Empire Wind
2024 Pre-Construction Benthic Monitoring Survey Report – Federal Waters

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ACRONYMS AND TERMS

ac	acre(s)
aRPD	apparent redox potential discontinuity
BAG	Before-After-Gradient
BOEM	Bureau of Ocean Energy Management
cm	centimeter(s)
CMECS	Coastal and Marine Ecological Classification Standard
COP	Construction and Operations Plan
DSLR	digital single-lens reflex
Eh	redox potential
Empire	Empire Wind Offshore, LLC
EW 1	Empire Wind 1
FBMP	Fisheries and Benthic Monitoring Plan
FGDC	Federal Geographic Data Committee
ft	foot/feet
ha	hectare(s)
in	inch(es)
INSPIRE	INSPIRE Environmental, Inc.
km	kilometer(s)
Lease Area	Renewable Energy Lease Area OCS-A 0512
m	meter(s)
MB	megabyte(s)
mi	mile(s)
mm	millimeter(s)
mV	millivolt(s)
NEF	Nikon Electronic Format
NELAP	National Environmental Laboratory Accreditation Program
NEMESIS	National Exotic Marine and Estuarine Species Information System
nmi	nautical mile(s)
NOAA	National Oceanic and Atmospheric Administration
OCS	Outer Continental Shelf
OSS	offshore substation
oz	ounce(s)
PSD	Photoshop Document
PV	Plan View Imaging
QA/QC	quality assurance/quality control
R/V	Research Vessel
RODEO	Realtime Opportunity for Development Environmental Observations
SAV	submerged aquatic vegetation
SD	Standard Deviation
SOD	sediment oxygen demand
SPI	Sediment Profile Imaging
TN	total nitrogen
TOC	total organic carbon
TOM	total organic matter

EXECUTIVE SUMMARY

INSPIRE Environmental conducted a pre-construction benthic survey at Empire Offshore Wind, LLC's (Empire's) planned offshore wind farm Empire Wind 1 (EW 1) located in the designated Renewable Energy Lease Area OCS-A 0512 (Lease Area) and along the planned EW 1 export cable route in federal waters. A total of 90 Sediment Profile and Plan View Imaging (SPI/PV) and 30 sediment grab stations were sampled at EW 1 and 96 SPI/PV stations were sampled along the EW 1 export cable route. These 2024 benthic data provide a description of baseline conditions that will be compared with post-construction results following the development of the project as detailed in the *Empire Wind Fisheries and Benthic Monitoring Plan* (INSPIRE 2023). The survey design was a Before-After-Gradient (BAG) design, consisting of selected wind turbine generator and offshore substation foundation locations and a BAG design along the EW 1 export cable route stratified by two pre-determined benthic habitat characterizations. SPI/PV and sediment grab stations were positioned with increasing distance from the location of the planned infrastructure (either a foundation location or the export cable centerline).

The results of this survey agreed with baseline observations synthesized in the *Empire Wind Habitat Mapping Report to Support Construction Compliance* (INSPIRE 2024a). The physical parameters including sediment type derived from SPI/PV and Coastal and Marine Ecological Classification Standard (CMECS) Substrate Subgroup at the West survey area were all Very Fine Sand, while the more heterogeneous East survey area contained mostly Fine Sand with some Medium Sand and occasional gravels. In general, there were no apparent spatial patterns observed in relation to any physical or biological parameters with the distance from the proposed foundation locations or the proposed EW 1 export cable. It is expected that following construction sediment types and CMECS Substrate Subgroups will vary with distance from the planned foundation locations at EW 1 and from the planned EW 1 export cable centerline, a factor that will be the focus of future monitoring reports.

The biological communities observed at EW 1 and along the EW 1 export cable route were characterized as CMECS Biotic Subclasses Soft Sediment Fauna, Inferred Fauna, and/or Attached Fauna. The CMECS Biotic Subclass corresponded with the CMECS Substrate Subgroup classifications; Attached Fauna such as northern star coral occurred more frequently at stations characterized as Boulder or Cobbly-Bouldery Sand, while Soft Sediment Fauna such as scallops, sand dollars, snails, and polychaetes occurred at stations with finer sediments.

The oxygen penetration into the sediments was assessed using the apparent redox potential discontinuity (aRPD) depths, and at EW 1 with sediment grab sample component analysis from grabs. Oxygen penetration and sediment oxygen demand are expected to change, particularly near the EW 1 foundation locations, following construction. The prevalent coarser sediments (i.e., substrates coarser than fine sand) had generally indeterminate aRPD depths, portraying a lack of optical contrast between oxidized and reduced particles, largely due to the low organic content in the substrate. This was corroborated by the total organic matter, total organic carbon and total nitrogen results from the sediment grab sample analysis. Benthic habitat types defined by finer sediments at EW 1 and in survey areas along the EW 1 export cable route were more

likely to have distinguishable aRPD depths. More frequently discernable aRPD depths at finer sediment stations were expected given the higher inventory of organic material typical in these environments relative to coarser sediments. Sediment grab sample analysis at EW 1 stations revealed relatively low total organic matter, low total organic carbon, and low total nitrogen concentrations.

Similar to aRPD depths, advanced infaunal successional stage (Stage 3) taxa rely on environmental factors present typically in depositional and soft sediment environments (e.g., supply of organic matter, infrequent natural physical disturbances to the seabed). Successional stage classifications across the stations surveyed at EW 1 were typically Stage 2. Stage 2 and Stage 3 were typically observed along the EW 1 export cable route stations in the West survey area; at the East survey area the successional stage was most often Stage 2, with rare occurrences of Stage 2 on 3. More advanced successional stages observed at the West survey area are consistent with finer sediments with relatively low natural physical disturbance; less advanced successional stages were noted at the East survey area where there were coarser sediments.

No non-native taxa, sensitive taxa, or species of concern (*sensu* Guida et al. 2017) were observed at EW 1. Northern star coral, *Astrangia poculata*, a non-reef-building hard coral, was observed at the EW 1 export cable route in the East survey area at stations with boulder or cobble sized gravel. Atlantic sea scallop, *Placopecten magellanicus*, was noted at one station at the West survey area of the EW 1 export cable route in sandy habitat.

1.0 INTRODUCTION

1.1 Overview of Proposed Project

Empire Offshore Wind, LLC (Empire) proposes to construct and operate an offshore wind farm located in the designated Renewable Energy Lease Area OCS-A 0512 (Lease Area). The Lease Area covers approximately 79,350 acres (ac; 32,112 hectares [ha]) and is located in the New York Bight approximately 14 statute miles (mi) (12 nautical miles [nm], 22 kilometers [km]) south of Long Island, New York and 19.5 mi (16.9 nm, 31.4 km) east of Long Branch, New Jersey (Figure 1-1). Empire proposes to develop the Lease Area with a wind farm known as Empire Wind 1 (EW 1). The EW 1 portion of the Lease Area is located north and west of the 35-meter (m) depth contour that runs through the Lease Area.

1.2 Benthic Survey Objectives

INSPIRE Environmental, Inc. (INSPIRE), contracted by Empire, conducted a pre-construction benthic monitoring survey at EW 1 and along the EW 1 export cable route in federal waters to fulfill pre-construction benthic monitoring requirements as described in detail in the Empire Wind Fisheries and Benthic Monitoring Plan (FBMP) (INSPIRE 2023). This survey followed a Before-After-Gradient (BAG) design based on the understanding of habitat distribution at EW 1 (Construction and Operations Plan [COP] Appendix T, Tetra Tech 2022), and an analysis of benthic monitoring results from European wind farms and the Realtime Opportunity for Development Environmental Observations (RODEO) study at Block Island Wind Farm (Lindeboom et al. 2011; Coates et al. 2014; Degraer et al. 2018; Dannheim et al. 2019; Lefaible et al. 2019; HDR 2020). The BAG survey design eliminates the need for a reference area, as this design is focused on sampling along a spatial gradient within the area of interest rather than using a control location that may not be truly representative of the conditions within the area of interest (Methratta 2020). This design also allows for the examination of spatial variation within the wind farm and does not assume homogeneity across sampling stations (Methratta 2020).

The pre-construction benthic monitoring survey at EW 1 and along the EW 1 export cable route included the collection of baseline data at benthic habitats 1) associated with selected wind turbine generator and offshore substation (OSS) foundation positions (*Structure-associated Organic Enrichment* monitoring); and 2) along the EW 1 export cable route in federal waters (*Cable-associated Physical Disturbance* monitoring). This survey included the collection of Sediment Profile and Plan View Imaging (SPI/PV) and sediment grab samples that were analyzed for grain size distribution, bulk organic matter, and total organic carbon and total nitrogen content.

The specific objectives of the benthic survey were to:

- Collect baseline benthic data (SPI/PV and sediment grabs) along transects centered around four pre-selected wind turbine generator foundation locations and one OSS location at EW 1.

- Collect baseline benthic data (SPI/PV and sediment grabs) along the EW 1 export cable route at two locations. One location to the east, characterized by higher complexity habitat, and another location to the west characterized by lower complexity habitat.

The benthic imagery was analyzed using the Coastal and Marine Ecological Classification Standard (CMECS) (Federal Geographic Data Committee [FGDC] 2012), consistent with methods and parameters used during the analysis and reporting of the 2023 benthic survey in support of the Empire Wind Pre-Construction Benthic Monitoring in New York State Waters (INSPIRE 2024b).

