Toluene		0.5	0.600	ug/L	120	(50-150)		
LCS1	Toluene-d8 (S)			99.4	%	99	(70-130)		
LCS2	Toluene-d8 (S)			104	%	104	(70-130)		
MBLK	Toluene-d8 (S)			100	%	100	(70-130)		
MRL_CHK	Toluene-d8 (S)			98.6	%	99	(70-130)		
LCS1	trans-1,2-Dichloroethylene		5.0	4.58	ug/L	92	(70-130)		
LCS2	trans-1,2-Dichloroethylene		5.0	4.34	ug/L	87	(70-130)	20	5.4
MBLK	trans-1,2-Dichloroethylene			<0.25	ug/L				
MRL_CHK	trans-1,2-Dichloroethylene		0.5	0.590	ug/L	118	(50-150)		
LCS1	trans-1,3-Dichloropropene		5.0	4.54	ug/L	91	(70-130)		
LCS2	trans-1,3-Dichloropropene		5.0	4.61	ug/L	92	(70-130)	20	1.5
MBLK	trans-1,3-Dichloropropene			<0.25	ug/L				
MRL_CHK	trans-1,3-Dichloropropene		0.5	0.580	ug/L	116	(50-150)		
LCS1	Trichloroethylene (TCE)		5.0	4.72	ug/L	94	(70-130)		
LCS2	Trichloroethylene (TCE)		5.0	4.74	ug/L	95	(70-130)	20	0.42
MBLK	Trichloroethylene (TCE)			<0.25	ug/L				
MRL_CHK	Trichloroethylene (TCE)		0.5	0.600	ug/L	120	(50-150)		
LCS1	Trichlorofluoromethane		5.0	4.88	ug/L	98	(70-130)		
LCS2	Trichlorofluoromethane		5.0	4.76	ug/L	95	(70-130)	20	2.5
MBLK	Trichlorofluoromethane			<0.25	ug/L				
MRL_CHK	Trichlorofluoromethane		0.5	0.570	ug/L	114	(50-150)		
LCS1	Trichlorotrifluoroethane(Freon		5.0	4.88	ug/L	98	(70-130)		
LCS2	Trichlorotrifluoroethane(Freon		5.0	4.69	ug/L	94	(70-130)	20	4.0
MBLK	Trichlorotrifluoroethane(Freon			<0.25	ug/L				
MRL_CHK	Trichlorotrifluoroethane(Freon		0.5	0.570	ug/L	114	(50-150)		
LCS1	Vinyl chloride (VC)		5.0	4.52	ug/L	90	(70-130)		
LCS2	Vinyl chloride (VC)		5.0	4.39	ug/L	88	(70-130)	20	2.9
MBLK	Vinyl chloride (VC)			<0.15	ug/L				
MRL_CHK	Vinyl chloride (VC)		0.5	0.570	ug/L	114	(50-150)		

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RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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QC Report: 320075

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 532872 - Dissolved UV Abs. at 254 nm by SM 5910							**Analysis Date: 11/24/2009**		
DUP1_200911240185	UV absorbance at 254 nm	0		0.167	cm -1		(0-15)	15	0.60
LCS1	UV absorbance at 254 nm		0.37	0.331	cm -1	90	(83-121)		
MBLK	UV absorbance at 254 nm			<0.004	cm -1				
MRL_CHK	UV absorbance at 254 nm		0.009	0.00800	cm -1	89	(85-115)		
QC Ref# 532932 - ICPMS Metals by EPA 200.8							**Analysis Date: 11/25/2009**		
LCS1	Aluminum Total ICAP/MS		200	204	ug/L	102	(85-115)		
LCS2	Aluminum Total ICAP/MS		200	196	ug/L	98	(85-115)	20	4.0
MBLK	Aluminum Total ICAP/MS			<20	ug/L				
MRL_CHK	Aluminum Total ICAP/MS		20	21.9	ug/L	110	(50-150)		
MS_200911190480	Aluminum Total ICAP/MS	ND	200	199	ug/L	99	(70-130)		
MS2_200911250203	Aluminum Total ICAP/MS	ND	200	201	ug/L	100	(70-130)		
MSD_200911190480	Aluminum Total ICAP/MS	ND	200	196	ug/L	98	(70-130)	20	1.2
MSD2_200911250203	Aluminum Total ICAP/MS	ND	200	213	ug/L	106	(70-130)	20	5.8
LCS1	Antimony Total ICAP/MS		50	49.3	ug/L	99	(85-115)		
LCS2	Antimony Total ICAP/MS		50	47.8	ug/L	96	(85-115)	20	3.1
MBLK	Antimony Total ICAP/MS			<1	ug/L				
MRL_CHK	Antimony Total ICAP/MS		1.0	0.965	ug/L	97	(50-150)		
MS_200911190480	Antimony Total ICAP/MS	ND	50	50.3	ug/L	101	(70-130)		
MS2_200911250203	Antimony Total ICAP/MS	ND	50	49.8	ug/L	100	(70-130)		
MSD_200911190480	Antimony Total ICAP/MS	ND	50	49.9	ug/L	100	(70-130)	20	1.4
MSD2_200911250203	Antimony Total ICAP/MS	ND	50	53.3	ug/L	107	(70-130)	20	7.2
LCS1	Arsenic Total ICAP/MS		20	19.1	ug/L	95	(85-115)		
LCS2	Arsenic Total ICAP/MS		20	18.4	ug/L	92	(85-115)	20	3.7
MBLK	Arsenic Total ICAP/MS			<1	ug/L				
MRL_CHK	Arsenic Total ICAP/MS		1.0	0.952	ug/L	95	(50-150)		
MS_200911190480	Arsenic Total ICAP/MS	2.1	20	23.6	ug/L	108	(70-130)		
MS2_200911250203	Arsenic Total ICAP/MS	ND	20	19.8	ug/L	98	(70-130)		
MSD_200911190480	Arsenic Total ICAP/MS	2.1	20	23.3	ug/L	106	(70-130)	20	1.9
MSD2_200911250203	Arsenic Total ICAP/MS	ND	20	21.1	ug/L	105	(70-130)	20	6.5
LCS1	Barium Total ICAP/MS		100	97.5	ug/L	98	(85-115)		
LCS2	Barium Total ICAP/MS		100	94.1	ug/L	94	(85-115)	20	3.5
MBLK	Barium Total ICAP/MS			<2	ug/L				
MRL_CHK	Barium Total ICAP/MS		2.0	1.93	ug/L	97	(50-150)		
MS_200911190480	Barium Total ICAP/MS	130	100	226	ug/L	91	(70-130)		
MS2_200911250203	Barium Total ICAP/MS	8.3	100	108	ug/L	99	(70-130)		

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RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD_200911190480	Barium Total ICAP/MS	130	100	224	ug/L	89	(70-130)	20	2.2
MSD2_200911250203	Barium Total ICAP/MS	8.3	100	114	ug/L	106	(70-130)	20	6.4
LCS1	Beryllium Total ICAP/MS		5.0	4.64	ug/L	93	(85-115)		
LCS2	Beryllium Total ICAP/MS		5.0	4.43	ug/L	89	(85-115)	20	4.6
MBLK	Beryllium Total ICAP/MS			<1	ug/L				
MRL_CHK	Beryllium Total ICAP/MS		1.0	0.942	ug/L	94	(50-150)		
MS_200911190480	Beryllium Total ICAP/MS	ND	5.0	5.94	ug/L	119	(70-130)		
MS2_200911250203	Beryllium Total ICAP/MS	ND	5.0	4.89	ug/L	98	(70-130)		
MSD_200911190480	Beryllium Total ICAP/MS	ND	5.0	5.75	ug/L	115	(70-130)	20	3.4
MSD2_200911250203	Beryllium Total ICAP/MS	ND	5.0	5.22	ug/L	104	(70-130)	20	6.3
LCS1	Cadmium Total ICAP/MS		20	18.7	ug/L	93	(85-115)		
LCS2	Cadmium Total ICAP/MS		20	18.4	ug/L	92	(85-115)	20	1.6
MBLK	Cadmium Total ICAP/MS			<0.5	ug/L				
MRL_CHK	Cadmium Total ICAP/MS		0.5	0.477	ug/L	95	(50-150)		
MS_200911190480	Cadmium Total ICAP/MS	ND	20	18.3	ug/L	92	(70-130)		
MS2_200911250203	Cadmium Total ICAP/MS	ND	20	19.8	ug/L	99	(70-130)		
MSD_200911190480	Cadmium Total ICAP/MS	ND	20	18.0	ug/L	90	(70-130)	20	2.1
MSD2_200911250203	Cadmium Total ICAP/MS	ND	20	21.3	ug/L	107	(70-130)	20	7.6
LCS1	Chromium Total ICAP/MS		100	97.3	ug/L	97	(85-115)		
LCS2	Chromium Total ICAP/MS		100	93.1	ug/L	93	(85-115)	20	4.4
MBLK	Chromium Total ICAP/MS			<1	ug/L				
MRL_CHK	Chromium Total ICAP/MS		1.0	1.00	ug/L	100	(50-150)		
MS_200911190480	Chromium Total ICAP/MS	ND	100	97.8	ug/L	97	(70-130)		
MS2_200911250203	Chromium Total ICAP/MS	ND	100	93.5	ug/L	93	(70-130)		
MSD_200911190480	Chromium Total ICAP/MS	ND	100	97.0	ug/L	96	(70-130)	20	0.73
MSD2_200911250203	Chromium Total ICAP/MS	ND	100	100	ug/L	100	(70-130)	20	6.8
LCS1	Copper Total ICAP/MS		100	100	ug/L	100	(85-115)		
LCS2	Copper Total ICAP/MS		100	95.2	ug/L	95	(85-115)	20	4.9
MBLK	Copper Total ICAP/MS			<2	ug/L				
MRL_CHK	Copper Total ICAP/MS		2.0	2.00	ug/L	100	(50-150)		
MS_200911190480	Copper Total ICAP/MS	ND	100	93.8	ug/L	93	(70-130)		
MS2_200911250203	Copper Total ICAP/MS	ND	100	97.2	ug/L	97	(70-130)		
MSD_200911190480	Copper Total ICAP/MS	ND	100	92.5	ug/L	92	(70-130)	20	1.4
MSD2_200911250203	Copper Total ICAP/MS	ND	100	105	ug/L	104	(70-130)	20	7.0
LCS1	Lead Total ICAP/MS		20	19.4	ug/L	97	(85-115)		
LCS2	Lead Total ICAP/MS		20	18.9	ug/L	95	(85-115)	20	2.6
MBLK	Lead Total ICAP/MS			<0.5	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.477	ug/L	95	(50-150)		

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CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_200911190480	Lead Total ICAP/MS	ND	20	19.6	ug/L	96	(70-130)		
MS2_200911250203	Lead Total ICAP/MS	ND	20	17.7	ug/L	89	(70-130)		
MSD_200911190480	Lead Total ICAP/MS	ND	20	19.1	ug/L	94	(70-130)	20	2.4
MSD2_200911250203	Lead Total ICAP/MS	ND	20	19.1	ug/L	96	(70-130)	20	7.8
LCS1	Manganese Total ICAP/MS		50	49.6	ug/L	99	(85-115)		
LCS2	Manganese Total ICAP/MS		50	47.3	ug/L	95	(85-115)	20	4.8
MBLK	Manganese Total ICAP/MS			<2	ug/L				
MRL_CHK	Manganese Total ICAP/MS		2.0	2.01	ug/L	100	(50-150)		
MS_200911190480	Manganese Total ICAP/MS	ND	50	50.2	ug/L	98	(70-130)		
MS2_200911250203	Manganese Total ICAP/MS	ND	50	49.3	ug/L	96	(70-130)		
MSD_200911190480	Manganese Total ICAP/MS	ND	50	50.0	ug/L	98	(70-130)	20	0.41
MSD2_200911250203	Manganese Total ICAP/MS	ND	50	52.8	ug/L	103	(70-130)	20	6.6
LCS1	Molybdenum Total ICAP/MS		100	98.8	ug/L	99	(85-115)		
LCS2	Molybdenum Total ICAP/MS		100	96.1	ug/L	96	(85-115)	20	2.8
MBLK	Molybdenum Total ICAP/MS			<2	ug/L				
MRL_CHK	Molybdenum Total ICAP/MS		2.0	2.00	ug/L	100	(50-150)		
MS_200911190480	Molybdenum Total ICAP/MS	ND	100	100	ug/L	98	(70-130)		
MS2_200911250203	Molybdenum Total ICAP/MS	ND	100	90.4	ug/L	90	(70-130)		
MSD_200911190480	Molybdenum Total ICAP/MS	ND	100	99.3	ug/L	97	(70-130)	20	0.92
MSD2_200911250203	Molybdenum Total ICAP/MS	ND	100	97.0	ug/L	97	(70-130)	20	7.0
LCS1	Nickel Total ICAP/MS		50	48.7	ug/L	97	(85-115)		
LCS2	Nickel Total ICAP/MS		50	46.3	ug/L	93	(85-115)	20	5.0
MBLK	Nickel Total ICAP/MS			<5	ug/L				
MRL_CHK	Nickel Total ICAP/MS		5.0	4.99	ug/L	100	(50-150)		
MS_200911190480	Nickel Total ICAP/MS	ND	50	46.1	ug/L	91	(70-130)		
MS2_200911250203	Nickel Total ICAP/MS	ND	50	48.6	ug/L	96	(70-130)		
MSD_200911190480	Nickel Total ICAP/MS	ND	50	45.6	ug/L	90	(70-130)	20	1.1
MSD2_200911250203	Nickel Total ICAP/MS	ND	50	51.6	ug/L	102	(70-130)	20	6.4
LCS1	Selenium Total ICAP/MS		20	19.4	ug/L	97	(85-115)		
LCS2	Selenium Total ICAP/MS		20	18.7	ug/L	93	(85-115)	20	3.7
MBLK	Selenium Total ICAP/MS			<5	ug/L				
MRL_CHK	Selenium Total ICAP/MS		5.0	4.37	ug/L	88	(50-150)		
MS_200911190480	Selenium Total ICAP/MS	ND	20	26.0	ug/L	117	(70-130)		
MS2_200911250203	Selenium Total ICAP/MS	ND	20	23.2	ug/L	116	(70-130)		
MSD_200911190480	Selenium Total ICAP/MS	ND	20	25.9	ug/L	116	(70-130)	20	0.86
MSD2_200911250203	Selenium Total ICAP/MS	ND	20	24.5	ug/L	122	(70-130)	20	5.0
LCS1	Silver Total ICAP/MS		50	49.8	ug/L	100	(85-115)		
LCS2	Silver Total ICAP/MS		50	48.8	ug/L	98	(85-115)	20	2.0

