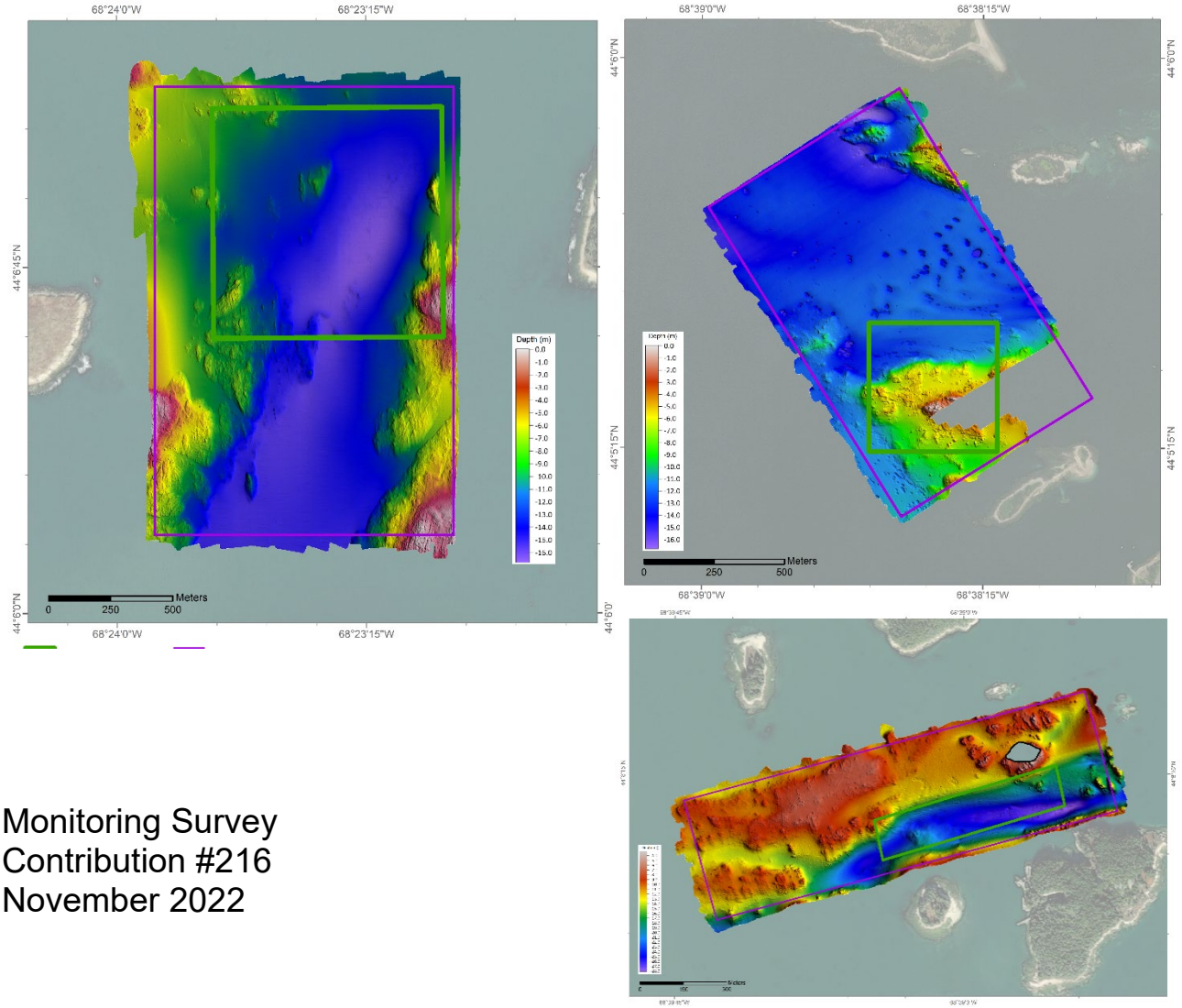
Baseline Surveys at the St. Helena Island, Flake Island and Frenchboro Disposal Sites
April 2022

Disposal Area Monitoring System DAMOS



Monitoring Survey
Contribution #216
November 2022

DISPOSAL AREA MONITORING SYSTEM

US Army Corps of Engineers ®
New England District

BASELINE SURVEYS AT THE ST. HELENA ISLAND, FLAKE ISLAND, AND FRENCHBORO DISPOSAL SITES APRIL 2022

CONTRIBUTION #216
November 2022

Contract No. W912WJ-17-D-0003
Report No. 60666455

Submitted to:
New England District
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Prepared by:
AECOM and CR Environmental, Inc.

Submitted by:
AECOM Technical Services, Inc.
9 Jonathan Bourne Drive
Pocasset, MA 02559

US Army Corps of Engineers ®
New England District

REPORT DOCUMENTATION PAGE

form approved
OMB No.

Public reporting concern for the collection of information is estimated to average 1 hour per response including the time for reviewing instructions, searching existing data sources, gathering and measuring the data needed and correcting and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information including suggestions for reducing this burden to Washington Headquarters Services, Directorate for information Observations and Records, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302 and to the Office of Management and Support, Paperwork Reduction Project (0704-0188), Washington, D.C. 20503.

1. AGENCY USE ONLY (LEAVE BLANK)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	December 2022	FINAL REPORT

4. TITLE AND SUBTITLE
Contribution Report for the Baseline Surveys at the St. Helena Island, Flake Island, and Frenchboro Disposal Sites April 2022

5. FUNDING NUMBERS

6. AUTHOR(S)
AECOM and CR Environmental, Inc.

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
AECOM
250 Apollo Drive
Chelmsford, MA 01824

8. PERFORMING ORGANIZATION REPORT NUMBER
AECOM- 60666455

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)
US Army Corps of Engineers-New England District
696 Virginia Rd
Concord, MA 01742-2751

10. SPONSORING/MONITORING AGENCY REPORT NUMBER
Contribution #216

11. SUPPLEMENTARY NOTES
Available from DAMOS Program Manager, Evaluation Branch
USACE-NAE, 696 Virginia Rd, Concord, MA 01742-2751

12a. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT

A series of baseline monitoring surveys were conducted in April 2022 at historical dredged material disposal sites in Downeast Maine – St. Helena Island Disposal Site (SHDS), Frenchboro Disposal Site (FDS), and Flake Island Disposal Site (FIDS) – as part of the Disposal Area Monitoring System (DAMOS) Program. The 2022 surveys consisted of hydroacoustic (multibeam bathymetry, side scan sonar, and backscatter) surveys, sediment grab sampling, and underwater video surveys at locations within each disposal site's historical boundaries and in surrounding potential reference areas. There has been no monitoring or disposal activity at these sites for decades so these surveys will serve to document the current baseline conditions and determine the potential for future use.

The April 2022 surveys provided a baseline assessment of seafloor topography, surficial sediment grain size, and seafloor habitat at SHDS, FDS, and FIDS. Based on the results of the hydroacoustic surveys, sediment grab sampling, and underwater video surveys; characterizations of each site and conclusions regarding appropriate reference areas were able to be made. The results of these baseline surveys should be used for future management considerations, including USACE site selection decisions and the establishment of Site Management and Monitoring Plans, and will provide useful information to identify environmental impacts and assess ecosystem recovery from potential future dredged material disposals.

14. SUBJECT TERMS DAMOS, Disposal Site, Dredged Material, St Helena, Flake Island, Frenchboro

15. NUMBER OF TEXT PAGES: 203

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified			

TABLE OF CONTENTS

Page

Page

APPENDICES

LIST OF TABLES

Page

LIST OF FIGURES

Page

LIST OF FIGURES (CONTINUED)

Page

EXECUTIVE SUMMARY

A series of baseline monitoring surveys were conducted in April 2022 at historical dredged material disposal sites in Downeast Maine – St. Helena Island Disposal Site (SHDS), Frenchboro Disposal Site (FDS), and Flake Island Disposal Site (FIDS) – as part of the Disposal Area Monitoring System (DAMOS) Program. The 2022 surveys consisted of hydroacoustic (multibeam bathymetry, side scan sonar, and backscatter) surveys, sediment grab sampling, and underwater video surveys at locations within each disposal site's historical boundaries and in surrounding potential reference areas. There has been no monitoring or disposal activity at these sites for decades so these surveys will serve to document the current baseline conditions and determine the potential for future use.

Multibeam bathymetric surveys were conducted at SHDS, FDS, and FIDS, over 400-meter (m) x 1,400 m, 1,200 m x 1,800 m, and 800 m x 1,300 m areas, respectively. Each survey covered the entire historical site footprint and extended into the surrounding seafloor to investigate potential locations to be used for new reference areas. The results of the 2022 acoustic surveys were used to characterize the seafloor topography and surficial features over the three sites and potential reference areas.

Sediment grab samples were collected from six locations within each survey area, three within the disposal site boundaries and three within the surrounding areas that may serve as new reference areas. The sediment grab samples were analyzed for grain size. Underwater video surveys were conducted alongside the sediment grabs and these images provided further information about the seafloor and benthic habitat within the sites.

The April 2022 surveys provided a baseline assessment of seafloor topography, surficial sediment grain size, and seafloor habitat at SHDS, FDS, and FIDS. Based on the results of the hydroacoustic surveys, sediment grab sampling, and underwater video surveys; characterizations of each site and conclusions regarding appropriate reference areas were able to be made. The results of these baseline surveys should be used for future management considerations, including USACE site selection decisions and the establishment of Site Management and Monitoring Plans, and will provide useful information to identify environmental impacts and assess ecosystem recovery from potential future dredged material disposals.

LIST OF ACRONYMS AND ABBREVIATIONS

APP	Accident Prevention Plan
ASCII	American Standard Code for Information Interchange
cm	centimeters
CR	CR Environmental, Inc
DAMOS	Disposal Area Monitoring System
dB	decibel
FDS	Frenchboro Disposal Site
FIDS	Flake Island Disposal Site
ft	foot/feet
FNP	Federal Navigation Project
F/V	Fishing Vessel
GPS	Global Positioning System
GIS	geographic information system
GRD	gridded file format
GTX	GeoTesting Express
kHz	kilohertz
km	kilometer
LED	light-emitting diode
m	meter
m^2	square meter
m^3	cubic meters
MA	Massachusetts
ME	Maine
MBES	multibeam echo sounder
MLW	Mean Low Water
MLLW	Mean Lower Low Water
MPRSA	Marine Protection, Research, and Sanctuaries Act
MRU	motion reference unit
msec	millisecond
NAD 83	North American Datum of 1983
NAE	New England District

nmi	nautical mile
NOAA	National Oceanic and Atmospheric Administration
NTRIP	Networked Transport of Radio Technical Commission for Maritime Services (RTCM) via Internet Protocol
OTI	Outland Technology, Inc.
PPS	pulse per second
PV	plan view
QAPP	Quality Assurance Project Plan
ROV	remotely operated vehicle
RTCM	Radio Technical Commission for Maritime Services
RTK	Real-Time Kinematic
SHDS	St. Helena Island Disposal Site
SPI	sediment-profile imaging
SOP	Standard Operating Procedure
SVP	sound velocity profile
TIF	tagged image file
UNH/NOAA CCOM Mapping	University of New Hampshire's NOAA Center for Coastal and Ocean
U.S.	United States
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
yd^3	cubic yards

1.0 INTRODUCTION

In April 2022, a series of monitoring surveys were conducted at three historical dredged material disposal sites in Downeast Maine as part of the United States Army Corps of Engineers (USACE) New England District (NAE) Disposal Area Monitoring System (DAMOS) Program. The three historical dredged material disposal sites: St. Helena Island Disposal Site (SHDS), Frenchboro Disposal Site (FDS), and Flake Island Disposal Site (FIDS) are being considered as future disposal sites for maintenance dredging of nearby Federal Navigation Projects (FNPs). The three sites (FIDS, FDS, and SHDS) have not been used for dredged material disposal in decades and little information exists on the characteristics of the sites. The April 2022 monitoring surveys serve as baseline surveys to characterize the current conditions at the sites and potentially identify appropriate reference areas for future monitoring activities.

DAMOS is a comprehensive monitoring and management program designed and conducted to address environmental concerns surrounding the placement of dredged material at aquatic disposal sites throughout the New England region. An introduction to the DAMOS Program and the Downeast Maine Disposal Sites, including a brief history of the sites, is provided below along with a description of the study objectives for the April 2022 baseline surveys.

The remainder of this report includes an overview of the methods used to collect and analyze the survey data, a summary of the results, a detailed discussion of the 2022 survey results, conclusions and recommendations for future site management and monitoring, and a list of references cited in the document.

1.1 Overview of the DAMOS Program

The DAMOS program features a tiered management protocol designed to ensure that any potential adverse environmental impacts associated with dredged material disposal are promptly identified and addressed (Germano et al. 1994). For over 40 years, the DAMOS Program has collected and evaluated dredged material disposal site data throughout New England. Based on these data, patterns of physical, chemical, and biological responses of seafloor environments to dredged material placement activity have been documented (Fredette and French 2004).

DAMOS monitoring surveys fall into two general categories: confirmatory studies and focused studies. The data collected and evaluated during these studies provide answers to strategic questions in determining next steps in the disposal site management process. DAMOS monitoring results guide the management of disposal activities at existing sites, support planning for use of future sites, and evaluate the long-term status of historical sites (Wolf et al. 2012).

Confirmatory studies are designed to test hypotheses related to expected physical and ecological response patterns following placement of dredged material on the seafloor at established, active disposal sites. Several survey techniques are employed in order to characterize dredged material placement. Sequential acoustic monitoring surveys (including bathymetric and acoustic backscatter measurements and side-scan sonar) are made to characterize the height and spread of discrete dredged material deposits or mounds created at open-water sites as well as the accumulation/consolidation of dredged material into confined aquatic disposal cells. Sediment-profile imaging (SPI) and plan-view (PV) imaging surveys are often included in confirmatory surveys to provide further physical characterization of the material and to support evaluation of seafloor (benthic) habitat and recovery over time.

Focused studies are periodically undertaken within the DAMOS Program to evaluate candidate sites, for baseline surveys at new sites, to evaluate inactive/historical disposal sites, and to contribute to the development of dredged material placement, capping techniques, and management planning. Focused DAMOS monitoring surveys often feature additional types of data collection activities as deemed appropriate to achieve specific survey objectives, such as grab sampling of sediment for chemical, physical, and biological analysis, sub-bottom profiling, sediment coring, towed video, or video collection via a remotely operated vehicle (ROV).

The surveys discussed herein were designed as focused baseline studies of the three historical sites that are being evaluated as potential dredged material disposal sites and their associated reference areas. The effort included an assessment of the seafloor via hydroacoustic and underwater video surveys and sediments by grain size analysis. The data collected during these surveys is intended to support and inform decisions for potential future site selection by the USACE under the Marine Protection, Research, and Sanctuaries Act (MPRSA). Through the MPRSA, the United States Environmental Protection Agency (USEPA) and USACE share the authority to manage and regulate dredged material disposal. While the authority to designate an ocean dredged material disposal site (ODMDS) under the MPRSA rests solely with USEPA, USACE has authority to select a dredged material disposal site for a period of not greater than five years through Section 103(b) of the MPRSA.

1.2 Introduction to the Downeast Maine Disposal Sites

The Downeast Maine Disposal Site study includes three individual areas: SHDS, FDS, and FIDS, as depicted in Figure 1-1. Each site was previously used by USACE for dredged material disposal in the 1970's and 1980's but detailed site and disposal information is limited; known details of these sites are discussed below. Figure 1-2 depicts active dredged material disposal sites in the vicinity of the Downeast Maine Disposal Sites, illustrating the need for additional local disposal sites to accommodate anticipated FNP maintenance dredging in nearby harbors.

1.2.1 St. Helena Island Disposal Site (SHDS)

The St. Helena Island Disposal Site is located approximately 2.6 kilometers (km) (1.4 nautical miles [nmi]) from Stonington, Maine (ME) and about 0.5 km (0.5 nmi) north of St. Helena Island. The site is defined as a 658 meter (m) by 143 m (2158 by 469 foot [ft]) rectangular site, centered at 44° 8.1' N, 68° 39.1' W in the North American Datum of 1983 (NAD 83) (Figure 1-1). The site is located seaward of the base line from which the territorial sea is measured so disposal of dredged material at SHDS is regulated under the MPRSA.

The St. Helena Island Disposal Site was selected under the MPRSA by the USACE in 1982 (USACE, 1982). USACE site investigations, and consultation with local fishermen, determined that SHDS was in an anoxic depression and the seafloor consisted of fine-grained organic sediment, which supported minimal benthic life and was not productive lobster habitat (USACE, 1983). Additionally, bottom currents appeared to be minimal, which favored containment of future disposal material (USACE, 1983).

Between 1983 and 1984, two large civil works projects, the Deer Isle Thorofare FNP and the Stonington Harbor FNP, disposed approximately 59,638 cubic meters (m^3) (78,000 cubic yards [yd^3]) of dredged material at SHDS (USACE, 1983). An additional 3,823 m^3 (5,000 cy^3) of dredged material was disposed at SHDS from a private project just northeast of Stonington Harbor in 1984 (USACE, 1984). The dredged material that was disposed of within SHDS is stated to have consisted of ledge, cobble, shell fragments, and sandy clay (USACE, 1982). The disposal of ledge material from the Stonington Harbor FNP was expected to improve benthic habitat within the site via the addition of rocky substrate.

1.2.2 Frenchboro Disposal Site (FDS)

The Frenchboro Disposal Site is located approximately 2.2 km (1.2 nmi) from Frenchboro, ME and is defined as a 923 m by 923 m (3,029 ft by 3,029 ft) square site, centered at 44° 6.50' N, 68° 23.22' W in NAD 83 (Figure 1-1). Like SHDS, the Frenchboro Disposal Site is located seaward of the base line from which the territorial sea is measured so disposal of dredged material at FDS is regulated under the MPRSA.

The USACE site selection of FDS was coordinated with the Maine Department of Marine Resources, USEPA, and other local interests. The site location was chosen with input from local fisherman and was reported to consist of a mud bottom at depths ranging from 30 to 35 m (100 to 115 feet). From 1976 to 1977, approximately 64,987 m^3 (85,000 cy^3) of sediment and 1,529 m^3 (2,000 cy^3) of rock that originated from the improvement dredging project in Frenchboro Harbor was disposed of at FDS (USACE, 1977). A pre-dredge survey in 1973 described the Frenchboro Harbor sediment that was to be placed at the disposal site as sand, gravel, and rock (USACE, 1974). A buoy was placed at the site for point disposals to limit the bottom impact of disposal operations.

1.2.3 Flake Island Disposal Site (FIDS)

The Flake Island Disposal Site is located approximately 1.7 km (0.90 nmi) from Isle au Haut, ME and is defined as a 457 m by 457 m (1,500 ft by 1,500 ft) square site, centered at 44° 5.22' N, 68° 38.23' W in NAD 83 (Figure 1-1). FIDS is also located seaward of the base line from which the territorial sea is measured so disposal of dredged material at FIDS is regulated under the MPRSA.

FIDS was selected as a disposal site by the USACE, in coordination with the state of Maine Department of Marine Resources, due to its potential to create additional benthic habitat for lobster by extending the adjacent ledge area (USACE, 1979). Prior to disposal activity, sediments at FIDS were described as hard, compacted mud and clay which was expected to host benthic organisms including small crustaceans, echinoderms, and bivalves, as well as commercially important lobsters during the summer and fall (USACE, 1979).

Approximately 765 m^3 (1,000 cy^3) of material was removed and disposed of at FIDS from the Isle au Haut Thorofare FNP in 1979-1980. The material was disposed of near the existing ledge area at approximately the 11 m (35 ft) contour line at Mean Low Water (MLW), in an effort to create dredged material mounds that did not exceed a height of 5 m (15 ft) MLW (USACE, 1979). The dredged material was composed of 80-90% boulders, ranging in size from 6 inches to greater than a half of a cubic yard, and 10-20% unconsolidated sediments, noted to be mostly cobble (USACE, 1979).

1.3 2022 Study Objectives

The surveys were designed to provide general baseline site information to support decisions on future site use. The specific survey objectives included:

- Characterization of the seafloor topography and surficial features over the historical sites and nearby areas that may potentially serve as reference areas by completing multibeam acoustic surveys at each of the three proposed locations;
- Collection of sediment grab samples for grain size analysis to determine the baseline seafloor conditions within the three sites; and
- Collection of underwater video footage to further characterize the seafloor and the flora and fauna within each of the three sites.

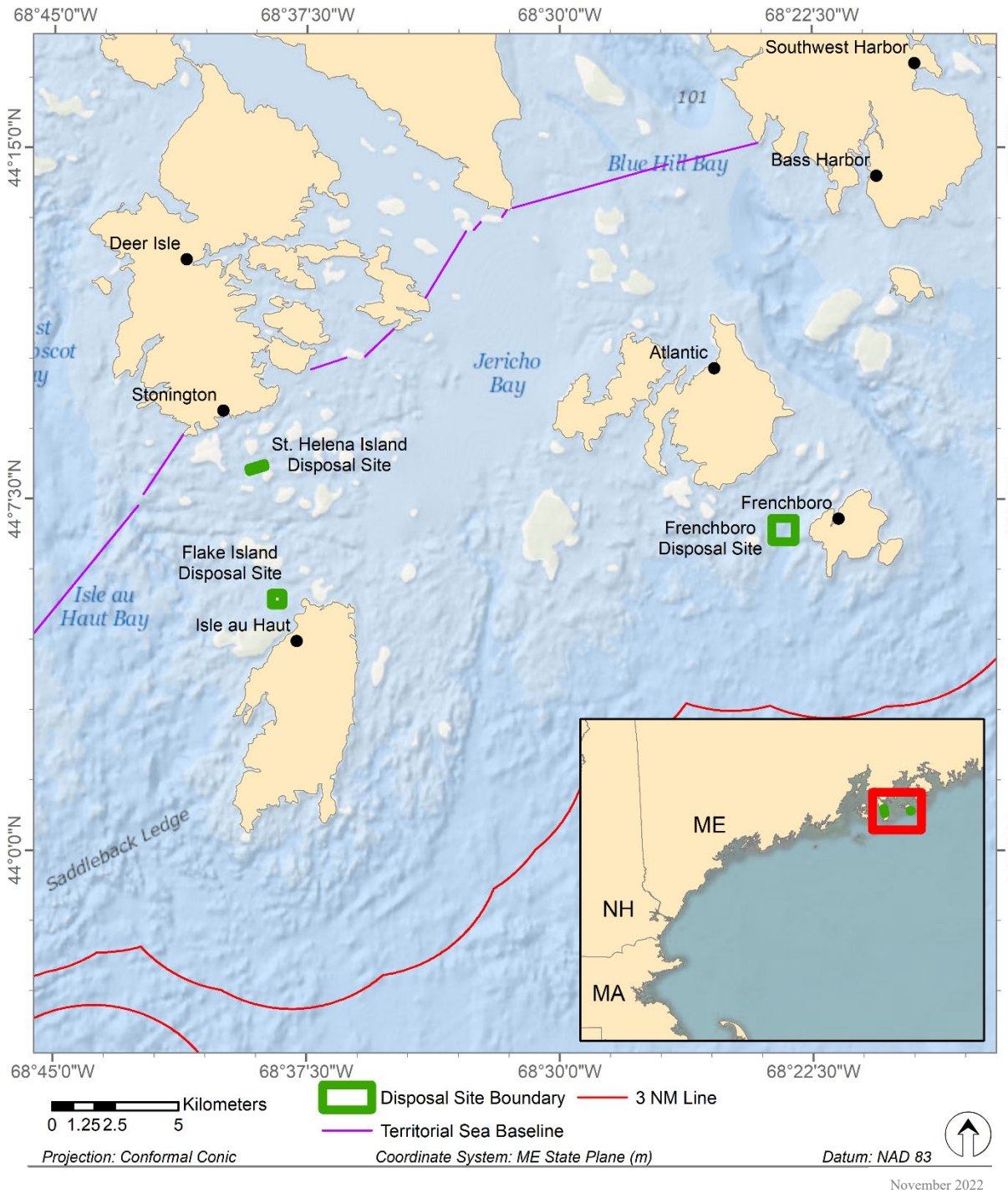


Figure 1-1. Locations of Downeast Maine survey areas

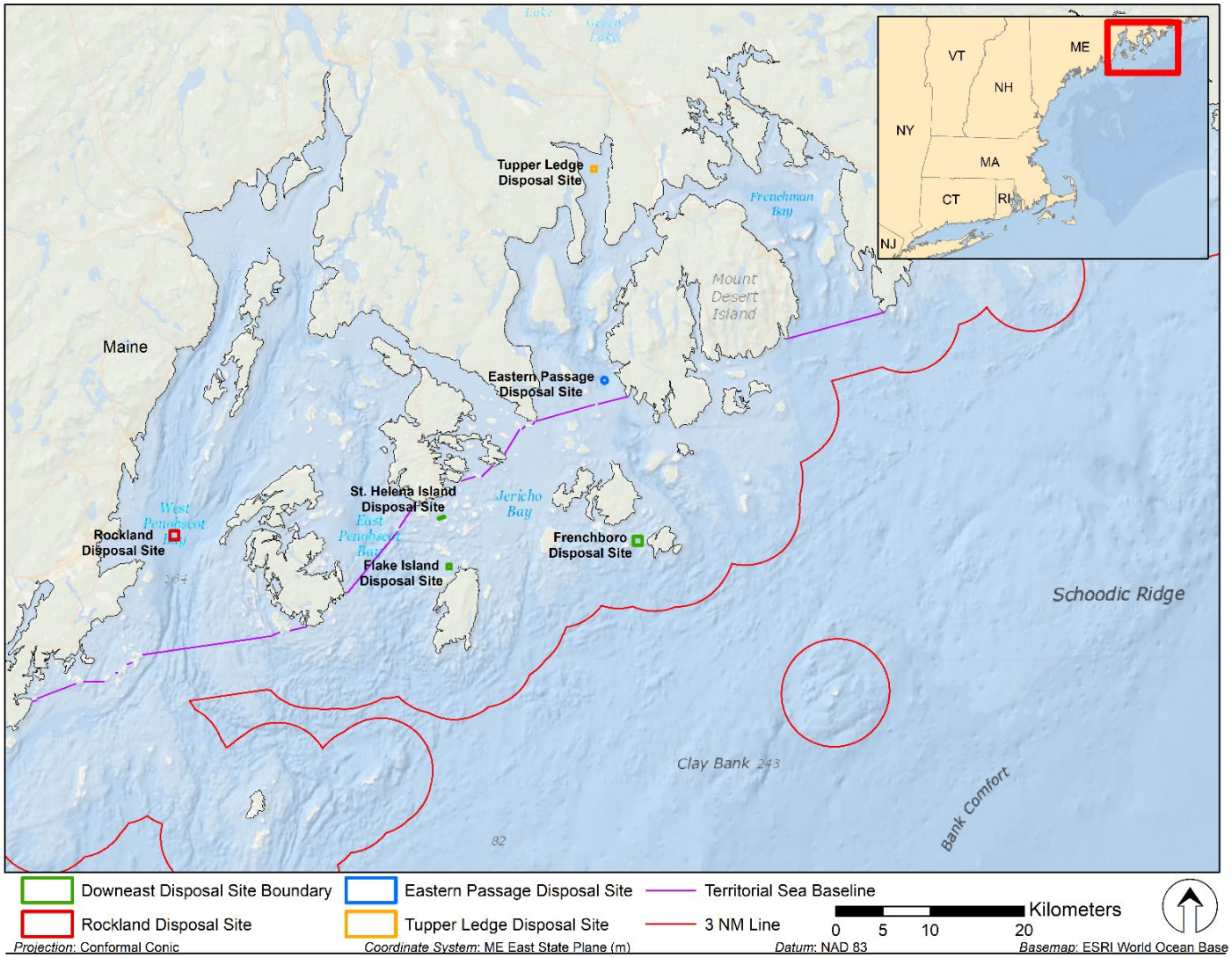


Figure 1-2. Location of the Downeast Maine disposal sites relative to nearby active disposal sites

2.0 METHODS

USACE, AECOM, and CR Environmental, Inc (CR) conducted the April 2022 surveys at the three Downeast Maine Disposal Sites. GeoTesting Express (GTX) (Acton, Massachusetts [MA]) performed the grain size analyses. Survey work at SHDS was performed on 11 April 2022, at FDS on 12 April 2022, and at FIDS over the course of two days, 13 and 14 April 2022. An acoustic survey was conducted at each site, in addition to the collection of six sediment samples per site for a total of 18 samples. To provide additional data to support the characterization of the surficial sediment quality and benthic community, a video survey was conducted simultaneously with sediment grab sampling activities at each site.

The surveys were conducted aboard the 42-ft Fishing Vessel (F/V) *Gunsmoke.* Field activities are summarized in Table 2-1 and an overview of the methods used to collect and analyze the survey data is provided below. Detailed Standard Operating Procedures (SOPs) for data collection and processing are presented in the program Quality Assurance Project Plan (QAPP) (AECOM, 2021a). Additionally, marine operations were conducted in accordance with the Accident Prevention Plan (APP) for marine operations associated with the DAMOS Program (AECOM, 2021b).

2.1 Navigation and On-Board Data Acquisition

Navigation for the acoustic survey was accomplished using a Hemisphere VS-330 Real-Time Kinematic (RTK) Global Positioning System (GPS) which received base station corrections through the Keynet Networked Transport of Radio Technical Commission for Maritime Services (RTCM) via Internet Protocol (NTRIP) broadcast. Horizontal position accuracy in fixed RTK mode was approximately 2 centimeters (cm). A second Hemisphere VS-330 RTK was available, if necessary, as a backup. The GPS system was interfaced to a laptop computer running HYPACK® hydrographic survey software. HYPACK® continually recorded vessel position and GPS satellite quality and provided a steering display for the vessel captain to accurately maintain the position of the vessel along pre-established survey transects and sample targets. Vessel heading measurements were provided by an IxBlue Octans III fiber optic gyrocompass.

2.2 Acoustic Surveys

The multibeam survey included bathymetric, backscatter, and side-scan sonar data collection at all three historical disposal sites. The bathymetric data provided measurements of water depth that, when processed, were used to map the seafloor topography and provide a current baseline characterization of the site. Backscatter and side-scan sonar data provided images that supported characterization of surface sediment texture and roughness. Each of these acoustic data types is useful for mapping seafloor topography and surface sediment features, as well as assessing potential future dredged material placement.

2.2.1 Bathymetry, Backscatter, and Side-Scan Data Collection

2.2.1.1 St. Helena Island Disposal Site

The 2022 acoustic survey of SHDS was conducted on 11 April 2022 aboard the F/V *Gunsmoke*. The bathymetric survey was conducted within a 400 m x 1,400 m (1,312 ft x 4,593 ft) area over the entire footprint of SHDS, including the historical disposal area (Figure 2-1). Acoustic backscatter data (beam time-series) and side-scan sonar imagery were collected in conjunction with the bathymetric survey. The acoustic survey included a total of 22 survey lines over the SHDS area, spaced approximately 20 m apart and oriented in a west-east direction. Eight cross-lines, oriented in a north-south direction, were spaced approximately 125 m apart over SHDS (Figure 2-1).

Data layers generated by the survey included bathymetric, acoustic backscatter, and side-scan sonar and were collected using a Teledyne Reson T20-R multibeam echo sounder (MBES). This 200-400 kilohertz (kHz) system forms up to 1,024 1- to 2-degree beams (frequency dependent) distributed equiangularly or equidistantly across a 10- to 160-degree swath. For this survey, a frequency of 250 kHz, a pulse length of 0.04 millisecond (msec), and a 256 beam density were selected to maximize the resolution of bathymetric data without compromising the quality of acoustic backscatter data. The MBES transducer was mounted amidships to the port rail of the survey vessel using a high-strength adjustable boom. The primary GPS antenna was mounted atop the transducer boom. The transducer depth below the water surface (draft) and antenna height were checked and recorded at the beginning and end of data acquisition, and draft was confirmed using the "bar check" method.

An IxBlue Octans V motion reference unit (MRU) and heading sensor was interfaced to the MBES topside processor and to the acquisition computer. Precise linear offsets between the MRU and MBES were recorded and applied during acquisition. Depth and backscatter data were synchronized using pulse per second (PPS) timing and transmitted to the HYPACK MAX® acquisition computer via Ethernet communications. Patch calibration tests were conducted before and during the survey to allow for computation of angular offsets between the MBES system components.

The system was calibrated for local water mass speed of sound by performing sound velocity profile (SVP) casts at frequent intervals throughout the survey day using an AML, Inc. MinosX sound velocity profiler.

2.2.1.2 Frenchboro Disposal Site

The 2022 acoustic survey of FDS was conducted on 12 April 2022 aboard the F/V *Gunsmoke*. The bathymetric survey was conducted within a 1,200 m x 1,800 m (3,937 ft x 5,906 ft) area over the entire footprint of FDS, including the historical disposal area (Figure 2-2). Acoustic backscatter data (beam time-series) and side-scan sonar imagery were collected in conjunction with the bathymetric survey. The acoustic survey included a total of

17 survey lines over the FDS area, spaced approximately 90 m apart and oriented in a north-south direction. Four cross-lines, oriented in a west-east direction, were spaced approximately 500 m apart over FDS (Figure 2-2).

Data collection and calibration methods for FDS were identical to that described above, in Section 2.2.1.1, for SHDS.

2.2.1.3 Flake Island Disposal Site

The 2022 acoustic survey of FIDS was conducted on 13 and 14 April 2022 aboard the F/V *Gunsmoke*. The bathymetric survey was conducted within an 800 m x 1,300 m (2,625 ft x 4,265 ft) area over the entire footprint of FIDS, including the historical disposal area (Figure 2-3). Acoustic backscatter data (beam time-series) and side-scan sonar imagery were collected in conjunction with the bathymetric survey. The acoustic survey included a total of 48 survey lines over the FIDS area, spaced approximately 10-35 m apart and oriented in a southwest-northeast direction. Five cross-lines, oriented in a northwest-southeast direction, were spaced approximately 190 m apart over FIDS (Figure 2-3). In the southern portion of the site, including within the disposal site area, survey lines were spaced closer to one another due to shallower water depths.

Data collection and calibration methods for FIDS were identical to that described above, in Section 2.2.1.1, for SHDS.

2.2.2 Bathymetric Data Processing

Bathymetric data were processed using HYPACK HYSWEEP® software. Processing components are described below and included:

- Adjustment of data for tidal elevation fluctuations;
- Correction of ray bending (refraction) due to density variations in the water column;
- Removal of spurious points associated with water column interference or system errors;
- Development of a grid surface representing depth solutions;
- Statistical estimation of sounding solution uncertainty; and
- Generation of data visualization products.

Tidal adjustments were accomplished using RTK GPS verified against tide data collected using a fail-safe tide gauge installed adjacent to a terrestrial benchmark survey using RTK GPS. The mean difference between RTK and gauge data was 0.05 m at the St. Helena Island Disposal Site, 0.15 m at the Frenchboro Disposal Site, and 0.11 m at the Flake Island Disposal Site. Differences between RTK-based tides and gauge tides were associated with time and amplitude offsets between the gauge location and the survey sites. TK GPS

tide corrections were preferentially applied to data at all three survey areas. Correction of sounding depth and position (range and azimuth) for refraction due to water column stratification was conducted using a series of four sound-velocity profiles acquired by the survey team. The water column was well-mixed during the surveys and refraction artifacts were less than approximately 5 cm.

Bathymetric data were filtered to accept only beams falling within an angular limit of 60° to minimize refraction artifacts. Spurious sounding solutions were rejected based on the careful examination of data on a sweep-specific basis.

The Teledyne Reson T20-R MBES system was operated at 250 kHz. At this frequency, the system has a published beam width of 1.7°. Mean survey depths at the St. Helena Island Disposal Site, Frenchboro Disposal Site and Flake Disposal Island Site were 13.6 m (45 ft), 33.5 m (110 ft), and 11.9 m (39 ft), respectively. Using these depths and a maximum beam angle of 60°, the average mid-swath dimensions of the beam footprint for each site were 0.55 m x 0.48 m (St. Helena Island), 1.4 m x 1.2 m (Frenchboro), and 1.49 m × 40.42 m (Flake Island). Data for each site were reduced to a cell (grid) size of 1.0 m × 1.0 m, acknowledging finer resolution in shallow portions of the survey areas and the system's fine-range resolution while accommodating beam position uncertainty. This data reduction was accomplished by calculating and exporting the average elevation for each cell in accordance with USACE recommendations (USACE, 2013).

Statistical analysis of 2022 bathymetric data, as summarized on Table 2-2, displays negligible tide biases at each site (≤ 0.02 m) and a mean vertical uncertainty of 0.26 m, lower than the values recommended by USACE (2013) or the National Oceanic and Atmospheric Administration (NOAA) Special Order (2015). Uncertainty was driven by the steep slopes relative to the beam footprint rather than systematic errors or biases.

Reduced data were exported in American Standard Code for Information Interchange (ASCII) text format with fields for Easting, Northing, and Mean Lower Low Water (MLLW) elevation in meters. The data were projected to the Maine East State Plane, NAD 83 (metric). A variety of data visualizations were generated using a combination of ESRI ArcMap and Golden Software Surfer programs. Visualizations and data products included:

- ASCII data files of all processed soundings including MLLW depths and elevations;
- Contours of seabed elevation (25-cm, 50-cm, and 1.0-m intervals) in a geospatial data file format suitable for plotting using geographic information system (GIS) and computer-aided design software;
- Three-dimensional surface maps of the seabed created using 2x–5x vertical exaggeration and artificial illumination to highlight fine-scale features not visible on contour layers delivered in grid and tagged image file (TIF) formats; and

- Acoustic relief maps of the survey area created using 2x−5x vertical exaggeration, delivered in georeferenced TIF format.

2.2.3 Backscatter Data Processing

Backscatter data were extracted from cleaned MBES Snippets formatted files and then used to provide an estimation of surface sediment texture based on seabed surface roughness. Mosaics of backscatter data were created using HYPACK's implementation of GeoCoder software developed by scientists at the University of New Hampshire's NOAA Center for Coastal and Ocean Mapping (UNH/NOAA CCOM). Seamless mosaics of unfiltered backscatter data were developed and exported in grayscale TIF format using a 0.1 m x – 0.2 m pixel resolutions. Backscatter data were also exported in ASCII format with fields for Easting, Northing, and backscatter decibel (dB). These data were converted to a grid format, a Gaussian filter was applied to the grid to minimize nadir artifacts, and the filtered data were used to map backscatter values on a 2 m x 2 m grid. The grid was exported in ESRI binary gridded file format (GRD) to facilitate comparison with other data layers.

2.2.4 Side-Scan Sonar Data Processing

Side-scan sonar data were processed using Chesapeake Technology, Inc. Sonar Wiz software to generate a database of images that maximized both textural information and structural detail. Data were processed using gain adjustment methods to minimize nadir artifacts and facilitate visualization of fine seabed structures. Seamless mosaics of side-scan sonar data were developed using SonarWiz and exported in grayscale GeoJPEG format using a resolution of 0.104 m per pixel. Data for each sonar file were exported as individual GeoJPEG images to allow detailed inspection using GIS software.

2.2.5 Acoustic Data Analysis

Bathymetric data were analyzed to characterize the seafloor topography and surficial features over the historical sites and potential reference areas for each of the survey areas. The processed bathymetric grids were converted to rasters and bathymetric contour lines were generated and displayed using GIS.

The backscatter mosaics and filtered backscatter grids were combined with acoustic relief models in GIS to facilitate visualization of the relationships between acoustic datasets. This was done by rendering images and color-coded grids with sufficient transparency to allow the three-dimensional acoustic relief model to be visible underneath.

2.3 Sediment Sampling

Sediment grab samples were collected for grain size analysis aboard the F/V *Gunsmoke.* Target sampling locations were selected prior to the survey and pre-programmed

into the on-board navigation system. The survey vessel navigated within a 10 m (33 ft) radius of the selected target sampling locations prior to deploying the sediment grab sampling equipment over the side of the vessel. Samples were collected from six stations within each site, for a total of eighteen stations. Within the survey area, each site had three samples collected from within the historical disposal site boundaries and three samples collected from the surrounding seafloor within the survey area. Actual sediment grab sampling locations are depicted on Figures 2-4, 2-5, and 2-6 and actual sample collection coordinates are presented in Table 2-3.

2.3.1 Sediment Sample Collection – Grain Size

Surficial sediment samples for grain size analysis were collected using a 0.04 square meter (m^2) grab sampler. Upon collection, sediment was brought aboard the vessel to be visually inspected and generally described, including color, texture, general grain size observations, and additional items, such as odor and surface biota. Descriptions were recorded in the dedicated project field logbook.

After a general description of the grab was recorded, a representative sample was collected. Sediment was placed in double-bagged, resealable, ziptop bags. Bags were wiped with clean paper towels and subsequently labeled. Sample container sizes, preservation requirements, and holding times are detailed in the program QAPP (AECOM, 2021a). Between samples, the grab sampler and spoons were thoroughly rinsed with seawater prior to re-deployment.

Sediment samples were stored on ice and brought back to the AECOM Pocasset office where they were stored in the sample refrigerator until they were transferred under chain-of-custody via AECOM staff to Geotesting Express.

2.4 Underwater Video Survey

During the collection of grab samples, underwater video footage was taken in tandem by the scientific crew from CR aboard the F/V *Gunsmoke*. Video data were collected at each grab location using a video grab system consisting of a Ted Young 0.04 m^2 modified Van Veen grab sampler, stability fin, camera, and light brackets (Figure 2-7). The video system included an Outland Technology, Inc. (OTI) high-definition color video camera and two wide-angle light-emitting diode (LED) video lights with variable output control. The OTI video camera was cabled to an OTI-1080 HD DVR recorder and high-resolution daylight monitor at the surface. The video system was deployed and towed close to the seafloor to capture footage of the substrate and epifauna. Short video transects were taken at each grab location. Footage was viewed in real time by the scientific crew; once sufficient video footage was captured (approximately 2 to 6 minutes) the transect was deemed complete and the associated grab sample was taken.

2.5 Laboratory Analysis

2.5.1 Sediment Sample Analysis

The surficial sediment samples collected from each of the three disposal sites and potential surrounding reference areas were analyzed for grain size according to ASTM Method D-6913 by GeoTesting Express. Table 2-3 includes a summary of the grain size sampling locations. A summary of the grain size results is presented in Section 3 and the full laboratory report is included in Appendix B.

2.5.2 Underwater Video Survey Data Analysis

The underwater video footage was analyzed by the AECOM benthic team. The video transects were viewed in slow motion so a comprehensive one-second interval analysis could be completed. Data recorded from the video analysis included location coordinates, time of recording, substrate type, sample area associated with the recording, and other relevant aspects, such as camera quality or biota identified. Data were recorded in a Microsoft Excel™ data sheet and screenshots were taken throughout the footage to document biota of interest and to depict the general area substrate (Appendix C).

Table 2-1.

April 2022 Downeast Maine Field Activities Summary

Survey	Date	Summary
St. Helena Island Disposal Site		
Bathymetry	April 11 ,2022	Bathymetric, Backscatter, and Side-Scan Sonar SHDS: 400 x 1,400 m Lines: 22 Spacing: 20 m
Sediment Grab Sampling		SHDS: 3 Reference Area : 3
Video Survey		Six video transects taken in sequence with the sediment grabs
Frenchboro Disposal Site		
Bathymetry	April 12, 2022	Bathymetric, Backscatter, and Side-Scan Sonar FDS: 1,200 x 1,800 m Lines: 17 Spacing: 90 m
Sediment Grab Sampling		FDS: 3 Reference Area: 3
Video Survey		Six video transects taken in sequence with the sediment grabs
Flake Island Disposal Site		
Bathymetry	April 13 and 14, 2022	Bathymetric, Backscatter, and Side-Scan Sonar FIDS: 800 x 1,300 m Lines: 48 Spacing: 10-35 m
Sediment Grab Sampling	April 13, 2022	FIDS: 3 Refence Area: 3
Video Survey		Six video transects taken in sequence with the sediment grabs

Table 2-2.

Downeast Maine Survey Acoustic Cross-Line Comparison Results

+/- Beam Angle Limit	Max Outlier	Mean Diff	Std Dev	95% Confidence
St. Helena Island Disposal Site				
0	2.29	0.02	0.16	0.32
5	2.31	0.03	0.15	0.29
10	2.54	0.03	0.14	0.27
15	2.54	0.00	0.17	0.34
20	2.78	0.02	0.17	0.33
25	2.75	0.01	0.19	0.37
30	2.80	0.02	0.14	0.28
35	2.58	0.01	0.16	0.30
40	2.53	0.02	0.15	0.30
45	2.43	0.01	0.17	0.34
50	2.84	0.01	0.17	0.34
55	2.84	0.02	0.17	0.34
60	2.99	-0.05	0.21	0.41
65	2.99	-0.01	0.34	0.67
Frenchboro Disposal Site				
0	2.84	0.03	0.11	0.21
5	2.84	0.04	0.11	0.22
10	2.84	0.03	0.14	0.28
15	2.84	0.03	0.12	0.23
20	2.6	0.03	0.14	0.28
25	2.6	0.02	0.14	0.28
30	2.44	0.01	0.15	0.29
35	2.38	0.00	0.14	0.28
40	2.42	-0.01	0.17	0.34
45	2.99	-0.01	0.18	0.35
50	2.99	-0.01	0.21	0.41
55	2.99	0.01	0.21	0.41
60	2.99	0.06	0.23	0.46
65	1.86	0.00	0.12	0.23

Table 2-2. (continued)

Downeast Maine Survey Acoustic Cross-Line Comparison Results

+/- Beam Angle Limit	Max Outlier	Mean Diff	Std Dev	95% Confidence
Flake Island Disposal Site - April 13, 2022				
0	1.08	0.01	0.05	0.09
5	1.08	0.01	0.05	0.09
10	0.91	0.00	0.04	0.09
15	0.66	-0.01	0.05	0.09
20	1.12	-0.01	0.05	0.09
25	1.23	-0.01	0.05	0.10
30	1.25	-0.01	0.05	0.10
35	1.15	-0.02	0.06	0.11
40	1.04	-0.02	0.05	0.10
45	1.34	-0.02	0.06	0.11
50	1.51	-0.03	0.06	0.12
55	1.68	-0.03	0.06	0.13
60	1.84	0.00	0.08	0.17
65	1.07	-0.04	0.16	0.32
Flake Island Disposal Site - April 14, 2022				
0	1.68	0.03	0.10	0.20
5	1.68	0.04	0.11	0.21
10	1.65	0.03	0.12	0.24
15	1.54	0.02	0.12	0.23
20	1.37	0.02	0.11	0.21
25	1.37	0.02	0.12	0.24
30	1.20	0.01	0.11	0.22
35	1.08	0.00	0.11	0.21
40	1.40	-0.01	0.11	0.21
45	1.83	0.00	0.12	0.23
50	2.07	-0.01	0.13	0.26
55	5.92	-0.02	0.17	0.34
60	5.92	0.02	0.26	0.50
65	2.25	0.05	0.26	0.51

Notes:
1. Data accepted to +/- 55-degrees from vertical based on field assessment of data quality.
2. Statistical summary based on average elevations within 3m x 3m cells.
3. Maximum outlier values representative of slopes on geological features.
4. Mean difference indicative of RTK GPS tidal uncertainty.

Table 2-3.

Downeast Maine Sediment Grab Locations (Actual)

Station ID	Easting	Northing	Latitude (N)	Longitude (W)	Sediment Grab (grain size)	Video Analysis
St. Helena Island Disposal Site						
SHDS-01	287771.02	52118.46	44.1356	-68.6528	X	X
SHDS-02	287970.18	52198.88	44.1364	-68.6503	X	X
SHDS-03	288190.83	52197.02	44.1364	-68.6476	X	X
SHDS-04	287969.60	52425.26	44.1384	-68.6504	X	X
SHDS-05	287507.77	52318.35	44.1375	-68.6561	X	X
SHDS-06	287364.26	52082.80	44.1353	-68.6579	X	X
Frenchboro Disposal Site						
FDS-01	309048.08	50023.77	44.1169	-68.3870	X	X
FDS-02	308613.48	49716.54	44.1141	-68.3924	X	X
FDS-03	308993.08	49620.27	44.1132	-68.3877	X	X
FDS-04	308762.08	49032.41	44.1080	-68.3905	X	X
FDS-05	309038.18	48757.50	44.1055	-68.3871	X	X
FDS-06	308471.64	48586.95	44.1039	-68.3942	X	X
Flake Island Disposal Site						
FIDS-01	288642.40	46789.78	44.0877	-68.6418	X	X
FIDS-02	288606.48	47106.87	44.0906	-68.6423	X	X
FIDS-03	288880.77	47099.04	44.0905	-68.6389	X	X
FIDS-04	288852.05	47463.61	44.0938	-68.6392	X	X
FIDS-05	288428.49	47358.66	44.0929	-68.6445	X	X
FIDS-06	288453.57	47702.21	44.0959	-68.6442	X	X

Notes
1. Grid coordinates are NAD_1983_StatePlane_Maine_West_FIPS_1802
2. Geographic coordinates are NAD83 decimal degrees

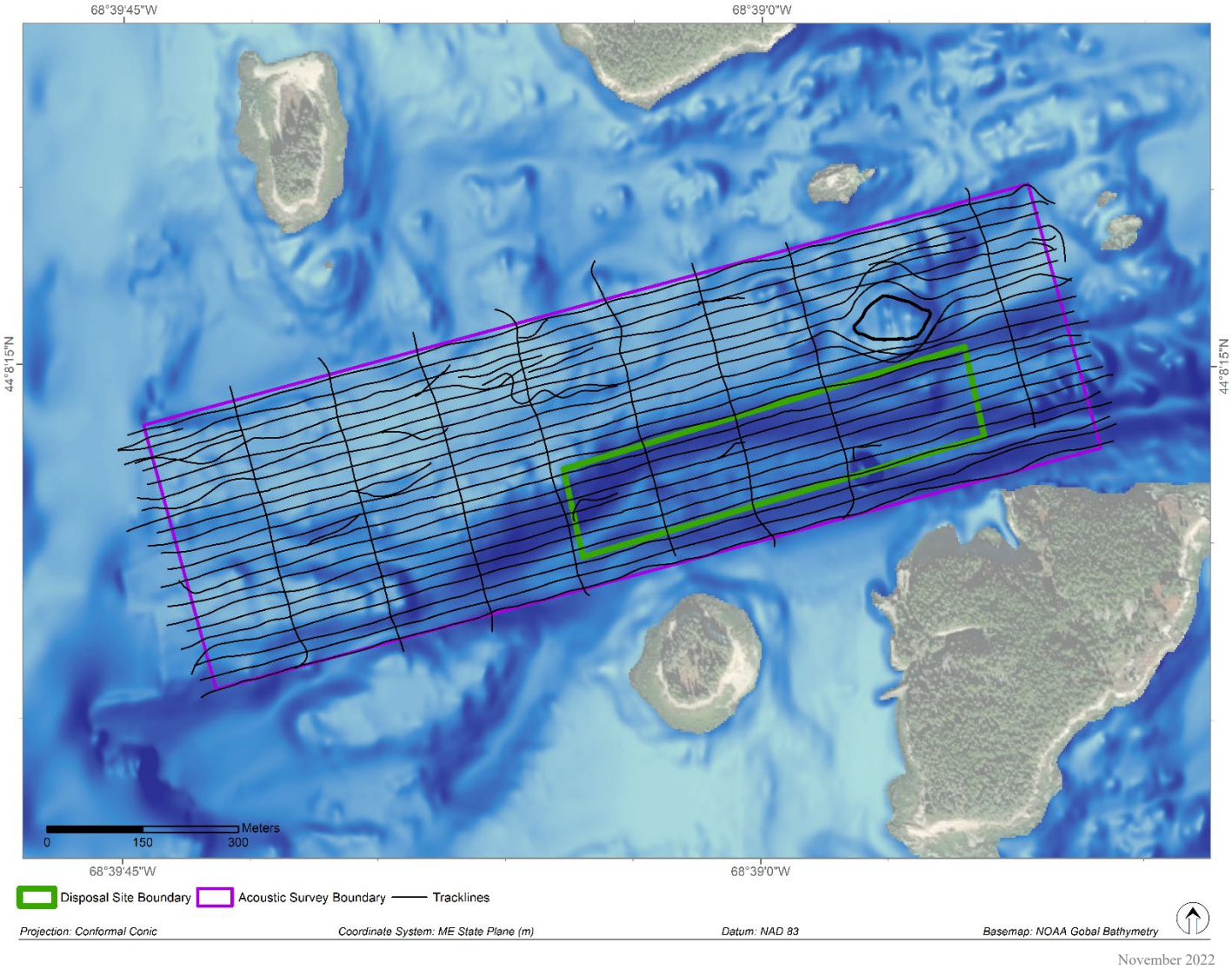


Figure 2-1. St. Helena Island Disposal Site bathymetric survey boundary and acoustic tracklines, April 2022

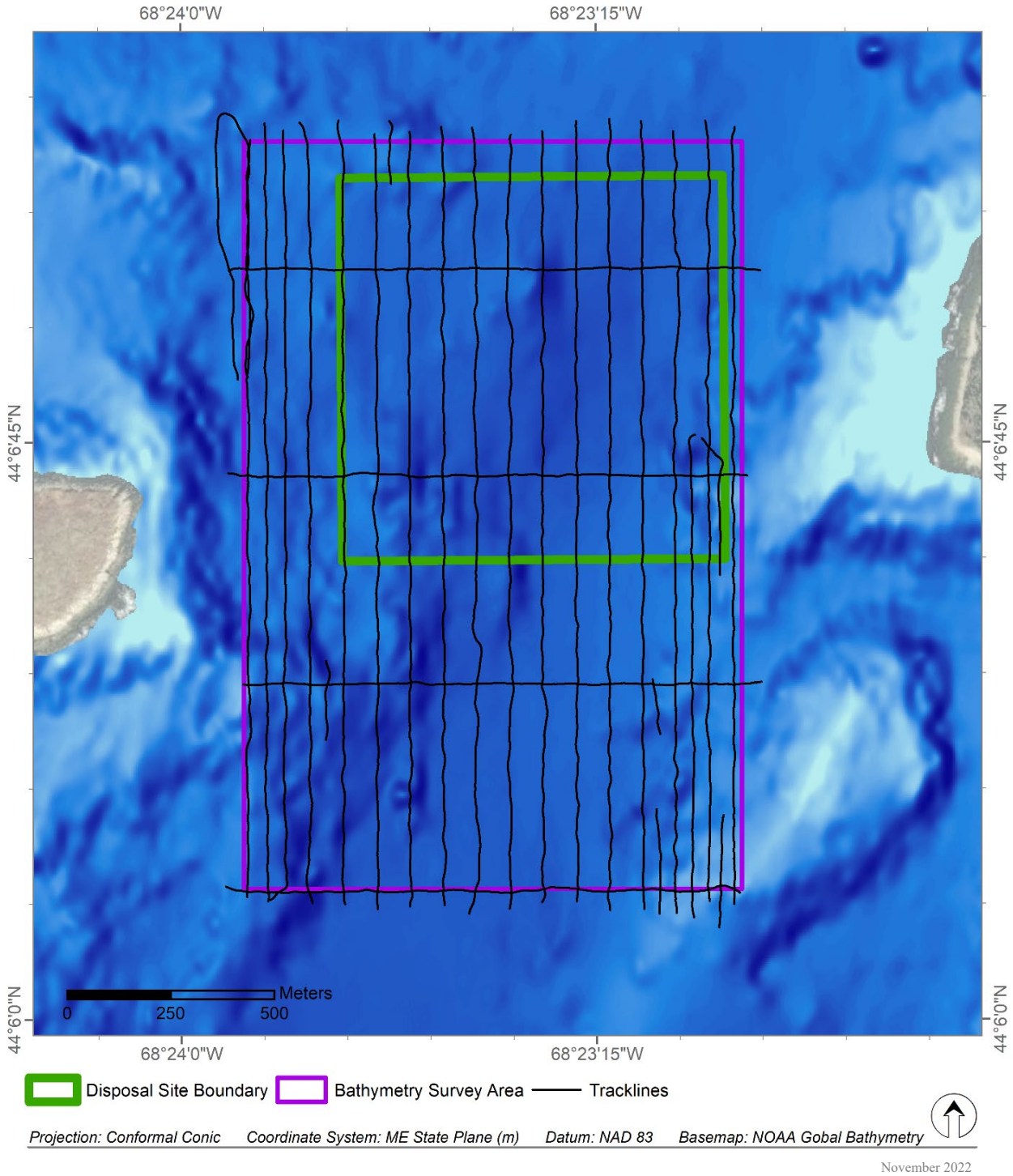


Figure 2-2. Frenchboro Disposal Site bathymetric survey boundary and acoustic tracklines, April 2022

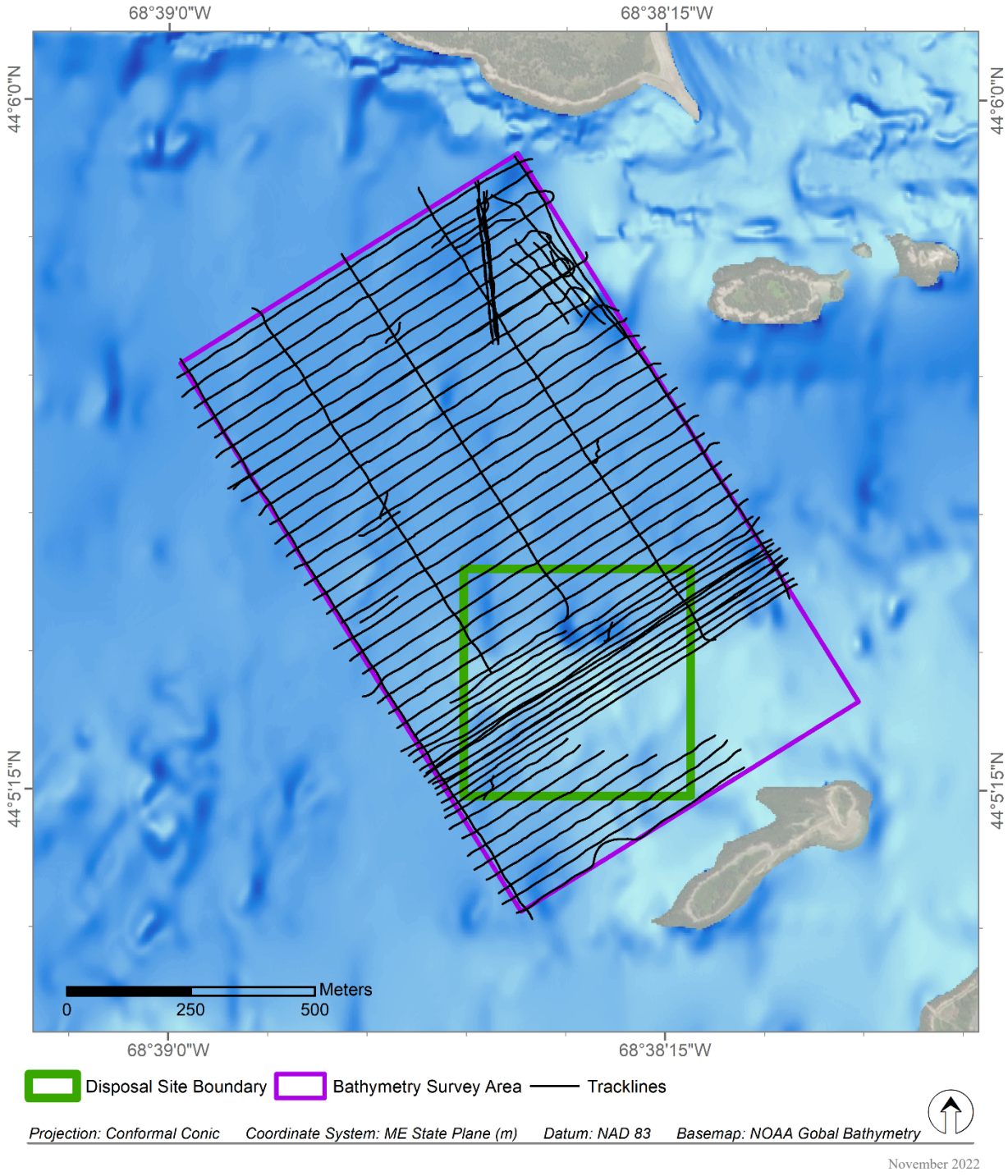


Figure 2-3. Flake Island Disposal Site bathymetric survey boundary and acoustic tracklines, April 2022

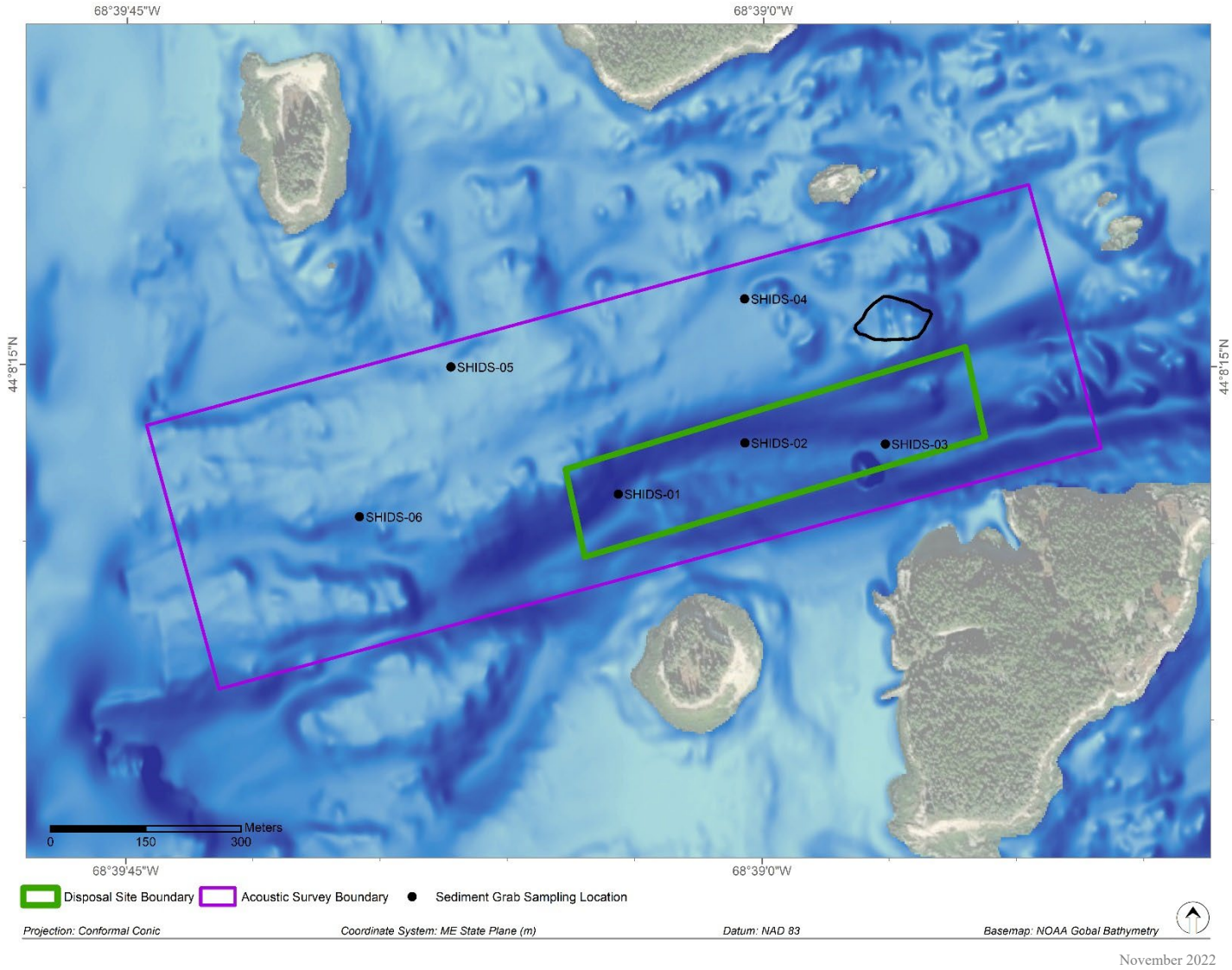


Figure 2-4. St. Helena Island Disposal Site sediment grab sampling locations, April 2022

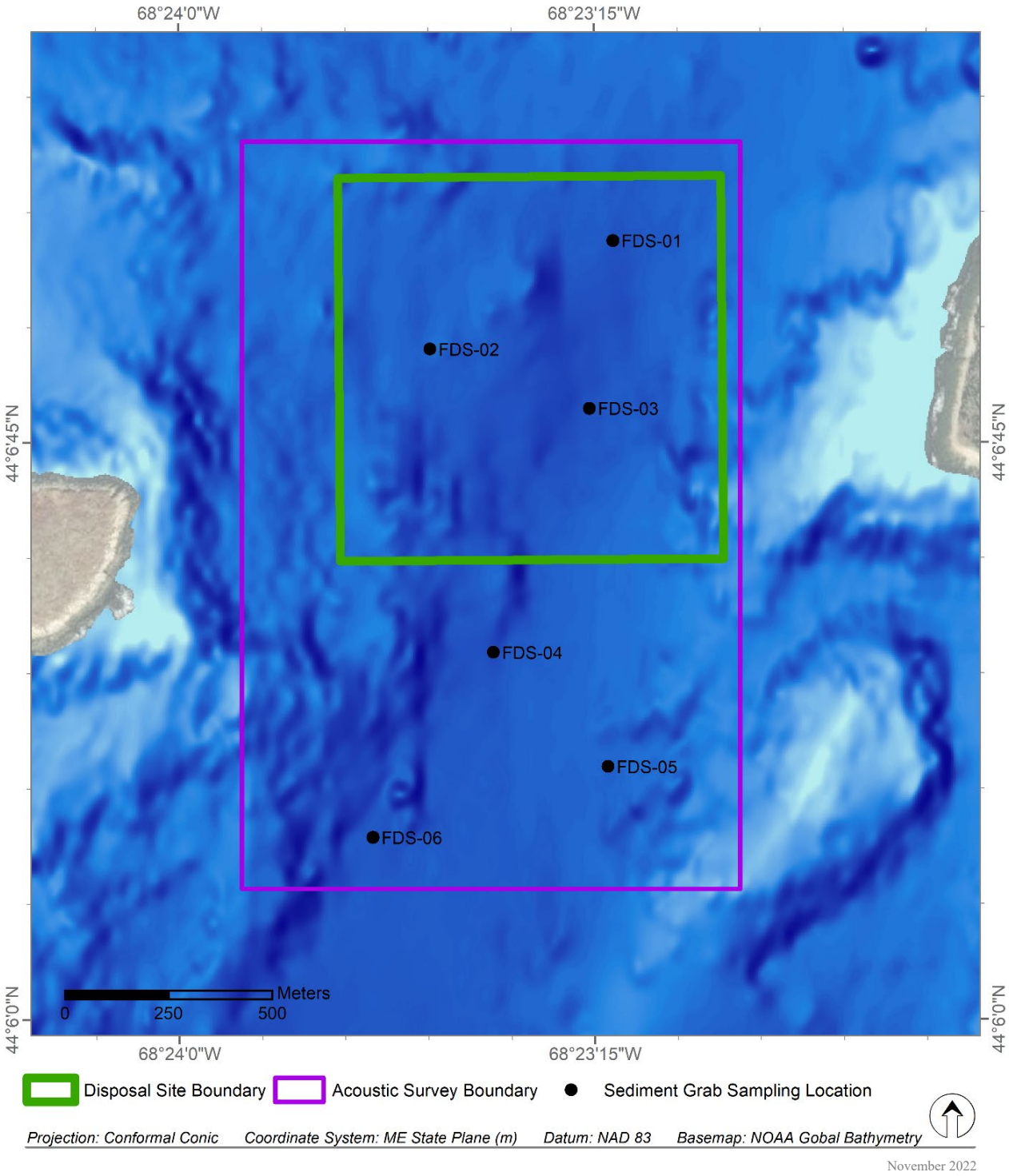


Figure 2-5. Frenchboro Disposal Site sediment grab sampling locations, April 2022

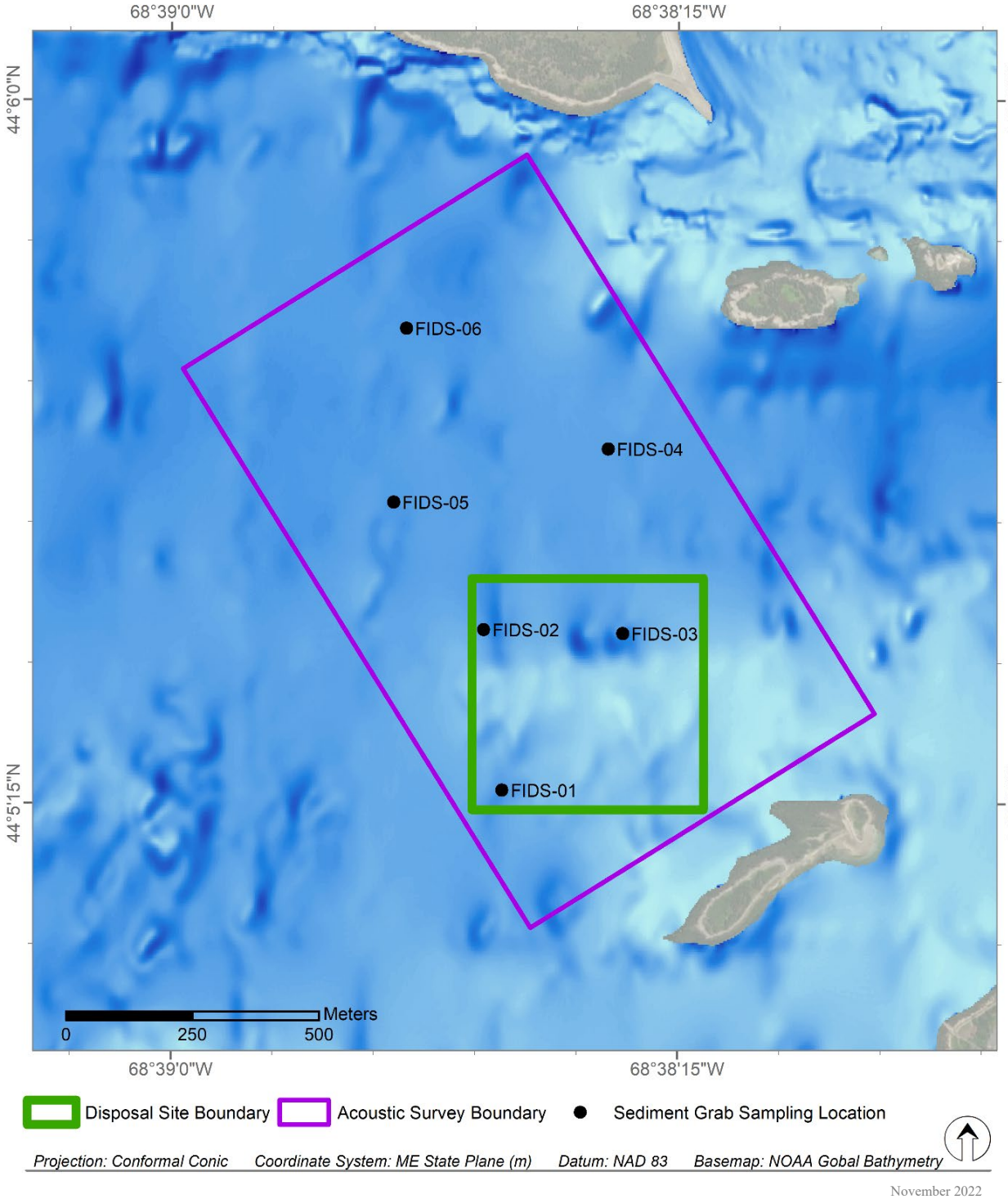


Figure 2-6. Flake Island Disposal Site **s**ediment grab sampling locations, April 2022

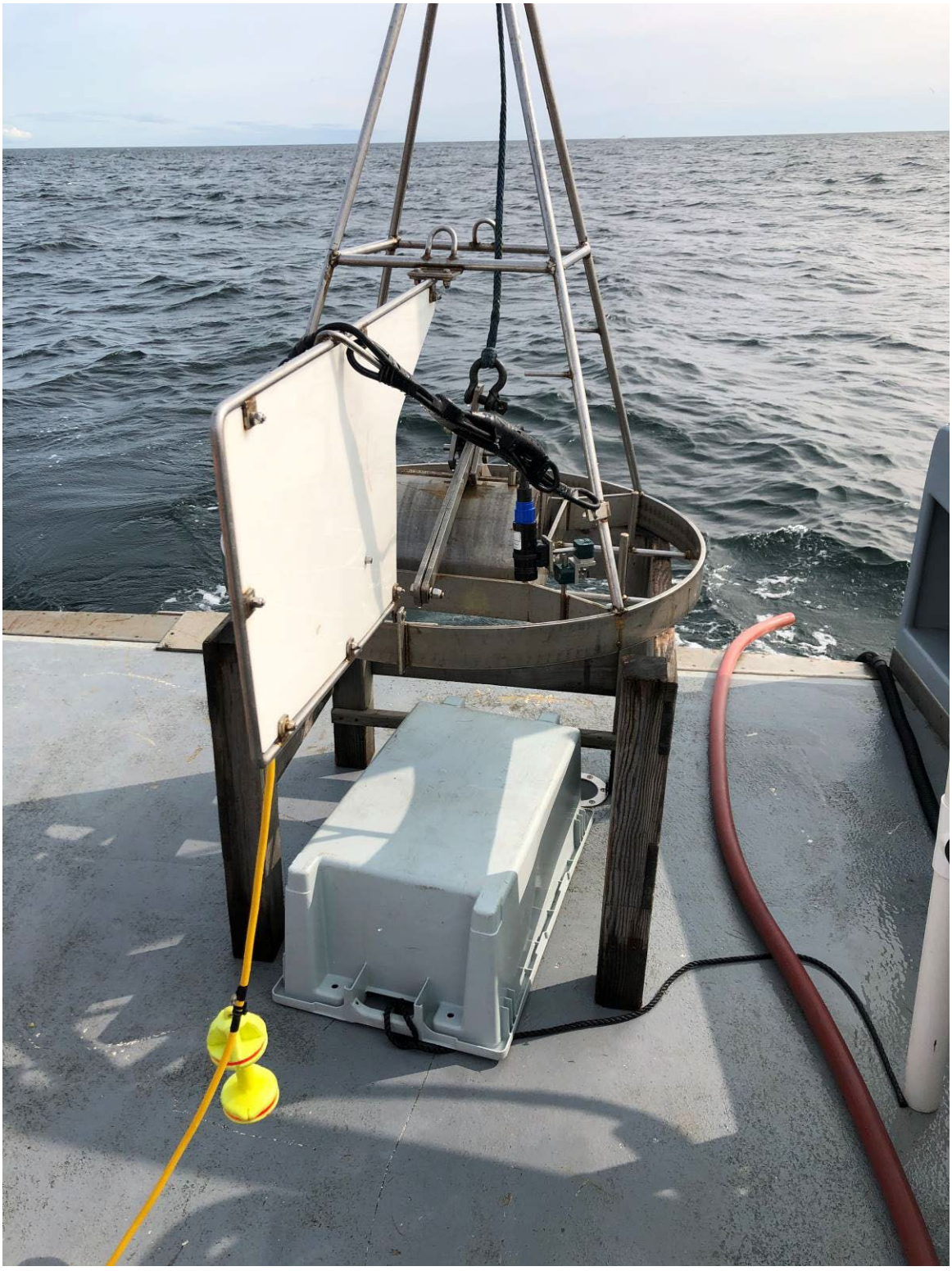


Figure 2-7. Ted Young 0.1 m^2 modified Van Veen grab sampler with video system

3.0 RESULTS

The 2022 surveys at the Downeast Maine Disposal Sites – SHDS, FDS, and FIDS – were completed on 11 April 2022, 12 April 2022, and 13 and 14 April 2022, respectively. A hydroacoustic survey, collection of surficial sediment grab samples, and video survey were performed at each site. Data from each of these site investigations is presented below, by site, and in the subsequent tables and figures.