2.0 METHODS

The survey was completed from 10 to 22 August 2024 aboard the 110-foot (ft) Research Vessel (R/V) *Atlantic Surveyor*. At EW 1, INSPIRE collected SPI/PV imagery at a total of 90 stations; sediment grab samples were collected at 30 of these stations for grain size and organic content analyses. Stations were distributed along transects at one offshore substation foundation (C09) and four selected foundation positions (B17, C20, D03, and D14) (Figure 2-1; Appendix A). Along the export cable route, INSPIRE collected SPI/PV imagery at a total of 96 stations, which were split approximately evenly between the East survey area of relatively high habitat complexity and the West survey area of lower habitat complexity (Figure 2-2). Each of these two separate survey areas consisted of six transects positioned perpendicular to the planned cable routes, with three transects extending from each side of the planned cable centerlines and eight stations along each transect (Figure 2-2; Appendix A).

2.1 Survey Design

This baseline survey is the first of several surveying events that will monitor changes to the benthic habitat in relation to the construction and operation of EW 1. The benthic monitoring program employs a BAG design, which allows for monitoring changes in the benthic function of the seafloor surrounding foundations (wind turbine generators and OSS) and along the EW 1 export cable route once the project is constructed (INSPIRE 2023). This survey design is framed around the hypothesis that effects associated with the project construction and operation will be most pronounced near the installed structures and effects will decrease with distance from the assets (i.e., EW 1 selected wind turbine generator foundations, EW 1 OSS, and EW 1 export cable).

2.1.1 EW 1 Survey Design

Stations were sampled at one OSS and four replicate wind turbine generator foundations to assess *Structure-associated Organic Enrichment* during the pre-construction benthic monitoring survey (Figure 2-1; Appendix A). SPI/PV stations were positioned along two transects that extended from the center point of the proposed foundation locations. Transects were positioned based on prevailing currents (WHOI 2016), with one transect positioned up-current and the other down-current of the proposed foundation position (Figure 2-1). There were nine stations on each transect, totaling 18 stations per selected foundation and 90 stations total. At the OSS foundation, stations were positioned at distances of 40 m, 50 m, 65 m, 80 m, 105 m, 155 m, 255 m, 305 m, and 900 m from the center point (Figure 2-3). At the wind turbine generator foundations, stations were located at distances of 16 m, 26 m, 40 m, 55 m, 80 m, 130 m, 230 m, 280 m, and 900 m from the center point (Figure 2-4).

Sediment grab samples were collected along each of the upstream and downstream transects per foundation at 50 m, 155 m, and 900 m from the center point of the planned OSS foundation and 26 m, 130 m, and 900 m from the center point of the selected planned wind turbine generator foundations. This totaled six sediment grab samples collected per foundation (30

stations); in addition, three field duplicate grab samples were collected as a quality control measure, resulting in an overall total of 33 grab samples. Co-occurring SPI/PV and grab sample stations will be used in tandem during analysis of organic enrichment.

2.1.2 EW 1 Export Cable Route – Federal Waters Survey Design

SPI/PV stations were surveyed along the export cable route in federal waters to assess *Cable-Associated Physical Disturbance* along the EW 1 export cable route as described in the Empire Wind FBMP (INSPIRE 2023). EW 1 export cable route SPI/PV stations were positioned along 12 transects stratified by two levels of relative benthic habitat heterogeneity (Greene et al. 2010, soft sediments updated 2020; INSPIRE 2024a), East and West, described above. The survey transects extended perpendicularly from the proposed EW 1 export cable route (Figure 2-2). Transects were designed in triplicate on each side of the cable route, creating a total of six statistically independent transects and 48 SPI/PV stations per survey area (Figure 2-2). There were eight SPI/PV stations on each transect; the distance between each station on the transect lines increased with distance from the proposed EW 1 export cable route centerline: 0 m, 10 m, 20 m, 30 m, 60 m, 90 m, 200 m, and 1,000 m (Figure 2-5).

2.2 Sediment Profile and Plan View Image Navigation

Navigation software was used for acquiring positional data and navigating the vessel to the targeted stations. When the vessel was within a 7.5-m radius of the target location, the SPI/PV camera system was lowered to the seafloor. The navigator electronically recorded the vessel's position and water depth when the SPI/PV camera system contacted the seafloor as informed by the winch wire going slack.

2.3 Sediment Profile and Plan View Image Collection

SPI/PV imaging is a monitoring technique used to provide data describing the physical characteristics of the seafloor and the benthic biological community (Germano et al. 2011). SPI/PV imaging is a powerful tool that can efficiently map gradients in sediment type, biological communities, and disturbances from physical forces and organic enrichment of the seafloor. As an observational approach, SPI/PV-derived data are a snapshot in time and space of the benthic environment, and through interpretation and analysis can provide information on the dynamic processes that shape the physical and biological characteristics of the seafloor; these interpretations should be considered hypotheses available for further testing/confirmation.

2.3.1 Sediment Profile Image Collection

The SPI technique involves deploying an underwater camera system to photograph a cross-section of the sediment–water interface (INSPIRE 2019). High-resolution SPI images were acquired using a Nikon® D7200 digital single-lens reflex (DSLR) camera mounted inside an Ocean Imaging® DSC24000 pressure housing. The pressure housing sat atop a wedge-shaped steel prism with a plexiglass front faceplate and a back mirror, which was mounted at a 45° angle. The camera lens looked down at the mirror, which reflected the image from the faceplate.

The prism had an internal strobe mounted inside at the back of the wedge to provide illumination for the image; this chamber was filled with distilled water, so the camera always had an optically clear path. The descent of the prism into the sediment was controlled by a hydraulic piston. As the prism penetrated the seafloor, a trigger activated a time-delayed circuit that fired the internal strobe to obtain a cross-sectional image of the upper sediment column (Figure 2-6). The camera remained on the seafloor for approximately 20 seconds to ensure that successful images were obtained.

Test exposures of a Color Calibration Target were made on deck at the beginning of the survey to verify that all internal electronic systems were working to design specifications and to provide a color standard against which final images could be checked for proper white balance. Test images were also captured to confirm proper camera settings for site conditions. For the EW 1 and EW 1 export cable route stations, the SPI camera ISO-equivalent was set at 100, the shutter speed was 1/250s, and the f-stop was f5.6. Images were stored in compressed raw Nikon Electronic Format (NEF) files (approximately 30 megabytes [MB] each). Images were checked periodically throughout the survey to confirm that the initial camera settings were still resulting in the highest quality images possible. All camera settings and any setting changes were recorded in the field log. Details of the camera settings for each digital image are also available in the associated parameters file embedded in each electronic image file.

When the camera was brought back on board, typically after collection at several stations, the frame counter was checked to ensure that the requisite number of replicates had been obtained at each station. If images were missed or the penetration depth was insufficient, additional replicate images were taken. Frame counts, time of image acquisition, water depth, frame stop-collar position, and the number of weights used were recorded in the field log for each replicate image. Visual checks and hand-tightening checks of all nuts and bolts on the SPI/PV camera frame were conducted periodically to make sure nothing vibrated loose during the survey.

Prior to field operations, the internal clock in the digital SPI system was synchronized with the vessel's navigation. Each image was assigned a unique time stamp in the digital file attributes by the camera's data logger and cross-checked with the time stamp in the navigational system's computer data file. Digital image files were renamed with the appropriate station names immediately after downloading as an additional quality assurance step.

2.3.2 Plan View Image Collection

Plan view images of the seafloor surface were collected using an Ocean Imaging® Model DSC16000 underwater camera system with two Ocean Imaging® Model 400-37 Deep Sea Scaling lasers, which were attached to the sediment profile camera frame. Both SPI and PV images were collected during each "drop" of the system. The PV system consisted of a Nikon® D7100 DSLR camera encased in a pressure housing, a 24 VDC autonomous power pack, a 500 W strobe, and a bounce trigger. A weight was attached to the bounce trigger with a stainless-steel cable so that the weight hung below the camera frame; the scaling lasers projected two red dots that were separated by a constant distance (26 centimeters [cm]) regardless of the field

of view of the PV system. The field of view can be changed by increasing or decreasing the length of the trigger wire and, thereby, the camera height above the bottom when the picture is taken. As the SPI/PV camera system was lowered to the seafloor, the weight attached to the bounce trigger contacted the seafloor prior to the camera frame reaching the seafloor and triggered the PV camera to take an image (Figure 2-6).

During the set-up and testing of the PV camera, the positions of lasers on the PV camera were checked and calibrated to ensure a separation of 26 cm. Test images were also captured to confirm proper camera settings for site conditions. For the survey, the PV camera ISO-equivalent was set at 500, the shutter speed was 1/30s and the f-stop was f13. Images were stored in compressed raw NEF files (approximately 30 MB each). Images were checked periodically throughout the surveys to confirm that the initial camera settings were still resulting in the highest quality images possible. All camera settings and any setting changes were recorded in the field log. Details of the camera settings for each digital image are also available in the associated parameters file embedded in each electronic image file.

Prior to field operations, the internal clock in the digital PV system was synchronized with the vessel's navigation system and the SPI camera. Each image was assigned a unique time stamp in the digital file attributes by the camera's data logger and cross-checked with the time stamp in the navigational system's computer data file. In addition, the field crew kept redundant field logs. Throughout the surveys, PV images were downloaded at the same time as SPI and were evaluated for successful image acquisition and image clarity. Digital image files were renamed with the appropriate station names immediately after downloading as a further quality assurance step.

The ability of the PV system to collect usable images is dependent on the clarity of the water column. Water conditions during the offshore survey allowed the use of a 1.0-m trigger wire, resulting in a mean image width of 0.7 m and a mean field of view of 0.3 m^2.