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(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Silver Total ICAP/MS			<0.5	ug/L				
MRL_CHK	Silver Total ICAP/MS		0.5	0.430	ug/L	86	(50-150)		
MS_200911190480	Silver Total ICAP/MS	ND	50	38.6	ug/L	77	(70-130)		
MS2_200911250203	Silver Total ICAP/MS	ND	50	48.5	ug/L	97	(70-130)		
MSD_200911190480	Silver Total ICAP/MS	ND	50	36.0	ug/L	72	(70-130)	20	6.8
MSD2_200911250203	Silver Total ICAP/MS	ND	50	52.1	ug/L	104	(70-130)	20	7.0
LCS1	Thallium Total ICAP/MS		20	19.9	ug/L	100	(85-115)		
LCS2	Thallium Total ICAP/MS		20	19.5	ug/L	97	(85-115)	20	2.0
MBLK	Thallium Total ICAP/MS			<1	ug/L				
MRL_CHK	Thallium Total ICAP/MS		1.0	0.980	ug/L	98	(50-150)		
MS_200911190480	Thallium Total ICAP/MS	ND	20	19.7	ug/L	98	(70-130)		
MS2_200911250203	Thallium Total ICAP/MS	ND	20	19.5	ug/L	98	(70-130)		
MSD_200911190480	Thallium Total ICAP/MS	ND	20	19.5	ug/L	98	(70-130)	20	0.72
MSD2_200911250203	Thallium Total ICAP/MS	ND	20	21.0	ug/L	105	(70-130)	20	7.4
LCS1	Uranium ICAP/MS		20	20.3	ug/L	102	(85-115)		
LCS2	Uranium ICAP/MS		20	19.7	ug/L	99	(85-115)	20	3.0
MBLK	Uranium ICAP/MS			<1	ug/L				
MRL_CHK	Uranium ICAP/MS		1.0	1.05	ug/L	105	(50-150)		
MS_200911190480	Uranium ICAP/MS	15	20	34.2	ug/L	94	(70-130)		
MS2_200911250203	Uranium ICAP/MS	ND	20	20.3	ug/L	101	(70-130)		
MSD_200911190480	Uranium ICAP/MS	15	20	34.5	ug/L	96	(70-130)	20	1.5
MSD2_200911250203	Uranium ICAP/MS	ND	20	20.4	ug/L	102	(70-130)	20	0.99
LCS1	Vanadium Total ICAP/MS		100	99.3	ug/L	99	(85-115)		
LCS2	Vanadium Total ICAP/MS		100	97.0	ug/L	97	(85-115)	20	2.3
MBLK	Vanadium Total ICAP/MS			<3	ug/L				
MRL_CHK	Vanadium Total ICAP/MS		3.0	3.01	ug/L	100	(50-150)		
MS_200911190480	Vanadium Total ICAP/MS	11	100	115	ug/L	104	(70-130)		
MS2_200911250203	Vanadium Total ICAP/MS	ND	100	90.1	ug/L	90	(70-130)		
MSD_200911190480	Vanadium Total ICAP/MS	11	100	113	ug/L	103	(70-130)	20	0.97
MSD2_200911250203	Vanadium Total ICAP/MS	ND	100	96.4	ug/L	96	(70-130)	20	6.8
LCS1	Zinc Total ICAP/MS		100	97.0	ug/L	97	(85-115)		
LCS2	Zinc Total ICAP/MS		100	94.4	ug/L	94	(85-115)	20	2.7
MBLK	Zinc Total ICAP/MS			<20	ug/L				
MRL_CHK	Zinc Total ICAP/MS		20	19.5	ug/L	97	(50-150)		
MS_200911190480	Zinc Total ICAP/MS	ND	100	106	ug/L	97	(70-130)		
MS2_200911250203	Zinc Total ICAP/MS	ND	100	114	ug/L	113	(70-130)		
MSD_200911190480	Zinc Total ICAP/MS	ND	100	104	ug/L	95	(70-130)	20	2.1
MSD2_200911250203	Zinc Total ICAP/MS	ND	100	121	ug/L	121	(70-130)	20	6.8

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CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 533055 - Dissolved Organic Carbon by SM 5310C							**Analysis Date: 11/30/2009**		
LCS3	Dissolved Organic Carbon		5.0	4.86	mg/L	97	(90-110)		
LCS4	Dissolved Organic Carbon		5.0	4.95	mg/L	99	(90-110)	20	1.0
MBLK	Dissolved Organic Carbon			<0.3	mg/L				
MRL_CHK	Dissolved Organic Carbon		0.2	0.177	mg/L	88	(50-150)		
MS_200912020019	Dissolved Organic Carbon	8.6	4.0	15.9	mg/L	92	(80-120)		
MSD_200912020019	Dissolved Organic Carbon	8.6	4.0	16.0	mg/L	93	(80-120)	20	1.6
QC Ref# 533128 - Total Organic Carbon by SM5310C/E415.3							**Analysis Date: 11/30/2009**		
LCS3	Total Organic Carbon		5.0	4.86	mg/L	97	(90-110)		
LCS4	Total Organic Carbon		5.0	4.95	mg/L	99	(90-110)	20	1.0
MBLK	Total Organic Carbon			<0.3	mg/L				
MRL_CHK	Total Organic Carbon		0.2	0.177	mg/L	88	(50-150)		
MS_200911190693	Total Organic Carbon	8.6	4.0	15.9	mg/L	92	(80-120)		
MS2_200911210078	Total Organic Carbon		2.0	472	mg/L	**0**	(80-120)		
MSD_200911190693	Total Organic Carbon	8.6	4.0	16.0	mg/L	93	(80-120)	20	1.6
QC Ref# 533257 - Perchlorate with 0.5 ppb DL by EPA 314.0							**Analysis Date: 11/30/2009**		
DUP_200911210002	Perchlorate- 0.5 ppb	ND		ND	ug/L		(0-15)		
ICCS	Perchlorate- 0.5 ppb		1.0	0.985	ug/L	99	(85-115)		
LCS1	Perchlorate- 0.5 ppb		25	24.3	ug/L	97	(85-115)		
LCS2	Perchlorate- 0.5 ppb		25	24.4	ug/L	97	(85-115)	15	0.41
MBLK	Perchlorate- 0.5 ppb			<0.25	ug/L				
MRL_CHK	Perchlorate- 0.5 ppb		0.5	0.471	ug/L	94	(70-130)		
MRLHI	Perchlorate- 0.5 ppb		1.0	0.992	ug/L	99	(75-125)		
MS1_200911210002	Perchlorate- 0.5 ppb	ND	1.0	0.906	ug/L	91	(70-130)		
MSD1_200911210002	Perchlorate- 0.5 ppb	ND	1.0	0.893	ug/L	89	(70-130)	15	1.5
QC Ref# 533261 - ICP Metals by EPA 200.7							**Analysis Date: 12/02/2009**		
LCS1	Boron Total ICAP		0.5	0.469	mg/L	94	(85-115)		
LCS2	Boron Total ICAP		0.5	0.477	mg/L	95	(85-115)	20	1.7
MBLK	Boron Total ICAP			<0.05	mg/L				
MRL_CHK	Boron Total ICAP		0.05	0.0413	mg/L	83	(50-150)		
MS_200911270005	Boron Total ICAP	0.15	0.5	0.655	mg/L	100	(70-130)		
MS2_200911270006	Boron Total ICAP	0.16	0.5	0.674	mg/L	103	(70-130)		
MSD_200911270005	Boron Total ICAP	0.15	0.5	0.646	mg/L	99	(70-130)	20	1.5
MSD2_200911270006	Boron Total ICAP	0.16	0.5	0.670	mg/L	102	(70-130)	20	0.98
LCS1	Calcium Total ICAP		50	50.7	mg/L	101	(85-115)		

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(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Calcium Total ICAP		50	50.7	mg/L	101	(85-115)	20	0.0
MBLK	Calcium Total ICAP			<1	mg/L				
MRL_CHK	Calcium Total ICAP		1.0	1.04	mg/L	104	(50-150)		
MS_200911270005	Calcium Total ICAP	40	50	89.7	mg/L	99	(70-130)		
MS2_200911270006	Calcium Total ICAP	40	50	91.5	mg/L	104	(70-130)		
MSD_200911270005	Calcium Total ICAP	40	50	88.3	mg/L	96	(70-130)	20	2.8
MSD2_200911270006	Calcium Total ICAP	40	50	91.3	mg/L	103	(70-130)	20	0.97
LCS1	Iron Total ICAP		5.0	4.83	mg/L	97	(85-115)		
LCS2	Iron Total ICAP		5.0	4.88	mg/L	98	(85-115)	20	1.0
MBLK	Iron Total ICAP			<0.02	mg/L				
MRL_CHK	Iron Total ICAP		0.02	0.0131	mg/L	66	(50-150)		
MS_200911270005	Iron Total ICAP	ND	5.0	4.88	mg/L	98	(70-130)		
MS2_200911270006	Iron Total ICAP	ND	5.0	4.94	mg/L	99	(70-130)		
MSD_200911270005	Iron Total ICAP	ND	5.0	4.71	mg/L	94	(70-130)	20	3.5
MSD2_200911270006	Iron Total ICAP	ND	5.0	4.92	mg/L	98	(70-130)	20	0.41
LCS1	Magnesium Total ICAP		20	19.9	mg/L	99	(85-115)		
LCS2	Magnesium Total ICAP		20	20.0	mg/L	100	(85-115)	20	0.50
MBLK	Magnesium Total ICAP			<0.1	mg/L				
MRL_CHK	Magnesium Total ICAP		0.1	0.101	mg/L	101	(50-150)		
MS_200911270005	Magnesium Total ICAP	11	20	30.4	mg/L	97	(70-130)		
MS2_200911270006	Magnesium Total ICAP	9.9	20	30.6	mg/L	103	(70-130)		
MSD_200911270005	Magnesium Total ICAP	11	20	30.0	mg/L	95	(70-130)	20	2.1
MSD2_200911270006	Magnesium Total ICAP	9.9	20	30.1	mg/L	101	(70-130)	20	2.0
LCS1	Potassium Total ICAP		20	19.1	mg/L	96	(85-115)		
LCS2	Potassium Total ICAP		20	19.2	mg/L	96	(85-115)	20	0.52
MBLK	Potassium Total ICAP			<1	mg/L				
MRL_CHK	Potassium Total ICAP		1.0	0.995	mg/L	100	(50-150)		
MS_200911270005	Potassium Total ICAP	3.7	20	22.8	mg/L	95	(70-130)		
MS2_200911270006	Potassium Total ICAP	3.5	20	23.2	mg/L	98	(70-130)		
MSD_200911270005	Potassium Total ICAP	3.7	20	22.2	mg/L	92	(70-130)	20	3.1
MSD2_200911270006	Potassium Total ICAP	3.5	20	23.0	mg/L	97	(70-130)	20	1.0
LCS1	Sodium Total ICAP		50	49.1	mg/L	98	(85-115)		
LCS2	Sodium Total ICAP		50	49.3	mg/L	99	(85-115)	20	0.41
MBLK	Sodium Total ICAP			<1	mg/L				
MRL_CHK	Sodium Total ICAP		1.0	1.00	mg/L	100	(50-150)		
MS_200911270005	Sodium Total ICAP	48	50	94.8	mg/L	94	(70-130)		
MS2_200911270006	Sodium Total ICAP	46	50	96.0	mg/L	100	(70-130)		
MSD_200911270005	Sodium Total ICAP	48	50	93.4	mg/L	91	(70-130)	20	2.8

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(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD2_200911270006	Sodium Total ICAP	46	50	95.2	mg/L	99	(70-130)	20	1.2

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CDM-MA
GROUP# 320075
LAB# 200911240185

PREDOMINANT ALGAE:

Diatoma 17%
Navicula 16%
Synedra 13%
Achnanthes 11%

OTHER ALGAE:

Ankistrodesmus
Asterionella
Cryptomonas
Cymbella
Dinobryon
Gloeocystis
Gomphonema
Mallomonas
Micractinium
Pinnularia
Scenedesmus
Stauroneis
Stephanodiscus

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for

CDM
50 Hampshire Street
Cambridge, MA 02139-1548
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Date of Issue
01/13/2010

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Report#: 322470
Project: MERRIMACK-RIVER
Group: DW Study

TDF: Thomas.D.French

Project Manager

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Hits Reports, Comments, QC Summary, QC Report and Regulatory Forms. This report shall not be reproduced except in full, without the written approval of the laboratory.

MWH Laboratories

750 Royal Oaks Drive Suite 100, Monrovia, Ca 91016
Phone 626-386-1100/Fax: 626-386-1101

Acknowledgement of Samples Received

CDM
50 Hampshire Street
Cambridge, MA 02139-1548
Attn: Jamie Lefkowitz
Phone: 617-452-6591

Customer Code: CDM-MA
Group #: 322470
Project #: MERRIMACK-RIVER
Sample Group: DW Study
Project Manager: Thomas.D.French
Phone: (480) 778-1558

The following samples were received from you on **December 30, 2009**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample #	Sample Id	Sample Date
200912300069	AMOSKEAG	29-Dec-2009 1200

@MTBE9	@SPMELOW	Actinomycetes
Algae Enumeration	Algae Identification	CLO41PPB
Dissolved Organic Carbon	Iron Total ICAP	Manganese Total ICAP/MS
PH (H3=past HT not compliant)	Total Organic Carbon	UV absorbance at 254 nm

200912300070	MTBE - TRAVEL BLANK - HOLD	29-Dec-2009 0000

@MTBE9 TB

Test Description

@MTBE9 -- Volatile Organics by GCMS
@MTBE9 TB -- Volatile Organics by GCMS
@SPMELOW -- Taste and Odor Cmpds Low Level

Reported: 01/13/10

322470

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CHAIN OF CUSTODY RECORD

MWH LABS USE ONLY:

LOGIN COMMENTS: _____

SAMPLES CHECKED AGAINST COC BY: MP

SAMPLES LOGGED IN BY: JS

SAMPLE TEMP WHEN REC'D AT LAB: 3.0 c (Compliance: 4 +/- 2°C)

SAMPLES REC'D DAY OF COLLECTION? ☐ (check for yes)

CONDITION OF BLUE ICE: FROZEN ✓ PARTIALLY FROZEN ___ THAWED ___

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: CDM

PROJECT CODE: UPPER MERRIMACK

MWH LABS CLIENT CODE: | COC ID: | SAMPLE GROUP:

SAMPLER PRINTED NAME AND SIGNATURE: JLEFKOWITZ Jamie Lefkowitz

TAT requested: rush by adv notice only
STD___ 1 wk ___ 3 day __ 2 day___ 1 day __

(check for yes) *(check for yes)*

COMPLIANCE SAMPLES - Requires state forms ☐ NON-COMPLIANCE SAMPLES ☒
REGULATION INVOLVED: _____ (eg. SDWA, Phase V, NPDES, FDA,...)

Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION

SEE ATTACHED BOTTLE ORDER FOR ANALYSES ☒ (check for yes), ***OR***

list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)

SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX *	Field Data	Field Data	ALGAE	AGAE-10	DOC	UV	PH	SAMPLER COMMENTS
12-29-09	1310	AMOSKEAG										Polly 12/30/09 10:06

This portion can be removed for recipient's records.

FedEx Tracking Number 869698503676

Sender's Name Jamie Lefkowitz Phone 603 861-1051

Company CDM

Address 50 Hampshire St Dept/Floor/Suite/Room

City Cambridge State MA ZIP 02139

Your Internal Billing Reference

* **MATRIX TYPES:** **RSW** = Raw Surface Water; **RGW** = Raw Ground Water; **CFW** = Chlor(am)inated Finished Water; **FW** = Other Finished Water; **SEAW** = Sea Water; **WW** = Waste Water; **BW** = Bottled Water; **SW** = Storm Water; **SO** = Soil; **SL** = Sludge; **O** = Other - Please Identify

	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
RELINQUISHED BY:	Jamie Lefkowitz	JAMIE LEFKOWITZ	CDM	12/29/09	12:30 PM
RECEIVED BY:		M. Dellea	Mwd	12-30-9	0955
RELINQUISHED BY:					
RECEIVED BY:					

C-O-C# _____

PAGE ____ OF ____

MWH Laboratories, a Division of MWH Americas, Inc.
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Monrovia, CA 91016 (626) 386-1100 FAX (626) 386-1124

Bottle Order for CDM, Inc.