3.1 St. Helena Island Disposal Site

3.1.1 Bathymetry, Backscatter, and Side-Scan Sonar

3.1.1.1 Bathymetric Results

The resulting bathymetry revealed variable topography across the site, specifically in comparing the historical disposal site to the adjacent surveyed area (Figure 3-1). The overall survey area displayed slightly irregular topography including small rocky outcrops; the rise of these outcrops from the ambient seafloor was 10 to 12.5 m (33 to 41 ft) in the southwestern corner, 7 to 10 m (23 to 33 ft) along the northern site boundary, and 5.5 to 11 m (18 to 36 ft) within the northeastern corner of the site. In the northeastern corner of the site, shallow rocks precluded the safe operation of the survey vessel, resulting in an area roughly 125 m by 100 m without hydroacoustic data collection. Deeper channels weave between the rocky outcrops, with depths ranging from 10 to 15 m (33 to 49 ft). Within the historical disposal site boundary and along the southeastern area of the site, a defined trough is evident, ranging in depths from 16.5 to 26.5 m (54 to 87 ft). Minor slopes were observed throughout the site where a transition in topography was noted.

3.1.1.2 Backscatter and Side-Scan Sonar Results

Backscatter and side-scan sonar data provide images that display changes in seafloor sediment texture and roughness. These tools also aid in the analysis of topographic changes between the ambient seafloor and areas that have received dredged material. Typically, high backscatter intensity is related to the presence of rock or coarse-grained sediment (e.g., gravel, coarse sand), and low backscatter intensity indicates fine-grained sediments (e.g., silt, clay). Side-scan sonar also provides a high-resolution image of seafloor texture and bottom features.

The SHDS backscatter survey results (measured in dB) highlight the difference in bottom type across the site and confirm the presence of soft sediment throughout the survey area and historical disposal area (Figures 3-2 and 3-3). In general, backscatter signals over the soft sediment areas within the historical disposal area and in the eastern side of the site ranged from -30 to -44 dB. The western side of the site, where a majority of the rocky areas

were observed, emitted backscatter signals ranging from -14 to -20 dB. The rocky outcrop areas north and south of the disposal area ranged from -10 to -20 dB.

Side-scan sonar mosaics of the SHDS survey area displayed results similar to the backscatter data, with varying bottom types over the survey areas (Figure 3-4).

3.1.2 Sediment Grab Sampling

3.1.2.1 Sediment Physical Analysis

Sediment grab samples were collected from a total of six stations and were analyzed for grain size. Lab reports completed by Geotesting Express are presented in Appendix B.

3.1.2.2 Grain Size Results

Surficial grain size sample results were variable throughout SHDS. Samples SHDS-01, SHDS-02, and SHDS-03 were taken from within the historical disposal area and SHDS-04, SHDS-05, and SHDS-06 were collected throughout the remainder of the study area. Generally, samples taken within the disposal area were composed of softer sediments (silt+clay and sand), while the samples collected in the surrounding areas were composed of coarser material (sand and gravel). Samples SHDS-02 and SHDS-03 were collected from the center and eastern side of the disposal area and were predominantly composed of fines (silt+ clay) (98.6 – 99.1%). The third sample within the disposal area, SHDS-01, though mostly comprised of fines (72.0%), also contained a mixture of sand (26.7%) and a trace of gravel (1.3%). SHDS-04, which was located to the north of the disposal area, showed similarities to the samples from within the disposal area, and was comprised predominantly of fines (98.5%) with a trace amount of sand (1.5%). SHDS-05 and SHDS-06, which were located within the western portion of the site, were composed mostly of sand (59.9 and 48.5%, respectively), with a mixture of gravel and fine sediments, with gravel ranging from 22.8 to 38.3 % and fines ranging from 13.2 to 17.3%.

A summary of the SHDS grain size data is displayed in Table 3-1 and on Figure 3-5.

3.1.3 Underwater Video Survey Results

The underwater video survey was composed of six short transects – one video transect was collected at each grab sample location. The video footage was analyzed to classify substrate type and to note any benthic fauna. Footage of SHDS confirmed the variable substrates of the area, including silt, sand, and areas of gravel with cobble. Colonies of attached fauna were observed on rocks, tracks and trails were noted in soft sediment areas where microbial mats were present on the sediment's surface, and epifauna including sea stars, urchins, and crustaceans were observed throughout. Figure 3-6 and Appendix C summarize the findings from the underwater video analysis.

3.2 Frenchboro Disposal Site

3.2.1 Bathymetry, Backscatter, and Side-Scan Sonar

3.2.1.1 Bathymetric Results

The resulting bathymetry revealed variable topography across the site and historical disposal area (Figure 3-7). When analyzing the survey area in its entirety, a large trough running through the center was evident, ranging from 36 to 43 m (118 to 141 ft) in depth. Gradual slopes radiate from the trough to the outer portions of the survey area to a depth of 23 m. Additionally, a few rocky outcrops (ranging from 16 to 30 m [52 to 98 ft] above the seafloor) were observed, concentrated mostly in the southern survey area, south of the historical disposal area. When focused exclusively on the historical disposal area, the deepest portion of the trough (43 m [141 ft]) occurs near the area's center. Areas of rock outcrops were noted in the southern corners, with gradual slopes in the center, and a small rocky nodule (33 to 35.5 m [108 to 116 ft]) was observed to the north.

3.2.1.2 Backscatter and Side-Scan Sonar Results

The FDS backscatter survey results (measured in dB) highlight the slight differences in bottom types across the site (Figures 3-8 and 3-9). In general, the site was composed mostly of coarser sediments, with backscatter signals over its entirety ranging from to -22 to -26 dB. Softer sediment areas were observed in the northeastern corner of the survey area (-27 to -30 dB) and along the southern survey area boundary (-27 to -28 dB). The backscatter signals in the disposal area almost exclusively ranged from -23 to -26 dB.

Side-scan sonar mosaics of the FDS survey area displayed similar results to those of the backscatter data, with areas of softer sand in the trough area and coarser rocky outcrops over the survey areas (Figure 3-10).

3.2.2 Sediment Grab Sampling

3.2.2.1 Sediment Physical Analysis

Sediment grab samples were collected from a total of six stations and were analyzed for grain size. Lab reports completed by Geotesting Express are presented in Appendix B.

3.2.2.2 Grain Size Results

Surficial grain size sample results were fairly consistent across the FDS study area. Samples FDS-01, FDS-02, and FDS-03 were taken from within the historical disposal area and FDS-04, FDS-05, and FDS-06 were collected throughout the remainder of the site, as potential reference areas. Samples across the study area were predominantly composed of sand (63.7 – 81.8 %) with a mixture of fines (silt and clay) (2.1 – 18.2%) and gravel (10.9 –

26.6%). Sediment sample locations were not targeted in areas where softer sediments were observed in the acoustic survey.

A summary of the grain size data can be found in in Table 3-2. Figure 3-11 depicts sediment grain size.

3.2.3 Underwater Video Survey Results

The underwater video survey was composed of seven short transects – one video transect was collected at each grab sample location, except for FDS-02, where two transects were taken. The video footage was analyzed to classify substrate and to note the presence of benthic fauna. Footage of FDS confirmed the heterogeneous substrate within the area, showing sand with some silt and shell hash and gravel. The footage also captured the presence of decapods (various crabs) and some macro algae. Figure 3-12 and Appendix C summarize the findings from the underwater video analysis.

3.3 Flake Island Disposal Site

3.3.1 Bathymetry, Backscatter, and Side-Scan Sonar

3.3.1.1 Bathymetric Results

The resulting bathymetry revealed a widely variable topography across the study area (Figure 3-13). The survey area displayed irregular topography including rocky features with gradual rising slopes, 2 to 11.5 m (7 to 38 ft) from the ambient seafloor, within the southern and northeastern sections of the site. The northern half of the survey area showed a fairly flat bottom, ranging from 12 to 15 m (39 to 49 ft) in depth. The entire southeastern portion of the site was unable to be surveyed due to the extreme shallow nature of the large rock outcrop that was present. Defined slopes were observed throughout the site where a transition in topography was noted. A cluster of small discrete depressions, measuring about 0.5 to 1.5 m (1.6 to 4.9 ft) deep and 15 to 58 m (49.2 to 190.3 ft) wide, were noted just north of the historical disposal area. The historical disposal area was mostly occupied by the large, rock outcrop, which rose 2 to 11 m (7 to 36 ft) from the seafloor in the southern portion of the survey area; about a quarter of this area was unable to be surveyed due to presence of this rock feature. An area along the northern historical disposal site boundary, roughly 250 x 125 m in size, displayed a flat, soft sediment area that ranged from 11 to 13 m (36 to 43 ft) in depth.

3.3.1.2 Backscatter and Side-Scan Sonar Results

The FIDS backscatter survey results (measured in dB) highlight the difference in bottom type across the highly variable site and confirm the presence of coarser sediment in the south and soft sediment in the northern half of the site (Figures 3-14 and 3-15). In general, backscatter signals over the soft sediment areas ranged from to -32 to -34 dB. The

rocky outcrop areas of the site emitted backscatter signals ranging from -8 to -19 dB. The small features north of the historical disposal area emitted signals of -22 dB, substantially stronger returns than the surrounding seafloor. The rocky feature in the historical disposal area emitted signals ranging from -8 to -19 dB, while the soft sediment area along the northern survey boundary emitted signals from -31 to -32 dB.

Side-scan sonar mosaics of the FIDS survey area displayed similar results to those of the backscatter data, with areas of softer and coarser bottom types over the survey area, as well as the features north of the historical disposal area (Figure 3-16).

3.3.2 Sediment Grab Sampling

3.3.2.1 Sediment Physical Analysis

Sediment grab samples were collected from a total of six stations and were analyzed for grain size. Lab reports completed by Geotesting Express are presented in Appendix B.

3.3.2.2 Grain Size Results

Surficial grain size sample results were variable across the study area. FIDS-01, FIDS-02 and FIDS-03 were taken from within the historical disposal area and FIDS-04, FIDS-05 and FIDS-06 were collected throughout the remainder of the site within potential reference areas. Samples outside of the historical disposal area were predominantly composed of fines (97.2 – 98.3 %) with trace amounts of sand. Within the historical disposal area, all three samples were variable. FIDS-01 and FIDS-02 were predominately composed of fines (63.0 and 97.9%) with some sand, 36.6 and 2.1 % , respectively. Trace amounts of gravel, 0.4%, were present at FIDS-01. FIDS-03 was composed mostly of sand (53.2%) with some fines (30.9%) and gravel (15.9 %).

A summary of the grain size is shown in Table 3-3. Figure 3-17 depicts sediment grain size.

3.3.3 Underwater Video Survey Results

The underwater video survey was composed of six short transects – one video transect was collected at each sediment grab sample location within FIDS. The video footage was analyzed to classify substrate and note any benthic fauna. Footage of FIDS captured the soft sediment areas, including silt and sand with tracks and trails. The hard bottom substrate was not featured in the video, because no grab samples were collected in those areas. Figure 3-18 and Appendix C summarize the findings from the underwater video analysis.

Table 3-1.

Grain Size Data for SHDS and Potential Reference Area Sediment Samples

Sample ID	Cobble	Gravel	Sand	Silt+Clay
		Percent (%)		
Site				
SHDS-01	--	1.3	26.7	72
SHDS-02	--	0	0.9	99.1
SHDS-03	--	0	1.4	98.6
Potential Reference Areas				
SHDS-04	--	0	1.5	98.5
SHDS-05	--	22.8	59.9	17.3
SHDS-06	--	38.3	48.5	13.2

Table 3-2.

Grain Size Data for FDS and Potential Reference Areas Sediment Samples

Sample ID	Cobble	Gravel	Sand	Silt+Clay
		Percent (%)		
Site				
FDS-01	--	26.6	65	8.4
FDS-02	--	11.4	81.8	6.8
FDS-03	--	24.8	64.1	11.1
Potential Reference Areas				
FDS-04	--	22.2	63.7	14.1
FDS-05	--	17.4	80.5	2.1
FDS-06	--	10.9	70.9	18.2

Table 3-3.

Grain Size Data for FIDS and Potential Reference Areas Sediment Samples

Sample ID	Cobble	Gravel	Sand	Silt+Clay
		Percent (%)		
Site				
FIDS-01	--	0.4	36.6	63
FIDS-02	--	0	2.1	97.9
FIDS-03	--	15.9	53.2	30.9
Potential Reference Areas				
FIDS-04	--	0	1.7	98.3
FIDS-05	--	0	2.8	97.2
FIDS-06	--	0	1.7	98.3

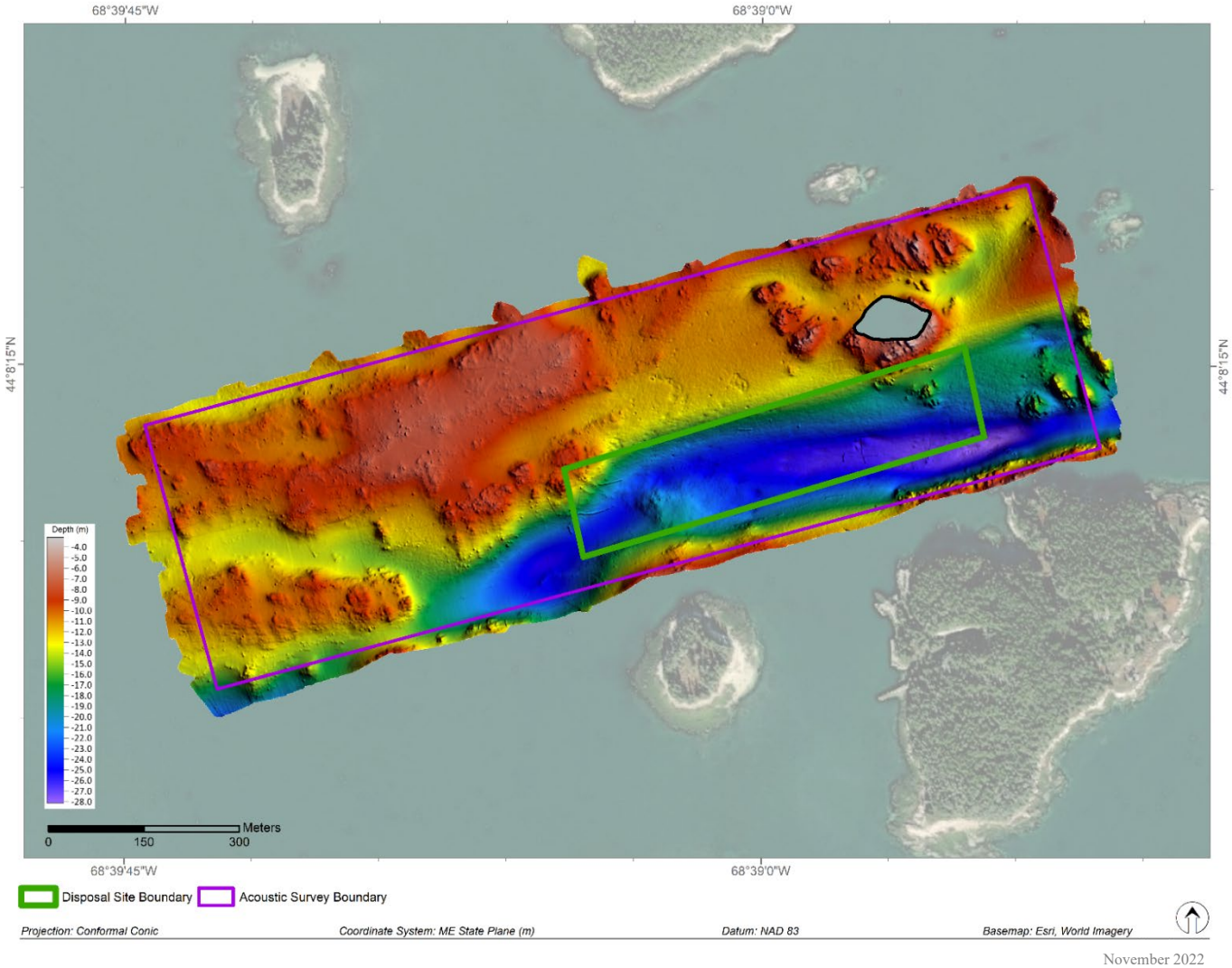


Figure 3-1. Bathymetry of SHDS presented over 2x vertical relief model, April 2022

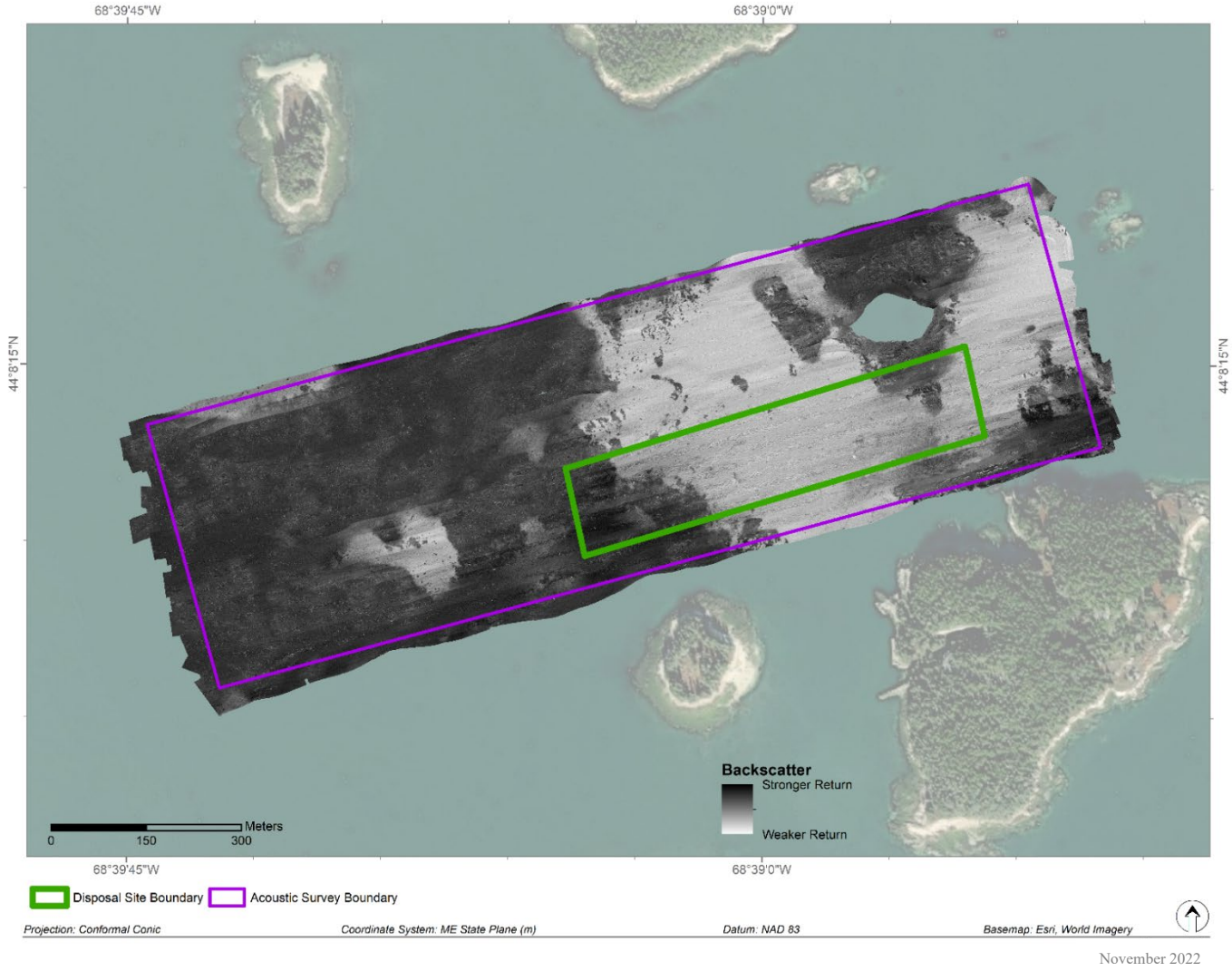


Figure 3-2. Backscatter intensity (dB) at SHDS, 2022

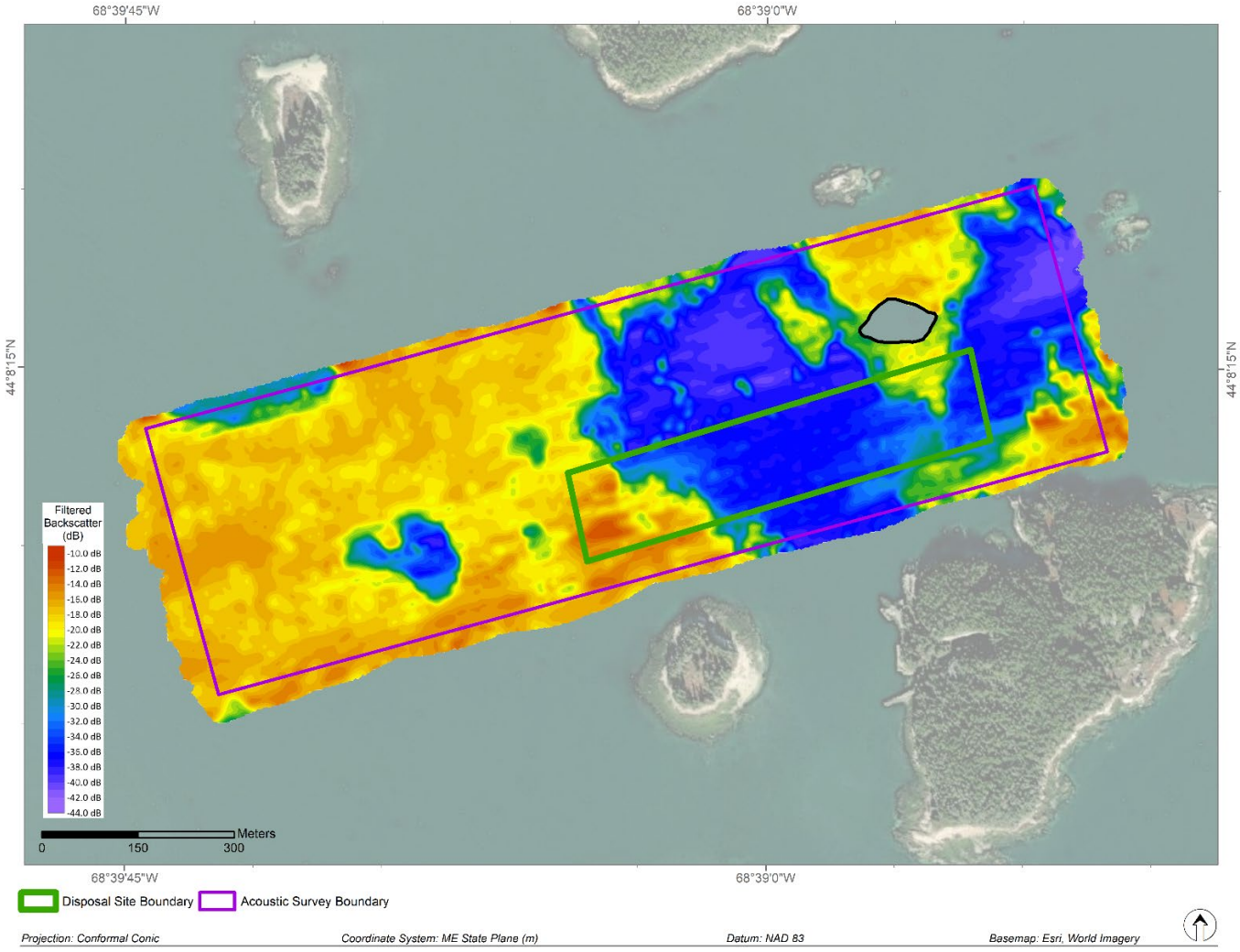


Figure 3-3. Filtered backscatter intensity (dB) at SHDS, 2022

Figure 3-4. Side scan sonar data at SHDS, 2022

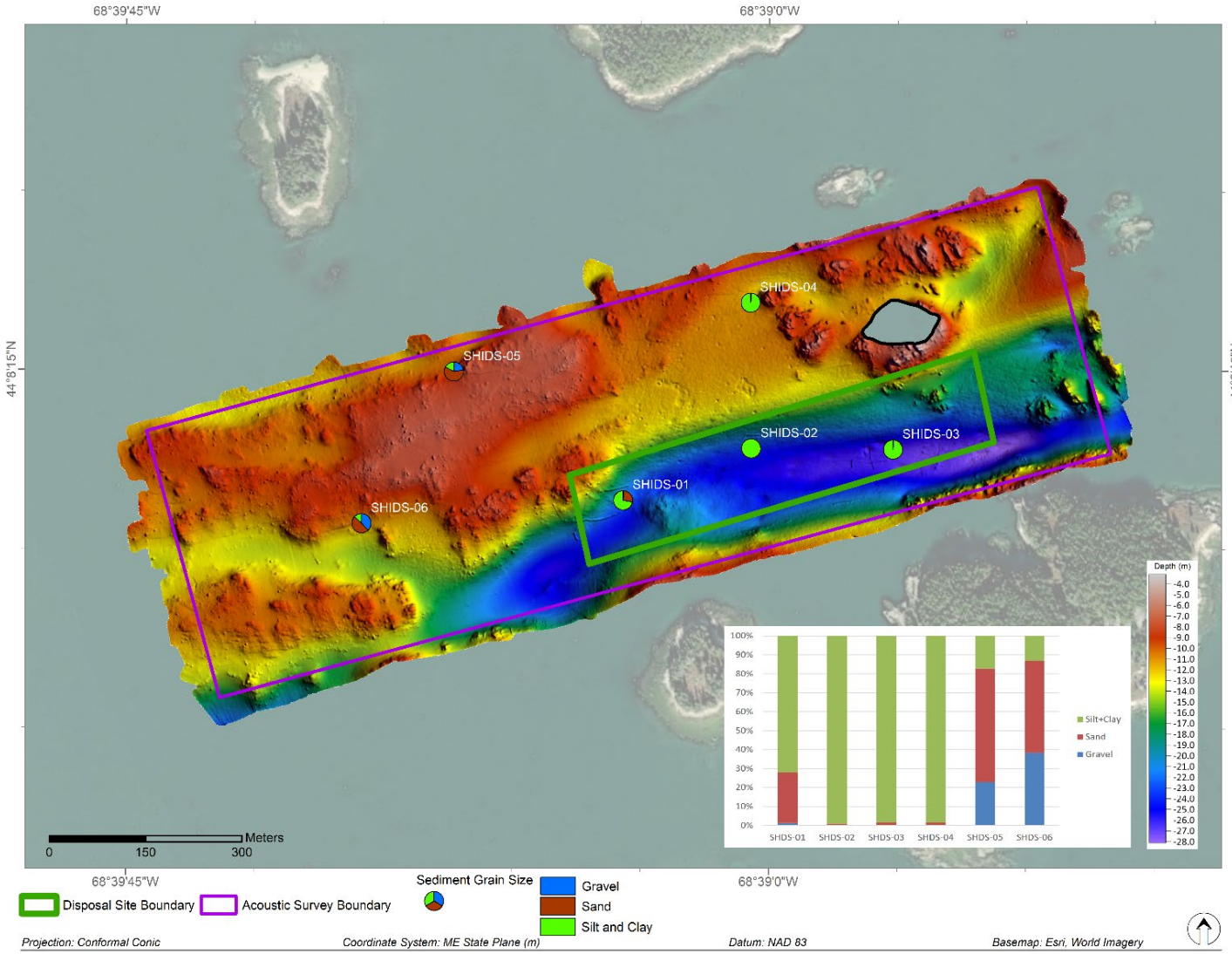


Figure 3-5. Sediment grain size, SHDS, April 2022

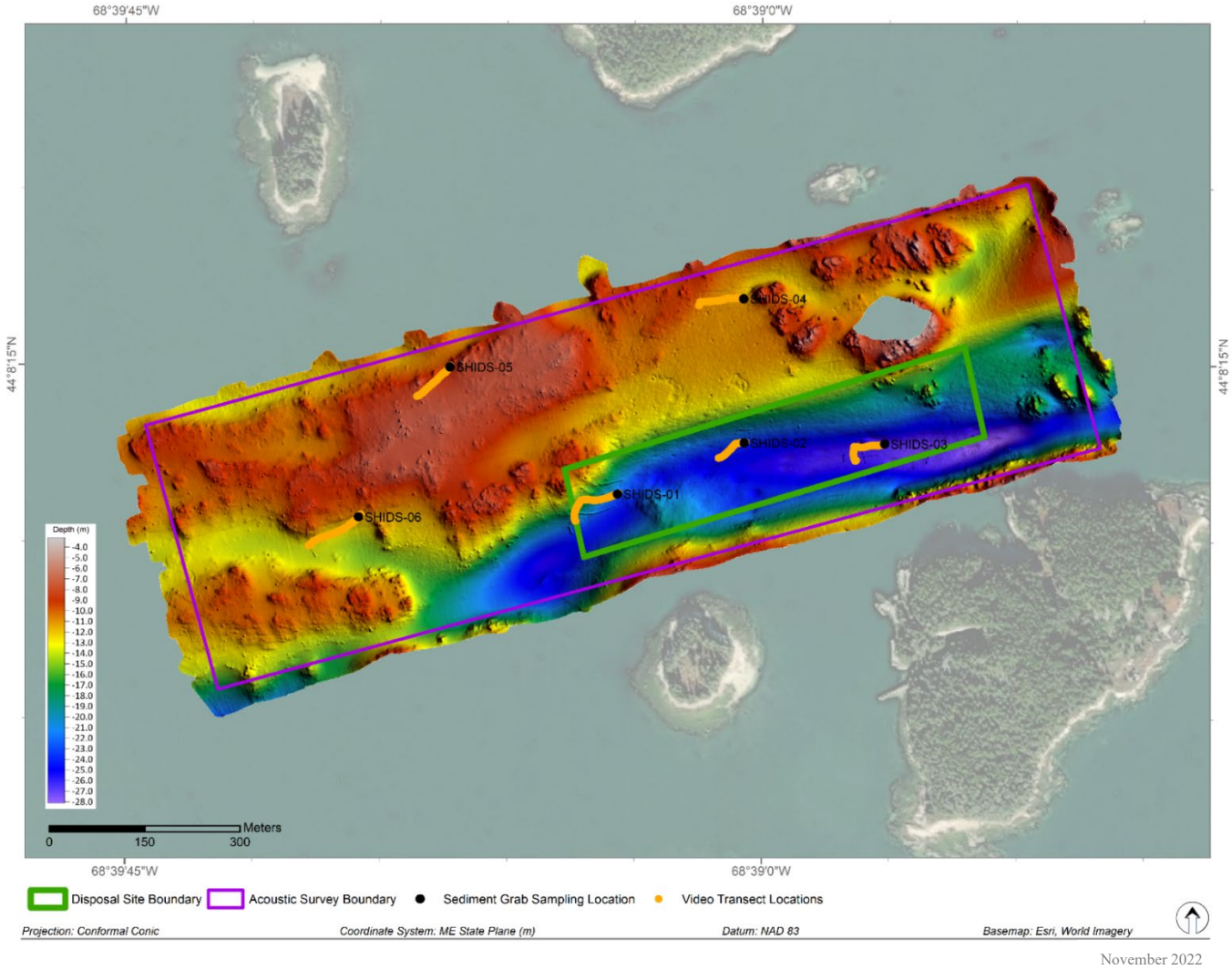


Figure 3-6. Video Transect Locations, St. Helena Island Disposal Site, April 2022

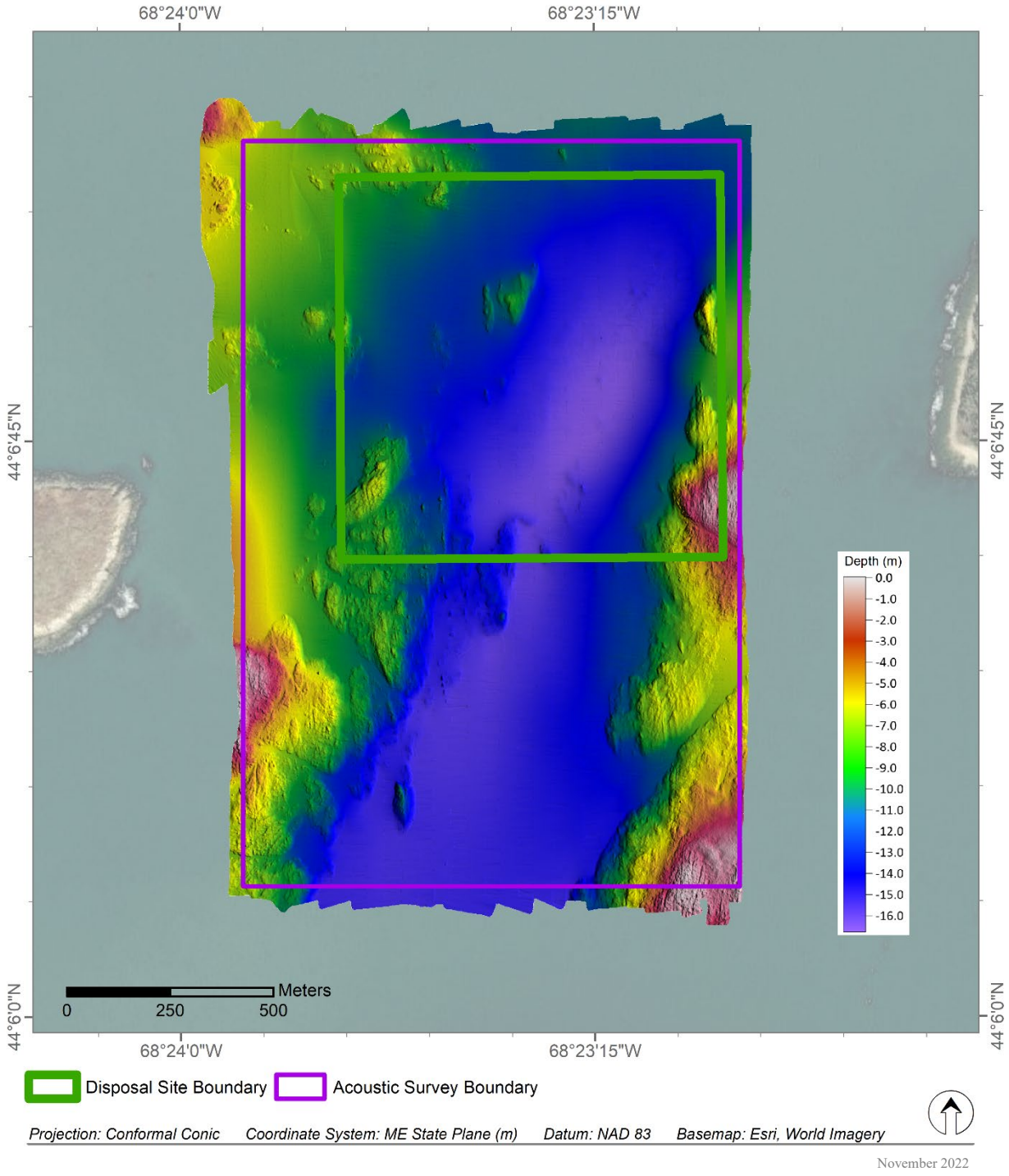


Figure 3-7. Bathymetry of Frenchboro Disposal Site presented over 2x vertical relief model, April 2022

Figure 3-8. Backscatter intensity (dB) at Frenchboro Disposal Site, 2022

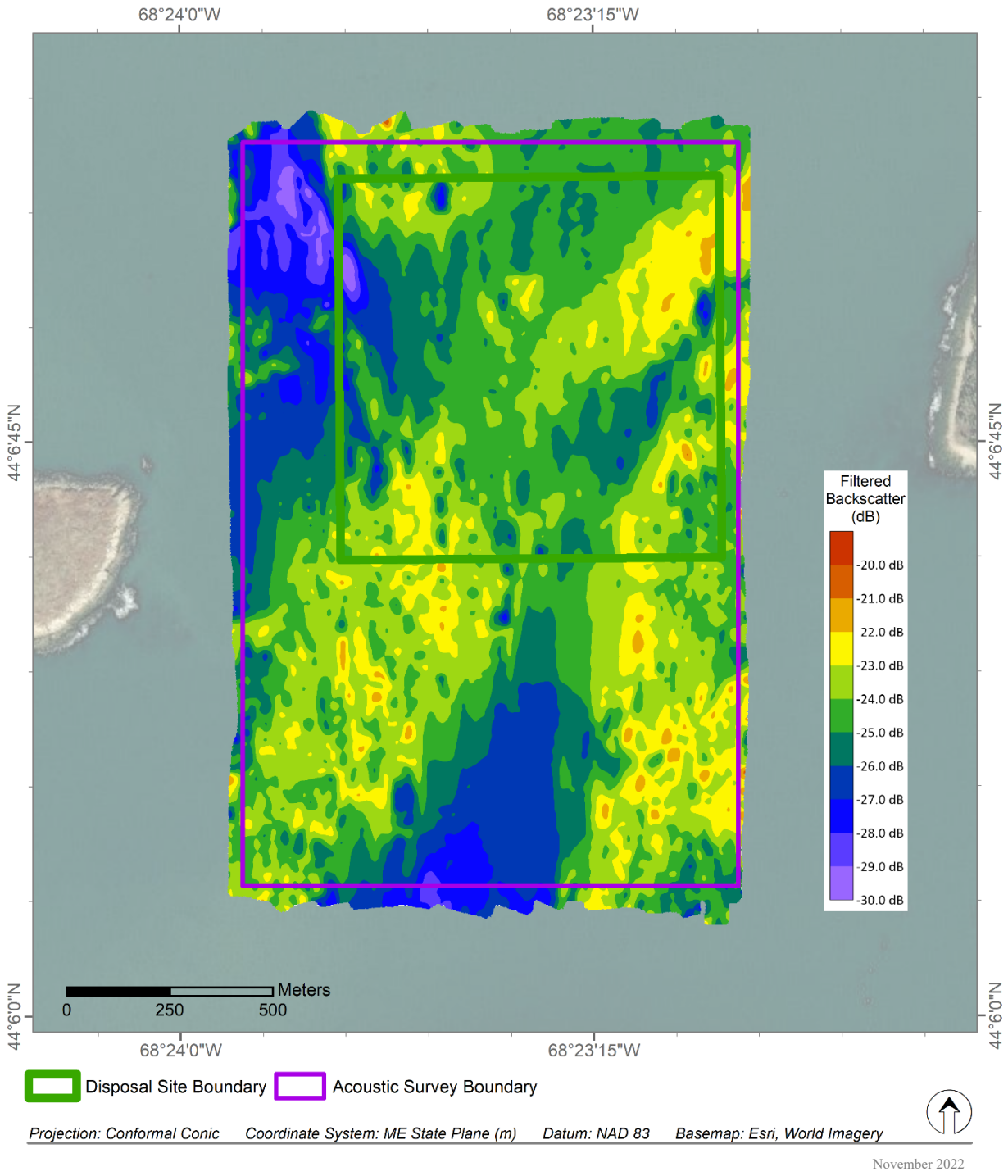


Figure 3-9. Filtered backscatter intensity (dB) at Frenchboro Disposal Site, 2022

Figure 3-10. Side-scan sonar data at Frenchboro Disposal Site, 2022

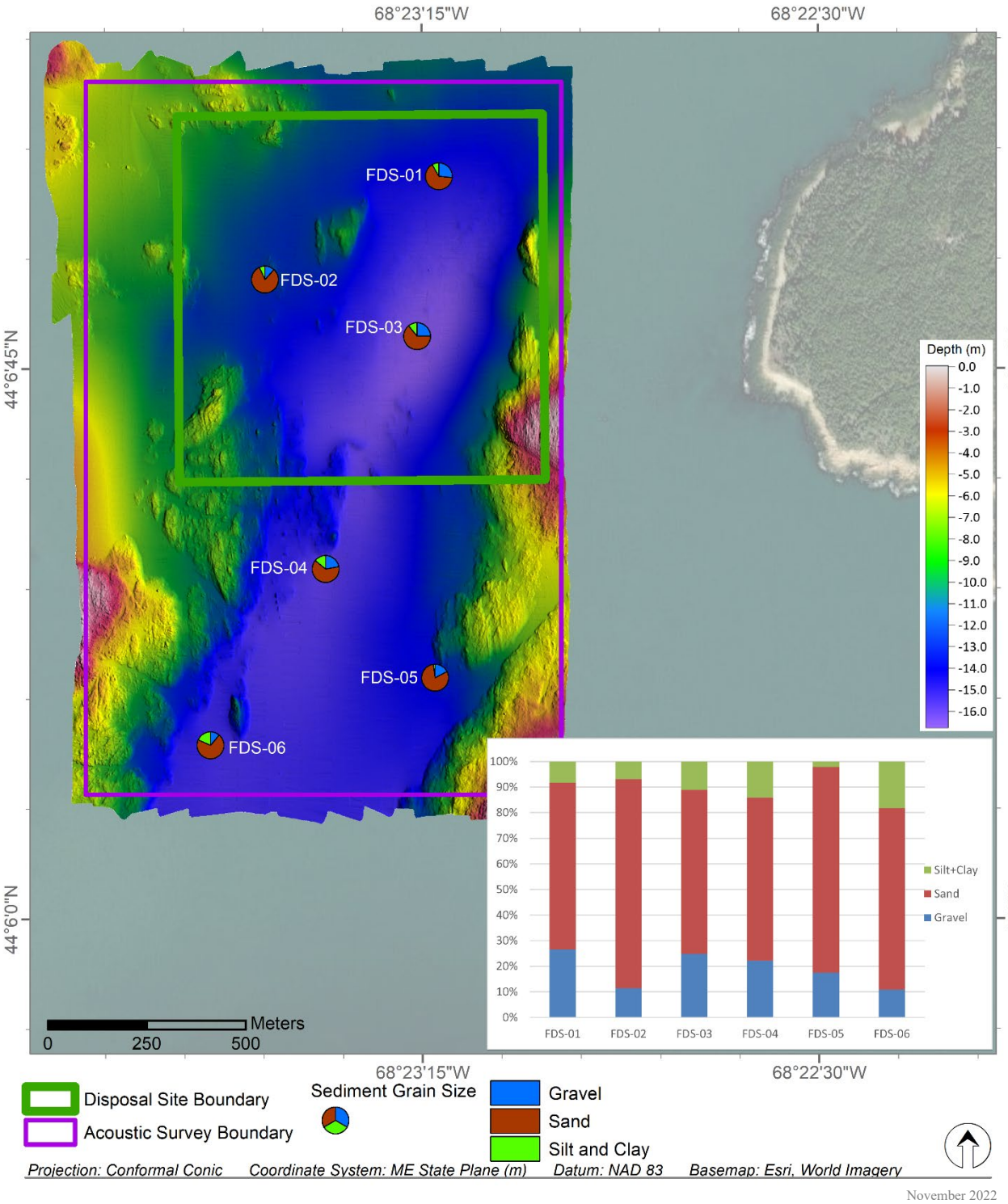


Figure 3-11. Sediment grain size, Frenchboro Disposal Site, April 2022

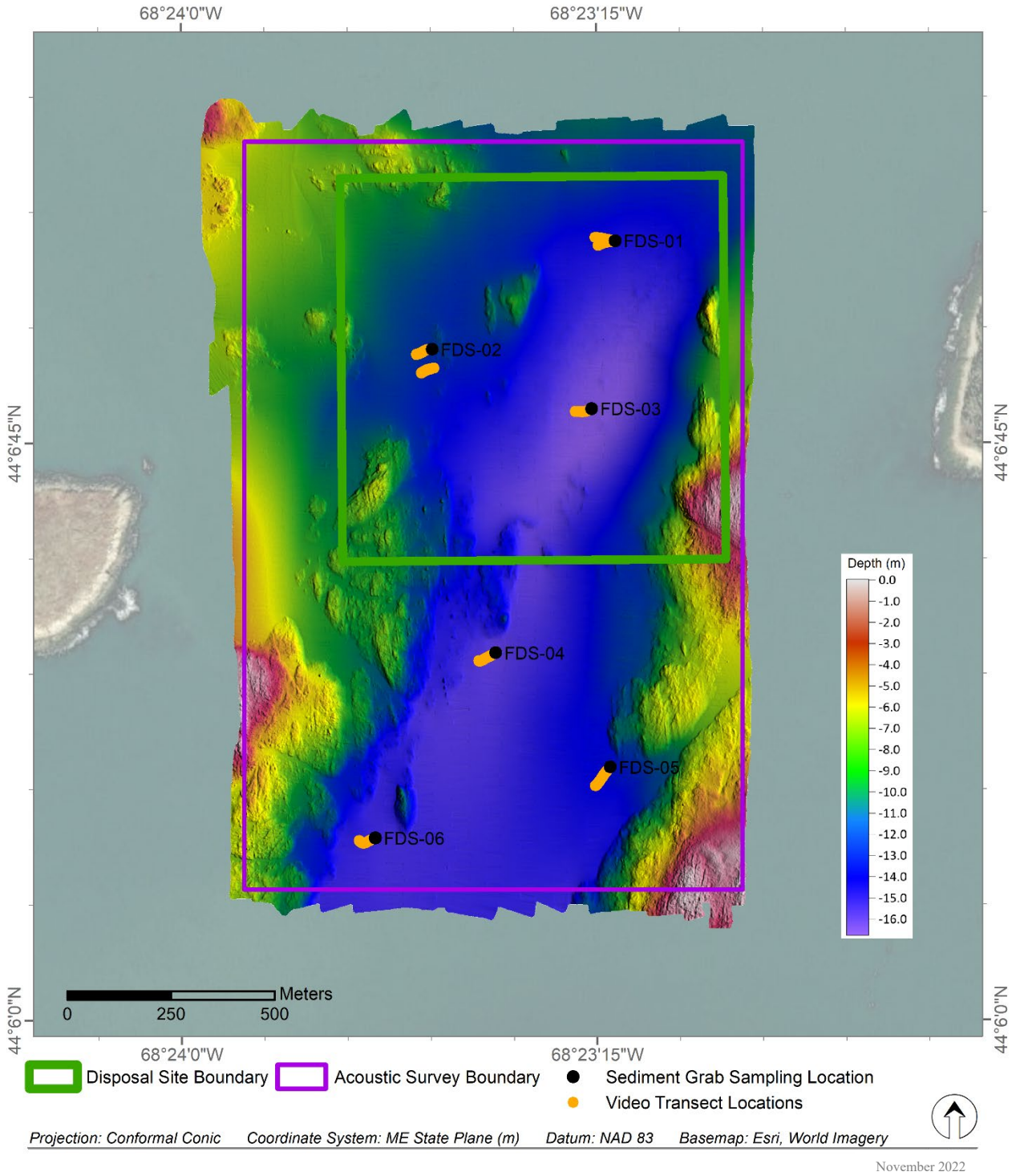


Figure 3-12. Video Transect Locations, Frenchboro Disposal Site, April 2022

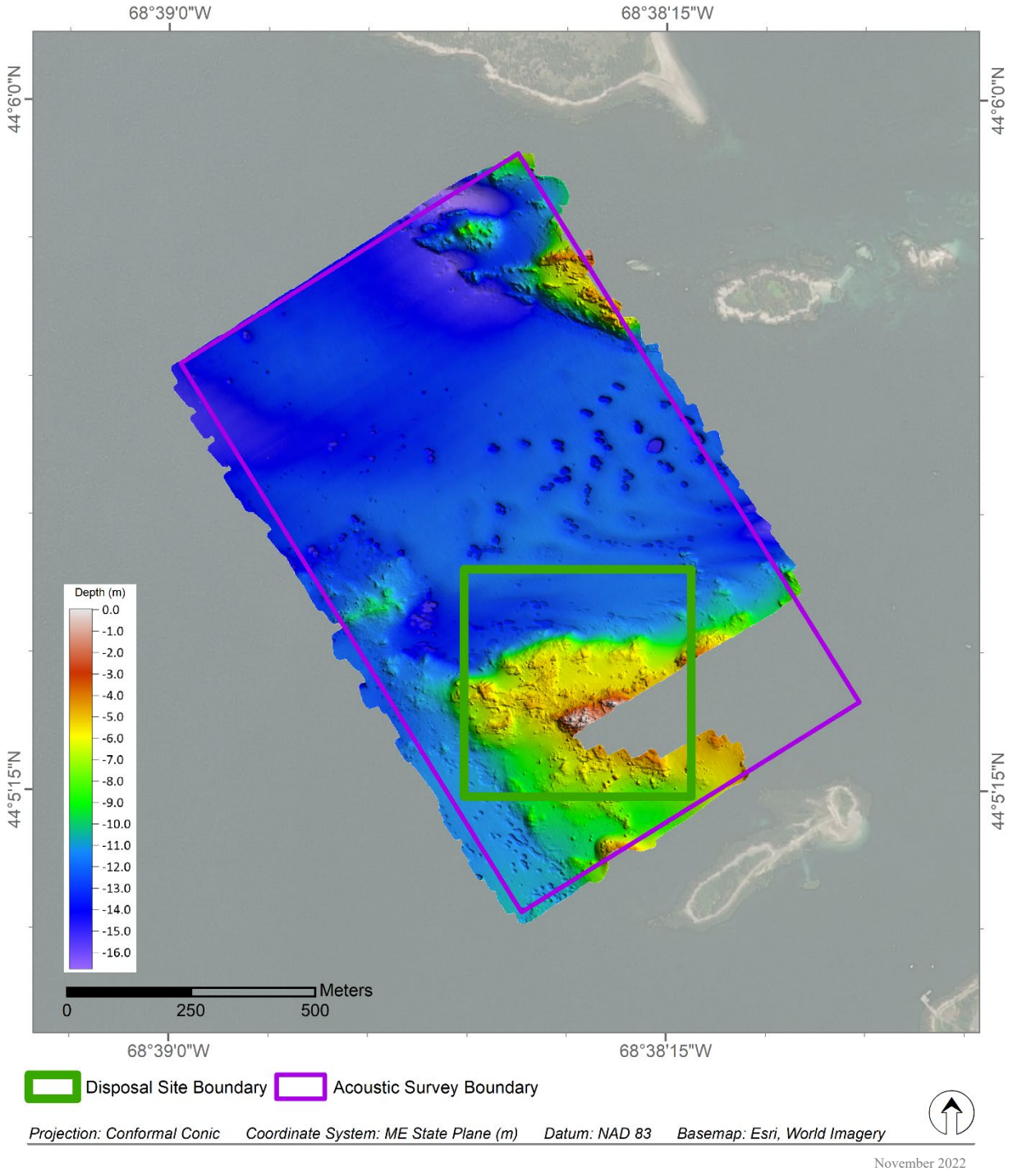


Figure 3-13. Bathymetry of Flake Island Disposal Site presented over 2x vertical relief model, April 2022

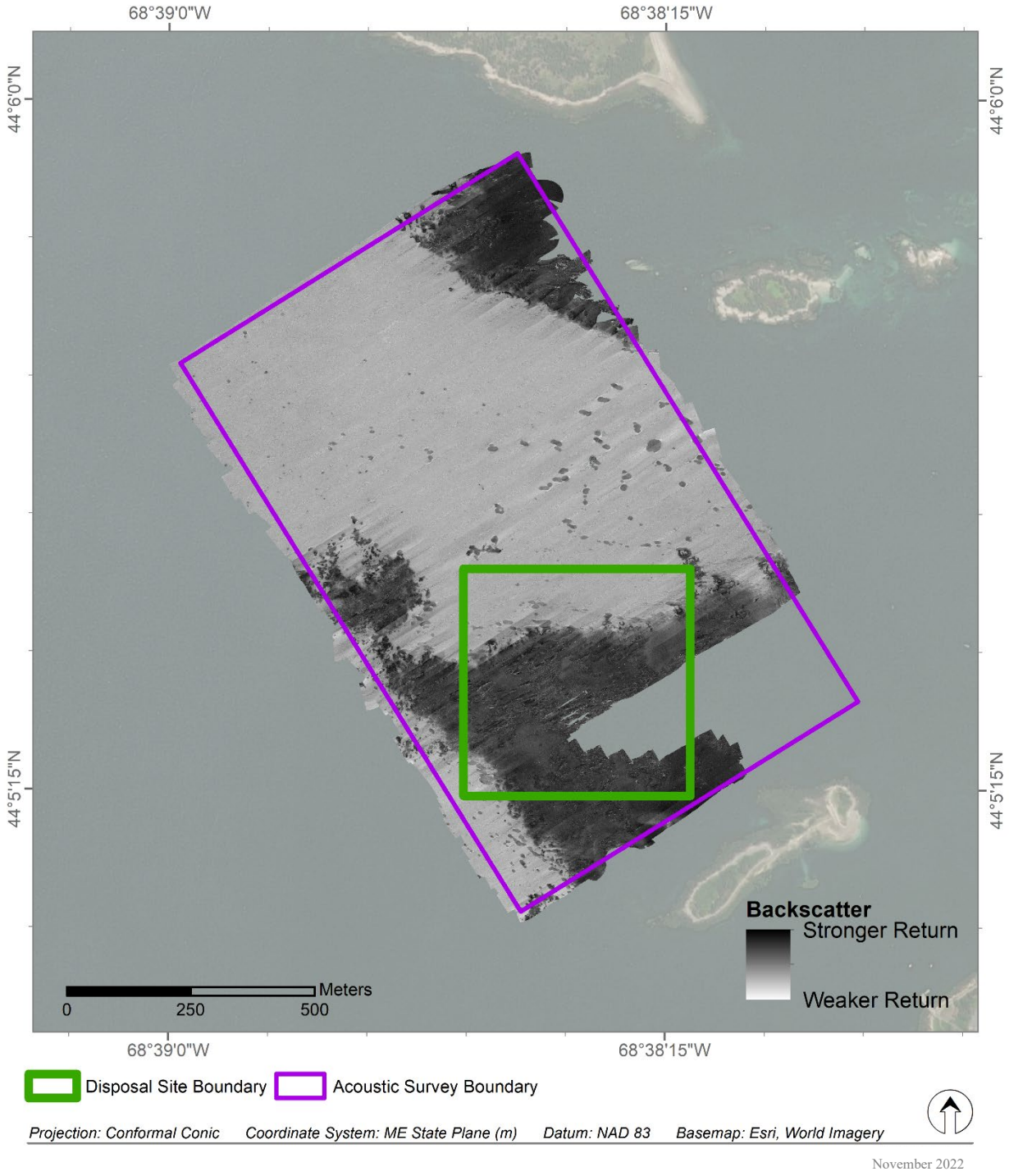


Figure 3-14. Backscatter intensity (dB) at Flake Island Disposal Site, 2022

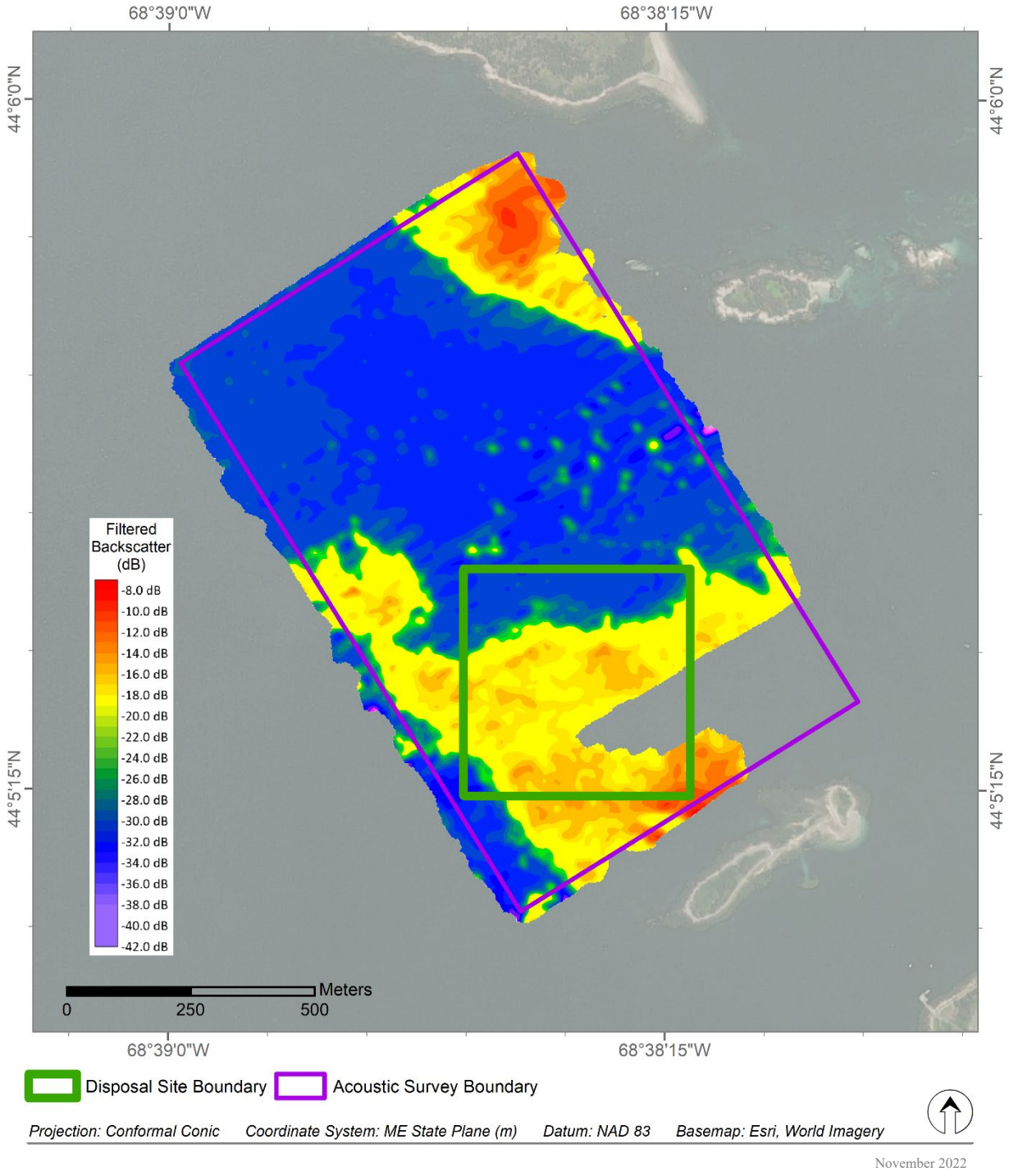


Figure 3-15. Filtered backscatter intensity (dB) at Flake Island Disposal Site, 2022

Figure 3-16. Side-scan sonar data at Flake Island Disposal Site, 2022

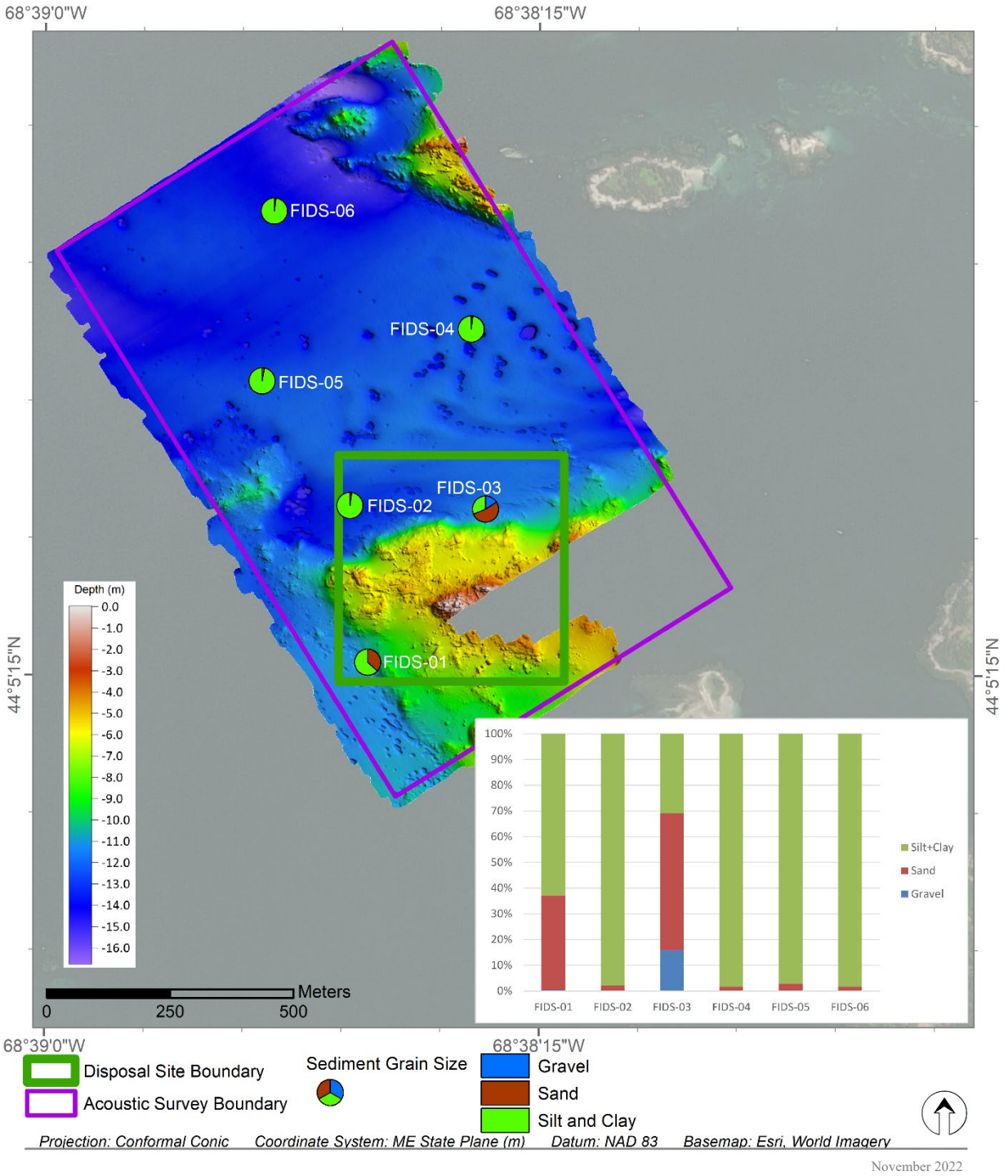


Figure 3-17. Sediment grain size, Flake Island Disposal Site, April 2022

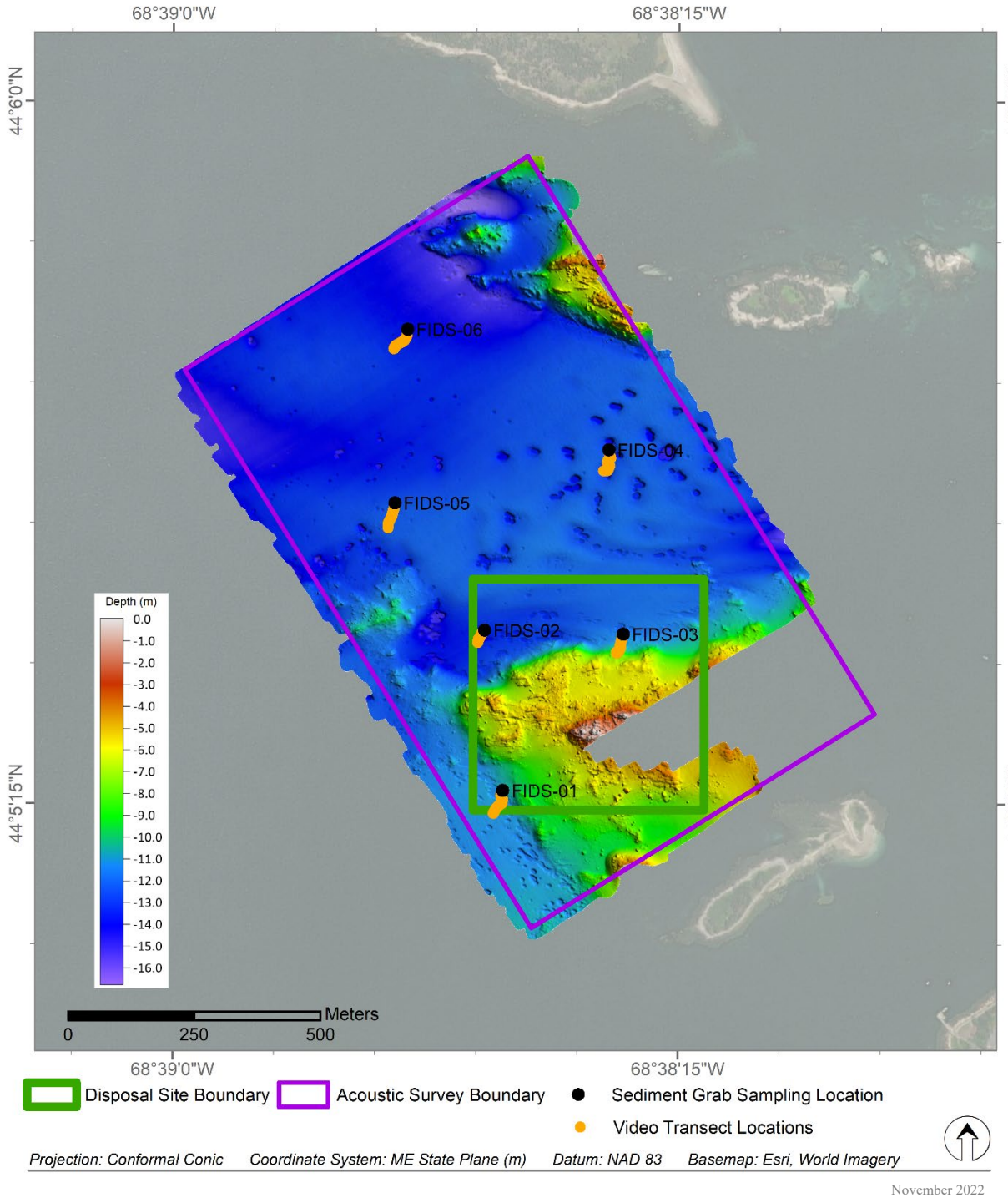


Figure 3-18. Video Transect Locations, Flake Island Disposal Site, April 2022

4.0 DISCUSSION

The objectives of the April 2022 surveys at the Downeast Maine Disposal Sites were designed to characterize the topography of the historical dredged material disposal sites and surrounding areas and to use the resulting grain size data and video imagery to characterize baseline conditions at each site. The resulting data will serve as baseline datasets for the three sites and surrounding areas that may potentially serve as reference sites for future monitoring efforts.