2.3.3 Image Conversion and Calibration

Following the completion of field operations, quality control checks were conducted of filenames, date/time stamps, and the field log. After these procedures, the NEF raw image files were color calibrated in Adobe Camera Raw® by synchronizing the raw color profiles to the Color Calibration Target that was photographed prior to field operations with the SPI camera. The raw SPI and PV images were then converted to high-resolution Photoshop Document (PSD) format files, using a lossless conversion file process and maintaining an Adobe RGB (1998) color profile. The PSD images were then calibrated and analyzed in Adobe Photoshop®. Length and area measurements were recorded as a number of pixels and converted to scientific units using the calibration information.

2.4 Sediment Profile and Plan View Image Analysis

At least four replicate SPI/PV paired images were captured at each station. Each replicate camera position was recorded, time-stamped, and linked to the SPI/PV log by station number and replicate. At the time of sample acquisition, the time, station name and replicate were recorded in the field log. The three replicate images with the best quality (adequate prism penetration, no or minimal sampling artifacts) at each station were selected for analysis.

SPI and PV images were analyzed using a set of standard computer-aided measurements to allow for comparisons among different areas of interest. Measured parameters for SPI and PV images were recorded in Microsoft Excel© spreadsheets. These data were subsequently checked by INSPIRE's senior scientists as an independent quality assurance/quality control review before final interpretation was performed. Spatial distributions of SPI and PV parameters were mapped using ESRI ArcGIS 10.7. Map backgrounds use a worldwide data layer called ESRI Oceans or ESRI Aerial Imagery (Esri, Garmin, GEBCO, NOAA NGDC, and other contributors) to provide geospatial context.

2.4.1 Sediment Profile Image Analysis Parameters

The parameters discussed below were assessed and/or measured and recorded for each replicate SPI selected for analysis (Appendix B). Notable, descriptive comments were also recorded. A depiction of standard variables derived from example SPI from soft bottom settings is provided in Figure 2-7.

2.4.1.1 Grain Size Major Mode

The sediment grain size major mode and range were determined via one of two ways: 1) visually estimated from the SPI by overlaying a grain size comparator utilizing Udden-Wentworth sediment standards that were at the same scale and photographed through the SPI optical system; or 2) representative sample of measurements of the diameter of individual grains (often possible for grain sizes larger than a phi of 3 to 2). Both approaches allow for grain sizes to be transformed into a sediment type for data presentation. With respect to the grain size comparator, this transformation was prepared by photographing a series of Udden-Wentworth size classes (equal to or less than coarse silt up to granule and larger sizes) with the SPI camera: silt/clay (>4 phi), very fine sand (4 to 3 phi), fine sand (3 to 2 phi), medium sand (2 to 1 phi), coarse sand (1 to 0 phi), very coarse sand (0 to -1 phi), and granule and larger (<1 phi). The lower limit of optical resolution of the photographic system is about 62 microns, allowing recognition of grain sizes equal to, or greater than, coarse silt (>4 phi). The accuracy of this method has been documented by comparing SPI estimates with grain size statistics determined from laboratory sieve analyses (Marine Surveys 1984).

2.4.1.2 Prism Penetration Depth

The SPI prism penetration depth was measured from the bottom of the image to the sediment–water interface. The area of the entire cross-sectional sedimentary portion of the image was

digitized; the number of pixels within this area was divided by the calibrated linear width of the image to determine the mean penetration depth. Linear maximum and minimum depths of penetration were also measured. All three measurements (maximum, minimum, and mean penetration depths) were recorded in the data file.

When the stop collar settings and the number of weights used in the camera frame are held constant for all stations, the depth to which the SPI prism penetrated the seafloor indicates the relative load-bearing capacity and shear strength of the sediment in the survey area. The penetration depth can range from a minimum of 0 cm (no penetration) to a maximum of 20 cm (full penetration of very soft substrata). Comparative penetration values from sites of similar grain size indicate the relative water content of the sediment. Highly bioturbated sediments and rapidly accumulating sediments tend to have higher water content and greater prism penetration depths.

2.4.1.3 Small-Scale Surface Boundary Roughness

Surface boundary roughness was determined by measuring the vertical distance between the highest and lowest points of the sediment–water interface in each SPI. The camera must be level to record accurate boundary roughness measurements. The surface boundary roughness (sediment surface relief) measured over the width of sediment profile images typically ranges from 0 to 4 cm and may be related to either physical structures (ripples) or biogenic features (burrow openings, fecal mounds, foraging depressions). Biogenic roughness typically changes seasonally and is related to the interaction of bottom turbulence and bioturbation. In sandy sediments, boundary roughness can be a measure of sand wave height. On silt/clay bottoms, boundary roughness values often reflect biogenic features such as fecal mounds or surface burrows. The size and scale of boundary roughness values can have dramatic effects on both sediment erodibility and localized oxygen penetration into subsurface sediments (Huettel et al. 1996).

2.4.1.4 Apparent Redox Potential Discontinuity (aRPD) Depth

Oxic near-surface marine sediments typically have higher reflectance relative to underlying hypoxic or anoxic sediments. Surface sands washed free of mud also have higher optical reflectance than underlying muddy sands. Oxidized surface sediments contain particles coated with ferric hydroxide (an olive or tan color when associated with particles) while reduced and muddy sediments below this oxygenated layer are darker, generally gray to black (Fenchel 1969; Lyle 1983; Sturdivant and Shimizu 2017). These differences in optical reflectance are visible in SPI. The boundary between colored ferric hydroxide surface sediments and underlying gray-to-black sediments is called the apparent redox potential discontinuity (aRPD) (Figure 2-7). The aRPD depth is described as “apparent” because of the potential discrepancy between where the sediment color shifts and the complete depletion of dissolved oxygen concentration occurs due to the lag time between when the redox potential (Eh) reaches 0 millivolts (mV) and the precipitation of darker sulfidic sediments (Jorgensen and Fenchel 1974). However, the mean aRPD depth measured in SPI is a suitable proxy for the RPD with the depth of the actual

Eh = 0 horizon generally either equal to or slightly shallower than the depth of the optical reflectance boundary (Rosenberg et al. 2001; Simone and Grant 2017). Factors that influence the aRPD depth include biological processes (e.g., respiration, bioturbation) and physical processes (e.g., advection, diffusion, local erosion). Scouring can wash away fines and shell or gravel deposits and can result in a very thin surface oxidized layer. During storm periods, erosion may completely remove any evidence of the aRPD depth (Fredette et al. 1988).

In sandy sediments that have very low sediment oxygen demand (SOD), the sediment may lack a visibly reduced layer even if an RPD is present. Because the determination of the aRPD depth requires discernment of an optical contrast between oxidized and reduced particles, it is difficult, if not impossible, to determine the aRPD depth in well-sorted sands of any size that have little to no silt or organic matter content. When using SPI technology on sand bottoms, estimates of the mean aRPD depths are often indeterminate with conventional white light photography. In these types of sediments, often, aRPD depths are likely below the prism penetration depth, particularly in high energy areas where frequent seabed disturbance mixes and oxygenates the top several centimeters of sediment. The aRPD depth would be noted as greater than penetration if this is likely the case, evidenced by surface ripples and replicate images where slightly deeper prism penetration depths reveal a deep aRPD depth (dark sediments visible beneath the sand, near the bottom of the visible sediment column).

2.4.1.5 Other Benthic Respiration Indicators

SOD is the rate of oxygen consumption, biologically and chemically, by the sediment column. Organic loading in a system results in increased SOD and reduced sediments. The relative amount of organic enrichment is indicated by sediment color; darker coloration indicates that sediments are more reduced with likely greater organic loading (Fenchel 1969; Rhoads 1974; Lyle 1983; Bull and Williamson 2001; Sturdivant and Shimizu 2017). SOD levels (i.e., none, low, medium, and high) were assessed for all images. Images in which dark-gray or black reduced sediments were in contact with the water column across the entire length of the sediment–water interface were recorded as having low dissolved oxygen conditions with high SOD.

If organic loading is high, porewater sulfate is depleted and methanogenesis occurs. The process of methanogenesis can be apparent in SPI by the presence of methane bubbles in the sediment column. These gas-filled voids are readily discernable in SPI images because of their irregular, generally circular aspect and glassy texture (due to the reflection of the strobe off the gas bubble). The presence/absence of methane was recorded for all images.

A primary diagnostic feature indicating hypoxic conditions due to elevated organic enrichment is the presence of *Beggiatoa* or *Beggiatoa*-like colonies. While it cannot be determined with certainty that any bacterial colonies seen in profile images are the genus *Beggiatoa*, these bacterial mats are known to be in the same family of sulfur-oxidizing bacteria that only appear in hypoxic or anoxic conditions. These colonies have diagnostic morphology that has been documented in numerous other sediment profile imaging surveys (Nilsson and Rosenberg 1997; Rosenberg et al. 2001; Karakassis et al. 2002; Germano et al. 2011). The presence of sulfur-

oxidizing bacterial colonies indicates hypoxic dissolved oxygen concentrations in the water column at the benthic boundary-layer (Rosenberg and Diaz 1993; Sturdivant et al. 2012). The presence/absence of *Beggiatoa* or *Beggiatoa*-like colonies were noted.

2.4.1.6 Layering

In the post-construction analysis this survey is meant to be compared with, layering is expected to develop. Because of the camera's unique design, SPI can be used to detect the thickness of layers of sediment. SPI is effective in measuring layers ranging in thickness from 1 millimeters (mm) to 20 cm (the height of the SPI optical window). Recently deposited material is usually evident because of its unique optical reflectance and/or color relative to the underlying material representing the previous sediment–water interface. Also, in most cases, the point of contact between the two layers is clearly visible as a textural change in sediment composition, facilitating measurement of the thickness of the more recent layer. Sedimentary layer thickness was not assessed for this survey, since the presence of layering was not anticipated pre-construction.