Group#

Date Sampled 12/29/2009

Date Received

Thomas.D.French **Your MWHL Project Manager**

Client Code CDM-MA

Project Code MERRIMACK-RIVER Bottle Orders

Group Name DW Study

PO# / Job#

BO #: 10362

Created By: TDF

Order Date: 10/16/2009

Bottle Orders

Sampler: please return this paper with your samples

Ship By: 10/09/2009

Ship Sample Kits to

CDM
50 Hampshire Street
Cambridge, MA 02139-1548

Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

Send Report to

CDM
50 Hampshire Street
Cambridge, MA 02139-1548

Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

Billing Address

CDM
50 Hampshire Street
Cambridge, MA 02139-1548

Attn: Jamie Lefkowitz
Phone: 617-452-6591
Fax: 617-452-8566

# of Samples	Tests	Qteline#	Bottles - Qty for each sample, type & preservative if any	UN DOT #
1	@MTBE9		3 40ml amber glass vial 4drops 6N HCL (36%)	
1	@MTBE9 TB		2 40ml amber glass vial 4drops of 1:1 HCL + H2O	
1	@SPMELOW		4 40ml amber glass vial no preservative	
1	Actinomycetes		1 100ml poly sterilized 0.25ml thio (8%)	
1	Algae Enumeration, Algae Identification		1 500ml poly sterilized no preservative	
1	CLO41PPB		1 125ml poly CLO4 - no preservative	
1	Dissolved Organic Carbon, UV absorbance at 254 nm		1 125ml amber glass no preservative	
1	Iron Total ICAP, Manganese Total ICAP/MS		1 250ml acid rinsed 1ml HNO3 (18%)	
1	PH (H3=past HT not compliant)		1 125ml poly no preservative	
1	Total Organic Carbon		1 125ml amber glass 0.5ml H2SO4 (50%)	

Comments

Include COC, sampling/packing, blue ice. Client is responsible for return shipment to MWH Laboratories, 750 Royal Oaks Drive, Monrovia, CA 91016. (626) 386 1100.

Code	Status	Date Shipped	Via	Tracking #	# of Coolers	Prepared By

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Laboratory Comments
Report: #322470

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

Flags Legend:

L4 - The associated blank spike recovery was below method acceptance limits.

Q2 - Sample received with head space.

The Comments Report may be blank if there are no comments for this report.

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Laboratory
Hits Report: 322470

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

Samples Received on:
12/30/2009

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
		200912300069 **AMOSKEAG**				
01/06/2010	16:20	Actinomycetes	3.0		CFU/ml	
01/06/2010	10:55	Algae Enumeration	97		#/ml	1
01/06/2010	10:55	Algae Identification	See Comments		Not Appl.	
12/30/2009	21:16	Dissolved Organic Carbon	3.5		mg/L	1.5
12/30/2009	12:34	Dissolved UV Abs. at 254 nm	0.14		cm -1	0.009
01/04/2010	16:00	Geosmin	2.5		ng/L	1
01/06/2010	13:30	Iron Total ICAP	0.46	0.3	mg/L	0.02
01/11/2010	14:10	Manganese Total ICAP/MS	45	50	ug/L	2
12/30/2009	14:57	PH (H3=past HT not compliant)	6.9		Units	0.1
12/30/2009	21:41	Total Organic Carbon	3.7		mg/L	1.5

SUMMARY OF POSITIVE DATA ONLY

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Laboratory Data
Report: 322470

CDM
Jamie Lefkowitz
50 Hampshire Street
Cambridge, MA 02139-1548

Samples Received on:
12/30/2009

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
AMOSKEAG (200912300069)						**Sampled on 12/29/2009 1200**		
			EPA 200.8 - ICPMS Metals					
	01/11/2010 14:10	537534	(EPA 200.8)	Manganese Total ICAP/MS	45	ug/L	2	1
			EPA 200.7 - ICP Metals					
	01/06/2010 13:30	536904	(EPA 200.7)	Iron Total ICAP	0.46	mg/L	0.02	1
			SM 10900 - Algae Identification					
	01/06/2010 10:55	536923	(SM 10900)	Algae Identification	See Comments	Not Appl.		1
			SM 10200F - Algae Enumeration					
	01/06/2010 10:55	536922	(SM 10200F)	Algae Enumeration	97	#/ml	1	1
			SM 9250B - Actinomycetes					
12/30/2009	01/06/2010 16:20	537308	(SM 9250B)	Actinomycetes	3.0	CFU/ml		1
			SM5310C/E415.3 - Total Organic Carbon					
	12/30/2009 21:41	536373	(SM5310C/E415.3)	Total Organic Carbon	3.7	mg/L	1.5	5
			SM 5310C - Dissolved Organic Carbon					
12/30/2009	12/30/2009 21:16	536528	(SM 5310C)	Dissolved Organic Carbon	3.5	mg/L	1.5	5
			SM 5910 - Dissolved UV Abs. at 254 nm					
	12/30/2009 12:34	536525	(SM 5910)	Dissolved UV Abs. at 254 nm	0.14	cm -1	0.009	1
			SM 6040D - Taste and Odor Cmpds Low Level					
1/4/2010	01/04/2010 16:00	536815	(SM 6040D)	Geosmin	2.5	ng/L	1	1
1/4/2010	01/04/2010 16:00	536815	(SM 6040D)	Methylisoborneol	ND (L4)	ng/L	1	1
1/4/2010	01/04/2010 16:00	536815	(SM 6040D)	Isobutyl methoxypyrazine	95	%		1
1/4/2010	01/04/2010 16:00	536815	(SM 6040D)	Isopropyl methoxypyrazine	102	%		1
			EPA 314.0 - Perchlorate with 0.5 ppb DL					
	01/05/2010 07:48	536850	(EPA 314.0)	Perchlorate	ND	ug/L	0.5	1
			EPA 524.2 - Volatile Organics by GCMS					
12/30/2009	12/30/2009 23:42	536745	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND (Q2)	ug/L	0.5	1
12/30/2009	12/30/2009 23:42	536745	(EPA 524.2)	1,2-Dichloroethane-d4	97 (Q2)	%		1
			SM4500-HB - PH (H3=past HT not compliant)					
	12/30/2009 14:57	536486	(SM4500-HB)	PH (H3=past HT not compliant)	6.9	Units	0.1	1
MTBE - TRAVEL BLANK - HOLD (200912300070)						**Sampled on 12/29/2009 0000**		
			EPA 524.2 - Volatile Organics by GCMS					
12/30/2009	12/31/2009 00:09	536745	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	1
12/30/2009	12/31/2009 00:09	536745	(EPA 524.2)	1,2-Dichloroethane-d4	100	%		1

Rounding on totals after summation.
(c) - indicates calculated results

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QC Ref # 536373 - Total Organic Carbon **Analysis Date: 12/30/2009**
200912300069 AMOSKEAG Analyzed by: KXS

QC Ref # 536486 - PH (H3=past HT not compliant) **Analysis Date: 12/30/2009**
200912300069 AMOSKEAG Analyzed by: SAR

QC Ref # 536525 - Dissolved UV Abs. at 254 nm **Analysis Date: 12/30/2009**
200912300069 AMOSKEAG Analyzed by: KXS

QC Ref # 536528 - Dissolved Organic Carbon **Analysis Date: 12/30/2009**
200912300069 AMOSKEAG Analyzed by: KXS

QC Ref # 536745 - Volatile Organics by GCMS **Analysis Date: 12/30/2009**
200912300069 AMOSKEAG Analyzed by: MCB
200912300070 MTBE - TRAVEL BLANK - HOLD Analyzed by: MCB

QC Ref # 536815 - Taste and Odor Cmpds Low Level **Analysis Date: 01/04/2010**
200912300069 AMOSKEAG Analyzed by: KAM

QC Ref # 536850 - Perchlorate with 0.5 ppb DL **Analysis Date: 01/05/2010**
200912300069 AMOSKEAG Analyzed by: MCE

QC Ref # 536904 - ICP Metals **Analysis Date: 01/06/2010**
200912300069 AMOSKEAG Analyzed by: VXT

QC Ref # 536922 - Algae Enumeration **Analysis Date: 01/06/2010**
200912300069 AMOSKEAG Analyzed by: NWM

QC Ref # 536923 - Algae Identification **Analysis Date: 01/06/2010**
200912300069 AMOSKEAG Analyzed by: NWM

QC Ref # 537308 - Actinomycetes **Analysis Date: 01/06/2010**
200912300069 AMOSKEAG Analyzed by: PAB

QC Ref # 537534 - ICPMS Metals **Analysis Date: 01/11/2010**
200912300069 AMOSKEAG Analyzed by: NINA

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Laboratory
QC Report: 322470

CDM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 536373 - Total Organic Carbon by SM5310C/E415.3							**Analysis Date: 12/30/2009**		
LCS3	Total Organic Carbon		5.0	4.87	mg/L	97	(90-110)		
LCS4	Total Organic Carbon		5.0	4.96	mg/L	99	(90-110)	20	0.60
MBLK	Total Organic Carbon			<0.3	mg/L				
MRL_CHK	Total Organic Carbon		0.2	0.153	mg/L	76	(50-150)		
MS_200912290363	Total Organic Carbon	2.4	4.0	5.72	mg/L	83	(80-120)		
MS2_200912290197	Total Organic Carbon	ND	2.0	1.96	mg/L	94	(80-120)		
MSD_200912290363	Total Organic Carbon	2.4	4.0	5.72	mg/L	83	(80-120)	20	0.0
QC Ref# 536486 - PH (H3=past HT not compliant) by SM4500-HB							**Analysis Date: 12/30/2009**		
DUP1_200912280286	PH (H3=past HT not compliant)	8.1		8.1	Units		(0-20)	20	0.25
DUP2_200912300069	PH (H3=past HT not compliant)	6.9		6.93	Units		(0-20)	20	0.14
LCS1	PH (H3=past HT not compliant)		6.0	6.02	Units	100	(98-102)		
LCS2	PH (H3=past HT not compliant)		6.0	6.07	Units	101	(98-102)	20	0.83
QC Ref# 536525 - Dissolved UV Abs. at 254 nm by SM 5910							**Analysis Date: 12/30/2009**		
DUP1_200912300069	UV absorbance at 254 nm	0.14		0.140	cm -1		(0-15)	15	0.0
LCS1	UV absorbance at 254 nm		0.37	0.332	cm -1	90	(83-121)		
MBLK	UV absorbance at 254 nm			<0.004	cm -1				
MRL_CHK	UV absorbance at 254 nm		0.009	0.00800	cm -1	89	(85-115)		
QC Ref# 536528 - Dissolved Organic Carbon by SM 5310C							**Analysis Date: 12/30/2009**		
LCS3	Dissolved Organic Carbon		5.0	4.87	mg/L	97	(90-110)		
LCS4	Dissolved Organic Carbon		5.0	4.96	mg/L	99	(90-110)	20	0.60
MBLK	Dissolved Organic Carbon			<0.3	mg/L				
MRL_CHK	Dissolved Organic Carbon		0.2	0.153	mg/L	76	(50-150)		
MS_201001040001	Dissolved Organic Carbon	2.4	4.0	5.72	mg/L	83	(80-120)		
MSD_201001040001	Dissolved Organic Carbon	2.4	4.0	5.72	mg/L	83	(80-120)	20	0.0
QC Ref# 536745 - Volatile Organics by GCMS by EPA 524.2							**Analysis Date: 12/30/2009**		
LCS1	1,2-Dichloroethane-d4 (S)			96.0	%	96	(70-130)		
LCS2	1,2-Dichloroethane-d4 (S)			97.2	%	97	(70-130)		
MBLK	1,2-Dichloroethane-d4 (S)			102	%	102	(70-130)		
MRL_CHK	1,2-Dichloroethane-d4 (S)			102	%	102	(70-130)		
LCS1	4-Bromofluorobenzene (S)			98.2	%	98	(70-130)		
LCS2	4-Bromofluorobenzene (S)			101	%	101	(70-130)		
MBLK	4-Bromofluorobenzene (S)			91.8	%	92	(70-130)		
MRL_CHK	4-Bromofluorobenzene (S)			95.0	%	95	(70-130)		
LCS1	Methyl Tert-butyl ether (MTBE)		5.0	4.84	ug/L	97	(70-130)		
LCS2	Methyl Tert-butyl ether (MTBE)		5.0	4.95	ug/L	99	(70-130)	20	2.3

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
(S) Indicates surrogate compound.
(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 322470

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Methyl Tert-butyl ether (MTBE)			<0.25	ug/L				
MRL_CHK	Methyl Tert-butyl ether (MTBE)		0.5	0.490	ug/L	98	(50-150)		
LCS1	Tetrachloroethylene (PCE)		5.0	4.92	ug/L	98	(70-130)		
LCS2	Tetrachloroethylene (PCE)		5.0	4.88	ug/L	98	(70-130)	20	0.82
MBLK	Tetrachloroethylene (PCE)			<0.25	ug/L				
MRL_CHK	Tetrachloroethylene (PCE)		0.5	0.550	ug/L	110	(50-150)		
LCS1	Toluene-d8 (S)			99.8	%	100	(70-130)		
LCS2	Toluene-d8 (S)			100	%	100	(70-130)		
MBLK	Toluene-d8 (S)			97.6	%	98	(70-130)		
MRL_CHK	Toluene-d8 (S)			101	%	101	(70-130)		
LCS1	Trichloroethylene (TCE)		5.0	5.19	ug/L	104	(70-130)		
LCS2	Trichloroethylene (TCE)		5.0	4.96	ug/L	99	(70-130)	20	4.5
MBLK	Trichloroethylene (TCE)			<0.25	ug/L				
MRL_CHK	Trichloroethylene (TCE)		0.5	0.530	ug/L	106	(50-150)		
QC Ref# 536815 - Taste and Odor Cmpds Low Level by SM 6040D						**Analysis Date: 01/04/2010**			
LCS1	Geosmin		10	8.59	ng/L	86	(75-125)		
LCS2	Geosmin		10	9.75	ng/L	98	(75-125)	20	13
MBLK	Geosmin			<1	ng/L				
MRLLW	Geosmin		1.0	1.11	ng/L	111	(50-150)		
MS_200912300069	Geosmin	2.5	10	11.4	ng/L	88	(70-130)		
MSD_200912300069	Geosmin	2.5	10	11.6	ng/L	91	(70-130)	20	2.7
LCS1	Isobutyl methoxypyrazine (I)			115	%	115	(50-150)		
LCS2	Isobutyl methoxypyrazine (I)			109	%	109	(50-150)		
MBLK	Isobutyl methoxypyrazine (I)			81.0	%	81	(50-150)		
MRLLW	Isobutyl methoxypyrazine (I)			100	%	100	(50-150)		
MS_200912300069	Isobutyl methoxypyrazine (I)			102	%	102	(50-150)		
MSD_200912300069	Isobutyl methoxypyrazine (I)			104	%	104	(50-150)		
LCS1	Isopropyl methoxy pyrazine (S)			102	%	102	(70-130)		
LCS2	Isopropyl methoxy pyrazine (S)			94.7	%	95	(70-130)		
MBLK	Isopropyl methoxy pyrazine (S)			88.9	%	89	(70-130)		
MRLLW	Isopropyl methoxy pyrazine (S)			87.7	%	88	(70-130)		
MS_200912300069	Isopropyl methoxy pyrazine (S)			101	%	101	(70-130)		
MSD_200912300069	Isopropyl methoxy pyrazine (S)			128	%	128	(70-130)		
LCS1	Methylisoborneol		10	9.45	ng/L	95	(75-125)		
LCS2	Methylisoborneol		10	6.98	ng/L	**70**	(75-125)	20	**30**
MBLK	Methylisoborneol			<1	ng/L				
MRLLW	Methylisoborneol		1.0	0.857	ng/L	86	(50-150)		