A hydroacoustic survey was performed over the historical disposal areas at each site, as well as the surrounding areas, to map the topography of each site and assess each site's accessibility and capacity for accepting dredged material from anticipated local FNP maintenance dredging. Sediment grab samples were collected to characterize surficial sediment grain size within the historical disposal sites and the surrounding areas. Underwater video footage was also collected throughout the sites, in tandem with the grab locations, to further characterize the seafloor and to provide insight on the nature of the benthic habitat.

4.1 St. Helena Island Disposal Site

The hydroacoustic survey was able to confirm the area of historical dredged material disposal activity at SHDS. Grain size data, paired with the video images, further supported this confirmation. In historical documents pertaining to the 1983 Deere Isle Thorofare Improvement Project, it was stated that the sediment to be dredged was composed of "predominately dark grey organic, sandy clay with some shell fragments" (USACE, 1983). An evaluation of the grab sample descriptions, and analysis of the underwater video footage that was paired with the on-site sediment grab samples, indicates that the surficial sediment observed within the historical disposal area aligns with the sediment classification of the reported dredged material.

The SHDS study area can be broken down into two nearly equal halves, each containing three sample locations. Figure 4-1 depicts the grain size results over filtered backscatter, further depicting this split within the study area. The western portion of the study area includes SHDS-01, SHDS-05, and SHDS-06 and the eastern portion contains SHDS-02, SHDS-03, and SHDS-04. The western half of the study area contains coarser, mixed sediments, with an average of 21% gravel, 45% sand, and 34% fines. However, the eastern half, where the majority of the historical disposal site is located, contains nearly all fines, with an average of 99%. Based on this observation, SHDS could potentially support the targeted disposal of both coarser sediment and fine-grained material. The surrounding survey area presents potential reference areas for both sediment types – coarse sediments (locations SHDS-05 and SHDS-06) and fine sediments (SHDS-04).

Using the historical disposal site boundaries and a conservative controlling depth of -22 m MLLW, SHDS could accommodate approximately 92,000 m^3 (120,330 cy^3) of additional dredged material. If splitting the disposal site by sediment type is considered as a future management tool, an estimated 81,926 m^3 (107,156 cy^3) of fine sediment could be placed over the existing silty areas, while 10,176 m^3 (13,310 cy^3) of coarser dredged material could be disposed on the hard bottom areas.

4.2 Frenchboro Disposal Site

The hydroacoustic survey and grain size analysis at FDS revealed unexpected results. The entire site was composed of fairly heterogenous sediment consisting of sand with a mix of some gravel and fines. Within the historical disposal site boundaries grain size averages were 70% sand, 21% gravel, and 9% fines. Within the remainder of the survey area, grain size averages were 72% sand, 17% gravel, and 11% fines. Additionally, this sediment characterization is consistent with the description of the material that was disposed at FDS as part of the improvement dredging project that took place for Frenchboro Harbor in May of 1974 (USACE, 1974). Figure 4-2 illustrates the filtered backscatter results with grain size results at FDS.

The area surrounding the disposal site, especially the central portion of the southern area, would be appropriate for potential reference site locations; this was confirmed by analysis of the video footage collected during the survey, topography, and surficial sediment characterization of the site. Using the historical disposal site boundaries and a conservative controlling depth of -38 m MLLW, FDS could accommodate an estimated 984,000 m^3 (1,287,000 cy^3) of dredged material from future disposals.

4.3 Flake Island Disposal Site

FIDS proved to be a challenging site to survey with widely variable topography and dynamic, shallow, rocky features. As discussed in Section 3.3.1.1, the southeastern corner of the survey area was unable to be accessed; this inaccessible portion of the site comprised approximately one quarter of the historical disposal site footprint. Grain size for the site was consistent across four sample locations, FIDS-02, FIDS-04, FIDS-05, and FIDS-06, and was comprised mostly of fines. FIDS-01 and FIDS-03, located closer to the rocky outcrop, were composed of mixed sediments. FIDS-04, FIDS-05, or FIDS-06 would be relevant reference stations for fine-grained material found at FIDS-02. Alternate reference areas may need to be investigated if future dredged material is expected to be coarse grained or if disposals are directed to the rocky outcrop and coarse substrate at stations FIDS-01 and FIDS-03. Figure 4-3 illustrates grain size results over filtered backscatter at the site.

When analyzing the acoustic data and grain size results, the accuracy of the historical boundaries of the disposal site was questioned due to the large rock outcrop within the site, as well as evidence of potential historical disposals observed just north of the disposal site. More than three quarters of the disposal site footprint is occupied by a large rock outcrop,

which is partially exposed during low tide. Access to the much of the historical disposal area for dredged material disposal purposes would be limited and would likely need to be coordinated with the tidal cycle to ensure safe site accessibility. For soft sediment disposal, the northern boundary of the disposal area could be targeted.

Potential evidence of historical disposals, in the form of seafloor depressions, was observed north of the disposal site boundary. Though the acoustic data does not lend much support, it is possible that some or all of these depressions are associated with historical disposals that would have taken place over 40 years ago. Given the patterns seen within the backscatter data, it is likely these features are ebullitions associated with historical disposals or other seabed disturbances. Consultation with the Maine Geological Survey concluded that the features' dimensions are not consistent with typical seafloor "pockmarks" that are common in this region of Maine, but further investigation of the depressions may be warranted.

Using the historical disposal site boundaries and a conservative controlling depth of -10 m MLLW, FIDS could accommodate an estimated 180,000 m^3 (235,400 cy^3) of dredged material from future disposals. As noted above, the dynamic topography of the site may limit accessibility and overall capacity.

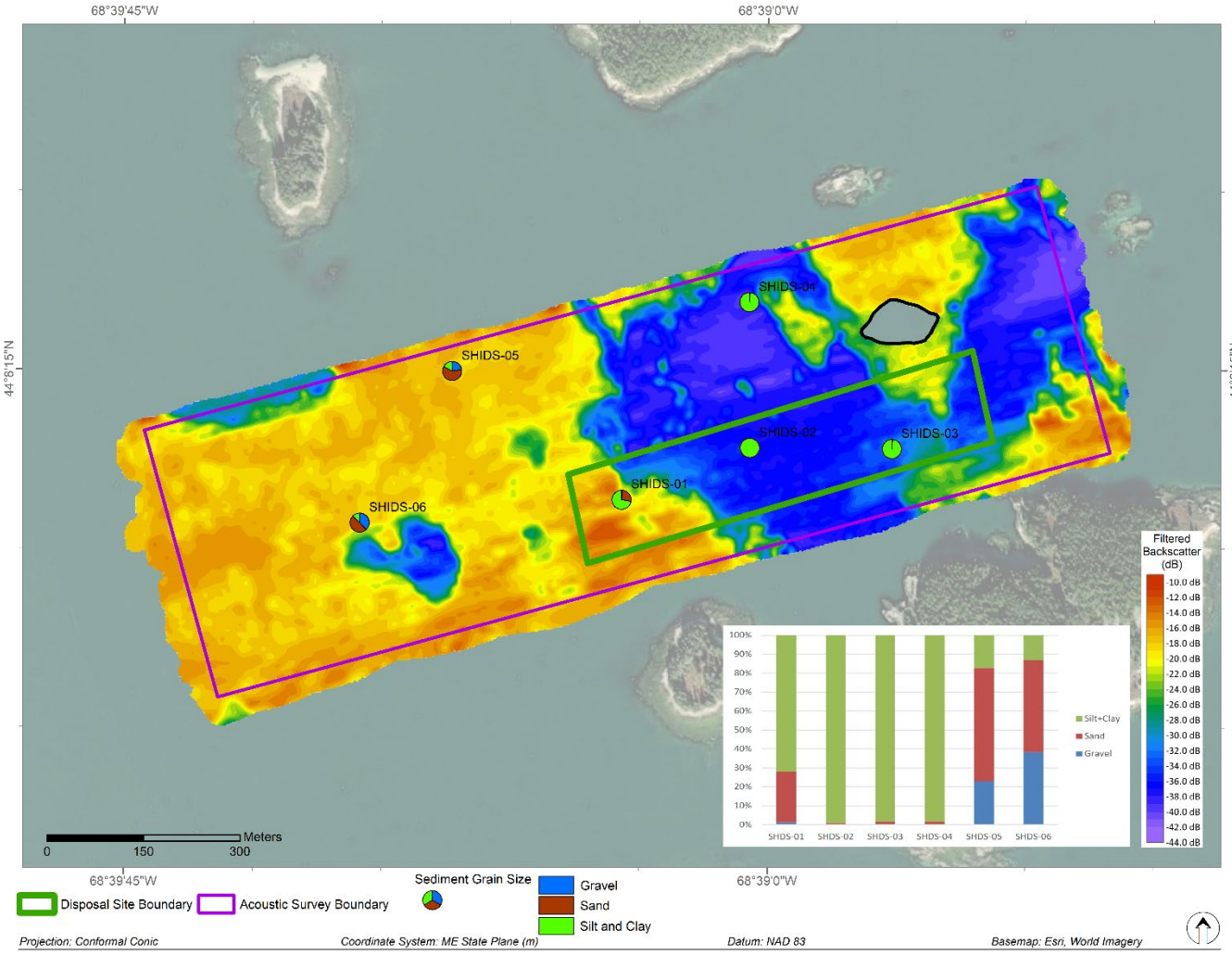


Figure 4-1. Grain size results over filtered backscatter at St. Helena Island Disposal Site, April 2022

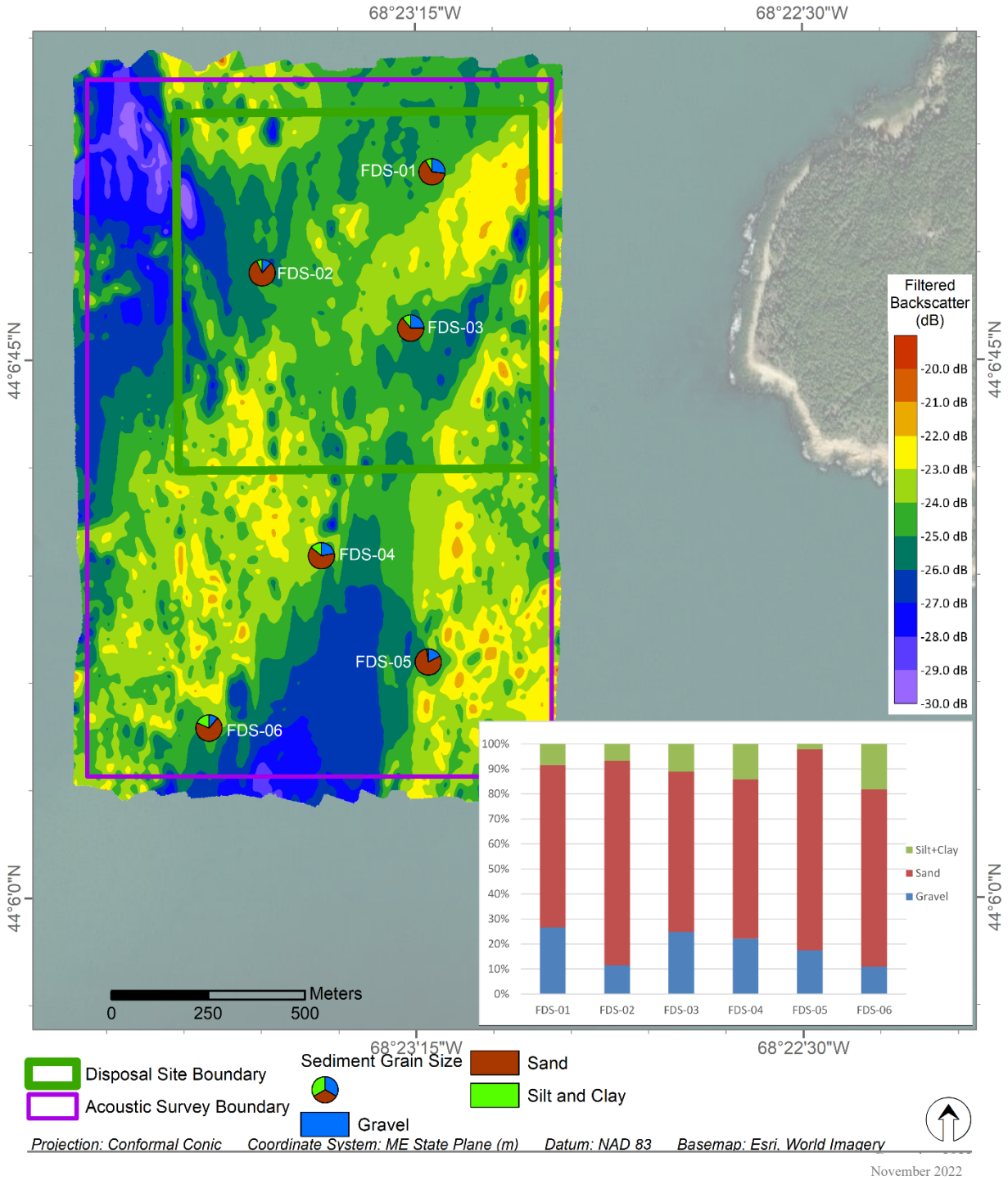


Figure 4-2. Grain size results over filtered backscatter at Frenchboro Disposal Site, April 2022

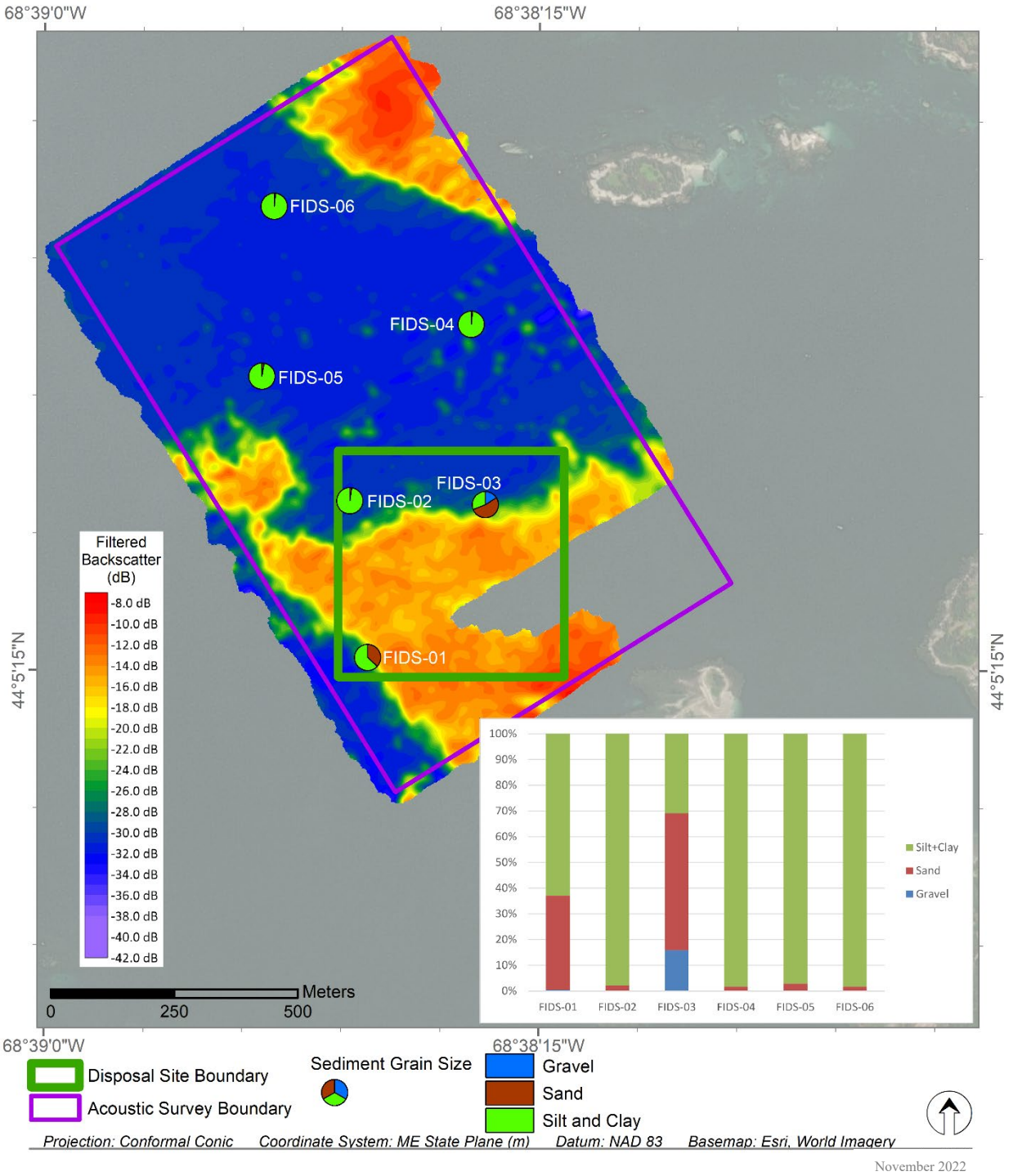


Figure 4-3. Grain size results over filtered backscatter at Flake Island Disposal Site, April 2022

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 General Conclusions

The data from the 2022 surveys generated a baseline hydroacoustic and surficial sediment grain size dataset for the three Downeast Maine Disposal Sites, as well as potential reference areas for each site. Although these sites previously received dredged material, the disposals took place approximately 40 years ago. Data from the 2022 surveys provide a characterization of the current site conditions that will inform USACE site selection decisions and can serve as a comparative dataset for future monitoring events. Additionally, sufficient data was collected to identify potential reference areas for each site; while not all reference area locations exemplify the disposal areas in their entirety, there is representation of each disposal area within the sampled reference area locations.

If these sites are selected as dredged material disposal sites by USACE the results of these baseline surveys, and the associated reference areas, should be used for future management considerations, including the establishment of Site Management and Monitoring Plans, and will provide useful information to identify environmental impacts and assess ecosystem recovery from future dredged material disposals.

5.2 Recommendations

Based on the 2022 hydroacoustic survey results, surficial sediment grain size results, and video survey analysis, the following activities are recommended at the three Downeast Maine Disposal Sites:

- Additional surveys at each site to select and determine appropriate reference areas.
- Further surveys at SHDS and FIDS with a vessel that can operate in extreme shallow waters to survey the sites in their entireties, including the shallow rock features at each site, as needed.
- Future survey efforts at all sites to conduct chemistry grab sampling and benthic sampling (infaunal grabs and SPI camera) to further characterize the sites and provide a complete baseline dataset.
- Additional investigation of the seafloor features north of the FIDS boundary.

6.0 REFERENCES

AECOM. 2021a. USACE Contract No. W912WJ-17-D-003. DAMOS Task Order No. 04. Quality Assurance Project Plan (QAPP).

AECOM. 2021b. USACE Contract No. W912WJ-17-D-003. DAMOS Task Order No. 04. Accident Prevention Plan (APP).

Fredette, T. J.; French, G.T. 2004. Understanding the physical and environmental consequences of dredged material disposal: history in New England and current perspectives. Marine Pollution Bulletin 49: 93-102.

Germano, J. D.; Rhoads, D. C.; Lunz, J. D. 1994. An integrated, tiered approach to monitoring and management of dredged material sites in the New England region. DAMOS Contribution No. 87 (SAIC Report No. 90/7575&234). US Army Corps of Engineers, New England Division, Waltham, MA.

USACE. 1974. Updated Environmental Impact Statement, Maintenance Dredging. Frenchboro Harbor, Long Island, ME. Department of the Army New England Division, Corps of Engineers, Waltham, Massachusetts. May 1974.

USACE. 1977. Stonington Harbor, ME. Report of the Chief of Engineers, US Army, 1977, New England Division.

USACE. 1979. Environmental Assessment and Section 404 Evaluation for Maintenance Dredging. Isle au Haut Thoroughfare. Isle au Haut, Maine. Department of the Army, New England Division, Corps of Engineers. Waltham, Massachusetts.

USACE. 1982. Stonington Harbor, ME. Detailed Project Report and Environmental Assessment. US Army, 1982, New England Division.

USACE. 1983. Permits for Maine Department of Transportation, 1983. Application and Permit Documents for Improvements and Expansion of Fish Pier and Jetty, Dredging of Adjacent Area. Deer Isle Thorofare, Stonington, Maine. Department of the Army New England Division, Corps of Engineers, Waltham, Massachusetts

USACE. 1984. Stonington Harbor, ME. Report of the Chief of Engineers, US Army, 1984, New England Division.

USACE. 2013. Engineering and Design - Hydrographic Surveying. Manual No. EM 1110-2-1003. November 2013.

USEPA and USACE. 2004. Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters.

Wolf, S.; Fredette, T.J.; and Loyd, R.B. 2012. Thirty-Five Years of Dredged Material Disposal Area Monitoring – Current Work and Perspectives of the DAMOS Program. WEDA Journal of Dredging Engineering, Vol. 12, No. 2, p. 24-41.

Appendix A

Common Conversions

US Army Corps
of Engineers®
New England District

APPENDIX A

TABLE OF COMMON CONVERSIONS

Metric	English
Area	
1 Square Kilometer (km2)	247.12 Acres
Length	
1 Kilometer (km)	0.62 Miles (mi)
1 Kilometer (km)	0.54 Nautical Miles (nmi)
1 Meter (m)	3.28 Feet (ft)
1 Centimeter (cm)	0.39 Inches (in)
Volume	
1 Cubic Meter (m^3)	35.31 Cubic Feet (ft^3)
1 Cubic Meter (m^3)	1.31 Cubic Yards (yd^3)

English	Metric
Area	
1 Acre	0.004 Square Kilometers (km^2)
Length	
1 Mile (mi)	1.61 Kilometers (km)
1 Nautical Mile (nmi)	1.85 Kilometers (km)
1 Foot (ft)	0.30 Meters (m)
1 Inch (in)	0.03 Centimeters (cm)

Appendix B

Grain Size Results

GeoTesting EXPRESS

Technologies to manage risk for infrastructure

Boston
Atlanta
Chicago
Los Angeles
New York

www.geotesting.com

Transmittal

TO:

Ryan McCarthy

AECOM

250 Apollo Drive

Chelmsford, MA 01824

DATE: 5/26/2022	GTX NO: 315359
RE: USACE - DAMOS Downeast	

COPIES	DATE	DESCRIPTION
	5/26/2022	**April 2022 Laboratory Test Report**

REMARKS:

SIGNED:

Jonathan Campbell, Laboratory Manager

APPROVED BY:

Joe Tomei, Vice President and Director of Testing Services

GeoTesting EXPRESS

Technologies to manage risk for infrastructure

Boston
Atlanta
Chicago
Los Angeles
New York
www.geotesting.com

May 26, 2022

Ryan McCarthy
AECOM
250 Apollo Drive
Chelmsford, MA 01824

RE: USACE - DAMOS Downeast, St. Helena, ME (GTX-315359)

Dear Ryan McCarthy:

Enclosed are the test results you requested for the above referenced project. GeoTesting Express, Inc. (GTX) received 18 samples from you on 4/19/2022. These samples were labeled as follows:

Sample Number
FDS-01-04122022
FDS-02-04122022
FDS-03-04122022
FDS-04-04122022
FDS-05-04122022
FDS-06-04122022
FIDS-01-04132022
FIDS-02-04132022
FIDS-03-04132022
FIDS-04-04132022
FIDS-05-04132022
FIDS-06-04132022
SHIDS-01-04112022
SHIDS-02-04112022
SHIDS-03-04112022
SHIDS-04-04112022
SHIDS-05-04112022
SHIDS-06-04112022

GTX performed the following test on each of these samples:

ASTM D6913 - Sieve Analysis

A copy of your test request is attached.

The results presented in this report apply only to the items tested. This report shall not be reproduced except in full, without written approval from GeoTesting Express. The remainder of these samples will be retained for a period of sixty (60) days and will then be discarded unless otherwise notified by you. Please call me if you have

any questions or require additional information. Thank you for allowing GeoTesting Express the opportunity of providing you with testing services. We look forward to working with you again in the future.

Respectfully yours,

Jonathan Campbell
Laboratory Manager

GeoTesting EXPRESS

Technologies to manage risk for infrastructure

Boston
Atlanta
Chicago
Los Angeles
New York
www.geotesting.com

Geotechnical Test Report **5/26/2022**

GTX-315359

USACE - DAMOS Downeast

St. Helena, ME

Client Project No.: 60666455

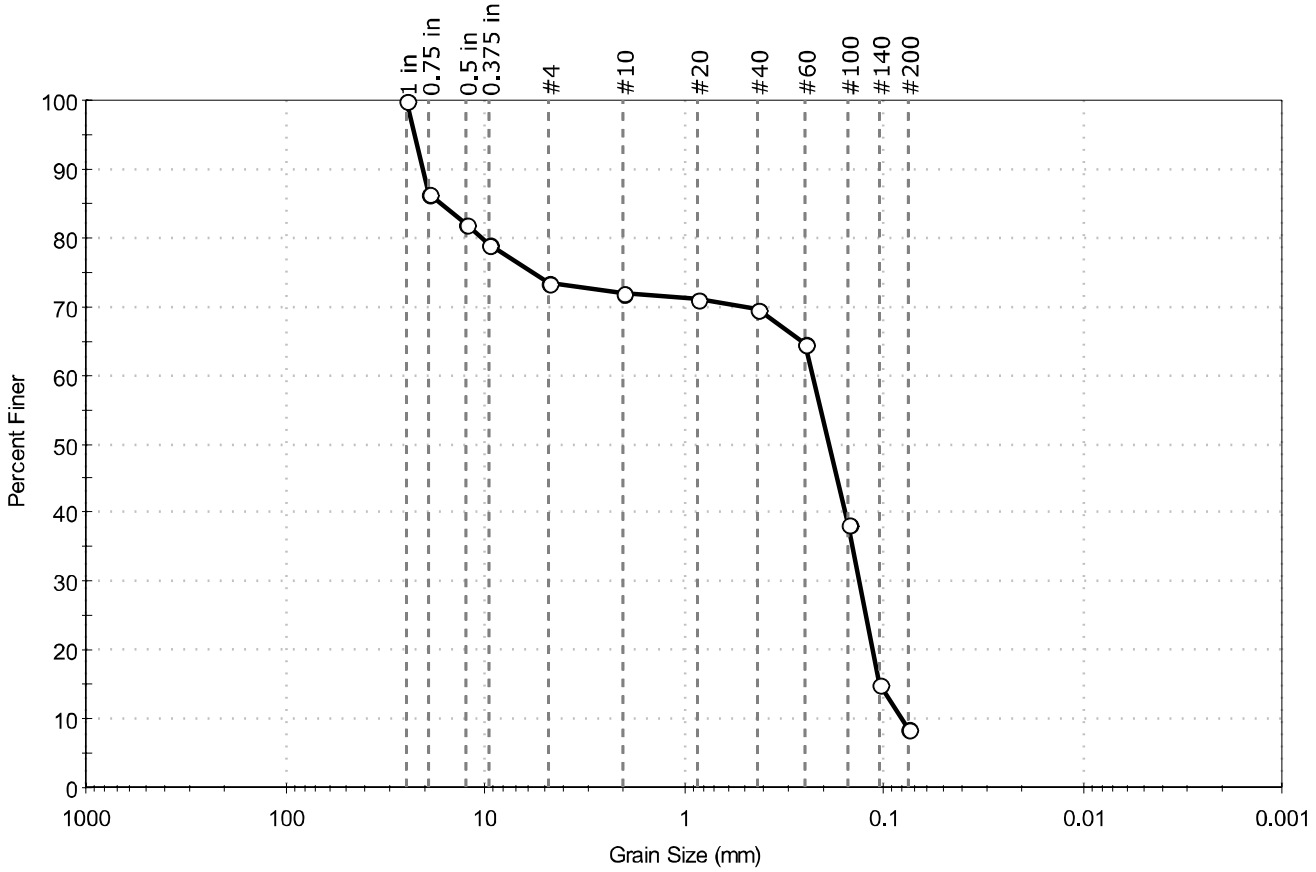
Prepared for:

AECOM

GeoTesting EXPRESS

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	FDS-01-04122022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664822		
Test Comment:	---				
Visual Description:	Moist, dark gray sand with silt and gravel				
Sample Comment:	Sample contains shells				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	26.6	65.0	8.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
0.75 in	19.00	87		
0.5 in	12.50	82		
0.375 in	9.50	79		
#4	4.75	73		
#10	2.00	72		
#20	0.85	71		
#40	0.42	70		
#60	0.25	65		
#100	0.15	38		
#140	0.11	15		
#200	0.075	8.4		

Coefficients

D_{85} = 16.5469 mm
D_{30} = 0.1324 mm
D_{60} = 0.2281 mm
D_{15} = 0.1061 mm
D_{50} = 0.1878 mm
D_{10} = 0.0815 mm
C_u = 2.799
C_c = 0.943

Classification

ASTM N/A

AASHTO Fine Sand (A-3 (1))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

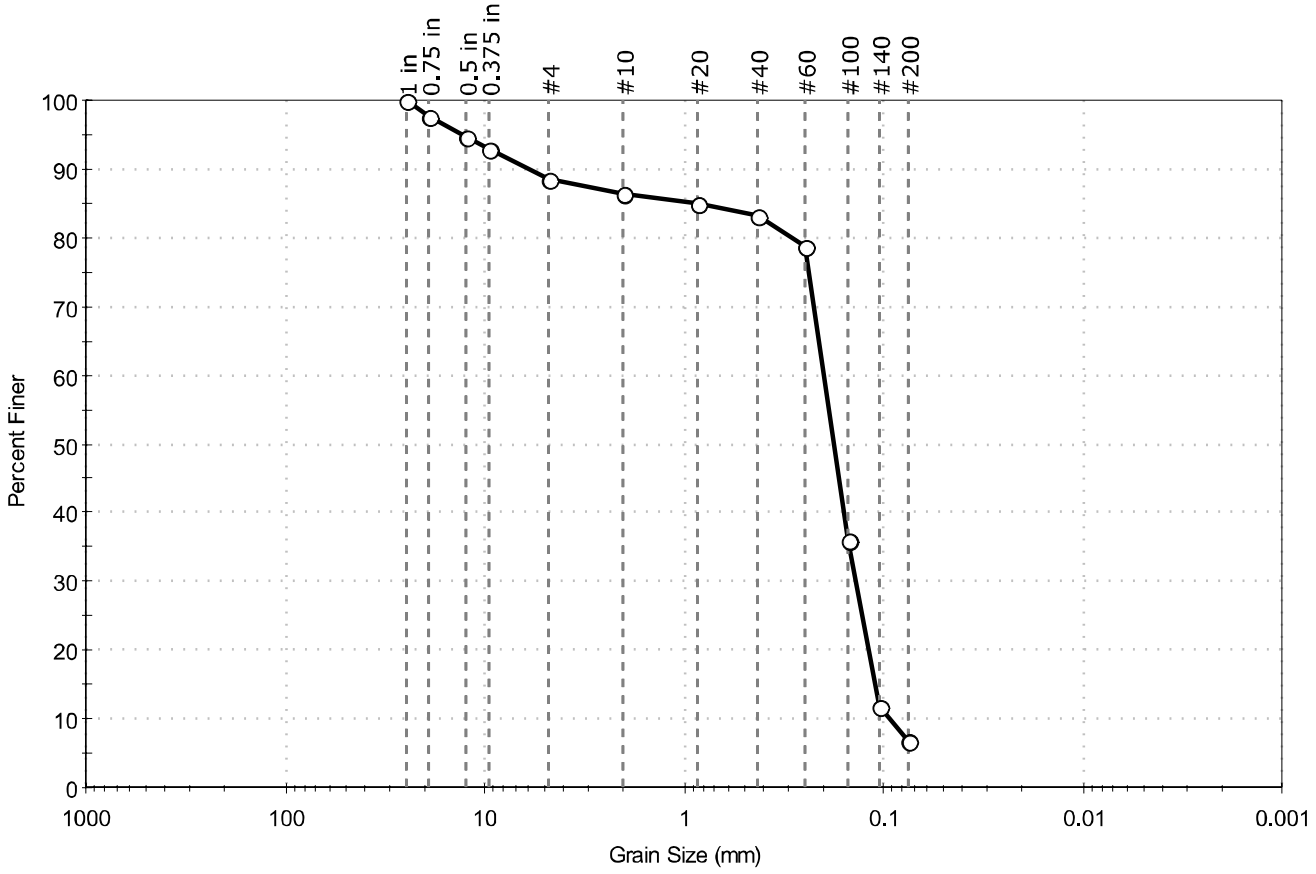
Sand/Gravel Hardness : HARD

printed 4/26/2022 1:11:51 PM

GeoTesting EXPRESS

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	FDS-02-04122022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664821		
Test Comment:	---				
Visual Description:	Moist, light olive brown sand with silt				
Sample Comment:	Sample contains shells				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	11.4	81.8	6.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
0.75 in	19.00	98		
0.5 in	12.50	95		
0.375 in	9.50	93		
#4	4.75	89		
#10	2.00	86		
#20	0.85	85		
#40	0.42	83		
#60	0.25	79		
#100	0.15	36		
#140	0.11	12		
#200	0.075	6.8		

Coefficients

D_{85} = 0.9336 mm	D_{30} = 0.1377 mm
D_{60} = 0.1998 mm	D_{15} = 0.1110 mm
D_{50} = 0.1774 mm	D_{10} = 0.0935 mm
C_u = 2.137	C_c = 1.015

Classification

ASTM N/A

AASHTO Fine Sand (A-3 (1))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

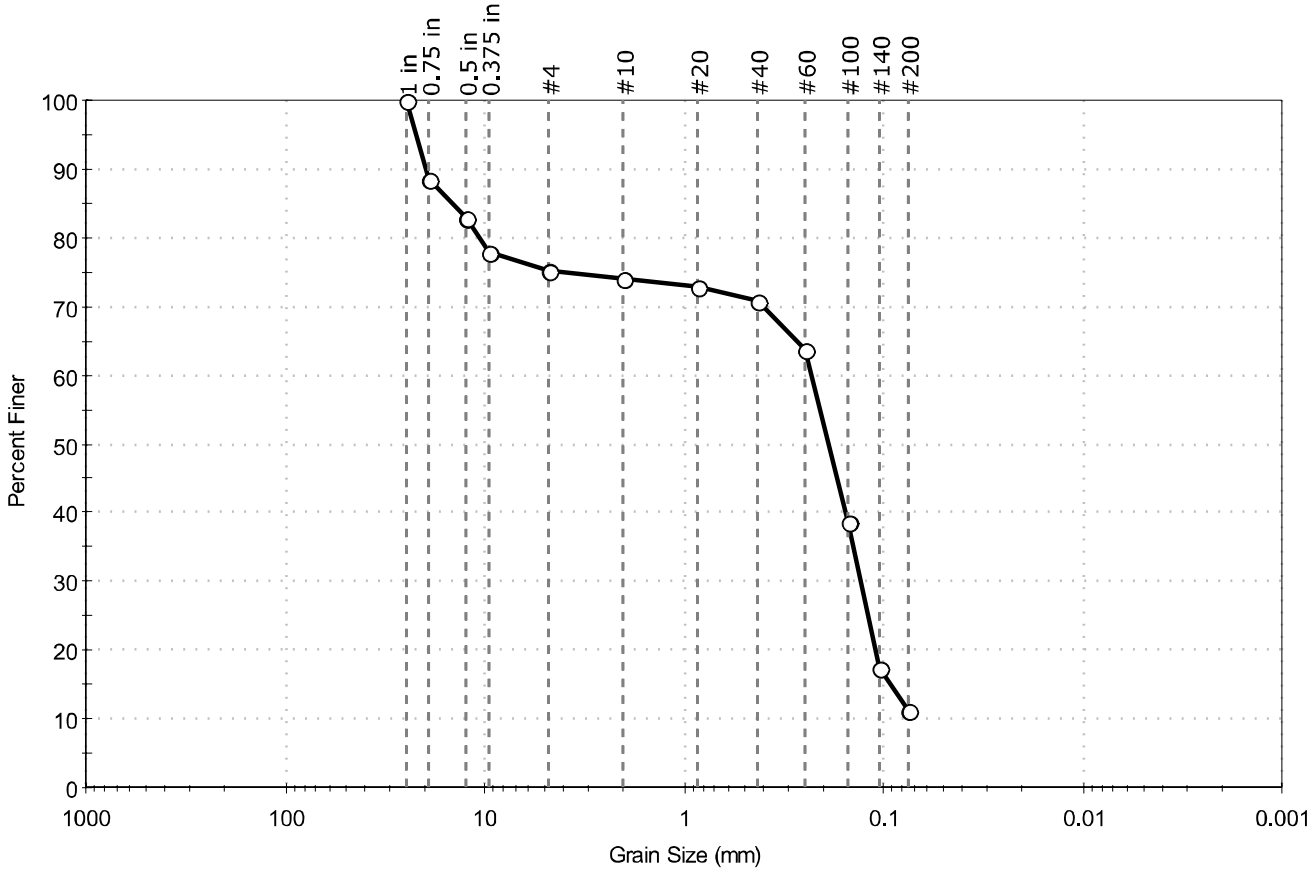
Sand/Gravel Hardness : HARD

printed 4/26/2022 1:11:52 PM

GeoTesting EXPRESS

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	FDS-03-04122022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664823		
Test Comment:	---				
Visual Description:	Moist, grayish brown sand with silt and gravel				
Sample Comment:	Sample contains shells				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	24.8	64.1	11.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
0.75 in	19.00	89		
0.5 in	12.50	83		
0.375 in	9.50	78		
#4	4.75	75		
#10	2.00	74		
#20	0.85	73		
#40	0.42	71		
#60	0.25	64		
#100	0.15	39		
#140	0.11	18		
#200	0.075	11		

Coefficients

D_{85} =14.6381 mm	D_{30} =0.1300 mm
D_{60} =0.2316 mm	D_{15} =0.0925 mm
D_{50} =0.1888 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

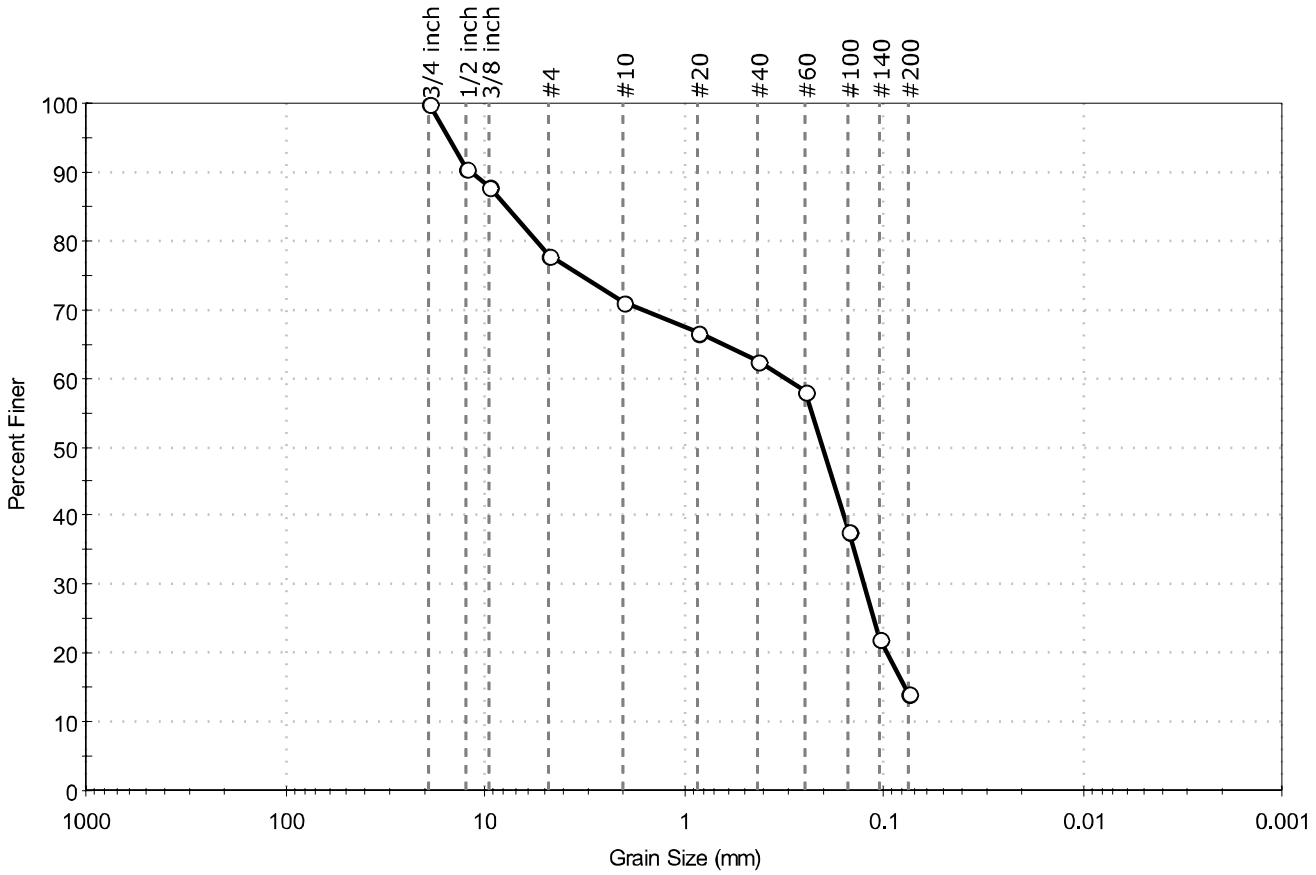
printed 4/26/2022 1:11:53 PM

GeoTesting EXPRESS

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	FDS-04-04122022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664824		

Test Comment: ---
Visual Description: Moist, dark grayish brown silty sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	22.2	63.7	14.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	91		
3/8 inch	9.50	88		
#4	4.75	78		
#10	2.00	71		
#20	0.85	67		
#40	0.42	63		
#60	0.25	58		
#100	0.15	38		
#140	0.11	22		
#200	0.075	14		

Coefficients

D_{85} = 7.7785 mm D_{30} = 0.1263 mm
D_{60} = 0.3113 mm D_{15} = 0.0780 mm
D_{50} = 0.2039 mm D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

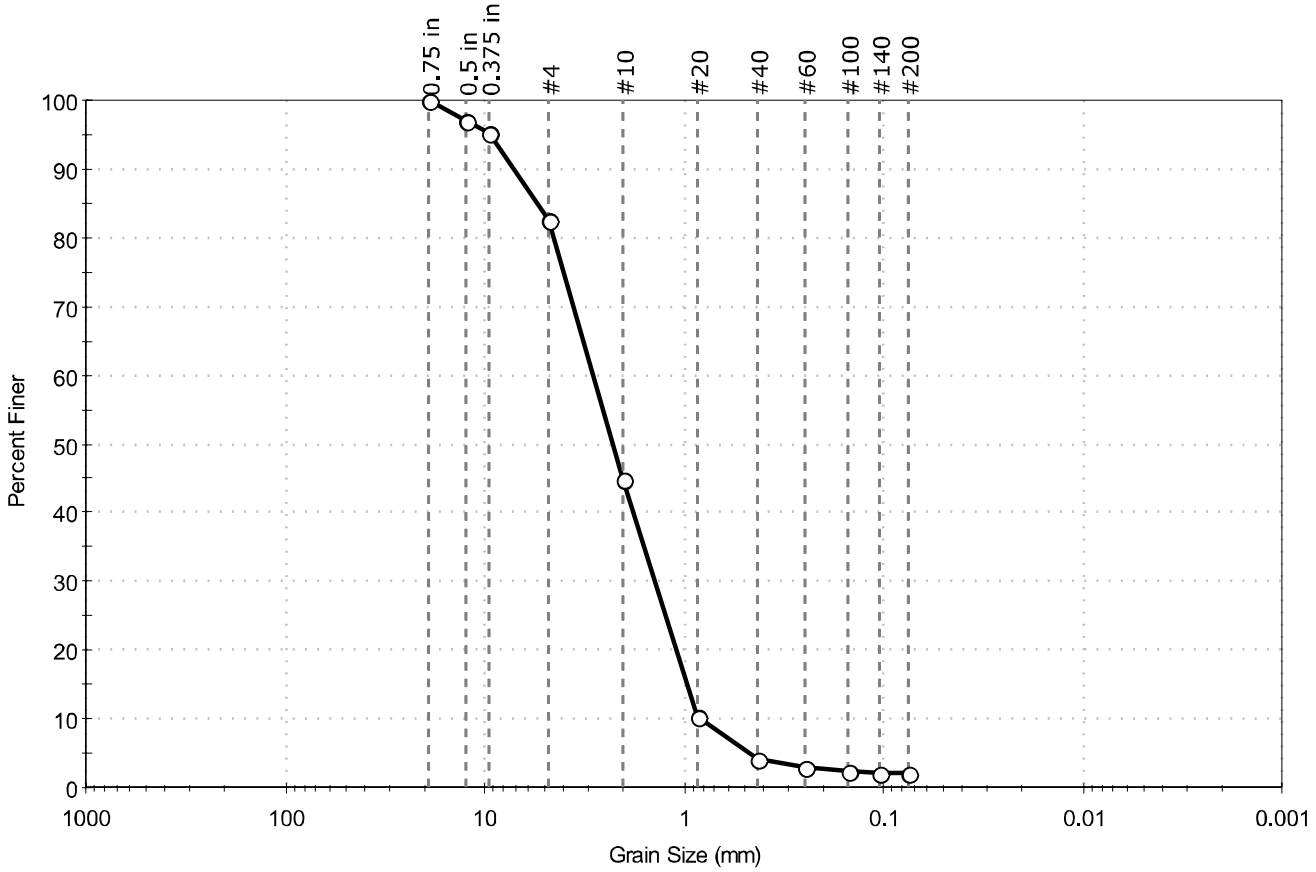
Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD

printed 4/26/2022 1:11:55 PM

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	FDS-05-04122022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664825		
Test Comment:	---				
Visual Description:	Moist, yellowish brown sand with gravel				
Sample Comment:	Sample is primarily shells				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	17.4	80.5	2.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	97		
0.375 in	9.50	95		
#4	4.75	83		
#10	2.00	45		
#20	0.85	10		
#40	0.42	4		
#60	0.25	3		
#100	0.15	2		
#140	0.11	2		
#200	0.075	2.1		

Coefficients

D_{85} = 5.4211 mm D_{30} = 1.3856 mm

D_{60} = 2.8346 mm D_{15} = 0.9542 mm

D_{50} = 2.2549 mm D_{10} = 0.8170 mm

C_u = 3.470 C_c = 0.829

Classification

ASTM Poorly graded SAND with Gravel (SP)

AASHTO Stone Fragments, Gravel and Sand (A-1-a (1))

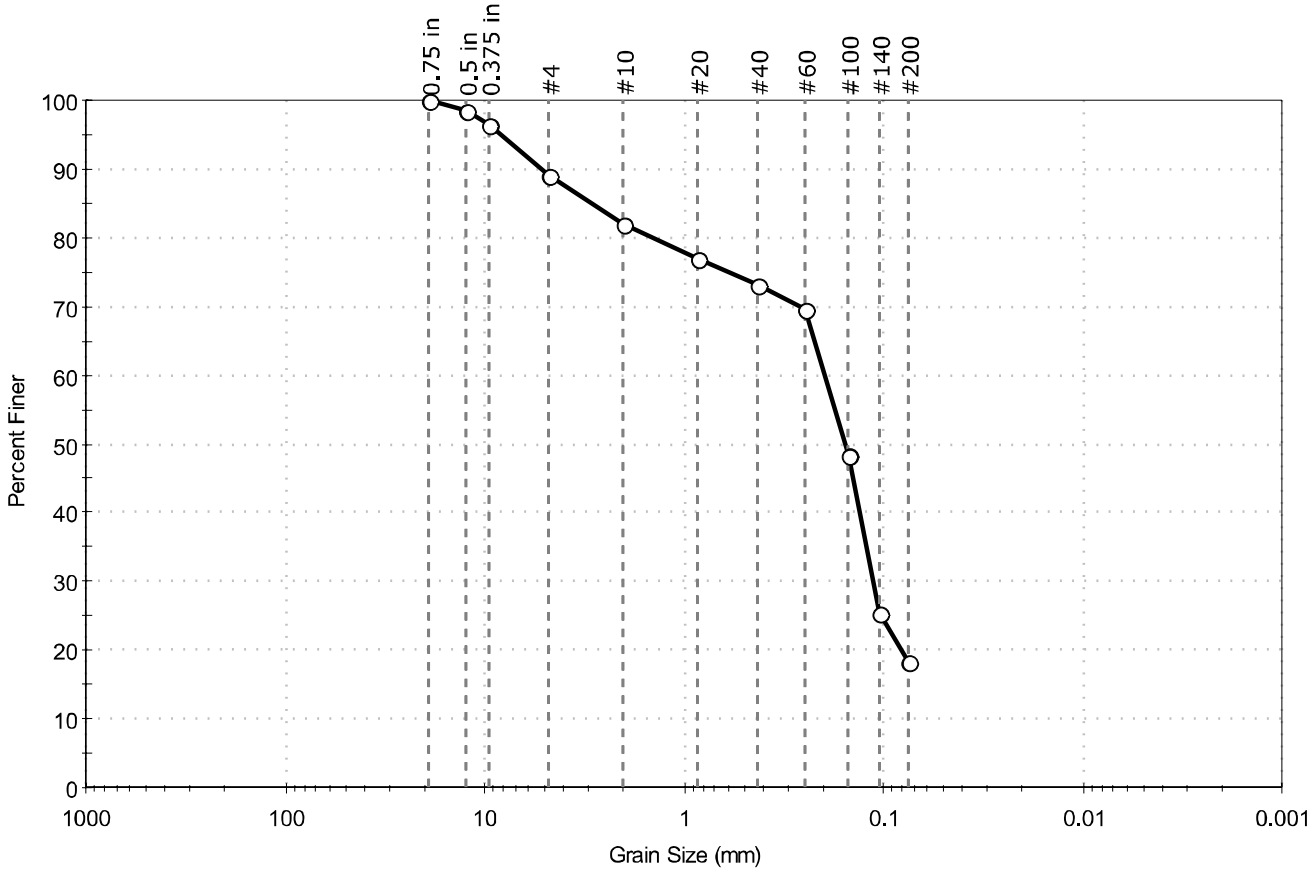
Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	FDS-06-04122022	Test Date:	04/26/22	Checked By:	bfs
Depth :	---	Test Id:	664826		
Test Comment:	---				
Visual Description:	Moist, olive brown silty sand				
Sample Comment:	Sample contains shells				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	10.9	70.9	18.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	99		
0.375 in	9.50	96		
#4	4.75	89		
#10	2.00	82		
#20	0.85	77		
#40	0.42	73		
#60	0.25	70		
#100	0.15	48		
#140	0.11	25		
#200	0.075	18		

Coefficients

D_{85} = 2.8657 mm D_{30} = 0.1135 mm

D_{60} = 0.1982 mm D_{15} = N/A

D_{50} = 0.1556 mm D_{10} = N/A

C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

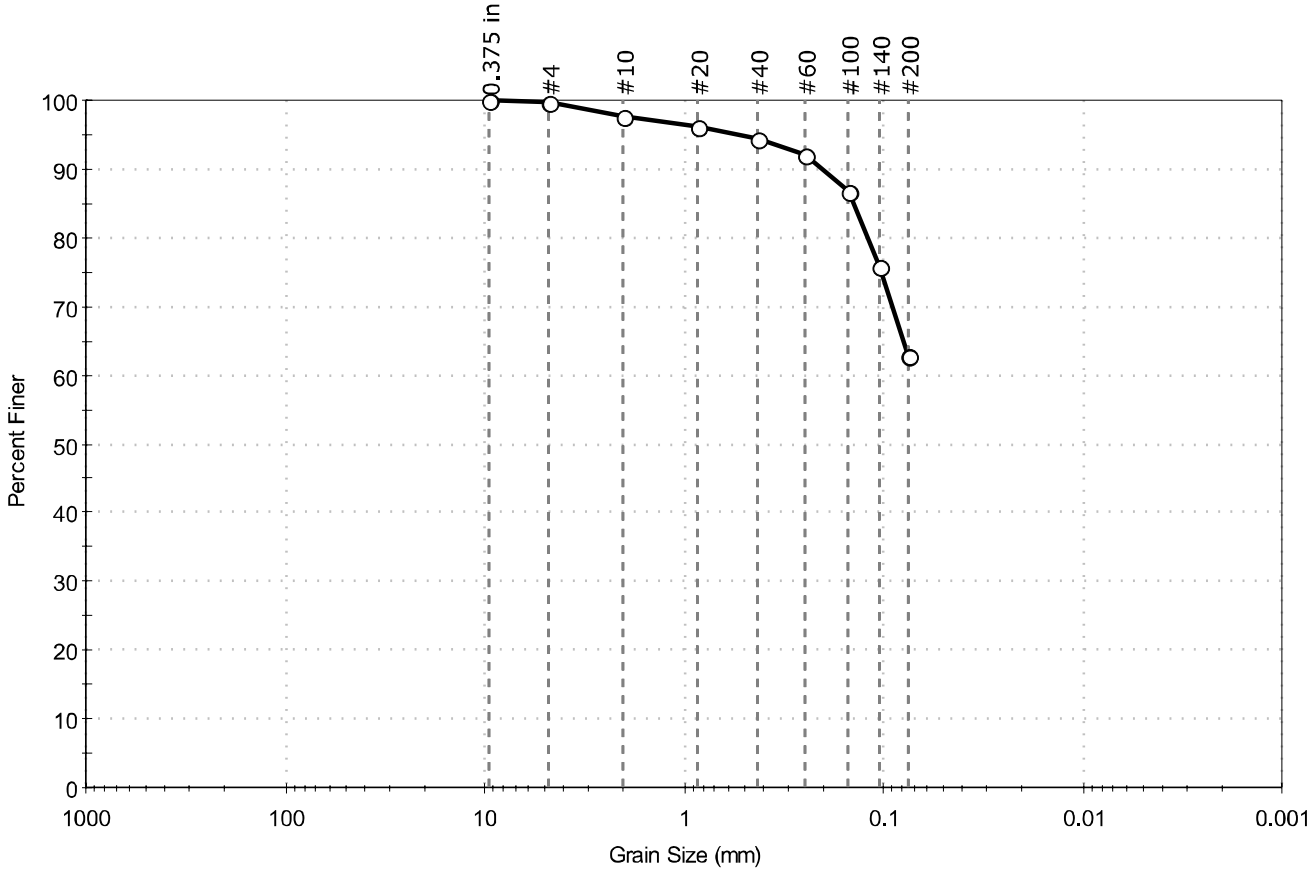
printed 4/26/2022 1:11:56 PM

GeoTesting EXPRESS

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	FIDS-01-04132022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664832		

Test Comment: ---
Visual Description: Moist, dark gray sandy silt
Sample Comment: Removed one unrepresentative 2" rock

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.4	36.6	63.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	100		
#10	2.00	98		
#20	0.85	96		
#40	0.42	94		
#60	0.25	92		
#100	0.15	87		
#140	0.11	76		
#200	0.075	63		

Coefficients

D_{85} = 0.1423 mm	D_{30} = N/A
D_{60} = N/A	D_{15} = N/A
D_{50} = N/A	D_{10} = N/A
C_u = N/A	C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

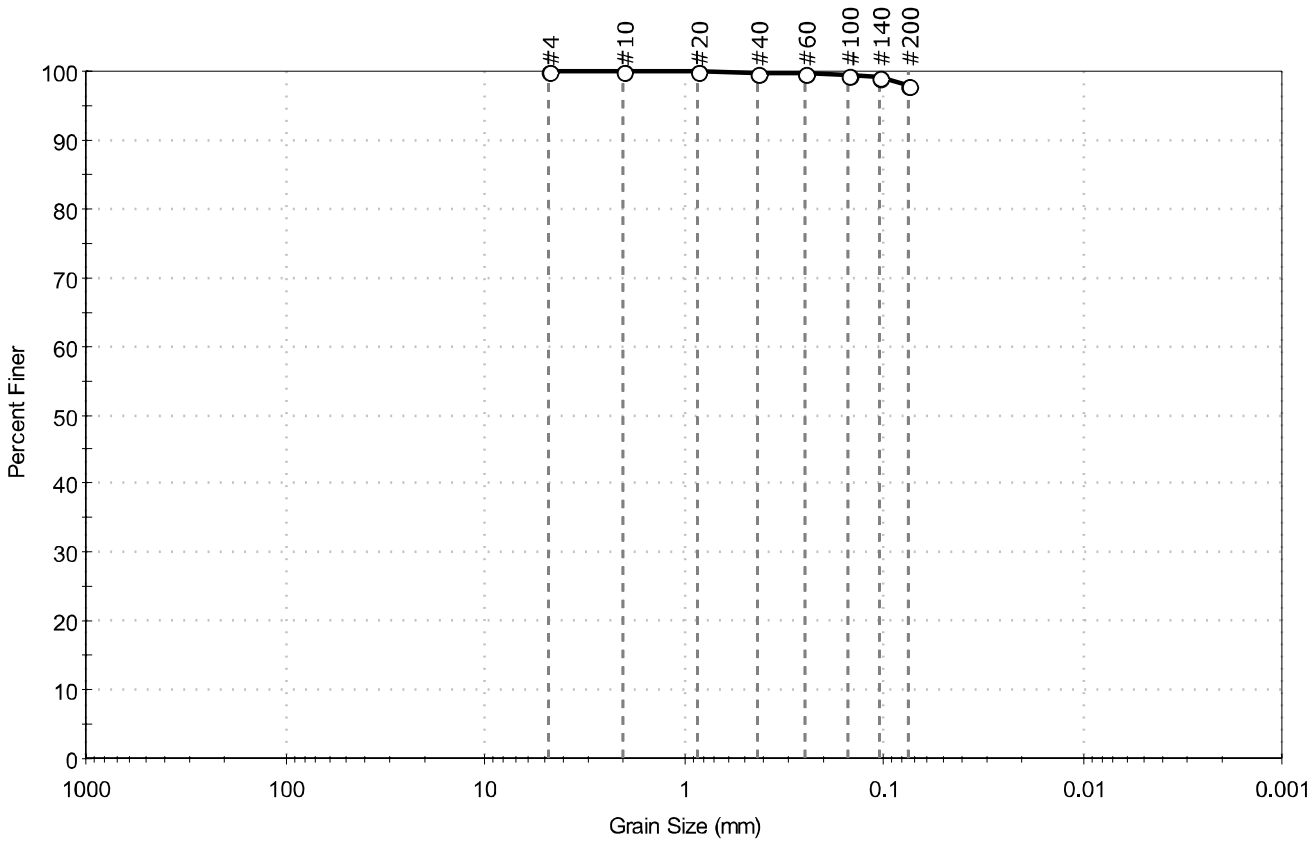
printed 4/26/2022 1:11:57 PM

GeoTesting EXPRESS

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	FIDS-02-04132022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664830		

Test Comment: ---
Visual Description: Moist, dark grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	0.0	2.1	97.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	98		

Coefficients

D_{85} = N/A D_{30} = N/A
D_{60} = N/A D_{15} = N/A
D_{50} = N/A D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

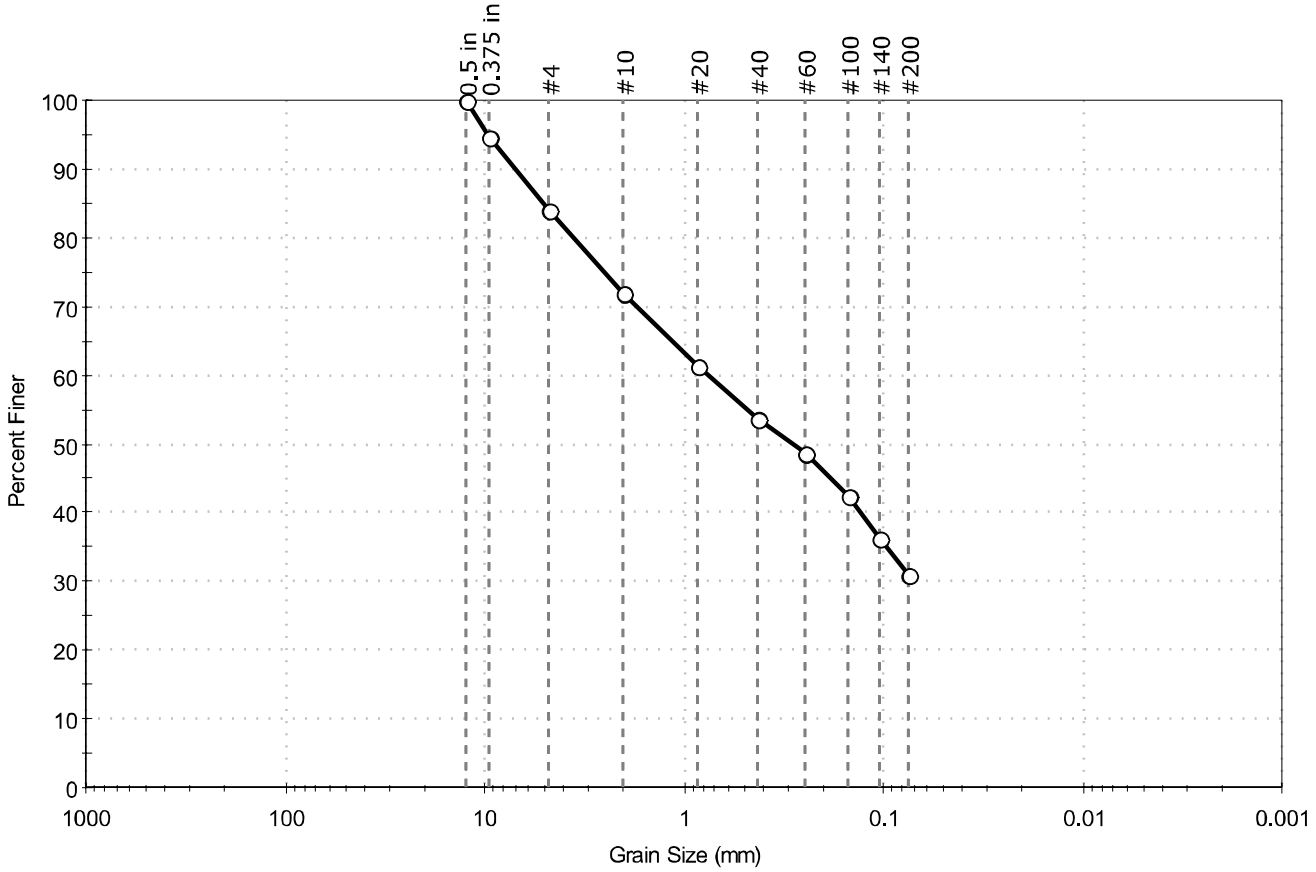
printed 4/26/2022 1:11:58 PM

GeoTesting EXPRESS

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	FIDS-03-04132022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664829		

Test Comment: ---
Visual Description: Moist, very dark grayish brown silty sand with gravel
Sample Comment: Sample contains shells

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	15.9	53.2	30.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	95		
#4	4.75	84		
#10	2.00	72		
#20	0.85	61		
#40	0.42	54		
#60	0.25	49		
#100	0.15	42		
#140	0.11	36		
#200	0.075	31		

Coefficients

D_{85} = 5.0494 mm D_{30} = N/A
D_{60} = 0.7474 mm D_{15} = N/A
D_{50} = 0.2888 mm D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD

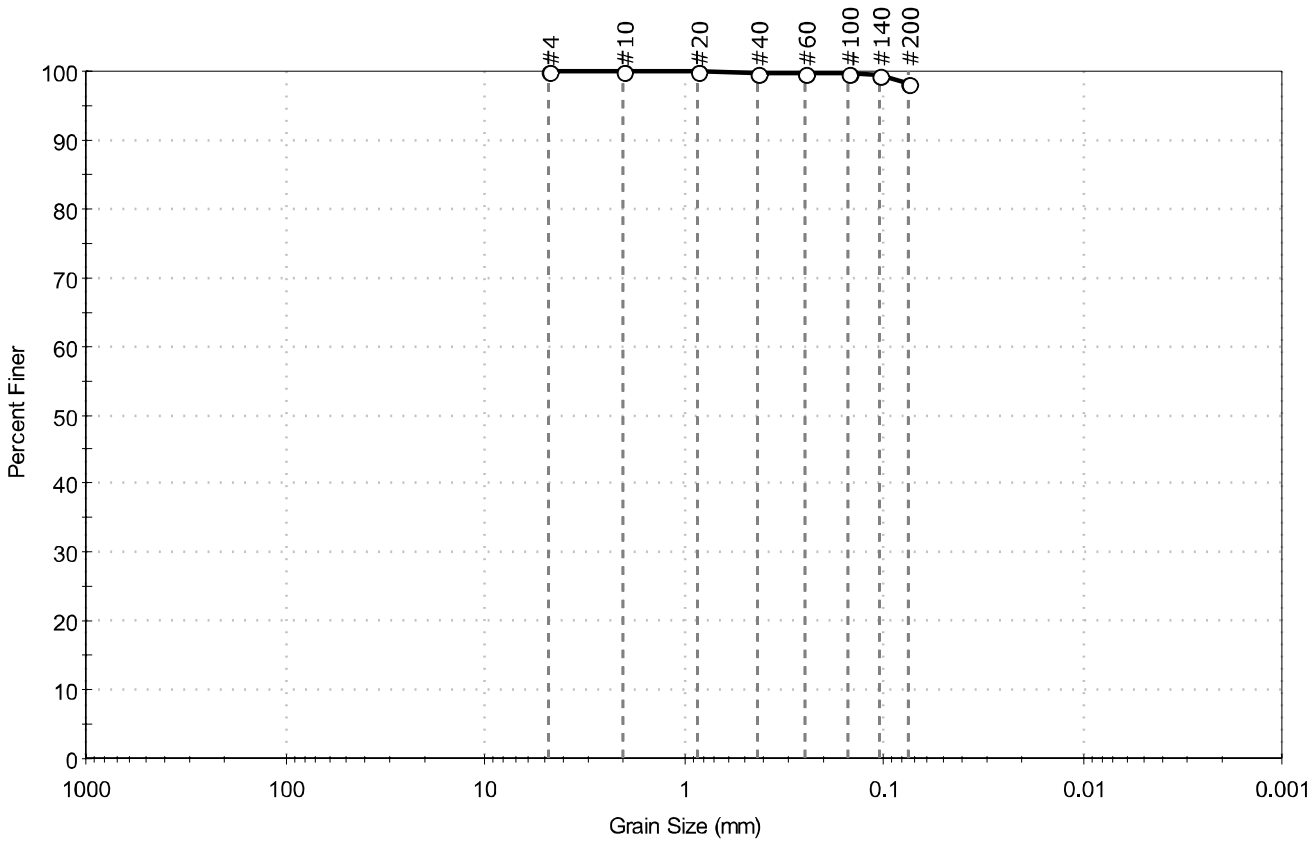
printed 4/26/2022 1:11:59 PM

GeoTesting EXPRESS

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	FIDS-04-04132022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664831		

Test Comment: ---
Visual Description: Moist, very dark gray silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	0.0	1.7	98.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	98		

Coefficients

D_{85} = N/A D_{30} = N/A
D_{60} = N/A D_{15} = N/A
D_{50} = N/A D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