2.4.2 Plan View Image Analysis Parameters

PV images record conditions at the seafloor surface in a downward-looking orientation. They provide a larger field of view than SPI along with valuable information about the landscape ecology and sediment topography in the area where the pinpoint “optical core” of the sediment profile was taken (Figure 2-8). The parameters discussed below were assessed and/or measured and recorded for each replicate PV image selected for analysis (Appendix C).

2.4.2.1 Field of View

The field of view area was measured using the scale information provided by the underwater lasers (i.e., the measurement between two laser points with a known distance). Scaling allows accurate measurements of sediment grain sizes, density counts of attached epifaunal colonies, sediment burrow openings, and/or larger macrofauna or fish. The laser points may not be visible in images with high turbidity. Water conditions during the offshore survey allowed the use of a 1.0-m trigger wire, resulting in a mean image width of 0.7 m and a mean field of view of 0.3 m^2.

2.4.2.2 Bedforms

Seafloor bedforms are indicative of seafloor hydrodynamics and are physical features visible on the surface of the seafloor. These features can give an indication of the physical energy of the system (ripples) or of biotic activity (feeding pits). Sediment bedforms such as sand waves, sand bars, and ripples develop as a response of the seafloor to hydrodynamic conditions. For example, short-wavelength sediment ripples indicate mobile sands and active bedload transport. In contrast, soft silt/clay sediments often lack surficial bedforms and indicate quiescent depositional environments. The view of the seafloor provided in the PV images was <1 m^2, the scope of this view limits the ability to distinguish bedforms that exist over larger

scales (e.g., sand waves or dunes). Bedforms, where present, were noted for each replicate PV image.

2.4.2.3 CMECS Biotic Subclass

The Biotic Component of CMECS is a classification of the living organisms of the seabed and water column together with their physical associations at a variety of spatial scales. The Biotic Component is organized into a branched hierarchy of five nested levels: Biotic Setting, Biotic Class, Biotic Subclass, Biotic Group, and Biotic Community. Biotic Component classifications are defined by the dominance of life forms, taxa, or other classifiers in the observation. In the case of PV images, dominance is assigned to the taxa with the greatest percent cover in the observational footprint (FGDC 2012). CMECS categories are provided in uppercase throughout this report.

The Biotic Subclass is a key CMECS classifier that presents valuable information about the surveyed area in terms of physical habitat and the potential presence of sensitive taxa; therefore, it was identified as a parameter for PV image analysis. Biotic Subclasses describe dominant biota at a coarse level, and, to provide additional information, a Co-occurring Biotic Subclass was designated as any secondarily dominant (by percent cover) Biotic Subclass. The Biotic Component Setting most applicable to all data reported here is the Benthic/Attached Biota. Within the Benthic/Attached Biota setting, there are eight classes, of which the Faunal Bed class is of most relevance to EW 1. Three subclasses fall under the Faunal Bed hierarchy: Attached Fauna, Soft Sediment Fauna, and Inferred Fauna. Inferred Fauna (e.g., tracks and trails, egg masses) were primarily used in this study to inform or confirm the selection of either the Attached or Soft Sediment Fauna subclass. Although the Biotic Subclass is not directly based on sediment grain size distributions, it reflects them at the scale of relevance to the dominant fauna present, thus serving as an integrator of physical and biological characteristics of the seafloor. CMECS expressly states that “substrate type is such a defining aspect of the Faunal Bed class that CMECS Faunal Bed subclasses are assigned as physical-biological associations involving both biota and substrate (FGDC 2012).”

PV images were assigned one of the following Biotic Subclasses, under the Faunal Bed hierarchy (definitions from FGDC 2012):

- Attached Fauna – “Areas characterized by rock substrates, gravel substrates, other hard substrates, or mixed substrates that are dominated by fauna which maintain contact with the substrate surface, including firmly attached, crawling, resting, interstitial, or clinging fauna. Fauna may be found on, between, or under rocks or other hard substrates or substrate mixes. These fauna use pedal discs, cement, byssal threads, feet, claws, appendages, spines, suction, negative density, or other means to stay in contact with the (generally) hard substrate, and may or may not be capable of slow movement over the substrate. Many attached fauna are suspension feeders and feed from the water column. Other attached fauna are benthic feeders, including herbivores, predators, detritivores, and omnivores.”

- Soft Sediment Fauna – “Areas that are characterized by fine unconsolidated substrates (sand, mud) and that are dominated in percent cover or in estimated biomass by infauna, sessile epifauna, mobile epifauna, mobile fauna that create semi-permanent burrows as homes, or by structures or evidence associated with these fauna (e.g., tilefish burrows, lobster burrows). These animals may tunnel freely within the sediment or embed themselves wholly or partially in the sediment. In many cases, they will regularly leave their burrows, and may move rapidly or swim actively after doing so, but any animal that creates a semi-permanent home in the sediment can be classified as Soft Sediment Fauna. These animals may also move slowly over the sediment surface but are not capable of moving outside of the boundaries of the classification unit within one day. Most of these fauna possess specialized organs for burrowing, digging, embedding, tube-building, anchoring, or locomotory activities in soft substrates.”

- Inferred Fauna – “Areas dominated by evidence (real or inferred) of faunal activity, but where the fauna themselves are not currently present or evident, given the sampling methodology.”

- IND – an indeterminate Biotic Subclass

The Biotic Component subclasses of Attached and Soft Sediment Fauna are broad-brush tools for screening-level assessments of seafloor habitats for offshore wind development. Mapping proposed development areas with this CMECS classifier can highlight locations, that from a benthic habitat perspective, might be considered suitable for offshore wind development (Soft Sediment Fauna) and those that may be unsuitable or require further detailed study to determine suitability (Attached Fauna). Depending on the results and scale of reconnaissance surveys, additional studies would likely be needed as specific siting alternatives are examined.

Attached Fauna habitats are also referred to in some documents as “live bottom.” These hard bottom habitats that support “live bottom” are considered potentially valuable and sensitive resources for regionally important taxa. Additionally, cobbles and boulders can provide habitat for a diverse range of taxa and serve as valuable habitat for corals and as a place for squid to lay their eggs.

2.4.3 Parameters Obtained Using Both SPI and PV Imagery

The parameters discussed below were assessed and/or measured and recorded for each replicate SPI and PV pair selected for analysis (Appendices B and C). A station-level summary of select variables derived from SPI and/or PV is provided in Appendix D.

2.4.3.1 Infaunal Successional Stage

The classification of infaunal successional stages is readily accomplished with SPI/PV technology. Infaunal successional stage is a measure of the biological community inhabiting the seafloor. Organism–sediment interactions in fine-grained sediments follow a predictable

sequence of development after a major disturbance (e.g., dredged material disposal) (Pearson and Rosenberg 1978; Rhoads and Germano 1982; Rhoads and Boyer 1982). This continuum is divided subjectively into four stages: Stage 0, indicative of a sediment column that is largely devoid of macrofauna, occurs immediately following a physical disturbance or in close proximity to an organic enrichment source; Stage 1 is the initial recolonizing of tiny, densely populated polychaete assemblages; Stage 2 is the start of the transition to head-down deposit feeders; and Stage 3 is the mature, equilibrium community of deep-dwelling, head-down deposit feeders (Figure 2-9). In SPI images, Stage 3 is often presented as visible feeding voids created by the activity from head-down deposit feeders. Voids were counted.

Various combinations of these basic successional stages are possible. For example, secondary succession can occur (Horn 1974) in response to additional labile carbon input to surface sediments, with surface-dwelling Stage 1 or 2 organisms coexisting at the same time and place with Stage 3, resulting in the assignment of a “Stage 1 on 3” or “Stage 2 on 3” designation. If both Stage 1 and Stage 2 organisms exist in an image with Stage 3 fauna, the Stage 1 on 3 designation is used because it is more important to denote the presence of recruiting organisms than intermediate Stage 2 fauna. In addition, intermediate stages (1->2 and 2->3) exist when limited evidence of a more advanced stage is documented alongside an earlier stage. For example, a Stage 2->3 designation might be assigned to an image where Stage 2 tubes have been documented overlaying a very deep aRPD, which suggests that deep-dwelling, head-down deposit feeders are likely to exist in that area and were not captured in that particular SPI replicate. Further, if Stage 2 tubes are observed in SPI concurrent with large burrow openings on the sediment surface observed in PV, Stage 2->3 is assigned.

While the successional dynamics of invertebrate communities in fine-grained sediments have been well documented, the successional dynamics of invertebrate communities in sand and coarser sediments are not well known. Consequently, the insights gained from SPI/PV technology regarding biological community structure and dynamics in sandy and coarse-grained bottoms are limited. Successional stage was assigned by assessing the types of infauna and related activities (e.g., feeding voids) apparent in both the SPI and PV images. Successional stage is a CMECS modifier, adding detail and informing CMECS classifications.

A successional stage rank variable was applied to each image to evaluate successional stages numerically. A rank value of 3 was assigned to Stage 3, 2 on 3, and 1 on 3 designations, a value of 2 was applied to Stage 2 and 1 on 2, a value of 1 was applied to Stage 1, intermediate ranks were assigned to the transitional assemblages (2.5 for Stage 2 transitioning to Stage 3, and 1.5 for Stage 1 transitioning to Stage 2), and images from which the stage could not be determined were excluded from calculations. The average successional stage rank among replicates was used to represent the station value.