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
(S) Indicates surrogate compound.
(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 322470

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_200912300069	Methylisoborneol	ND	10	9.45	ng/L	95	(70-130)		
MSD_200912300069	Methylisoborneol	ND	10	9.04	ng/L	90	(70-130)	20	4.4
QC Ref# 536850 - Perchlorate with 0.5 ppb DL by EPA 314.0							**Analysis Date: 01/04/2010**		
ICCS	Perchlorate- 0.5 ppb		1.0	0.880	ug/L	88	(85-115)		
LCS1	Perchlorate- 0.5 ppb		25	23.5	ug/L	94	(85-115)		
LCS2	Perchlorate- 0.5 ppb		25	23.8	ug/L	95	(85-115)	15	1.3
MBLK	Perchlorate- 0.5 ppb			<0.25	ug/L				
MRL_CHK	Perchlorate- 0.5 ppb		0.5	0.385	ug/L	77	(70-130)		
MRLHI	Perchlorate- 0.5 ppb		1.0	0.964	ug/L	96	(75-125)		
MS1_200912290200	Perchlorate- 0.5 ppb	2.6	1.0	3.32	ug/L	77	(70-130)		
MSD1_200912290200	Perchlorate- 0.5 ppb	2.6	1.0	3.66	ug/L	111	(70-130)	15	**36**
QC Ref# 536904 - ICP Metals by EPA 200.7							**Analysis Date: 01/06/2010**		
LCS1	Boron Total ICAP		0.5	0.502	mg/L	100	(85-115)		
LCS2	Boron Total ICAP		0.5	0.505	mg/L	101	(85-115)	20	0.60
MBLK	Boron Total ICAP			<0.05	mg/L				
MRL_CHK	Boron Total ICAP		0.05	0.0642	mg/L	128	(50-150)		
MS_200912310097	Boron Total ICAP	0.82	0.5	1.37	mg/L	111	(70-130)		
MS2_200912310102	Boron Total ICAP	1.1	0.5	1.56	mg/L	95	(70-130)		
MSD_200912310097	Boron Total ICAP	0.82	0.5	1.35	mg/L	106	(70-130)	20	4.6
MSD2_200912310102	Boron Total ICAP	1.1	0.5	1.57	mg/L	97	(70-130)	20	2.8
LCS1	Calcium Total ICAP		50	52.8	mg/L	106	(85-115)		
LCS2	Calcium Total ICAP		50	50.3	mg/L	101	(85-115)	20	4.8
MBLK	Calcium Total ICAP			<1	mg/L				
MRL_CHK	Calcium Total ICAP		1.0	1.08	mg/L	108	(50-150)		
MS_200912310097	Calcium Total ICAP	170	50	228	mg/L	116	(70-130)		
MS2_200912310102	Calcium Total ICAP	140	50	179	mg/L	88	(70-130)		
MSD_200912310097	Calcium Total ICAP	170	50	226	mg/L	111	(70-130)	20	4.4
MSD2_200912310102	Calcium Total ICAP	140	50	181	mg/L	92	(70-130)	20	4.3
LCS1	Iron Total ICAP		5.0	5.19	mg/L	104	(85-115)		
LCS2	Iron Total ICAP		5.0	4.96	mg/L	99	(85-115)	20	4.5
MBLK	Iron Total ICAP			<0.02	mg/L				
MRL_CHK	Iron Total ICAP		0.02	0.0283	mg/L	142	(50-150)		
MS_200912310097	Iron Total ICAP	0.15	5.0	4.91	mg/L	95	(70-130)		
MS2_200912310102	Iron Total ICAP	0.040	5.0	5.03	mg/L	100	(70-130)		
MSD_200912310097	Iron Total ICAP	0.15	5.0	4.99	mg/L	97	(70-130)	20	1.7
MSD2_200912310102	Iron Total ICAP	0.040	5.0	4.99	mg/L	99	(70-130)	20	0.91

Spike recovery is already corrected for native results.
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RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 322470

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Magnesium Total ICAP		20	21.0	mg/L	105	(85-115)		
LCS2	Magnesium Total ICAP		20	19.9	mg/L	100	(85-115)	20	5.4
MBLK	Magnesium Total ICAP			<0.1	mg/L				
MRL_CHK	Magnesium Total ICAP		0.1	0.110	mg/L	110	(50-150)		
MS_200912310097	Magnesium Total ICAP		20	218	mg/L	**134**	(70-130)		
MS_200912310102	Magnesium Total ICAP	170	20	189	mg/L	75	(70-130)		
MS2_200912310102	Magnesium Total ICAP		20	181	mg/L	**904**	(70-130)		
MSD_200912310097	Magnesium Total ICAP		20	216	mg/L	125	(70-130)	20	7.0
MSD_200912310102	Magnesium Total ICAP	170	20	186	mg/L	**60**	(70-130)	20	**22**
MSD2_200912310102	Magnesium Total ICAP		20	184	mg/L	**919**	(70-130)	20	1.6
LCS1	Potassium Total ICAP		20	20.2	mg/L	101	(85-115)		
LCS2	Potassium Total ICAP		20	19.1	mg/L	96	(85-115)	20	5.6
MBLK	Potassium Total ICAP			<1	mg/L				
MRL_CHK	Potassium Total ICAP		1.0	1.03	mg/L	103	(50-150)		
MS_200912310097	Potassium Total ICAP	27	20	49.0	mg/L	108	(70-130)		
MS2_200912310102	Potassium Total ICAP	30	20	49.8	mg/L	98	(70-130)		
MSD_200912310097	Potassium Total ICAP	27	20	50.1	mg/L	113	(70-130)	20	4.5
MSD2_200912310102	Potassium Total ICAP	30	20	50.6	mg/L	102	(70-130)	20	4.1
LCS1	Sodium Total ICAP		50	52.1	mg/L	104	(85-115)		
LCS2	Sodium Total ICAP		50	49.6	mg/L	99	(85-115)	20	4.9
MBLK	Sodium Total ICAP			<1	mg/L				
MRL_CHK	Sodium Total ICAP		1.0	1.1	mg/L	110	(50-150)		
MS_200912310097	Sodium Total ICAP		50	1320	mg/L	**171**	(70-130)		
MS2_200912310102	Sodium Total ICAP		50	1130	mg/L	**27**	(70-130)		
MSD_200912310097	Sodium Total ICAP		50	1330	mg/L	**186**	(70-130)	20	8.4
MSD2_200912310102	Sodium Total ICAP		50	1140	mg/L	**65**	(70-130)	20	**84**
QC Ref# 537534 - ICPMS Metals by EPA 200.8						**Analysis Date: 01/11/2010**			
LCS1	Antimony Total ICAP/MS		50	50.0	ug/L	100	(85-115)		
LCS2	Antimony Total ICAP/MS		50	51.1	ug/L	102	(85-115)	20	2.2
MBLK	Antimony Total ICAP/MS			<1	ug/L				
MRL_CHK	Antimony Total ICAP/MS		1.0	1.1	ug/L	110	(50-150)		
MS_200912310132	Antimony Total ICAP/MS	1.010121	50	50.6	ug/L	99	(70-130)		
MS2_200912300047	Antimony Total ICAP/MS	ND	50	50.8	ug/L	101	(70-130)		
MSD_200912310132	Antimony Total ICAP/MS	1.010121	50	49.9	ug/L	98	(70-130)	20	1.4
MSD2_200912300047	Antimony Total ICAP/MS	ND	50	50.8	ug/L	101	(70-130)	20	0.0
LCS1	Arsenic Total ICAP/MS		20	20.4	ug/L	102	(85-115)		
LCS2	Arsenic Total ICAP/MS		20	20.6	ug/L	103	(85-115)	20	0.98

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RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 322470

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Arsenic Total ICAP/MS			<1	ug/L				
MRL_CHK	Arsenic Total ICAP/MS		1.0	1.27	ug/L	127	(50-150)		
MS_200912310132	Arsenic Total ICAP/MS	4.454067	20	25.0	ug/L	103	(70-130)		
MS2_200912300047	Arsenic Total ICAP/MS	ND	20	21.7	ug/L	105	(70-130)		
MSD_200912310132	Arsenic Total ICAP/MS	4.454067	20	24.7	ug/L	101	(70-130)	20	2.0
MSD2_200912300047	Arsenic Total ICAP/MS	ND	20	21.7	ug/L	105	(70-130)	20	0.0
LCS1	Beryllium Total ICAP/MS		5.0	4.97	ug/L	99	(85-115)		
LCS2	Beryllium Total ICAP/MS		5.0	4.94	ug/L	99	(85-115)	20	0.61
MBLK	Beryllium Total ICAP/MS			<1	ug/L				
MRL_CHK	Beryllium Total ICAP/MS		1.0	0.992	ug/L	99	(50-150)		
MS_200912310132	Beryllium Total ICAP/MS	ND	5.0	4.31	ug/L	86	(70-130)		
MS2_200912300047	Beryllium Total ICAP/MS	ND	5.0	5.3	ug/L	106	(70-130)		
MSD_200912310132	Beryllium Total ICAP/MS	ND	5.0	4.26	ug/L	85	(70-130)	20	1.1
MSD2_200912300047	Beryllium Total ICAP/MS	ND	5.0	5.48	ug/L	109	(70-130)	20	2.8
LCS1	Cadmium Total ICAP/MS		20	21.7	ug/L	109	(85-115)		
LCS2	Cadmium Total ICAP/MS		20	21.9	ug/L	109	(85-115)	20	0.92
MBLK	Cadmium Total ICAP/MS			<0.5	ug/L				
MRL_CHK	Cadmium Total ICAP/MS		0.5	0.563	ug/L	113	(50-150)		
MS_200912310132	Cadmium Total ICAP/MS	ND	20	19.9	ug/L	99	(70-130)		
MS2_200912300047	Cadmium Total ICAP/MS	ND	20	22.2	ug/L	111	(70-130)		
MSD_200912310132	Cadmium Total ICAP/MS	ND	20	19.2	ug/L	96	(70-130)	20	3.5
MSD2_200912300047	Cadmium Total ICAP/MS	ND	20	22.1	ug/L	111	(70-130)	20	0.0
LCS1	Chromium Total ICAP/MS		100	101	ug/L	101	(85-115)		
LCS2	Chromium Total ICAP/MS		100	101	ug/L	101	(85-115)	20	0.0
MBLK	Chromium Total ICAP/MS			<1	ug/L				
MRL_CHK	Chromium Total ICAP/MS		1.0	1.23	ug/L	123	(50-150)		
MS_200912310132	Chromium Total ICAP/MS	ND	100	107	ug/L	106	(70-130)		
MS2_200912300047	Chromium Total ICAP/MS	ND	100	108	ug/L	107	(70-130)		
MSD_200912310132	Chromium Total ICAP/MS	ND	100	105	ug/L	104	(70-130)	20	1.9
MSD2_200912300047	Chromium Total ICAP/MS	ND	100	107	ug/L	107	(70-130)	20	0.0
LCS1	Copper Total ICAP/MS		100	99.8	ug/L	100	(85-115)		
LCS2	Copper Total ICAP/MS		100	100	ug/L	100	(85-115)	20	0.20
MBLK	Copper Total ICAP/MS			<2	ug/L				
MRL_CHK	Copper Total ICAP/MS		2.0	2.07	ug/L	104	(50-150)		
MS_200912310132	Copper Total ICAP/MS	3.2	100	94.3	ug/L	91	(70-130)		
MS2_200912300047	Copper Total ICAP/MS	ND	100	102	ug/L	102	(70-130)		
MSD_200912310132	Copper Total ICAP/MS	3.2	100	91.7	ug/L	89	(70-130)	20	3.0
MSD2_200912300047	Copper Total ICAP/MS	ND	100	101	ug/L	101	(70-130)	20	0.99

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RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

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Laboratory
QC Report: 322470

CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Lead Total ICAP/MS		20	20.5	ug/L	103	(85-115)		
LCS2	Lead Total ICAP/MS		20	20.6	ug/L	103	(85-115)	20	0.49
MBLK	Lead Total ICAP/MS			<0.5	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.531	ug/L	106	(50-150)		
MS_200912310132	Lead Total ICAP/MS	ND	20	22.4	ug/L	111	(70-130)		
MS2_200912300047	Lead Total ICAP/MS	ND	20	21.7	ug/L	108	(70-130)		
MSD_200912310132	Lead Total ICAP/MS	ND	20	21.9	ug/L	109	(70-130)	20	1.8
MSD2_200912300047	Lead Total ICAP/MS	ND	20	21.6	ug/L	107	(70-130)	20	0.93
LCS1	Manganese Total ICAP/MS		50	50.0	ug/L	100	(85-115)		
LCS2	Manganese Total ICAP/MS		50	50.2	ug/L	100	(85-115)	20	0.40
MBLK	Manganese Total ICAP/MS			<2	ug/L				
MRL_CHK	Manganese Total ICAP/MS		2.0	2.09	ug/L	105	(50-150)		
MS_200912310132	Manganese Total ICAP/MS	ND	50	54.3	ug/L	106	(70-130)		
MS2_200912300047	Manganese Total ICAP/MS	3.8	50	56.9	ug/L	106	(70-130)		
MSD_200912310132	Manganese Total ICAP/MS	ND	50	52.9	ug/L	103	(70-130)	20	2.9
MSD2_200912300047	Manganese Total ICAP/MS	3.8	50	56.2	ug/L	105	(70-130)	20	0.95
LCS1	Molybdenum Total ICAP/MS		100	98.2	ug/L	98	(85-115)		
LCS2	Molybdenum Total ICAP/MS		100	99.8	ug/L	100	(85-115)	20	1.6
MBLK	Molybdenum Total ICAP/MS			<2	ug/L				
MRL_CHK	Molybdenum Total ICAP/MS		2.0	2.05	ug/L	102	(50-150)		
MS_200912310132	Molybdenum Total ICAP/MS	3.204088	100	117	ug/L	114	(70-130)		
MS2_200912300047	Molybdenum Total ICAP/MS	ND	100	107	ug/L	107	(70-130)		
MSD_200912310132	Molybdenum Total ICAP/MS	3.204088	100	114	ug/L	111	(70-130)	20	2.7
MSD2_200912300047	Molybdenum Total ICAP/MS	ND	100	106	ug/L	106	(70-130)	20	0.94
LCS1	Nickel Total ICAP/MS		50	51.0	ug/L	102	(85-115)		
LCS2	Nickel Total ICAP/MS		50	50.5	ug/L	101	(85-115)	20	0.99
MBLK	Nickel Total ICAP/MS			<5	ug/L				
MRL_CHK	Nickel Total ICAP/MS		5.0	5.17	ug/L	103	(50-150)		
MS_200912310132	Nickel Total ICAP/MS	6.232657	50	54.5	ug/L	97	(70-130)		
MS2_200912300047	Nickel Total ICAP/MS	ND	50	54.1	ug/L	105	(70-130)		
MSD_200912310132	Nickel Total ICAP/MS	6.232657	50	52.6	ug/L	93	(70-130)	20	3.9
MSD2_200912300047	Nickel Total ICAP/MS	ND	50	53.6	ug/L	104	(70-130)	20	0.96
LCS1	Selenium Total ICAP/MS		20	22.2	ug/L	111	(85-115)		
LCS2	Selenium Total ICAP/MS		20	22.0	ug/L	110	(85-115)	20	0.91
MBLK	Selenium Total ICAP/MS			<5	ug/L				
MRL_CHK	Selenium Total ICAP/MS		5.0	5.7	ug/L	114	(50-150)		
MS_200912310132	Selenium Total ICAP/MS	22.85485	20	44.0	ug/L	106	(70-130)		
MS2_200912300047	Selenium Total ICAP/MS	ND	20	23.1	ug/L	114	(70-130)		