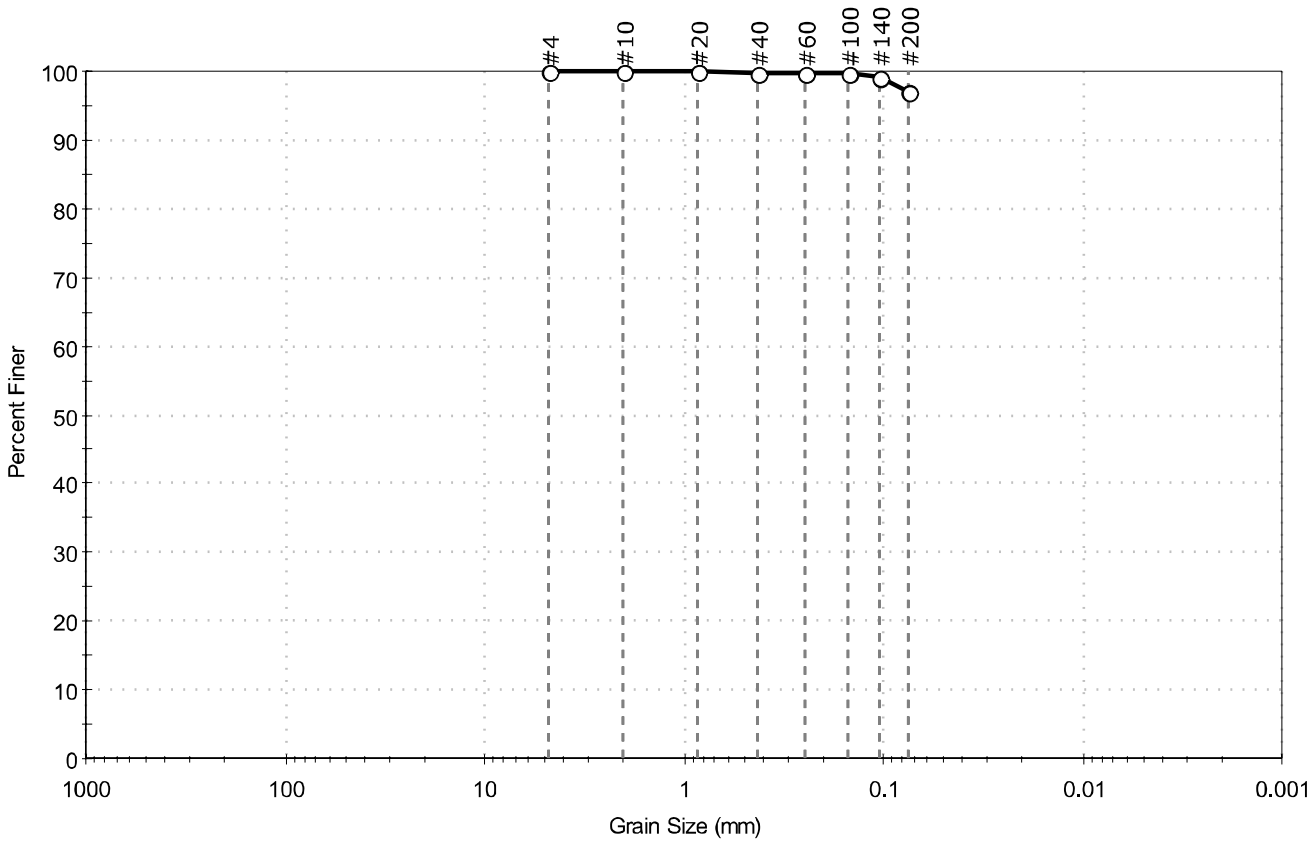
Sand/Gravel Hardness : ---

printed 4/26/2022 1:12:00 PM

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	FIDS-05-04132022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664827		

Test Comment: ---
Visual Description: Moist, very dark gray silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	0.0	2.8	97.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	97		

Coefficients

D_{85} = N/A D_{30} = N/A
D_{60} = N/A D_{15} = N/A
D_{50} = N/A D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

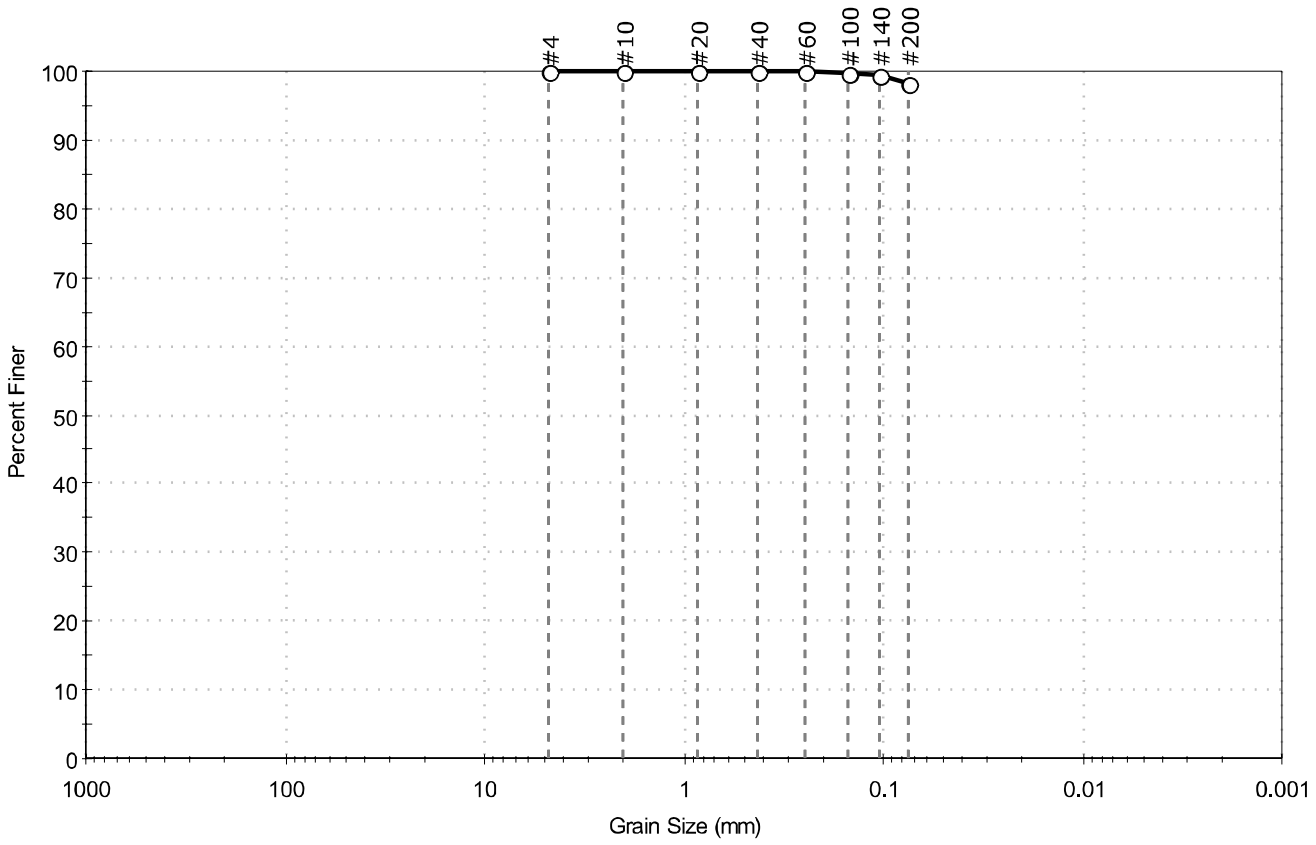
Sand/Gravel Hardness : ---

GeoTesting EXPRESS

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	FIDS-06-04132022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664828		

Test Comment: ---
Visual Description: Moist, dark gray silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	0.0	1.7	98.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	98		

Coefficients

D_{85} = N/A D_{30} = N/A
D_{60} = N/A D_{15} = N/A
D_{50} = N/A D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

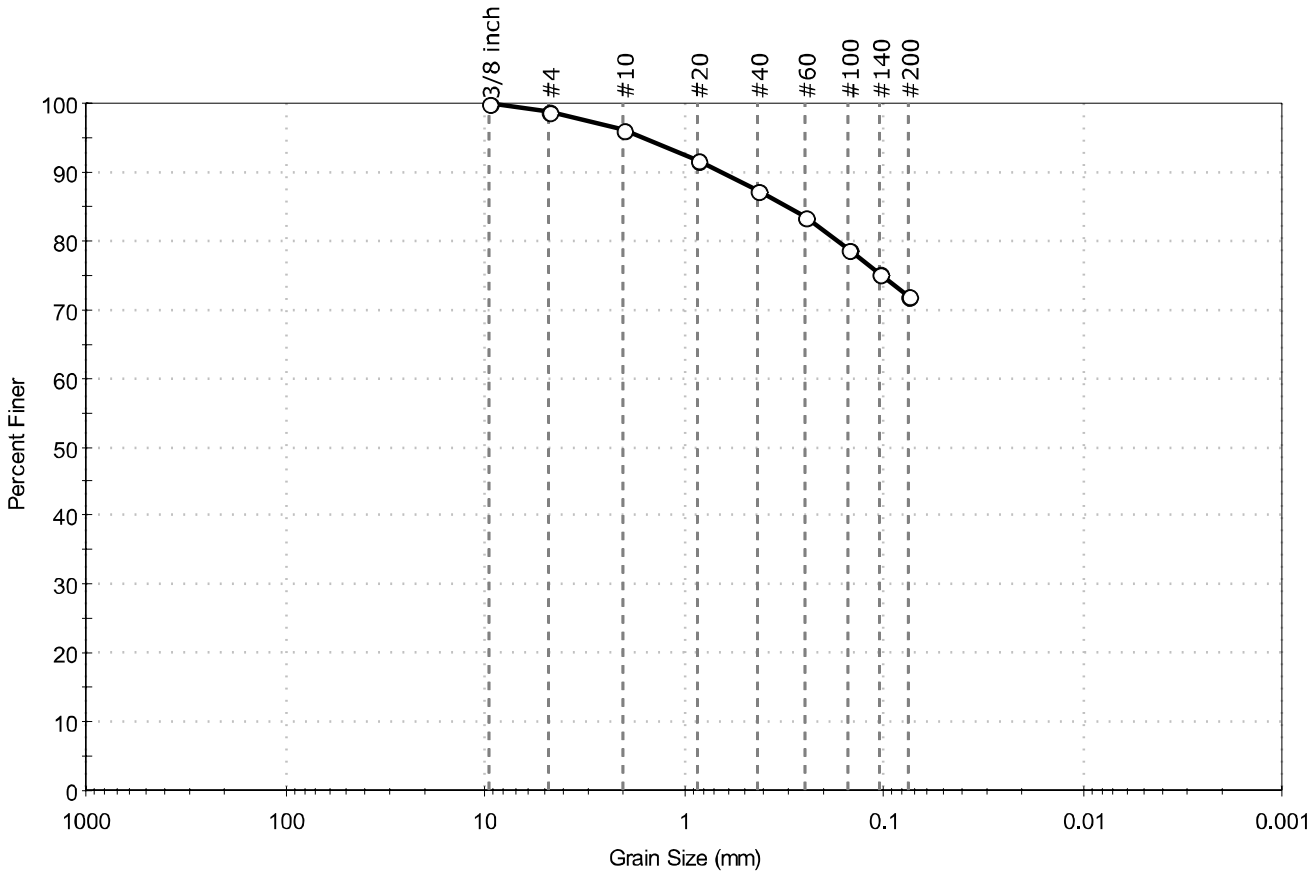
Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	SHIDS-01-04112022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664817		

Test Comment: ---
Visual Description: Moist, very dark grayish brown silt with sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	1.3	26.7	72.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8 inch	9.50	100		
#4	4.75	99		
#10	2.00	96		
#20	0.85	92		
#40	0.42	87		
#60	0.25	84		
#100	0.15	79		
#140	0.11	75		
#200	0.075	72		

Coefficients

D_{85} = 0.3055 mm D_{30} = N/A
D_{60} = N/A D_{15} = N/A
D_{50} = N/A D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

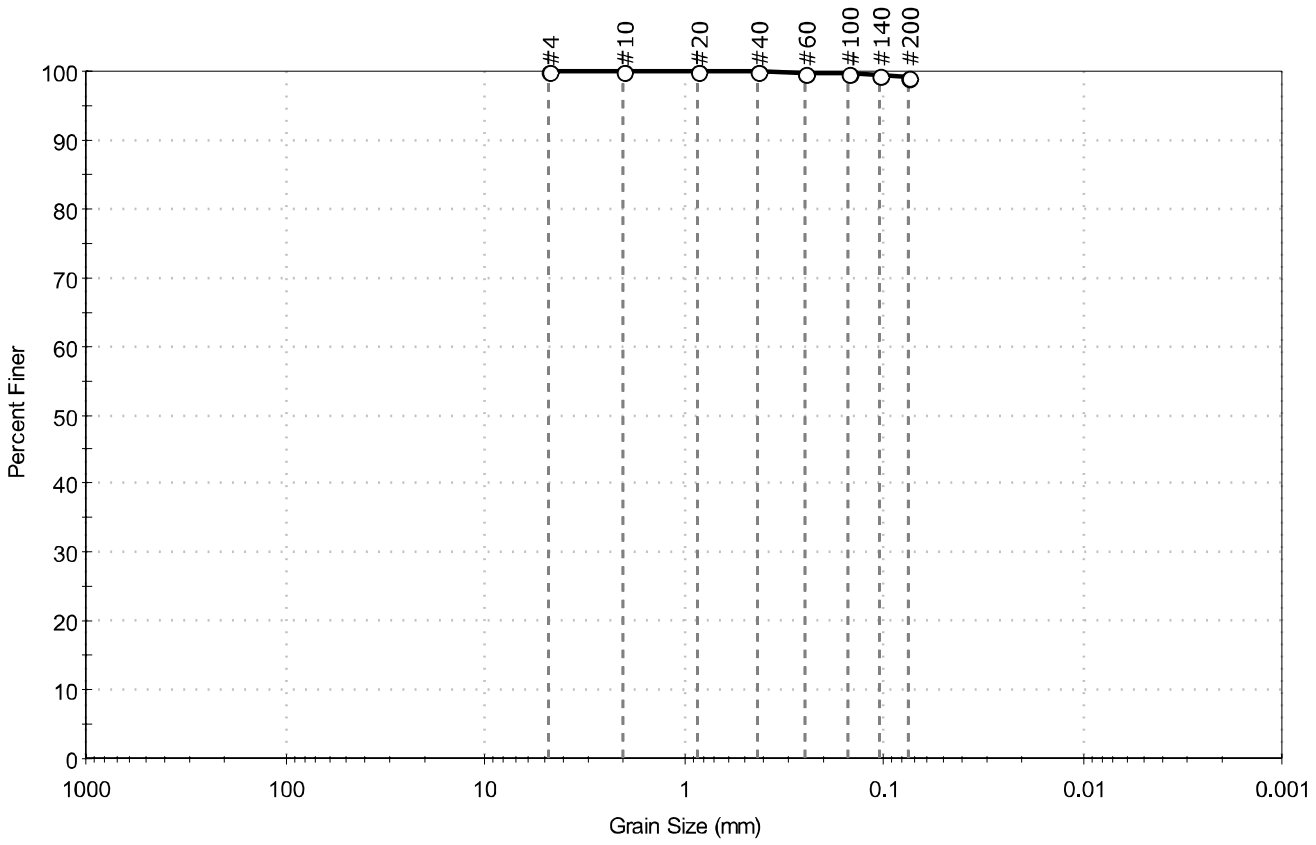
Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

printed 4/26/2022 1:12:02 PM

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	SHIDS-02-04112022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664819		
Test Comment:	---				
Visual Description:	Moist, very dark gray silt				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	0.0	0.9	99.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	99		

Coefficients

D_{85} = N/A D_{30} = N/A
D_{60} = N/A D_{15} = N/A
D_{50} = N/A D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

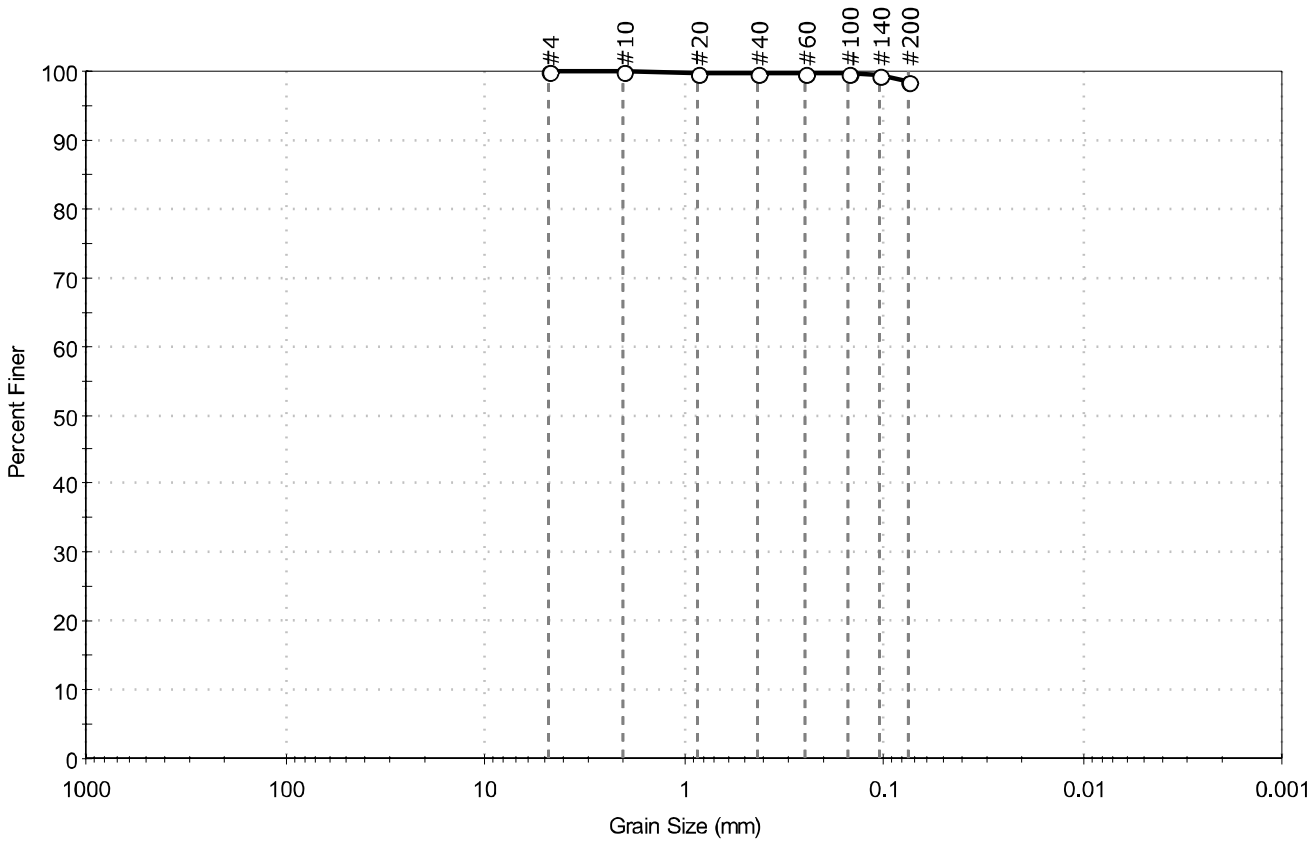
Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

printed 4/26/2022 1:12:03 PM

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	SHIDS-03-04112022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664818		
Test Comment:	---				
Visual Description:	Moist, dark gray silt				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	0.0	1.4	98.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	99		

Coefficients

D_{85} = N/A D_{30} = N/A
D_{60} = N/A D_{15} = N/A
D_{50} = N/A D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

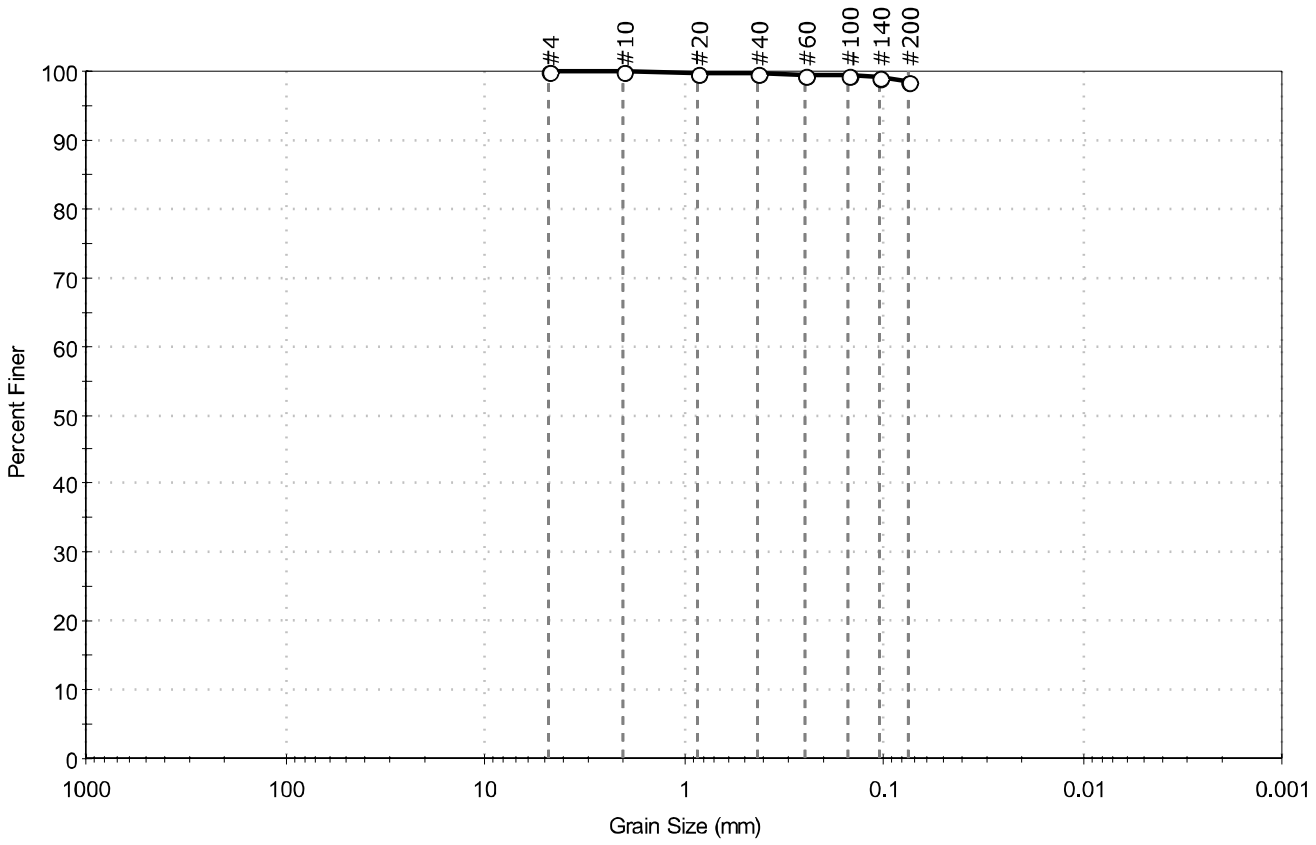
Sand/Gravel Hardness : ---

printed 4/26/2022 1:12:04 PM

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	SHIDS-04-04112022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664820		

Test Comment: ---
Visual Description: Moist, dark grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	0.0	1.5	98.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	99		
#200	0.075	98		

Coefficients

D_{85} = N/A D_{30} = N/A
D_{60} = N/A D_{15} = N/A
D_{50} = N/A D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

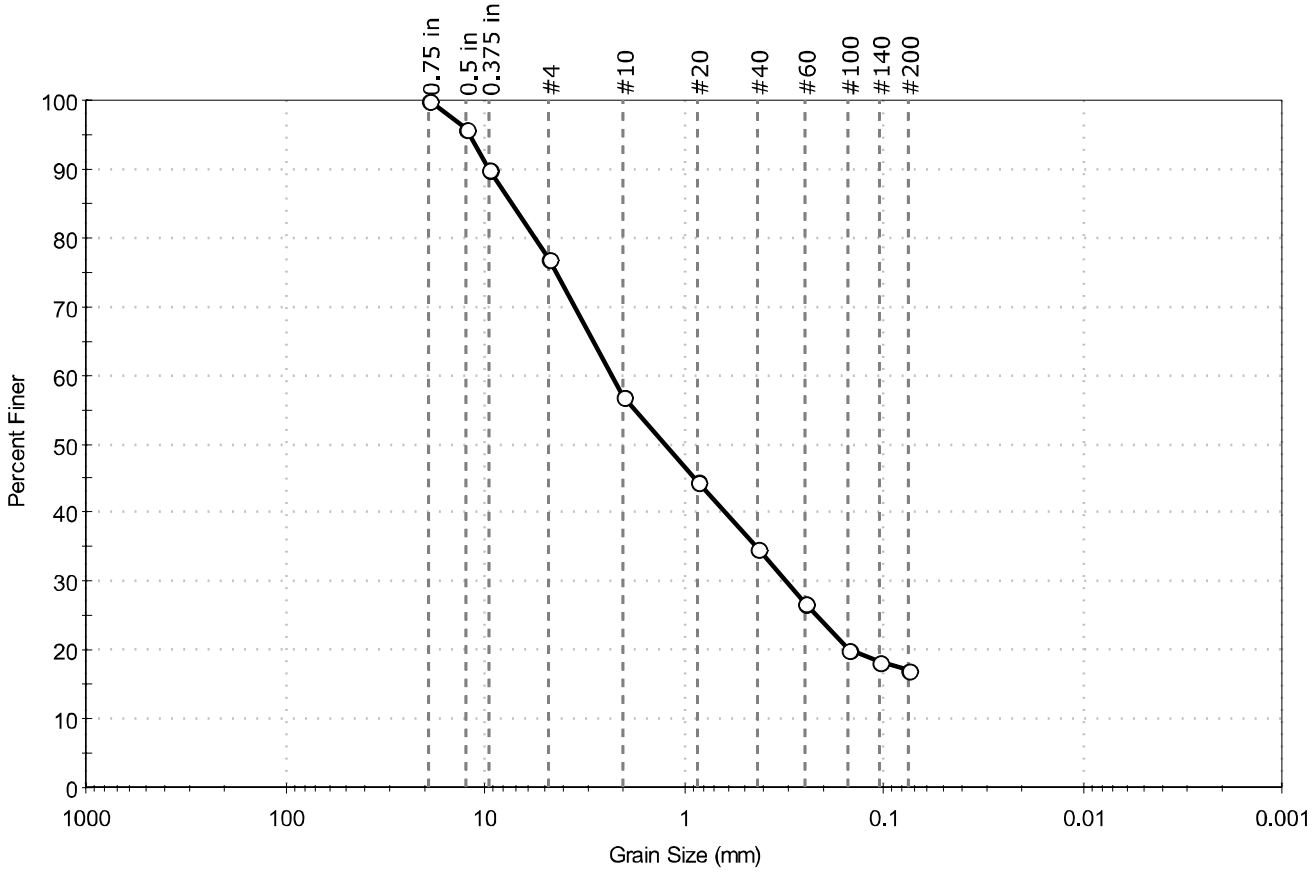
Sand/Gravel Hardness : ---

printed 4/26/2022 1:12:05 PM

GeoTesting EXPRESS

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	SHIDS-05-04112022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664816		
Test Comment:	---				
Visual Description:	Moist, dark gray brown silty sand with gravel				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	22.8	59.9	17.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	96		
0.375 in	9.50	90		
#4	4.75	77		
#10	2.00	57		
#20	0.85	45		
#40	0.42	35		
#60	0.25	27		
#100	0.15	20		
#140	0.11	18		
#200	0.075	17		

Coefficients

D_{85} = 7.3002 mm D_{30} = 0.3089 mm
D_{60} = 2.2698 mm D_{15} = N/A
D_{50} = 1.2310 mm D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

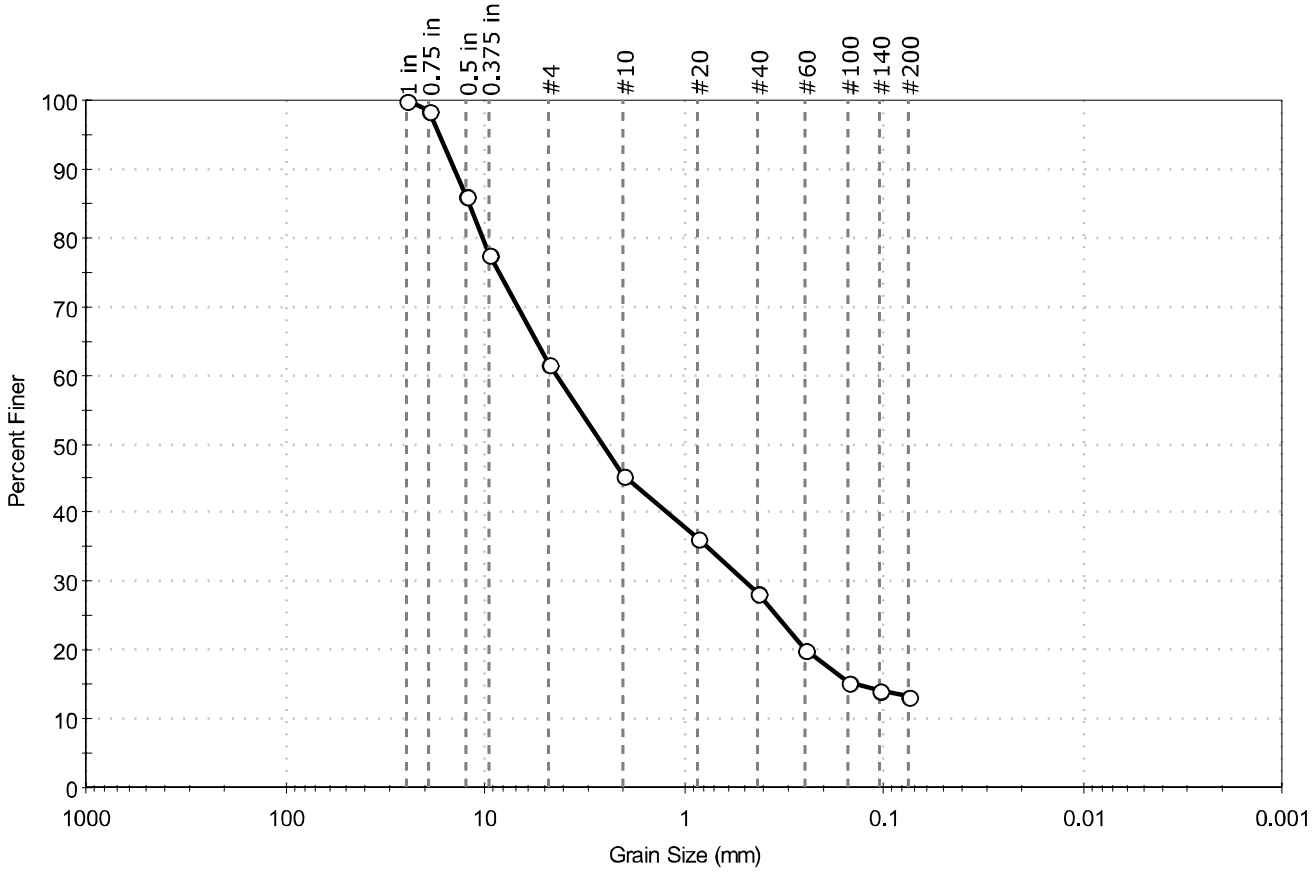
Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

printed 4/26/2022 1:12:06 PM

Client:	AECOM				
Project:	USACE - DAMOS Downeast				
Location:	St. Helena, ME			Project No:	GTX-315359
Boring ID:	---	Sample Type:	bag	Tested By:	ckg
Sample ID:	SHIDS-06-04112022	Test Date:	04/22/22	Checked By:	bfs
Depth :	---	Test Id:	664815		
Test Comment:	---				
Visual Description:	Moist, dark gray silty sand with gravel				
Sample Comment:	Sample contains shells				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	38.3	48.5	13.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
0.75 in	19.00	98		
0.5 in	12.50	86		
0.375 in	9.50	78		
#4	4.75	62		
#10	2.00	45		
#20	0.85	36		
#40	0.42	28		
#60	0.25	20		
#100	0.15	15		
#140	0.11	14		
#200	0.075	13		

Coefficients

D_{85} = 12.0867 mm D_{30} = 0.4920 mm

D_{60} = 4.3389 mm D_{15} = 0.1388 mm

D_{50} = 2.5623 mm D_{10} = N/A

C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-a (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

AECOM

CHAIN OF CUSTODY RECORD

Client/Project Name: USACE - DAMOS Downeast

Project Location: Frenchboro, Flake Island, St. Helena, Maine

Project Number: 60666455

Field Logbook No.:

Sampler (Print Name)/(Affiliation): Briley Barra / AECOM

Chain of Custody Tape Nos.:

Signature: Briley Barra

Send Results/Report to: Ryan.McCarthye aecom.com

TAT: Standard

Analysis Requested

Container Type	Preservation
P – Plastic	1 – HCl, 4°
A – Amber Glass	2 – H2SO4, 4°
G – Clear Glass	3 – HNO3, 4°
V – VOA Vial	4 – NaOH, 4°
O – Other	5 – NaOH/ZnAc, 4°
E – Encore	6 – Na2S2O3, 4°
	7 – 4°

Matrix Codes:

DW – Drinking Water	S – Soil
WW – Wastewater	SL – Sludge
GW – Groundwater	SD – Sediment
SW – Surface Water	SO – Solid
ST – Storm Water	A – Air
W – Water	L – Liquid
	P – Product

Field Sample No./Identification	Date	Time	COMP	GRAB	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Grain Size										Lab I.D.	Remarks
SHIDS-06-04112022	04/11/22	1505		X	1g ziplock	SED	—	—	X											
SHIDS-05-04112022	04/11/22	1514		X	↓	SED	—	—	X											
SHIDS-01-04112022	04/11/22	1527		X		SED	—	—	X											
SHIDS-03-04112022	04/11/22	1548		X		SED	—	—	X											
SHIDS-02-04112022	04/11/22	1538		X		SED	—	—	X											
SHIDS-04-04112022	04/11/22	1557		X		SED	—	—	X											
FDS-02-04122022	04/12/22	1528		X		SED	—	—	X											
FDS-01-04122022	04/12/22	1546		X		SED	—	—	X											
FDS-03-04122022	04/12/22	1558		X		SED	—	—	X											
FDS-04-04122022	04/12/22	1608		X		SED	—	—	X											
FDS-05-04122022	04/12/22	1617		X		SED	—	—	X											
FDS-06-04122022	04/12/22	1628		X		SED	—	—	X											
FIDS-05-04132022	04/13/22	1317		X	↓	SED	—	—	X											

Relinquished by: (Print Name)/(Affiliation)	Date/Time	Received by: (Print Name)/(Affiliation)	Date/Time	Analytical Laboratory (Destination):
Briley Barra AECOM Signature: Briley Barra	Date: 04/19/22 Time: 1500	Haley Eiben AECOM Signature: Haley Eiben	Date: 04/19/22 Time: 1512	
Haley Eiben AECOM Signature: Haley Eiben	Date: 04/19/22 Time: 1703	Shannon Piecuch GTX Signature: Shannon Piecuch	Date: 4/19/22 Time: 5:00	
Relinquished by: (Print Name)/(Affiliation) Signature:	Date: Time:	Received by: (Print Name)/(Affiliation) Signature:	Date: Time:	Sample Shipped Via: UPS FedEx Courier Other Temp blank: Yes No

White: Original (to Lab) Yellow: Lab Pink: Sampler

Serial No. № 5851

AECOM

CHAIN OF CUSTODY RECORD

Client/Project Name: USACE- DAMOS Downeast

Project Location: Frenchboro, Flake Island, St. Helena, Maine

Project Number: 60666455

Field Logbook No.:

Sampler (Print Name)/(Affiliation): Briley Barra / AECOM

Chain of Custody Tape Nos.:

Signature: Briley Barra

Send Results/Report to: Ryan.mccarthy@aecom.com

TAT: Standard

Analysis Requested: Grain Size

Container Type: P – Plastic; A – Amber Glass; G – Clear Glass; V – VOA Vial; O – Other; E – Encore

Preservation: 1 – HCl, 4°; 2 – H2SO4, 4°; 3 – HNO3, 4°; 4 – NaOH, 4°; 5 – NaOH/ZnAc, 4°; 6 – Na2S2O3, 4°; 7 – 4°

Matrix Codes: DW – Drinking Water; WW – Wastewater; GW – Groundwater; SW – Surface Water; ST – Storm Water; W – Water; S – Soil; SL – Sludge; SD – Sediment; SO – Solid; A – Air; L – Liquid; P – Product

Field Sample No./Identification	Date	Time	COMP	GRAB	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Grain Size	Lab I.D.	Remarks
FIDS-06-04132022	04/13/22	1328		X	1g ziplock	SED	—	—	X		
FIDS-03-04132022	04/13/22	1352		X		SED	—	—	X		
FIDS-02-04132022	04/13/22	1400		X		SED	—	—	X		
FIDS-04-04132022	04/13/22	1343		X		SED	—	—	X		
FIDS-01-04132022	04/13/22	1415		X		SED	—	—	X		

BB 04/19/22

Relinquished by: (Print Name)/(Affiliation) Briley Barra AECOM
Signature: Briley Barra
Date: 04/19/22 Time: 1500

Received by: (Print Name)/(Affiliation) Haley Eiben AECOM
Signature: Haley Eiben
Date: 04/19/22 Time: 1518

Relinquished by: (Print Name)/(Affiliation) Haley Eiben AECOM
Signature: Haley Eiben
Date: 04/19/22 Time: 1703

Received by: (Print Name)/(Affiliation) Shannon Piecuch GTX
Signature: Shannon Piecuch
Date: 4/19/22 Time: 5:00

Relinquished by: (Print Name)/(Affiliation)
Signature:
Date: Time:

Received by: (Print Name)/(Affiliation)
Signature:
Date: Time:

Analytical Laboratory (Destination):

Sample Shipped Via: UPS FedEx Courier Other

Temp blank: Yes No

GeoTesting EXPRESS

WARRANTY and LIABILITY

GeoTesting Express (GTX) warrants that all tests it performs are run in general accordance with the specified test procedures and accepted industry practice. GTX will correct or repeat any test that does not comply with this warranty. GTX has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material.

GTX may report engineering parameters that require us to interpret the test data. Such parameters are determined using accepted engineering procedures. However, GTX does not warrant that these parameters accurately reflect the true engineering properties of the *in situ* material. Responsibility for interpretation and use of the test data and these parameters for engineering and/or construction purposes rests solely with the user and not with GTX or any of its employees.

GTX's liability will be limited to correcting or repeating a test which fails our warranty. GTX's liability for damages to the Purchaser of testing services for any cause whatsoever shall be limited to the amount GTX received for the testing services. GTX will not be liable for any damages, or for any lost benefits or other consequential damages resulting from the use of these test results, even if GTX has been advised of the possibility of such damages. GTX will not be responsible for any liability of the Purchaser to any third party.

Commonly Used Symbols

A	pore pressure parameter for $\Delta\sigma_1 - \Delta\sigma_3$
B	pore pressure parameter for $\Delta\sigma_3$
CAI	CERCHAR Abrasiveness Index
CIU	isotropically consolidated undrained triaxial shear test
CR	compression ratio for one dimensional consolidation
CSR	cyclic stress ratio
C_c	coefficient of curvature, $(D_{30})^2 / (D_{10} \times D_{60})$
C_u	coefficient of uniformity, D_{60}/D_{10}
C_c	compression index for one dimensional consolidation
C_α	coefficient of secondary compression
c_v	coefficient of consolidation
c	cohesion intercept for total stresses
c'	cohesion intercept for effective stresses
D	diameter of specimen
D	damping ratio
D_{10}	diameter at which 10% of soil is finer
D_{15}	diameter at which 15% of soil is finer
D_{30}	diameter at which 30% of soil is finer
D_{50}	diameter at which 50% of soil is finer
D_{60}	diameter at which 60% of soil is finer
D_{85}	diameter at which 85% of soil is finer
d_{50}	displacement for 50% consolidation
d_{90}	displacement for 90% consolidation
d_{100}	displacement for 100% consolidation
E	Young's modulus
e	void ratio
e_c	void ratio after consolidation
e_o	initial void ratio
G	shear modulus
G_s	specific gravity of soil particles
H	height of specimen
H_R	Rebound Hardness number
i	gradient
I_S	Uncorrected point load strength
$I_{S(50)}$	Size corrected point load strength index
H_A	Modified Taber Abrasion
H_T	Total hardness
K_o	lateral stress ratio for one dimensional strain
k	permeability
LI	Liquidity Index
m_v	coefficient of volume change
n	porosity
PI	plasticity index
P_c	preconsolidation pressure
p	$(\sigma_1 + \sigma_3) / 2$, $(\sigma_v + \sigma_h) / 2$
p'	$(\sigma'_1 + \sigma'_3) / 2$, $(\sigma'_v + \sigma'_h) / 2$
p'_c	p' at consolidation
Q	quantity of flow
q	$(\sigma_1 - \sigma_3) / 2$
q_f	q at failure
q_o, q_i	initial q
q_c	q at consolidation
S_r	Post cyclic undrained shear strength
T	temperature
t	time
U, UC	unconfined compression test
UU, Q	unconsolidated undrained triaxial test
u_a	pore gas pressure
u_e	excess pore water pressure
u, u_w	pore water pressure
V	total volume
V_g	volume of gas
V_s	volume of solids
V_s	shear wave velocity
V_v	volume of voids
V_w	volume of water
V_o	initial volume
v	velocity
W	total weight
W_s	weight of solids
W_w	weight of water
w	water content
w_c	water content at consolidation
w_f	final water content
w_l	liquid limit
w_n	natural water content
w_p	plastic limit
w_s	shrinkage limit
w_o, w_i	initial water content
α	slope of q_f versus p_f
α'	slope of q_f versus p_f'
γ_t	total unit weight
γ_d	dry unit weight
γ_s	unit weight of solids
γ_w	unit weight of water
ε	strain
ε_{vol}	volume strain
ε_h, ε_v	horizontal strain, vertical strain
μ	Poisson's ratio, also viscosity
σ	normal stress
σ'	effective normal stress
σ_c, σ'_c	consolidation stress in isotropic stress system
σ_h, σ'_h	horizontal normal stress
σ_v, σ'_v	vertical normal stress
σ'_{vc}	Effective vertical consolidation stress
σ_1	major principal stress
σ_2	intermediate principal stress
σ_3	minor principal stress
τ	shear stress
φ	friction angle based on total stresses
φ'	friction angle based on effective stresses
φ'_r	residual friction angle
φ_{ult}	φ for ultimate strength

Appendix C

Underwater Video Data

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-01	287705.29	52076.33	15:23:05	4/11/2022	bottom not in view	camera on deck
SHIDS-01	287705.26	52076.36	15:23:05	4/11/2022	bottom not in view	
SHIDS-01	287705.12	52076.43	15:23:06	4/11/2022	bottom not in view	
SHIDS-01	287705.01	52076.64	15:23:07	4/11/2022	bottom not in view	
SHIDS-01	287704.9	52076.79	15:23:08	4/11/2022	bottom not in view	
SHIDS-01	287704.78	52076.89	15:23:09	4/11/2022	bottom not in view	
SHIDS-01	287704.68	52077.11	15:23:10	4/11/2022	bottom not in view	
SHIDS-01	287704.6	52077.27	15:23:11	4/11/2022	bottom not in view	
SHIDS-01	287704.5	52077.43	15:23:12	4/11/2022	bottom not in view	
SHIDS-01	287704.43	52077.65	15:23:13	4/11/2022	bottom not in view	camera passes over rail, now over water
SHIDS-01	287704.32	52077.81	15:23:14	4/11/2022	bottom not in view	
SHIDS-01	287704.26	52078.02	15:23:15	4/11/2022	bottom not in view	
SHIDS-01	287704.2	52078.24	15:23:16	4/11/2022	bottom not in view	
SHIDS-01	287704.1	52078.4	15:23:17	4/11/2022	bottom not in view	
SHIDS-01	287704.04	52078.64	15:23:18	4/11/2022	bottom not in view	
SHIDS-01	287703.99	52078.87	15:23:19	4/11/2022	bottom not in view	
SHIDS-01	287703.91	52079.05	15:23:20	4/11/2022	bottom not in view	
SHIDS-01	287703.86	52079.29	15:23:21	4/11/2022	bottom not in view	
SHIDS-01	287703.8	52079.51	15:23:22	4/11/2022	bottom not in view	camera enters water
SHIDS-01	287703.75	52079.72	15:23:23	4/11/2022	bottom not in view	
SHIDS-01	287703.71	52079.94	15:23:24	4/11/2022	bottom not in view	
SHIDS-01	287703.67	52080.19	15:23:25	4/11/2022	bottom not in view	
SHIDS-01	287703.63	52080.41	15:23:26	4/11/2022	bottom not in view	
SHIDS-01	287703.58	52080.63	15:23:27	4/11/2022	bottom not in view	
SHIDS-01	287703.57	52080.89	15:23:28	4/11/2022	bottom not in view	
SHIDS-01	287703.52	52081.1	15:23:29	4/11/2022	bottom not in view	
SHIDS-01	287703.51	52081.34	15:23:30	4/11/2022	bottom not in view	
SHIDS-01	287703.49	52081.6	15:23:31	4/11/2022	bottom not in view	
SHIDS-01	287703.44	52081.77	15:23:32	4/11/2022	bottom not in view	
SHIDS-01	287703.44	52082.05	15:23:33	4/11/2022	bottom not in view	
SHIDS-01	287703.42	52082.3	15:23:34	4/11/2022	bottom not in view	
SHIDS-01	287703.39	52082.47	15:23:35	4/11/2022	bottom not in view	
SHIDS-01	287703.39	52082.76	15:23:36	4/11/2022	bottom not in view	
SHIDS-01	287703.37	52082.97	15:23:37	4/11/2022	bottom not in view	
SHIDS-01	287703.37	52083.23	15:23:38	4/11/2022	bottom not in view	
SHIDS-01	287703.36	52083.46	15:23:39	4/11/2022	bottom not in view	
SHIDS-01	287703.39	52083.76	15:23:40	4/11/2022	bottom not in view	
SHIDS-01	287703.36	52083.97	15:23:41	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-01	287703.36	52084.2	15:23:42	4/11/2022	bottom not in view	
SHIDS-01	287703.4	52084.53	15:23:43	4/11/2022	bottom not in view	
SHIDS-01	287703.35	52084.65	15:23:44	4/11/2022	bottom not in view	
SHIDS-01	287703.39	52084.95	15:23:45	4/11/2022	bottom not in view	
SHIDS-01	287703.42	52085.27	15:23:46	4/11/2022	bottom not in view	
SHIDS-01	287703.39	52085.37	15:23:47	4/11/2022	bottom not in view	
SHIDS-01	287703.45	52085.72	15:23:48	4/11/2022	bottom not in view	
SHIDS-01	287703.46	52085.97	15:23:49	4/11/2022	bottom not in view	
SHIDS-01	287703.47	52086.14	15:23:50	4/11/2022	bottom not in view	
SHIDS-01	287703.52	52086.47	15:23:51	4/11/2022	bottom not in view	
SHIDS-01	287703.52	52086.69	15:23:52	4/11/2022	bottom not in view	
SHIDS-01	287703.55	52086.92	15:23:53	4/11/2022	bottom not in view	
SHIDS-01	287703.57	52087.2	15:23:54	4/11/2022	bottom not in view	
SHIDS-01	287703.59	52087.41	15:23:55	4/11/2022	bottom not in view	
SHIDS-01	287703.64	52087.67	15:23:56	4/11/2022	bottom not in view	
SHIDS-01	287703.67	52087.9	15:23:57	4/11/2022	bottom not in view	
SHIDS-01	287703.71	52088.14	15:23:58	4/11/2022	bottom not in view	
SHIDS-01	287703.76	52088.4	15:23:59	4/11/2022	bottom not in view	
SHIDS-01	287703.78	52088.61	15:24:00	4/11/2022	bottom not in view	
SHIDS-01	287703.82	52088.85	15:24:01	4/11/2022	bottom not in view	
SHIDS-01	287703.88	52089.1	15:24:02	4/11/2022	bottom not in view	
SHIDS-01	287703.91	52089.29	15:24:03	4/11/2022	bottom not in view	
SHIDS-01	287703.98	52089.57	15:24:04	4/11/2022	bottom not in view	
SHIDS-01	287704.04	52089.81	15:24:05	4/11/2022	bottom not in view	
SHIDS-01	287704.07	52089.97	15:24:06	4/11/2022	bottom not in view	
SHIDS-01	287704.15	52090.29	15:24:07	4/11/2022	bottom not in view	
SHIDS-01	287704.2	52090.5	15:24:08	4/11/2022	bottom not in view	
SHIDS-01	287704.24	52090.67	15:24:09	4/11/2022	bottom in view; substrate not distinguishable	bottom in view
SHIDS-01	287704.35	52090.99	15:24:10	4/11/2022	sand, silt, shells and shell hash, gravel and cobbles	bottom distinguishable
SHIDS-01	287704.38	52091.17	15:24:11	4/11/2022	sand, silt, shells and shell hash, gravel and cobbles	scallop or scallop shell
SHIDS-01	287704.45	52091.36	15:24:12	4/11/2022	sand, silt, shells and shell hash, gravel and cobbles	
SHIDS-01	287704.55	52091.7	15:24:13	4/11/2022	sand, silt, shells and shell hash, gravel and cobbles	
SHIDS-01	287704.57	52091.8	15:24:14	4/11/2022	sand, silt, shells and shell hash, gravel and cobbles	
SHIDS-01	287704.68	52092.1	15:24:15	4/11/2022	sand, silt, shells and shell hash, gravel, cobbles and rocks	
SHIDS-01	287704.77	52092.38	15:24:16	4/11/2022	sand, silt, shells and shell hash, gravel, cobbles and rocks	
SHIDS-01	287704.82	52092.49	15:24:17	4/11/2022	sand, silt, shells and shell hash, gravel, cobbles and rocks	
SHIDS-01	287704.95	52092.85	15:24:18	4/11/2022	sand, silt, shells and shell hash, gravel, cobbles and rocks	
SHIDS-01	287705	52093.02	15:24:19	4/11/2022	sand, silt, shells and shell hash, gravel, cobbles and rocks	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-01	287705.11	52093.22	15:24:20	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	urchin
SHIDS-01	287705.2	52093.5	15:24:21	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	urchin
SHIDS-01	287705.26	52093.67	15:24:22	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	sponge
SHIDS-01	287705.38	52093.94	15:24:23	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	sponge
SHIDS-01	287705.47	52094.16	15:24:24	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	sponge
SHIDS-01	287705.56	52094.38	15:24:25	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	
SHIDS-01	287705.65	52094.62	15:24:26	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	urchin
SHIDS-01	287705.75	52094.84	15:24:27	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	urchin
SHIDS-01	287705.86	52095.1	15:24:28	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	urchin
SHIDS-01	287705.97	52095.33	15:24:29	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	urchin
SHIDS-01	287706.08	52095.58	15:24:30	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	encrusting organism on larger rocks
SHIDS-01	287706.17	52095.79	15:24:31	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	encrusting organism on larger rocks
SHIDS-01	287706.28	52096.02	15:24:32	4/11/2022	sand, silt, shell hash, gravel, cobbles and rocks	
SHIDS-01	287706.39	52096.27	15:24:33	4/11/2022	sand, shell hash, rocks	
SHIDS-01	287706.49	52096.45	15:24:34	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287706.6	52096.72	15:24:35	4/11/2022	sand, shell hash, rocks	
SHIDS-01	287706.71	52096.94	15:24:36	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287706.83	52097.17	15:24:37	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287706.93	52097.4	15:24:38	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287707.06	52097.65	15:24:39	4/11/2022	sand, shell hash, rocks	
SHIDS-01	287707.16	52097.87	15:24:40	4/11/2022	sand, shell hash, rocks	
SHIDS-01	287707.28	52098.08	15:24:41	4/11/2022	sand, shell hash, rocks	
SHIDS-01	287707.4	52098.34	15:24:42	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287707.51	52098.55	15:24:43	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287707.63	52098.77	15:24:44	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287707.75	52099	15:24:45	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287707.88	52099.24	15:24:46	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287708.02	52099.48	15:24:47	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287708.12	52099.66	15:24:48	4/11/2022	sand, shell hash, rocks	uncertain
SHIDS-01	287708.26	52099.92	15:24:49	4/11/2022	sand, shell hash, rocks	uncertain
SHIDS-01	287708.39	52100.17	15:24:50	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287708.52	52100.34	15:24:51	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287708.66	52100.6	15:24:52	4/11/2022	sand, shells and shell hash, small rocks	camera lifts higher from bottom
SHIDS-01	287708.79	52100.84	15:24:53	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287708.92	52101.01	15:24:54	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287709.09	52101.32	15:24:55	4/11/2022	sand, shells and shell hash, small rocks	urchins
SHIDS-01	287709.24	52101.55	15:24:56	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287709.36	52101.73	15:24:57	4/11/2022	sand, shells and shell hash, small rocks	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-01	287709.54	52102.04	15:24:58	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287709.68	52102.24	15:24:59	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287709.82	52102.45	15:25:00	4/11/2022	sand, shells and shell hash, small rocks	anemone
SHIDS-01	287709.97	52102.74	15:25:01	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287710.12	52102.93	15:25:02	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287710.28	52103.16	15:25:03	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287710.44	52103.42	15:25:04	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287710.59	52103.64	15:25:05	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287710.75	52103.9	15:25:06	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287710.9	52104.11	15:25:07	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287711.07	52104.37	15:25:08	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287711.22	52104.58	15:25:09	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287711.38	52104.81	15:25:10	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287711.58	52105.1	15:25:11	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287711.68	52105.22	15:25:12	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287711.9	52105.56	15:25:13	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287712.05	52105.78	15:25:14	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287712.2	52105.95	15:25:15	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287712.41	52106.29	15:25:16	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287712.55	52106.45	15:25:17	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287712.73	52106.72	15:25:18	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287712.9	52106.97	15:25:19	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287713.08	52107.19	15:25:20	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287713.24	52107.46	15:25:21	4/11/2022	sand, shells and shell hash, small rocks	
SHIDS-01	287713.41	52107.68	15:25:22	4/11/2022	sand, shells and shell hash, small rocks	sponges, encrusting organisms on larger rocks
SHIDS-01	287713.6	52107.97	15:25:23	4/11/2022	sand, shells and shell hash, rocks	sponges, encrusting organisms on larger rocks
SHIDS-01	287713.75	52108.16	15:25:24	4/11/2022	rocks, microbial mats, sand, shell hash	sponges, encrusting organisms on larger rocks
SHIDS-01	287713.94	52108.43	15:25:25	4/11/2022	rocks, microbial mats, sand, shell hash	sponges, encrusting organisms on larger rocks
SHIDS-01	287714.12	52108.67	15:25:26	4/11/2022	rocks, microbial mats, sand, shell hash	sponges, encrusting organisms on larger rocks
SHIDS-01	287714.27	52108.85	15:25:27	4/11/2022	rocks, microbial mats, sand, shell hash	sponges, crab
SHIDS-01	287714.5	52109.16	15:25:28	4/11/2022	rocks, microbial mats, sand, shell hash	
SHIDS-01	287714.67	52109.36	15:25:29	4/11/2022	rocks, microbial mats, sand, shell hash	
SHIDS-01	287714.99	52109.46	15:25:30	4/11/2022	sand and silt, shell hash, small rocks	anemone
SHIDS-01	287715.57	52109.54	15:25:31	4/11/2022	sand and silt, shell hash, small rocks	anemone
SHIDS-01	287716.08	52109.51	15:25:32	4/11/2022	sand and silt, shell hash, small rocks	
SHIDS-01	287716.59	52109.51	15:25:33	4/11/2022	sand and silt, shell hash, small rocks	
SHIDS-01	287717.16	52109.59	15:25:34	4/11/2022	sand and silt, shell hash, small rocks	
SHIDS-01	287717.63	52109.55	15:25:35	4/11/2022	sand and silt, shell hash, small rocks	sponges

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-01	287718.15	52109.58	15:25:36	4/11/2022	sand and silt, shell hash, small rocks	sponges, anemone
SHIDS-01	287718.68	52109.65	15:25:37	4/11/2022	sand and silt, shell hash, small rocks	
SHIDS-01	287719.15	52109.63	15:25:38	4/11/2022	sand and silt, shell hash, small rocks	
SHIDS-01	287719.67	52109.7	15:25:39	4/11/2022	sand and silt , shell hash and shells	
SHIDS-01	287720.16	52109.75	15:25:40	4/11/2022	sand and silt , shell hash and shells	
SHIDS-01	287720.64	52109.76	15:25:41	4/11/2022	sand and silt , shell hash, rocks	sponges, encrusting organisms on larger rocks
SHIDS-01	287721.07	52109.8	15:25:42	4/11/2022	sand and silt , shell hash, rocks	sponges, encrusting organisms on larger rocks
SHIDS-01	287721.56	52109.85	15:25:43	4/11/2022	sand and silt , shell hash, rocks	sponges, encrusting organisms on larger rocks
SHIDS-01	287722.02	52109.88	15:25:44	4/11/2022	sand and silt , shell hash, rocks	sponges, encrusting organisms on larger rocks
SHIDS-01	287722.45	52109.86	15:25:45	4/11/2022	sand and silt , shell hash, rocks	sponges
SHIDS-01	287722.92	52109.97	15:25:46	4/11/2022	rocks, sand and silt	many sponges
SHIDS-01	287723.36	52110	15:25:47	4/11/2022	rocks, sand and silt	many sponges
SHIDS-01	287723.83	52109.98	15:25:48	4/11/2022	rocks, sand and silt, shell hash	many sponges
SHIDS-01	287724.57	52109.98	15:25:49	4/11/2022	sand and silt, shell hash, small rocks	sponges
SHIDS-01	287725.29	52109.79	15:25:50	4/11/2022	sand and silt, shell hash, small rocks	sponges
SHIDS-01	287726.04	52109.68	15:25:51	4/11/2022	sand and silt, shell hash, small rocks	sponges
SHIDS-01	287726.78	52109.6	15:25:52	4/11/2022	sand and silt, shell hash, small rocks	sponges, anemone
SHIDS-01	287727.45	52109.4	15:25:53	4/11/2022	sand and silt, shell hash, small rocks	sponges
SHIDS-01	287728.19	52109.39	15:25:54	4/11/2022	sand and silt, shell hash, small rocks	
SHIDS-01	287728.86	52109.27	15:25:55	4/11/2022	sand and silt, shell hash, small rocks	sponges
SHIDS-01	287729.53	52109.15	15:25:56	4/11/2022	rocks, microbial mats, sand, shell hash	sponges
SHIDS-01	287730.22	52109.17	15:25:57	4/11/2022	rocks, microbial mats, sand, shell hash	large rocks, sponges, bottom less visible due to camera elevation
SHIDS-01	287730.82	52109.04	15:25:58	4/11/2022	rocks, microbial mats, sand, shell hash	large rocks, sponges, bottom less visible due to camera elevation
SHIDS-01	287731.48	52109.03	15:25:59	4/11/2022	rocks, microbial mats, sand, shell hash	large rocks, sponges, bottom less visible due to camera elevation
SHIDS-01	287732.11	52109.01	15:26:00	4/11/2022	rocks, microbial mats, sand, shell hash	large rocks, sponges, bottom less visible due to camera elevation
SHIDS-01	287732.69	52108.9	15:26:01	4/11/2022	rocks, microbial mats, sand, shell hash	large rocks, sponges, bottom less visible due to camera elevation
SHIDS-01	287733.27	52108.91	15:26:02	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287733.93	52108.94	15:26:03	4/11/2022	sand, shell hash, rocks	sponges
SHIDS-01	287734.5	52108.88	15:26:04	4/11/2022	sand, shell hash, rocks	large rocks, sponges, bottom less visible due to camera elevation
SHIDS-01	287735.06	52108.91	15:26:05	4/11/2022	sand, shell hash, rocks	large rocks, sponges, bottom less visible due to camera elevation
SHIDS-01	287735.67	52108.95	15:26:06	4/11/2022	sand, shell hash, rocks	large rocks, sponges
SHIDS-01	287736.21	52108.9	15:26:07	4/11/2022	sand, shell hash, rocks	large rocks, sponges
SHIDS-01	287736.77	52108.97	15:26:08	4/11/2022	sand, shell hash, rocks	many sponges
SHIDS-01	287737.3	52108.98	15:26:09	4/11/2022	rocks, microbial mats	large rocks, sponges, bottom less visible due to camera elevation
SHIDS-01	287737.85	52109	15:26:10	4/11/2022	rocks, microbial mats	large rocks, sponges, bottom less visible due to camera elevation
SHIDS-01	287738.36	52109.03	15:26:11	4/11/2022	poor bottom visibility	change in elevation from seabed, bottom not distinguishable
SHIDS-01	287738.91	52109.09	15:26:12	4/11/2022	poor bottom visibility	
SHIDS-01	287739.45	52109.17	15:26:13	4/11/2022	poor bottom visibility	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-01	287739.96	52109.19	15:26:14	4/11/2022	poor bottom visibility	
SHIDS-01	287740.47	52109.28	15:26:15	4/11/2022	poor bottom visibility	
SHIDS-01	287740.97	52109.32	15:26:16	4/11/2022	poor bottom visibility	
SHIDS-01	287741.47	52109.36	15:26:17	4/11/2022	poor bottom visibility	
SHIDS-01	287741.98	52109.48	15:26:18	4/11/2022	poor bottom visibility	
SHIDS-01	287742.47	52109.52	15:26:19	4/11/2022	poor bottom visibility	
SHIDS-01	287742.95	52109.58	15:26:20	4/11/2022	poor bottom visibility	
SHIDS-01	287743.44	52109.73	15:26:21	4/11/2022	poor bottom visibility	
SHIDS-01	287743.88	52109.74	15:26:22	4/11/2022	poor bottom visibility	
SHIDS-01	287744.37	52109.85	15:26:23	4/11/2022	sand, shell hash	visibility improving
SHIDS-01	287744.82	52109.96	15:26:24	4/11/2022	sand, shell hash	uncertain dark shape
SHIDS-01	287745.26	52109.99	15:26:25	4/11/2022	sand, shell hash, large rock	uncertain dark shape
SHIDS-01	287745.72	52110.12	15:26:26	4/11/2022	sand, shell hash, large rock	uncertain and sponges
SHIDS-01	287746.19	52110.23	15:26:27	4/11/2022	sand, shell hash, large rock	sponges
SHIDS-01	287746.63	52110.27	15:26:28	4/11/2022	sand, shell hash, large rock	sponges
SHIDS-01	287747.07	52110.42	15:26:29	4/11/2022	sand, shell hash, large rock	sponges
SHIDS-01	287747.51	52110.51	15:26:30	4/11/2022	sand, shell hash	
SHIDS-01	287747.9	52110.57	15:26:31	4/11/2022	sand, shell hash	
SHIDS-01	287748.35	52110.72	15:26:32	4/11/2022	sand and silt, shells and shell hash	
SHIDS-01	287748.75	52110.82	15:26:33	4/11/2022	sand and silt, shells and shell hash	
SHIDS-01	287749.16	52110.87	15:26:34	4/11/2022	sand and silt, shells and shell hash	
SHIDS-01	287749.58	52111.04	15:26:35	4/11/2022	sand and silt, shells and shell hash	
SHIDS-01	287749.98	52111.09	15:26:36	4/11/2022	sand and silt, shells and shell hash	
SHIDS-01	287750.4	52111.23	15:26:37	4/11/2022	sand and silt, shells and shell hash	
SHIDS-01	287750.82	52111.38	15:26:38	4/11/2022	sand and silt, shells and shell hash, rocks	
SHIDS-01	287751.18	52111.41	15:26:39	4/11/2022	sand and silt, shells and shell hash, rocks	sponges
SHIDS-01	287751.6	52111.59	15:26:40	4/11/2022	sand and silt, shells and shell hash, rocks	
SHIDS-01	287751.97	52111.68	15:26:41	4/11/2022	sand and silt, shells and shell hash	
SHIDS-01	287752.38	52111.79	15:26:42	4/11/2022	sand and silt, shells and shell hash	
SHIDS-01	287752.76	52111.92	15:26:43	4/11/2022	sand and silt, shells and shell hash	
SHIDS-01	287753.14	52112.01	15:26:44	4/11/2022	sand and silt	
SHIDS-01	287753.54	52112.17	15:26:45	4/11/2022	sand and silt, shell hash, rocks	
SHIDS-01	287753.93	52112.3	15:26:46	4/11/2022	sand and silt, shell hash, rocks	
SHIDS-01	287754.3	52112.38	15:26:47	4/11/2022	sand and silt, shell hash, rocks	
SHIDS-01	287754.68	52112.53	15:26:48	4/11/2022	sand and silt, shell hash, rocks	
SHIDS-01	287755.06	52112.67	15:26:49	4/11/2022	sand and silt, shell hash, rocks	
SHIDS-01	287755.43	52112.75	15:26:50	4/11/2022	sand and silt, shell hash	
SHIDS-01	287755.81	52112.92	15:26:51	4/11/2022	sand and silt, shell hash	sponges

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-01	287756.19	52113.06	15:26:52	4/11/2022	sand and silt, shell hash	sponges
SHIDS-01	287756.53	52113.11	15:26:53	4/11/2022	sand and silt, shell hash, rocks	sponges
SHIDS-01	287756.93	52113.31	15:26:54	4/11/2022	sand and silt, shell hash, rocks	
SHIDS-01	287757.29	52113.41	15:26:55	4/11/2022	sand and silt, shell hash, rocks	
SHIDS-01	287757.66	52113.52	15:26:56	4/11/2022	sand and silt, shell hash, rocks	
SHIDS-01	287758.04	52113.72	15:26:57	4/11/2022	sand, shell hash, rocks	sponges, large rocks
SHIDS-01	287758.39	52113.79	15:26:58	4/11/2022	sand, shell hash, rocks	sponges, large rocks
SHIDS-01	287758.76	52113.97	15:26:59	4/11/2022	sand, shell hash, rocks	large rocks
SHIDS-01	287759.13	52114.15	15:27:00	4/11/2022	sand, shell hash, rocks	large rocks
SHIDS-01	287759.5	52114.24	15:27:01	4/11/2022	sand, shell hash, rocks	large rocks, sponges
SHIDS-01	287759.86	52114.4	15:27:02	4/11/2022	rocks, sand and silt, shell hash	large rocks, sponges
SHIDS-01	287760.24	52114.56	15:27:03	4/11/2022	rocks, sand and silt, shell hash	large rocks
SHIDS-01	287760.57	52114.68	15:27:04	4/11/2022	rocks, sand and silt, shell hash	many sponges
SHIDS-01	287760.93	52114.8	15:27:05	4/11/2022	rocks, sand and silt, shell hash	many sponges
SHIDS-01	287761.31	52115.03	15:27:06	4/11/2022	rocks, sand and silt, shell hash	sponges
SHIDS-01	287761.66	52115.12	15:27:07	4/11/2022	rocks, sand and silt, shell hash	sponges, poor visibility
SHIDS-01	287762.01	52115.25	15:27:08	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287762.41	52115.48	15:27:09	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287762.73	52115.54	15:27:10	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287763.1	52115.71	15:27:11	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287763.46	52115.9	15:27:12	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287763.82	52116.01	15:27:13	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287764.21	52116.22	15:27:14	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287764.56	52116.35	15:27:15	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287764.92	52116.49	15:27:16	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287765.3	52116.67	15:27:17	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287765.65	52116.8	15:27:18	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287766.01	52116.96	15:27:19	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287766.38	52117.11	15:27:20	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287766.74	52117.26	15:27:21	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287767.1	52117.41	15:27:22	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287767.47	52117.57	15:27:23	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287767.84	52117.73	15:27:24	4/11/2022	rocks, sand and silt, shell hash	poor visibility
SHIDS-01	287768.2	52117.87	15:27:25	4/11/2022	sand and silt, shell hash, large rock	poor visibility
SHIDS-01	287768.55	52118.01	15:27:26	4/11/2022	sand and silt, shell hash, large rock	poor visibility
SHIDS-01	287768.92	52118.19	15:27:27	4/11/2022	sand and silt, shell hash, large rock	poor visibility
SHIDS-01	287769.25	52118.3	15:27:28	4/11/2022	sand and silt, shell hash	poor visibility
SHIDS-01	287769.61	52118.46	15:27:29	4/11/2022	sand and silt, shell hash	poor visibility