2.4.3.2 Fauna and Flora Presence

Where visible in the SPI and/or PV images, flora and fauna were identified to the lowest possible taxonomic grouping. The inferred presence of fauna was identified through

observations of burrows, tubes, tracks, foraging pits, and fecal casts. The presence of surficial tubes and deep voids were also noted. Fauna were grouped into several categories: fish, eggs, soft sediment infauna, sessile epifauna, mobile epifauna, sensitive taxa, species of concern, and non-native taxa. Epifauna taxa is a CMECS modifier (Associated Taxa), adding detail to the CMECS classifications. Where attached flora and fauna or non-native taxa were present in PV images, the percent coverage of the image was estimated using the CMECS Percent Cover Modifier (FGDC 2012).

2.4.3.3 CMECS Substrate Group and Subgroup

Substrate[1] is defined in CMECS as the non-living materials that form an aquatic bottom or seafloor or that provide a surface (e.g., floating objects, buoys) for growth by attached biota. Substrate may be composed of any substance, natural or manmade. Describing the composition of the substrate is a fundamental part of any ecological classification scheme. Substrate provides context and setting for many aquatic processes, and it provides living space for benthic and attached biota. The Substrate Component is a characterization of the composition and particle size of the surface layers of the substrate; this component is designed to be compatible with a range of sampling tools (FGDC 2012). Updates to the CMECS Substrate Component were approved and made publicly available in early 2024 (CMECS 2023). Analysis was completed utilizing the updated CMECS Substrate Component following guidance in the interim Substrate Component publication and related materials made publicly available by the CMECS Substrate Component Workgroup on GitHub. CMECS categories are provided in uppercase throughout this report.

Detailed definitions of all possible substrate classifications can be found in the CMECS document (FGDC 2012); only the substrate classifications observed in this survey are presented here. Where gravels were present in PV, the largest and dominant gravel sizes (maximum and mode) were measured; the diameter in millimeters (mm) was calculated and translated to a gravel type according to the Wentworth scale (Wentworth 1922). PV images were assigned a Substrate Group and subsequently, each SPI/PV image pair was assigned a Substrate Subgroup, nested hierarchically within the observed Substrate Group (Figure 2-10). Because PV imagery does not allow for reliable determination of median size of sand particles, a modification for the Group was used: “Sand or finer.” Where the Group determined from PV was Sand or finer, the grain size major mode of surficial sediments obtained from SPI was used as the CMECS Substrate Subgroup classification. The definitions for the CMECS Substrate Groups documented during the survey, and a list of the nested Substrate Subgroups, are presented here:

- Very Coarse Gravel – Geologic Unconsolidated Mineral Substrate surface is ≥80% gravel particles 64 mm to <4,096 mm in diameter.

[1] CMECS uses the term ‘substrate’ for both a geological substratum (a layer of sediment or rock) and for biological or anthropogenic substrates (solid surfaces on which plants or animals grow). For CMECS descriptions we adopt this convention, but for SPI descriptions of sediments we use the geological term, i.e., substratum.

    - Boulder: Geologic Unconsolidated Mineral Substrate surface is ≥80% gravel particles >256 mm in diameter.

- Gravel Mixes – Geologic substrate surface layer is 30% to <80% gravel.
    - Sandy Gravel[2]: Geologic Substrate is 30% to <80% gravel, with sand composing 90% or more of the remaining sand-mud mix.
- Gravelly Mixes – Geologic substrate surface layer is 5% to <30% gravel.
    - Gravelly Sand[2]: Geologic Substrate is 5% to <30% gravel, and the remaining sand-mud mix is 90% or more sand.
- Sand or finer – Geologic substrate is <5% gravel, grain size major mode obtained from SPI of surficial sediments (see Section 2.4.1.1 for size classification descriptions) was used to decipher the following Subgroups within this Group:
    - Medium Sand
    - Fine Sand
    - Very Fine Sand

2.4.3.4 Sensitive Taxa and Species of Concern

The image resolution of the SPI/PV survey allows for the identification of sensitive taxa. Sensitive seafloor habitats include corals, submerged aquatic vegetation (SAV) beds, and valuable cobble and boulder habitat (BOEM 2019). Cobble and boulder habitat can serve as structure for hard and soft corals, nursery ground for juvenile lobster, and as preferable benthic habitat for squid to deposit their eggs. Taxa considered sensitive for this region include corals (specifically northern star coral [*Astrangia poculata*]), seagrass beds, squid eggs, and American lobster (*Homarus americanus*). At EW 1, species of ecological concern and/or concern regarding possible habitat disturbance from offshore wind construction and operation activities include Atlantic surfclam (*Spisula solidissima*), black sea bass (*Centropristis striata*), sea scallop (*Placopecten magellanicus*), and ocean quahog (*Arctica islandica*) (Guida et al. 2017). Presence/absence of each sensitive taxa or species of concern was noted for each replicate SPI and PV image.

2.4.3.5 Non-Native Taxa

The introduction of non-native species to the water column and benthic habitat is an important concern related to offshore development. The introduction of new structures, such as concrete

[2] When the dominant gravel size was known, “Gravel” term was replaced with size-specific terms (i.e., “bouldery”, “cobbly”), or a combination of the two with the more dominant size first (CMECS 2023). When "Pebble/Granule" is the dominant gravel size, "/Granule" is removed for clarity.

mattresses, to the seafloor during construction may also lead to the introduction of non-native species. The SPI/PV survey collected baseline presence/absence and percent cover data for marine non-native species within the surveyed area. A list of potential non-native species used during analysis was derived from a combination of relevant resources including the Northeastern Aquatic Nuisance Species Panel (https://www.northeastans.org/) and the National Exotic Marine and Estuarine Species Information System database (NEMESIS) curated by the Smithsonian Environmental Research Center.

2.5 Sediment Grab Sampling

Sediment grab samples were collected using a single 0.04-m^2 Young-modified van Veen grab sampler. The navigator recorded the position electronically when the grab sampler reached the seafloor (Appendix A). After reaching the seafloor, an additional 0.5 to 1 m of cable was laid out to allow the grab sampler to close then the grab was returned to the surface. Once onboard, field scientists examined the surface of the grab for acceptability, which included the following: the sampler was not over-filled, overlying water was present and not excessively turbid, and the penetration depth was ~7 cm. Additional information was recorded on the sediment sample log form for each station, including time of collection, number of grab attempts, general visual description of the sediment, penetration depth, and any odor (Appendix E). Spatial distributions of grab sample parameters were mapped using ESRI ArcGIS 10.7. Map backgrounds use a worldwide data layer called ESRI Oceans or ESRI Aerial Imagery (Esri, Garmin, GEBCO, NOAA NGDC, and other contributors) to provide geospatial context.

2.5.1 Sediment Sample Collection

Once the sediment grab sampler was recovered on the vessel deck and deemed acceptable, a subsample was collected from the homogenized grab for grain size analysis. The subsample was placed into a Whirlpak bag and then placed into a second sealed and labeled bag. The grain size sample was placed into a cooler at ambient temperature and stored in a shaded area. Once homogenization was completed and a grain size subsample was collected, the remaining sample was distributed into labeled containers no more than ¾ full, which included two 4-ounce (oz) glass jars for: 1) bulk organic matter; and 2) total organic carbon (TOC), total nitrogen (TN), and total hydrogen analyses. The samples were labeled and then placed in a protective bubble wrap bag within a plastic bag. Samples were kept in a freezer until shipping. Grain size and organic component characterizations (bulk organic matter, TOC, total hydrogen, and TN) were completed by specialized labs and the above specified parameters were used to complement SPI and PV data. Sediment grain size analysis was completed by Alpha Analytical in Mansfield, Massachusetts and organic component characterization was completed by ALS Global in Kelso, Washington.

2.5.2 Sediment Sample Analysis Parameters

Sediment sample analysis was conducted to supplement parameters measured with SPI/PV imagery. At select foundations, sediment grab samples were collected at near-, mid-, and far-

distances from the center point of each foundation position. Due to the difference in diameter of the OSS and wind turbine generator foundations, near-distance samples were collected 26 m from the wind turbine generator foundation center points and 50 m from OSS foundation center point. Mid-distance samples were 130 m and 155 m from the wind turbine generator centers and OSS foundation center, respectively, and the far-distance sediment grab samples were collected 900 m from the center of all selected foundation. Sediment grab sample station results were summarized within each distance category for the wind turbine generator foundation positions, and for the OSS foundation. Although no spatial pattern is currently anticipated, these categories will be used for comparison post-construction.

2.5.2.1 Sediment Grain Size

Grain size analysis provided particle distributions, reported as percentages of each sample. Gravel, sand, and fine particles were recorded with a detection limit of 0.1%. Grain size analysis was conducted by Alpha Analytical using American Society for Testing and Materials (ASTM) D6913/D7928 Standard Method for Particle-Size Distribution Analysis of Soils with sieve and hydrometer analysis, with standard laboratory protocols. Results were expressed as percent gravels (boulder, cobbles, pebbles, granule), sand (very coarse, coarse, medium, fine, very fine), silt, and clay according to the Wentworth (1922) scale. All sediment grain size results are provided in Appendix F.