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CDM, Inc.
(continued)

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD_200912310132	Selenium Total ICAP/MS	22.85485	20	42.3	ug/L	97	(70-130)	20	8.6
MSD2_200912300047	Selenium Total ICAP/MS	ND	20	23.1	ug/L	114	(70-130)	20	0.0
LCS1	Silver Total ICAP/MS		50	52.6	ug/L	105	(85-115)		
LCS2	Silver Total ICAP/MS		50	52.9	ug/L	106	(85-115)	20	0.57
MBLK	Silver Total ICAP/MS			<0.5	ug/L				
MRL_CHK	Silver Total ICAP/MS		0.5	0.545	ug/L	109	(50-150)		
MS_200912310132	Silver Total ICAP/MS	ND	50	46.2	ug/L	92	(70-130)		
MS2_200912300047	Silver Total ICAP/MS	ND	50	52.5	ug/L	105	(70-130)		
MSD_200912310132	Silver Total ICAP/MS	ND	50	45.0	ug/L	90	(70-130)	20	2.4
MSD2_200912300047	Silver Total ICAP/MS	ND	50	52.1	ug/L	104	(70-130)	20	0.96
LCS1	Thallium Total ICAP/MS		20	20.2	ug/L	101	(85-115)		
LCS2	Thallium Total ICAP/MS		20	20.4	ug/L	102	(85-115)	20	0.99
MBLK	Thallium Total ICAP/MS			<1	ug/L				
MRL_CHK	Thallium Total ICAP/MS		1.0	1.08	ug/L	108	(50-150)		
MS_200912310132	Thallium Total ICAP/MS	ND	20	22.9	ug/L	114	(70-130)		
MS2_200912300047	Thallium Total ICAP/MS	ND	20	22.0	ug/L	110	(70-130)		
MSD_200912310132	Thallium Total ICAP/MS	ND	20	22.6	ug/L	112	(70-130)	20	1.8
MSD2_200912300047	Thallium Total ICAP/MS	ND	20	21.8	ug/L	109	(70-130)	20	0.91
LCS1	Zinc Total ICAP/MS		100	104	ug/L	104	(85-115)		
LCS2	Zinc Total ICAP/MS		100	106	ug/L	106	(85-115)	20	1.9
MBLK	Zinc Total ICAP/MS			<20	ug/L				
MRL_CHK	Zinc Total ICAP/MS		20	22.4	ug/L	112	(50-150)		
MS_200912310132	Zinc Total ICAP/MS	ND	100	95.4	ug/L	90	(70-130)		
MS2_200912300047	Zinc Total ICAP/MS	ND	100	110	ug/L	108	(70-130)		
MSD_200912310132	Zinc Total ICAP/MS	ND	100	92.6	ug/L	87	(70-130)	20	3.2
MSD2_200912300047	Zinc Total ICAP/MS	ND	100	112	ug/L	111	(70-130)	20	2.7

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CDM
Group # 322470
Lab# 200912300069

PPREDOMINANT ALGAE:
Navicula 13%
Closteriopsis 11%
Synedra 11%
Unidentified Flagellates 11%

OTHER ALAGE:
Achnanthes
Asterionella
Ceratium
Cocconeis
Crucigenia
Cymbella
Diatoma
Dinobryon
Fragilaria
Glenodinium
Gomphonema
Mallomonas
Melosira
Oscillatoria
Planktosphaeria
Scenedesmus
Stauroneis
Stephanodiscus
Phormidium

Jamie Lefkowitz
CDM (MA)
50 Hampshire St., One Cambridge Place
Cambridge, MA 02139

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 110493
Client Identification: Upper Merrimack WWTPS
Date Received: 5/18/2012

Dear Ms. Lefkowitz:

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director

6.11.12
Date

6
# of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **110493**

Client: **CDM (MA)**

Client Designation: **Upper Merrimack WWTPS**

Temperature upon receipt (°C): 4.3 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
110493.01	Merr Co WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.02	Woodstock WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.03	Lincoln WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.04	Plymouth Village WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.05	Bristol WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.06	Winnipesaukee WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.07	Nashua WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.08	Merrimack WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.09	Derry WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.1	Manchester WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.11	Hooksett WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.12	Suncook / Allenstown WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.13	Penacook WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy
110493.14	Concord - Hall St. WWTP-E	5/18/12	5/18/12	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
All results contained in this report relate only to the above listed samples.
References include:

1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater : Inorganics, 19th Edition, 1995; Microbiology, 20th Edition, 1998
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

LABORATORY REPORT

EAI ID#: **110493**

Client: **CDM (MA)**

Client Designation: **Upper Merrimack WWTPS**

Sample ID:	Merr Co WWTP-E	Woodstock WWTP-E	Lincoln WWTP-E	Plymouth Village WWTP-E					
Lab Sample ID:	110493.01	110493.02	110493.03	110493.04					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	5/18/12	5/18/12	5/18/12	5/18/12		Analysis			
Date Received:	5/18/12	5/18/12	5/18/12	5/18/12	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**5**	**3**	**4**	**7**	mg/L	05/22/12	9:30	2540D	DLS
CBOD	**4**	**5**	< 3	**8**	mg/L	05/18/12	17:35	5210B	SKC
CBOD-20	**9**	**7**	**7**	**20**	mg/L	05/18/12	17:35	5210B	SKC

Sample ID:	Bristol WWTP-E	Winnipesaukee WWTP-E	Nashua WWTP-E	Merrimack WWTP-E					
Lab Sample ID:	110493.05	110493.06	110493.07	110493.08					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	5/18/12	5/18/12	5/18/12	5/18/12		Analysis			
Date Received:	5/18/12	5/18/12	5/18/12	5/18/12	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**12**	**8**	**4**	**8**	mg/L	05/22/12	9:30	2540D	DLS
CBOD	**9**	**6**	**4**	**8**	mg/L	05/18/12	17:45	5210B	SKC
CBOD-20	**17**	**18**	**13**	**16**	mg/L	05/18/12	17:45	5210B	SKC

LABORATORY REPORT

EAI ID#: **110493**

Client: **CDM (MA)**

Client Designation: **Upper Merrimack WWTPS**

Sample ID:	Derry WWTP-E	Manchester WWTP-E	Hooksett WWTP-E	Suncook / Allenstown WWTP-E					
Lab Sample ID:	110493.09	110493.1	110493.11	110493.12					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	5/18/12	5/18/12	5/18/12	5/18/12		Analysis			
Date Received:	5/18/12	5/18/12	5/18/12	5/18/12	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**4**	**4**	**11**	**11**	mg/L	05/22/12	9:30	2540D	DLS
CBOD	**3**	**7**	**8**	**5**	mg/L	05/18/12	18:10	5210B	SKC
CBOD-20	**8**	**16**	**14**	**11**	mg/L	05/18/12	18:20	5210B	SKC

Sample ID:	Penacook WWTP-E	Concord - Hall St. WWTP-E						
Lab Sample ID:	110493.13	110493.14						
Matrix:	aqueous	aqueous						
Date Sampled:	5/18/12	5/18/12	Analysis					
Date Received:	5/18/12	5/18/12	**Units**	**Date**	**Time**	**Method**	**Analyst**	
Solids Suspended	**10**	**5**	mg/L	05/22/12	9:30	2540D	DLS	
CBOD	**7**	**5**	mg/L	05/18/12	18:30	5210B	SKC	
CBOD-20	**15**	**13**	mg/L	05/18/12	18:30	5210B	SKC	

QC REPORT

EAI ID#: **110493**

Client: **CDM (MA)**

Client Designation: **Upper Merrimack WWTPS**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Solids Suspended	< 1	100 (100 %R)	100 (101 %R) (1 RPD)	mg/L	5/22/12	90 - 110	20	2540D
CBOD	< 3	390 (97 %R)	360 (89 %R) (9 RPD)	mg/L	5/18/12	60 - 120	20	5210B
CBOD-20	< 3	420 (105 %R)	480 (120 %R) (13 RPD)	mg/L	5/18/12	60 - 120	20	5210B

Parameter Name	Duplicate Parent ID	Duplicate Parent	Duplicate	Units	Date of Analysis	RPD	Method
Solids Suspended	110493.01	5	5 (4 RPD)	mg/L	5/22/12	20	2540D
CBOD	110493.13	7	7 (2 RPD)	mg/L	5/18/12	20	5210B
CBOD-20	110493.06	18	18 (2 RPD)	mg/L	5/18/12	20	5210B

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

Page 1 of 2 — B16

CHAIN-OF-CUSTODY RECORD

For Lab Use Only

110493

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 524.2 BTEX 524.2 MTBE only; 8260B 624 VTICs 1,4 Dioxane EDB DBCP; 8021B BTEX HALOS; 8015B GRO MEGRO MAVPH	SVOC: 8270C 625 SVTICs ABN A BN PAH; TPH8100 LI L2; 8015B DRO MEDRO MAEPH; PEST 608 PCB 608 PEST 8081A PCB 8082; Oil & Grease 1664 TPH 1664	TCLP: TCLP 1311 ABN Metals VOC Pest Herb	Metals: Dissolved Metals (List Below); Total Metals (List Below)	Inorganics: TS (TSS) TDS Spec. Con.; Br Cl F SO4 NO2/NO3 NO3 NO2; BOD (CBOD) T. Alk.; TKN NH3 T. Phos.; pH T. Res. Chlorine; COD Phenols TOC; Total Cyanide Total Sulfide; Reactive Cyanide Reactive Sulfide Flashpoint Ignitability; T. Coliform E. Coli F. Coliform Enterococci Heterotrophic Plate Count; CBOD 20	# of Containers	Notes MeOH Vial #
		WW	C							
Merr Co WWTP-E	5/18/12 8:40AM (9:30)							X X	3	
Middlebrook WWTP-E	5/17/12 9:30AM 5/18/12 8:30AM (10:30AM)							X X	3	
								X	0	
Lincoln WWTP-E	5/18/12 9:00AM (10:45AM)							X X	3	
Plymouth Village WWTP-E	5/17/12 2:40 PM 5/18/12 7:00 AM (11:55)							X X	3	
Berlin WWTP-E	5/17 2PM 5/18 2PM (12:05)							X X	3	
Winnipesaukee WWTP-E	5/17 0745 5/18 0745 (1315)							X X	3	
									18	

Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste water EFFLUENT
Preservative: H-HCl; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

Project Manager: Jamie Lefkowitz
Company: CDM Smith
Address:
City: State: Zip:
Phone: 603 801 1051 Ext.:
Fax:
E-Mail:
Site Name: Upper Merrimack WWTPs
Project #:
State: (NH) MA ME VT Other:
Regulatory Program: NPDES: RGP POTW Stormwater or GWP, Oil Fund, Brownfield or Other:
Quote #: PO #:

Date Needed:

QA/QC Reporting Level: A B C or MA MCP Presumptive Certainty

Reporting Options: Prelims: Yes or No; If Yes: Fax or PDF

Electronic Options: No Fax E-Mail PDF Equis

Temp. 4.3 °C
ICE? (Yes) No

Sampler(s): (Runner name) Steve Carey

Relinquished By:	Date:	Time:	Received By:
	5/18/12	2:05 PM	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Metals: 8 RCRA 13 PP Fe, Mn Pb, Cu
Other Metals:
Dissolved Metals Field Filtered? Yes No
Notes: (ie: Special Detection Limits, Billing Info, If Different)
(time picked up by SLC)
##:## = time of collection. (JW)

Site History:
Suspected Contamination:
Field Readings:

eastern analytical, inc.
professional laboratory services
25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | Fax: 603.228.4591 | E-Mail: customer_service@eailabs.com | www.eailabs.com

(WHITE: Original GREEN: Project Manager)

Page 2 of 2

CHAIN-OF-CUSTODY RECORD

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

FOR LAB USE ONLY

110493

SAMPLE I.D.	5/17→5/18 SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 BTEX; 524.2 MTBE ONLY; 8260B 624 VTICS 1,4 DIOXANE EDB DBCP; 8021B BTEX HALOS; 8015B GRO MEGRO MAVPH	SVOC: 8270C 625 SVTICS ABN A BN PAH; TPH8100 LI L2; 8015B DRO MEDRO MAEPH; PEST 608 PCB 608 PEST 8081A PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	INORGANICS: TS TDS SPEC. CON. (TSS); BR CL F SO4 NO2 NO2/NO3; BOD T. ALK. (CBOD); TKN NH3 T. PHOS.; pH T. RES. CHLORINE; COD PHENOLS TOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICR: T. COLIFORM E. COLI E. COLIFORM ENTEROCOCCI HETEROTROPHIC PLATE COUNT	CBOD 20	# OF CONTAINERS	NOTES MEOH VIAL #
Nashua WWTP-E	09:00	WW	C					TS (TSS)	BOD (CBOD)			1	3	
Merrimack WWTP-E	07:46	WW	C					1	1			1	3	
Derry WWTP-E	11:16	WW	C					1	1			1	3	
Manchester WWTP-E	06:45	WW	C					1	1			1	3	
Hooksett WWTP-E	08:20	WW	C					1	1			1	3	
Penacook/Allenstown WWTP-E	08:55 5/17-5/18	WW	C					1	1			1	3	
Penacook WWTP-E	5/17-5/18 07:30	WW	C					1	1			1	3	
Concord-Hall St WWTP-E	5/17-5/18 09:05	WW	C					1	1			1	3	

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER EFFLUENT

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: Jamie Lefkowitz

COMPANY: CDM Smith

ADDRESS:

CITY: STATE: ZIP:

PHONE: 603 801 1051 EXT.:

FAX:

E-MAIL:

SITE NAME: Upper Merrimack WWTPs

PROJECT #:

STATE: (NH) MA ME VT OTHER:

REGULATORY PROGRAM: X NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL: A B C OR MA MCP PRESUMPTIVE CERTAINTY

REPORTING OPTIONS: PRELIMS: YES OR NO; IF YES: FAX OR PDF

ELECTRONIC OPTIONS: NO FAX E-MAIL PDF EQUIS

TEMP. 1.5 °C

ICE? (YES) NO

SAMPLER(S): (RUNNER NAME) ZACH EICHENWALD

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	5/18/12	14:30	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

DISSOLVED METALS FIELD FILTERED? YES NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

eastern analytical, inc. professional laboratory services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMER_SERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Eastern Analytical, Inc.

professional laboratory & drilling services

Jamie Lefkowitz
CDM (MA)
50 Hampshire St., One Cambridge Place
Cambridge, MA 02139

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report
Eastern Analytical, Inc. ID: 110461
Client Identification: Merrimack River - High Water
Date Received: 5/17/2012

Report revision/reissue: Revision, replaces report dated 6/11/2012

Revision information: Page 12 revised

Dear Ms. Lefkowitz :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw — 6.21.12 — 30

Lorraine Olashaw, Lab Director | Date | # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Temperature upon receipt (°C): 2.9 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
110461.01	M041-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.02	M036-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.03	M136-B	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.04	M236-D	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.05	M336-R	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.06	M037-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.07	M035-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.08	M039-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.09	T056-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.1	M058-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.11	T059-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.12	M061-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.13	M062-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.14	T064-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.15	T044-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.16	M045-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.17	T046-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.18	M048-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.19	M051-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.2	M052-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.21	M054-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.22	M055-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.23	M009-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.24	T010-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.25	T011-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

All results contained in this report relate only to the above listed samples.