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-01	287769.96	52118.65	15:27:30	4/11/2022	sand and silt, shell hash	camera decending
SHIDS-01	287770.29	52118.72	15:27:31	4/11/2022	sand and silt, shell hash	
SHIDS-01	287770.66	52118.91	15:27:32	4/11/2022	sand and silt, shell hash	
SHIDS-01	287771	52119.07	15:27:33	4/11/2022	Grab Taken	
SHIDS-01	287771.36	52119.18	15:27:34	4/11/2022	Bottom not in view	Camera begins ascending
SHIDS-01	287771.75	52119.38	15:27:35	4/11/2022	Bottom not in view	
SHIDS-01	287772.05	52119.49	15:27:36	4/11/2022	Bottom not in view	
SHIDS-01	287772.4	52119.62	15:27:37	4/11/2022	Bottom not in view	
SHIDS-01	287772.76	52119.79	15:27:38	4/11/2022	Bottom not in view	
SHIDS-02	287929.71	52174.93	15:35:31	4/11/2022	bottom not in view	camera on deck
SHIDS-02	287929.74	52174.94	15:35:31	4/11/2022	bottom not in view	
SHIDS-02	287930.11	52175.07	15:35:32	4/11/2022	bottom not in view	
SHIDS-02	287930.33	52175.11	15:35:33	4/11/2022	bottom not in view	
SHIDS-02	287930.61	52175.19	15:35:34	4/11/2022	bottom not in view	
SHIDS-02	287930.93	52175.33	15:35:35	4/11/2022	bottom not in view	
SHIDS-02	287931.12	52175.35	15:35:36	4/11/2022	bottom not in view	
SHIDS-02	287931.42	52175.48	15:35:37	4/11/2022	bottom not in view	
SHIDS-02	287931.68	52175.58	15:35:38	4/11/2022	bottom not in view	
SHIDS-02	287931.9	52175.63	15:35:39	4/11/2022	bottom not in view	
SHIDS-02	287932.19	52175.78	15:35:40	4/11/2022	bottom not in view	
SHIDS-02	287932.42	52175.84	15:35:41	4/11/2022	bottom not in view	
SHIDS-02	287932.66	52175.95	15:35:42	4/11/2022	bottom not in view	
SHIDS-02	287932.93	52176.06	15:35:43	4/11/2022	bottom not in view	
SHIDS-02	287933.15	52176.15	15:35:44	4/11/2022	bottom not in view	
SHIDS-02	287933.4	52176.28	15:35:45	4/11/2022	bottom not in view	
SHIDS-02	287933.62	52176.35	15:35:46	4/11/2022	bottom not in view	
SHIDS-02	287933.85	52176.48	15:35:47	4/11/2022	bottom not in view	
SHIDS-02	287934.11	52176.62	15:35:48	4/11/2022	bottom not in view	
SHIDS-02	287934.31	52176.7	15:35:49	4/11/2022	bottom not in view	
SHIDS-02	287934.58	52176.85	15:35:50	4/11/2022	bottom not in view	
SHIDS-02	287934.81	52176.96	15:35:51	4/11/2022	bottom not in view	
SHIDS-02	287935.01	52177.08	15:35:52	4/11/2022	bottom not in view	camera passes over rail
SHIDS-02	287935.32	52177.25	15:35:53	4/11/2022	bottom not in view	camera over water
SHIDS-02	287935.49	52177.32	15:35:54	4/11/2022	bottom not in view	
SHIDS-02	287935.74	52177.48	15:35:55	4/11/2022	bottom not in view	
SHIDS-02	287936	52177.64	15:35:56	4/11/2022	bottom not in view	
SHIDS-02	287936.19	52177.72	15:35:57	4/11/2022	bottom not in view	
SHIDS-02	287936.41	52177.88	15:35:58	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-02	287936.67	52178.05	15:35:59	4/11/2022	bottom not in view	
SHIDS-02	287936.85	52178.13	15:36:00	4/11/2022	bottom not in view	camera enters water
SHIDS-02	287937.09	52178.3	15:36:01	4/11/2022	bottom not in view	
SHIDS-02	287937.33	52178.45	15:36:02	4/11/2022	bottom not in view	
SHIDS-02	287937.53	52178.57	15:36:03	4/11/2022	bottom not in view	
SHIDS-02	287937.74	52178.72	15:36:04	4/11/2022	bottom not in view	
SHIDS-02	287937.97	52178.87	15:36:05	4/11/2022	bottom not in view	
SHIDS-02	287938.17	52179	15:36:06	4/11/2022	bottom not in view	
SHIDS-02	287938.38	52179.17	15:36:07	4/11/2022	bottom not in view	
SHIDS-02	287938.57	52179.29	15:36:08	4/11/2022	bottom not in view	
SHIDS-02	287938.77	52179.43	15:36:09	4/11/2022	bottom not in view	
SHIDS-02	287938.99	52179.61	15:36:10	4/11/2022	bottom not in view	
SHIDS-02	287939.17	52179.72	15:36:11	4/11/2022	bottom not in view	
SHIDS-02	287939.41	52179.92	15:36:12	4/11/2022	bottom not in view	
SHIDS-02	287939.6	52180.06	15:36:13	4/11/2022	bottom not in view	
SHIDS-02	287939.78	52180.18	15:36:14	4/11/2022	bottom not in view	
SHIDS-02	287940.01	52180.39	15:36:15	4/11/2022	bottom not in view	
SHIDS-02	287940.16	52180.5	15:36:16	4/11/2022	bottom not in view	
SHIDS-02	287940.36	52180.65	15:36:17	4/11/2022	bottom not in view	
SHIDS-02	287940.57	52180.85	15:36:18	4/11/2022	bottom not in view	
SHIDS-02	287940.73	52180.96	15:36:19	4/11/2022	bottom not in view	
SHIDS-02	287940.94	52181.14	15:36:20	4/11/2022	bottom not in view	
SHIDS-02	287941.14	52181.33	15:36:21	4/11/2022	bottom not in view	
SHIDS-02	287941.28	52181.45	15:36:22	4/11/2022	bottom not in view	
SHIDS-02	287941.51	52181.67	15:36:23	4/11/2022	bottom not in view	
SHIDS-02	287941.66	52181.8	15:36:24	4/11/2022	bottom not in view	
SHIDS-02	287941.83	52181.94	15:36:25	4/11/2022	bottom not in view	
SHIDS-02	287942.05	52182.17	15:36:26	4/11/2022	bottom not in view	
SHIDS-02	287942.18	52182.27	15:36:27	4/11/2022	bottom not in view	
SHIDS-02	287942.37	52182.45	15:36:28	4/11/2022	bottom not in view	
SHIDS-02	287942.58	52182.67	15:36:29	4/11/2022	bottom not in view	
SHIDS-02	287942.71	52182.78	15:36:30	4/11/2022	bottom not in view	
SHIDS-02	287942.88	52182.95	15:36:31	4/11/2022	bottom not in view	
SHIDS-02	287943.1	52183.18	15:36:32	4/11/2022	bottom not in view	
SHIDS-02	287943.24	52183.28	15:36:33	4/11/2022	bottom not in view	
SHIDS-02	287943.41	52183.47	15:36:34	4/11/2022	bottom not in view	
SHIDS-02	287943.61	52183.69	15:36:35	4/11/2022	bottom not in view	
SHIDS-02	287943.74	52183.8	15:36:36	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-02	287943.91	52183.98	15:36:37	4/11/2022	bottom not in view	
SHIDS-02	287944.12	52184.19	15:36:38	4/11/2022	bottom not in view	
SHIDS-02	287944.25	52184.31	15:36:39	4/11/2022	bottom not in view	
SHIDS-02	287944.46	52184.51	15:36:40	4/11/2022	bottom not in view	
SHIDS-02	287944.63	52184.7	15:36:41	4/11/2022	bottom not in view	
SHIDS-02	287944.79	52184.83	15:36:42	4/11/2022	bottom not in view	
SHIDS-02	287944.97	52185.03	15:36:43	4/11/2022	bottom not in view	
SHIDS-02	287945.15	52185.23	15:36:44	4/11/2022	bottom not in view	
SHIDS-02	287945.31	52185.35	15:36:45	4/11/2022	bottom not in view	
SHIDS-02	287945.5	52185.55	15:36:46	4/11/2022	bottom not in view	
SHIDS-02	287945.7	52185.77	15:36:47	4/11/2022	bottom not in view	
SHIDS-02	287945.84	52185.88	15:36:48	4/11/2022	bottom not in view	
SHIDS-02	287946.04	52186.12	15:36:49	4/11/2022	bottom not in view	
SHIDS-02	287946.22	52186.29	15:36:50	4/11/2022	bottom not in view	
SHIDS-02	287946.4	52186.46	15:36:51	4/11/2022	bottom not in view	
SHIDS-02	287946.58	52186.66	15:36:52	4/11/2022	bottom in view	
SHIDS-02	287946.77	52186.84	15:36:53	4/11/2022	Silt	
SHIDS-02	287946.96	52187.05	15:36:54	4/11/2022	Silt	
SHIDS-02	287947.11	52187.2	15:36:55	4/11/2022	Silt	
SHIDS-02	287947.33	52187.42	15:36:56	4/11/2022	Silt	
SHIDS-02	287947.52	52187.62	15:36:57	4/11/2022	Silt	
SHIDS-02	287947.66	52187.75	15:36:58	4/11/2022	Silt	
SHIDS-02	287947.9	52188.04	15:36:59	4/11/2022	Silt	
SHIDS-02	287948.04	52188.18	15:37:00	4/11/2022	Silt	
SHIDS-02	287948.2	52188.33	15:37:01	4/11/2022	Silt	
SHIDS-02	287948.42	52188.61	15:37:02	4/11/2022	Silt	
SHIDS-02	287948.58	52188.72	15:37:03	4/11/2022	Silt	
SHIDS-02	287948.74	52188.91	15:37:04	4/11/2022	Silt	
SHIDS-02	287948.96	52189.2	15:37:05	4/11/2022	Silt	
SHIDS-02	287949.09	52189.28	15:37:06	4/11/2022	Silt	
SHIDS-02	287949.28	52189.49	15:37:07	4/11/2022	Silt	
SHIDS-02	287949.49	52189.76	15:37:08	4/11/2022	Silt	
SHIDS-02	287949.63	52189.86	15:37:09	4/11/2022	Silt	floating vegetation
SHIDS-02	287949.84	52190.12	15:37:10	4/11/2022	Silt	
SHIDS-02	287950.01	52190.32	15:37:11	4/11/2022	Silt	
SHIDS-02	287950.18	52190.47	15:37:12	4/11/2022	Silt	
SHIDS-02	287950.38	52190.72	15:37:13	4/11/2022	Silt	
SHIDS-02	287950.54	52190.89	15:37:14	4/11/2022	Silt	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-02	287950.72	52191.08	15:37:15	4/11/2022	Silt	
SHIDS-02	287950.89	52191.3	15:37:16	4/11/2022	Silt	
SHIDS-02	287951.07	52191.49	15:37:17	4/11/2022	Silt	
SHIDS-02	287951.26	52191.68	15:37:18	4/11/2022	Silt	
SHIDS-02	287951.45	52191.9	15:37:19	4/11/2022	Silt	
SHIDS-02	287951.64	52192.12	15:37:20	4/11/2022	Silt	
SHIDS-02	287951.81	52192.3	15:37:21	4/11/2022	Silt	
SHIDS-02	287951.99	52192.52	15:37:22	4/11/2022	Silt	
SHIDS-02	287952.18	52192.74	15:37:23	4/11/2022	Silt	
SHIDS-02	287952.34	52192.9	15:37:24	4/11/2022	Silt	
SHIDS-02	287952.52	52193.12	15:37:25	4/11/2022	Silt	
SHIDS-02	287952.71	52193.34	15:37:26	4/11/2022	Silt	
SHIDS-02	287952.87	52193.5	15:37:27	4/11/2022	Silt	
SHIDS-02	287953.06	52193.74	15:37:28	4/11/2022	Silt	
SHIDS-02	287953.24	52193.94	15:37:29	4/11/2022	Silt	
SHIDS-02	287953.41	52194.13	15:37:30	4/11/2022	Silt	
SHIDS-02	287953.58	52194.35	15:37:31	4/11/2022	Silt	
SHIDS-02	287953.76	52194.56	15:37:32	4/11/2022	Silt	
SHIDS-02	287953.94	52194.77	15:37:33	4/11/2022	Silt	
SHIDS-02	287954.09	52194.94	15:37:34	4/11/2022	Silt	
SHIDS-02	287954.28	52195.19	15:37:35	4/11/2022	Silt	
SHIDS-02	287954.46	52195.37	15:37:36	4/11/2022	Silt	
SHIDS-02	287954.62	52195.55	15:37:37	4/11/2022	Silt	
SHIDS-02	287954.83	52195.83	15:37:38	4/11/2022	Silt	
SHIDS-02	287954.97	52195.97	15:37:39	4/11/2022	Silt	
SHIDS-02	287955.14	52196.17	15:37:40	4/11/2022	Silt	
SHIDS-02	287955.34	52196.44	15:37:41	4/11/2022	Silt	
SHIDS-02	287955.47	52196.55	15:37:42	4/11/2022	Silt	
SHIDS-02	287955.67	52196.81	15:37:43	4/11/2022	Silt	
SHIDS-02	287955.85	52197.04	15:37:44	4/11/2022	Silt	floating vegetation
SHIDS-02	287955.99	52197.16	15:37:45	4/11/2022	Silt	
SHIDS-02	287956.21	52197.46	15:37:46	4/11/2022	Silt	
SHIDS-02	287956.62	52197.55	15:37:47	4/11/2022	Silt	
SHIDS-02	287957.23	52197.63	15:37:48	4/11/2022	Silt	
SHIDS-02	287957.9	52197.84	15:37:49	4/11/2022	Silt	
SHIDS-02	287958.5	52197.88	15:37:50	4/11/2022	Silt	
SHIDS-02	287959.11	52197.98	15:37:51	4/11/2022	Silt	
SHIDS-02	287959.76	52198.15	15:37:52	4/11/2022	Silt	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-02	287960.33	52198.16	15:37:53	4/11/2022	Silt	
SHIDS-02	287960.92	52198.29	15:37:54	4/11/2022	Silt	
SHIDS-02	287961.52	52198.42	15:37:55	4/11/2022	Silt	
SHIDS-02	287962.06	52198.43	15:37:56	4/11/2022	Silt	
SHIDS-02	287962.61	52198.52	15:37:57	4/11/2022	Silt	
SHIDS-02	287963.18	52198.66	15:37:58	4/11/2022	Silt	
SHIDS-02	287963.63	52198.64	15:37:59	4/11/2022	Silt	
SHIDS-02	287964.2	52198.76	15:38:00	4/11/2022	Silt	
SHIDS-02	287964.7	52198.88	15:38:01	4/11/2022	Silt	
SHIDS-02	287965.13	52198.83	15:38:02	4/11/2022	Silt	
SHIDS-02	287965.68	52198.99	15:38:03	4/11/2022	Silt	floating vegetation
SHIDS-02	287966.13	52199.02	15:38:04	4/11/2022	Silt	
SHIDS-02	287966.58	52199.04	15:38:05	4/11/2022	Silt	
SHIDS-02	287967.07	52199.18	15:38:06	4/11/2022	Silt	
SHIDS-02	287967.48	52199.16	15:38:07	4/11/2022	Silt	
SHIDS-02	287967.92	52199.22	15:38:08	4/11/2022	Silt	
SHIDS-02	287968.36	52199.32	15:38:09	4/11/2022	Silt	
SHIDS-02	287968.76	52199.31	15:38:10	4/11/2022	Silt	
SHIDS-02	287969.18	52199.39	15:38:11	4/11/2022	Silt	
SHIDS-02	287969.58	52199.44	15:38:12	4/11/2022	Silt	
SHIDS-02	287969.96	52199.47	15:38:13	4/11/2022	bottom not visible	Grab Taken
SHIDS-02	287970.36	52199.54	15:38:14	4/11/2022	bottom not visible	
SHIDS-02	287970.76	52199.58	15:38:15	4/11/2022	bottom not visible	
SHIDS-02	287971.13	52199.63	15:38:16	4/11/2022	bottom not visible	camera departs bottom
SHIDS-02	287971.5	52199.69	15:38:17	4/11/2022	bottom not visible	Camera begins to ascend
SHIDS-02	287971.86	52199.74	15:38:18	4/11/2022	bottom not visible	
SHIDS-03	288146.56	52171.33	15:45:39	4/11/2022	bottom not in view	camera on deck
SHIDS-03	288146.52	52171.31	15:45:39	4/11/2022	bottom not in view	
SHIDS-03	288146.26	52171.23	15:45:40	4/11/2022	bottom not in view	
SHIDS-03	288146.03	52171.15	15:45:41	4/11/2022	bottom not in view	
SHIDS-03	288145.81	52171.06	15:45:42	4/11/2022	bottom not in view	
SHIDS-03	288145.6	52170.98	15:45:43	4/11/2022	bottom not in view	
SHIDS-03	288145.42	52170.89	15:45:44	4/11/2022	bottom not in view	
SHIDS-03	288145.19	52170.83	15:45:45	4/11/2022	bottom not in view	
SHIDS-03	288145.05	52170.72	15:45:46	4/11/2022	bottom not in view	
SHIDS-03	288144.86	52170.67	15:45:47	4/11/2022	bottom not in view	
SHIDS-03	288144.68	52170.63	15:45:48	4/11/2022	bottom not in view	
SHIDS-03	288144.59	52170.78	15:45:49	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-03	288144.41	52171.12	15:45:50	4/11/2022	bottom not in view	
SHIDS-03	288144.24	52171.57	15:45:51	4/11/2022	bottom not in view	camera passes over rail
SHIDS-03	288144.1	52171.99	15:45:52	4/11/2022	bottom not in view	camera over water
SHIDS-03	288143.89	52172.4	15:45:53	4/11/2022	bottom not in view	
SHIDS-03	288143.76	52172.77	15:45:54	4/11/2022	bottom not in view	
SHIDS-03	288143.59	52173.14	15:45:55	4/11/2022	bottom not in view	
SHIDS-03	288143.45	52173.49	15:45:56	4/11/2022	bottom not in view	
SHIDS-03	288143.29	52173.82	15:45:57	4/11/2022	bottom not in view	
SHIDS-03	288143.19	52174.15	15:45:58	4/11/2022	bottom not in view	camera enters water
SHIDS-03	288143.06	52174.46	15:45:59	4/11/2022	bottom not in view	
SHIDS-03	288142.92	52174.77	15:46:00	4/11/2022	bottom not in view	
SHIDS-03	288142.83	52175.07	15:46:01	4/11/2022	bottom not in view	
SHIDS-03	288142.73	52175.34	15:46:02	4/11/2022	bottom not in view	
SHIDS-03	288142.64	52175.64	15:46:03	4/11/2022	bottom not in view	
SHIDS-03	288142.58	52175.9	15:46:04	4/11/2022	bottom not in view	
SHIDS-03	288142.51	52176.17	15:46:05	4/11/2022	bottom not in view	
SHIDS-03	288142.44	52176.45	15:46:06	4/11/2022	bottom not in view	
SHIDS-03	288142.42	52176.72	15:46:07	4/11/2022	bottom not in view	
SHIDS-03	288142.34	52176.99	15:46:08	4/11/2022	bottom not in view	
SHIDS-03	288142.31	52177.27	15:46:09	4/11/2022	bottom not in view	
SHIDS-03	288142.28	52177.53	15:46:10	4/11/2022	bottom not in view	
SHIDS-03	288142.2	52177.8	15:46:11	4/11/2022	bottom not in view	
SHIDS-03	288142.22	52178.08	15:46:12	4/11/2022	bottom not in view	
SHIDS-03	288142.17	52178.35	15:46:13	4/11/2022	bottom not in view	
SHIDS-03	288142.15	52178.61	15:46:14	4/11/2022	bottom not in view	
SHIDS-03	288142.14	52178.9	15:46:15	4/11/2022	bottom not in view	
SHIDS-03	288142.11	52179.17	15:46:16	4/11/2022	bottom not in view	
SHIDS-03	288142.1	52179.45	15:46:17	4/11/2022	bottom not in view	
SHIDS-03	288142.07	52179.7	15:46:18	4/11/2022	bottom not in view	
SHIDS-03	288142.08	52180	15:46:19	4/11/2022	bottom not in view	
SHIDS-03	288142.04	52180.25	15:46:20	4/11/2022	bottom not in view	
SHIDS-03	288142.03	52180.52	15:46:21	4/11/2022	bottom not in view	
SHIDS-03	288142.07	52180.83	15:46:22	4/11/2022	bottom not in view	
SHIDS-03	288142.01	52181.06	15:46:23	4/11/2022	bottom not in view	
SHIDS-03	288142.03	52181.35	15:46:24	4/11/2022	bottom not in view	
SHIDS-03	288142.03	52181.63	15:46:25	4/11/2022	bottom not in view	
SHIDS-03	288141.99	52181.87	15:46:26	4/11/2022	bottom not in view	
SHIDS-03	288142.03	52182.15	15:46:27	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-03	288142.02	52182.41	15:46:28	4/11/2022	bottom not in view	
SHIDS-03	288141.98	52182.66	15:46:29	4/11/2022	bottom not in view	
SHIDS-03	288142.04	52182.95	15:46:30	4/11/2022	bottom not in view	
SHIDS-03	288142	52183.19	15:46:31	4/11/2022	bottom not in view	
SHIDS-03	288142.04	52183.47	15:46:32	4/11/2022	bottom not in view	
SHIDS-03	288142.05	52183.73	15:46:33	4/11/2022	bottom not in view	
SHIDS-03	288142.04	52183.98	15:46:34	4/11/2022	bottom not in view	
SHIDS-03	288142.08	52184.25	15:46:35	4/11/2022	bottom not in view	
SHIDS-03	288142.07	52184.5	15:46:36	4/11/2022	bottom not in view	
SHIDS-03	288142.11	52184.76	15:46:37	4/11/2022	bottom not in view	
SHIDS-03	288142.12	52185.01	15:46:38	4/11/2022	bottom not in view	
SHIDS-03	288142.15	52185.27	15:46:39	4/11/2022	bottom not in view	
SHIDS-03	288142.16	52185.52	15:46:40	4/11/2022	bottom not in view	
SHIDS-03	288142.19	52185.77	15:46:41	4/11/2022	bottom not in view	
SHIDS-03	288142.21	52186.02	15:46:42	4/11/2022	bottom not in view	
SHIDS-03	288142.24	52186.27	15:46:43	4/11/2022	bottom not in view	
SHIDS-03	288142.26	52186.52	15:46:44	4/11/2022	bottom not in view	
SHIDS-03	288142.28	52186.77	15:46:45	4/11/2022	bottom not in view	
SHIDS-03	288142.31	52187.02	15:46:46	4/11/2022	bottom not in view	
SHIDS-03	288142.32	52187.26	15:46:47	4/11/2022	bottom not in view	
SHIDS-03	288142.36	52187.5	15:46:48	4/11/2022	bottom not in view	
SHIDS-03	288142.38	52187.75	15:46:49	4/11/2022	bottom not in view	
SHIDS-03	288142.42	52188	15:46:50	4/11/2022	bottom not in view	
SHIDS-03	288142.45	52188.23	15:46:51	4/11/2022	bottom not in view	
SHIDS-03	288142.46	52188.47	15:46:52	4/11/2022	bottom not in view	
SHIDS-03	288142.52	52188.73	15:46:53	4/11/2022	bottom not in view	
SHIDS-03	288142.51	52188.95	15:46:54	4/11/2022	bottom not in view	
SHIDS-03	288142.56	52189.21	15:46:55	4/11/2022	bottom not in view	
SHIDS-03	288142.59	52189.45	15:46:56	4/11/2022	bottom not in view	
SHIDS-03	288142.59	52189.65	15:46:57	4/11/2022	bottom not distinguishable	bottom in view
SHIDS-03	288142.66	52189.93	15:46:58	4/11/2022	Silt	sponge, float vegetation
SHIDS-03	288142.65	52190.13	15:46:59	4/11/2022	Silt	sponge, float vegetation
SHIDS-03	288142.7	52190.37	15:47:00	4/11/2022	Silt	
SHIDS-03	288142.71	52190.6	15:47:01	4/11/2022	Silt	
SHIDS-03	288142.72	52190.81	15:47:02	4/11/2022	Silt	
SHIDS-03	288142.78	52191.05	15:47:03	4/11/2022	Silt	
SHIDS-03	288142.78	52191.26	15:47:04	4/11/2022	Silt	
SHIDS-03	288142.83	52191.49	15:47:05	4/11/2022	Silt	poor visibility

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-03	288142.86	52191.71	15:47:06	4/11/2022	Silt	poor visibility
SHIDS-03	288142.86	52191.91	15:47:07	4/11/2022	Silt	poor visibility
SHIDS-03	288142.92	52192.14	15:47:08	4/11/2022	Silt	poor visibility
SHIDS-03	288142.93	52192.33	15:47:09	4/11/2022	Silt	poor visibility
SHIDS-03	288142.94	52192.54	15:47:10	4/11/2022	Silt	
SHIDS-03	288143.03	52192.7	15:47:11	4/11/2022	Silt	
SHIDS-03	288143.16	52192.66	15:47:12	4/11/2022	Silt	small fish/fry?
SHIDS-03	288143.22	52192.53	15:47:13	4/11/2022	Silt	small fish/fry?
SHIDS-03	288143.36	52192.52	15:47:14	4/11/2022	Silt	small fish/fry?
SHIDS-03	288143.47	52192.44	15:47:15	4/11/2022	Silt	small fish/fry?
SHIDS-03	288143.62	52192.39	15:47:16	4/11/2022	Silt	small fish/fry?
SHIDS-03	288143.78	52192.36	15:47:17	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288143.95	52192.31	15:47:18	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288144.13	52192.28	15:47:19	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288144.31	52192.25	15:47:20	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288144.5	52192.23	15:47:21	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288144.69	52192.19	15:47:22	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288144.91	52192.2	15:47:23	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288145.11	52192.18	15:47:24	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288145.32	52192.18	15:47:25	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288145.55	52192.2	15:47:26	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288145.77	52192.21	15:47:27	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288145.99	52192.22	15:47:28	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288146.24	52192.26	15:47:29	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288146.45	52192.3	15:47:30	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288146.68	52192.33	15:47:31	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288146.93	52192.4	15:47:32	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288147.15	52192.43	15:47:33	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288147.39	52192.5	15:47:34	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288147.64	52192.57	15:47:35	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288147.86	52192.62	15:47:36	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288148.26	52192.64	15:47:37	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288148.84	52192.48	15:47:38	4/11/2022	Silt	many small swimming organisms, crab
SHIDS-03	288149.48	52192.29	15:47:39	4/11/2022	Silt	many small swimming organisms, crab
SHIDS-03	288150.15	52192.17	15:47:40	4/11/2022	Silt	many small swimming organisms, crab
SHIDS-03	288150.77	52192.05	15:47:41	4/11/2022	Silt	
SHIDS-03	288151.42	52191.95	15:47:42	4/11/2022	Silt	
SHIDS-03	288152.1	52191.88	15:47:43	4/11/2022	Silt	Floating vegetation

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-03	288152.75	52191.82	15:47:44	4/11/2022	Silt	Floating vegetation
SHIDS-03	288153.38	52191.78	15:47:45	4/11/2022	Silt	Floating vegetation
SHIDS-03	288154.02	52191.78	15:47:46	4/11/2022	Silt	large fish
SHIDS-03	288154.65	52191.77	15:47:47	4/11/2022	Silt	large fish
SHIDS-03	288155.24	52191.79	15:47:48	4/11/2022	Silt	large fish
SHIDS-03	288155.84	52191.83	15:47:49	4/11/2022	Silt	lobster pot with vegetation
SHIDS-03	288156.45	52191.86	15:47:50	4/11/2022	Silt	lobster pot with vegetation
SHIDS-03	288157.04	52191.92	15:47:51	4/11/2022	Silt	lobster pot with vegetation
SHIDS-03	288157.64	52191.98	15:47:52	4/11/2022	Silt	lobster pot with vegetation
SHIDS-03	288158.2	52192.03	15:47:53	4/11/2022	Silt	vegetation
SHIDS-03	288158.77	52192.13	15:47:54	4/11/2022	Silt	vegetation
SHIDS-03	288159.32	52192.21	15:47:55	4/11/2022	Silt	
SHIDS-03	288159.87	52192.28	15:47:56	4/11/2022	Silt	
SHIDS-03	288160.42	52192.41	15:47:57	4/11/2022	Silt	small fish/fry?
SHIDS-03	288160.95	52192.5	15:47:58	4/11/2022	Silt	
SHIDS-03	288161.47	52192.61	15:47:59	4/11/2022	Silt	
SHIDS-03	288161.99	52192.74	15:48:00	4/11/2022	Silt	
SHIDS-03	288162.48	52192.84	15:48:01	4/11/2022	Silt	
SHIDS-03	288162.98	52192.96	15:48:02	4/11/2022	Silt	
SHIDS-03	288163.47	52193.09	15:48:03	4/11/2022	Silt	
SHIDS-03	288163.92	52193.19	15:48:04	4/11/2022	Silt	
SHIDS-03	288164.38	52193.31	15:48:05	4/11/2022	Silt	
SHIDS-03	288164.87	52193.46	15:48:06	4/11/2022	Silt	
SHIDS-03	288165.29	52193.57	15:48:07	4/11/2022	Silt	
SHIDS-03	288165.73	52193.7	15:48:08	4/11/2022	Silt	
SHIDS-03	288166.16	52193.82	15:48:09	4/11/2022	Silt	
SHIDS-03	288166.59	52193.93	15:48:10	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288167.02	52194.05	15:48:11	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288167.44	52194.16	15:48:12	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288167.89	52194.26	15:48:13	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288168.55	52194.32	15:48:14	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288169.38	52194.44	15:48:15	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288170.16	52194.5	15:48:16	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288170.91	52194.52	15:48:17	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288171.63	52194.59	15:48:18	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288172.38	52194.59	15:48:19	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288173.03	52194.61	15:48:20	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288173.69	52194.62	15:48:21	4/11/2022	Silt	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-03	288174.31	52194.6	15:48:22	4/11/2022	Silt	
SHIDS-03	288174.92	52194.59	15:48:23	4/11/2022	Silt	
SHIDS-03	288175.5	52194.59	15:48:24	4/11/2022	Silt	
SHIDS-03	288176.08	52194.55	15:48:25	4/11/2022	Silt	
SHIDS-03	288176.63	52194.54	15:48:26	4/11/2022	Silt	
SHIDS-03	288177.16	52194.53	15:48:27	4/11/2022	Silt	
SHIDS-03	288177.68	52194.51	15:48:28	4/11/2022	Silt	
SHIDS-03	288178.17	52194.51	15:48:29	4/11/2022	Silt	
SHIDS-03	288178.66	52194.49	15:48:30	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288179.14	52194.49	15:48:31	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288179.61	52194.5	15:48:32	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288180.06	52194.49	15:48:33	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288180.49	52194.53	15:48:34	4/11/2022	Silt	many small swimming organisms, floating vegetation
SHIDS-03	288180.92	52194.53	15:48:35	4/11/2022	Silt	many small swimming organisms
SHIDS-03	288181.35	52194.57	15:48:36	4/11/2022	Silt	Grab Taken
SHIDS-03	288181.74	52194.62	15:48:37	4/11/2022	bottom not visible	Camera ascending
SHIDS-03	288182.17	52194.66	15:48:38	4/11/2022	bottom not visible	dark
SHIDS-03	288182.57	52194.72	15:48:39	4/11/2022	bottom not visible	dark
SHIDS-03	288182.97	52194.77	15:48:40	4/11/2022	bottom not visible	dark
SHIDS-03	288183.39	52194.86	15:48:41	4/11/2022	bottom not visible	dark
SHIDS-03	288183.78	52194.91	15:48:42	4/11/2022	bottom not visible	dark
SHIDS-03	288184.17	52195	15:48:43	4/11/2022	bottom not visible	
SHIDS-03	288184.56	52195.08	15:48:44	4/11/2022	bottom not visible	
SHIDS-03	288184.93	52195.17	15:48:45	4/11/2022	bottom not visible	
SHIDS-03	288185.32	52195.27	15:48:46	4/11/2022	bottom not visible	
SHIDS-03	288185.67	52195.37	15:48:47	4/11/2022	bottom not visible	
SHIDS-04	287898.96	52414.8	15:54:29	4/11/2022	bottom not in view	camera on deck
SHIDS-04	287899.34	52414.77	15:54:30	4/11/2022	bottom not in view	
SHIDS-04	287899.83	52414.84	15:54:31	4/11/2022	bottom not in view	
SHIDS-04	287900.11	52414.86	15:54:32	4/11/2022	bottom not in view	
SHIDS-04	287900.2	52415	15:54:33	4/11/2022	bottom not in view	
SHIDS-04	287900.2	52415.25	15:54:34	4/11/2022	bottom not in view	
SHIDS-04	287900.16	52415.41	15:54:35	4/11/2022	bottom not in view	
SHIDS-04	287900.17	52415.62	15:54:36	4/11/2022	bottom not in view	
SHIDS-04	287900.15	52415.86	15:54:37	4/11/2022	bottom not in view	
SHIDS-04	287900.12	52415.95	15:54:38	4/11/2022	bottom not in view	
SHIDS-04	287900.15	52416.23	15:54:39	4/11/2022	bottom not in view	
SHIDS-04	287900.11	52416.33	15:54:40	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-04	287900.14	52416.55	15:54:41	4/11/2022	bottom not in view	
SHIDS-04	287900.14	52416.75	15:54:42	4/11/2022	bottom not in view	
SHIDS-04	287900.13	52416.85	15:54:43	4/11/2022	bottom not in view	
SHIDS-04	287900.21	52417.17	15:54:44	4/11/2022	bottom not in view	
SHIDS-04	287900.2	52417.24	15:54:45	4/11/2022	bottom not in view	
SHIDS-04	287900.28	52417.49	15:54:46	4/11/2022	bottom not in view	
SHIDS-04	287900.33	52417.72	15:54:47	4/11/2022	bottom not in view	
SHIDS-04	287900.37	52417.78	15:54:48	4/11/2022	bottom not in view	
SHIDS-04	287900.47	52418.12	15:54:49	4/11/2022	bottom not in view	
SHIDS-04	287900.5	52418.22	15:54:50	4/11/2022	bottom not in view	
SHIDS-04	287900.58	52418.47	15:54:51	4/11/2022	bottom not in view	
SHIDS-04	287900.59	52418.7	15:54:52	4/11/2022	bottom not in view	
SHIDS-04	287900.62	52418.83	15:54:53	4/11/2022	bottom not in view	
SHIDS-04	287900.65	52419.11	15:54:54	4/11/2022	bottom not in view	
SHIDS-04	287900.7	52419.29	15:54:55	4/11/2022	bottom not in view	
SHIDS-04	287900.74	52419.48	15:54:56	4/11/2022	bottom not in view	
SHIDS-04	287900.78	52419.69	15:54:57	4/11/2022	bottom not in view	
SHIDS-04	287900.86	52419.91	15:54:58	4/11/2022	bottom not in view	
SHIDS-04	287901.1	52420.02	15:54:59	4/11/2022	bottom not in view	
SHIDS-04	287901.7	52420.15	15:55:00	4/11/2022	bottom not in view	
SHIDS-04	287902.59	52420.3	15:55:01	4/11/2022	bottom not in view	
SHIDS-04	287903.67	52420.32	15:55:02	4/11/2022	bottom not in view	
SHIDS-04	287904.8	52420.36	15:55:03	4/11/2022	bottom not in view	
SHIDS-04	287905.94	52420.45	15:55:04	4/11/2022	bottom not in view	
SHIDS-04	287907	52420.37	15:55:05	4/11/2022	bottom not in view	
SHIDS-04	287908.04	52420.42	15:55:06	4/11/2022	bottom not in view	
SHIDS-04	287908.93	52420.5	15:55:07	4/11/2022	bottom not in view	
SHIDS-04	287909.56	52420.46	15:55:08	4/11/2022	bottom not in view	
SHIDS-04	287910.26	52420.59	15:55:09	4/11/2022	bottom not in view	
SHIDS-04	287910.97	52420.7	15:55:10	4/11/2022	bottom not in view	
SHIDS-04	287911.59	52420.68	15:55:11	4/11/2022	bottom not in view	
SHIDS-04	287912.3	52420.8	15:55:12	4/11/2022	bottom not in view	camera passes over rail
SHIDS-04	287912.95	52420.85	15:55:13	4/11/2022	bottom not in view	camera over water
SHIDS-04	287913.56	52420.83	15:55:14	4/11/2022	bottom not in view	
SHIDS-04	287914.22	52420.9	15:55:15	4/11/2022	bottom not in view	
SHIDS-04	287914.85	52420.96	15:55:16	4/11/2022	bottom not in view	
SHIDS-04	287915.4	52420.91	15:55:17	4/11/2022	bottom not in view	
SHIDS-04	287916.05	52421.04	15:55:18	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-04	287916.63	52421.07	15:55:19	4/11/2022	bottom not in view	
SHIDS-04	287917.16	52421	15:55:20	4/11/2022	bottom not in view	
SHIDS-04	287917.84	52421.18	15:55:21	4/11/2022	bottom not in view	
SHIDS-04	287918.35	52421.14	15:55:22	4/11/2022	bottom not in view	
SHIDS-04	287918.89	52421.11	15:55:23	4/11/2022	bottom not in view	
SHIDS-04	287919.55	52421.31	15:55:24	4/11/2022	bottom not in view	
SHIDS-04	287919.98	52421.18	15:55:25	4/11/2022	bottom not in view	
SHIDS-04	287920.61	52421.27	15:55:26	4/11/2022	bottom not in view	
SHIDS-04	287921.16	52421.39	15:55:27	4/11/2022	bottom not in view	
SHIDS-04	287921.61	52421.23	15:55:28	4/11/2022	bottom not in view	camera enters water
SHIDS-04	287922.22	52421.45	15:55:29	4/11/2022	bottom not in view	
SHIDS-04	287922.69	52421.45	15:55:30	4/11/2022	bottom not in view	
SHIDS-04	287923.16	52421.4	15:55:31	4/11/2022	bottom not in view	
SHIDS-04	287923.72	52421.6	15:55:32	4/11/2022	bottom not in view	
SHIDS-04	287924.15	52421.51	15:55:33	4/11/2022	bottom not in view	
SHIDS-04	287924.6	52421.58	15:55:34	4/11/2022	bottom not in view	
SHIDS-04	287925.13	52421.71	15:55:35	4/11/2022	bottom not in view	
SHIDS-04	287925.54	52421.67	15:55:36	4/11/2022	bottom not in view	
SHIDS-04	287926.04	52421.76	15:55:37	4/11/2022	bottom not in view	
SHIDS-04	287926.54	52421.86	15:55:38	4/11/2022	bottom not in view	
SHIDS-04	287926.92	52421.8	15:55:39	4/11/2022	bottom not in view	
SHIDS-04	287927.46	52421.97	15:55:40	4/11/2022	bottom not in view	
SHIDS-04	287927.84	52421.96	15:55:41	4/11/2022	bottom not in view	
SHIDS-04	287928.26	52421.99	15:55:42	4/11/2022	bottom not in view	
SHIDS-04	287928.76	52422.15	15:55:43	4/11/2022	bottom not in view	
SHIDS-04	287929.06	52422.06	15:55:44	4/11/2022	bottom not in view	
SHIDS-04	287929.58	52422.25	15:55:45	4/11/2022	bottom not in view	
SHIDS-04	287929.94	52422.27	15:55:46	4/11/2022	bottom not in view	
SHIDS-04	287930.31	52422.24	15:55:47	4/11/2022	bottom not in view	
SHIDS-04	287930.8	52422.46	15:55:48	4/11/2022	bottom not in view	
SHIDS-04	287931.08	52422.39	15:55:49	4/11/2022	bottom not in view	
SHIDS-04	287931.48	52422.47	15:55:50	4/11/2022	bottom not in view	
SHIDS-04	287931.92	52422.64	15:55:51	4/11/2022	bottom not in view	
SHIDS-04	287932.18	52422.58	15:55:52	4/11/2022	bottom not in view	
SHIDS-04	287932.62	52422.72	15:55:53	4/11/2022	bottom not in view	
SHIDS-04	287933.02	52422.85	15:55:54	4/11/2022	bottom not in view	
SHIDS-04	287933.29	52422.76	15:55:55	4/11/2022	bottom not in view	
SHIDS-04	287933.76	52423.01	15:55:56	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-04	287934.03	52423.01	15:55:57	4/11/2022	bottom not in view	
SHIDS-04	287934.4	52423.06	15:55:58	4/11/2022	bottom in view, not distinguishable	
SHIDS-04	287934.78	52423.21	15:55:59	4/11/2022	bottom in view, not distinguishable	
SHIDS-04	287935.04	52423.22	15:56:00	4/11/2022	microbial mats, silt	
SHIDS-04	287935.43	52423.36	15:56:01	4/11/2022	microbial mats, silt	
SHIDS-04	287935.74	52423.44	15:56:02	4/11/2022	microbial mats, silt	
SHIDS-04	287936.06	52423.51	15:56:03	4/11/2022	microbial mats, silt	
SHIDS-04	287936.4	52423.62	15:56:04	4/11/2022	microbial mats, silt	
SHIDS-04	287936.65	52423.66	15:56:05	4/11/2022	microbial mats, silt	
SHIDS-04	287937	52423.77	15:56:06	4/11/2022	microbial mats, silt	
SHIDS-04	287937.34	52423.91	15:56:07	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287937.58	52423.91	15:56:08	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287937.95	52424.11	15:56:09	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287938.26	52424.22	15:56:10	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287938.49	52424.22	15:56:11	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287938.89	52424.46	15:56:12	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287939.15	52424.54	15:56:13	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287939.37	52424.52	15:56:14	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287939.8	52424.85	15:56:15	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287940.01	52424.83	15:56:16	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287940.31	52424.95	15:56:17	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287940.67	52425.22	15:56:18	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287940.89	52425.21	15:56:19	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287941.21	52425.4	15:56:20	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287941.52	52425.58	15:56:21	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287941.78	52425.65	15:56:22	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287942.06	52425.81	15:56:23	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287942.38	52426	15:56:24	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287942.77	52425.98	15:56:25	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287943.56	52426.04	15:56:26	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287944.36	52426.13	15:56:27	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287945.01	52426.03	15:56:28	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287945.76	52426.09	15:56:29	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287946.42	52426.11	15:56:30	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287947.05	52425.98	15:56:31	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287947.72	52426.1	15:56:32	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287948.25	52426	15:56:33	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287948.83	52425.95	15:56:34	4/11/2022	microbial mats, silt	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-04	287949.47	52426.02	15:56:35	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287949.91	52425.87	15:56:36	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287950.47	52425.93	15:56:37	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287950.97	52425.88	15:56:38	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287951.42	52425.81	15:56:39	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287951.94	52425.88	15:56:40	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287952.34	52425.77	15:56:41	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287952.83	52425.82	15:56:42	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287953.26	52425.83	15:56:43	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287953.63	52425.74	15:56:44	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287954.13	52425.86	15:56:45	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287954.46	52425.77	15:56:46	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287954.9	52425.84	15:56:47	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287955.29	52425.85	15:56:48	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287955.63	52425.84	15:56:49	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287956.07	52425.94	15:56:50	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287956.36	52425.88	15:56:51	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287956.78	52425.97	15:56:52	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287957.17	52426.06	15:56:53	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287957.42	52425.97	15:56:54	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287957.88	52426.16	15:56:55	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287958.16	52426.13	15:56:56	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287958.48	52426.15	15:56:57	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287958.92	52426.33	15:56:58	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287959.17	52426.27	15:56:59	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287959.58	52426.42	15:57:00	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287959.92	52426.48	15:57:01	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287960.22	52426.5	15:57:02	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287960.61	52426.63	15:57:03	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287961.11	52426.58	15:57:04	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287961.83	52426.48	15:57:05	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287962.53	52426.49	15:57:06	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287963.15	52426.36	15:57:07	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287963.78	52426.3	15:57:08	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287964.45	52426.3	15:57:09	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287964.95	52426.14	15:57:10	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287965.66	52426.18	15:57:11	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287966.18	52426.08	15:57:12	4/11/2022	microbial mats, silt	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-04	287966.73	52425.99	15:57:13	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287967.35	52426.06	15:57:14	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287967.75	52425.87	15:57:15	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287968.36	52425.92	15:57:16	4/11/2022	microbial mats, silt	tracks and trails
SHIDS-04	287968.88	52425.92	15:57:17	4/11/2022	bottom not visible	Grab taken
SHIDS-04	287969.27	52425.76	15:57:18	4/11/2022	bottom not visible	
SHIDS-04	287969.9	52425.9	15:57:19	4/11/2022	bottom not visible	Camera begins ascending
SHIDS-04	287970.28	52425.77	15:57:20	4/11/2022	bottom not visible	
SHIDS-04	287970.78	52425.77	15:57:21	4/11/2022	bottom not visible	
SHIDS-04	287971.32	52425.8	15:57:22	4/11/2022	bottom not visible	
SHIDS-05	287456.01	52272.2	15:11:51	4/11/2022	bottom not in view	camera on deck
SHIDS-05	287456.13	52272.27	15:11:51	4/11/2022	bottom not in view	
SHIDS-05	287456.41	52272.39	15:11:52	4/11/2022	bottom not in view	
SHIDS-05	287456.69	52272.4	15:11:53	4/11/2022	bottom not in view	
SHIDS-05	287456.96	52272.55	15:11:54	4/11/2022	bottom not in view	
SHIDS-05	287457.23	52272.63	15:11:55	4/11/2022	bottom not in view	
SHIDS-05	287457.51	52272.7	15:11:56	4/11/2022	bottom not in view	
SHIDS-05	287457.78	52272.88	15:11:57	4/11/2022	bottom not in view	
SHIDS-05	287458.08	52272.99	15:11:58	4/11/2022	bottom not in view	
SHIDS-05	287458.37	52273.13	15:11:59	4/11/2022	bottom not in view	
SHIDS-05	287458.67	52273.33	15:12:00	4/11/2022	bottom not in view	
SHIDS-05	287458.98	52273.46	15:12:01	4/11/2022	bottom not in view	
SHIDS-05	287459.27	52273.64	15:12:02	4/11/2022	bottom not in view	
SHIDS-05	287459.56	52273.83	15:12:03	4/11/2022	bottom not in view	
SHIDS-05	287459.86	52274	15:12:04	4/11/2022	bottom not in view	
SHIDS-05	287460.14	52274.19	15:12:05	4/11/2022	bottom not in view	
SHIDS-05	287460.43	52274.39	15:12:06	4/11/2022	bottom not in view	
SHIDS-05	287460.73	52274.58	15:12:07	4/11/2022	bottom not in view	
SHIDS-05	287461.05	52274.78	15:12:08	4/11/2022	bottom not in view	
SHIDS-05	287461.38	52275.01	15:12:09	4/11/2022	bottom not in view	
SHIDS-05	287461.69	52275.22	15:12:10	4/11/2022	bottom not in view	
SHIDS-05	287462	52275.44	15:12:11	4/11/2022	bottom not in view	
SHIDS-05	287462.31	52275.66	15:12:12	4/11/2022	bottom not in view	
SHIDS-05	287462.63	52275.88	15:12:13	4/11/2022	bottom not in view	
SHIDS-05	287462.94	52276.12	15:12:14	4/11/2022	bottom not in view	camera passes over rail
SHIDS-05	287463.26	52276.37	15:12:15	4/11/2022	bottom not in view	camera over water
SHIDS-05	287463.58	52276.61	15:12:16	4/11/2022	bottom not in view	
SHIDS-05	287463.9	52276.87	15:12:17	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-05	287464.22	52277.14	15:12:18	4/11/2022	bottom not in view	
SHIDS-05	287464.54	52277.41	15:12:19	4/11/2022	bottom not in view	
SHIDS-05	287464.86	52277.67	15:12:20	4/11/2022	bottom not in view	
SHIDS-05	287465.2	52277.96	15:12:21	4/11/2022	bottom not in view	
SHIDS-05	287465.53	52278.25	15:12:22	4/11/2022	bottom not in view	
SHIDS-05	287465.87	52278.53	15:12:23	4/11/2022	bottom not in view	
SHIDS-05	287466.18	52278.8	15:12:24	4/11/2022	bottom not in view	
SHIDS-05	287466.52	52279.12	15:12:25	4/11/2022	bottom not in view	camera enters water
SHIDS-05	287466.87	52279.41	15:12:26	4/11/2022	bottom not in view	
SHIDS-05	287467.2	52279.73	15:12:27	4/11/2022	bottom not in view	
SHIDS-05	287467.54	52280.05	15:12:28	4/11/2022	bottom not in view	
SHIDS-05	287467.88	52280.38	15:12:29	4/11/2022	bottom not in view	
SHIDS-05	287468.22	52280.72	15:12:30	4/11/2022	bottom not in view	
SHIDS-05	287468.57	52281.06	15:12:31	4/11/2022	bottom not in view	
SHIDS-05	287468.93	52281.37	15:12:32	4/11/2022	bottom not in view	
SHIDS-05	287469.27	52281.73	15:12:33	4/11/2022	bottom not in view	
SHIDS-05	287469.62	52282.06	15:12:34	4/11/2022	bottom not in view	
SHIDS-05	287469.98	52282.4	15:12:35	4/11/2022	bottom not in view	
SHIDS-05	287470.33	52282.76	15:12:36	4/11/2022	bottom not in view	
SHIDS-05	287470.68	52283.08	15:12:37	4/11/2022	bottom not in view	
SHIDS-05	287471.03	52283.44	15:12:38	4/11/2022	bottom not in view	
SHIDS-05	287471.4	52283.78	15:12:39	4/11/2022	bottom not in view	
SHIDS-05	287471.76	52284.1	15:12:40	4/11/2022	bottom not in view	
SHIDS-05	287472.12	52284.46	15:12:41	4/11/2022	bottom not in view	
SHIDS-05	287472.49	52284.81	15:12:42	4/11/2022	bottom not in view	
SHIDS-05	287472.84	52285.12	15:12:43	4/11/2022	bottom not in view	
SHIDS-05	287473.19	52285.48	15:12:44	4/11/2022	bottom not in view	
SHIDS-05	287473.55	52285.8	15:12:45	4/11/2022	bottom not in view	
SHIDS-05	287473.9	52286.12	15:12:46	4/11/2022	bottom not in view	
SHIDS-05	287474.24	52286.46	15:12:47	4/11/2022	bottom not in view	
SHIDS-05	287474.59	52286.78	15:12:48	4/11/2022	bottom not in view	
SHIDS-05	287474.94	52287.1	15:12:49	4/11/2022	bottom not in view	
SHIDS-05	287475.31	52287.44	15:12:50	4/11/2022	bottom not in view	
SHIDS-05	287475.66	52287.76	15:12:51	4/11/2022	bottom not in view	
SHIDS-05	287476.02	52288.07	15:12:52	4/11/2022	bottom not in view	
SHIDS-05	287476.36	52288.38	15:12:53	4/11/2022	bottom not in view	
SHIDS-05	287476.71	52288.71	15:12:54	4/11/2022	bottom not in view, substrate not distinguishable	bottom in view
SHIDS-05	287477.06	52289.02	15:12:55	4/11/2022	sand, microbial mats	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-05	287477.41	52289.31	15:12:56	4/11/2022	sand, microbial mats	
SHIDS-05	287477.72	52289.59	15:12:57	4/11/2022	sand, microbial mats	
SHIDS-05	287478.08	52289.9	15:12:58	4/11/2022	sand, large rock, microbial mats	
SHIDS-05	287478.41	52290.16	15:12:59	4/11/2022	sand, large rock, microbial mats	
SHIDS-05	287478.74	52290.45	15:13:00	4/11/2022	sand, large rock, microbial mats	
SHIDS-05	287479.05	52290.75	15:13:01	4/11/2022	sand, microbial mats	
SHIDS-05	287479.4	52291.02	15:13:02	4/11/2022	sand, microbial mats	
SHIDS-05	287479.73	52291.33	15:13:03	4/11/2022	sand, microbial mats	
SHIDS-05	287480.05	52291.64	15:13:04	4/11/2022	microbial mats, large rock	
SHIDS-05	287480.39	52291.92	15:13:05	4/11/2022	microbial mats, large rock	
SHIDS-05	287480.68	52292.17	15:13:06	4/11/2022	microbial mats, large rock	encrusting organisms on rocks
SHIDS-05	287481.01	52292.49	15:13:07	4/11/2022	microbial mats, large rock	
SHIDS-05	287481.32	52292.74	15:13:08	4/11/2022	microbial mats, sand	
SHIDS-05	287481.63	52293.01	15:13:09	4/11/2022	microbial mats, sand	
SHIDS-05	287481.94	52293.31	15:13:10	4/11/2022	microbial mats, sand	
SHIDS-05	287482.23	52293.56	15:13:11	4/11/2022	microbial mats, sand	
SHIDS-05	287482.55	52293.85	15:13:12	4/11/2022	microbial mats, sand	
SHIDS-05	287482.88	52294.17	15:13:13	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287483.16	52294.38	15:13:14	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287483.48	52294.69	15:13:15	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287483.77	52294.97	15:13:16	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287484.05	52295.17	15:13:17	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287484.35	52295.5	15:13:18	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287484.64	52295.76	15:13:19	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287484.93	52296.01	15:13:20	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287485.23	52296.31	15:13:21	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287485.52	52296.59	15:13:22	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287485.81	52296.82	15:13:23	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287486.1	52297.11	15:13:24	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287486.35	52297.32	15:13:25	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287486.65	52297.62	15:13:26	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287486.94	52297.89	15:13:27	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287487.22	52298.17	15:13:28	4/11/2022	microbial mats, sand	
SHIDS-05	287487.51	52298.44	15:13:29	4/11/2022	microbial mats, sand	
SHIDS-05	287487.78	52298.7	15:13:30	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287488.07	52298.97	15:13:31	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287488.32	52299.22	15:13:32	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287488.61	52299.49	15:13:33	4/11/2022	microbial mats, sand, gravel	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-05	287488.88	52299.76	15:13:34	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287489.14	52300.01	15:13:35	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287489.4	52300.27	15:13:36	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287489.67	52300.52	15:13:37	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287489.94	52300.78	15:13:38	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287490.23	52301.06	15:13:39	4/11/2022	microbial mats, sand, gravel	crab
SHIDS-05	287490.5	52301.33	15:13:40	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287490.77	52301.57	15:13:41	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287491.03	52301.88	15:13:42	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287491.29	52302.1	15:13:43	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287491.54	52302.35	15:13:44	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287491.83	52302.64	15:13:45	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287492.06	52302.84	15:13:46	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287492.31	52303.09	15:13:47	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287492.57	52303.37	15:13:48	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287492.81	52303.58	15:13:49	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287493.1	52303.91	15:13:50	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287493.35	52304.15	15:13:51	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287493.61	52304.4	15:13:52	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287493.89	52304.68	15:13:53	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287494.14	52304.92	15:13:54	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287494.38	52305.15	15:13:55	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287494.64	52305.42	15:13:56	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287494.9	52305.67	15:13:57	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287495.14	52305.92	15:13:58	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287495.42	52306.19	15:13:59	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287495.68	52306.44	15:14:00	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287495.95	52306.7	15:14:01	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287496.2	52306.95	15:14:02	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287496.48	52307.21	15:14:03	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287496.73	52307.46	15:14:04	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287497.01	52307.72	15:14:05	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287497.28	52307.99	15:14:06	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287497.53	52308.22	15:14:07	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287497.82	52308.52	15:14:08	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287498.08	52308.74	15:14:09	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287498.33	52308.99	15:14:10	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287498.61	52309.26	15:14:11	4/11/2022	microbial mats, sand, gravel	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-05	287498.87	52309.5	15:14:12	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287499.12	52309.74	15:14:13	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287499.84	52308.95	15:14:14	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287500.13	52309.24	15:14:15	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287500.36	52309.46	15:14:16	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287500.65	52309.76	15:14:17	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287500.91	52310.03	15:14:18	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287501.14	52310.23	15:14:19	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287501.42	52310.55	15:14:20	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287501.67	52310.8	15:14:21	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287501.87	52311.01	15:14:22	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287502.16	52311.33	15:14:23	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287502.4	52311.58	15:14:24	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287502.61	52311.8	15:14:25	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287502.91	52312.14	15:14:26	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287503.13	52312.39	15:14:27	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287503.36	52312.63	15:14:28	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287503.65	52312.96	15:14:29	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287503.86	52313.18	15:14:30	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287504.12	52313.49	15:14:31	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287504.36	52313.77	15:14:32	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287504.59	52314.02	15:14:33	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287504.84	52314.32	15:14:34	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287505.09	52314.6	15:14:35	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287505.28	52314.83	15:14:36	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287505.53	52315.14	15:14:37	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287505.74	52315.41	15:14:38	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287505.96	52315.68	15:14:39	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287506.21	52316.01	15:14:40	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287506.4	52316.23	15:14:41	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287506.68	52316.59	15:14:42	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287506.89	52316.86	15:14:43	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287507.08	52317.09	15:14:44	4/11/2022	microbial mats, sand, gravel	tracks and trails, anemone
SHIDS-05	287507.33	52317.44	15:14:45	4/11/2022	microbial mats, sand, gravel	tracks and trails
SHIDS-05	287507.52	52317.68	15:14:46	4/11/2022	microbial mats, sand, gravel	
SHIDS-05	287507.75	52317.99	15:14:47	4/11/2022	bottom not in view	Grab taken, hermit crab
SHIDS-05	287507.96	52318.3	15:14:48	4/11/2022	bottom not in view	Camera begins ascending
SHIDS-05	287508.16	52318.57	15:14:49	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-05	287508.39	52318.9	15:14:50	4/11/2022	bottom not in view	
SHIDS-05	287508.6	52319.17	15:14:51	4/11/2022	bottom not in view	
SHIDS-05	287508.8	52319.44	15:14:52	4/11/2022	bottom not in view	
SHIDS-05	287509.02	52319.76	15:14:53	4/11/2022	bottom not in view	
SHIDS-05	287509.22	52320.06	15:14:54	4/11/2022	bottom not in view	
SHIDS-05	287509.4	52320.3	15:14:55	4/11/2022	bottom not in view	
SHIDS-06	287285.56	52037.43	15:01:28	4/11/2022	bottom not in view	camera on deck
SHIDS-06	287285.77	52037.6	15:01:28	4/11/2022	bottom not in view	
SHIDS-06	287286.29	52038.02	15:01:29	4/11/2022	bottom not in view	
SHIDS-06	287286.88	52038.51	15:01:30	4/11/2022	bottom not in view	
SHIDS-06	287287.47	52039.01	15:01:31	4/11/2022	bottom not in view	
SHIDS-06	287288.1	52039.49	15:01:32	4/11/2022	bottom not in view	
SHIDS-06	287288.67	52039.92	15:01:33	4/11/2022	bottom not in view	
SHIDS-06	287289.26	52040.36	15:01:34	4/11/2022	bottom not in view	
SHIDS-06	287289.91	52040.83	15:01:35	4/11/2022	bottom not in view	
SHIDS-06	287290.5	52041.22	15:01:36	4/11/2022	bottom not in view	
SHIDS-06	287291.11	52041.67	15:01:37	4/11/2022	bottom not in view	
SHIDS-06	287291.75	52042.1	15:01:38	4/11/2022	bottom not in view	
SHIDS-06	287292.31	52042.63	15:01:39	4/11/2022	bottom not in view	
SHIDS-06	287292.6	52043.99	15:01:40	4/11/2022	bottom not in view	
SHIDS-06	287293.22	52044.36	15:01:41	4/11/2022	bottom not in view	
SHIDS-06	287293.83	52044.7	15:01:42	4/11/2022	bottom not in view	
SHIDS-06	287294.45	52045.06	15:01:43	4/11/2022	bottom not in view	
SHIDS-06	287295.07	52045.4	15:01:44	4/11/2022	bottom not in view	
SHIDS-06	287295.72	52045.72	15:01:45	4/11/2022	bottom not in view	
SHIDS-06	287296.28	52046.02	15:01:46	4/11/2022	bottom not in view	
SHIDS-06	287296.89	52046.32	15:01:47	4/11/2022	bottom not in view	
SHIDS-06	287297.49	52046.59	15:01:48	4/11/2022	bottom not in view	
SHIDS-06	287298.13	52046.89	15:01:49	4/11/2022	bottom not in view	
SHIDS-06	287298.69	52047.16	15:01:50	4/11/2022	bottom not in view	
SHIDS-06	287299.27	52047.39	15:01:51	4/11/2022	bottom not in view	
SHIDS-06	287299.85	52047.66	15:01:52	4/11/2022	bottom not in view	
SHIDS-06	287300.42	52047.91	15:01:53	4/11/2022	bottom not in view	
SHIDS-06	287301	52048.14	15:01:54	4/11/2022	bottom not in view	
SHIDS-06	287301.56	52048.37	15:01:55	4/11/2022	bottom not in view	
SHIDS-06	287302.16	52048.62	15:01:56	4/11/2022	bottom not in view	
SHIDS-06	287302.68	52048.83	15:01:57	4/11/2022	bottom not in view	
SHIDS-06	287303.24	52049.04	15:01:58	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-06	287303.78	52049.27	15:01:59	4/11/2022	bottom not in view	
SHIDS-06	287304.33	52049.45	15:02:00	4/11/2022	bottom not in view	camera passes over rail, now over water
SHIDS-06	287304.85	52049.64	15:02:01	4/11/2022	bottom not in view	
SHIDS-06	287305.38	52049.83	15:02:02	4/11/2022	bottom not in view	
SHIDS-06	287305.91	52050.04	15:02:03	4/11/2022	bottom not in view	
SHIDS-06	287306.43	52050.2	15:02:04	4/11/2022	bottom not in view	
SHIDS-06	287306.95	52050.42	15:02:05	4/11/2022	bottom not in view	
SHIDS-06	287307.49	52050.63	15:02:06	4/11/2022	bottom not in view	
SHIDS-06	287308.01	52050.8	15:02:07	4/11/2022	bottom not in view	
SHIDS-06	287308.51	52051	15:02:08	4/11/2022	bottom not in view	
SHIDS-06	287309.01	52051.16	15:02:09	4/11/2022	bottom not in view	
SHIDS-06	287309.52	52051.33	15:02:10	4/11/2022	bottom not in view	
SHIDS-06	287310.02	52051.52	15:02:11	4/11/2022	bottom not in view	
SHIDS-06	287310.51	52051.67	15:02:12	4/11/2022	bottom not in view	
SHIDS-06	287311.02	52051.87	15:02:13	4/11/2022	bottom not in view	
SHIDS-06	287311.52	52052.07	15:02:14	4/11/2022	bottom not in view	
SHIDS-06	287312.02	52052.23	15:02:15	4/11/2022	bottom not in view	
SHIDS-06	287312.5	52052.4	15:02:16	4/11/2022	bottom not in view	
SHIDS-06	287312.99	52052.6	15:02:17	4/11/2022	bottom not in view	camera enters water
SHIDS-06	287313.46	52052.74	15:02:18	4/11/2022	bottom not in view	
SHIDS-06	287313.95	52052.91	15:02:19	4/11/2022	bottom not in view	
SHIDS-06	287314.43	52053.09	15:02:20	4/11/2022	bottom not in view	
SHIDS-06	287314.86	52053.21	15:02:21	4/11/2022	bottom not in view	
SHIDS-06	287315.36	52053.41	15:02:22	4/11/2022	bottom not in view	
SHIDS-06	287315.79	52053.55	15:02:23	4/11/2022	bottom not in view	
SHIDS-06	287316.25	52053.7	15:02:24	4/11/2022	bottom not in view	
SHIDS-06	287316.71	52053.87	15:02:25	4/11/2022	bottom not in view	
SHIDS-06	287317.14	52054.01	15:02:26	4/11/2022	bottom not in view	
SHIDS-06	287317.57	52054.14	15:02:27	4/11/2022	bottom not in view	
SHIDS-06	287318	52054.29	15:02:28	4/11/2022	bottom not in view	
SHIDS-06	287318.43	52054.45	15:02:29	4/11/2022	bottom not in view	
SHIDS-06	287318.85	52054.56	15:02:30	4/11/2022	bottom not in view	
SHIDS-06	287319.27	52054.72	15:02:31	4/11/2022	bottom not in view	
SHIDS-06	287319.69	52054.87	15:02:32	4/11/2022	bottom not in view	
SHIDS-06	287320.11	52055	15:02:33	4/11/2022	bottom not in view	
SHIDS-06	287320.51	52055.14	15:02:34	4/11/2022	bottom not in view	
SHIDS-06	287320.91	52055.28	15:02:35	4/11/2022	bottom not in view	
SHIDS-06	287321.3	52055.41	15:02:36	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-06	287321.7	52055.52	15:02:37	4/11/2022	bottom not in view	
SHIDS-06	287322.1	52055.69	15:02:38	4/11/2022	bottom not in view	
SHIDS-06	287322.48	52055.82	15:02:39	4/11/2022	bottom not in view	
SHIDS-06	287322.9	52055.97	15:02:40	4/11/2022	bottom not in view	
SHIDS-06	287323.28	52056.11	15:02:41	4/11/2022	bottom not in view	
SHIDS-06	287323.65	52056.24	15:02:42	4/11/2022	bottom not in view	
SHIDS-06	287324.02	52056.36	15:02:43	4/11/2022	bottom not in view	
SHIDS-06	287324.39	52056.49	15:02:44	4/11/2022	bottom not in view	
SHIDS-06	287324.78	52056.63	15:02:45	4/11/2022	bottom not in view	
SHIDS-06	287325.12	52056.73	15:02:46	4/11/2022	bottom not in view	
SHIDS-06	287325.51	52056.89	15:02:47	4/11/2022	bottom not in view	
SHIDS-06	287325.87	52057.01	15:02:48	4/11/2022	bottom not in view	
SHIDS-06	287326.22	52057.12	15:02:49	4/11/2022	bottom not in view	
SHIDS-06	287326.58	52057.29	15:02:50	4/11/2022	bottom not in view	
SHIDS-06	287326.92	52057.4	15:02:51	4/11/2022	bottom not in view	
SHIDS-06	287327.27	52057.5	15:02:52	4/11/2022	bottom not in view	
SHIDS-06	287327.65	52057.68	15:02:53	4/11/2022	bottom not in view	
SHIDS-06	287327.99	52057.78	15:02:54	4/11/2022	bottom not in view	
SHIDS-06	287328.34	52057.92	15:02:55	4/11/2022	bottom not in view	
SHIDS-06	287328.67	52058.07	15:02:56	4/11/2022	bottom not in view	
SHIDS-06	287328.99	52058.17	15:02:57	4/11/2022	bottom not in view	
SHIDS-06	287329.34	52058.3	15:02:58	4/11/2022	bottom not in view	
SHIDS-06	287329.68	52058.47	15:02:59	4/11/2022	bottom not in view	
SHIDS-06	287330.01	52058.59	15:03:00	4/11/2022	bottom not in view	
SHIDS-06	287330.33	52058.71	15:03:01	4/11/2022	bottom not in view	
SHIDS-06	287330.66	52058.86	15:03:02	4/11/2022	bottom not in view	
SHIDS-06	287330.98	52058.99	15:03:03	4/11/2022	bottom not in view	
SHIDS-06	287331.32	52059.13	15:03:04	4/11/2022	bottom not in view	
SHIDS-06	287331.63	52059.27	15:03:05	4/11/2022	bottom not in view	
SHIDS-06	287331.96	52059.42	15:03:06	4/11/2022	bottom not in view	
SHIDS-06	287332.28	52059.56	15:03:07	4/11/2022	bottom not in view	
SHIDS-06	287332.61	52059.72	15:03:08	4/11/2022	bottom not in view	
SHIDS-06	287332.93	52059.86	15:03:09	4/11/2022	bottom not in view	
SHIDS-06	287333.26	52060.02	15:03:10	4/11/2022	bottom not in view	
SHIDS-06	287333.58	52060.18	15:03:11	4/11/2022	bottom not in view	
SHIDS-06	287333.9	52060.3	15:03:12	4/11/2022	bottom not in view	
SHIDS-06	287334.2	52060.45	15:03:13	4/11/2022	bottom not in view	
SHIDS-06	287334.53	52060.62	15:03:14	4/11/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-06	287334.83	52060.75	15:03:15	4/11/2022	bottom not in view	
SHIDS-06	287335.13	52060.89	15:03:16	4/11/2022	bottom not in view	
SHIDS-06	287335.45	52061.11	15:03:17	4/11/2022	bottom not in view	
SHIDS-06	287335.75	52061.22	15:03:18	4/11/2022	bottom not in view	
SHIDS-06	287336.04	52061.36	15:03:19	4/11/2022	bottom not in view	
SHIDS-06	287336.38	52061.59	15:03:20	4/11/2022	bottom not in view	
SHIDS-06	287336.64	52061.69	15:03:21	4/11/2022	bottom not in view	
SHIDS-06	287336.92	52061.81	15:03:22	4/11/2022	bottom not in view	
SHIDS-06	287337.28	52062.06	15:03:23	4/11/2022	bottom not in view	
SHIDS-06	287337.55	52062.19	15:03:24	4/11/2022	bottom not in view	
SHIDS-06	287337.83	52062.3	15:03:25	4/11/2022	bottom not in view	
SHIDS-06	287338.15	52062.52	15:03:26	4/11/2022	bottom not in view	
SHIDS-06	287338.44	52062.66	15:03:27	4/11/2022	bottom not in view	
SHIDS-06	287338.72	52062.79	15:03:28	4/11/2022	bottom not in view	
SHIDS-06	287339.04	52062.99	15:03:29	4/11/2022	bottom not in view	
SHIDS-06	287339.33	52063.15	15:03:30	4/11/2022	bottom not in view	
SHIDS-06	287339.6	52063.3	15:03:31	4/11/2022	bottom not in view	
SHIDS-06	287339.89	52063.42	15:03:32	4/11/2022	bottom not in view	
SHIDS-06	287340.21	52063.62	15:03:33	4/11/2022	bottom not in view	
SHIDS-06	287340.49	52063.78	15:03:34	4/11/2022	bottom not in view	
SHIDS-06	287340.76	52063.9	15:03:35	4/11/2022	bottom not in view	
SHIDS-06	287341.09	52064.14	15:03:36	4/11/2022	bottom not in view	
SHIDS-06	287341.37	52064.27	15:03:37	4/11/2022	bottom not in view	
SHIDS-06	287341.65	52064.43	15:03:38	4/11/2022	bottom not in view	
SHIDS-06	287341.96	52064.64	15:03:39	4/11/2022	bottom not in view	
SHIDS-06	287342.22	52064.8	15:03:40	4/11/2022	bottom not in view	
SHIDS-06	287342.51	52064.95	15:03:41	4/11/2022	bottom not in view	
SHIDS-06	287342.81	52065.16	15:03:42	4/11/2022	bottom in view, substrate not distinguishable	bottom in view
SHIDS-06	287343.07	52065.33	15:03:43	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287343.36	52065.49	15:03:44	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287343.62	52065.67	15:03:45	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287343.9	52065.85	15:03:46	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287344.17	52066.02	15:03:47	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287344.4	52066.17	15:03:48	4/11/2022	sand, gravel and cobbles, shell hash	encrusting organism on large rock
SHIDS-06	287344.67	52066.34	15:03:49	4/11/2022	sand, gravel and cobbles, shell hash	encrusting organism on large rock
SHIDS-06	287344.96	52066.53	15:03:50	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287345.22	52066.71	15:03:51	4/11/2022	sand, gravel and cobbles, shell hash	encrusting organism on large rock, vegetation
SHIDS-06	287345.5	52066.88	15:03:52	4/11/2022	sand, gravel and cobbles, shell hash	encrusting organism on large rock, vegetation