2.5.2.2 Sediment Organic Matter Characterization

Organic matter characterization included bulk organic matter, TOC, total hydrogen, and TN analyses. Analyses were completed by ALS Environmental, following standard laboratory protocols (methods 160.4, 440.0, ASTM D3173, ASTM D3302-07ae1) meeting National Environmental Laboratory Accreditation Program (NELAP) approved quality assurance. Bulk organic matter analysis provides total moisture and total ash (measured by loss on ignition) and calculated total organic matter (TOM) as percentage of sediment dry weight. The TOC, total hydrogen, and TN are reported as percentages of the bulk organic matter. The reported percentages describe how much of the organic matter was organic carbon, hydrogen, or nitrogen. The detectable limit of each element is based on the specific laboratory methods, listed above, for carbon and nitrogen the detection limit is 0.1%, and for hydrogen is 0.2% of the TOM dry weight. Where necessary, half the detectable limit is used for analyses. The ratio of TOC to TN provides a proxy for the lability of organic matter, with higher ratios indicating lower lability and lower biological availability. All sediment bulk organic matter, TOC, total hydrogen, and TN results are provided in Appendix F.

2.6 Data Quality Assurance and Quality Control

Quality assurance and quality control (QA/QC) measures were taken to ensure reproducible and scientifically defensible data were generated that are sufficient in accuracy, precision, completeness, and representativeness. Measures were taken during field data collection for data quality assurance and control in alignment with INSPIRE's standard operating procedure

for sediment profile and plan view imaging sample collection (INSPIRE 2019a) and sediment grab sample collection (INSPIRE 2019b). These included but were not limited to:

- Systems tested prior to and during survey activities to ensure calibration and operation,
- Full backup systems (including tools, parts, and electronics) were carried in the field,
- Image data collected was time stamped both digitally and in hand-written logs to ensure proper identification and synchronization with navigational data,
- Image analysis parameters were thoroughly checked by senior scientists to ensure quality and accuracy, and
- Replicate and blank sediment samples were processed to confirm consistency and accuracy in the laboratory analyses.

3.0 RESULTS

INSPIRE scientists conducted a benthic survey (SPI/PV and sediment grab sampling) at EW 1 and along the EW 1 export cable route (SPI/PV sampling). The survey was conducted 10 to 22 August 2024 onboard Northstar Marine's R/V *Atlantic Surveyor.* The station locations where SPI/PV imagery and sediment grab samples were collected are provided in Figures 2-1 and 2-2.

SPI/PV and sediment grab station coordinates, sampling date and time, and field comments are provided in Appendix A. Complete datasets of all parameters measured from each analyzed SPI and PV image and grab sample are presented in Appendices B, C, and F, respectively. A summary of select physical SPI/PV data for EW 1 and EW 1 export cable route survey areas are presented in Table 3-1 and select biological SPI/PV variable summaries are presented in Table 3-2. Summaries of grab sample results collected at EW 1 are presented in Tables 3-3 and 3-4.

3.1 Seafloor Surrounding Proposed Foundations - EW 1

Results discussed below are provided in the context of current planned layouts at each foundation location. The foundations selected for surveying at EW 1 were B17, C20, D03, and D14 and OSS C09 (Figure 2-1). Wind turbine generator foundations were selected randomly to cover the spatial area of EW 1 (Figure 2-1). These five foundations are also being sampled seasonally as part of the Empire Wind Baited Remote Underwater Video Survey. All five planned foundations are located in the National Oceanic and Atmospheric Administration (NOAA) Soft Bottom complexity category, which was defined in the benthic habitat mapping report as Sand and Muddy Sand, Sand and Muddy Sand – Mobile, Mud and Sandy Mud, and Mud and Sandy Mud – Mobile, while some survey stations away from the foundations occur in the NOAA Complex category (INSPIRE 2024a).

Water depths measured during the field survey at the EW 1 stations ranged from 25.6 m, northwest of Foundation D03 to 36.0 m east of Foundation B17. All water depths measured during sampling are available in Appendix A.

3.1.1 Physical Characteristics

The seafloor surrounding the selected foundations across EW 1 were similar in nearly all physical characteristics analyzed from SPI/PV and sediment grab sampling. All foundations are located in unconsolidated (soft bottom) sediments and all stations were characterized by CMECS Substrate Group Sand or finer (derived from PV images, Table 3-1; Appendix C). The surface sediments surrounding the selected foundation positions at EW 1 consisted of various sands as noted in the sediment type (derived from SPI, Table 3-1; Appendix B). Predominant sediment type, a variable describing small-scale characteristics of the surficial sediments in SPI included very fine sand, fine sand, fine sand over silt/clay, and medium sand (Appendix B).

Where CMECS Substrate Group was designated as Sand or finer, the CMECS Substrate Subgroup captured a more resolved depiction of sediment characteristics and is equivalent to

the surficial sediment type observed in SPI. All five foundation locations were dominated by Fine Sand or Medium Sand CMECS Substrate Subgroups, with a few instances of Very Fine Sand (Figures 3-1, 3-2, and 3-3). Fine Sand was the most common CMECS Substrate Subgroup associated with the five proposed foundation locations (Table 3-1; Figure 3-3). However, the stations associated with the easternmost foundation position (C20) were composed primarily of Medium Sand (Figure 3-2). There were no apparent spatial patterns in relation to the distance from the proposed foundation locations and the CMECS Substrate Subgroup classifications across station transects (Figure 3-3).

Sediment grab sample grain size analysis showed no spatial trends associated with distance from the proposed foundation locations (Table 3-3; Figure 3-4). Results from sediment grab sample grain size analysis indicated medium sand had the highest average percent at all stations surrounding Foundations B17, C20, and D03, and at five out of the six stations at Foundation C09 (Table 3-3; Figure 3-4). Foundation D14 had the most variable grain size composition across stations. The transects southwest of Foundation D14 had relatively high portions of total fines (silt and clay), medium sand and coarse sand, and the station 26 m northeast of Foundation D14 contained over 25% fine sand (Figure 3-4). The other notable difference was a high proportion of total fines at the station located 155 m south of Foundation C09 (Figure 3-4). There were no apparent spatial patterns in relation to the distance from the proposed foundation and the grain size composition determined from grab samples (Figure 3-4).

Gravels were infrequently observed in PV imagery at EW 1; where gravels were present, the maximum size of the gravels was pebble/granule (Figure 3-5; Appendix C). Pebble/Granule gravels were identified in SPI/PV imagery at only five out of the 90 stations: three stations at Foundation D14 and two stations at Foundation C20 (Figure 3-5). The grain size analysis of sediment grab samples showed gravel attributed very little on average to the composition of the samples (Figure 3-4). There was no apparent pattern in gravel occurrences or gravel size classes with respect to distance from proposed foundation (Figures 3-4 and 3-5).

Mean station SPI prism penetration depths at EW 1 were moderate (EW 1 averaged 6.5 cm, Standard Deviation [SD] ±0.7 cm) and generally consistent across SPI stations (Table 3-1; Figure 3-6). Mean station SPI prism penetration depths at EW 1 ranged from 5.1 to 8.6 cm (Table 3-1). When the SPI system settings are consistent across stations (same stop collar settings and number of weights) the variation in prism penetration can indicate differences in sediment shear strength across the survey area. For the EW 1 stations, the SPI system stop collars were adjusted to optimize penetration, therefore relative differences in prism penetration across EW 1 stations do not relate to differences in shear strength or load bearing capacity.

Mean station boundary roughness measured in SPI was relatively low at all foundations (EW 1 averaged 1.6 cm), except at Foundation D03 where approximately half of the stations had moderate boundary roughness (Table 3-1; Figure 3-7). Relatively high boundary roughness is often driven by hydrodynamic factors, resulting in bedforms such as ripples, while smaller

boundary roughness is typically attributed to biological factors such as tubes and burrows (Figure 3-8).

3.1.2 Biological Characteristics

The Soft Sediment Fauna CMECS Biotic Subclass occurred at all stations at EW 1 (Table 3-2; Figure 3-9; Appendix C). Soft Sediment Fauna communities at EW 1 consisted of Podocerid amphipods, tube-building amphipods (e.g., *Ampelisca*), tube-building polychaetes (e.g., *Diopatra*), burrowing polychaetes, and Cerianthids (burrowing anemones) identified by SPI and PV (Table 3-2; Figure 3-10; Appendices B and C). Mobile and sessile soft sediment epifauna at EW 1 consisted of sand dollars, nudibranchs, hermit crabs, cancer crabs, sponges and hydroid/bryozoa (Figure 3-11; Appendices B and C). Two flounder were identified from PV imagery, one at Foundation B17 and one at Foundation C20 (Table 3-2; Appendix C). It is important to note that the survey objectives were not to document fish or other mobile pelagic species (e.g., squid) distributions; the methodology (SPI/PV imagery) is not designed to capture fish population data, but rather, fish observations are opportunistic in these datasets.

As expected in a benthic environment characterized predominantly by sandy substrate with limited fines (silt/clay), measurable aRPD depths were frequently indeterminate at EW 1 (Table 3-2). At EW 1, aRPD depths were distinguishable in SPI at a total of eight stations; at these stations, sediments were either fine sand (at seven stations) or very fine sand (at one station) and there was no spatial pattern in the distribution of these stations (Figure 3-12; Appendix B). Measured aRPD depths ranged from 3.5 to 7.7 cm (Table 3-2). Where more sandy sediments were prevalent (i.e., substrates coarser than fine sand), the optical contrast between oxidized and reduced particles was diminished. This aligns with the typical relationship between grain size and organic content: typically, finer grained sediments have a higher inventory of organic matter than coarser sediments. Higher organic matter in sediments allows for a more easily discernable aRPD depth in SPI and often results in higher respiration rates (benthic oxygen demand) and decreased oxygen penetration into the sediment.

No feeding voids were detected in EW 1 at any station. Bioturbation depth was mostly indeterminate, but was measurable at 23 stations, the maximum depth averaging 5.0 cm (SD ±1.4 cm). Every foundation had at least one station with a measurable bioturbation depth, but Foundation B17 had the most, with ten. There was no pattern between the presence of measurable bioturbation or the bioturbation depth in relation to the distance from the foundation center point.