References include:

1) EPA 600/4-79-020, 1983

2) Standard Methods for Examination of Water and Wastewater : Inorganics, 19th Edition, 1995; Microbiology, 20th Edition, 1998

3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB

4) Hach Water Analysis Handbook, 2nd edition, 1992

SAMPLE CONDITIONS PAGE

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Temperature upon receipt (°C): 2.9 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
110461.26	T015-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.27	T021-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.28	T022-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.29	M018-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.3	M020-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.31	M026-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.32	T028-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.33	M030-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.34	M032-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.35	M033-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.36	M065-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.37	M066-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.38	T068-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.39	T069-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.4	M070-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.41	M170-B	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.42	M270-D	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.43	M370-R	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.44	M071-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.45	M001-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.46	T002-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.47	T003-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.48	T004-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.49	M006-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.5	M008-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

All results contained in this report relate only to the above listed samples.

References include:

1) EPA 600/4-79-020, 1983

2) Standard Methods for Examination of Water and Wastewater : Inorganics, 19th Edition, 1995; Microbiology, 20th Edition, 1998

3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB

4) Hach Water Analysis Handbook, 2nd edition, 1992

SAMPLE CONDITIONS PAGE

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Temperature upon receipt (°C): 2.9 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
110461.51	M108-B	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.52	M208-D	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.53	M308-R	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.54	M012-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.55	M013-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.56	T027-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.57	T127-B	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.58	T227-D	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.59	T327-R	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.6	M017-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.61	M023-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy
110461.62	M024-G	5/17/12	5/17/12	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

All results contained in this report relate only to the above listed samples.

References include:

1) EPA 600/4-79-020, 1983

2) Standard Methods for Examination of Water and Wastewater : Inorganics, 19th Edition, 1995; Microbiology, 20th Edition, 1998

3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB

4) Hach Water Analysis Handbook, 2nd edition, 1992

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID: M041-G

Lab Sample ID: 110461.01
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
	Units	Date	Time	Method	Analyst
Solids Suspended	**8**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	mg/L	05/17/12	16:46	5210B	SKC
CBOD-20	< 3	mg/L	05/18/12	10:30	5210B	SKC
E.coli	**50.4**	MPN/100ml	05/17/12	15:10	9223B	KJR
Chlorophyll a	**1.8**	mg/m^3	05/31/12	10:00	10200H3	KJR

Sample ID: M036-G

Lab Sample ID: 110461.02
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
	Units	Date	Time	Method	Analyst
Solids Suspended	**5**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	mg/L	05/17/12	16:46	5210B	SKC

Chlorophyll a samples were filtered and frozen on 5/17/2012.

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID:	M136-B	M236-D	M336-R	M037-G		Analysis			
Lab Sample ID:	110461.03	110461.04	110461.05	110461.06					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	5/17/12	5/17/12	5/17/12	5/17/12					
Date Received:	5/17/12	5/17/12	5/17/12	5/17/12	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	< 1	**6**	< 1	**5**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	< 3	< 3	< 3	mg/L	05/17/12	17:58	5210B	SKC
CBOD-20	< 3	< 3	< 3	< 3	mg/L	05/18/12	11:05	5210B	SKC

Sample ID:	M035-G	M039-G	T056-G		Analysis			
Lab Sample ID:	110461.07	110461.08	110461.09					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	5/17/12	5/17/12	5/17/12					
Date Received:	5/17/12	5/17/12	5/17/12	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**2**	**6**	**2**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	< 3	< 3	mg/L	05/17/12	17:58	5210B	SKC

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID: M058-G

Lab Sample ID: 110461.1
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
	Units	Date	Time	Method	Analyst
Solids Suspended	**11**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	mg/L	05/18/12	11:30	5210B	SKC
CBOD-20	< 3	mg/L	05/18/12	11:30	5210B	SKC

Sample ID: T059-G

Lab Sample ID: 110461.11
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
	Units	Date	Time	Method	Analyst
Solids Suspended	**2**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	mg/L	05/17/12	17:58	5210B	SKC

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID: M061-G

Lab Sample ID: 110461.12
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
	Units	Date	Time	Method	Analyst
Solids Suspended **6**	mg/L	05/21/12	12:05	2540D	DLS
CBOD < 3	mg/L	05/17/12	17:58	5210B	SKC
Chlorophyll a **2.6**	mg/m^3	05/31/12	10:00	10200H3	KJR

Sample ID: M062-G

Lab Sample ID: 110461.13
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
	Units	Date	Time	Method	Analyst
Solids Suspended **7**	mg/L	05/21/12	12:05	2540D	DLS
CBOD < 3	mg/L	05/18/12	11:55	5210B	SKC
CBOD-20 < 3	mg/L	05/18/12	11:55	5210B	SKC

Chlorophyll a samples were filtered and frozen on 5/17/2012.

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID: T064-G

Lab Sample ID: 110461.14
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
	Units	Date	Time	Method	Analyst
Solids Suspended	**4**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	mg/L	05/17/12	17:58	5210B	SKC
E.coli	**110.6**	MPN/100ml	05/17/12	16:10	9223B	KJR

Sample ID: T044-G

Lab Sample ID: 110461.15
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
	Units	Date	Time	Method	Analyst
Solids Suspended	**6**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	**4**	mg/L	05/17/12	17:58	5210B	SKC

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID:	M045-G						
Lab Sample ID:	110461.16						
Matrix:	aqueous						
Date Sampled:	5/17/12						
Date Received:	5/17/12						
				Analysis			
			Units	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**6**		mg/L	05/21/12	12:05	2540D	DLS
CBOD	**4**		mg/L	05/17/12	17:58	5210B	SKC
Chlorophyll a	**2.2**		mg/m^3	05/31/12	10:00	10200H3	KJR

Sample ID:	T046-G	M048-G	M051-G				
Lab Sample ID:	110461.17	110461.18	110461.19				
Matrix:	aqueous	aqueous	aqueous				
Date Sampled:	5/17/12	5/17/12	5/17/12				
Date Received:	5/17/12	5/17/12	5/17/12				
				Analysis			
			Units	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**4**	**7**	**6**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	< 3	< 3	mg/L	05/17/12	17:58	5210B	SKC

Chlorophyll a samples were filtered and frozen on 5/17/2012.

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID: M052-G

Lab Sample ID: 110461.2
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
		Units	Date	Time	Method	Analyst
Solids Suspended	**5**	mg/L	05/22/12	9:30	2540D	DLS
CBOD	< 3	mg/L	05/18/12	11:55	5210B	SKC
CBOD-20	< 3	mg/L	05/18/12	11:55	5210B	SKC

Sample ID: M054-G

Lab Sample ID: 110461.21
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
		Units	Date	Time	Method	Analyst
Solids Suspended	**7**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	mg/L	05/17/12	18:50	5210B	SKC
Chlorophyll a	**2.2**	mg/m^3	05/31/12	10:00	10200H3	KJR

Chlorophyll a samples were filtered and frozen on 5/17/2012.

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID: M055-G

Lab Sample ID: 110461.22
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
		Units	Date	Time	Method	Analyst
Solids Suspended	**5**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	mg/L	05/17/12	18:50	5210B	SKC
E.coli	**38.4**	MPN/100ml	05/17/12	16:10	9223B	KJR

Sample ID: M009-G

Lab Sample ID: 110461.23
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
		Units	Date	Time	Method	Analyst
Solids Suspended	**2**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	mg/L	05/17/12	18:50	5210B	SKC
Chlorophyll a	< 0.5	mg/m^3	05/31/12	10:00	10200H3	KJR

Chlorophyll a samples were filtered and frozen on 5/17/2012.

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID:	T010-G	T011-G	T015-G	T021-G		Analysis			
Lab Sample ID:	110461.24	110461.25	110461.26	110461.27					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	5/17/12	5/17/12	5/17/12	5/17/12					
Date Received:	5/17/12	5/17/12	5/17/12	5/17/12	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**11**	**8**	**3**	**2**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	< 3	< 3	< 3	mg/L	05/17/12	18:50	5210B	SKC

Sample ID:	T022-G	M018-G	M020-G	M026-G		Analysis			
Lab Sample ID:	110461.28	110461.29	110461.3	110461.31					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	5/17/12	5/17/12	5/17/12	5/17/12					
Date Received:	5/17/12	5/17/12	5/17/12	5/17/12	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**3**	**4**	**4**	**3**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	< 3	< 3	< 3	mg/L	05/18/12	15:00	5210B	SKC

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID: T028-G

Lab Sample ID: 110461.32
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
		Units	Date	Time	Method	Analyst
Solids Suspended	**4**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	mg/L	05/18/12	15:00	5210B	SKC
E.coli	**48**	MPN/100ml	05/17/12	17:20	9223B	KJR

Sample ID: M030-G

Lab Sample ID: 110461.33
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
		Units	Date	Time	Method	Analyst
Solids Suspended	**4**	mg/L	05/22/12	9:30	2540D	DLS
CBOD	< 3	mg/L	05/18/12	12:20	5210B	SKC
CBOD-20	< 3	mg/L	05/18/12	12:20	5210B	SKC

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID:	M032-G	M033-G
Lab Sample ID:	110461.34	110461.35
Matrix:	aqueous	aqueous
Date Sampled:	5/17/12	5/17/12
Date Received:	5/17/12	5/17/12
Solids Suspended	**3**	**4**
CBOD	< 3	< 3

		Analysis			
	Units	**Date**	**Time**	**Method**	**Analyst**
	mg/L	05/21/12	12:05	2540D	DLS
	mg/L	05/18/12	15:00	5210B	SKC

Sample ID:	M065-G
Lab Sample ID:	110461.36
Matrix:	aqueous
Date Sampled:	5/17/12
Date Received:	5/17/12
Solids Suspended	**7**
CBOD	< 3
Chlorophyll a	**2.2**

		Analysis			
	Units	**Date**	**Time**	**Method**	**Analyst**
	mg/L	05/21/12	12:05	2540D	DLS
	mg/L	05/18/12	15:30	5210B	SKC
	mg/m^3	05/31/12	10:00	10200H3	KJR

Chlorophyll a samples were filtered and frozen on 5/17/2012.

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID: M066-G

Lab Sample ID: 110461.37
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
	Units	Date	Time	Method	Analyst
Solids Suspended **4**	mg/L	05/22/12	9:30	2540D	DLS
CBOD < 3	mg/L	05/18/12	12:20	5210B	SKC
CBOD-20 < 3	mg/L	05/18/12	12:20	5210B	SKC

Sample ID: T068-G

Lab Sample ID: 110461.38
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
	Units	Date	Time	Method	Analyst
Solids Suspended **3**	mg/L	05/21/12	12:05	2540D	DLS
CBOD < 3	mg/L	05/18/12	15:30	5210B	SKC
E.coli **29.5**	MPN/100ml	05/17/12	18:45	9223B	KJR

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID:	T069-G					
Lab Sample ID:	110461.39					
Matrix:	aqueous					
Date Sampled:	5/17/12					
Date Received:	5/17/12					
				Analysis		
			Units	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**4**		mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3		mg/L	05/18/12	15:30	5210B	SKC

Sample ID:	M070-G	M170-B	M270-D	M370-R					
Lab Sample ID:	110461.4	110461.41	110461.42	110461.43					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	5/17/12	5/17/12	5/17/12	5/17/12					
Date Received:	5/17/12	5/17/12	5/17/12	5/17/12					
						Analysis			
					Units	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**4**	< 1	**5**	< 1	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	< 3	< 3	< 3	mg/L	05/18/12	15:30	5210B	SKC
Chlorophyll a	**2.6**	< 0.5	**2.9**	< 0.5	mg/m^3	05/31/12	10:00	10200H3	KJR

Chlorophyll a samples were filtered and frozen on 5/17/2012.

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID: M071-G

Lab Sample ID: 110461.44
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
		Units	Date	Time	Method	Analyst
Solids Suspended	**6**	mg/L	05/22/12	9:30	2540D	DLS
CBOD	< 3	mg/L	05/18/12	12:20	5210B	SKC
CBOD-20	< 3	mg/L	05/18/12	12:20	5210B	SKC

Sample ID: M001-G

Lab Sample ID: 110461.45
Matrix: aqueous
Date Sampled: 5/17/12
Date Received: 5/17/12

		Analysis			
		Units	Date	Time	Method	Analyst
Solids Suspended	< 1	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	mg/L	05/18/12	16:30	5210B	SKC

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID:	T002-G	T003-G	T004-G	M006-G					
Lab Sample ID:	110461.46	110461.47	110461.48	110461.49					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	5/17/12	5/17/12	5/17/12	5/17/12		**Analysis**			
Date Received:	5/17/12	5/17/12	5/17/12	5/17/12	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**1**	**1**	**1**	< 1	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	< 3	< 3	< 3	mg/L	05/18/12	16:30	5210B	SKC

Sample ID:	M008-G						
Lab Sample ID:	110461.5						
Matrix:	aqueous						
Date Sampled:	5/17/12	**Analysis**					
Date Received:	5/17/12	**Units**	**Date**	**Time**	**Method**	**Analyst**	
Solids Suspended	**1**	mg/L	05/21/12	12:05	2540D	DLS	
CBOD	< 3	mg/L	05/18/12	16:30	5210B	SKC	
E.coli	**1.0**	MPN/100ml	05/17/12	18:45	9223B	KJR	

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID:	M108-B	M208-D	M308-R					
Lab Sample ID:	110461.51	110461.52	110461.53					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	5/17/12	5/17/12	5/17/12					
Date Received:	5/17/12	5/17/12	5/17/12					
					Analysis			
				Units	**Date**	**Time**	**Method**	**Analyst**
E.coli	< 1	**1.0**	< 1	MPN/100ml	05/17/12	18:45	9223B	KJR

Sample ID:	M012-G						
Lab Sample ID:	110461.54						
Matrix:	aqueous						
Date Sampled:	5/17/12						
Date Received:	5/17/12						
		Analysis					
		Units	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**5**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	mg/L	05/18/12	16:30	5210B	SKC

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID:	M013-G	T027-G	T127-B	T227-D					
Lab Sample ID:	110461.55	110461.56	110461.57	110461.58					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	5/17/12	5/17/12	5/17/12	5/17/12		Analysis			
Date Received:	5/17/12	5/17/12	5/17/12	5/17/12	**Units**	**Date**	**Time**	**Method**	**Analyst**
Solids Suspended	**5**	**4**	< 1	**2**	mg/L	05/21/12	12:05	2540D	DLS
CBOD	< 3	< 3	< 3	< 3	mg/L	05/18/12	16:30	5210B	SKC

Sample ID:	T327-R						
Lab Sample ID:	110461.59						
Matrix:	aqueous						
Date Sampled:	5/17/12	Analysis					
Date Received:	5/17/12	**Units**	**Date**	**Time**	**Method**	**Analyst**	
Solids Suspended	< 1	mg/L	05/21/12	12:05	2540D	DLS	
CBOD	< 3	mg/L	05/18/12	17:10	5210B	SKC	

LABORATORY REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Sample ID:	M017-G	M023-G	M024-G		Analysis			
				Units	Date	Time	Method	Analyst
Lab Sample ID:	110461.6	110461.61	110461.62					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	5/17/12	5/17/12	5/17/12					
Date Received:	5/17/12	5/17/12	5/17/12					
Solids Suspended	**3**	**3**	**3**	mg/L	5/21/12	12:05	2540D	DLS
CBOD	< 3	< 3	< 3	mg/L	5/18/12	17:10	5210B	SKC
Chlorophyll a	**0.7**	**1.1**	**0.8**	mg/m^3	5/31/12	10:00	10200H3	KJR

Chlorophyll a samples were filtered and frozen on 5/17/2012.