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-06	287345.78	52067.1	15:03:53	4/11/2022	sand, gravel and cobbles, shell hash	encrusting organism on large rock, vegetation
SHIDS-06	287346.05	52067.28	15:03:54	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287346.3	52067.43	15:03:55	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287346.57	52067.63	15:03:56	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287346.82	52067.79	15:03:57	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287347.09	52067.97	15:03:58	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287347.35	52068.16	15:03:59	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287347.6	52068.32	15:04:00	4/11/2022	sand, gravel and cobbles, shell hash	
SHIDS-06	287347.88	52068.53	15:04:01	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287348.12	52068.7	15:04:02	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287348.39	52068.9	15:04:03	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287348.67	52069.14	15:04:04	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287348.9	52069.29	15:04:05	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287349.18	52069.52	15:04:06	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287349.43	52069.73	15:04:07	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	
SHIDS-06	287349.68	52069.91	15:04:08	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287349.95	52070.13	15:04:09	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287350.19	52070.32	15:04:10	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	
SHIDS-06	287350.45	52070.53	15:04:11	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	
SHIDS-06	287350.7	52070.74	15:04:12	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287350.94	52070.9	15:04:13	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287351.21	52071.16	15:04:14	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287351.44	52071.33	15:04:15	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287351.66	52071.47	15:04:16	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287351.96	52071.76	15:04:17	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287352.19	52071.93	15:04:18	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287352.4	52072.08	15:04:19	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	
SHIDS-06	287352.7	52072.38	15:04:20	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	
SHIDS-06	287352.92	52072.55	15:04:21	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287353.11	52072.65	15:04:22	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287353.41	52072.97	15:04:23	4/11/2022	sand, gravel and cobbles, shell hash, large rocks	encrusting organism on large rock
SHIDS-06	287353.63	52073.13	15:04:24	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287353.83	52073.26	15:04:25	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287354.15	52073.59	15:04:26	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287354.34	52073.73	15:04:27	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287354.57	52073.89	15:04:28	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287354.87	52074.19	15:04:29	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287355.06	52074.33	15:04:30	4/11/2022	sand, gravel and cobbles, shell hash, rocks	

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-06	287355.29	52074.52	15:04:31	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287355.58	52074.78	15:04:32	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287355.8	52074.96	15:04:33	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287356.01	52075.15	15:04:34	4/11/2022	sand, gravel and cobbles, shell hash, rocks	Anemone
SHIDS-06	287356.29	52075.39	15:04:35	4/11/2022	sand, gravel and cobbles, shell hash, rocks	Anemone
SHIDS-06	287356.53	52075.61	15:04:36	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287356.72	52075.76	15:04:37	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287357	52076.01	15:04:38	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287357.26	52076.26	15:04:39	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287357.46	52076.41	15:04:40	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287357.73	52076.65	15:04:41	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287357.98	52076.9	15:04:42	4/11/2022	sand, gravel and cobbles, shell hash, rocks	encrusting organism on large rock
SHIDS-06	287358.18	52077.06	15:04:43	4/11/2022	sand, gravel and cobbles, shell hash, rocks	encrusting organism on large rock
SHIDS-06	287358.46	52077.32	15:04:44	4/11/2022	sand, gravel and cobbles, shell hash, rocks	encrusting organism on large rock
SHIDS-06	287358.71	52077.57	15:04:45	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287358.92	52077.73	15:04:46	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287359.16	52077.95	15:04:47	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287359.42	52078.19	15:04:48	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287359.65	52078.39	15:04:49	4/11/2022	sand, gravel and cobbles, shell hash, rocks	encrusting organism on large rock
SHIDS-06	287359.92	52078.63	15:04:50	4/11/2022	sand, gravel and cobbles, shell hash, rocks	encrusting organism on large rock
SHIDS-06	287360.16	52078.85	15:04:51	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287360.37	52079.02	15:04:52	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287360.65	52079.27	15:04:53	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287360.86	52079.45	15:04:54	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287361.1	52079.67	15:04:55	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287361.37	52079.93	15:04:56	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287361.59	52080.1	15:04:57	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287361.85	52080.36	15:04:58	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287362.08	52080.57	15:04:59	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287362.3	52080.75	15:05:00	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287362.55	52081	15:05:01	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287362.77	52081.18	15:05:02	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287362.97	52081.35	15:05:03	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287363.24	52081.62	15:05:04	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287363.47	52081.83	15:05:05	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287363.67	52081.99	15:05:06	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287363.95	52082.28	15:05:07	4/11/2022	sand, gravel and cobbles, shell hash, rocks	
SHIDS-06	287364.17	52082.48	15:05:08	4/11/2022	bottom not in view	Grab taken

Station ID	X	Y	TIME	DATE	Substrate	Comments
SHIDS-06	287364.36	52082.63	15:05:09	4/11/2022	bottom not in view	
SHIDS-06	287364.63	52082.92	15:05:10	4/11/2022	bottom not in view	
SHIDS-06	287364.84	52083.12	15:05:11	4/11/2022	bottom not in view	
SHIDS-06	287365.04	52083.29	15:05:12	4/11/2022	bottom not in view	Camera begins ascending
SHIDS-06	287365.3	52083.59	15:05:13	4/11/2022	bottom not in view	
SHIDS-06	287365.52	52083.78	15:05:14	4/11/2022	bottom not in view	
SHIDS-06	287365.7	52083.97	15:05:15	4/11/2022	bottom not in view	
SHIDS-06	287365.97	52084.26	15:05:16	4/11/2022	bottom not in view	
SHIDS-06	287366.16	52084.43	15:05:17	4/11/2022	bottom not in view	
SHIDS-06	287366.35	52084.63	15:05:18	4/11/2022	bottom not in view	
SHIDS-06	287366.61	52084.92	15:05:19	4/11/2022	bottom not in view	
SHIDS-06	287366.8	52085.12	15:05:20	4/11/2022	bottom not in view	
SHIDS-06	287366.91	52085.7	15:05:21	4/11/2022	bottom not in view	
SHIDS-06	287367.14	52086.05	15:05:22	4/11/2022	bottom not in view	
SHIDS-06	287367.44	52085.91	15:05:23	4/11/2022	bottom not in view	
SHIDS-06	287367.71	52086.23	15:05:24	4/11/2022	bottom not in view	
SHIDS-06	287367.95	52086.47	15:05:25	4/11/2022	bottom not in view	
SHIDS-06	287368.14	52086.67	15:05:26	4/11/2022	bottom not in view	
SHIDS-06	287368.31	52086.84	15:05:27	4/11/2022	bottom not in view	
FDS-01	309008.61	50013.36	15:35:57	4/12/2022	bottom not in view	camera on deck
FDS-01	309008.77	50013.41	15:35:57	4/12/2022	bottom not in view	
FDS-01	309008.93	50013.65	15:35:58	4/12/2022	bottom not in view	
FDS-01	309009.15	50013.82	15:35:59	4/12/2022	bottom not in view	
FDS-01	309009.47	50013.88	15:36:00	4/12/2022	bottom not in view	
FDS-01	309009.55	50014.01	15:36:01	4/12/2022	bottom not in view	
FDS-01	309009.75	50014.32	15:36:02	4/12/2022	bottom not in view	
FDS-01	309010.13	50014.62	15:36:03	4/12/2022	bottom not in view	
FDS-01	309010.43	50014.77	15:36:04	4/12/2022	bottom not in view	
FDS-01	309010.62	50014.76	15:36:05	4/12/2022	bottom not in view	
FDS-01	309010.8	50014.75	15:36:06	4/12/2022	bottom not in view	
FDS-01	309011.05	50014.87	15:36:07	4/12/2022	bottom not in view	
FDS-01	309011.29	50015.21	15:36:08	4/12/2022	bottom not in view	
FDS-01	309011.67	50015.52	15:36:09	4/12/2022	bottom not in view	
FDS-01	309011.93	50015.63	15:36:10	4/12/2022	bottom not in view	
FDS-01	309012.12	50015.7	15:36:11	4/12/2022	bottom not in view	
FDS-01	309012.33	50015.65	15:36:12	4/12/2022	bottom not in view	
FDS-01	309012.53	50015.72	15:36:13	4/12/2022	bottom not in view	
FDS-01	309012.83	50015.89	15:36:14	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-01	309013.22	50015.92	15:36:15	4/12/2022	bottom not in view	
FDS-01	309013.4	50015.97	15:36:16	4/12/2022	bottom not in view	
FDS-01	309013.64	50015.93	15:36:17	4/12/2022	bottom not in view	
FDS-01	309013.93	50015.95	15:36:18	4/12/2022	bottom not in view	
FDS-01	309014.02	50016.38	15:36:19	4/12/2022	bottom not in view	
FDS-01	309014.47	50016.77	15:36:20	4/12/2022	bottom not in view	
FDS-01	309014.77	50016.9	15:36:21	4/12/2022	bottom not in view	
FDS-01	309014.82	50016.95	15:36:22	4/12/2022	bottom not in view	
FDS-01	309015.15	50016.75	15:36:23	4/12/2022	bottom not in view	
FDS-01	309015.38	50016.79	15:36:24	4/12/2022	bottom not in view	camera passes over rail
FDS-01	309015.56	50016.92	15:36:25	4/12/2022	bottom not in view	camera over water
FDS-01	309015.88	50017.05	15:36:26	4/12/2022	bottom not in view	
FDS-01	309016.19	50017.15	15:36:27	4/12/2022	bottom not in view	
FDS-01	309016.38	50017.23	15:36:28	4/12/2022	bottom not in view	
FDS-01	309016.69	50017.33	15:36:29	4/12/2022	bottom not in view	
FDS-01	309016.91	50017.42	15:36:30	4/12/2022	bottom not in view	
FDS-01	309017.07	50017.51	15:36:31	4/12/2022	bottom not in view	
FDS-01	309017.34	50017.61	15:36:32	4/12/2022	bottom not in view	camera enters water
FDS-01	309017.62	50017.73	15:36:33	4/12/2022	bottom not in view	
FDS-01	309017.91	50017.84	15:36:34	4/12/2022	bottom not in view	
FDS-01	309018.21	50017.86	15:36:35	4/12/2022	bottom not in view	
FDS-01	309018.35	50017.8	15:36:36	4/12/2022	bottom not in view	
FDS-01	309018.55	50017.69	15:36:37	4/12/2022	bottom not in view	
FDS-01	309018.77	50017.84	15:36:38	4/12/2022	bottom not in view	
FDS-01	309019.1	50018.1	15:36:39	4/12/2022	bottom not in view	
FDS-01	309019.4	50018.3	15:36:40	4/12/2022	bottom not in view	
FDS-01	309019.64	50018.27	15:36:41	4/12/2022	bottom not in view	
FDS-01	309019.76	50018.04	15:36:42	4/12/2022	bottom not in view	
FDS-01	309019.86	50018.12	15:36:43	4/12/2022	bottom not in view	
FDS-01	309020.29	50018.23	15:36:44	4/12/2022	bottom not in view	
FDS-01	309020.53	50018.49	15:36:45	4/12/2022	bottom not in view	
FDS-01	309020.7	50018.62	15:36:46	4/12/2022	bottom not in view	
FDS-01	309021	50018.51	15:36:47	4/12/2022	bottom not in view	
FDS-01	309021.08	50018.46	15:36:48	4/12/2022	bottom not in view	
FDS-01	309021.31	50018.48	15:36:49	4/12/2022	bottom not in view	
FDS-01	309021.65	50018.61	15:36:50	4/12/2022	bottom not in view	
FDS-01	309021.76	50018.79	15:36:51	4/12/2022	bottom not in view	
FDS-01	309022.08	50018.79	15:36:52	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-01	309022.18	50018.87	15:36:53	4/12/2022	bottom not in view	
FDS-01	309022.4	50018.92	15:36:54	4/12/2022	bottom not in view	
FDS-01	309022.83	50018.69	15:36:55	4/12/2022	bottom not in view	
FDS-01	309022.88	50018.79	15:36:56	4/12/2022	bottom not in view	
FDS-01	309023.16	50018.93	15:36:57	4/12/2022	bottom not in view	
FDS-01	309023.55	50018.98	15:36:58	4/12/2022	bottom not in view	
FDS-01	309023.55	50019.18	15:36:59	4/12/2022	bottom not in view	
FDS-01	309023.78	50019.03	15:37:00	4/12/2022	bottom not in view	
FDS-01	309024.08	50018.88	15:37:01	4/12/2022	bottom not in view	
FDS-01	309024.17	50019.08	15:37:02	4/12/2022	bottom not in view	
FDS-01	309024.46	50019.3	15:37:03	4/12/2022	bottom not in view	
FDS-01	309024.85	50019.43	15:37:04	4/12/2022	bottom not in view	
FDS-01	309024.85	50019.59	15:37:05	4/12/2022	bottom not in view	
FDS-01	309025.17	50019.58	15:37:06	4/12/2022	bottom not in view	
FDS-01	309025.53	50019.39	15:37:07	4/12/2022	bottom not in view	
FDS-01	309025.65	50019.45	15:37:08	4/12/2022	bottom not in view	
FDS-01	309025.99	50019.42	15:37:09	4/12/2022	bottom not in view	
FDS-01	309026.25	50019.57	15:37:10	4/12/2022	bottom not in view	
FDS-01	309026.38	50019.72	15:37:11	4/12/2022	bottom not in view	
FDS-01	309026.67	50019.69	15:37:12	4/12/2022	bottom not in view	
FDS-01	309026.79	50019.74	15:37:13	4/12/2022	bottom not in view	
FDS-01	309027.11	50019.8	15:37:14	4/12/2022	bottom not in view	
FDS-01	309027.5	50019.93	15:37:15	4/12/2022	bottom not in view	
FDS-01	309027.78	50020.09	15:37:16	4/12/2022	bottom not in view	
FDS-01	309028.08	50020.03	15:37:17	4/12/2022	bottom not in view	
FDS-01	309028.32	50019.88	15:37:18	4/12/2022	bottom not in view	
FDS-01	309028.55	50019.82	15:37:19	4/12/2022	bottom not in view	
FDS-01	309028.82	50019.96	15:37:20	4/12/2022	bottom not in view	
FDS-01	309029.17	50020.17	15:37:21	4/12/2022	bottom not in view	
FDS-01	309029.38	50020.24	15:37:22	4/12/2022	bottom not in view	
FDS-01	309029.69	50020.33	15:37:23	4/12/2022	bottom not in view	
FDS-01	309029.95	50020.24	15:37:24	4/12/2022	bottom not in view	
FDS-01	309030.23	50020.2	15:37:25	4/12/2022	bottom not in view	
FDS-01	309030.47	50020.29	15:37:26	4/12/2022	bottom not in view	
FDS-01	309030.79	50020.34	15:37:27	4/12/2022	bottom not in view	
FDS-01	309031.14	50020.46	15:37:28	4/12/2022	bottom not in view	
FDS-01	309031.28	50020.59	15:37:29	4/12/2022	bottom not in view	
FDS-01	309031.58	50020.5	15:37:30	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-01	309031.86	50020.43	15:37:31	4/12/2022	bottom not in view	
FDS-01	309031.96	50020.57	15:37:32	4/12/2022	sand and silt, shell hash and shells	bottom in view
FDS-01	309032.45	50020.56	15:37:33	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309032.64	50020.81	15:37:34	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309032.76	50020.93	15:37:35	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309033.2	50020.75	15:37:36	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309033.36	50020.72	15:37:37	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309033.61	50020.77	15:37:38	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309034.11	50020.83	15:37:39	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309034.17	50021.04	15:37:40	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309034.41	50021.11	15:37:41	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309034.77	50021.03	15:37:42	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309034.8	50021.25	15:37:43	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309035.15	50021.32	15:37:44	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309035.51	50021.38	15:37:45	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309035.57	50021.47	15:37:46	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309036.04	50021.4	15:37:47	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309036.25	50021.34	15:37:48	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309036.4	50021.43	15:37:49	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309036.89	50021.51	15:37:50	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309037.91	50020.51	15:37:51	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309037.85	50020.55	15:37:52	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309037.72	50020.7	15:37:53	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01	309037.82	50020.87	15:37:54	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01	309038.16	50020.94	15:37:55	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01	309038.45	50021	15:37:56	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01	309038.67	50021.14	15:37:57	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01	309038.95	50021.09	15:37:58	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309039.18	50021.15	15:37:59	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309039.4	50021.22	15:38:00	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309039.71	50021.27	15:38:01	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309040.04	50021.4	15:38:02	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309040.19	50021.49	15:38:03	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309040.48	50021.49	15:38:04	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309040.67	50021.57	15:38:05	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309040.91	50021.81	15:38:06	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309041.33	50021.94	15:38:07	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309041.54	50022.04	15:38:08	4/12/2022	sand and silt, shell hash and shells	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-01	309041.69	50022.02	15:38:09	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309042.01	50022.03	15:38:10	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309042.23	50022.18	15:38:11	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309042.45	50022.46	15:38:12	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01	309042.84	50022.51	15:38:13	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309043.06	50022.51	15:38:14	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309043.21	50022.45	15:38:15	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309043.61	50022.4	15:38:16	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309043.77	50022.57	15:38:17	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309043.99	50022.75	15:38:18	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309044.28	50022.75	15:38:19	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309044.49	50022.93	15:38:20	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309044.72	50023.07	15:38:21	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309045.01	50023.24	15:38:22	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309045.2	50023.35	15:38:23	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309045.49	50023.35	15:38:24	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309045.73	50023.48	15:38:25	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309046.05	50023.5	15:38:26	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309046.24	50023.52	15:38:27	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309046.41	50023.54	15:38:28	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309046.77	50023.57	15:38:29	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309046.87	50023.83	15:38:30	4/12/2022	sand and silt, shell hash and shells	
FDS-01	309047.09	50023.97	15:38:31	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01	309047.39	50024.02	15:38:32	4/12/2022	bottom not visible	Grab Taken
FDS-01	309047.42	50024.17	15:38:33	4/12/2022	bottom not visible	
FDS-01	309047.75	50024.25	15:38:34	4/12/2022	bottom not visible	
FDS-01	309048.07	50024.34	15:38:35	4/12/2022	bottom not visible	
FDS-01	309048.24	50024.57	15:38:36	4/12/2022	bottom not visible	
FDS-01	309048.62	50024.65	15:38:37	4/12/2022	bottom not visible	
FDS-01	309048.86	50024.65	15:38:38	4/12/2022	bottom not visible	Camera begins to ascend
FDS-01	309048.98	50024.65	15:38:39	4/12/2022	bottom not visible	
FDS-01	309049.29	50024.66	15:38:40	4/12/2022	bottom not visible	
FDS-01B	309000.64	50032.16	15:44:09	4/12/2022	bottom not in view	camera on deck
FDS-01B	309000.76	50032.2	15:44:09	4/12/2022	bottom not in view	
FDS-01B	309001.25	50032.33	15:44:10	4/12/2022	bottom not in view	
FDS-01B	309001.59	50032.48	15:44:11	4/12/2022	bottom not in view	
FDS-01B	309001.96	50032.4	15:44:12	4/12/2022	bottom not in view	
FDS-01B	309002.35	50032.32	15:44:13	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-01B	309002.71	50032.38	15:44:14	4/12/2022	bottom not in view	
FDS-01B	309003.12	50032.18	15:44:15	4/12/2022	bottom not in view	
FDS-01B	309003.5	50032.06	15:44:16	4/12/2022	bottom not in view	
FDS-01B	309003.9	50032.36	15:44:17	4/12/2022	bottom not in view	
FDS-01B	309004.32	50032	15:44:18	4/12/2022	bottom not in view	
FDS-01B	309004.64	50031.99	15:44:19	4/12/2022	bottom not in view	
FDS-01B	309005.05	50032.18	15:44:20	4/12/2022	bottom not in view	
FDS-01B	309005.37	50031.78	15:44:21	4/12/2022	bottom not in view	
FDS-01B	309005.88	50032.08	15:44:22	4/12/2022	bottom not in view	
FDS-01B	309006.31	50032.04	15:44:23	4/12/2022	bottom not in view	
FDS-01B	309006.71	50031.74	15:44:24	4/12/2022	bottom not in view	camera passes over rail
FDS-01B	309007.14	50031.84	15:44:25	4/12/2022	bottom not in view	camera over water
FDS-01B	309007.46	50031.58	15:44:26	4/12/2022	bottom not in view	
FDS-01B	309007.88	50031.44	15:44:27	4/12/2022	bottom not in view	
FDS-01B	309008.34	50031.57	15:44:28	4/12/2022	bottom not in view	
FDS-01B	309008.79	50031.71	15:44:29	4/12/2022	bottom not in view	
FDS-01B	309009.17	50031.51	15:44:30	4/12/2022	bottom not in view	
FDS-01B	309009.63	50031.51	15:44:31	4/12/2022	bottom not in view	
FDS-01B	309010.04	50031.43	15:44:32	4/12/2022	bottom not in view	camera enters water
FDS-01B	309010.48	50031.21	15:44:33	4/12/2022	bottom not in view	
FDS-01B	309010.94	50031.18	15:44:34	4/12/2022	bottom not in view	
FDS-01B	309011.38	50031.19	15:44:35	4/12/2022	bottom not in view	
FDS-01B	309011.74	50030.89	15:44:36	4/12/2022	bottom not in view	
FDS-01B	309012.25	50030.94	15:44:37	4/12/2022	bottom not in view	
FDS-01B	309012.67	50030.85	15:44:38	4/12/2022	bottom not in view	
FDS-01B	309013.06	50030.61	15:44:39	4/12/2022	bottom not in view	
FDS-01B	309013.59	50030.88	15:44:40	4/12/2022	bottom not in view	
FDS-01B	309014.06	50030.69	15:44:41	4/12/2022	bottom not in view	
FDS-01B	309014.36	50030.28	15:44:42	4/12/2022	bottom not in view	
FDS-01B	309014.94	50030.74	15:44:43	4/12/2022	bottom not in view	
FDS-01B	309015.33	50030.6	15:44:44	4/12/2022	bottom not in view	
FDS-01B	309015.66	50030.2	15:44:45	4/12/2022	bottom not in view	
FDS-01B	309016.25	50030.61	15:44:46	4/12/2022	bottom not in view	
FDS-01B	309016.62	50030.36	15:44:47	4/12/2022	bottom not in view	
FDS-01B	309017.01	50030.14	15:44:48	4/12/2022	bottom not in view	
FDS-01B	309017.53	50030.21	15:44:49	4/12/2022	bottom not in view	
FDS-01B	309018.04	50030.04	15:44:50	4/12/2022	bottom not in view	
FDS-01B	309018.46	50029.65	15:44:51	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-01B	309018.9	50029.73	15:44:52	4/12/2022	bottom not in view	
FDS-01B	309019.27	50029.73	15:44:53	4/12/2022	bottom not in view	
FDS-01B	309019.67	50029.51	15:44:54	4/12/2022	bottom not in view	
FDS-01B	309020.16	50029.77	15:44:55	4/12/2022	bottom not in view	
FDS-01B	309020.52	50029.64	15:44:56	4/12/2022	bottom not in view	
FDS-01B	309020.94	50029.34	15:44:57	4/12/2022	bottom not in view	
FDS-01B	309021.41	50029.52	15:44:58	4/12/2022	bottom not in view	
FDS-01B	309021.8	50029.38	15:44:59	4/12/2022	bottom not in view	
FDS-01B	309022.23	50029.02	15:45:00	4/12/2022	bottom not in view	
FDS-01B	309022.62	50029.09	15:45:01	4/12/2022	bottom not in view	
FDS-01B	309023.03	50028.8	15:45:02	4/12/2022	bottom not in view	
FDS-01B	309023.37	50028.57	15:45:03	4/12/2022	bottom not in view	
FDS-01B	309023.81	50028.76	15:45:04	4/12/2022	bottom not in view	
FDS-01B	309024.2	50028.56	15:45:05	4/12/2022	bottom not in view	
FDS-01B	309024.7	50028.63	15:45:06	4/12/2022	bottom not in view	
FDS-01B	309025.12	50028.51	15:45:07	4/12/2022	bottom not in view	
FDS-01B	309025.49	50028.32	15:45:08	4/12/2022	bottom not in view	
FDS-01B	309025.97	50028.48	15:45:09	4/12/2022	bottom not in view	
FDS-01B	309026.36	50028.32	15:45:10	4/12/2022	bottom not in view	
FDS-01B	309026.72	50028.12	15:45:11	4/12/2022	bottom not in view	
FDS-01B	309027.15	50028.31	15:45:12	4/12/2022	bottom not in view	
FDS-01B	309027.54	50027.96	15:45:13	4/12/2022	bottom not in view	
FDS-01B	309027.95	50027.84	15:45:14	4/12/2022	bottom not in view	
FDS-01B	309028.41	50027.96	15:45:15	4/12/2022	bottom not in view	
FDS-01B	309028.87	50027.71	15:45:16	4/12/2022	bottom not in view	
FDS-01B	309029.29	50027.56	15:45:17	4/12/2022	bottom not in view	
FDS-01B	309029.74	50027.63	15:45:18	4/12/2022	bottom not in view	
FDS-01B	309030.07	50027.43	15:45:19	4/12/2022	bottom not in view	
FDS-01B	309030.42	50027.33	15:45:20	4/12/2022	bottom not distinguishable	bottom in view
FDS-01B	309030.76	50027.31	15:45:21	4/12/2022	sand and silt, shell hash and shells	bottom distinguishable
FDS-01B	309031.23	50027.36	15:45:22	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309031.67	50027.25	15:45:23	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309032.1	50027.15	15:45:24	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309032.44	50026.94	15:45:25	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309032.78	50026.82	15:45:26	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309033.32	50026.9	15:45:27	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309033.67	50026.81	15:45:28	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309034.04	50026.76	15:45:29	4/12/2022	sand and silt, shell hash and shells	sparse vegetation

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-01B	309034.54	50026.78	15:45:30	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309034.85	50026.57	15:45:31	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309035.21	50026.41	15:45:32	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309035.6	50026.52	15:45:33	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309036.05	50026.35	15:45:34	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309036.43	50026.19	15:45:35	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309036.81	50026.27	15:45:36	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309037.08	50026	15:45:37	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309037.43	50025.99	15:45:38	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309037.93	50026.25	15:45:39	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309038.35	50025.96	15:45:40	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309038.77	50026.02	15:45:41	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309039.18	50026.09	15:45:42	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309039.39	50025.67	15:45:43	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309039.71	50025.6	15:45:44	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309040.15	50025.92	15:45:45	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309040.53	50025.53	15:45:46	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309040.98	50025.73	15:45:47	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309041.45	50025.83	15:45:48	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309041.65	50025.36	15:45:49	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309042.07	50025.62	15:45:50	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309042.47	50025.66	15:45:51	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309042.83	50025.45	15:45:52	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309043.3	50025.71	15:45:53	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309043.47	50025.43	15:45:54	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309043.74	50025.31	15:45:55	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309044.12	50025.52	15:45:56	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309044.52	50025.39	15:45:57	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309044.9	50025.16	15:45:58	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309045.3	50025.27	15:45:59	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309045.65	50025.3	15:46:00	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309045.89	50025.07	15:46:01	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309046.23	50025.16	15:46:02	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309046.67	50025.22	15:46:03	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309046.81	50024.82	15:46:04	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309047.17	50024.91	15:46:05	4/12/2022	sand and silt, shell hash and shells	sparse vegetation
FDS-01B	309047.47	50024.97	15:46:06	4/12/2022	sand and silt, shell hash and shells	
FDS-01B	309047.62	50024.72	15:46:07	4/12/2022	sand and silt, shell hash and shells	Grab Taken

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-01B	309048	50024.75	15:46:08	4/12/2022	bottom not visible	
FDS-01B	309048.36	50024.65	15:46:09	4/12/2022	bottom not visible	
FDS-01B	309048.7	50024.45	15:46:10	4/12/2022	bottom not visible	
FDS-01B	309048.96	50024.38	15:46:11	4/12/2022	bottom not visible	Camera begins to ascend
FDS-01B	309049.24	50024.43	15:46:12	4/12/2022	bottom not visible	
FDS-01B	309049.51	50024.4	15:46:13	4/12/2022	bottom not visible	
FDS-01B	309049.73	50024.25	15:46:14	4/12/2022	bottom not visible	
FDS-01B	309050.11	50024.15	15:46:15	4/12/2022	bottom not visible	
FDS-01B	309050.39	50024.05	15:46:16	4/12/2022	bottom not visible	
FDS-01B	309050.73	50023.98	15:46:17	4/12/2022	bottom not visible	
FDS-02	308570.57	49750.57	15:15:22	4/12/2022	bottom not in view	
FDS-02	308570.65	49750.42	15:15:22	4/12/2022	bottom not in view	camera on deck
FDS-02	308571.22	49751	15:15:24	4/12/2022	bottom not in view	
FDS-02	308571.25	49750.99	15:15:24	4/12/2022	bottom not in view	
FDS-02	308571.42	49750.56	15:15:25	4/12/2022	bottom not in view	
FDS-02	308571.71	49750.9	15:15:26	4/12/2022	bottom not in view	
FDS-02	308571.95	49750.92	15:15:27	4/12/2022	bottom not in view	
FDS-02	308572.21	49750.71	15:15:28	4/12/2022	bottom not in view	
FDS-02	308572.52	49751.19	15:15:29	4/12/2022	bottom not in view	
FDS-02	308572.76	49751.13	15:15:30	4/12/2022	bottom not in view	
FDS-02	308572.93	49751.09	15:15:31	4/12/2022	bottom not in view	
FDS-02	308573.11	49751.15	15:15:32	4/12/2022	bottom not in view	
FDS-02	308573.28	49751.14	15:15:33	4/12/2022	bottom not in view	
FDS-02	308573.5	49751.22	15:15:34	4/12/2022	bottom not in view	
FDS-02	308573.69	49751.41	15:15:35	4/12/2022	bottom not in view	
FDS-02	308573.92	49751.53	15:15:36	4/12/2022	bottom not in view	
FDS-02	308574.13	49751.57	15:15:37	4/12/2022	bottom not in view	
FDS-02	308574.32	49751.66	15:15:38	4/12/2022	bottom not in view	
FDS-02	308574.59	49751.38	15:15:39	4/12/2022	bottom not in view	
FDS-02	308574.86	49751.7	15:15:40	4/12/2022	bottom not in view	
FDS-02	308575.13	49751.8	15:15:41	4/12/2022	bottom not in view	
FDS-02	308575.4	49751.65	15:15:42	4/12/2022	bottom not in view	
FDS-02	308575.65	49751.82	15:15:43	4/12/2022	bottom not in view	
FDS-02	308575.81	49751.93	15:15:44	4/12/2022	bottom not in view	
FDS-02	308576.05	49751.73	15:15:45	4/12/2022	bottom not in view	
FDS-02	308576.19	49752.07	15:15:46	4/12/2022	bottom not in view	
FDS-02	308576.51	49752.11	15:15:47	4/12/2022	bottom not in view	
FDS-02	308576.81	49752.14	15:15:48	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-02	308576.94	49752.4	15:15:49	4/12/2022	bottom not in view	
FDS-02	308577.19	49752.5	15:15:50	4/12/2022	bottom not in view	
FDS-02	308577.43	49752.5	15:15:51	4/12/2022	bottom not in view	
FDS-02	308577.73	49752.53	15:15:52	4/12/2022	bottom not in view	
FDS-02	308577.92	49752.69	15:15:53	4/12/2022	bottom not in view	
FDS-02	308578.16	49752.85	15:15:54	4/12/2022	bottom not in view	
FDS-02	308578.47	49752.94	15:15:55	4/12/2022	bottom not in view	
FDS-02	308578.63	49753.13	15:15:56	4/12/2022	bottom not in view	
FDS-02	308578.77	49753.22	15:15:57	4/12/2022	bottom not in view	
FDS-02	308579.07	49753.16	15:15:58	4/12/2022	bottom not in view	
FDS-02	308579.24	49753.38	15:15:59	4/12/2022	bottom not in view	
FDS-02	308579.47	49753.53	15:16:00	4/12/2022	bottom not in view	
FDS-02	308579.7	49753.66	15:16:01	4/12/2022	bottom not in view	
FDS-02	308579.83	49753.78	15:16:02	4/12/2022	bottom not in view	
FDS-02	308580.12	49753.77	15:16:03	4/12/2022	bottom not in view	
FDS-02	308580.32	49753.89	15:16:04	4/12/2022	bottom not in view	
FDS-02	308580.54	49754.01	15:16:05	4/12/2022	bottom not in view	
FDS-02	308580.76	49754.12	15:16:06	4/12/2022	bottom not in view	
FDS-02	308580.88	49754.32	15:16:07	4/12/2022	bottom not in view	
FDS-02	308581.06	49754.44	15:16:08	4/12/2022	bottom not in view	
FDS-02	308581.23	49754.51	15:16:09	4/12/2022	bottom not in view	
FDS-02	308581.45	49754.56	15:16:10	4/12/2022	bottom not in view	
FDS-02	308581.75	49754.58	15:16:11	4/12/2022	bottom not in view	
FDS-02	308581.93	49754.68	15:16:12	4/12/2022	bottom not in view	
FDS-02	308582.17	49754.74	15:16:13	4/12/2022	bottom not in view	camera passes over rail
FDS-02	308582.39	49754.8	15:16:14	4/12/2022	bottom not in view	camera over water
FDS-02	308582.43	49754.97	15:16:15	4/12/2022	bottom not in view	
FDS-02	308582.61	49755	15:16:16	4/12/2022	bottom not in view	
FDS-02	308582.88	49755.14	15:16:17	4/12/2022	bottom not in view	
FDS-02	308582.96	49755.32	15:16:18	4/12/2022	bottom not in view	
FDS-02	308583.2	49755.4	15:16:19	4/12/2022	bottom not in view	
FDS-02	308583.46	49755.36	15:16:20	4/12/2022	bottom not in view	
FDS-02	308583.51	49755.42	15:16:21	4/12/2022	bottom not in view	
FDS-02	308583.78	49755.26	15:16:22	4/12/2022	bottom not in view	
FDS-02	308584.05	49755.35	15:16:23	4/12/2022	bottom not in view	camera enters water
FDS-02	308584.08	49755.68	15:16:24	4/12/2022	bottom not in view	
FDS-02	308584.38	49755.8	15:16:25	4/12/2022	bottom not in view	
FDS-02	308584.56	49756.02	15:16:26	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-02	308584.59	49756.17	15:16:27	4/12/2022	bottom not in view	
FDS-02	308584.89	49756.12	15:16:28	4/12/2022	bottom not in view	
FDS-02	308585.06	49756.18	15:16:29	4/12/2022	bottom not in view	
FDS-02	308585.11	49756.14	15:16:30	4/12/2022	bottom not in view	
FDS-02	308585.34	49756.11	15:16:31	4/12/2022	bottom not in view	
FDS-02	308585.39	49756.2	15:16:32	4/12/2022	bottom not in view	
FDS-02	308585.62	49756.34	15:16:33	4/12/2022	bottom not in view	
FDS-02	308585.85	49756.49	15:16:34	4/12/2022	bottom not in view	
FDS-02	308585.98	49756.57	15:16:35	4/12/2022	bottom not in view	
FDS-02	308586.33	49756.61	15:16:36	4/12/2022	bottom not in view	
FDS-02	308586.32	49756.76	15:16:37	4/12/2022	bottom not in view	
FDS-02	308586.44	49756.94	15:16:38	4/12/2022	bottom not in view	
FDS-02	308586.68	49757.07	15:16:39	4/12/2022	bottom not in view	
FDS-02	308586.68	49757.16	15:16:40	4/12/2022	bottom not in view	
FDS-02	308586.92	49757.21	15:16:41	4/12/2022	bottom not in view	
FDS-02	308587.14	49757.17	15:16:42	4/12/2022	bottom not in view	
FDS-02	308587.14	49757.28	15:16:43	4/12/2022	bottom not in view	
FDS-02	308587.38	49757.42	15:16:44	4/12/2022	bottom not in view	
FDS-02	308587.53	49757.54	15:16:45	4/12/2022	bottom not in view	
FDS-02	308587.63	49757.74	15:16:46	4/12/2022	bottom not in view	
FDS-02	308587.95	49757.87	15:16:47	4/12/2022	bottom not in view	
FDS-02	308588.03	49757.98	15:16:48	4/12/2022	bottom not in view	
FDS-02	308588.16	49758.05	15:16:49	4/12/2022	bottom not in view	
FDS-02	308588.28	49758.04	15:16:50	4/12/2022	bottom not in view	
FDS-02	308588.44	49758.08	15:16:51	4/12/2022	bottom not in view	
FDS-02	308588.52	49758.23	15:16:52	4/12/2022	bottom not in view	
FDS-02	308588.8	49758.35	15:16:53	4/12/2022	bottom not in view	
FDS-02	308588.93	49758.45	15:16:54	4/12/2022	bottom not in view	
FDS-02	308589	49758.58	15:16:55	4/12/2022	bottom not in view	
FDS-02	308589.33	49758.67	15:16:56	4/12/2022	bottom not in view	
FDS-02	308589.46	49758.77	15:16:57	4/12/2022	bottom not in view	
FDS-02	308589.57	49758.92	15:16:58	4/12/2022	bottom not in view	
FDS-02	308589.89	49758.95	15:16:59	4/12/2022	bottom not in view	
FDS-02	308589.93	49758.97	15:17:00	4/12/2022	bottom not in view	
FDS-02	308590.04	49758.97	15:17:01	4/12/2022	bottom not in view	
FDS-02	308590.34	49758.88	15:17:02	4/12/2022	bottom not in view	
FDS-02	308590.36	49758.98	15:17:03	4/12/2022	bottom not in view	
FDS-02	308590.67	49759.15	15:17:04	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-02	308590.83	49759.5	15:17:05	4/12/2022	bottom not in view	
FDS-02	308590.93	49759.59	15:17:06	4/12/2022	bottom not in view	
FDS-02	308591.14	49759.57	15:17:07	4/12/2022	bottom not in view	
FDS-02	308591.31	49759.48	15:17:08	4/12/2022	bottom not in view	
FDS-02	308591.38	49759.59	15:17:09	4/12/2022	bottom not in view	
FDS-02	308591.84	49759.7	15:17:10	4/12/2022	bottom not in view	
FDS-02	308591.95	49759.82	15:17:11	4/12/2022	bottom not in view	
FDS-02	308591.93	49759.81	15:17:12	4/12/2022	bottom not in view	
FDS-02	308592.36	49759.78	15:17:13	4/12/2022	bottom not in view	
FDS-02	308592.29	49759.93	15:17:14	4/12/2022	bottom not in view	
FDS-02	308592.43	49760.03	15:17:15	4/12/2022	bottom not in view	
FDS-02	308592.85	49760.11	15:17:16	4/12/2022	bottom not in view	
FDS-02	308592.81	49760.18	15:17:17	4/12/2022	bottom not in view	
FDS-02	308592.92	49760.22	15:17:18	4/12/2022	bottom not in view	
FDS-02	308593.34	49760.35	15:17:19	4/12/2022	bottom not in view	
FDS-02	308593.32	49760.43	15:17:20	4/12/2022	bottom not distinguishable	bottom in view
FDS-02	308593.56	49760.63	15:17:21	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308593.91	49760.83	15:17:22	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308593.9	49760.85	15:17:23	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308594.06	49760.9	15:17:24	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308594.31	49760.86	15:17:25	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308594.31	49760.94	15:17:26	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308594.51	49761.08	15:17:27	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308594.77	49761.26	15:17:28	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308594.87	49761.29	15:17:29	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308595.08	49761.34	15:17:30	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308595.41	49761.29	15:17:31	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308595.4	49761.33	15:17:32	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308595.65	49761.52	15:17:33	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308595.79	49761.76	15:17:34	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308595.9	49761.89	15:17:35	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308596.08	49761.88	15:17:36	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308596.25	49761.81	15:17:37	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308596.4	49761.79	15:17:38	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308596.67	49761.89	15:17:39	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308596.92	49762.05	15:17:40	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308597.07	49762.08	15:17:41	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308597.32	49761.94	15:17:42	4/12/2022	sand and silt, shell hash and shells	some vegetation

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-02	308597.41	49761.92	15:17:43	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308597.61	49761.93	15:17:44	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308597.8	49761.95	15:17:45	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308597.98	49762.09	15:17:46	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308598.19	49762.12	15:17:47	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308598.25	49762.13	15:17:48	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308598.55	49762.23	15:17:49	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308598.67	49762.27	15:17:50	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308598.83	49762.15	15:17:51	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308599.1	49762.14	15:17:52	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308599.26	49762.08	15:17:53	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308599.5	49762.08	15:17:54	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308599.67	49762.05	15:17:55	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308599.73	49762.09	15:17:56	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308600	49762.28	15:17:57	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308600.17	49762.32	15:17:58	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308600.33	49762.24	15:17:59	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308600.57	49762.14	15:18:00	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308600.65	49762.11	15:18:01	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308600.77	49762.25	15:18:02	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308601.09	49762.35	15:18:03	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308601.26	49762.28	15:18:04	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308601.57	49762.23	15:18:05	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308601.74	49762.27	15:18:06	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308601.82	49762.43	15:18:07	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308602.03	49762.42	15:18:08	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308602.22	49762.33	15:18:09	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308602.29	49762.18	15:18:10	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308602.64	49762.18	15:18:11	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308602.75	49762.3	15:18:12	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308602.89	49762.39	15:18:13	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308603.26	49762.35	15:18:14	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308603.39	49762.21	15:18:15	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308603.68	49762.22	15:18:16	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308603.9	49762.21	15:18:17	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308604.03	49762.24	15:18:18	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308604.23	49762.34	15:18:19	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308604.48	49762.28	15:18:20	4/12/2022	sand and silt, shell hash and shells	some vegetation

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-02	308604.48	49762.12	15:18:21	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308604.9	49762.18	15:18:22	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308605.1	49762.21	15:18:23	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308605.03	49762.26	15:18:24	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308605.49	49762.39	15:18:25	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308605.7	49762.34	15:18:26	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308605.72	49762.18	15:18:27	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308606.16	49762.21	15:18:28	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308606.21	49762.32	15:18:29	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308606.32	49762.35	15:18:30	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308606.61	49762.51	15:18:31	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308606.78	49762.4	15:18:32	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308606.91	49762.33	15:18:33	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308607.25	49762.35	15:18:34	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308607.46	49762.42	15:18:35	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308607.66	49762.38	15:18:36	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308608.04	49762.36	15:18:37	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308608.19	49762.4	15:18:38	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308608.34	49762.53	15:18:39	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308608.58	49762.58	15:18:40	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-02	308608.75	49762.55	15:18:41	4/12/2022	Bottom not in view	Grab Taken
FDS-02	308608.95	49762.44	15:18:42	4/12/2022	Bottom not in view	
FDS-02	308609.16	49762.32	15:18:43	4/12/2022	Bottom not in view	
FDS-02	308609.46	49762.33	15:18:44	4/12/2022	Bottom not in view	Camera begins to ascend
FDS-02	308609.61	49762.45	15:18:45	4/12/2022	Bottom not in view	
FDS-02	308610.01	49762.49	15:18:46	4/12/2022	Bottom not in view	
FDS-02	308610.23	49762.4	15:18:47	4/12/2022	Bottom not in view	
FDS-02	308610.48	49762.28	15:18:48	4/12/2022	Bottom not in view	
FDS-02	308610.76	49762.29	15:18:49	4/12/2022	Bottom not in view	
FDS-02B	308582.83	49705.18	15:25:10	4/12/2022	bottom not in view	camera on deck
FDS-02B	308582.83	49705.18	15:25:10	4/12/2022	bottom not in view	
FDS-02B	308582.86	49705.14	15:25:11	4/12/2022	bottom not in view	
FDS-02B	308582.74	49705.11	15:25:12	4/12/2022	bottom not in view	
FDS-02B	308582.76	49705.33	15:25:13	4/12/2022	bottom not in view	
FDS-02B	308582.72	49705.53	15:25:14	4/12/2022	bottom not in view	
FDS-02B	308582.74	49705.66	15:25:15	4/12/2022	bottom not in view	
FDS-02B	308582.74	49705.69	15:25:16	4/12/2022	bottom not in view	
FDS-02B	308582.75	49705.75	15:25:17	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-02B	308582.75	49705.7	15:25:18	4/12/2022	bottom not in view	
FDS-02B	308582.92	49705.83	15:25:19	4/12/2022	bottom not in view	
FDS-02B	308582.81	49705.71	15:25:20	4/12/2022	bottom not in view	
FDS-02B	308582.82	49705.72	15:25:21	4/12/2022	bottom not in view	
FDS-02B	308582.99	49705.92	15:25:22	4/12/2022	bottom not in view	
FDS-02B	308582.81	49705.86	15:25:23	4/12/2022	bottom not in view	
FDS-02B	308582.97	49706.23	15:25:24	4/12/2022	bottom not in view	
FDS-02B	308583.13	49706.37	15:25:25	4/12/2022	bottom not in view	
FDS-02B	308583.01	49706.26	15:25:26	4/12/2022	bottom not in view	
FDS-02B	308583.22	49706.27	15:25:27	4/12/2022	bottom not in view	
FDS-02B	308583.35	49706.37	15:25:28	4/12/2022	bottom not in view	
FDS-02B	308583.3	49706.44	15:25:29	4/12/2022	bottom not in view	
FDS-02B	308583.38	49706.57	15:25:30	4/12/2022	bottom not in view	
FDS-02B	308583.48	49706.6	15:25:31	4/12/2022	bottom not in view	camera passes over rail
FDS-02B	308583.43	49706.47	15:25:32	4/12/2022	bottom not in view	camera over water
FDS-02B	308583.5	49706.53	15:25:33	4/12/2022	bottom not in view	
FDS-02B	308583.68	49706.77	15:25:34	4/12/2022	bottom not in view	
FDS-02B	308583.76	49706.94	15:25:35	4/12/2022	bottom not in view	
FDS-02B	308583.83	49706.95	15:25:36	4/12/2022	bottom not in view	
FDS-02B	308583.96	49706.89	15:25:37	4/12/2022	bottom not in view	
FDS-02B	308584.07	49706.84	15:25:38	4/12/2022	bottom not in view	
FDS-02B	308584.1	49706.9	15:25:39	4/12/2022	bottom not in view	
FDS-02B	308584.25	49707.2	15:25:40	4/12/2022	bottom not in view	camera enters water
FDS-02B	308584.37	49707.43	15:25:41	4/12/2022	bottom not in view	
FDS-02B	308584.38	49707.31	15:25:42	4/12/2022	bottom not in view	
FDS-02B	308584.47	49707.24	15:25:43	4/12/2022	bottom not in view	
FDS-02B	308584.65	49707.25	15:25:44	4/12/2022	bottom not in view	
FDS-02B	308584.72	49707.3	15:25:45	4/12/2022	bottom not in view	
FDS-02B	308584.81	49707.51	15:25:46	4/12/2022	bottom not in view	
FDS-02B	308584.92	49707.68	15:25:47	4/12/2022	bottom not in view	
FDS-02B	308584.91	49707.73	15:25:48	4/12/2022	bottom not in view	
FDS-02B	308585.12	49707.76	15:25:49	4/12/2022	bottom not in view	
FDS-02B	308585.25	49707.73	15:25:50	4/12/2022	bottom not in view	
FDS-02B	308585.27	49707.69	15:25:51	4/12/2022	bottom not in view	
FDS-02B	308585.46	49707.79	15:25:52	4/12/2022	bottom not in view	
FDS-02B	308585.48	49707.86	15:25:53	4/12/2022	bottom not in view	
FDS-02B	308585.44	49707.84	15:25:54	4/12/2022	bottom not in view	
FDS-02B	308585.75	49707.96	15:25:55	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-02B	308585.83	49708	15:25:56	4/12/2022	bottom not in view	
FDS-02B	308585.91	49708.07	15:25:57	4/12/2022	bottom not in view	
FDS-02B	308586.04	49708.25	15:25:58	4/12/2022	bottom not in view	
FDS-02B	308586.21	49708.34	15:25:59	4/12/2022	bottom not in view	
FDS-02B	308586.25	49708.23	15:26:00	4/12/2022	bottom not in view	
FDS-02B	308586.34	49708.19	15:26:01	4/12/2022	bottom not in view	
FDS-02B	308586.56	49708.18	15:26:02	4/12/2022	bottom not in view	
FDS-02B	308586.45	49708.29	15:26:03	4/12/2022	bottom not in view	
FDS-02B	308586.59	49708.52	15:26:04	4/12/2022	bottom not in view	
FDS-02B	308586.8	49708.65	15:26:05	4/12/2022	bottom not in view	
FDS-02B	308586.75	49708.69	15:26:06	4/12/2022	bottom not in view	
FDS-02B	308587.03	49708.63	15:26:07	4/12/2022	bottom not in view	
FDS-02B	308587.14	49708.57	15:26:08	4/12/2022	bottom not in view	
FDS-02B	308587.2	49708.62	15:26:09	4/12/2022	bottom not in view	
FDS-02B	308587.49	49708.75	15:26:10	4/12/2022	bottom not in view	
FDS-02B	308587.57	49708.86	15:26:11	4/12/2022	bottom not in view	
FDS-02B	308587.62	49708.95	15:26:12	4/12/2022	bottom not in view	
FDS-02B	308587.71	49708.91	15:26:13	4/12/2022	bottom not in view	
FDS-02B	308587.69	49708.96	15:26:14	4/12/2022	bottom not in view	
FDS-02B	308587.74	49709.14	15:26:15	4/12/2022	bottom not in view	
FDS-02B	308587.88	49709.33	15:26:16	4/12/2022	bottom not in view	
FDS-02B	308588.05	49709.39	15:26:17	4/12/2022	bottom not in view	
FDS-02B	308588.21	49709.36	15:26:18	4/12/2022	bottom not in view	
FDS-02B	308588.33	49709.33	15:26:19	4/12/2022	bottom not in view	
FDS-02B	308588.39	49709.35	15:26:20	4/12/2022	bottom not in view	
FDS-02B	308588.6	49709.44	15:26:21	4/12/2022	bottom not in view	
FDS-02B	308588.7	49709.48	15:26:22	4/12/2022	bottom not in view	
FDS-02B	308588.82	49709.6	15:26:23	4/12/2022	bottom not in view	
FDS-02B	308588.9	49709.73	15:26:24	4/12/2022	bottom not in view	
FDS-02B	308588.92	49709.84	15:26:25	4/12/2022	bottom not in view	
FDS-02B	308588.97	49709.86	15:26:26	4/12/2022	bottom not in view	
FDS-02B	308589.12	49710.01	15:26:27	4/12/2022	bottom not in view	
FDS-02B	308589.32	49710.12	15:26:28	4/12/2022	bottom not in view	
FDS-02B	308589.41	49710.18	15:26:29	4/12/2022	bottom not in view	
FDS-02B	308589.6	49710.16	15:26:30	4/12/2022	bottom not in view	
FDS-02B	308589.76	49710.08	15:26:31	4/12/2022	bottom not in view	
FDS-02B	308589.86	49710.14	15:26:32	4/12/2022	bottom not in view	
FDS-02B	308590.07	49710.35	15:26:33	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-02B	308590.1	49710.45	15:26:34	4/12/2022	bottom not in view	
FDS-02B	308590.14	49710.45	15:26:35	4/12/2022	bottom not in view	
FDS-02B	308590.19	49710.58	15:26:36	4/12/2022	bottom not in view	
FDS-02B	308590.37	49710.7	15:26:37	4/12/2022	bottom not in view	
FDS-02B	308590.51	49710.94	15:26:38	4/12/2022	bottom not in view	
FDS-02B	308590.66	49710.99	15:26:39	4/12/2022	bottom not in view	
FDS-02B	308590.91	49710.94	15:26:40	4/12/2022	bottom not in view	
FDS-02B	308590.99	49710.94	15:26:41	4/12/2022	bottom not in view	
FDS-02B	308591.17	49710.99	15:26:42	4/12/2022	bottom not in view	
FDS-02B	308591.31	49711.14	15:26:43	4/12/2022	bottom not in view	
FDS-02B	308591.43	49711.27	15:26:44	4/12/2022	bottom not in view	
FDS-02B	308591.51	49711.3	15:26:45	4/12/2022	bottom in view, not distinguishable	bottom in view
FDS-02B	308591.66	49711.37	15:26:46	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308591.76	49711.42	15:26:47	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308591.89	49711.41	15:26:48	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308592.04	49711.48	15:26:49	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308592.24	49711.64	15:26:50	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308592.51	49711.61	15:26:51	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308592.65	49711.75	15:26:52	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308592.67	49711.87	15:26:53	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308592.86	49711.8	15:26:54	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308592.96	49711.91	15:26:55	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308592.98	49712.16	15:26:56	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308593.33	49712.24	15:26:57	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308593.49	49712.31	15:26:58	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308593.5	49712.48	15:26:59	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308593.81	49712.2	15:27:00	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308593.94	49712.15	15:27:01	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308594.06	49712.2	15:27:02	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308594.36	49712.34	15:27:03	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308594.46	49712.68	15:27:04	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308594.61	49712.79	15:27:05	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308594.66	49712.86	15:27:06	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308594.69	49713.04	15:27:07	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308595.03	49713.04	15:27:08	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308595.25	49713.08	15:27:09	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308595.34	49713.21	15:27:10	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308595.61	49712.98	15:27:11	4/12/2022	Sand and silt, shells and shell hash	some vegetation

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-02B	308595.79	49712.85	15:27:12	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308595.82	49713.1	15:27:13	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308596.18	49713.2	15:27:14	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308596.42	49713.38	15:27:15	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308596.36	49713.85	15:27:16	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308596.66	49713.59	15:27:17	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308596.82	49713.48	15:27:18	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308596.88	49713.66	15:27:19	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308597.32	49713.57	15:27:20	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308597.43	49713.95	15:27:21	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308597.57	49714.14	15:27:22	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308597.84	49714.01	15:27:23	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308597.91	49714.25	15:27:24	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308598.21	49714.29	15:27:25	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308598.55	49714.25	15:27:26	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308598.67	49714.32	15:27:27	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308598.88	49714.34	15:27:28	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308599.13	49714.37	15:27:29	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308599.33	49714.28	15:27:30	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308599.47	49714.51	15:27:31	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308599.75	49714.52	15:27:32	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308600.07	49714.69	15:27:33	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308600.22	49714.9	15:27:34	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308600.49	49714.67	15:27:35	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308600.62	49714.81	15:27:36	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308600.85	49714.87	15:27:37	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308601.21	49714.69	15:27:38	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308601.35	49714.92	15:27:39	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308601.53	49715.14	15:27:40	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308602.02	49714.99	15:27:41	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308602.05	49715.21	15:27:42	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308602.22	49715.16	15:27:43	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308602.62	49715.18	15:27:44	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308602.82	49715.48	15:27:45	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308603.17	49715.36	15:27:46	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308603.34	49715.2	15:27:47	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308603.36	49715.43	15:27:48	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308603.74	49715.44	15:27:49	4/12/2022	Sand and silt, shells and shell hash	some vegetation