The evidence of low organic matter content in SPI was supported by results of sediment grab sample analyses of TOM, TOC, and TN content. In many cases TOC and in all cases TN were below the detectable limits of the methodology; in these instances, half the detectable limit was used as an estimate value (i.e., 0.05% dry weight). The average TOM across EW 1 samples was 0.5% dry weight (Table 3-4). The average TOC across EW 1 was slightly greater than the detectable limit at 0.11% dry weight (Table 3-4). No stations had TN content above the detectable limit. The molar ratio of TOC to TN can be used to make inferences about the source

and bioavailability (degradability) of organic matter, which can be related to benthic respiration and aRPD depths. Spatial patterns in aRPD depths and bulk TOM, TOC, and TN are expected to develop following project construction as organic matter supply is expected to increase in the sediments at the base of the foundations sourced from the biological activity of the epifaunal communities (e.g., biodeposition) growing on the foundation structures.

Successional stages ranged from Stage 1 to Stage 2 on 3 at EW 1 (Figure 3-13). Successional stage classifications across the stations at EW 1 were typically either Stage 1->2 or Stage 2 (Table 3-2; Figures 3-14 and 3-15). The intermediate successional stage (Stage 2) is typical of sandy offshore environments. Stage 2 tubes were frequently observed across EW 1 in SPI and PV imagery; these tubes were generally diagnostic of tube-building polychaetes (e.g., *Diopatra*) and amphipods (*Ampelisca* amphipod tubes) (Figures 3-13 and 3-16; Appendices B and C). More advanced successional stages, with higher intra-station variability, were documented at Foundation B17 compared to communities at the other foundation positions (Figure 3-15). At Foundation B17, Stage 2->3 and Stage 3 were more frequently observed compared to other stations, as indicated by the presence of large surficial burrows visible in PV imagery and/or the occurrence of burrowing polychaetes in SPI (Figures 3-15 and 3-16). No feeding voids were observed in the sediment column in SPI at any stations collected at EW 1 (Table 3-2).

There were frequent observations of surficial burrow openings, tracks and/or trails on the sediment surface, and/or surficial tubes visible in PV imagery at EW 1 (Figure 3-16). The stations associated with Foundation B17 had more frequent occurrences of surficial burrows visible from PV (seven stations) as well as tubes and burrows at the sediment–water interface visible in SPI in comparison to the other foundations, which indicated Successional Stage 2 -> 3 (Appendices B and C). There were no obvious spatial patterns associated with distribution of tracks/trails and/or tubes in relation to the distance from the foundations (Table 3-2; Figure 3-16).

No non-native taxa, sensitive taxa, or species of concern (*sensu* Guida et al. 2017) were observed at EW 1 (Table 3-2).

3.2 Seafloor Surrounding EW 1 Export Cable Route

A total of 96 SPI/PV stations were sampled at two selected areas surrounding the planned EW 1 export cable route: the East survey area and the West survey area. At each survey area stations were positioned with increasing distance from the planned export cable route (Figures 2-2 and 2-5). A total of 48 SPI/PV stations were sampled at each survey area, positioned along six statistically independent transects extending perpendicularly from the proposed EW 1 export cable route centerline. The East survey area was previously characterized by higher benthic habitat heterogeneity (INSPIRE 2024a) and is located in an area categorized as sand with some gravel by Greene et al 2020, compared with the West survey area; generally less heterogeneous (INSPIRE 2024a), and characterized as sand with some mud and gravel by Greene et al. 2020) (Figure 2-2). SPI/PV summarized station results along the EW 1 export cable route (Tables 3-1 and 3-2) are grouped according to East and West survey areas. As this

was a baseline survey, the distance from the EW 1 export cable route centerline was not considered during this initial data summary, although general trends are discussed.

Water depths measured during the field survey at selected areas along the EW 1 export cable route ranged from 24.4 m at stations located within the East survey area (Transects 09 and 11) to 27.4 m at a station located within the West survey area (Transect 02) (Appendix A).

3.2.1 Physical Characteristics

The surficial sediments surrounding the select areas of the EW 1 export cable route consisted of mixtures of sands and gravels as denoted by sediment type (SPI), CMECS Substrate Group (PV), and CMECS Substrate Subgroup (SPI/PV) classifications (Table 3-1; Figures 3-17, 3-18, and 3-19; Appendices B and C). Sediment type describes small-scale characteristics of the sediment as measured by grain size major mode from SPI, which includes potential sediment layering within up to 20 cm of the sediment surface; no sediment layering was noted at any of the stations and therefore SPI sediment type was equivalent to CMECS Substrate Subgroup when Substrate Group was Sand or finer.

At the West survey area all stations were classified by CMECS Substrate Group of Sand or finer, and CMECS Substrate Subgroup was consistently Very Fine Sand (Table 3-1; Figures 3-18 and 3-19). The East survey area had three SPI sediment types: very fine sand, fine sand, and medium sand; five different CMECS Substrate Subgroups were present: Boulder, Cobbly-Bouldery Sand, Medium Sand, Fine Sand, and Very Fine Sand (Figures 3-18 and 3-19). The East survey area of the EW 1 export cable route had one station that varied in CMECS Substrate Subgroup (high within-station heterogeneity) and could not be assigned to any subgroup without compromising the subgroup definitions. The variability from this station (shown as “Varies” on the map) is characteristic of the habitat in which the sample was taken (Appendices B and C), occurring at the interface of two different NOAA Habitat Complexity types (Complex and Soft Bottom) identified in the Benthic Habitat Mapping Report (INSPIRE 2024a); (Figures 2-2 and 3-18).

Where gravels were present in the PV imagery, the maximum size of the gravels was noted. In the East survey area along the EW 1 export cable route, maximum gravels ranged from pebble/granule to boulder (Figure 3-20; Appendix C). Gravels were not observed at any of the stations in the West survey area.

Mean station prism penetration depths at the select areas along the EW 1 export cable route displayed two different patterns. In the East survey area, mean penetration depth was shallower and more variable (5.4 cm, SD ±1.6 cm) (Table 3-1; Figure 3-21; Appendix B). Mean penetration depths at the West survey area were on average deeper and the depth more consistent (9.3 cm, SD ±1.1 cm) compared to the East survey area (Table 3-1; Figure 3-21; Appendix B). Since the weights and stop collars were consistent throughout SPI/PV collection at the export cable route stations, variation in prism penetration across these stations can be attributed to variation in load-bearing capacity or shear strength of the sediments. The relatively

deep prism penetration values associated with finer sediments in the West survey area are likely attributed to a lower load-bearing capacity of the sediments compared to the East survey areas (Table 3-1).

Boundary roughness was generally consistent across all stations in the West survey area (0.9 cm, SD ±0.2 cm) and more heterogeneous in the East survey area (1.7 cm, SD ±0.5 cm) (Table 3-1). No spatial trends in relation to distance from the planned export cable centerline were apparent in either survey area. Ripples, a bedform associated with hydrodynamics, occurred sporadically across both survey areas with no spatial pattern, smaller boundary roughness is associated with biological factors (Table 3-1; Figures 3-22 and 3-23).

3.2.2 Biological Characteristics

At the select survey areas along the EW 1 export cable route, the biological communities were characterized as Soft Sediment Fauna or Attached Fauna CMECS Biotic Subclasses (Figure 3-24). Attached Fauna was the predominant CMECS Biotic Subclass at several stations in the East survey area of the EW 1 export cable route, although the majority of stations were categorized as Soft Sediment Fauna. The West survey area was comprised entirely of Soft Sediment Fauna (Table 3-2; Figure 3-24). The composition of soft sediment communities was consistent between the East and West survey areas. Mobile fauna present in Soft Sediment Fauna biotic communities included fish and squid, *Cancer* crabs, hermit crabs, moon snails, nudibranchs, sand dollars, shrimp, and snails (Figure 3-25A; Appendices B and C). In both survey areas, Soft Sediment Fauna communities were also characterized by burrowing and tube-building organisms: *Diopatra* polychaetes, Podocerid amphipods, tube-building amphipods (e.g., *Ampelisca*), and Cerianthids (burrowing anemones) (Appendix B). Identified fauna observed at Attached Fauna stations in the East survey area were characterized by encrusting organisms including bryozoa/hydroids, orange sponge, and northern star coral, as well as mobile fauna including sand dollars, hermit crabs, and snails (Table 3-2; Figure 3-25; Appendix C).

One squid was noted and several fish were observed at stations along the export cable route in the East survey area (Table 3-2; Appendix C). It is important to note that the survey objectives were not to document fish distributions, and the methodology (SPI/PV imagery) is not designed to capture fish population data, but rather fish observations are opportunistic in these data.

The aRPD depths were different between the East and West survey areas. All stations at the West survey area had measurable aRPD depths, while only four of the 48 stations at the East survey area had discernable aRPD depths (Table 3-2; Figure 3-26). The mean station aRPD depths at the West survey area ranged from 2.9 to 7.3 cm, and the East survey area ranged from 2.7 to 4.5 cm (Table 3-2). The notable absence of measurable aRPD depths at the East survey area was likely due to shallow prism penetration depths (Table 3-1). Where prism penetration depth was sufficient, a lack of optical contrast between oxidized and reduced particles and/or low organic content are likely contributed to the prevalence of indeterminate aRPD depths (Figure 3-27).