QC REPORT

EAI ID#: **110461**

Client: **CDM (MA)**

Client Designation: **Merrimack River - High Water**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Solids Suspended	< 1	98 (98 %R)	100 (101 %R) (3 RPD)	mg/L	5/21/12	90 - 110	20	2540D
CBOD	< 3	370 (92 %R)	380 (94 %R) (2 RPD)	mg/L	5/17/12	60 - 120	20	5210B
CBOD-20	< 3	420 (105 %R)	480 (120 %R) (13 RPD)	mg/L	5/18/12	60 - 120	20	5210B
Chlorophyll a	< 0.5	NA	NA	mg/m^3	5/31/12			10200H3

Parameter Name	Duplicate Parent ID	Duplicate Parent	Duplicate	Units	Date of Analysis	RPD	Method
Solids Suspended	110461.13	7	7 (0 RPD)	mg/L	5/21/12	20	2540D
CBOD	110461.19	< 3	< 3 (RPD N/A)	mg/L	5/17/12	20	5210B
CBOD-20	110493.06	18	18 (2 RPD)	mg/L	5/18/12	20	5210B
Chlorophyll a	110463.09	3.3	3.6 (5 RPD)	mg/m^3	5/31/12		10200H3

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

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CHAIN-OF-CUSTODY RECORD

110461

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	5/17/2012 SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	(GRAB)/*COMPOSITE	VOC: 524.2 / 524.2 BTEX 524.2 MTBE ONLY	8260B 624 VTICS / 1,4 DIOXANE EDB DBCP	8021B BTEX HALOS	8015B GRO MEGRO MAVPH	SVOC: 8270D 625 SVTICS ABN A BN PAH	TPH8100 LI L2	8015B DRO MEDRO MAEPH	PEST 608 PCB 608 / PEST 8081A PCB 8082	OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS / VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW)	TOTAL METALS (LIST BELOW)	INORGANICS: TS (TSS) TDS SPEC. CON.	BR CL F SO4 / NO2 NO3 NO3-NO2	BOD (BOD5) T. ALK.	TKN NH3 T. PHOS. O. PHOS.	PH T. RES. CHLORINE	COD PHENOLS TOC DOC	TOTAL CYANIDE TOTAL SULFIDE	REACTIVE CYANIDE REACTIVE SULFIDE / FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM (E. COLI) / FECAL COLIFORM	ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: Chl-a	CBOD20	# OF CONTAINERS	NOTES MEOH VIAL #
M041-G	12:58 PM	SW	G													1		1						1		1	11		6	
M036-G	9:15 AM	SW	G													1		1											2	
M136-B	10:34 AM	SW	G													1		1									11		4	
M236-D	9:25 AM	SW	G													1		1									11		4	
M336-R	10:55AM	SW	G													1		1									11		4	
M037-G	9:55AM	SW	G													1		1									11		4	
M035-G	8:40AM	SW	G													1		1											2	
M039-G	11:55AM	SW	G													1		1											2	
																												30	

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: Jamie Lefkowitz

COMPANY: CDM Smith

ADDRESS: 50 Hampshire St

CITY: Cambridge MA STATE: ZIP:

PHONE: 603 809 1051 EXT.:

FAX:

E-MAIL:

SITE NAME: Merrimack River - High Water

PROJECT #:

STATE: (NH) MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL

A B C

OR

PRESUMPTIVE CERTAINTY

REPORTING OPTIONS

PRELIMS: YES OR NO

IF YES: FAX OR PDF

ELECTRONIC OPTIONS

NO FAX E-MAIL PDF EQUIS

TEMP. 2.9 °C

ICE? (YES) NO

SAMPLER(S): Team 5

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
[signature]	5/17	1448	[signature]
[signature]	5/17/12	1502	[signature]

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

DISSOLVED METALS FIELD FILTERED? YES NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

eastern analytical, inc.
professional laboratory services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Page 2 X (GW) of 8 X (SW)

CHAIN-OF-CUSTODY RECORD

110461

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	5/17/2012 SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 MTBE ONLY; 524.2 BTEX; 524.2 VTICs; 8260B 624; 1,4 DIOXANE EDB DBCP; 8021B BTEX HALOS; 8015B GRO MEGRO MAVPH	SVOC: 8270D 625 SVTICs; ABN A BN PAH; TPH8100 LI L2; 8015B DRO MEDRO MAEPH; PEST 608 PCB 608; PEST 8081A PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS; VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	INORGANICS: TS TDS SPEC. CON. (TSS); BR CL F SO_4 NO_2 NO_3 NO_2NO_3; BOD (CBODS) T. ALK.; TKN NH_3 T. PHOS. O. PHOS.; pH T. RES. CHLORINE; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM (E. COLI) FECAL COLIFORM; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: Chl-a; CBOD20	# OF CONTAINERS	NOTES MEOH VIAL #
T056-G	7:40 AM	SW	G					1	1			2
M058-G	8:50 AM	↓	↓					1	1		11	4
T059-G	10:00 AM							1	1			2
M061-G	11:10 AM							1	1	1		3
M062-G	12:50 PM							1	1		11	4
T064-G	2:05 PM							1	1	1		3
												18

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: Jamie Lefkowitz

COMPANY: CDM Smith

ADDRESS:

CITY: STATE: ZIP:

PHONE: 603 801 1051 EXT.:

FAX:

E-MAIL:

SITE NAME:

PROJECT #:

STATE: (NH) MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL

A B C

OR

PRESUMPTIVE CERTAINTY

REPORTING OPTIONS

PRELIMS: YES OR NO

IF YES: FAX OR PDF

ELECTRONIC OPTIONS

NO FAX E-MAIL PDF EQUIS

TEMP. 3.7 °C

ICE? (YES) NO

SAMPLER(S): Team7

	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	5/17/12	1538	
RELINQUISHED BY:	5/17/12	1554	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

DISSOLVED METALS FIELD FILTERED? YES NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

eastern analytical, inc.
professional laboratory services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Page 3 (2W) of 8 (2W)

CHAIN-OF-CUSTODY RECORD

110461

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	5/17/2012 SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 MTBE ONLY; 524.2 BTEX; 8260B 624 VITICS; 1,4 DIOXANE EDB DBCP; 8021B BTEX HALOS; 8015B GRO MEGRO MAVPH	SVOC: 8270D 625 SVITICS; ABN A BN PAH; TPH8100 LI L2; 8015B DRO MEDRO MAEPH; PEST 608 PCB 608; PEST 8081A PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS; VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	INORGANICS: TS TDS SPEC. CON.; BR CL F SO4; NO2 NO3 NO2NO3; BOD (CBOD) T. ALK.; TKN NH3 T. PHOS. O. PHOS.; PH T. RES. CHLORINE; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM (E. COLI) FECAL COLIFORM; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: Chl-a; BOD 20	# OF CONTAINERS	NOTES MEOH VIAL #
T044-G	10:00 AM	SW	G					TS; (CBOD)			2	
M045-G	9:25 AM									1	3	
T046-G	8:55 AM										2	
M048-G	10:40 AM										2	
M051-G	11:55 AM										2	
M052-G	12:25 PM									11	4	
M054-G	13:05									1	3	
M055-G	14:35	↓	↓						1		3	

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER
PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

TOTAL # OF CONTAINERS: 25 (2)

PROJECT MANAGER: Jamie Lefkowitz
COMPANY: CDM Smith
ADDRESS:
CITY: STATE: ZIP:
PHONE: EXT.:
FAX:
E-MAIL:
SITE NAME:
PROJECT #:
STATE: (NH) MA ME VT OTHER:
REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:
QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL
A B C
OR
PRESUMPTIVE CERTAINTY

REPORTING OPTIONS
PRELIMS: YES OR NO
IF YES: FAX OR PDF

ELECTRONIC OPTIONS
NO FAX E-MAIL PDF EQUIS

TEMP. 3.7 °C
ICE? (YES) NO

SAMPLER(S): Team 6

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
[signature]	5/17/12	1538	[signature]
[signature]	5/17/12	1554	[signature]
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN PB, CU
OTHER METALS:
DISSOLVED METALS FIELD FILTERED? YES NO
NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:
SUSPECTED CONTAMINATION:
FIELD READINGS:

eastern analytical, inc.
professional laboratory services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

CHAIN-OF-CUSTODY RECORD

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

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26

SAMPLE I.D.	5/17/12 SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 / 524.2 BTEX / 524.2 MTBE ONLY	VOC: 8260B 624 VTICs / 1,4 DIOXANE EDB DBCP	VOC: 8021B BTEX HALOS	VOC: 8015B GRO MEGRO MAVPH	SVOC: 8270D 625 SVTICs / ABN A BN PAH	SVOC: TPH8100 LI L2	SVOC: 8015B DRO MEDRO MAEPH	SVOC: PEST 608 PCB 608 / PEST 8081A PCB 8082	SVOC: OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS / VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW)	METALS: TOTAL METALS (LIST BELOW)	INORGANICS: TS (TSS) TDS SPEC. CON.	INORGANICS: Br Cl F SO_4 / NO_2 NO_3 NO_3NO_2	INORGANICS: BOD (CBOD) T. ALK.	INORGANICS: TKN NH_3 T. PHOS. O. PHOS.	INORGANICS: pH T. RES. CHLORINE	INORGANICS: COD PHENOLS TOC DOC	INORGANICS: TOTAL CYANIDE TOTAL SULFIDE	INORGANICS: REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM FECAL COLIFORM ~~(E. COLI)~~	MICRO: ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: Chl-a	OTHER: ~~BOD20~~	OTHER	# OF CONTAINERS	NOTES MeOH VIAL #
M009-G	9:45	SW	G													1		1								1				
T010-G	10:25	↓	↓													1		1												
T011-G	11:00															1		1												
T015-G	12:00															1		1												
T021-G	14:50															1		1												
T022-G	15:20															1		1												
M018-G	13:05															1		1												
M020-G	14:10	↓	↓													1		1												

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: J Lefkowitz

COMPANY:

ADDRESS:

CITY: STATE: ZIP:

PHONE: EXT.:

FAX:

E-MAIL:

SITE NAME:

PROJECT #:

STATE: NH MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED:

TEMP. 4.1 °C

ICE? (YES) NO

QA/QC REPORTING LEVEL

A B C

OR

PRESUMPTIVE CERTAINTY

REPORTING OPTIONS

PRELIMS: YES OR NO

IF YES: FAX OR PDF

ELECTRONIC OPTIONS

NO FAX E-MAIL PDF EQUIS

SAMPLER(S): Team 2

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
J Lefkowitz	5/17	1640	[signature]
[signature]	5/17/12	1700	[signature]

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

DISSOLVED METALS FIELD FILTERED? YES NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

Page 5 of 8 (SW) (GW)

CHAIN-OF-CUSTODY RECORD

FOR LAB USE ONLY 110461

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	5/17/12 SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 BTEX; 524.2 MTBE ONLY	VOC: 8260B 624 VTICs EDB DBCP 1,4 DIOXANE	VOC: 8021B BTEX HALOS	VOC: 8015B GRO MEGRO MAVPH	SVOC: 8270D 625 SVTICs ABN A BN PAH	SVOC: TPH8100 LI L2	SVOC: 8015B DRO MEDRO MAEPH	SVOC: PEST 608 PCB 608 PEST 8081A PCB 8082	SVOC: OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW)	METALS: TOTAL METALS (LIST BELOW)	INORGANICS: TS TDS (TSS) SPEC. CON.	INORGANICS: BR CL F SO4 NO2 NO3 NO2,NO3	INORGANICS: BOD (CBOD) T. ALK.	INORGANICS: TKN NH3 T. PHOS. O. PHOS.	INORGANICS: PH T. RES. CHLORINE	INORGANICS: COD PHENOLS TOC DOC	INORGANICS: TOTAL CYANIDE TOTAL SULFIDE	INORGANICS: REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM (E. COLI) FECAL COLIFORM	MICRO: ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: Chl-a	OTHER: BOD20	OTHER	# OF CONTAINERS	NOTES MEOH VIAL #
M026-G	9:10 A	SW	G													1		1										2	
T028-G	3:20 P	"	"													1		1							1			3	
M030-G	11:26 A															1		1								X	11	4	no chl-a
M032-G	1:48 P															1		1										2.	
M033-G	2:06P	↓	↓													1		1										2	
																												13	

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: Jleftkowitz

COMPANY:

ADDRESS:

CITY: STATE: ZIP:

PHONE: EXT.:

FAX:

E-MAIL:

SITE NAME:

PROJECT #:

STATE: NH MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL

A B C

OR

PRESUMPTIVE CERTAINTY

REPORTING OPTIONS

PRELIMS: YES OR NO

IF YES: FAX OR PDF

ELECTRONIC OPTIONS

NO FAX E-MAIL PDF EQUIS

TEMP. 4.1 °C

ICE? (YES) NO

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

DISSOLVED METALS FIELD FILTERED? YES NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SAMPLER(S): Team 4

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
Jleftkowitz	5/17	1640	
	5/17/12	1700	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

eastern analytical, inc.
professional laboratory services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Page 6 of 8

CHAIN-OF-CUSTODY RECORD

FOR LAB USE ONLY 110461

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

28

SAMPLE I.D.	5/17/2012 SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 BTEX; 524.2 MTBE ONLY; 8260B 624 VTICs EDB DBCP 1,4 DIOXANE; 8021B BTEX HALOS; 8015B GRO MEGRO MAVPH	SVOC: 8270D 625 SVTICs ABN A BN PAH; TPH8100 LI L2; 8015B DRO MEDRO MAEPH; PEST 608 PCB 608 PEST 8081A PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	INORGANICS: TS TDS (TSS) SPEC. CON.; BR CL F SO4 NO2 NO3NO2; BOD (CBOD) T. ALK.; TKN NH3 T. PHOS. O. PHOS.; PH T. RES. CHLORINE; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM (E. COLI) FECAL COLIFORM; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: Chl-a; BOD20	# OF CONTAINERS	NOTES MEOH VIAL #
M065-G	9:57	SW	G					1	1		1	3
M066-G	10:54							1	1		11	4
T068-G	15:20							1	1			3
T069-G	12:02							1	1			2
M070-G	13:00							1	1		1	3
M170-B	13:10							1	1		1	3
M270-D	13:00							1	1		1	3
M370-R	13:22							1	1		1	3
M071-G	14:08	↓	↓					1	1		11	4
												28