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-02B	308604.01	49715.63	15:27:50	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308604.17	49715.77	15:27:51	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308604.41	49715.65	15:27:52	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308604.64	49715.58	15:27:53	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308604.9	49715.85	15:27:54	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308605.14	49715.99	15:27:55	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308605.46	49715.74	15:27:56	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308605.55	49715.98	15:27:57	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308605.77	49716	15:27:58	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308606.15	49715.81	15:27:59	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308606.27	49716.31	15:28:00	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308606.58	49716.19	15:28:01	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308606.84	49716.11	15:28:02	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308606.95	49716.21	15:28:03	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308607.25	49716.07	15:28:04	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308607.55	49716.29	15:28:05	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308607.86	49716.31	15:28:06	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308608.12	49716.32	15:28:07	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308608.26	49716.55	15:28:08	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308608.52	49716.52	15:28:09	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308608.72	49716.82	15:28:10	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308609.03	49716.69	15:28:11	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308609.33	49716.44	15:28:12	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308609.55	49716.48	15:28:13	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308609.86	49716.6	15:28:14	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308610.15	49716.74	15:28:15	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308610.4	49717.09	15:28:16	4/12/2022	Sand and silt, shells and shell hash	some vegetation
FDS-02B	308610.63	49717.07	15:28:17	4/12/2022	sand, shells/shell hash	Grab Taken
FDS-02B	308610.97	49717.02	15:28:18	4/12/2022	bottom not visible	
FDS-02B	308611.17	49717.11	15:28:19	4/12/2022	bottom not visible	
FDS-02B	308611.42	49717.24	15:28:20	4/12/2022	bottom not visible	
FDS-02B	308611.67	49717.23	15:28:21	4/12/2022	bottom not visible	
FDS-02B	308611.96	49717.09	15:28:22	4/12/2022	bottom not visible	Camera begins to ascend
FDS-02B	308612.32	49717.12	15:28:23	4/12/2022	bottom not visible	
FDS-02B	308612.67	49717.3	15:28:24	4/12/2022	bottom not visible	
FDS-02B	308613.06	49717.27	15:28:25	4/12/2022	bottom not visible	
FDS-02B	308613.18	49717.54	15:28:26	4/12/2022	bottom not visible	
FDS-02B	308613.28	49717.74	15:28:27	4/12/2022	bottom not visible	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-02B	308613.68	49717.52	15:28:28	4/12/2022	bottom not visible	video ended
FDS-03	308953.52	49613.32	15:55:37	4/12/2022	bottom not in view	camera on deck
FDS-03	308953.61	49613.31	15:55:37	4/12/2022	bottom not in view	
FDS-03	308953.91	49613.39	15:55:38	4/12/2022	bottom not in view	
FDS-03	308954.08	49613.38	15:55:39	4/12/2022	bottom not in view	
FDS-03	308954.43	49613.44	15:55:40	4/12/2022	bottom not in view	
FDS-03	308954.69	49613.43	15:55:41	4/12/2022	bottom not in view	
FDS-03	308954.91	49613.37	15:55:42	4/12/2022	bottom not in view	
FDS-03	308955.22	49613.38	15:55:43	4/12/2022	bottom not in view	
FDS-03	308955.37	49613.19	15:55:44	4/12/2022	bottom not in view	
FDS-03	308955.71	49613.32	15:55:45	4/12/2022	bottom not in view	
FDS-03	308956	49613.31	15:55:46	4/12/2022	bottom not in view	
FDS-03	308956.23	49613.26	15:55:47	4/12/2022	bottom not in view	
FDS-03	308956.71	49613.49	15:55:48	4/12/2022	bottom not in view	
FDS-03	308957.03	49613.45	15:55:49	4/12/2022	bottom not in view	
FDS-03	308957.24	49613.25	15:55:50	4/12/2022	bottom not in view	
FDS-03	308957.8	49613.42	15:55:51	4/12/2022	bottom not in view	
FDS-03	308958.04	49613.32	15:55:52	4/12/2022	bottom not in view	
FDS-03	308958.36	49613.38	15:55:53	4/12/2022	bottom not in view	camera passes over rail
FDS-03	308958.82	49613.39	15:55:54	4/12/2022	bottom not in view	camera over water
FDS-03	308959.03	49613.2	15:55:55	4/12/2022	bottom not in view	
FDS-03	308959.49	49613.22	15:55:56	4/12/2022	bottom not in view	
FDS-03	308959.92	49613.38	15:55:57	4/12/2022	bottom not in view	
FDS-03	308960.25	49613.33	15:55:58	4/12/2022	bottom not in view	
FDS-03	308960.81	49613.3	15:55:59	4/12/2022	bottom not in view	
FDS-03	308961.22	49613.28	15:56:00	4/12/2022	bottom not in view	
FDS-03	308961.36	49613.13	15:56:01	4/12/2022	bottom not in view	camera enters water
FDS-03	308961.69	49613.11	15:56:02	4/12/2022	bottom not in view	
FDS-03	308962.25	49613.4	15:56:03	4/12/2022	bottom not in view	
FDS-03	308962.58	49613.38	15:56:04	4/12/2022	bottom not in view	
FDS-03	308962.89	49613.18	15:56:05	4/12/2022	bottom not in view	
FDS-03	308963.34	49613.27	15:56:06	4/12/2022	bottom not in view	
FDS-03	308963.69	49613.32	15:56:07	4/12/2022	bottom not in view	
FDS-03	308963.89	49613.15	15:56:08	4/12/2022	bottom not in view	
FDS-03	308964.52	49613.31	15:56:09	4/12/2022	bottom not in view	
FDS-03	308964.93	49613.24	15:56:10	4/12/2022	bottom not in view	
FDS-03	308965.06	49612.98	15:56:11	4/12/2022	bottom not in view	
FDS-03	308965.6	49613.02	15:56:12	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-03	308965.77	49612.98	15:56:13	4/12/2022	bottom not in view	
FDS-03	308966.04	49612.98	15:56:14	4/12/2022	bottom not in view	
FDS-03	308966.44	49613.13	15:56:15	4/12/2022	bottom not in view	
FDS-03	308966.71	49613.09	15:56:16	4/12/2022	bottom not in view	
FDS-03	308966.97	49612.98	15:56:17	4/12/2022	bottom not in view	
FDS-03	308967.51	49613.12	15:56:18	4/12/2022	bottom not in view	
FDS-03	308967.69	49613.12	15:56:19	4/12/2022	bottom not in view	
FDS-03	308967.89	49613.01	15:56:20	4/12/2022	bottom not in view	
FDS-03	308968.38	49613.02	15:56:21	4/12/2022	bottom not in view	
FDS-03	308968.63	49612.79	15:56:22	4/12/2022	bottom not in view	
FDS-03	308968.79	49612.54	15:56:23	4/12/2022	bottom not in view	
FDS-03	308969.24	49612.79	15:56:24	4/12/2022	bottom not in view	
FDS-03	308969.5	49613.01	15:56:25	4/12/2022	bottom not in view	
FDS-03	308969.55	49613.05	15:56:26	4/12/2022	bottom not in view	
FDS-03	308970.22	49613.17	15:56:27	4/12/2022	bottom not in view	
FDS-03	308970.39	49612.93	15:56:28	4/12/2022	bottom not in view	
FDS-03	308970.56	49612.71	15:56:29	4/12/2022	bottom not in view	
FDS-03	308971.07	49612.88	15:56:30	4/12/2022	bottom not in view	
FDS-03	308971.18	49612.92	15:56:31	4/12/2022	bottom not in view	
FDS-03	308971.42	49612.98	15:56:32	4/12/2022	bottom not in view	
FDS-03	308971.87	49613.01	15:56:33	4/12/2022	bottom not in view	
FDS-03	308971.92	49612.78	15:56:34	4/12/2022	bottom not in view	
FDS-03	308972.18	49612.78	15:56:35	4/12/2022	bottom not in view	
FDS-03	308972.59	49612.9	15:56:36	4/12/2022	bottom not in view	
FDS-03	308972.89	49613.01	15:56:37	4/12/2022	bottom not in view	
FDS-03	308973.15	49612.97	15:56:38	4/12/2022	bottom not in view	
FDS-03	308973.47	49613.01	15:56:39	4/12/2022	bottom not in view	
FDS-03	308973.72	49613.07	15:56:40	4/12/2022	bottom not in view	
FDS-03	308973.82	49613.1	15:56:41	4/12/2022	bottom not in view	
FDS-03	308974.17	49613.12	15:56:42	4/12/2022	bottom not in view	
FDS-03	308974.62	49613.02	15:56:43	4/12/2022	bottom not in view	
FDS-03	308974.7	49612.91	15:56:44	4/12/2022	bottom not in view	
FDS-03	308975.03	49612.97	15:56:45	4/12/2022	bottom not in view	
FDS-03	308975.19	49613.06	15:56:46	4/12/2022	bottom not in view	
FDS-03	308975.44	49613.21	15:56:47	4/12/2022	bottom not in view	
FDS-03	308975.71	49613.31	15:56:48	4/12/2022	bottom not in view	
FDS-03	308975.97	49613.28	15:56:49	4/12/2022	bottom not in view	
FDS-03	308976.18	49613.24	15:56:50	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-03	308976.53	49613.28	15:56:51	4/12/2022	bottom not in view	
FDS-03	308976.79	49613.3	15:56:52	4/12/2022	bottom not in view	
FDS-03	308976.94	49613.29	15:56:53	4/12/2022	bottom not in view	
FDS-03	308977.31	49613.29	15:56:54	4/12/2022	bottom not in view	
FDS-03	308977.51	49613.36	15:56:55	4/12/2022	bottom not in view	
FDS-03	308977.61	49613.47	15:56:56	4/12/2022	bottom not in view	
FDS-03	308977.88	49613.58	15:56:57	4/12/2022	bottom not in view	
FDS-03	308978.16	49613.66	15:56:58	4/12/2022	bottom not in view	
FDS-03	308978.33	49613.62	15:56:59	4/12/2022	bottom not in view	
FDS-03	308978.7	49613.61	15:57:00	4/12/2022	bottom not in view	
FDS-03	308978.94	49613.6	15:57:01	4/12/2022	bottom not in view	
FDS-03	308979.08	49613.66	15:57:02	4/12/2022	bottom not in view	
FDS-03	308979.48	49613.88	15:57:03	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-03	308979.59	49614.02	15:57:04	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-03	308979.8	49614.19	15:57:05	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-03	308980.24	49614.21	15:57:06	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-03	308980.21	49614.1	15:57:07	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-03	308980.38	49614.11	15:57:08	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-03	308980.8	49614.27	15:57:09	4/12/2022	sand and silt, shell hash and shells	some vegetation
FDS-03	308980.82	49614.37	15:57:10	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308981.16	49614.55	15:57:11	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308981.46	49614.59	15:57:12	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308981.41	49614.68	15:57:13	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308981.79	49614.83	15:57:14	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308982.02	49615.02	15:57:15	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308982.19	49615.14	15:57:16	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308982.55	49615.16	15:57:17	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308982.66	49615.01	15:57:18	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308982.75	49615.02	15:57:19	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308983.08	49615.26	15:57:20	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308983.19	49615.53	15:57:21	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308983.51	49615.87	15:57:22	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308983.79	49615.92	15:57:23	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308983.81	49615.91	15:57:24	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308984.04	49615.99	15:57:25	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308984.38	49616.14	15:57:26	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308984.47	49616.32	15:57:27	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308984.81	49616.5	15:57:28	4/12/2022	sand and silt, shell hash and shells	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-03	308985.02	49616.51	15:57:29	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308984.99	49616.51	15:57:30	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308985.31	49616.64	15:57:31	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308985.54	49616.86	15:57:32	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308985.69	49617.08	15:57:33	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308986.11	49617.21	15:57:34	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308986.27	49617.34	15:57:35	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308986.42	49617.36	15:57:36	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308986.65	49617.59	15:57:37	4/12/2022	sand and silt, shell hash and shells	3 crabs
FDS-03	308986.86	49617.68	15:57:38	4/12/2022	sand and silt, shell hash and shells	3 crabs
FDS-03	308987.02	49617.8	15:57:39	4/12/2022	sand and silt, shell hash and shells	3 crabs
FDS-03	308987.3	49617.88	15:57:40	4/12/2022	sand and silt, shell hash and shells	crab
FDS-03	308987.48	49617.9	15:57:41	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308987.65	49618.05	15:57:42	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308987.97	49618.23	15:57:43	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308988.05	49618.31	15:57:44	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308988.32	49618.42	15:57:45	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308988.68	49618.59	15:57:46	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308988.71	49618.74	15:57:47	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308988.98	49617.58	15:57:48	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308989.33	49617.59	15:57:49	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308989.39	49617.53	15:57:50	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308989.64	49617.71	15:57:51	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308990.09	49617.96	15:57:52	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308990.15	49618.07	15:57:53	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308990.37	49618.23	15:57:54	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308990.62	49618.37	15:57:55	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308990.73	49618.46	15:57:56	4/12/2022	sand and silt, shell hash and shells	Crab
FDS-03	308990.93	49618.65	15:57:57	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308991.34	49618.81	15:57:58	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308991.37	49618.7	15:57:59	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308991.56	49618.7	15:58:00	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308991.87	49618.9	15:58:01	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308992.11	49619.04	15:58:02	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308992.23	49619.39	15:58:03	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308992.6	49619.55	15:58:04	4/12/2022	sand and silt, shell hash and shells	
FDS-03	308992.75	49619.71	15:58:05	4/12/2022	sand and silt, shell hash and shells	Grab Taken
FDS-03	308992.8	49619.84	15:58:06	4/12/2022	bottom not visible	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-03	308993.14	49620.01	15:58:07	4/12/2022	bottom not visible	
FDS-03	308993.3	49620.11	15:58:08	4/12/2022	bottom not visible	
FDS-03	308993.45	49620.2	15:58:09	4/12/2022	bottom not visible	
FDS-03	308993.84	49620.2	15:58:10	4/12/2022	bottom not visible	Camera begins to ascend
FDS-04	308721.6	49013.51	16:05:55	4/12/2022	bottom not in view	camera on deck
FDS-04	308721.61	49013.46	16:05:55	4/12/2022	bottom not in view	
FDS-04	308721.38	49013.09	16:05:56	4/12/2022	bottom not in view	
FDS-04	308721.65	49013.11	16:05:57	4/12/2022	bottom not in view	
FDS-04	308721.68	49012.91	16:05:58	4/12/2022	bottom not in view	
FDS-04	308721.57	49012.68	16:05:59	4/12/2022	bottom not in view	
FDS-04	308721.78	49013.02	16:06:00	4/12/2022	bottom not in view	
FDS-04	308721.78	49012.84	16:06:01	4/12/2022	bottom not in view	
FDS-04	308721.84	49012.67	16:06:02	4/12/2022	bottom not in view	
FDS-04	308722.1	49012.85	16:06:03	4/12/2022	bottom not in view	
FDS-04	308722.1	49012.41	16:06:04	4/12/2022	bottom not in view	
FDS-04	308722.2	49012.3	16:06:05	4/12/2022	bottom not in view	
FDS-04	308722.48	49012.62	16:06:06	4/12/2022	bottom not in view	
FDS-04	308722.5	49012.4	16:06:07	4/12/2022	bottom not in view	
FDS-04	308722.61	49012.43	16:06:08	4/12/2022	bottom not in view	
FDS-04	308722.98	49012.84	16:06:09	4/12/2022	bottom not in view	
FDS-04	308723.01	49012.31	16:06:10	4/12/2022	bottom not in view	camera passes over rail
FDS-04	308723.27	49012.42	16:06:11	4/12/2022	bottom not in view	camera over rail
FDS-04	308723.48	49012.53	16:06:12	4/12/2022	bottom not in view	
FDS-04	308723.48	49012.27	16:06:13	4/12/2022	bottom not in view	
FDS-04	308723.68	49012.5	16:06:14	4/12/2022	bottom not in view	
FDS-04	308723.97	49012.62	16:06:15	4/12/2022	bottom not in view	
FDS-04	308724.17	49012.47	16:06:16	4/12/2022	bottom not in view	
FDS-04	308724.38	49012.55	16:06:17	4/12/2022	bottom not in view	
FDS-04	308724.56	49012.71	16:06:18	4/12/2022	bottom not in view	camera enters water
FDS-04	308724.73	49012.73	16:06:19	4/12/2022	bottom not in view	
FDS-04	308724.95	49012.68	16:06:20	4/12/2022	bottom not in view	
FDS-04	308725.16	49012.72	16:06:21	4/12/2022	bottom not in view	
FDS-04	308725.55	49012.93	16:06:22	4/12/2022	bottom not in view	
FDS-04	308725.71	49012.73	16:06:23	4/12/2022	bottom not in view	
FDS-04	308725.83	49012.87	16:06:24	4/12/2022	bottom not in view	
FDS-04	308726.03	49013.04	16:06:25	4/12/2022	bottom not in view	
FDS-04	308726.2	49013.01	16:06:26	4/12/2022	bottom not in view	
FDS-04	308726.48	49013.17	16:06:27	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-04	308726.79	49013.19	16:06:28	4/12/2022	bottom not in view	
FDS-04	308726.99	49013.34	16:06:29	4/12/2022	bottom not in view	
FDS-04	308727.21	49013.64	16:06:30	4/12/2022	bottom not in view	
FDS-04	308727.46	49013.43	16:06:31	4/12/2022	bottom not in view	
FDS-04	308727.66	49013.61	16:06:32	4/12/2022	bottom not in view	
FDS-04	308727.84	49013.78	16:06:33	4/12/2022	bottom not in view	
FDS-04	308728.11	49013.66	16:06:34	4/12/2022	bottom not in view	
FDS-04	308728.37	49013.9	16:06:35	4/12/2022	bottom not in view	
FDS-04	308728.61	49014.17	16:06:36	4/12/2022	bottom not in view	
FDS-04	308728.82	49014.08	16:06:37	4/12/2022	bottom not in view	
FDS-04	308728.94	49014.26	16:06:38	4/12/2022	bottom not in view	
FDS-04	308729.26	49014.24	16:06:39	4/12/2022	bottom not in view	
FDS-04	308729.57	49014.41	16:06:40	4/12/2022	bottom not in view	
FDS-04	308729.76	49014.55	16:06:41	4/12/2022	bottom not in view	
FDS-04	308729.88	49014.29	16:06:42	4/12/2022	bottom not in view	
FDS-04	308730.01	49014.69	16:06:43	4/12/2022	bottom not in view	
FDS-04	308730.25	49014.92	16:06:44	4/12/2022	bottom not in view	
FDS-04	308730.55	49014.78	16:06:45	4/12/2022	bottom not in view	
FDS-04	308730.81	49015.33	16:06:46	4/12/2022	bottom not in view	
FDS-04	308731.08	49015.42	16:06:47	4/12/2022	bottom not in view	
FDS-04	308731.34	49015.09	16:06:48	4/12/2022	bottom not in view	
FDS-04	308731.54	49015.41	16:06:49	4/12/2022	bottom not in view	
FDS-04	308731.79	49015.5	16:06:50	4/12/2022	bottom not in view	
FDS-04	308732.02	49015.46	16:06:51	4/12/2022	bottom not in view	
FDS-04	308732.14	49015.97	16:06:52	4/12/2022	bottom not in view	
FDS-04	308732.3	49015.96	16:06:53	4/12/2022	bottom not in view	
FDS-04	308732.56	49015.96	16:06:54	4/12/2022	bottom not in view	
FDS-04	308732.85	49016.34	16:06:55	4/12/2022	bottom not in view	
FDS-04	308733.18	49016.25	16:06:56	4/12/2022	bottom not in view	
FDS-04	308733.43	49016.58	16:06:57	4/12/2022	bottom not in view	
FDS-04	308733.62	49016.85	16:06:58	4/12/2022	bottom not in view	
FDS-04	308733.88	49016.69	16:06:59	4/12/2022	bottom not in view	
FDS-04	308734.04	49016.96	16:07:00	4/12/2022	bottom not in view	
FDS-04	308734.37	49016.98	16:07:01	4/12/2022	bottom not in view	
FDS-04	308734.55	49017.16	16:07:02	4/12/2022	bottom not in view	
FDS-04	308734.74	49017.49	16:07:03	4/12/2022	bottom not in view	
FDS-04	308734.97	49017.31	16:07:04	4/12/2022	bottom not in view	
FDS-04	308735.26	49017.68	16:07:05	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-04	308735.58	49017.83	16:07:06	4/12/2022	bottom not in view	
FDS-04	308735.89	49017.93	16:07:07	4/12/2022	bottom not in view	
FDS-04	308736.06	49018.44	16:07:08	4/12/2022	bottom not in view	
FDS-04	308736.23	49018.35	16:07:09	4/12/2022	bottom not in view	
FDS-04	308736.45	49018.41	16:07:10	4/12/2022	bottom not in view	
FDS-04	308736.75	49018.5	16:07:11	4/12/2022	bottom not in view	
FDS-04	308737.05	49018.5	16:07:12	4/12/2022	bottom not in view	
FDS-04	308737.3	49018.76	16:07:13	4/12/2022	bottom not in view	
FDS-04	308737.54	49018.95	16:07:14	4/12/2022	bottom not in view	
FDS-04	308737.84	49019.09	16:07:15	4/12/2022	bottom not in view	
FDS-04	308738.08	49019.14	16:07:16	4/12/2022	bottom not in view	
FDS-04	308738.39	49019.25	16:07:17	4/12/2022	bottom not in view	
FDS-04	308738.72	49019.66	16:07:18	4/12/2022	bottom not in view	
FDS-04	308738.98	49019.9	16:07:19	4/12/2022	bottom not in view	
FDS-04	308739.25	49020.03	16:07:20	4/12/2022	bottom not in view	
FDS-04	308739.4	49019.88	16:07:21	4/12/2022	bottom not in view	
FDS-04	308739.6	49019.96	16:07:22	4/12/2022	bottom not in view	
FDS-04	308739.99	49020.12	16:07:23	4/12/2022	bottom not in view	
FDS-04	308740.42	49020.44	16:07:24	4/12/2022	bottom not in view	
FDS-04	308740.73	49020.84	16:07:25	4/12/2022	bottom not in view	
FDS-04	308741.01	49020.87	16:07:26	4/12/2022	bottom not in view	
FDS-04	308741.19	49020.85	16:07:27	4/12/2022	bottom not in view	
FDS-04	308741.47	49021.08	16:07:28	4/12/2022	bottom not in view	
FDS-04	308741.91	49021.47	16:07:29	4/12/2022	bottom not in view	
FDS-04	308742.21	49021.65	16:07:30	4/12/2022	bottom not in view	
FDS-04	308742.45	49021.84	16:07:31	4/12/2022	bottom not in view	
FDS-04	308742.65	49022.03	16:07:32	4/12/2022	bottom not in view	
FDS-04	308742.96	49021.91	16:07:33	4/12/2022	bottom not in view	
FDS-04	308743.24	49022.07	16:07:34	4/12/2022	bottom not in view	
FDS-04	308743.54	49022.55	16:07:35	4/12/2022	bottom not in view	
FDS-04	308743.93	49022.46	16:07:36	4/12/2022	bottom not in view	
FDS-04	308744.2	49022.54	16:07:37	4/12/2022	bottom not in view	
FDS-04	308744.49	49022.78	16:07:38	4/12/2022	bottom not in view	
FDS-04	308744.73	49022.67	16:07:39	4/12/2022	bottom not in view	
FDS-04	308745.09	49023.11	16:07:40	4/12/2022	bottom not in view	
FDS-04	308745.4	49023.34	16:07:41	4/12/2022	bottom not in view	
FDS-04	308745.63	49023.3	16:07:42	4/12/2022	bottom not in view	
FDS-04	308745.85	49023.6	16:07:43	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-04	308746.21	49023.75	16:07:44	4/12/2022	bottom not in view	
FDS-04	308746.55	49023.92	16:07:45	4/12/2022	bottom not in view	
FDS-04	308746.85	49024.23	16:07:46	4/12/2022	bottom not in view	
FDS-04	308747.05	49024.24	16:07:47	4/12/2022	bottom not in view	
FDS-04	308747.29	49024.25	16:07:48	4/12/2022	bottom not in view	
FDS-04	308747.65	49024.33	16:07:49	4/12/2022	bottom not in view	
FDS-04	308748.02	49024.58	16:07:50	4/12/2022	bottom not in view	
FDS-04	308748.37	49024.72	16:07:51	4/12/2022	bottom not distinguishable	bottom in view
FDS-04	308748.65	49024.92	16:07:52	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308748.83	49024.99	16:07:53	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308749.04	49024.99	16:07:54	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308749.27	49025.14	16:07:55	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308749.55	49025.15	16:07:56	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308749.91	49025.6	16:07:57	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308750.26	49025.7	16:07:58	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308750.51	49025.85	16:07:59	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308750.76	49026.15	16:08:00	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308751.04	49026.24	16:08:01	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308751.38	49026.31	16:08:02	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308751.54	49026.61	16:08:03	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308751.77	49026.47	16:08:04	4/12/2022	sand with silt, shells and shell hash, gravel	sand dollar
FDS-04	308751.98	49026.52	16:08:05	4/12/2022	sand with silt, shells and shell hash, gravel	sand dollar
FDS-04	308752.17	49026.81	16:08:06	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308752.45	49027.02	16:08:07	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308752.82	49027.32	16:08:08	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308753.09	49027.63	16:08:09	4/12/2022	sand with silt, shells and shell hash, gravel	sparse vegetation
FDS-04	308753.35	49027.71	16:08:10	4/12/2022	sand with silt, shells and shell hash, gravel	sparse vegetation
FDS-04	308753.58	49027.83	16:08:11	4/12/2022	sand with silt, shells and shell hash, gravel	sparse vegetation
FDS-04	308753.82	49027.75	16:08:12	4/12/2022	sand with silt, shells and shell hash, gravel	sparse vegetation
FDS-04	308754.06	49028.02	16:08:13	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308754.42	49028.32	16:08:14	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308754.65	49028.38	16:08:15	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308754.8	49028.4	16:08:16	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308754.99	49028.72	16:08:17	4/12/2022	sand with silt, shells and shell hash, gravel	crab
FDS-04	308755.26	49028.91	16:08:18	4/12/2022	sand with silt, shells and shell hash, gravel	crab
FDS-04	308755.53	49029.06	16:08:19	4/12/2022	sand with silt, shells and shell hash, gravel	crab
FDS-04	308755.8	49029.58	16:08:20	4/12/2022	sand with silt, shells and shell hash, gravel	crab
FDS-04	308756.07	49029.55	16:08:21	4/12/2022	sand with silt, shells and shell hash, gravel	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-04	308756.25	49029.39	16:08:22	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308756.42	49029.64	16:08:23	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308756.71	49029.63	16:08:24	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308757.05	49029.77	16:08:25	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308757.31	49030.35	16:08:26	4/12/2022	sand with silt, shells and shell hash, gravel	Crab
FDS-04	308757.62	49030.38	16:08:27	4/12/2022	sand with silt, shells and shell hash, gravel	Crab
FDS-04	308757.82	49030.29	16:08:28	4/12/2022	sand with silt, shells and shell hash, gravel	Crab
FDS-04	308757.9	49030.74	16:08:29	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308758.18	49030.78	16:08:30	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308758.46	49031.08	16:08:31	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308758.59	49031.39	16:08:32	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308758.86	49031.22	16:08:33	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308758.99	49031.39	16:08:34	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308759.19	49031.44	16:08:35	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308759.53	49031.41	16:08:36	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308759.74	49031.72	16:08:37	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308760.02	49031.98	16:08:38	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308760.26	49032.08	16:08:39	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308760.4	49032.47	16:08:40	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308760.55	49032.45	16:08:41	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308760.77	49032.58	16:08:42	4/12/2022	sand with silt, shells and shell hash, gravel	
FDS-04	308761	49032.58	16:08:43	4/12/2022	sand with silt, shells and shell hash, gravel	Grab Taken
FDS-04	308761.29	49032.56	16:08:44	4/12/2022	bottom not visible	
FDS-04	308761.45	49033.03	16:08:45	4/12/2022	bottom not visible	
FDS-04	308761.65	49033.06	16:08:46	4/12/2022	bottom not visible	
FDS-04	308761.81	49033.25	16:08:47	4/12/2022	bottom not visible	Camera begins to ascend
FDS-05	309001.96	48712.45	16:15:12	4/12/2022	bottom not in view	camera on deck
FDS-05	309002.09	48712.47	16:15:13	4/12/2022	bottom not in view	
FDS-05	309002.26	48712.32	16:15:14	4/12/2022	bottom not in view	
FDS-05	309002.4	48712.42	16:15:15	4/12/2022	bottom not in view	
FDS-05	309002.63	48712.58	16:15:16	4/12/2022	bottom not in view	
FDS-05	309003.02	48713.06	16:15:17	4/12/2022	bottom not in view	
FDS-05	309003.26	48713.33	16:15:18	4/12/2022	bottom not in view	
FDS-05	309003.47	48713.55	16:15:19	4/12/2022	bottom not in view	
FDS-05	309003.57	48713.83	16:15:20	4/12/2022	bottom not in view	
FDS-05	309003.7	48713.92	16:15:21	4/12/2022	bottom not in view	
FDS-05	309003.92	48713.96	16:15:22	4/12/2022	bottom not in view	
FDS-05	309004.2	48714.14	16:15:23	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-05	309004.5	48714.32	16:15:24	4/12/2022	bottom not in view	camera passes over rail
FDS-05	309004.86	48714.33	16:15:25	4/12/2022	bottom not in view	
FDS-05	309005.04	48714.81	16:15:26	4/12/2022	bottom not in view	
FDS-05	309005.25	48715.27	16:15:27	4/12/2022	bottom not in view	
FDS-05	309005.54	48715.44	16:15:28	4/12/2022	bottom not in view	
FDS-05	309005.7	48715.85	16:15:29	4/12/2022	bottom not in view	
FDS-05	309005.98	48716.16	16:15:30	4/12/2022	bottom not in view	
FDS-05	309006.36	48716.35	16:15:31	4/12/2022	bottom not in view	
FDS-05	309006.5	48716.69	16:15:32	4/12/2022	bottom not in view	
FDS-05	309006.56	48716.79	16:15:33	4/12/2022	bottom not in view	
FDS-05	309006.73	48716.77	16:15:34	4/12/2022	bottom not in view	camera enters water
FDS-05	309006.96	48717.22	16:15:35	4/12/2022	bottom not in view	
FDS-05	309007.41	48717.66	16:15:36	4/12/2022	bottom not in view	
FDS-05	309007.76	48718.11	16:15:37	4/12/2022	bottom not in view	
FDS-05	309007.88	48718.66	16:15:38	4/12/2022	bottom not in view	
FDS-05	309008.09	48718.8	16:15:39	4/12/2022	bottom not in view	
FDS-05	309008.37	48718.85	16:15:40	4/12/2022	bottom not in view	
FDS-05	309008.62	48719.06	16:15:41	4/12/2022	bottom not in view	
FDS-05	309008.95	48719.34	16:15:42	4/12/2022	bottom not in view	
FDS-05	309009.26	48719.84	16:15:43	4/12/2022	bottom not in view	
FDS-05	309009.38	48720.15	16:15:44	4/12/2022	bottom not in view	
FDS-05	309009.52	48720.33	16:15:45	4/12/2022	bottom not in view	
FDS-05	309009.64	48720.71	16:15:46	4/12/2022	bottom not in view	
FDS-05	309009.96	48720.89	16:15:47	4/12/2022	bottom not in view	
FDS-05	309010.31	48721.24	16:15:48	4/12/2022	bottom not in view	
FDS-05	309010.5	48721.78	16:15:49	4/12/2022	bottom not in view	
FDS-05	309010.83	48722.16	16:15:50	4/12/2022	bottom not in view	
FDS-05	309011.07	48722.4	16:15:51	4/12/2022	bottom not in view	
FDS-05	309011.25	48722.76	16:15:52	4/12/2022	bottom not in view	
FDS-05	309011.52	48722.79	16:15:53	4/12/2022	bottom not in view	
FDS-05	309011.75	48722.87	16:15:54	4/12/2022	bottom not in view	
FDS-05	309011.9	48723.23	16:15:55	4/12/2022	bottom not in view	
FDS-05	309012.13	48723.75	16:15:56	4/12/2022	bottom not in view	
FDS-05	309012.47	48724.08	16:15:57	4/12/2022	bottom not in view	
FDS-05	309012.64	48724.51	16:15:58	4/12/2022	bottom not in view	
FDS-05	309012.88	48724.95	16:15:59	4/12/2022	bottom not in view	
FDS-05	309013.2	48725.22	16:16:00	4/12/2022	bottom not in view	
FDS-05	309013.42	48725.6	16:16:01	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-05	309013.62	48726.18	16:16:02	4/12/2022	bottom not in view	
FDS-05	309013.9	48726.38	16:16:03	4/12/2022	bottom not in view	
FDS-05	309014.06	48726.52	16:16:04	4/12/2022	bottom not in view	
FDS-05	309014.28	48726.87	16:16:05	4/12/2022	bottom not in view	
FDS-05	309014.64	48727.09	16:16:06	4/12/2022	bottom not in view	
FDS-05	309014.99	48727.33	16:16:07	4/12/2022	bottom not in view	
FDS-05	309015.14	48727.86	16:16:08	4/12/2022	bottom not in view	
FDS-05	309015.4	48728.18	16:16:09	4/12/2022	bottom not in view	
FDS-05	309015.64	48728.79	16:16:10	4/12/2022	bottom not in view	
FDS-05	309015.87	48729.34	16:16:11	4/12/2022	bottom not in view	
FDS-05	309016.21	48729.64	16:16:12	4/12/2022	bottom not in view	
FDS-05	309016.4	48729.94	16:16:13	4/12/2022	bottom not in view	
FDS-05	309016.65	48729.99	16:16:14	4/12/2022	bottom not in view	
FDS-05	309016.86	48730.21	16:16:15	4/12/2022	bottom not in view	
FDS-05	309017.06	48730.8	16:16:16	4/12/2022	bottom not in view	
FDS-05	309017.4	48731.25	16:16:17	4/12/2022	bottom not in view	
FDS-05	309017.67	48731.56	16:16:18	4/12/2022	bottom not in view	
FDS-05	309017.79	48732.06	16:16:19	4/12/2022	bottom not in view	
FDS-05	309018.1	48732.16	16:16:20	4/12/2022	bottom not in view	
FDS-05	309018.28	48732.5	16:16:21	4/12/2022	bottom not in view	
FDS-05	309018.39	48733.22	16:16:22	4/12/2022	bottom not in view	
FDS-05	309018.89	48733.43	16:16:23	4/12/2022	bottom not in view	
FDS-05	309019.15	48733.65	16:16:24	4/12/2022	bottom not in view	
FDS-05	309019.18	48734.01	16:16:25	4/12/2022	bottom not distinguishable	bottom in view
FDS-05	309019.56	48734	16:16:26	4/12/2022	sand, some gravel, shell hash	
FDS-05	309019.74	48734.64	16:16:27	4/12/2022	sand, some gravel, shell hash	
FDS-05	309019.96	48735.51	16:16:28	4/12/2022	sand, some gravel, shell hash	
FDS-05	309020.43	48735.75	16:16:29	4/12/2022	Poor visibility	
FDS-05	309020.54	48736.17	16:16:30	4/12/2022	Poor visibility	
FDS-05	309020.63	48736.41	16:16:31	4/12/2022	Poor visibility	
FDS-05	309020.92	48736.47	16:16:32	4/12/2022	shell hash, gravel/sand	
FDS-05	309021.12	48736.83	16:16:33	4/12/2022	shell hash, gravel/sand	
FDS-05	309021.33	48737.39	16:16:34	4/12/2022	Poor visibility	
FDS-05	309021.76	48737.68	16:16:35	4/12/2022	shell hash, gravel/sand	
FDS-05	309021.96	48737.93	16:16:36	4/12/2022	gravel/sand, some shell hash	
FDS-05	309022.15	48738.34	16:16:37	4/12/2022	gravel/sand, some shell hash	
FDS-05	309022.52	48738.63	16:16:38	4/12/2022	gravel/sand, some shell hash	
FDS-05	309022.73	48739.08	16:16:39	4/12/2022	gravel/sand, some shell hash	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-05	309023.01	48739.48	16:16:40	4/12/2022	sand, shell hash, gravel	
FDS-05	309023.21	48739.71	16:16:41	4/12/2022	sand, shell hash, gravel	
FDS-05	309023.29	48739.93	16:16:42	4/12/2022	sand, shell hash, gravel	
FDS-05	309023.53	48740.03	16:16:43	4/12/2022	sand, shell hash, gravel	
FDS-05	309023.71	48740.38	16:16:44	4/12/2022	sand, shell hash, gravel	
FDS-05	309023.99	48740.91	16:16:45	4/12/2022	sand, shell hash, gravel	
FDS-05	309024.44	48741.31	16:16:46	4/12/2022	sand, shell hash, gravel	
FDS-05	309024.66	48741.73	16:16:47	4/12/2022	sand, shell hash, gravel	
FDS-05	309024.86	48741.96	16:16:48	4/12/2022	sand, shell hash, gravel	
FDS-05	309025.03	48742.04	16:16:49	4/12/2022	sand, shell hash, gravel	
FDS-05	309025.23	48742.28	16:16:50	4/12/2022	sand, shell hash, gravel	
FDS-05	309025.53	48742.54	16:16:51	4/12/2022	sand, shell hash, gravel	
FDS-05	309025.75	48742.93	16:16:52	4/12/2022	sand, shell hash, gravel	
FDS-05	309026.01	48743.19	16:16:53	4/12/2022	sand, shell hash, gravel	
FDS-05	309026.11	48743.45	16:16:54	4/12/2022	sand, shell hash, gravel	
FDS-05	309026.34	48743.68	16:16:55	4/12/2022	sand, shell hash, gravel	
FDS-05	309026.57	48744	16:16:56	4/12/2022	sand, shell hash, gravel	
FDS-05	309026.84	48744.49	16:16:57	4/12/2022	sand, shell hash, gravel	
FDS-05	309027.18	48744.75	16:16:58	4/12/2022	sand, shell hash, gravel	
FDS-05	309027.36	48745.08	16:16:59	4/12/2022	sand, shell hash, gravel	
FDS-05	309027.52	48745.21	16:17:00	4/12/2022	sand, shell hash, gravel	
FDS-05	309027.81	48745.35	16:17:01	4/12/2022	sand, shell hash, gravel	
FDS-05	309027.96	48745.68	16:17:02	4/12/2022	sand, shell hash, gravel	
FDS-05	309028.2	48745.98	16:17:03	4/12/2022	sand, shell hash, gravel	
FDS-05	309028.46	48746.25	16:17:04	4/12/2022	sand, shell hash, gravel	
FDS-05	309028.58	48746.61	16:17:05	4/12/2022	sand, shell hash, gravel	
FDS-05	309028.87	48746.81	16:17:06	4/12/2022	sand, shell hash, gravel	
FDS-05	309029.1	48747.1	16:17:07	4/12/2022	sand, shell hash, gravel	
FDS-05	309029.24	48747.55	16:17:08	4/12/2022	sand, shell hash, gravel	
FDS-05	309029.59	48747.82	16:17:09	4/12/2022	sand, shell hash, gravel	
FDS-05	309029.77	48748.24	16:17:10	4/12/2022	sand, shell hash, gravel	
FDS-05	309029.98	48748.44	16:17:11	4/12/2022	sand, shell hash, gravel	
FDS-05	309030.27	48748.48	16:17:12	4/12/2022	sand, shell hash, gravel	Crab
FDS-05	309030.38	48748.66	16:17:13	4/12/2022	sand, shell hash, gravel	
FDS-05	309030.58	48749	16:17:14	4/12/2022	sand, shell hash, gravel	
FDS-05	309030.85	48749.27	16:17:15	4/12/2022	sand, shell hash, gravel	
FDS-05	309030.99	48749.6	16:17:16	4/12/2022	sand, shell hash, gravel	
FDS-05	309031.23	48750.01	16:17:17	4/12/2022	sand, shell hash, gravel	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-05	309031.51	48750.34	16:17:18	4/12/2022	sand, shell hash, gravel	
FDS-05	309031.76	48750.66	16:17:19	4/12/2022	sand, shell hash, gravel	
FDS-05	309031.92	48751.1	16:17:20	4/12/2022	sand, shell hash, gravel	
FDS-05	309032.19	48751.38	16:17:21	4/12/2022	sand, shell hash, gravel	
FDS-05	309032.47	48751.75	16:17:22	4/12/2022	sand, shell hash, gravel	
FDS-05	309032.59	48751.98	16:17:23	4/12/2022	sand, shell hash, gravel	
FDS-05	309032.82	48752.05	16:17:24	4/12/2022	sand, shell hash, gravel	
FDS-05	309033.05	48752.13	16:17:25	4/12/2022	sand, shell hash, gravel	
FDS-05	309033.23	48752.4	16:17:26	4/12/2022	sand, shell hash, gravel	
FDS-05	309033.53	48752.61	16:17:27	4/12/2022	sand, shell hash, gravel	
FDS-05	309033.73	48753.03	16:17:28	4/12/2022	sand, shell hash, gravel	
FDS-05	309033.85	48753.42	16:17:29	4/12/2022	sand, shell hash, gravel	
FDS-05	309034.11	48753.85	16:17:30	4/12/2022	sand, shell hash, gravel	
FDS-05	309034.33	48754.26	16:17:31	4/12/2022	sand, shell hash, gravel	
FDS-05	309034.57	48754.61	16:17:32	4/12/2022	sand, shell hash, gravel	
FDS-05	309034.83	48754.91	16:17:33	4/12/2022	sand, shell hash, gravel	
FDS-05	309034.99	48755.11	16:17:34	4/12/2022	sand, shell hash, gravel	
FDS-05	309035.07	48755.22	16:17:35	4/12/2022	sand, shell hash, gravel	
FDS-05	309035.25	48755.27	16:17:36	4/12/2022	sand, shell hash, gravel	
FDS-05	309035.43	48755.52	16:17:37	4/12/2022	sand, shell hash, gravel	
FDS-05	309035.79	48755.85	16:17:38	4/12/2022	sand, shell hash, gravel	Grab Taken
FDS-05	309036.06	48756.19	16:17:39	4/12/2022	bottom not visible	
FDS-05	309036.28	48756.46	16:17:40	4/12/2022	bottom not visible	Camera begins to ascend
FDS-05	309036.47	48756.72	16:17:41	4/12/2022	bottom not visible	
FDS-05	309036.53	48757.07	16:17:42	4/12/2022	bottom not visible	
FDS-05	309036.79	48757.49	16:17:43	4/12/2022	bottom not visible	
FDS-06	308433.21	48580.44	16:26:25	4/12/2022	bottom not in view	camera on deck
FDS-06	308433.26	48580.2	16:26:25	4/12/2022	bottom not in view	
FDS-06	308433.43	48579.52	16:26:26	4/12/2022	bottom not in view	
FDS-06	308433.81	48579.24	16:26:27	4/12/2022	bottom not in view	
FDS-06	308434.02	48578.95	16:26:28	4/12/2022	bottom not in view	
FDS-06	308433.95	48578.51	16:26:29	4/12/2022	bottom not in view	
FDS-06	308434.46	48578.44	16:26:30	4/12/2022	bottom not in view	
FDS-06	308434.6	48577.9	16:26:31	4/12/2022	bottom not in view	
FDS-06	308434.81	48577.69	16:26:32	4/12/2022	bottom not in view	
FDS-06	308435.12	48577.73	16:26:33	4/12/2022	bottom not in view	
FDS-06	308435.23	48577.4	16:26:34	4/12/2022	bottom not in view	
FDS-06	308435.59	48577.39	16:26:35	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-06	308435.93	48577.17	16:26:36	4/12/2022	bottom not in view	camera passes over rail
FDS-06	308436.01	48576.68	16:26:37	4/12/2022	bottom not in view	camera over water
FDS-06	308436.37	48576.8	16:26:38	4/12/2022	bottom not in view	
FDS-06	308436.64	48576.62	16:26:39	4/12/2022	bottom not in view	
FDS-06	308437	48576.41	16:26:40	4/12/2022	bottom not in view	
FDS-06	308437.38	48576.37	16:26:41	4/12/2022	bottom not in view	
FDS-06	308437.75	48576	16:26:42	4/12/2022	bottom not in view	
FDS-06	308438.05	48575.69	16:26:43	4/12/2022	bottom not in view	
FDS-06	308438.33	48575.44	16:26:44	4/12/2022	bottom not in view	camera enters water
FDS-06	308438.74	48575.37	16:26:45	4/12/2022	bottom not in view	
FDS-06	308439.08	48575.3	16:26:46	4/12/2022	bottom not in view	
FDS-06	308439.59	48575.28	16:26:47	4/12/2022	bottom not in view	
FDS-06	308440.05	48575.01	16:26:48	4/12/2022	bottom not in view	
FDS-06	308440.44	48574.9	16:26:49	4/12/2022	bottom not in view	
FDS-06	308440.87	48574.7	16:26:50	4/12/2022	bottom not in view	
FDS-06	308441.34	48574.53	16:26:51	4/12/2022	bottom not in view	
FDS-06	308441.76	48574.45	16:26:52	4/12/2022	bottom not in view	
FDS-06	308442.1	48574.49	16:26:53	4/12/2022	bottom not in view	
FDS-06	308442.4	48574.28	16:26:54	4/12/2022	bottom not in view	
FDS-06	308442.79	48574.42	16:26:55	4/12/2022	bottom not in view	
FDS-06	308443.16	48574.55	16:26:56	4/12/2022	bottom not in view	
FDS-06	308443.6	48574.68	16:26:57	4/12/2022	bottom not in view	
FDS-06	308443.98	48574.67	16:26:58	4/12/2022	bottom not in view	
FDS-06	308444.3	48574.55	16:26:59	4/12/2022	bottom not in view	
FDS-06	308444.67	48574.38	16:27:00	4/12/2022	bottom not in view	
FDS-06	308445.07	48574.56	16:27:01	4/12/2022	bottom not in view	
FDS-06	308445.45	48574.54	16:27:02	4/12/2022	bottom not in view	
FDS-06	308445.8	48574.79	16:27:03	4/12/2022	bottom not in view	
FDS-06	308446	48574.89	16:27:04	4/12/2022	bottom not in view	
FDS-06	308446.23	48574.72	16:27:05	4/12/2022	bottom not in view	
FDS-06	308446.58	48574.8	16:27:06	4/12/2022	bottom not in view	
FDS-06	308447.01	48575.03	16:27:07	4/12/2022	bottom not in view	
FDS-06	308447.39	48574.97	16:27:08	4/12/2022	bottom not in view	
FDS-06	308447.77	48574.92	16:27:09	4/12/2022	bottom not in view	
FDS-06	308448.01	48575.19	16:27:10	4/12/2022	bottom not in view	
FDS-06	308448.29	48575.2	16:27:11	4/12/2022	bottom not in view	
FDS-06	308448.65	48575.27	16:27:12	4/12/2022	bottom not in view	
FDS-06	308448.82	48575.5	16:27:13	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-06	308449.05	48575.62	16:27:14	4/12/2022	bottom not in view	
FDS-06	308449.36	48575.52	16:27:15	4/12/2022	bottom not in view	
FDS-06	308449.62	48575.6	16:27:16	4/12/2022	bottom not in view	
FDS-06	308449.92	48575.97	16:27:17	4/12/2022	bottom not in view	
FDS-06	308450.34	48576.1	16:27:18	4/12/2022	bottom not in view	
FDS-06	308450.77	48576.31	16:27:19	4/12/2022	bottom not in view	
FDS-06	308451.03	48576.48	16:27:20	4/12/2022	bottom not in view	
FDS-06	308451.18	48576.46	16:27:21	4/12/2022	bottom not in view	
FDS-06	308451.51	48576.4	16:27:22	4/12/2022	bottom not in view	
FDS-06	308451.71	48576.56	16:27:23	4/12/2022	bottom not in view	
FDS-06	308452.04	48576.82	16:27:24	4/12/2022	bottom not in view	
FDS-06	308452.25	48576.98	16:27:25	4/12/2022	bottom not in view	
FDS-06	308452.56	48577.2	16:27:26	4/12/2022	bottom not in view	
FDS-06	308452.84	48577.46	16:27:27	4/12/2022	bottom not in view	
FDS-06	308453.02	48577.53	16:27:28	4/12/2022	bottom not in view	
FDS-06	308453.37	48577.56	16:27:29	4/12/2022	bottom not in view	
FDS-06	308453.61	48577.6	16:27:30	4/12/2022	bottom not in view	
FDS-06	308453.85	48577.66	16:27:31	4/12/2022	bottom not in view	
FDS-06	308454.11	48577.89	16:27:32	4/12/2022	bottom not in view	
FDS-06	308454.45	48578.16	16:27:33	4/12/2022	bottom not in view	
FDS-06	308454.63	48578.16	16:27:34	4/12/2022	bottom not in view	
FDS-06	308454.88	48578.44	16:27:35	4/12/2022	bottom not in view	
FDS-06	308455.09	48578.48	16:27:36	4/12/2022	bottom not in view	
FDS-06	308455.42	48578.61	16:27:37	4/12/2022	bottom not in view	
FDS-06	308455.79	48578.93	16:27:38	4/12/2022	bottom not in view	
FDS-06	308456.04	48578.81	16:27:39	4/12/2022	bottom not in view	
FDS-06	308456.26	48578.93	16:27:40	4/12/2022	bottom not in view	
FDS-06	308456.4	48579.11	16:27:41	4/12/2022	bottom not in view	
FDS-06	308456.7	48579.09	16:27:42	4/12/2022	bottom not in view	
FDS-06	308456.88	48579.52	16:27:43	4/12/2022	bottom not in view	
FDS-06	308457.26	48579.68	16:27:44	4/12/2022	bottom not in view	
FDS-06	308457.49	48579.62	16:27:45	4/12/2022	bottom not in view	
FDS-06	308457.59	48579.8	16:27:46	4/12/2022	bottom not in view	
FDS-06	308457.85	48579.89	16:27:47	4/12/2022	bottom not in view	
FDS-06	308458.14	48580.27	16:27:48	4/12/2022	bottom not in view	
FDS-06	308458.49	48580.35	16:27:49	4/12/2022	bottom not in view	
FDS-06	308458.78	48580.35	16:27:50	4/12/2022	bottom not in view	
FDS-06	308458.98	48580.44	16:27:51	4/12/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-06	308459.24	48580.07	16:27:52	4/12/2022	bottom not in view	
FDS-06	308459.53	48580.27	16:27:53	4/12/2022	bottom not distinguishable	bottom in view
FDS-06	308459.73	48580.91	16:27:54	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308459.95	48581.02	16:27:55	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308460.07	48581.18	16:27:56	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308460.16	48581.51	16:27:57	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308460.58	48581.46	16:27:58	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308461	48581.5	16:27:59	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308461.31	48581.91	16:28:00	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308461.54	48581.77	16:28:01	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308461.65	48581.54	16:28:02	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308461.79	48581.93	16:28:03	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308462.1	48581.92	16:28:04	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308462.41	48582.17	16:28:05	4/12/2022	sand, shell hash and shells	
FDS-06	308462.62	48582.76	16:28:06	4/12/2022	sand, shell hash and shells	
FDS-06	308462.78	48582.81	16:28:07	4/12/2022	sand, shell hash and shells	
FDS-06	308462.95	48582.77	16:28:08	4/12/2022	sand, shell hash and shells	
FDS-06	308463.22	48583.06	16:28:09	4/12/2022	sand, shell hash and shells	
FDS-06	308463.65	48582.99	16:28:10	4/12/2022	sand, shell hash and shells	
FDS-06	308464.02	48582.85	16:28:11	4/12/2022	sand, shell hash and shells	
FDS-06	308464.25	48583.32	16:28:12	4/12/2022	sand, shell hash and shells	
FDS-06	308464.32	48583.09	16:28:13	4/12/2022	sand, shell hash and shells	
FDS-06	308464.38	48583.26	16:28:14	4/12/2022	sand, shell hash and shells	
FDS-06	308464.63	48583.72	16:28:15	4/12/2022	sand, shell hash and shells	
FDS-06	308465.01	48583.7	16:28:16	4/12/2022	sand, shell hash and shells	
FDS-06	308465.25	48583.83	16:28:17	4/12/2022	sand, shell hash and shells	
FDS-06	308465.41	48584.18	16:28:18	4/12/2022	sand, shell hash and shells	
FDS-06	308465.62	48583.99	16:28:19	4/12/2022	sand, shell hash and shells	
FDS-06	308465.95	48583.95	16:28:20	4/12/2022	sand, shell hash and shells	
FDS-06	308466.23	48584.47	16:28:21	4/12/2022	sand, shell hash and shells	
FDS-06	308466.61	48584.36	16:28:22	4/12/2022	sand, shell hash and shells	
FDS-06	308466.75	48584.55	16:28:23	4/12/2022	sand, shell hash and shells	
FDS-06	308466.79	48584.95	16:28:24	4/12/2022	sand, shell hash and shells	
FDS-06	308466.99	48584.67	16:28:25	4/12/2022	sand, shell hash and shells	
FDS-06	308467.18	48584.87	16:28:26	4/12/2022	sand, shell hash and shells	
FDS-06	308467.42	48585.08	16:28:27	4/12/2022	sand, shell hash and shells	
FDS-06	308467.68	48585.05	16:28:28	4/12/2022	sand, shell hash and shells	
FDS-06	308467.95	48585.42	16:28:29	4/12/2022	sand, shell hash and shells	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FDS-06	308468.05	48585.44	16:28:30	4/12/2022	sand, shell hash and shells	
FDS-06	308468.31	48585.47	16:28:31	4/12/2022	sand, shell hash and shells	
FDS-06	308468.53	48585.54	16:28:32	4/12/2022	sand, shell hash and shells	
FDS-06	308468.72	48585.7	16:28:33	4/12/2022	sand, shell hash and shells	
FDS-06	308468.9	48585.9	16:28:34	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308469.07	48586.01	16:28:35	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308469.22	48586.23	16:28:36	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308469.35	48586.35	16:28:37	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308469.57	48586.36	16:28:38	4/12/2022	sand, shell hash and shells	some vegetation
FDS-06	308469.81	48586.51	16:28:39	4/12/2022	sand, shell hash and shells	
FDS-06	308470.14	48586.64	16:28:40	4/12/2022	sand, shell hash and shells	
FDS-06	308470.41	48586.77	16:28:41	4/12/2022	sand, shell hash and shells	
FDS-06	308470.63	48586.87	16:28:42	4/12/2022	sand, shell hash and shells	
FDS-06	308470.71	48587.13	16:28:43	4/12/2022	sand, shell hash and shells	
FDS-06	308470.78	48587.11	16:28:44	4/12/2022	sand, shell hash and shells	
FDS-06	308470.97	48586.92	16:28:45	4/12/2022	sand, shell hash and shells	
FDS-06	308471.18	48587.13	16:28:46	4/12/2022	sand, shell hash and shells	Grab Taken
FDS-06	308471.42	48587.31	16:28:47	4/12/2022	bottom not visible	view obscured by sediment plume
FDS-06	308471.71	48587.35	16:28:48	4/12/2022	bottom not visible	
FDS-06	308471.89	48587.84	16:28:49	4/12/2022	bottom not visible	
FDS-06	308472.03	48588.01	16:28:50	4/12/2022	bottom not visible	
FDS-06	308472.21	48588.04	16:28:51	4/12/2022	bottom not visible	
FDS-06	308472.58	48588.34	16:28:52	4/12/2022	bottom not visible	Camera begins to ascend
FIDS-01	288622.93	46744.13	14:13:08	4/13/2022	bottom not in view	camera on deck
FIDS-01	288623.04	46744.34	14:13:08	4/13/2022	bottom not in view	
FIDS-01	288623.26	46744.77	14:13:09	4/13/2022	bottom not in view	
FIDS-01	288623.45	46745.18	14:13:10	4/13/2022	bottom not in view	
FIDS-01	288623.62	46745.48	14:13:11	4/13/2022	bottom not in view	
FIDS-01	288623.79	46745.81	14:13:12	4/13/2022	bottom not in view	
FIDS-01	288623.96	46746.19	14:13:13	4/13/2022	bottom not in view	
FIDS-01	288624.14	46746.52	14:13:14	4/13/2022	bottom not in view	
FIDS-01	288624.32	46746.83	14:13:15	4/13/2022	bottom not in view	
FIDS-01	288624.48	46747.2	14:13:16	4/13/2022	bottom not in view	
FIDS-01	288624.66	46747.56	14:13:17	4/13/2022	bottom not in view	
FIDS-01	288624.86	46747.94	14:13:18	4/13/2022	bottom not in view	
FIDS-01	288625.03	46748.31	14:13:19	4/13/2022	bottom not in view	
FIDS-01	288625.21	46748.69	14:13:20	4/13/2022	bottom not in view	camera passes over rail
FIDS-01	288625.45	46749.06	14:13:21	4/13/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-01	288625.65	46749.44	14:13:22	4/13/2022	bottom not in view	
FIDS-01	288625.87	46749.83	14:13:23	4/13/2022	bottom not in view	
FIDS-01	288626.15	46750.19	14:13:24	4/13/2022	bottom not in view	
FIDS-01	288626.38	46750.61	14:13:25	4/13/2022	bottom not in view	
FIDS-01	288626.62	46751.01	14:13:26	4/13/2022	bottom not in view	
FIDS-01	288626.87	46751.35	14:13:27	4/13/2022	bottom not in view	
FIDS-01	288627.08	46751.76	14:13:28	4/13/2022	bottom not in view	
FIDS-01	288627.34	46752.2	14:13:29	4/13/2022	bottom not in view	
FIDS-01	288627.61	46752.55	14:13:30	4/13/2022	bottom not in view	
FIDS-01	288627.84	46752.96	14:13:31	4/13/2022	bottom not in view	camera enters water
FIDS-01	288628.13	46753.36	14:13:32	4/13/2022	bottom not in view	
FIDS-01	288628.44	46753.72	14:13:33	4/13/2022	bottom not in view	
FIDS-01	288628.74	46754.15	14:13:34	4/13/2022	bottom not in view	
FIDS-01	288629.05	46754.54	14:13:35	4/13/2022	bottom not in view	
FIDS-01	288629.37	46754.93	14:13:36	4/13/2022	bottom not in view	
FIDS-01	288629.68	46755.32	14:13:37	4/13/2022	bottom not in view	
FIDS-01	288629.99	46755.71	14:13:38	4/13/2022	bottom not in view	
FIDS-01	288630.3	46756.07	14:13:39	4/13/2022	bottom not in view	
FIDS-01	288630.62	46756.43	14:13:40	4/13/2022	bottom not in view	
FIDS-01	288630.95	46756.77	14:13:41	4/13/2022	bottom not in view	
FIDS-01	288631.3	46757.12	14:13:42	4/13/2022	bottom not in view	
FIDS-01	288631.64	46757.46	14:13:43	4/13/2022	bottom not in view	
FIDS-01	288631.97	46757.8	14:13:44	4/13/2022	bottom not in view	
FIDS-01	288632.29	46758.12	14:13:45	4/13/2022	bottom not in view	
FIDS-01	288632.62	46758.47	14:13:46	4/13/2022	bottom not in view	
FIDS-01	288632.95	46758.8	14:13:47	4/13/2022	bottom not in view	
FIDS-01	288633.26	46759.1	14:13:48	4/13/2022	bottom not in view	
FIDS-01	288633.66	46759.43	14:13:49	4/13/2022	bottom not in view	
FIDS-01	288633.94	46759.66	14:13:50	4/13/2022	bottom not in view	
FIDS-01	288634.29	46759.94	14:13:51	4/13/2022	bottom not distinguishable	bottom in view
FIDS-01	288634.62	46760.22	14:13:52	4/13/2022	Poor visibility	
FIDS-01	288634.99	46760.5	14:13:53	4/13/2022	Poor visibility	
FIDS-01	288635.35	46760.78	14:13:54	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288635.68	46761.06	14:13:55	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288636.02	46761.32	14:13:56	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288636.34	46761.6	14:13:57	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288636.67	46761.87	14:13:58	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288636.99	46762.12	14:13:59	4/13/2022	microbial mats, sand and silt with tracks and trails	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-01	288637.33	46762.37	14:14:00	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288637.67	46762.61	14:14:01	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288638.03	46762.86	14:14:02	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288638.38	46763.08	14:14:03	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288638.71	46763.33	14:14:04	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288639.03	46763.57	14:14:05	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288639.37	46763.81	14:14:06	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288639.7	46764.04	14:14:07	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.02	46764.26	14:14:08	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.33	46764.48	14:14:09	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.69	46764.72	14:14:10	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.01	46764.93	14:14:11	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.24	46765.16	14:14:12	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.24	46765.34	14:14:13	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.16	46765.53	14:14:14	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.08	46765.75	14:14:15	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641	46765.95	14:14:16	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.95	46766.16	14:14:17	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.93	46766.38	14:14:18	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.9	46766.57	14:14:19	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.89	46766.79	14:14:20	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.9	46766.99	14:14:21	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.9	46767.2	14:14:22	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.92	46767.45	14:14:23	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.94	46767.67	14:14:24	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.99	46767.92	14:14:25	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.04	46768.17	14:14:26	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.09	46768.38	14:14:27	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.14	46768.65	14:14:28	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.21	46768.91	14:14:29	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.27	46769.14	14:14:30	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.33	46769.41	14:14:31	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.4	46769.65	14:14:32	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.49	46769.9	14:14:33	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.6	46770.18	14:14:34	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.68	46770.42	14:14:35	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.77	46770.68	14:14:36	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.87	46770.92	14:14:37	4/13/2022	microbial mats, sand and silt with tracks and trails	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-01	288641.94	46771.16	14:14:38	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288642.02	46771.43	14:14:39	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288642.12	46771.67	14:14:40	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288642.22	46771.91	14:14:41	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288642.17	46772.2	14:14:42	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.89	46772.43	14:14:43	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.64	46772.73	14:14:44	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.37	46773.02	14:14:45	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288641.1	46773.25	14:14:46	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.91	46773.54	14:14:47	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.68	46773.78	14:14:48	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.48	46773.99	14:14:49	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.27	46774.29	14:14:50	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288640.09	46774.54	14:14:51	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288639.95	46774.77	14:14:52	4/13/2022	microbial mats, sand and silt with tracks and trails	
FIDS-01	288639.79	46775.03	14:14:53	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.66	46775.27	14:14:54	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.55	46775.52	14:14:55	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.41	46775.75	14:14:56	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.31	46776.01	14:14:57	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.18	46776.26	14:14:58	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.09	46776.49	14:14:59	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639	46776.76	14:15:00	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.91	46776.98	14:15:01	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.86	46777.24	14:15:02	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.81	46777.47	14:15:03	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.76	46777.7	14:15:04	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.72	46777.96	14:15:05	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.67	46778.19	14:15:06	4/13/2022	microbial mats, sand, large rock	sand ripples
FIDS-01	288638.64	46778.44	14:15:07	4/13/2022	microbial mats, sand, large rock	sand ripples
FIDS-01	288638.59	46778.68	14:15:08	4/13/2022	microbial mats, sand, large rock	sand ripples
FIDS-01	288638.55	46778.91	14:15:09	4/13/2022	microbial mats, sand, large rock	sand ripples
FIDS-01	288638.55	46779.16	14:15:10	4/13/2022	microbial mats, sand, large rock	sand ripples
FIDS-01	288638.53	46779.37	14:15:11	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.54	46779.61	14:15:12	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.56	46779.85	14:15:13	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.57	46780.05	14:15:14	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.59	46780.3	14:15:15	4/13/2022	microbial mats, sand and silt	sand ripples

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-01	288638.59	46780.51	14:15:16	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.62	46780.74	14:15:17	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.65	46781	14:15:18	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.68	46781.19	14:15:19	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.74	46781.45	14:15:20	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.79	46781.69	14:15:21	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.85	46781.88	14:15:22	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.91	46782.14	14:15:23	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288638.97	46782.35	14:15:24	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.06	46782.59	14:15:25	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.13	46782.83	14:15:26	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.2	46783.02	14:15:27	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.3	46783.27	14:15:28	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.37	46783.48	14:15:29	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.47	46783.71	14:15:30	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.56	46783.95	14:15:31	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.64	46784.15	14:15:32	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.75	46784.4	14:15:33	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.82	46784.61	14:15:34	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288639.93	46784.85	14:15:35	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288640.05	46785.1	14:15:36	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288640.14	46785.28	14:15:37	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288640.28	46785.53	14:15:38	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288640.39	46785.77	14:15:39	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288640.5	46785.97	14:15:40	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288640.63	46786.24	14:15:41	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288640.72	46786.48	14:15:42	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288640.84	46786.68	14:15:43	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288640.96	46786.95	14:15:44	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288641.07	46787.15	14:15:45	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288641.19	46787.39	14:15:46	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288641.28	46787.64	14:15:47	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288641.4	46787.85	14:15:48	4/13/2022	microbial mats, sand and silt	sand ripples with tracks and trails
FIDS-01	288641.53	46788.1	14:15:49	4/13/2022	microbial mats, sand and silt	sand ripples with tracks and trails
FIDS-01	288641.62	46788.33	14:15:50	4/13/2022	microbial mats, sand and silt	sand ripples with tracks and trails
FIDS-01	288641.77	46788.59	14:15:51	4/13/2022	microbial mats, sand and silt	sand ripples with tracks and trails
FIDS-01	288641.87	46788.84	14:15:52	4/13/2022	microbial mats, sand and silt	sand ripples with tracks and trails
FIDS-01	288641.97	46789.06	14:15:53	4/13/2022	microbial mats, sand and silt	sand ripples with tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-01	288642.11	46789.34	14:15:54	4/13/2022	microbial mats, sand and silt	sand ripples with tracks and trails
FIDS-01	288642.23	46789.57	14:15:55	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288642.38	46789.83	14:15:56	4/13/2022	microbial mats, sand and silt	sand ripples
FIDS-01	288642.5	46790.09	14:15:57	4/13/2022	microbial mats, sand and silt	Grab taken
FIDS-01	288642.63	46790.31	14:15:58	4/13/2022	bottom not in view	
FIDS-01	288642.83	46790.6	14:15:59	4/13/2022	bottom not in view	Camera begins ascending
FIDS-01	288642.96	46790.86	14:16:00	4/13/2022	bottom not in view	
FIDS-02	288592.7	47082.74	13:57:59	4/13/2022	bottom not in view	camera on deck
FIDS-02	288592.71	47082.86	13:58:00	4/13/2022	bottom not in view	
FIDS-02	288592.73	47083.02	13:58:01	4/13/2022	bottom not in view	
FIDS-02	288592.75	47083.18	13:58:02	4/13/2022	bottom not in view	
FIDS-02	288592.78	47083.36	13:58:03	4/13/2022	bottom not in view	
FIDS-02	288592.79	47083.52	13:58:04	4/13/2022	bottom not in view	
FIDS-02	288592.82	47083.7	13:58:05	4/13/2022	bottom not in view	
FIDS-02	288592.83	47083.85	13:58:06	4/13/2022	bottom not in view	
FIDS-02	288592.86	47084.01	13:58:07	4/13/2022	bottom not in view	
FIDS-02	288592.88	47084.17	13:58:08	4/13/2022	bottom not in view	
FIDS-02	288592.88	47084.32	13:58:09	4/13/2022	bottom not in view	
FIDS-02	288592.9	47084.49	13:58:10	4/13/2022	bottom not in view	
FIDS-02	288592.92	47084.65	13:58:11	4/13/2022	bottom not in view	
FIDS-02	288592.94	47084.79	13:58:12	4/13/2022	bottom not in view	
FIDS-02	288592.96	47084.97	13:58:13	4/13/2022	bottom not in view	
FIDS-02	288592.98	47085.12	13:58:14	4/13/2022	bottom not in view	
FIDS-02	288592.99	47085.27	13:58:15	4/13/2022	bottom not in view	camera passes over rail
FIDS-02	288593.02	47085.43	13:58:16	4/13/2022	bottom not in view	camera over water
FIDS-02	288593.05	47085.6	13:58:17	4/13/2022	bottom not in view	
FIDS-02	288593.07	47085.74	13:58:18	4/13/2022	bottom not in view	
FIDS-02	288593.1	47085.9	13:58:19	4/13/2022	bottom not in view	
FIDS-02	288593.18	47086.07	13:58:20	4/13/2022	bottom not in view	
FIDS-02	288593.21	47086.21	13:58:21	4/13/2022	bottom not in view	
FIDS-02	288593.27	47086.36	13:58:22	4/13/2022	bottom not in view	
FIDS-02	288593.29	47086.51	13:58:23	4/13/2022	bottom not in view	
FIDS-02	288593.31	47086.66	13:58:24	4/13/2022	bottom not in view	
FIDS-02	288593.35	47086.8	13:58:25	4/13/2022	bottom not in view	
FIDS-02	288593.39	47086.95	13:58:26	4/13/2022	bottom not in view	
FIDS-02	288593.42	47087.09	13:58:27	4/13/2022	bottom not in view	camera enters water
FIDS-02	288593.46	47087.24	13:58:28	4/13/2022	bottom not in view	
FIDS-02	288593.52	47087.39	13:58:29	4/13/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-02	288593.57	47087.54	13:58:30	4/13/2022	bottom not in view	
FIDS-02	288593.62	47087.68	13:58:31	4/13/2022	bottom not in view	
FIDS-02	288593.68	47087.82	13:58:32	4/13/2022	bottom not in view	
FIDS-02	288593.73	47087.95	13:58:33	4/13/2022	bottom not in view	
FIDS-02	288593.77	47088.08	13:58:34	4/13/2022	bottom not in view	
FIDS-02	288593.82	47088.21	13:58:35	4/13/2022	bottom not in view	
FIDS-02	288593.87	47088.35	13:58:36	4/13/2022	bottom not in view	
FIDS-02	288593.91	47088.49	13:58:37	4/13/2022	bottom not in view	
FIDS-02	288593.94	47088.61	13:58:38	4/13/2022	bottom not in view	
FIDS-02	288594.01	47088.75	13:58:39	4/13/2022	bottom not in view	
FIDS-02	288594.03	47088.87	13:58:40	4/13/2022	bottom not in view	
FIDS-02	288594.09	47089.02	13:58:41	4/13/2022	bottom not in view	
FIDS-02	288594.16	47089.14	13:58:42	4/13/2022	bottom not in view	
FIDS-02	288594.2	47089.23	13:58:43	4/13/2022	bottom not in view	
FIDS-02	288594.29	47089.37	13:58:44	4/13/2022	bottom not in view	
FIDS-02	288594.37	47089.48	13:58:45	4/13/2022	bottom not in view	
FIDS-02	288594.44	47089.6	13:58:46	4/13/2022	bottom not in view	
FIDS-02	288594.5	47089.71	13:58:47	4/13/2022	bottom not in view	
FIDS-02	288594.57	47089.83	13:58:48	4/13/2022	bottom not in view	
FIDS-02	288594.6	47089.94	13:58:49	4/13/2022	bottom not in view	
FIDS-02	288594.69	47090.07	13:58:50	4/13/2022	bottom not in view	
FIDS-02	288594.75	47090.18	13:58:51	4/13/2022	bottom not in view	
FIDS-02	288594.83	47090.28	13:58:52	4/13/2022	bottom not distingushable	bottom in view
FIDS-02	288594.93	47090.4	13:58:53	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288595	47090.5	13:58:54	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288595.07	47090.6	13:58:55	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288595.16	47090.72	13:58:56	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288595.21	47090.82	13:58:57	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288595.29	47090.93	13:58:58	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288595.38	47091.03	13:58:59	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288595.45	47091.13	13:59:00	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288595.53	47091.25	13:59:01	4/13/2022	microbial mats, silt	
FIDS-02	288595.63	47091.34	13:59:02	4/13/2022	microbial mats, silt	
FIDS-02	288595.7	47091.44	13:59:03	4/13/2022	microbial mats, silt	unknown depression
FIDS-02	288595.77	47091.54	13:59:04	4/13/2022	microbial mats, silt	unknown depression
FIDS-02	288595.85	47091.63	13:59:05	4/13/2022	microbial mats, silt	unknown depression
FIDS-02	288595.9	47091.73	13:59:06	4/13/2022	microbial mats, silt	unknown depression
FIDS-02	288595.95	47091.83	13:59:07	4/13/2022	microbial mats, silt	unknown depression