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: J Lefkowitz

COMPANY:

ADDRESS:

CITY: STATE: ZIP:

PHONE: EXT.:

FAX:

E-MAIL:

SITE NAME:

PROJECT #:

STATE: NH MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED:

QA/QC

REPORTING LEVEL

A B C

OR

PRESUMPTIVE CERTAINTY

REPORTING OPTIONS

PRELIMS: YES OR NO

IF YES: FAX OR PDF

ELECTRONIC OPTIONS

NO FAX E-MAIL PDF EQUIS

TEMP. 4.7 °C

ICE? (YES) NO

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

DISSOLVED METALS FIELD FILTERED? YES NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SAMPLER(S): Team 8

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
J Lefkowitz	5/17/12	1734	
	5/17/12	1825	

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

eastern analytical, inc.
professional laboratory services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Page 7 of 8

CHAIN-OF-CUSTODY RECORD

FOR LAB USE ONLY 110461

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

29

SAMPLE I.D.	5/17/2012 SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 BTEX; 524.2 MTBE ONLY; 8260B 624 VITICS; 1,4 DIOXANE EDB DBCP; 8021B BTEX HALOS; 8015B GRO MEGRO MAPH	SVOC: 8270D 625 SVTICS ABN A BN PAH; TPH8100 LI L2; 8015B DRO MEDRO MAEPH; PEST 608 PCB 608 PEST 8081A PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	INORGANICS: TS TDS SPEC. CON.; BR Cl F SO4 NO2 NO2,NO3; BOD (CBOD) T. ALK.; TKN NH3 T. PHOS. O. PHOS.; pH T. RES. CHLORINE; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI; FECAL COLIFORM; ENTEROCOCCI; HETEROTROPHIC PLATE COUNT	OTHER: Chl-a; BOD20	# OF CONTAINERS	NOTES MEOH VIAL #
M001-G	9:30A	SW	G					1	1			2	
TC02-G	11:00A							1	1			2	
TC03-G	11:40A							1	1			2	
TC04-G	2:00P							1	1			2	
M006-G	3:05P							1	1			2	
M008-G	4:15P							1	1	1		3	
M108-B	4:15P									1		1	
M208-D	4:15P									1		1	
M308-R	4:15P	↓	↓							1		1	

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

16

PROJECT MANAGER: Jleftowitz

COMPANY:

ADDRESS:

CITY: STATE: ZIP:

PHONE: EXT.:

FAX:

E-MAIL:

SITE NAME:

PROJECT #:

STATE: NH MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL

A B C

OR

PRESUMPTIVE CERTAINTY

REPORTING OPTIONS

PRELIMS: YES OR NO

IF YES: FAX OR PDF

ELECTRONIC OPTIONS

NO FAX E-MAIL PDF EQUIS

TEMP. 4.7 °C

ICE? (YES) NO

SAMPLER(S): Team 1

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	5/17	1744	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	5/17/12	1825	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

DISSOLVED METALS FIELD FILTERED? YES NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

eastern analytical, inc.
professional laboratory services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

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CHAIN-OF-CUSTODY RECORD

FOR LAB USE ONLY 110461

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	5/17/2012 SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 BTEX; 524.2 MTBE ONLY; 8260B 624 VTICs; 1, 4 DIOXANE EDB DBCP; 8021B BTEX HALOS; 8015B GRO MEGRO MAVPH	SVOC: 8270D 625 SVTICs ABN A BN PAH; TPH8100 L1 L2; 8015B DRO MEDRO MAEPH; PEST 608 PCB 608 PEST 8081A PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	INORGANICS: TS TDS SPEC. CON.; BR Cl F SO4 NO2 NO3 NO2N; BOD (CBOD) T. ALK.; TKN NH3 T. PHOS. O. PHOS.; pH T. RES. CHLORINE; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI FECAL COLIFORM; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	OTHER: Chla; BOD20	# OF CONTAINERS	NOTES MEOH VIAL #
M012-G	10:00A	SW	G					TS (TSS) TDS; BOD (CBOD)			2	
M013-G	10:25A										2	
T027-G	16:58										2	
T127-B	17:03										2	
T227-D	16:53										2	
T327-R	17:08										2	
M017-G	12:15 P									1	3	
M023-G	14:47									1	3	
M024-G	16:02									1	3	
											21	

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: Jlefkowitz

COMPANY:

ADDRESS:

CITY: STATE: ZIP:

PHONE: EXT.:

FAX:

E-MAIL:

SITE NAME:

PROJECT #:

STATE: NH MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED:

QA/QC
REPORTING LEVEL
A B C
OR
PRESUMPTIVE CERTAINTY

REPORTING OPTIONS
PRELIMS: YES OR NO
IF YES: FAX OR PDF

ELECTRONIC OPTIONS
NO FAX E-MAIL PDF EQUIS

TEMP. 4.7 °C
ICE? (YES) NO

SAMPLER(S): Team 3

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	5/17/12	1810	
	5/17/12	1825	

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

DISSOLVED METALS FIELD FILTERED? YES NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

eastern analytical, inc.
professional laboratory services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMERSERVICE@EAILABS.COM | WWW.EAILABS.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

CDM-Merrimack River
One Cambridge Place
50 Hampshire Street
Cambridge, MA 02139
ph/fax: 617-452-6591
contact: Jamie Lefkowitz

Sampling Event: UPPER MERRIMACK JUNE 2012

PROJECT	SAMPLE ID	DATE	PO4 (mg/l)	TP (mg/l)	NH4 (mg/l)	NOX (mg/l)	DIN (mg/l)	DON (mg/l)	TDN (mg/l)	DO (mg/L)	
CDM_Merrimack	M001G	5/17/2012	<0.002	0.005	0.027	0.132	0.159	0.234	0.392		
CDM_Merrimack	T002G	5/17/2012	<0.002	<0.002	0.027	0.153	0.180	0.282	0.462		
CDM_Merrimack	T003G	5/17/2012	0.004	0.009	0.084	0.166	0.251	0.265	0.516		
CDM_Merrimack	T004G	5/17/2012	<0.002	<0.002	0.027	0.145	0.172	0.241	0.413	10.26	
CDM_Merrimack	M006G	5/17/2012	<0.002	0.003	0.025	0.133	0.158	0.234	0.392		
CDM_Merrimack	M008G	5/17/2012	<0.002	0.004	0.024	0.124	0.149	0.206	0.355		
CDM_Merrimack	M009G	5/17/2012	<0.002	0.003	0.014	0.110	0.124	0.159	0.283	10.03	
CDM_Merrimack	T010G	5/17/2012	<0.002	0.016	0.033	0.116	0.149	0.225	0.374		
CDM_Merrimack	T011G	5/17/2012	<0.002	0.009	0.019	0.060	0.079	0.205	0.284		
CDM_Merrimack	M012G	5/17/2012	<0.002	0.006	0.018	0.105	0.123	0.180	0.304		
CDM_Merrimack	M013G	5/17/2012	0.004	0.014	0.044	0.171	0.215	0.323	0.538		
CDM_Merrimack	T015G	5/17/2012	<0.002	0.008	0.047	0.099	0.146	0.199	0.345		
CDM_Merrimack	M017G	5/17/2012	<0.002	0.008	0.021	0.117	0.138	0.219	0.356	9.74	
CDM_Merrimack	M018G	5/17/2012	<0.002	0.007	0.024	0.085	0.109	0.214	0.323		
CDM_Merrimack	M020G	5/17/2012	<0.002	0.008	0.019	0.081	0.100	0.197	0.298	9.80	
CDM_Merrimack	T021G	5/17/2012	<0.002	0.007	0.021	0.046	0.067	0.174	0.241		
CDM_Merrimack	T022G	5/17/2012	<0.002	0.008	0.038	0.040	0.078	0.275	0.353		
CDM_Merrimack	M023G	5/17/2012	<0.002	0.011	0.022	0.122	0.144	0.232	0.376		
CDM_Merrimack	M024G	5/17/2012	<0.002	0.008	0.023	0.120	0.142	0.202	0.344		
CDM_Merrimack	M026G	5/17/2012	<0.002	0.011	0.026	0.111	0.137	0.152	0.289		
CDM_Merrimack	T027G	5/17/2012	<0.002	0.016	0.028	0.037	0.065	0.254	0.319		
CDM_Merrimack	T028G	5/17/2012	<0.002	0.014	0.026	0.014	0.040	0.404	0.445		
CDM_Merrimack	M030G	5/17/2012	<0.002	0.013	0.011	0.091	0.102	0.159	0.261	10.32	
CDM_Merrimack	M032G	5/17/2012	<0.002	0.015	0.053	0.089	0.142	0.298	0.440		
CDM_Merrimack	M033G	5/17/2012	<0.002	0.016	0.051	0.090	0.142	0.191	0.332		
CDM_Merrimack	T035G	5/17/2012	<0.002	0.020	0.027	0.059	0.086	0.288	0.375		
CDM_Merrimack	M036G	5/17/2012	0.003	0.013	0.074	0.104	0.178	0.249	0.427		
CDM_Merrimack	M037G	5/17/2012	0.002	0.010	0.047	0.098	0.145	0.185	0.330		
CDM_Merrimack	M039G	5/17/2012	0.003	0.012	0.048	0.093	0.141	0.294	0.436		
CDM_Merrimack	M041G	5/17/2012	<0.002	0.012	0.043	0.096	0.139	0.213	0.352	9.31	
CDM_Merrimack	T044G	5/17/2012	<0.002	0.026	0.013	0.081	0.095	0.274	0.368		
CDM_Merrimack	M045G	5/17/2012	<0.002	0.017	0.064	0.138	0.202	0.300	0.502		
CDM_Merrimack	T046G	5/17/2012	<0.002	0.025	0.036	0.076	0.111	0.406	0.518		
CDM_Merrimack	M048G	5/17/2012	0.002	0.015	0.049	0.152	0.201	0.261	0.462		
CDM_Merrimack	M051G	5/17/2012	0.002	0.019	0.044	0.124	0.168	0.259	0.427		
CDM_Merrimack	M052G	5/17/2012	0.003	0.019	0.059	0.102	0.162	0.515	0.677	9.49	
CDM_Merrimack	M054G	5/17/2012	<0.002	0.015	0.059	0.131	0.190	0.246	0.436		
CDM_Merrimack	M055G	5/17/2012	<0.002	0.011	0.066	0.127	0.193	0.234	0.427		
CDM_Merrimack	T056G	5/17/2012	<0.002	0.008	0.048	0.079	0.127	0.331	0.458		
CDM_Merrimack	M058G	5/17/2012	<0.002	0.016	0.067	0.114	0.181	0.226	0.407	9.37	
CDM_Merrimack	T059G	5/17/2012	<0.002	0.017	0.041	0.065	0.106	0.401	0.507		
CDM_Merrimack	M061G	5/17/2012	0.002	0.025	0.071	0.095	0.166	0.231	0.397		
CDM_Merrimack	M062G	5/17/2012	<0.002	0.024	0.086	0.105	0.190	0.363	0.553	9.37	
CDM_Merrimack	T064G	5/17/2012	0.005	0.026	0.023	0.176	0.200	0.564	0.764		
CDM_Merrimack	M065G	5/17/2012	0.006	0.019	0.095	0.130	0.225	0.401	0.626		
CDM_Merrimack	M066G	5/17/2012	0.008	0.028	0.093	0.162	0.255	0.491	0.746		
CDM_Merrimack	T068G	5/17/2012	0.008	0.030	0.067	0.615	0.682	0.418	1.100		
CDM_Merrimack	T069G	5/17/2012	0.003	0.031	0.108	0.289	0.397	0.428	0.826		
CDM_Merrimack	M070G	5/17/2012	<0.002	0.030	0.090	0.212	0.302	0.267	0.569		
CDM_Merrimack	M071G	5/17/2012	<0.002	0.016	0.090	0.240	0.330	0.318	0.648	bottle broken on arrive	
CDM_Merrimack	T127B	5/17/2012	<0.002	0.007	0.021	0.002	0.023	0.069	0.092		
CDM_Merrimack	M136B	5/17/2012	<0.002	<0.002	0.030	0.006	0.036	0.142	0.178		
CDM_Merrimack	M170B	5/17/2012	<0.002	<0.002	0.030	0.004	0.034	0.067	0.101		
CDM_Merrimack	T227D	5/17/2012	<0.002	0.008	0.006	0.008	0.014	0.149	0.163		
CDM_Merrimack	M236D	5/17/2012	0.002	0.009	0.046	0.095	0.141	0.237	0.378		
CDM_Merrimack	M270G	5/17/2012	0.008	0.024	0.073	0.179	0.252	0.295	0.547		
CDM_Merrimack	T327R	5/17/2012	<0.002	<0.002	0.049	0.064	0.113	0.240	0.354		
CDM_Merrimack	M336R	5/17/2012	<0.002	0.004	0.029	0.003	0.032	0.918	0.950		
CDM_Merrimack	M370R	5/17/2012	<0.002	<0.002	0.037	0.002	0.039	0.082	0.122		
CDM_Merrimack	BRISTOL WWTP-E	5/17/2012	3.173	3.637	0.694	7.202	7.896	2.823	10.719		
CDM_Merrimack	CONCORD HALL ST WWTP-E	5/17/2012	2.694	2.854	22.934	1.103	24.037	0.720	24.757		
CDM_Merrimack	DERRY WWTP-E	5/17/2012	4.862	4.904	19.718	3.986	23.704	3.101	26.805		
CDM_Merrimack	HOOKSET WWTP-E	5/17/2012	1.640	1.929	0.294	2.121	2.415	2.965	5.380		
CDM_Merrimack	LINCOLN WWTP-E	5/18/2012	2.434	2.575	18.906	0.690	19.596	1.065	20.662		
CDM_Merrimack	MANCHESTER WWTP-E	5/18/2012	1.173	1.368	10.870	1.736	12.606	1.913	14.519		
CDM_Merrimack	MERR CO WWTP-E	5/18/2012	5.408	6.705	12.386	6.597	18.983	1.884	20.867		
CDM_Merrimack	MERRIMACK WWTP-E	5/18/2012	5.727	7.225	0.335	11.717	12.052	3.275	15.327		
CDM_Merrimack	NASHUA WWTP-E	5/18/2012	0.938	1.158	6.189	8.731	14.920	2.311	17.232		
CDM_Merrimack	PENACOOK WWTP-E	5/17/2012	0.502	1.271	11.995	0.449	12.444	0.623	13.067		
CDM_Merrimack	PLYMOUTH VILLAGE WWTP-E	5/17/2012	3.797	4.554	7.168	7.650	14.818	2.591	17.409		
CDM_Merrimack	SUNCOOK/ALLENSTOWN WWTP-E	5/17/2012	0.974	3.951	1.702	9.279	10.981	2.928	13.909		
CDM_Merrimack	WINNIPESAUKEE WWTP-E	5/17/2012	1.725	2.485	20.652	0.233	20.885	1.825	22.709		
CDM_Merrimack	WOODSTOCK WWTP-E	5/17/2012	1.532	1.628	0.155	3.683	3.838	8.255	12.092		