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-02	288596.04	47091.94	13:59:08	4/13/2022	microbial mats, silt	
FIDS-02	288596.12	47092.03	13:59:09	4/13/2022	microbial mats, silt	
FIDS-02	288596.19	47092.13	13:59:10	4/13/2022	microbial mats, silt	
FIDS-02	288596.3	47092.25	13:59:11	4/13/2022	microbial mats, silt	
FIDS-02	288596.38	47092.35	13:59:12	4/13/2022	microbial mats, silt	
FIDS-02	288596.43	47092.45	13:59:13	4/13/2022	microbial mats, silt	
FIDS-02	288596.52	47092.56	13:59:14	4/13/2022	microbial mats, silt	
FIDS-02	288596.57	47092.66	13:59:15	4/13/2022	microbial mats, silt	
FIDS-02	288596.62	47092.76	13:59:16	4/13/2022	microbial mats, silt	
FIDS-02	288596.68	47092.86	13:59:17	4/13/2022	microbial mats, silt	
FIDS-02	288596.77	47092.97	13:59:18	4/13/2022	microbial mats, silt	
FIDS-02	288596.83	47093.08	13:59:19	4/13/2022	microbial mats, silt	
FIDS-02	288596.88	47093.19	13:59:20	4/13/2022	microbial mats, silt	
FIDS-02	288596.98	47093.31	13:59:21	4/13/2022	microbial mats, silt	
FIDS-02	288597.07	47093.42	13:59:22	4/13/2022	microbial mats, silt	
FIDS-02	288597.1	47093.52	13:59:23	4/13/2022	microbial mats, silt	
FIDS-02	288597.19	47093.63	13:59:24	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288597.24	47093.74	13:59:25	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288597.3	47093.84	13:59:26	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288597.38	47093.96	13:59:27	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288597.45	47094.07	13:59:28	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288597.54	47094.19	13:59:29	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288597.6	47094.3	13:59:30	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288597.67	47094.43	13:59:31	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288597.74	47094.54	13:59:32	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288597.8	47094.67	13:59:33	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288597.85	47094.78	13:59:34	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288597.95	47094.92	13:59:35	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288597.98	47095.02	13:59:36	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288598.08	47095.16	13:59:37	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288598.15	47095.28	13:59:38	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288598.21	47095.39	13:59:39	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288598.31	47095.53	13:59:40	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288598.4	47095.66	13:59:41	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288598.47	47095.78	13:59:42	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288598.56	47095.91	13:59:43	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288598.64	47096.03	13:59:44	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288598.72	47096.16	13:59:45	4/13/2022	microbial mats, silt	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-02	288598.82	47096.3	13:59:46	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288598.89	47096.42	13:59:47	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288598.99	47096.55	13:59:48	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288599.06	47096.66	13:59:49	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288599.14	47096.78	13:59:50	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288599.23	47096.89	13:59:51	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288599.3	47097	13:59:52	4/13/2022	microbial mats, silt	tracks and trails, crab
FIDS-02	288599.38	47097.12	13:59:53	4/13/2022	microbial mats, silt	tracks and trails, crab
FIDS-02	288599.46	47097.24	13:59:54	4/13/2022	microbial mats, silt	tracks and trails, crab, depression
FIDS-02	288599.51	47097.37	13:59:55	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288599.58	47097.49	13:59:56	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288599.64	47097.62	13:59:57	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288599.72	47097.74	13:59:58	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288599.79	47097.86	13:59:59	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288599.87	47097.97	14:00:00	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288599.96	47098.09	14:00:01	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.03	47098.2	14:00:02	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.1	47098.3	14:00:03	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.2	47098.42	14:00:04	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.26	47098.53	14:00:05	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.34	47098.66	14:00:06	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.43	47098.81	14:00:07	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.53	47098.9	14:00:08	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.62	47099.03	14:00:09	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.71	47099.16	14:00:10	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.77	47099.27	14:00:11	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.87	47099.38	14:00:12	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.95	47099.53	14:00:13	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288601.04	47099.6	14:00:14	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288601.16	47099.77	14:00:15	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.88	47101.37	14:00:16	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288600.98	47101.5	14:00:17	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288601.09	47101.62	14:00:18	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288601.16	47101.74	14:00:19	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288601.25	47101.85	14:00:20	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288601.36	47101.97	14:00:21	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288601.44	47102.08	14:00:22	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288601.55	47102.2	14:00:23	4/13/2022	microbial mats, silt	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-02	288601.66	47102.32	14:00:24	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288601.76	47102.43	14:00:25	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288601.87	47102.55	14:00:26	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288601.97	47102.66	14:00:27	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288602.07	47102.77	14:00:28	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288602.17	47102.88	14:00:29	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288602.27	47103	14:00:30	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288602.36	47103.1	14:00:31	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288602.46	47103.22	14:00:32	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288602.58	47103.34	14:00:33	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288602.68	47103.45	14:00:34	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288602.8	47103.57	14:00:35	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288602.91	47103.68	14:00:36	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288602.99	47103.79	14:00:37	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288603.12	47103.93	14:00:38	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288603.24	47104.04	14:00:39	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288603.34	47104.16	14:00:40	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288603.44	47104.29	14:00:41	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288603.54	47104.41	14:00:42	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288603.63	47104.51	14:00:43	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288603.74	47104.64	14:00:44	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288603.85	47104.74	14:00:45	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288603.96	47104.85	14:00:46	4/13/2022	microbial mats, silt	tracks and trails
FIDS-02	288604.07	47104.94	14:00:47	4/13/2022	microbial mats	Grab taken
FIDS-02	288604.19	47105.06	14:00:48	4/13/2022	bottom not visible	
FIDS-02	288604.31	47105.17	14:00:49	4/13/2022	bottom not visible	
FIDS-02	288604.41	47105.29	14:00:50	4/13/2022	bottom not visible	
FIDS-02	288604.51	47105.39	14:00:51	4/13/2022	bottom not visible	
FIDS-02	288604.61	47105.52	14:00:52	4/13/2022	bottom not visible	Camera begins ascending
FIDS-02	288604.69	47105.62	14:00:53	4/13/2022	bottom not visible	
FIDS-02	288604.78	47105.73	14:00:54	4/13/2022	bottom not visible	
FIDS-02	288604.89	47105.85	14:00:55	4/13/2022	bottom not visible	
FIDS-02	288605.01	47105.96	14:00:56	4/13/2022	bottom not visible	
FIDS-03	288866.68	47063.17	13:48:41	4/13/2022	bottom not in view	camera on deck
FIDS-03	288866.87	47063.18	13:48:42	4/13/2022	bottom not in view	
FIDS-03	288867.08	47063.18	13:48:43	4/13/2022	bottom not in view	
FIDS-03	288867.72	47061.75	13:48:44	4/13/2022	bottom not in view	
FIDS-03	288867.91	47061.76	13:48:45	4/13/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-03	288868.11	47061.77	13:48:46	4/13/2022	bottom not in view	
FIDS-03	288868.29	47061.82	13:48:47	4/13/2022	bottom not in view	camera passes over rail
FIDS-03	288868.46	47061.86	13:48:48	4/13/2022	bottom not in view	camera over water
FIDS-03	288868.64	47061.92	13:48:49	4/13/2022	bottom not in view	
FIDS-03	288868.81	47061.97	13:48:50	4/13/2022	bottom not in view	
FIDS-03	288869	47062.01	13:48:51	4/13/2022	bottom not in view	
FIDS-03	288869.19	47062.05	13:48:52	4/13/2022	bottom not in view	
FIDS-03	288869.34	47062.08	13:48:53	4/13/2022	bottom not in view	
FIDS-03	288869.56	47062.15	13:48:54	4/13/2022	bottom not in view	
FIDS-03	288869.71	47062.21	13:48:55	4/13/2022	bottom not in view	
FIDS-03	288869.91	47062.31	13:48:56	4/13/2022	bottom not in view	
FIDS-03	288870.02	47062.37	13:48:57	4/13/2022	bottom not in view	camera enters water
FIDS-03	288870.15	47062.44	13:48:58	4/13/2022	bottom not in view	
FIDS-03	288870.3	47062.52	13:48:59	4/13/2022	bottom not in view	
FIDS-03	288870.45	47062.61	13:49:00	4/13/2022	bottom not in view	
FIDS-03	288870.58	47062.69	13:49:01	4/13/2022	bottom not in view	
FIDS-03	288870.71	47062.79	13:49:02	4/13/2022	bottom not in view	
FIDS-03	288870.84	47062.9	13:49:03	4/13/2022	bottom not in view	
FIDS-03	288870.96	47062.99	13:49:04	4/13/2022	bottom not in view	
FIDS-03	288871.08	47063.09	13:49:05	4/13/2022	bottom not in view	
FIDS-03	288871.17	47063.21	13:49:06	4/13/2022	bottom not in view	
FIDS-03	288871.29	47063.33	13:49:07	4/13/2022	bottom not in view	
FIDS-03	288871.4	47063.44	13:49:08	4/13/2022	bottom not in view	
FIDS-03	288871.49	47063.55	13:49:09	4/13/2022	bottom not in view	
FIDS-03	288871.61	47063.69	13:49:10	4/13/2022	bottom not in view	
FIDS-03	288871.71	47063.8	13:49:11	4/13/2022	bottom not in view	
FIDS-03	288871.8	47063.94	13:49:12	4/13/2022	bottom not in view	
FIDS-03	288871.89	47064.06	13:49:13	4/13/2022	bottom not in view	
FIDS-03	288871.98	47064.21	13:49:14	4/13/2022	bottom not in view	
FIDS-03	288872.07	47064.34	13:49:15	4/13/2022	bottom not in view	
FIDS-03	288872.18	47064.48	13:49:16	4/13/2022	bottom not in view	
FIDS-03	288872.26	47064.61	13:49:17	4/13/2022	bottom not distinguishable	bottom in view
FIDS-03	288872.35	47064.77	13:49:18	4/13/2022	bottom not distinguishable	
FIDS-03	288872.42	47064.91	13:49:19	4/13/2022	microbial mats, sand, shell hash, gravel	
FIDS-03	288872.52	47065.06	13:49:20	4/13/2022	microbial mats, sand, shell hash, gravel	
FIDS-03	288872.57	47065.21	13:49:21	4/13/2022	microbial mats, sand, shell hash, gravel	
FIDS-03	288872.67	47065.36	13:49:22	4/13/2022	microbial mats, sand, shell hash, gravel	
FIDS-03	288872.75	47065.51	13:49:23	4/13/2022	microbial mats, sand, shell hash, gravel	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-03	288872.82	47065.68	13:49:24	4/13/2022	microbial mats, sand, shell hash, gravel	
FIDS-03	288872.9	47065.85	13:49:25	4/13/2022	microbial mats, sand, shell hash, gravel	
FIDS-03	288872.97	47066.01	13:49:26	4/13/2022	microbial mats, sand, shell hash, gravel	
FIDS-03	288873.02	47066.16	13:49:27	4/13/2022	microbial mats, sand, shell hash, gravel	
FIDS-03	288873.12	47066.33	13:49:28	4/13/2022	microbial mats, sand, shell hash, gravel	anemone
FIDS-03	288873.18	47066.49	13:49:29	4/13/2022	microbial mats, sand, shell hash, gravel	some vegetation, tracks and trails
FIDS-03	288873.24	47066.66	13:49:30	4/13/2022	microbial mats, sand, shell hash, gravel	some vegetation, tracks and trails
FIDS-03	288873.35	47066.85	13:49:31	4/13/2022	microbial mats, sand, shell hash, gravel	some vegetation, tracks and trails
FIDS-03	288873.41	47067.02	13:49:32	4/13/2022	microbial mats, sand, shell hash, gravel	some vegetation, tracks and trails
FIDS-03	288873.49	47067.2	13:49:33	4/13/2022	microbial mats, sand, shell hash, gravel	some vegetation, tracks and trails
FIDS-03	288873.58	47067.4	13:49:34	4/13/2022	microbial mats, sand, shell hash, gravel	some vegetation, tracks and trails
FIDS-03	288873.64	47067.56	13:49:35	4/13/2022	microbial mats, sand, shell hash, gravel	some vegetation, tracks and trails
FIDS-03	288873.71	47067.75	13:49:36	4/13/2022	microbial mats, sand, shell hash, gravel	some vegetation, tracks and trails
FIDS-03	288873.77	47067.94	13:49:37	4/13/2022	microbial mats, sand, shell hash, gravel	some vegetation, tracks and trails
FIDS-03	288873.83	47068.12	13:49:38	4/13/2022	microbial mats, sand, shell hash, gravel	some vegetation, tracks and trails
FIDS-03	288873.9	47068.33	13:49:39	4/13/2022	microbial mats, sand, shell hash, gravel	some vegetation, tracks and trails
FIDS-03	288873.95	47068.5	13:49:40	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.04	47068.71	13:49:41	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.11	47068.89	13:49:42	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.16	47069.08	13:49:43	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.23	47069.29	13:49:44	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.26	47069.5	13:49:45	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.31	47069.71	13:49:46	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.37	47069.92	13:49:47	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.39	47070.13	13:49:48	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.46	47070.35	13:49:49	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.5	47070.55	13:49:50	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.55	47070.77	13:49:51	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.62	47070.99	13:49:52	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.65	47071.17	13:49:53	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.7	47071.41	13:49:54	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.72	47071.62	13:49:55	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.74	47071.82	13:49:56	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.76	47072.05	13:49:57	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.77	47072.25	13:49:58	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.76	47072.48	13:49:59	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.79	47072.71	13:50:00	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.77	47072.91	13:50:01	4/13/2022	microbial mats, sand	some vegetation, tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-03	288874.8	47073.13	13:50:02	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.81	47073.34	13:50:03	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.8	47073.54	13:50:04	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.83	47073.77	13:50:05	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.82	47073.96	13:50:06	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.84	47074.18	13:50:07	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.84	47074.38	13:50:08	4/13/2022	microbial mats, sand	some vegetation, tracks and trails
FIDS-03	288874.84	47074.59	13:50:09	4/13/2022	microbial mats, sand	
FIDS-03	288874.83	47074.81	13:50:10	4/13/2022	microbial mats, sand	
FIDS-03	288874.83	47075.03	13:50:11	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.83	47075.24	13:50:12	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.83	47075.45	13:50:13	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.83	47075.68	13:50:14	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.84	47075.89	13:50:15	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.86	47076.09	13:50:16	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.88	47076.31	13:50:17	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.89	47076.5	13:50:18	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.89	47076.69	13:50:19	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.93	47076.91	13:50:20	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.94	47077.09	13:50:21	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.95	47077.31	13:50:22	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.96	47077.51	13:50:23	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.98	47077.72	13:50:24	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288874.99	47077.9	13:50:25	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.02	47078.12	13:50:26	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.03	47078.32	13:50:27	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.07	47078.51	13:50:28	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.09	47078.72	13:50:29	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.12	47078.89	13:50:30	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.15	47079.09	13:50:31	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.19	47079.29	13:50:32	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.22	47079.49	13:50:33	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.27	47079.69	13:50:34	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.28	47079.87	13:50:35	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.34	47080.08	13:50:36	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.39	47080.28	13:50:37	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.42	47080.46	13:50:38	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.48	47080.68	13:50:39	4/13/2022	microbial mats, sand, gravel	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-03	288875.54	47080.88	13:50:40	4/13/2022	microbial mats, sand, gravel	
FIDS-03	288875.58	47081.05	13:50:41	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288875.64	47081.27	13:50:42	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288875.7	47081.47	13:50:43	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288875.75	47081.66	13:50:44	4/13/2022	microbial mats, sand	
FIDS-03	288875.81	47081.87	13:50:45	4/13/2022	microbial mats, sand	
FIDS-03	288875.88	47082.07	13:50:46	4/13/2022	microbial mats, sand	
FIDS-03	288875.92	47082.25	13:50:47	4/13/2022	microbial mats, sand	
FIDS-03	288875.99	47082.48	13:50:48	4/13/2022	microbial mats, sand	
FIDS-03	288876.04	47082.67	13:50:49	4/13/2022	microbial mats, sand	
FIDS-03	288876.09	47082.86	13:50:50	4/13/2022	microbial mats, sand	
FIDS-03	288876.14	47083.08	13:50:51	4/13/2022	microbial mats, sand	
FIDS-03	288876.17	47083.27	13:50:52	4/13/2022	microbial mats, sand	
FIDS-03	288876.21	47083.47	13:50:53	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288876.25	47083.67	13:50:54	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288876.29	47083.86	13:50:55	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288876.34	47084.08	13:50:56	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288876.38	47084.25	13:50:57	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288876.42	47084.43	13:50:58	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288876.48	47084.66	13:50:59	4/13/2022	microbial mats, sand	
FIDS-03	288876.51	47084.82	13:51:00	4/13/2022	microbial mats, sand	
FIDS-03	288876.54	47085.01	13:51:01	4/13/2022	microbial mats, sand	
FIDS-03	288876.6	47085.22	13:51:02	4/13/2022	microbial mats, sand	
FIDS-03	288876.63	47085.41	13:51:03	4/13/2022	microbial mats, sand	
FIDS-03	288876.67	47085.6	13:51:04	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288876.7	47085.81	13:51:05	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288876.76	47085.99	13:51:06	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288876.81	47086.17	13:51:07	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288876.85	47086.33	13:51:08	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288876.89	47086.54	13:51:09	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288876.96	47086.75	13:51:10	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288877	47086.91	13:51:11	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288877.06	47087.1	13:51:12	4/13/2022	microbial mats, sand	
FIDS-03	288877.14	47087.32	13:51:13	4/13/2022	microbial mats, sand	
FIDS-03	288877.19	47087.48	13:51:14	4/13/2022	microbial mats, sand	
FIDS-03	288877.27	47087.7	13:51:15	4/13/2022	microbial mats, sand	
FIDS-03	288877.35	47087.91	13:51:16	4/13/2022	microbial mats, sand	
FIDS-03	288877.41	47088.07	13:51:17	4/13/2022	microbial mats, sand	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-03	288877.48	47088.3	13:51:18	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288877.55	47088.49	13:51:19	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288877.63	47088.7	13:51:20	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288877.69	47088.92	13:51:21	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288877.76	47089.12	13:51:22	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288877.83	47089.33	13:51:23	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288877.89	47089.53	13:51:24	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288877.97	47089.73	13:51:25	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288878.04	47089.92	13:51:26	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288878.13	47090.12	13:51:27	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288878.2	47090.32	13:51:28	4/13/2022	microbial mats, sand	
FIDS-03	288878.29	47090.52	13:51:29	4/13/2022	microbial mats, sand	
FIDS-03	288878.37	47090.73	13:51:30	4/13/2022	microbial mats, sand	
FIDS-03	288878.44	47090.93	13:51:31	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288878.51	47091.15	13:51:32	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288878.57	47091.33	13:51:33	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288878.63	47091.55	13:51:34	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288878.72	47091.76	13:51:35	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288878.77	47091.97	13:51:36	4/13/2022	microbial mats, sand	tracks and trails
FIDS-03	288878.85	47092.17	13:51:37	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288878.92	47092.39	13:51:38	4/13/2022	microbial mats, sand, gravel	anemones
FIDS-03	288878.99	47092.58	13:51:39	4/13/2022	microbial mats, sand, gravel	anemones
FIDS-03	288879.07	47092.81	13:51:40	4/13/2022	microbial mats, sand, gravel	anemones
FIDS-03	288879.15	47093.01	13:51:41	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288879.21	47093.21	13:51:42	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288879.28	47093.44	13:51:43	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288879.35	47093.64	13:51:44	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288879.42	47093.85	13:51:45	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288879.5	47094.07	13:51:46	4/13/2022	microbial mats, sand, gravel	anemones
FIDS-03	288879.56	47094.27	13:51:47	4/13/2022	microbial mats, sand, gravel	anemones
FIDS-03	288879.64	47094.48	13:51:48	4/13/2022	microbial mats, sand, gravel	anemones
FIDS-03	288879.72	47094.68	13:51:49	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288879.79	47094.87	13:51:50	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288879.85	47095.06	13:51:51	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288879.94	47095.28	13:51:52	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288879.99	47095.47	13:51:53	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288880.07	47095.69	13:51:54	4/13/2022	microbial mats, sand, gravel	tracks and trails
FIDS-03	288880.14	47095.9	13:51:55	4/13/2022	microbial mats, sand, gravel	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-03	288880.22	47096.1	13:51:56	4/13/2022	microbial mats, sand, gravel	tracks and trails, anemones
FIDS-03	288880.3	47096.3	13:51:57	4/13/2022	microbial mats, sand, gravel	tracks and trails, anemones
FIDS-03	288880.4	47096.52	13:51:58	4/13/2022	microbial mats, sand, gravel	tracks and trails, anemones
FIDS-03	288880.46	47096.68	13:51:59	4/13/2022	microbial mats, sand, gravel	tracks and trails, anemones
FIDS-03	288880.55	47096.88	13:52:00	4/13/2022	microbial mats, sand, gravel	tracks and trails, anemones
FIDS-03	288880.64	47097.07	13:52:01	4/13/2022	microbial mats, sand, gravel	tracks and trails, anemones
FIDS-03	288880.71	47097.26	13:52:02	4/13/2022	microbial mats, sand, gravel	tracks and trails, anemones
FIDS-03	288880.81	47097.49	13:52:03	4/13/2022	microbial mats, sand, gravel	tracks and trails, anemones
FIDS-03	288880.87	47097.67	13:52:04	4/13/2022	microbial mats, sand, gravel	tracks and trails, anemones
FIDS-03	288880.97	47097.87	13:52:05	4/13/2022	microbial mats, sand, gravel	tracks and trails, anemones
FIDS-03	288881.06	47098.07	13:52:06	4/13/2022	microbial mats, sand, gravel	tracks and trails, anemones
FIDS-03	288881.14	47098.26	13:52:07	4/13/2022	microbial mats	Grab Taken
FIDS-03	288881.25	47098.47	13:52:08	4/13/2022	bottom not visible	
FIDS-03	288881.34	47098.66	13:52:09	4/13/2022	bottom not visible	
FIDS-03	288881.41	47098.85	13:52:10	4/13/2022	bottom not visible	
FIDS-03	288881.5	47099.08	13:52:11	4/13/2022	bottom not visible	Camera begins ascending
FIDS-03	288881.59	47099.28	13:52:12	4/13/2022	bottom not visible	
FIDS-03	288881.66	47099.5	13:52:13	4/13/2022	bottom not visible	
FIDS-03	288881.75	47099.7	13:52:14	4/13/2022	bottom not visible	
FIDS-03	288881.82	47099.9	13:52:15	4/13/2022	bottom not visible	
FIDS-03	288881.91	47100.11	13:52:16	4/13/2022	bottom not visible	
FIDS-04	288841.74	47421.88	13:38:02	4/13/2022	bottom not in view	camera on deck
FIDS-04	288841.8	47421.87	13:38:03	4/13/2022	bottom not in view	
FIDS-04	288841.89	47421.87	13:38:04	4/13/2022	bottom not in view	
FIDS-04	288841.92	47421.83	13:38:05	4/13/2022	bottom not in view	
FIDS-04	288842.01	47421.82	13:38:06	4/13/2022	bottom not in view	
FIDS-04	288842.13	47421.83	13:38:07	4/13/2022	bottom not in view	
FIDS-04	288842.15	47421.77	13:38:08	4/13/2022	bottom not in view	
FIDS-04	288842.27	47421.78	13:38:09	4/13/2022	bottom not in view	
FIDS-04	288842.37	47421.78	13:38:10	4/13/2022	bottom not in view	camera passes over rail
FIDS-04	288842.43	47421.72	13:38:11	4/13/2022	bottom not in view	camera over water
FIDS-04	288842.56	47421.73	13:38:12	4/13/2022	bottom not in view	
FIDS-04	288842.65	47421.7	13:38:13	4/13/2022	bottom not in view	
FIDS-04	288842.78	47421.69	13:38:14	4/13/2022	bottom not in view	
FIDS-04	288842.87	47421.68	13:38:15	4/13/2022	bottom not in view	
FIDS-04	288842.99	47421.68	13:38:16	4/13/2022	bottom not in view	
FIDS-04	288843.11	47421.69	13:38:17	4/13/2022	bottom not in view	
FIDS-04	288843.21	47421.67	13:38:18	4/13/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-04	288843.36	47421.69	13:38:19	4/13/2022	bottom not in view	camera enters water
FIDS-04	288843.48	47421.67	13:38:20	4/13/2022	bottom not in view	
FIDS-04	288843.64	47421.67	13:38:21	4/13/2022	bottom not in view	
FIDS-04	288843.78	47421.67	13:38:22	4/13/2022	bottom not in view	
FIDS-04	288843.9	47421.66	13:38:23	4/13/2022	bottom not in view	
FIDS-04	288844.05	47421.68	13:38:24	4/13/2022	bottom not in view	
FIDS-04	288844.13	47421.66	13:38:25	4/13/2022	bottom not in view	
FIDS-04	288844.28	47421.68	13:38:26	4/13/2022	bottom not in view	
FIDS-04	288844.41	47421.7	13:38:27	4/13/2022	bottom not in view	
FIDS-04	288844.48	47421.69	13:38:28	4/13/2022	bottom not in view	
FIDS-04	288844.66	47421.75	13:38:29	4/13/2022	bottom not in view	
FIDS-04	288844.73	47421.75	13:38:30	4/13/2022	bottom not in view	
FIDS-04	288844.84	47421.76	13:38:31	4/13/2022	bottom not in view	
FIDS-04	288845.02	47421.82	13:38:32	4/13/2022	bottom not in view	
FIDS-04	288845.11	47421.82	13:38:33	4/13/2022	bottom not in view	
FIDS-04	288845.24	47421.84	13:38:34	4/13/2022	bottom not in view	
FIDS-04	288845.37	47421.88	13:38:35	4/13/2022	bottom not in view	
FIDS-04	288845.46	47421.88	13:38:36	4/13/2022	bottom not in view	
FIDS-04	288845.6	47421.92	13:38:37	4/13/2022	bottom not in view	
FIDS-04	288845.72	47421.96	13:38:38	4/13/2022	bottom not in view	
FIDS-04	288845.82	47421.99	13:38:39	4/13/2022	bottom not in view	
FIDS-04	288845.97	47422.04	13:38:40	4/13/2022	bottom not in view	
FIDS-04	288846.07	47422.07	13:38:41	4/13/2022	bottom not in view	
FIDS-04	288846.21	47422.12	13:38:42	4/13/2022	bottom not in view	
FIDS-04	288846.35	47422.15	13:38:43	4/13/2022	bottom not in view	
FIDS-04	288846.44	47422.2	13:38:44	4/13/2022	bottom not in view	
FIDS-04	288846.59	47422.27	13:38:45	4/13/2022	bottom not in view	
FIDS-04	288846.66	47422.3	13:38:46	4/13/2022	bottom not in view	
FIDS-04	288846.81	47422.38	13:38:47	4/13/2022	bottom not in view	
FIDS-04	288846.93	47422.44	13:38:48	4/13/2022	bottom not in view	
FIDS-04	288847.01	47422.5	13:38:49	4/13/2022	bottom not in view	
FIDS-04	288847.18	47422.61	13:38:50	4/13/2022	bottom not in view	
FIDS-04	288847.25	47422.65	13:38:51	4/13/2022	bottom not in view	
FIDS-04	288847.36	47422.73	13:38:52	4/13/2022	bottom not in view	
FIDS-04	288847.48	47422.81	13:38:53	4/13/2022	bottom not in view	
FIDS-04	288847.53	47422.86	13:38:54	4/13/2022	bottom not in view	
FIDS-04	288847.64	47422.95	13:38:55	4/13/2022	bottom not in view	
FIDS-04	288847.72	47423.02	13:38:56	4/13/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-04	288847.79	47423.09	13:38:57	4/13/2022	bottom not in view	
FIDS-04	288847.87	47423.16	13:38:58	4/13/2022	bottom not in view	
FIDS-04	288847.99	47423.26	13:38:59	4/13/2022	bottom not in view	
FIDS-04	288848.4	47421.9	13:39:00	4/13/2022	bottom not in view	
FIDS-04	288848.53	47421.99	13:39:01	4/13/2022	bottom not in view	
FIDS-04	288848.62	47422.08	13:39:02	4/13/2022	bottom not in view	
FIDS-04	288848.63	47422.13	13:39:03	4/13/2022	bottom not in view	
FIDS-04	288848.78	47422.24	13:39:04	4/13/2022	bottom not distinguishable	bottom in view
FIDS-04	288848.82	47422.3	13:39:05	4/13/2022	poor visibility	
FIDS-04	288848.91	47422.4	13:39:06	4/13/2022	poor visibility	
FIDS-04	288849.01	47422.51	13:39:07	4/13/2022	poor visibility	
FIDS-04	288849.04	47422.57	13:39:08	4/13/2022	poor visibility	
FIDS-04	288849.16	47422.69	13:39:09	4/13/2022	poor visibility	
FIDS-04	288849.22	47422.78	13:39:10	4/13/2022	poor visibility	
FIDS-04	288849.27	47422.86	13:39:11	4/13/2022	poor visibility	
FIDS-04	288849.35	47422.97	13:39:12	4/13/2022	poor visibility	
FIDS-04	288849.42	47423.07	13:39:13	4/13/2022	poor visibility	
FIDS-04	288849.48	47423.17	13:39:14	4/13/2022	poor visibility	
FIDS-04	288849.55	47423.26	13:39:15	4/13/2022	poor visibility	
FIDS-04	288849.66	47423.39	13:39:16	4/13/2022	poor visibility	
FIDS-04	288849.71	47423.47	13:39:17	4/13/2022	poor visibility	
FIDS-04	288849.78	47423.58	13:39:18	4/13/2022	poor visibility	
FIDS-04	288849.87	47423.69	13:39:19	4/13/2022	poor visibility	
FIDS-04	288849.91	47423.77	13:39:20	4/13/2022	poor visibility	
FIDS-04	288849.97	47423.87	13:39:21	4/13/2022	poor visibility	
FIDS-04	288850.04	47423.98	13:39:22	4/13/2022	poor visibility	
FIDS-04	288850.07	47424.08	13:39:23	4/13/2022	poor visibility	
FIDS-04	288850.16	47424.19	13:39:24	4/13/2022	poor visibility	
FIDS-04	288850.23	47424.29	13:39:25	4/13/2022	poor visibility	
FIDS-04	288850.29	47424.4	13:39:26	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288850.39	47424.52	13:39:27	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288850.44	47424.62	13:39:28	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288850.48	47424.72	13:39:29	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288850.56	47424.84	13:39:30	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288850.61	47424.93	13:39:31	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288850.68	47425.04	13:39:32	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288850.77	47425.18	13:39:33	4/13/2022	sand and silt, microbial mat, vegetation	Unidentified object
FIDS-04	288850.83	47425.29	13:39:34	4/13/2022	sand and silt, microbial mat, vegetation	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-04	288850.9	47425.4	13:39:35	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288850.93	47425.51	13:39:36	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288850.99	47425.63	13:39:37	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.04	47425.76	13:39:38	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.06	47425.85	13:39:39	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.13	47425.98	13:39:40	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.17	47426.1	13:39:41	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.2	47426.2	13:39:42	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.29	47426.33	13:39:43	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.36	47426.45	13:39:44	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.38	47426.55	13:39:45	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.47	47426.7	13:39:46	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.52	47426.82	13:39:47	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.53	47426.91	13:39:48	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.63	47427.07	13:39:49	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.67	47427.18	13:39:50	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288851.7	47427.29	13:39:51	4/13/2022	sand and silt, microbial mat, vegetation	seastar
FIDS-04	288851.79	47427.44	13:39:52	4/13/2022	sand and silt, microbial mat, vegetation	seastar
FIDS-04	288851.8	47427.55	13:39:53	4/13/2022	sand and silt, microbial mat, vegetation	seastar
FIDS-04	288851.85	47427.65	13:39:54	4/13/2022	sand and silt, microbial mat, vegetation	seastar
FIDS-04	288851.92	47427.8	13:39:55	4/13/2022	sand and silt, microbial mat, vegetation	seastar
FIDS-04	288851.94	47427.89	13:39:56	4/13/2022	sand and silt, microbial mat, vegetation	seastar
FIDS-04	288851.99	47428.03	13:39:57	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288852.04	47428.17	13:39:58	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288852.07	47428.27	13:39:59	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288852.13	47428.41	13:40:00	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288852.19	47428.53	13:40:01	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288852.24	47428.63	13:40:02	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288852.29	47428.74	13:40:03	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288852.33	47428.88	13:40:04	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.38	47429.01	13:40:05	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.39	47429.11	13:40:06	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.44	47429.25	13:40:07	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.48	47429.38	13:40:08	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.51	47429.48	13:40:09	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.57	47429.61	13:40:10	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.62	47429.73	13:40:11	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.66	47429.82	13:40:12	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-04	288852.72	47429.96	13:40:13	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.76	47430.09	13:40:14	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.79	47430.2	13:40:15	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.85	47430.34	13:40:16	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.87	47430.44	13:40:17	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.93	47430.57	13:40:18	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288852.97	47430.69	13:40:19	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288853.01	47430.79	13:40:20	4/13/2022	sand and silt, microbial mat, vegetation	unknown encrusting organisms
FIDS-04	288853.08	47430.92	13:40:21	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.14	47431.02	13:40:22	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.2	47431.14	13:40:23	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.25	47431.26	13:40:24	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.3	47431.4	13:40:25	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.34	47431.49	13:40:26	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.39	47431.64	13:40:27	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.47	47431.75	13:40:28	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.52	47431.83	13:40:29	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.59	47431.96	13:40:30	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.66	47432.11	13:40:31	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.53	47432.3	13:40:32	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.29	47432.61	13:40:33	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288853.1	47432.89	13:40:34	4/13/2022	sand and silt, microbial mat, vegetation	
FIDS-04	288852.88	47433.16	13:40:35	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.66	47433.44	13:40:36	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.46	47433.71	13:40:37	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.26	47433.96	13:40:38	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.04	47434.21	13:40:39	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.85	47434.45	13:40:40	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.67	47434.69	13:40:41	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.5	47434.92	13:40:42	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.36	47435.14	13:40:43	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.2	47435.35	13:40:44	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.07	47435.56	13:40:45	4/13/2022	microbial mats, sand and silt	
FIDS-04	288850.94	47435.76	13:40:46	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288850.81	47435.96	13:40:47	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288850.69	47436.16	13:40:48	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288850.56	47436.34	13:40:49	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288850.42	47436.55	13:40:50	4/13/2022	microbial mats, sand and silt	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-04	288850.31	47436.74	13:40:51	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288850.21	47436.92	13:40:52	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288850.1	47437.09	13:40:53	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288850.04	47437.27	13:40:54	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.96	47437.45	13:40:55	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.9	47437.63	13:40:56	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.84	47437.8	13:40:57	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.8	47437.98	13:40:58	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.74	47438.15	13:40:59	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.71	47438.31	13:41:00	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.67	47438.49	13:41:01	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.63	47438.65	13:41:02	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.6	47438.81	13:41:03	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.59	47438.99	13:41:04	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288849.58	47439.17	13:41:05	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288849.57	47439.32	13:41:06	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288849.58	47439.48	13:41:07	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.57	47439.65	13:41:08	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.59	47439.79	13:41:09	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.61	47439.96	13:41:10	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.64	47440.1	13:41:11	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288849.69	47440.27	13:41:12	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288849.72	47440.44	13:41:13	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288849.76	47440.59	13:41:14	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.82	47440.75	13:41:15	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.84	47440.9	13:41:16	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.9	47441.06	13:41:17	4/13/2022	microbial mats, sand and silt	
FIDS-04	288849.96	47441.21	13:41:18	4/13/2022	microbial mats, sand and silt	
FIDS-04	288850.03	47441.36	13:41:19	4/13/2022	microbial mats, sand and silt	
FIDS-04	288850.1	47441.51	13:41:20	4/13/2022	microbial mats, sand and silt	
FIDS-04	288850.17	47441.66	13:41:21	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288850.27	47441.82	13:41:22	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288850.33	47441.94	13:41:23	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288850.44	47442.09	13:41:24	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288850.55	47442.24	13:41:25	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288850.62	47442.35	13:41:26	4/13/2022	microbial mats, sand and silt	
FIDS-04	288850.72	47442.51	13:41:27	4/13/2022	microbial mats, sand and silt	
FIDS-04	288850.8	47442.66	13:41:28	4/13/2022	microbial mats, sand and silt	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-04	288850.89	47442.8	13:41:29	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851	47442.95	13:41:30	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.1	47443.09	13:41:31	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.2	47443.23	13:41:32	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.32	47443.36	13:41:33	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.44	47443.49	13:41:34	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.54	47443.6	13:41:35	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.67	47443.75	13:41:36	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.76	47443.86	13:41:37	4/13/2022	microbial mats, sand and silt	
FIDS-04	288851.89	47444	13:41:38	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852	47444.13	13:41:39	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.1	47444.25	13:41:40	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288852.24	47444.4	13:41:41	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288852.33	47444.52	13:41:42	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288852.48	47444.64	13:41:43	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288852.61	47444.76	13:41:44	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288852.74	47444.86	13:41:45	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288852.9	47444.98	13:41:46	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.02	47445.08	13:41:47	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.19	47445.2	13:41:48	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.32	47445.31	13:41:49	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.46	47445.43	13:41:50	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.6	47445.55	13:41:51	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.71	47445.64	13:41:52	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.88	47445.79	13:41:53	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854	47445.87	13:41:54	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.14	47445.98	13:41:55	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.27	47446.09	13:41:56	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.4	47446.2	13:41:57	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.55	47446.32	13:41:58	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.68	47446.43	13:41:59	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.85	47446.55	13:42:00	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.95	47446.65	13:42:01	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288855.1	47446.77	13:42:02	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288855.25	47446.88	13:42:03	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288855.38	47446.97	13:42:04	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288855.54	47447.09	13:42:05	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288855.68	47447.19	13:42:06	4/13/2022	microbial mats, sand and silt	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-04	288855.77	47447.29	13:42:07	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288855.81	47447.54	13:42:08	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288855.67	47447.89	13:42:09	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288855.54	47448.26	13:42:10	4/13/2022	microbial mats, sand and silt	
FIDS-04	288855.44	47448.64	13:42:11	4/13/2022	microbial mats, sand and silt	
FIDS-04	288855.31	47448.96	13:42:12	4/13/2022	microbial mats, sand and silt	
FIDS-04	288855.2	47449.32	13:42:13	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288855.11	47449.65	13:42:14	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.96	47449.99	13:42:15	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.89	47450.32	13:42:16	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.74	47450.64	13:42:17	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.63	47450.98	13:42:18	4/13/2022	microbial mats, sand and silt	
FIDS-04	288854.52	47451.28	13:42:19	4/13/2022	microbial mats, sand and silt	
FIDS-04	288854.4	47451.59	13:42:20	4/13/2022	microbial mats, sand and silt	
FIDS-04	288854.33	47451.9	13:42:21	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.21	47452.18	13:42:22	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288854.09	47452.48	13:42:23	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.98	47452.76	13:42:24	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.9	47453.04	13:42:25	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.78	47453.31	13:42:26	4/13/2022	microbial mats, sand and silt	
FIDS-04	288853.69	47453.58	13:42:27	4/13/2022	microbial mats, sand and silt	
FIDS-04	288853.6	47453.84	13:42:28	4/13/2022	microbial mats, sand and silt	
FIDS-04	288853.48	47454.09	13:42:29	4/13/2022	microbial mats, sand and silt	
FIDS-04	288853.4	47454.36	13:42:30	4/13/2022	microbial mats, sand and silt	
FIDS-04	288853.32	47454.6	13:42:31	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.22	47454.83	13:42:32	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.15	47455.08	13:42:33	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288853.09	47455.32	13:42:34	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288852.99	47455.54	13:42:35	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288852.94	47455.78	13:42:36	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288852.88	47456.02	13:42:37	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.79	47456.23	13:42:38	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.74	47456.46	13:42:39	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.68	47456.68	13:42:40	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.6	47456.86	13:42:41	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.54	47457.09	13:42:42	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.47	47457.27	13:42:43	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.41	47457.47	13:42:44	4/13/2022	microbial mats, sand and silt	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-04	288852.38	47457.69	13:42:45	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.35	47457.89	13:42:46	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.32	47458.07	13:42:47	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.3	47458.28	13:42:48	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.28	47458.46	13:42:49	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.23	47458.63	13:42:50	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.2	47458.83	13:42:51	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.16	47459.01	13:42:52	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.13	47459.18	13:42:53	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.09	47459.35	13:42:54	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.08	47459.53	13:42:55	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.08	47459.71	13:42:56	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.06	47459.87	13:42:57	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.09	47460.07	13:42:58	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.08	47460.23	13:42:59	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.09	47460.4	13:43:00	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.09	47460.57	13:43:01	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.08	47460.71	13:43:02	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.09	47460.9	13:43:03	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.1	47461.06	13:43:04	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.09	47461.22	13:43:05	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.12	47461.41	13:43:06	4/13/2022	microbial mats, sand and silt	
FIDS-04	288852.14	47461.57	13:43:07	4/13/2022	microbial mats, sand and silt, some vegetation	
FIDS-04	288852.14	47461.72	13:43:08	4/13/2022	microbial mats, sand and silt, some vegetation	
FIDS-04	288852.17	47461.89	13:43:09	4/13/2022	microbial mats, sand and silt, some vegetation	
FIDS-04	288852.19	47462.05	13:43:10	4/13/2022	microbial mats, sand and silt, some vegetation	
FIDS-04	288852.2	47462.19	13:43:11	4/13/2022	microbial mats, sand and silt, some vegetation	
FIDS-04	288852.23	47462.38	13:43:12	4/13/2022	microbial mats, sand and silt, some vegetation	
FIDS-04	288852.24	47462.54	13:43:13	4/13/2022	microbial mats, sand and silt, some vegetation	
FIDS-04	288852.25	47462.69	13:43:14	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288852.29	47462.86	13:43:15	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288852.32	47463	13:43:16	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-04	288852.36	47463.14	13:43:17	4/13/2022	microbial mats, sand and silt	Grab Taken
FIDS-04	288852.43	47463.31	13:43:18	4/13/2022	bottom not visible	
FIDS-04	288852.48	47463.44	13:43:19	4/13/2022	bottom not visible	
FIDS-04	288852.52	47463.59	13:43:20	4/13/2022	bottom not visible	
FIDS-04	288852.57	47463.76	13:43:21	4/13/2022	bottom not visible	Camera begins ascending
FIDS-04	288852.6	47463.89	13:43:22	4/13/2022	bottom not visible	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-04	288852.65	47464.06	13:43:23	4/13/2022	bottom not visible	
FIDS-04	288852.7	47464.21	13:43:24	4/13/2022	bottom not visible	
FIDS-04	288852.75	47464.33	13:43:25	4/13/2022	bottom not visible	
FIDS-04	288852.83	47464.48	13:43:26	4/13/2022	bottom not visible	
FIDS-04	288852.9	47464.63	13:43:27	4/13/2022	bottom not visible	
FIDS-04	288852.98	47464.75	13:43:28	4/13/2022	bottom not in view	
FIDS-04	288853.06	47464.91	13:43:29	4/13/2022	bottom not in view	
FIDS-04	288853.12	47465.05	13:43:30	4/13/2022	bottom not in view	
FIDS-04	288853.19	47465.2	13:43:31	4/13/2022	bottom not in view	
FIDS-04	288853.25	47465.35	13:43:32	4/13/2022	bottom not in view	
FIDS-04	288853.31	47465.47	13:43:33	4/13/2022	bottom not in view	
FIDS-04	288853.39	47465.62	13:43:34	4/13/2022	bottom not in view	
FIDS-04	288853.47	47465.77	13:43:35	4/13/2022	bottom not in view	
FIDS-04	288853.55	47465.88	13:43:36	4/13/2022	bottom not in view	
FIDS-05	288415.025	47310.33	13:13:35	4/13/2022	bottom not visible	camera on deck
FIDS-05	288415.389	47309.009	13:13:36	4/13/2022	bottom not visible	
FIDS-05	288415.352	47309.169	13:13:37	4/13/2022	bottom not visible	
FIDS-05	288415.317	47309.317	13:13:38	4/13/2022	bottom not visible	
FIDS-05	288415.31	47309.51	13:13:39	4/13/2022	bottom not visible	
FIDS-05	288415.29	47309.659	13:13:40	4/13/2022	bottom not visible	
FIDS-05	288415.268	47309.818	13:13:41	4/13/2022	bottom not visible	
FIDS-05	288415.246	47310.009	13:13:42	4/13/2022	bottom not visible	
FIDS-05	288415.238	47310.175	13:13:43	4/13/2022	bottom not visible	
FIDS-05	288415.2	47310.318	13:13:44	4/13/2022	bottom not visible	
FIDS-05	288415.21	47310.513	13:13:45	4/13/2022	bottom not visible	
FIDS-05	288415.174	47310.644	13:13:46	4/13/2022	bottom not visible	
FIDS-05	288415.137	47310.801	13:13:47	4/13/2022	bottom not visible	
FIDS-05	288415.112	47310.979	13:13:48	4/13/2022	bottom not visible	
FIDS-05	288415.073	47311.139	13:13:49	4/13/2022	bottom not visible	
FIDS-05	288415.076	47311.323	13:13:50	4/13/2022	bottom not visible	
FIDS-05	288415.072	47311.515	13:13:51	4/13/2022	bottom not visible	
FIDS-05	288415.085	47311.689	13:13:52	4/13/2022	bottom not visible	
FIDS-05	288415.078	47311.874	13:13:53	4/13/2022	bottom not visible	
FIDS-05	288415.063	47312.057	13:13:54	4/13/2022	bottom not visible	
FIDS-05	288415.047	47312.252	13:13:55	4/13/2022	bottom not visible	
FIDS-05	288415.013	47312.423	13:13:56	4/13/2022	bottom not visible	
FIDS-05	288414.983	47312.58	13:13:57	4/13/2022	bottom not visible	
FIDS-05	288415.009	47312.777	13:13:58	4/13/2022	bottom not visible	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-05	288414.998	47312.931	13:13:59	4/13/2022	bottom not visible	
FIDS-05	288415.001	47313.11	13:14:00	4/13/2022	bottom not visible	
FIDS-05	288415.032	47313.305	13:14:01	4/13/2022	bottom not visible	
FIDS-05	288415.024	47313.478	13:14:02	4/13/2022	bottom not visible	
FIDS-05	288415.014	47313.64	13:14:03	4/13/2022	bottom not visible	
FIDS-05	288415.034	47313.854	13:14:04	4/13/2022	bottom not visible	
FIDS-05	288415.032	47314.019	13:14:05	4/13/2022	bottom not visible	
FIDS-05	288415.03	47314.188	13:14:06	4/13/2022	bottom not visible	
FIDS-05	288415.015	47314.378	13:14:07	4/13/2022	bottom not visible	
FIDS-05	288415	47314.536	13:14:08	4/13/2022	bottom not visible	
FIDS-05	288414.996	47314.699	13:14:09	4/13/2022	bottom not visible	
FIDS-05	288415.006	47314.878	13:14:10	4/13/2022	bottom not visible	
FIDS-05	288415.018	47315.056	13:14:11	4/13/2022	bottom not visible	
FIDS-05	288415.029	47315.211	13:14:12	4/13/2022	bottom not visible	
FIDS-05	288415.039	47315.412	13:14:13	4/13/2022	bottom not visible	
FIDS-05	288415.051	47315.601	13:14:14	4/13/2022	bottom not visible	
FIDS-05	288415.043	47315.744	13:14:15	4/13/2022	bottom not visible	
FIDS-05	288415.059	47315.955	13:14:16	4/13/2022	bottom not visible	
FIDS-05	288415.085	47316.118	13:14:17	4/13/2022	bottom not visible	
FIDS-05	288415.108	47316.269	13:14:18	4/13/2022	bottom not visible	
FIDS-05	288415.148	47316.455	13:14:19	4/13/2022	bottom not visible	
FIDS-05	288415.193	47316.619	13:14:20	4/13/2022	bottom not visible	
FIDS-05	288415.212	47316.776	13:14:21	4/13/2022	bottom not visible	
FIDS-05	288415.26	47316.984	13:14:22	4/13/2022	bottom not visible	
FIDS-05	288415.293	47317.164	13:14:23	4/13/2022	bottom not visible	
FIDS-05	288415.325	47317.342	13:14:24	4/13/2022	bottom not visible	
FIDS-05	288415.363	47317.544	13:14:25	4/13/2022	bottom not visible	
FIDS-05	288415.403	47317.713	13:14:26	4/13/2022	bottom not visible	
FIDS-05	288415.441	47317.882	13:14:27	4/13/2022	bottom not visible	
FIDS-05	288415.498	47318.072	13:14:28	4/13/2022	bottom not visible	
FIDS-05	288415.556	47318.215	13:14:29	4/13/2022	bottom not visible	
FIDS-05	288415.605	47318.396	13:14:30	4/13/2022	bottom not visible	
FIDS-05	288415.648	47318.578	13:14:31	4/13/2022	bottom not visible	
FIDS-05	288415.687	47318.748	13:14:32	4/13/2022	bottom not visible	
FIDS-05	288415.751	47318.987	13:14:33	4/13/2022	bottom not visible	
FIDS-05	288415.777	47319.116	13:14:34	4/13/2022	bottom not visible	
FIDS-05	288415.841	47319.307	13:14:35	4/13/2022	bottom not visible	
FIDS-05	288415.898	47319.49	13:14:36	4/13/2022	bottom not visible	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-05	288415.957	47319.66	13:14:37	4/13/2022	bottom not visible	
FIDS-05	288416.037	47319.836	13:14:38	4/13/2022	bottom not visible	
FIDS-05	288416.107	47320.014	13:14:39	4/13/2022	bottom not visible	
FIDS-05	288416.176	47320.188	13:14:40	4/13/2022	bottom not visible	
FIDS-05	288416.251	47320.368	13:14:41	4/13/2022	bottom not visible	
FIDS-05	288416.317	47320.543	13:14:42	4/13/2022	bottom not visible	
FIDS-05	288416.395	47320.742	13:14:43	4/13/2022	bottom not visible	
FIDS-05	288416.464	47320.904	13:14:44	4/13/2022	bottom not visible	
FIDS-05	288416.555	47321.109	13:14:45	4/13/2022	bottom not visible	
FIDS-05	288416.646	47321.284	13:14:46	4/13/2022	bottom not visible	
FIDS-05	288416.73	47321.463	13:14:47	4/13/2022	bottom not visible	
FIDS-05	288416.831	47321.682	13:14:48	4/13/2022	bottom not visible	
FIDS-05	288416.927	47321.868	13:14:49	4/13/2022	bottom not visible	
FIDS-05	288417.03	47322.068	13:14:50	4/13/2022	bottom not visible	
FIDS-05	288417.137	47322.298	13:14:51	4/13/2022	bottom not visible	
FIDS-05	288417.254	47322.475	13:14:52	4/13/2022	bottom not visible	
FIDS-05	288417.362	47322.705	13:14:53	4/13/2022	bottom not visible	
FIDS-05	288417.461	47322.885	13:14:54	4/13/2022	bottom not visible	
FIDS-05	288417.56	47323.08	13:14:55	4/13/2022	bottom not visible	camera over water
FIDS-05	288417.668	47323.285	13:14:56	4/13/2022	bottom not visible	
FIDS-05	288417.769	47323.496	13:14:57	4/13/2022	bottom not visible	
FIDS-05	288417.892	47323.713	13:14:58	4/13/2022	bottom not visible	
FIDS-05	288417.996	47323.93	13:14:59	4/13/2022	bottom not visible	
FIDS-05	288418.118	47324.172	13:15:00	4/13/2022	bottom not visible	
FIDS-05	288418.236	47324.384	13:15:01	4/13/2022	bottom not visible	
FIDS-05	288418.382	47324.614	13:15:02	4/13/2022	bottom not visible	
FIDS-05	288418.515	47324.823	13:15:03	4/13/2022	bottom not visible	
FIDS-05	288418.661	47325.047	13:15:04	4/13/2022	bottom not visible	
FIDS-05	288418.785	47325.261	13:15:05	4/13/2022	bottom not visible	camera enters water
FIDS-05	288418.897	47325.498	13:15:06	4/13/2022	bottom not visible	
FIDS-05	288419.007	47325.73	13:15:07	4/13/2022	bottom not visible	
FIDS-05	288419.119	47325.979	13:15:08	4/13/2022	bottom not visible	
FIDS-05	288419.239	47326.199	13:15:09	4/13/2022	bottom not visible	
FIDS-05	288419.338	47326.433	13:15:10	4/13/2022	bottom not visible	
FIDS-05	288419.455	47326.676	13:15:11	4/13/2022	bottom not visible	
FIDS-05	288419.547	47326.878	13:15:12	4/13/2022	bottom not visible	
FIDS-05	288419.664	47327.111	13:15:13	4/13/2022	bottom not visible	
FIDS-05	288419.785	47327.327	13:15:14	4/13/2022	bottom not visible	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-05	288419.897	47327.549	13:15:15	4/13/2022	bottom not visible	
FIDS-05	288420.012	47327.773	13:15:16	4/13/2022	bottom not visible	
FIDS-05	288420.123	47327.984	13:15:17	4/13/2022	bottom not visible	
FIDS-05	288420.217	47328.199	13:15:18	4/13/2022	bottom not visible	
FIDS-05	288420.31	47328.412	13:15:19	4/13/2022	bottom not visible	
FIDS-05	288420.394	47328.618	13:15:20	4/13/2022	bottom not visible	
FIDS-05	288420.472	47328.821	13:15:21	4/13/2022	bottom not visible	
FIDS-05	288420.572	47329.045	13:15:22	4/13/2022	bottom not visible	
FIDS-05	288420.647	47329.249	13:15:23	4/13/2022	bottom not visible	
FIDS-05	288420.728	47329.467	13:15:24	4/13/2022	bottom not visible	
FIDS-05	288420.833	47329.692	13:15:25	4/13/2022	bottom not visible	
FIDS-05	288420.9	47329.91	13:15:26	4/13/2022	bottom not visible	
FIDS-05	288421.005	47330.141	13:15:27	4/13/2022	bottom not visible	
FIDS-05	288421.071	47330.356	13:15:28	4/13/2022	bottom not visible	
FIDS-05	288421.179	47330.568	13:15:29	4/13/2022	bottom not visible	
FIDS-05	288421.278	47330.781	13:15:30	4/13/2022	bottom not visible	
FIDS-05	288421.37	47330.977	13:15:31	4/13/2022	bottom not visible	
FIDS-05	288421.472	47331.212	13:15:32	4/13/2022	bottom not visible	
FIDS-05	288421.544	47331.435	13:15:33	4/13/2022	bottom not visible	
FIDS-05	288421.614	47331.66	13:15:34	4/13/2022	bottom not visible	
FIDS-05	288421.689	47331.887	13:15:35	4/13/2022	bottom not visible	
FIDS-05	288421.759	47332.121	13:15:36	4/13/2022	bottom not visible	
FIDS-05	288421.83	47332.33	13:15:37	4/13/2022	bottom not visible	
FIDS-05	288421.909	47332.56	13:15:38	4/13/2022	bottom not visible	
FIDS-05	288422.015	47332.789	13:15:39	4/13/2022	bottom not visible	
FIDS-05	288422.098	47333.001	13:15:40	4/13/2022	bottom not visible	
FIDS-05	288422.193	47333.234	13:15:41	4/13/2022	bottom not visible	
FIDS-05	288422.248	47333.447	13:15:42	4/13/2022	bottom not visible	
FIDS-05	288422.314	47333.657	13:15:43	4/13/2022	bottom not visible	
FIDS-05	288422.389	47333.885	13:15:44	4/13/2022	bottom not visible	
FIDS-05	288422.445	47334.092	13:15:45	4/13/2022	bottom not visible	
FIDS-05	288422.51	47334.29	13:15:46	4/13/2022	bottom not visible	
FIDS-05	288422.619	47334.541	13:15:47	4/13/2022	bottom not visible	
FIDS-05	288422.676	47334.714	13:15:48	4/13/2022	bottom not visible	
FIDS-05	288422.771	47334.963	13:15:49	4/13/2022	bottom not visible	
FIDS-05	288422.873	47335.19	13:15:50	4/13/2022	bottom not visible	
FIDS-05	288422.886	47335.355	13:15:51	4/13/2022	bottom not visible	
FIDS-05	288422.993	47335.62	13:15:52	4/13/2022	bottom not visible	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-05	288423.026	47335.805	13:15:53	4/13/2022	bottom not visible	
FIDS-05	288423.083	47336.029	13:15:54	4/13/2022	bottom not visible	
FIDS-05	288423.166	47336.267	13:15:55	4/13/2022	bottom not visible	
FIDS-05	288423.197	47336.454	13:15:56	4/13/2022	bottom not visible	
FIDS-05	288423.29	47336.693	13:15:57	4/13/2022	bottom not visible	
FIDS-05	288423.359	47336.93	13:15:58	4/13/2022	bottom not visible	
FIDS-05	288423.418	47337.132	13:15:59	4/13/2022	bottom not visible	
FIDS-05	288423.47	47337.352	13:16:00	4/13/2022	bottom not visible	
FIDS-05	288423.544	47337.583	13:16:01	4/13/2022	bottom not visible	
FIDS-05	288423.573	47337.772	13:16:02	4/13/2022	bottom not visible	
FIDS-05	288423.647	47337.999	13:16:03	4/13/2022	bottom not visible	bottom in view
FIDS-05	288423.701	47338.213	13:16:04	4/13/2022	Poor visibility	
FIDS-05	288423.756	47338.416	13:16:05	4/13/2022	Poor visibility	
FIDS-05	288423.829	47338.654	13:16:06	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288423.863	47338.865	13:16:07	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288423.935	47339.085	13:16:08	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288423.976	47339.297	13:16:09	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.015	47339.489	13:16:10	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.099	47339.709	13:16:11	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.128	47339.896	13:16:12	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.194	47340.109	13:16:13	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.261	47340.328	13:16:14	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.346	47340.541	13:16:15	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.408	47340.756	13:16:16	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.475	47340.982	13:16:17	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.53	47341.198	13:16:18	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.573	47341.396	13:16:19	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.646	47341.612	13:16:20	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.704	47341.814	13:16:21	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.77	47342.014	13:16:22	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.851	47342.238	13:16:23	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.892	47342.442	13:16:24	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288424.97	47342.665	13:16:25	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288425.024	47342.88	13:16:26	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288425.077	47343.081	13:16:27	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288425.167	47343.317	13:16:28	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288425.219	47343.506	13:16:29	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288425.297	47343.708	13:16:30	4/13/2022	microbial mat, silt	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-05	288425.393	47343.959	13:16:31	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288425.437	47344.131	13:16:32	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288425.503	47344.356	13:16:33	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288425.593	47344.604	13:16:34	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288425.624	47344.781	13:16:35	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288425.724	47345.041	13:16:36	4/13/2022	microbial mat, silt	tracks and trails, burrows
FIDS-05	288425.806	47345.252	13:16:37	4/13/2022	microbial mat, silt	tracks and trails, burrows
FIDS-05	288425.844	47345.449	13:16:38	4/13/2022	microbial mat, silt	tracks and trails, burrows
FIDS-05	288425.98	47345.715	13:16:39	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.024	47345.895	13:16:40	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.089	47346.128	13:16:41	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.202	47346.393	13:16:42	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.211	47346.56	13:16:43	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.297	47346.816	13:16:44	4/13/2022	microbial mat, silt	
FIDS-05	288426.398	47347.076	13:16:45	4/13/2022	microbial mat, silt	
FIDS-05	288426.407	47347.236	13:16:46	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.522	47347.511	13:16:47	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.615	47347.748	13:16:48	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.63	47347.917	13:16:49	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.745	47348.211	13:16:50	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.786	47348.432	13:16:51	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.796	47348.62	13:16:52	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.882	47348.898	13:16:53	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288426.914	47349.098	13:16:54	4/13/2022	microbial mat, silt	
FIDS-05	288426.964	47349.301	13:16:55	4/13/2022	microbial mat, silt	
FIDS-05	288427.031	47349.546	13:16:56	4/13/2022	microbial mat, silt	
FIDS-05	288427.074	47349.75	13:16:57	4/13/2022	microbial mat, silt	
FIDS-05	288427.147	47349.983	13:16:58	4/13/2022	microbial mat, silt	
FIDS-05	288427.221	47350.216	13:16:59	4/13/2022	microbial mat, silt	
FIDS-05	288427.282	47350.439	13:17:00	4/13/2022	microbial mat, silt	
FIDS-05	288427.349	47350.679	13:17:01	4/13/2022	microbial mat, silt	
FIDS-05	288427.402	47350.904	13:17:02	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288427.416	47351.116	13:17:03	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288427.471	47351.353	13:17:04	4/13/2022	microbial mat, silt	
FIDS-05	288427.506	47351.588	13:17:05	4/13/2022	microbial mat, silt	
FIDS-05	288427.554	47351.82	13:17:06	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288427.574	47352.046	13:17:07	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288427.646	47352.288	13:17:08	4/13/2022	microbial mat, silt	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-05	288427.702	47352.515	13:17:09	4/13/2022	microbial mat, silt	
FIDS-05	288427.761	47352.73	13:17:10	4/13/2022	microbial mat, silt	tracks and trails, vegetation
FIDS-05	288427.82	47352.956	13:17:11	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288427.866	47353.197	13:17:12	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288427.909	47353.398	13:17:13	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288427.94	47353.628	13:17:14	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288428.003	47353.873	13:17:15	4/13/2022	microbial mat, silt	
FIDS-05	288428.03	47354.087	13:17:16	4/13/2022	microbial mat, silt	
FIDS-05	288428.079	47354.339	13:17:17	4/13/2022	microbial mat, silt	
FIDS-05	288428.131	47354.569	13:17:18	4/13/2022	microbial mat, silt	
FIDS-05	288428.171	47354.789	13:17:19	4/13/2022	microbial mat, silt	
FIDS-05	288428.257	47355.041	13:17:20	4/13/2022	microbial mat, silt	
FIDS-05	288428.299	47355.24	13:17:21	4/13/2022	microbial mat, silt	
FIDS-05	288428.37	47355.477	13:17:22	4/13/2022	microbial mat, silt	
FIDS-05	288428.418	47355.706	13:17:23	4/13/2022	microbial mat, silt	
FIDS-05	288428.458	47355.917	13:17:24	4/13/2022	microbial mat, silt	
FIDS-05	288428.521	47356.153	13:17:25	4/13/2022	microbial mat, silt	
FIDS-05	288428.573	47356.374	13:17:26	4/13/2022	microbial mat, silt	
FIDS-05	288428.61	47356.593	13:17:27	4/13/2022	microbial mat, silt	
FIDS-05	288428.66	47356.825	13:17:28	4/13/2022	microbial mat, silt	
FIDS-05	288428.691	47357.04	13:17:29	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288428.724	47357.259	13:17:30	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288428.782	47357.497	13:17:31	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288428.819	47357.702	13:17:32	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288428.888	47357.928	13:17:33	4/13/2022	microbial mat, silt	tracks and trails
FIDS-05	288428.943	47358.149	13:17:34	4/13/2022	microbial mat, silt	
FIDS-05	288429.022	47358.367	13:17:35	4/13/2022	bottom not visible	
FIDS-05	288429.092	47358.586	13:17:36	4/13/2022	bottom not visible	
FIDS-05	288429.141	47358.805	13:17:37	4/13/2022	bottom not visible	
FIDS-05	288429.213	47359.038	13:17:38	4/13/2022	bottom not visible	
FIDS-05	288429.241	47359.254	13:17:39	4/13/2022	bottom not visible	
FIDS-05	288429.279	47359.482	13:17:40	4/13/2022	bottom not visible	
FIDS-05	288429.317	47359.721	13:17:41	4/13/2022	bottom not visible	
FIDS-05	288429.345	47359.931	13:17:42	4/13/2022	bottom not visible	
FIDS-06	288426.058	47662.957	13:24:56	4/13/2022	bottom not in view	camera on deck
FIDS-06	288426.158	47663.203	13:24:57	4/13/2022	bottom not in view	
FIDS-06	288426.321	47663.624	13:24:58	4/13/2022	bottom not in view	
FIDS-06	288426.49	47664.07	13:24:59	4/13/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-06	288426.682	47664.497	13:25:00	4/13/2022	bottom not in view	
FIDS-06	288426.895	47664.927	13:25:01	4/13/2022	bottom not in view	
FIDS-06	288427.102	47665.345	13:25:02	4/13/2022	bottom not in view	
FIDS-06	288427.315	47665.755	13:25:03	4/13/2022	bottom not in view	
FIDS-06	288427.551	47666.156	13:25:04	4/13/2022	bottom not in view	
FIDS-06	288427.777	47666.535	13:25:05	4/13/2022	bottom not in view	
FIDS-06	288428.029	47666.902	13:25:06	4/13/2022	bottom not in view	
FIDS-06	288428.277	47667.256	13:25:07	4/13/2022	bottom not in view	
FIDS-06	288428.539	47667.61	13:25:08	4/13/2022	bottom not in view	
FIDS-06	288428.807	47667.941	13:25:09	4/13/2022	bottom not in view	
FIDS-06	288429.078	47668.276	13:25:10	4/13/2022	bottom not in view	
FIDS-06	288429.372	47668.591	13:25:11	4/13/2022	bottom not in view	
FIDS-06	288429.648	47668.918	13:25:12	4/13/2022	bottom not in view	
FIDS-06	288429.94	47669.227	13:25:13	4/13/2022	bottom not in view	
FIDS-06	288430.211	47669.535	13:25:14	4/13/2022	bottom not in view	
FIDS-06	288430.495	47669.829	13:25:15	4/13/2022	bottom not in view	
FIDS-06	288430.785	47670.116	13:25:16	4/13/2022	bottom not in view	
FIDS-06	288431.084	47670.393	13:25:17	4/13/2022	bottom not in view	
FIDS-06	288431.396	47670.664	13:25:18	4/13/2022	bottom not in view	camera enters water
FIDS-06	288431.706	47670.915	13:25:19	4/13/2022	bottom not in view	
FIDS-06	288432.005	47671.167	13:25:20	4/13/2022	bottom not in view	
FIDS-06	288432.309	47671.414	13:25:21	4/13/2022	bottom not in view	
FIDS-06	288432.604	47671.628	13:25:22	4/13/2022	bottom not in view	
FIDS-06	288432.922	47671.873	13:25:23	4/13/2022	bottom not in view	
FIDS-06	288433.23	47672.089	13:25:24	4/13/2022	bottom not in view	
FIDS-06	288433.528	47672.3	13:25:25	4/13/2022	bottom not in view	
FIDS-06	288433.821	47672.48	13:25:26	4/13/2022	bottom not in view	
FIDS-06	288434.117	47672.684	13:25:27	4/13/2022	bottom not in view	
FIDS-06	288434.395	47672.823	13:25:28	4/13/2022	bottom not in view	
FIDS-06	288434.667	47673.007	13:25:29	4/13/2022	bottom not in view	
FIDS-06	288434.933	47673.152	13:25:30	4/13/2022	bottom not in view	
FIDS-06	288435.201	47673.308	13:25:31	4/13/2022	bottom not in view	
FIDS-06	288435.466	47673.465	13:25:32	4/13/2022	bottom not in view	
FIDS-06	288435.732	47673.603	13:25:33	4/13/2022	bottom not in view	
FIDS-06	288435.989	47673.724	13:25:34	4/13/2022	bottom not in view	
FIDS-06	288436.255	47673.87	13:25:35	4/13/2022	bottom not in view	
FIDS-06	288436.519	47673.996	13:25:36	4/13/2022	bottom not in view	
FIDS-06	288436.783	47674.098	13:25:37	4/13/2022	bottom not in view	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-06	288437.034	47674.211	13:25:38	4/13/2022	bottom not in view	
FIDS-06	288437.309	47674.337	13:25:39	4/13/2022	bottom not in view	
FIDS-06	288437.53	47674.404	13:25:40	4/13/2022	bottom not in view	
FIDS-06	288437.746	47674.526	13:25:41	4/13/2022	bottom not in view	
FIDS-06	288437.956	47674.624	13:25:42	4/13/2022	bottom not in view	
FIDS-06	288438.159	47674.716	13:25:43	4/13/2022	bottom not in view	
FIDS-06	288438.383	47674.806	13:25:44	4/13/2022	bottom not in view	
FIDS-06	288438.593	47674.904	13:25:45	4/13/2022	bottom not in view	
FIDS-06	288438.821	47674.989	13:25:46	4/13/2022	bottom not in view	
FIDS-06	288439.061	47675.082	13:25:47	4/13/2022	bottom not in view	
FIDS-06	288439.296	47675.16	13:25:48	4/13/2022	bottom not in view	
FIDS-06	288439.513	47675.241	13:25:49	4/13/2022	bottom not in view	
FIDS-06	288439.717	47675.336	13:25:50	4/13/2022	bottom not in view	
FIDS-06	288439.889	47675.413	13:25:51	4/13/2022	bottom not in view	
FIDS-06	288440.049	47675.484	13:25:52	4/13/2022	bottom not in view	
FIDS-06	288440.239	47675.588	13:25:53	4/13/2022	bottom not in view	
FIDS-06	288440.423	47675.669	13:25:54	4/13/2022	bottom not in view	
FIDS-06	288440.613	47675.757	13:25:55	4/13/2022	bottom not in view	
FIDS-06	288440.808	47675.866	13:25:56	4/13/2022	bottom not distinguishable	bottom in view
FIDS-06	288440.982	47675.953	13:25:57	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288441.167	47676.051	13:25:58	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288441.346	47676.155	13:25:59	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288441.496	47676.207	13:26:00	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288441.702	47676.338	13:26:01	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288441.848	47676.407	13:26:02	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288442.038	47676.527	13:26:03	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288442.213	47676.631	13:26:04	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288442.363	47676.716	13:26:05	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288442.538	47676.831	13:26:06	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288442.695	47676.933	13:26:07	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288442.841	47677.006	13:26:08	4/13/2022	microbial mats, silt	
FIDS-06	288442.997	47677.118	13:26:09	4/13/2022	microbial mats, silt	circular markings
FIDS-06	288443.144	47677.235	13:26:10	4/13/2022	microbial mats, silt	
FIDS-06	288443.292	47677.311	13:26:11	4/13/2022	microbial mats, silt	
FIDS-06	288443.454	47677.425	13:26:12	4/13/2022	microbial mats, silt	
FIDS-06	288443.609	47677.547	13:26:13	4/13/2022	microbial mats, silt	
FIDS-06	288443.788	47677.667	13:26:14	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288443.938	47677.77	13:26:15	4/13/2022	microbial mats, silt	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-06	288444.078	47677.884	13:26:16	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288444.229	47678.007	13:26:17	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288444.358	47678.111	13:26:18	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288444.496	47678.208	13:26:19	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288444.643	47678.337	13:26:20	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288444.79	47678.441	13:26:21	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288444.892	47678.53	13:26:22	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288445.062	47678.667	13:26:23	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288445.185	47678.764	13:26:24	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288445.324	47678.872	13:26:25	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288445.457	47679.002	13:26:26	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288445.6	47679.127	13:26:27	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288445.743	47679.228	13:26:28	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288445.875	47679.346	13:26:29	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288446.031	47679.484	13:26:30	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288446.148	47679.581	13:26:31	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288446.299	47679.708	13:26:32	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288446.426	47679.82	13:26:33	4/13/2022	microbial mats, silt	tracks and trails, circular markings
FIDS-06	288446.53	47679.929	13:26:34	4/13/2022	microbial mats, silt	tracks and trails, circular markings
FIDS-06	288446.669	47680.058	13:26:35	4/13/2022	microbial mats, silt	tracks and trails, circular markings
FIDS-06	288446.797	47680.185	13:26:36	4/13/2022	microbial mats, silt	tracks and trails, circular markings
FIDS-06	288446.904	47680.299	13:26:37	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288447.033	47680.428	13:26:38	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288447.158	47680.56	13:26:39	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288447.314	47680.687	13:26:40	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288447.42	47680.807	13:26:41	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288447.57	47680.954	13:26:42	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288447.703	47681.073	13:26:43	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288447.808	47681.197	13:26:44	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288447.915	47681.304	13:26:45	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288448.035	47681.441	13:26:46	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288448.117	47681.541	13:26:47	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288448.239	47681.667	13:26:48	4/13/2022	microbial mats, silt	
FIDS-06	288448.368	47681.812	13:26:49	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288448.466	47681.914	13:26:50	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288448.595	47682.061	13:26:51	4/13/2022	microbial mats, silt	
FIDS-06	288448.714	47682.193	13:26:52	4/13/2022	microbial mats, silt	
FIDS-06	288448.812	47682.302	13:26:53	4/13/2022	microbial mats, silt	

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-06	288448.923	47682.449	13:26:54	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288449.011	47682.583	13:26:55	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288449.078	47682.693	13:26:56	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288449.186	47682.84	13:26:57	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288449.265	47682.954	13:26:58	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288449.356	47683.078	13:26:59	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288449.486	47683.238	13:27:00	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288449.569	47683.361	13:27:01	4/13/2022	microbial mats, silt	tracks and trails
FIDS-06	288449.655	47683.483	13:27:02	4/13/2022	microbial mats, vegetation, some sand	
FIDS-06	288449.778	47683.656	13:27:03	4/13/2022	microbial mats, vegetation, some sand	
FIDS-06	288449.858	47683.801	13:27:04	4/13/2022	microbial mats, vegetation, some sand	
FIDS-06	288449.923	47683.892	13:27:05	4/13/2022	microbial mats, vegetation, some sand	
FIDS-06	288450.056	47684.073	13:27:06	4/13/2022	microbial mats, vegetation, some sand	
FIDS-06	288450.111	47684.191	13:27:07	4/13/2022	microbial mats, vegetation, some sand	
FIDS-06	288450.19	47684.335	13:27:08	4/13/2022	microbial mats, silt and sand	
FIDS-06	288450.28	47684.49	13:27:09	4/13/2022	microbial mats, silt and sand	
FIDS-06	288450.38	47684.623	13:27:10	4/13/2022	microbial mats, silt and sand	
FIDS-06	288450.49	47684.795	13:27:11	4/13/2022	microbial mats, silt and sand	
FIDS-06	288450.569	47684.938	13:27:12	4/13/2022	microbial mats, silt and sand	
FIDS-06	288450.587	47684.965	13:27:12	4/13/2022	microbial mats, silt and sand	
FIDS-06	288450.604	47684.992	13:27:12	4/13/2022	microbial mats, silt and sand	
FIDS-06	288450.627	47685.019	13:27:12	4/13/2022	microbial mats, silt and sand	
FIDS-06	288450.644	47685.049	13:27:12	4/13/2022	microbial mats, silt and sand	
FIDS-06	288450.664	47685.084	13:27:13	4/13/2022	microbial mats, silt and sand	
FIDS-06	288450.752	47685.222	13:27:14	4/13/2022	microbial mats, silt and sand	
FIDS-06	288450.824	47685.371	13:27:15	4/13/2022	microbial mats, silt and sand	
FIDS-06	288450.904	47685.507	13:27:16	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288450.99	47685.665	13:27:17	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.026	47685.818	13:27:18	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.141	47685.999	13:27:19	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.19	47686.155	13:27:20	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.245	47686.318	13:27:21	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.349	47686.488	13:27:22	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.402	47686.641	13:27:23	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.485	47686.834	13:27:24	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.569	47686.991	13:27:25	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.65	47687.153	13:27:26	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.719	47687.321	13:27:27	4/13/2022	microbial mats, silt and sand	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-06	288451.778	47687.482	13:27:28	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.86	47687.677	13:27:29	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.902	47687.827	13:27:30	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288451.956	47688.015	13:27:31	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288452.048	47688.191	13:27:32	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288452.085	47688.343	13:27:33	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288452.159	47688.534	13:27:34	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288452.205	47688.693	13:27:35	4/13/2022	microbial mats, silt and sand	
FIDS-06	288452.263	47688.875	13:27:36	4/13/2022	microbial mats, silt and sand	
FIDS-06	288452.317	47689.055	13:27:37	4/13/2022	microbial mats, silt and sand	
FIDS-06	288452.382	47689.247	13:27:38	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288452.431	47689.418	13:27:39	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288452.479	47689.618	13:27:40	4/13/2022	microbial mats, silt and sand	tracks and trails
FIDS-06	288452.52	47689.78	13:27:41	4/13/2022	microbial mats, sand	tracks and trails
FIDS-06	288452.561	47689.961	13:27:42	4/13/2022	microbial mats, sand	tracks and trails
FIDS-06	288452.625	47690.145	13:27:43	4/13/2022	microbial mats, vegetation, sand and silt	tracks and trails
FIDS-06	288452.659	47690.304	13:27:44	4/13/2022	microbial mats, vegetation, sand and silt	tracks and trails
FIDS-06	288452.706	47690.492	13:27:45	4/13/2022	microbial mats, vegetation, sand and silt	tracks and trails
FIDS-06	288452.741	47690.67	13:27:46	4/13/2022	microbial mats, vegetation, sand and silt	tracks and trails
FIDS-06	288452.775	47690.86	13:27:47	4/13/2022	microbial mats, vegetation, sand and silt	tracks and trails
FIDS-06	288452.815	47691.05	13:27:48	4/13/2022	microbial mats, vegetation, sand and silt	tracks and trails
FIDS-06	288452.851	47691.238	13:27:49	4/13/2022	microbial mats, vegetation, sand and silt	tracks and trails
FIDS-06	288452.885	47691.432	13:27:50	4/13/2022	microbial mats, vegetation, sand and silt	
FIDS-06	288452.914	47691.596	13:27:51	4/13/2022	microbial mats, vegetation, sand and silt	
FIDS-06	288452.963	47691.802	13:27:52	4/13/2022	microbial mats, vegetation, sand and silt	
FIDS-06	288452.989	47691.983	13:27:53	4/13/2022	microbial mats, vegetation, sand and silt	
FIDS-06	288453.001	47692.161	13:27:54	4/13/2022	microbial mats, sand and silt	
FIDS-06	288453.03	47692.367	13:27:55	4/13/2022	microbial mats, sand and silt	
FIDS-06	288453.045	47692.545	13:27:56	4/13/2022	microbial mats, sand and silt	
FIDS-06	288453.061	47692.732	13:27:57	4/13/2022	microbial mats, sand and silt	
FIDS-06	288453.093	47692.936	13:27:58	4/13/2022	microbial mats, sand and silt	
FIDS-06	288453.112	47693.112	13:27:59	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-06	288453.167	47693.318	13:28:00	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-06	288453.185	47693.521	13:28:01	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-06	288453.201	47693.697	13:28:02	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-06	288453.227	47693.916	13:28:03	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-06	288453.21	47694.086	13:28:04	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-06	288453.269	47694.29	13:28:05	4/13/2022	microbial mats, sand and silt	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-06	288453.268	47694.476	13:28:06	4/13/2022	microbial mats, sand and silt	
FIDS-06	288453.275	47694.647	13:28:07	4/13/2022	microbial mats, sand and silt	
FIDS-06	288453.302	47694.864	13:28:08	4/13/2022	microbial mats, sand and silt	
FIDS-06	288453.294	47695.039	13:28:09	4/13/2022	microbial mats, sand and silt	
FIDS-06	288453.313	47695.238	13:28:10	4/13/2022	microbial mats, sand and silt	
FIDS-06	288453.353	47695.462	13:28:11	4/13/2022	microbial mats, sand and silt	
FIDS-06	288453.369	47695.642	13:28:12	4/13/2022	microbial mats, sand and silt	
FIDS-06	288453.397	47695.846	13:28:13	4/13/2022	microbial mats, sand and silt	tracks and trails
FIDS-06	288453.423	47696.04	13:28:14	4/13/2022	microbial mats, sand and silt, rocks	tracks and trails
FIDS-06	288453.418	47696.199	13:28:15	4/13/2022	microbial mats, sand and silt, rocks	tracks and trails
FIDS-06	288453.461	47696.421	13:28:16	4/13/2022	microbial mats, sand and silt, rocks	tracks and trails
FIDS-06	288453.473	47696.606	13:28:17	4/13/2022	microbial mats, sand and silt, rocks	tracks and trails
FIDS-06	288453.467	47696.782	13:28:18	4/13/2022	microbial mats, sand and silt, rocks	tracks and trails
FIDS-06	288453.49	47697.014	13:28:19	4/13/2022	microbial mats, sand and silt, rocks	tracks and trails
FIDS-06	288453.491	47697.212	13:28:20	4/13/2022	microbial mats, sand and silt, rocks	tracks and trails
FIDS-06	288453.483	47697.385	13:28:21	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.515	47697.606	13:28:22	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.541	47697.808	13:28:23	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.549	47697.971	13:28:24	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.578	47698.198	13:28:25	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.616	47698.398	13:28:26	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.594	47698.542	13:28:27	4/13/2022	microbial mat, silt	
FIDS-06	288453.641	47698.785	13:28:28	4/13/2022	microbial mat, silt	
FIDS-06	288453.681	47698.991	13:28:29	4/13/2022	microbial mat, silt	
FIDS-06	288453.652	47699.111	13:28:30	4/13/2022	microbial mat, silt	
FIDS-06	288453.682	47699.352	13:28:31	4/13/2022	microbial mat, silt	
FIDS-06	288453.695	47699.543	13:28:32	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.689	47699.68	13:28:33	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.722	47699.888	13:28:34	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.771	47700.1	13:28:35	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.766	47700.234	13:28:36	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.815	47700.461	13:28:37	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.855	47700.659	13:28:38	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.872	47700.823	13:28:39	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.921	47701.039	13:28:40	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.948	47701.213	13:28:41	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.969	47701.389	13:28:42	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288453.974	47701.573	13:28:43	4/13/2022	microbial mat, silt	tracks and trails

Station ID	X	Y	TIME	DATE	Substrate	Comments
FIDS-06	288454.016	47701.787	13:28:44	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288454.012	47701.914	13:28:45	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288454.068	47702.156	13:28:46	4/13/2022	microbial mat, silt	tracks and trails
FIDS-06	288454.075	47702.317	13:28:47	4/13/2022	microbial mat, silt	
FIDS-06	288454.095	47702.489	13:28:48	4/13/2022	microbial mat, silt	Grab Taken
FIDS-06	288454.142	47702.712	13:28:49	4/13/2022	bottom not visible	
FIDS-06	288454.161	47702.837	13:28:50	4/13/2022	bottom not visible	
FIDS-06	288454.214	47703.026	13:28:51	4/13/2022	bottom not visible	
FIDS-06	288454.244	47703.211	13:28:52	4/13/2022	bottom not visible	
FIDS-06	288454.284	47703.383	13:28:53	4/13/2022	bottom not visible	
FIDS-06	288454.326	47703.589	13:28:54	4/13/2022	bottom not visible	
FIDS-06	288454.342	47703.768	13:28:55	4/13/2022	bottom not visible	