Infaunal successional stage classifications along the EW 1 export cable route were typically Stage 2 or Stage 2 on 3 in the West survey area and Stage 2 in the East survey area (Table 3-2; Figures 3-28, 3-29, and 3-30). The infaunal communities at the East survey area noted as Stage 2 intermediate communities were characterized by the presence tubes at the sediment–water interface and amphipods without indication of deep burrowing polychaetes or feeding voids (Figure 3-29). Stage 2->3 and Stage 2 on 3 communities were typically observed at the West survey area, where voids and/or polychaetes were observed deep in the sediment column indicating the presence of more advanced infaunal taxa, concurrent with Stage 2 tubes at the sediment–water interface (Figure 3-29). The successional stage at the East survey area was generally lower (mean successional stage rank 2.0, SD ±0.3) than the West survey area (mean successional stage rank 2.5, SD ±0.4) (Table 3-2). There was no spatial pattern in either survey area between maximum successional stage and the distance from the export cable route centerline (Figure 3-30).

No feeding voids were detected in SPI at the East survey area, while approximately one quarter of the stations (13 out of 48 stations) had visible voids in the West survey area (Table 3-2). The West survey area had 48 stations with measurable maximum bioturbation depths (mean maximum bioturbation depth was 5.4 cm SD ±1.3 cm), while the East survey area had only six stations where bioturbation was measurable (mean maximum bioturbation depth was 4.4 cm SD ±1.2 cm) (Table 3-2). Bioturbation can result in deeper aRPD depths, both bioturbation and aRPD depths are more difficult to measure where SPI prism penetration is not sufficiently deep such as at the East survey area where the mean prism penetration depth was 5.4 cm (SD ±1.6 cm) and the mean maximum bioturbation depth was 4.4 cm (SD ±1.2 cm) (Tables 3-1 and 3-2)

In the PV imagery collected along the EW 1 export cable route, there were frequent observations of surficial burrow openings, tracks and/or tubes on the sediment surface (Figure 3-31). Burrows, tracks/trails, and tubes occurred concurrently at nearly all the stations sampled in the West survey area. In the East survey area, tracks and tubes were commonly observed and frequently together; signs of burrows in PV imagery were not common (Figures 2-2 and 3-31). A clear spatial pattern was observed with a higher prevalence of burrows in the West survey area compared to the East survey area, where burrows were not typically observed. It is possible that the distributions of these faunal features may shift following export cable installation, which will be examined in future monitoring surveys. No spatial pattern was found between the presence of tracks/trails, tubes, and/or burrows and the distance from the export cable route centerline.

No non-native taxa were observed at any of the stations surveyed along the EW 1 export cable route. A single sea scallop (species of concern) was observed in the West survey area (Figure 3-32). Northern star coral, a non-reef-building coral, (sensitive taxa) was observed at six stations, across three transects in the East survey area (Figures 3-32 and 3-33).

Table 3-1. Summary of Physical Parameters Obtained from SPI and PV Imagery

		EW 1	EW 1 Export Cable Route - West	EW 1 Export Cable Route - East
NOAA Habitat Complexity[1]		**Soft Bottom, Complex**	**Soft Bottom**	**Soft Bottom, Complex**
Station Count (n)		90	48	48
Total Number of PV Replicates		270	144	144
Total Number of SPI Replicates		270	144	144
Mean Prism Penetration Depth (cm)	**Mean (±SD)**	6.5 (±0.7)	9.3 (±1.1)	5.4 (±1.6)
	Min	5.1	6.2	0
	Max	8.6	11.6	7.6
Mean Boundary Roughness (cm)	**Mean (±SD)**	1.6 (±0.6)	0.9 (±0.2)	1.7 (±0.5)
	Min	0.7	0.5	0.8
	Max	3.2	1.4	3.1
Predominant SPI Sediment Type (# of stations)		Fine sand (72)	Very fine sand (48)	Fine sand (41)
Predominant CMECS Substrate Group[2] (# of stations)		Sand or finer (90)	Sand or finer (48)	Sand or finer (45)
Predominant CMECS Substrate Subgroup[2] (# of stations)		Fine Sand (73)	Very Fine Sand (48)	Fine Sand (39)
Predominant Maximum Gravel Size Category (# of stations)		Pebble/Granule (5)	N/A	Boulder (4)

SD=Standard Deviation
N/A=Not Applicable
1 Variable determined from Benthic Habitat Mapping (INSPIRE 2024b).
2 Variable determined from combined SPI/PV analysis.

Table 3-2. Summary of Biological Parameters Obtained from SPI and PV Imagery

		EW 1	EW 1 Export Cable Route - West	EW 1 Export Cable Route - East
NOAA Habitat Complexity[1]		**Soft Bottom, Complex**	**Soft Bottom**	**Soft Bottom, Complex**
Station Count (n)		90	48	48
Total Number of PV Replicates		270	144	144
Total Number of SPI Replicates		270	144	144
Mean aRPD Depth (cm)	**# of stations**	8	48	4
	Mean (±SD)	5.2 (±1.3)	4.8 (±1.0)	3.4 (±0.9)
	Min	3.5	2.9	2.7
	Max	7.7	7.3	4.5
Mean Maximum Bioturbation Depth (cm)	**# of stations**	23	48	6
	Mean (±SD)	5.0 (±1.4)	5.4 (±1.3)	4.4 (±1.2)
	Min	2.4	3.2	2.8
	Max	7.7	8.3	5.7
Mean Successional Stage Rank[1]	**# of stations**	61	48	37
	Mean (±SD)	2.0 (±0.4)	2.5 (±0.4)	2.0 (±0.3)
	Min	1	2	1
	Max	3	3	2.5
Predominant CMECS Biotic Subclass (# of stations)		Soft Sediment Fauna (90)	Soft Sediment Fauna (48)	Soft Sediment Fauna (45)
Predominant Maximum Attached Fauna Percent Cover (# of stations)		None	None	Dense (70 to <90%) (2), Moderate (30 to <70%) (2), Sparse (1 to <30%) (2)
Sediment Oxygen Demand Present (# of stations)		Low (82), Medium (7), Varies (1)	Medium (48)	Low (43), Medium (3)
Feeding Void Presence (# of stations)		0	13	0
Sensitive Taxa Present[2] (# of stations)		None	None	Northern Star Coral (6)
Species of Concern Present[2] (# of stations)		None	Sea Scallop (1)	None
Non-Native Taxa Present[2] (# of stations)		None	None	None
Sessile Epifauna Present[2] (# of stations)		Bryozoa/Hydroids, Encrusting Orange Sponge, Hydroids, Sponges	Serpulid, Tunicates	Anemones, Barnacles, Bryozoa/Hydroids, Northern Star Coral, Encrusting Orange Sponges, Polymastia Sponges, Yellow Sponge
Fish and Squid Present[2]		Flounder	Unidentified Fish	Flounder, Squid, Unidentified Fish

SD=Standard Deviation
IND=Indeterminate
1 Variable determined from Benthic Habitat Mapping (INSPIRE 2024b).
2 Variable determined from combined SPI/PV analysis.

Table 3-3. Summary of Grab Sample Grain Size Analysis Results

	Distance to Foundation	% Gravel (± SD)	% Very Coarse Sand (± SD)	% Coarse Sand (± SD)	% Medium Sand (± SD)	% Fine Sand (± SD)	% Very Fine Sand (± SD)	% Total Fines (± SD)
Wind Turbine Generator (n=8)	26 m	1.8 (±1.6)	2.8 (±3.0)	19.8 (±8.0)	55.0 (±9.5)	16.3 (±9.7)	1.3 (±1.3)	3.3 (±7.2)
	130 m	3.0 (±4.0)	3.3 (±2.9)	25.3 (±9.7)	52.4 (±13.8)	10.1 (±3.2)	0.8 (±0.7)	5.3 (±8.1)
	900 m[1]	3.1 (±4.0)	4.3 (±2.4)	26.8 (±7.8)	53.2 (±11.0)	9.7 (±3.7)	0.7 (±0.9)	2.3 (±4.7)
Offshore Substation (n=2)	50 m[1]	2.0 (±1.4)	2.8 (±1.8)	26.8 (±1.8)	57.0 (±4.2)	10.5 (±0.7)	0.5 (±0.7)	0.5 (±0.7)
	155 m	0.5 (±0.7)	1.5 (±0.7)	16.5 (±13.4)	45.5 (±20.5)	9.0 (±1.4)	0.5 (±0.7)	26.5 (±36.1)
	900 m	2.5 (±0.7)	3.0 (±2.8)	26.5 (±6.4)	58.0 (±4.2)	8.5 (±3.5)	1.0 (±1.4)	0.5 (±0.7)

SD=Standard Deviation
1 Field replicates averaged

Table 3-4. Summary of Sediment Organic Chemistry Components

	Distance to Foundation	Total Organic Matter (%) (± SD)	Total Organic Carbon (%)[2] (± SD)
Wind Turbine Generator (n=8)	26 m	0.47 (±0.07)	0.15 (±0.04)
	130 m	0.48 (±0.09)	0.12 (±0.02)
	900 m[1]	0.49 (±0.18)	0.09 (±0.02)
Offshore Substation (n=2)	50 m[1]	0.63 (±0.11)	0.09 (±0.04)
	155 m	0.49 (±0.13)	0.05 (±0.00)
	900 m	0.67 (±0.01)	0.05 (±0.00)
Lease Area EW 1 Average (n=30)		**0.50 (±0.13)**	**0.11 (±0.07)**

SD=Standard Deviation
1 Field replicates averaged
2 Limit of Reporting 0.1, <0.1 reported as 1/2 Limit of Reporting.

4.0 SUMMARY AND CONCLUSIONS

INSPIRE conducted an offshore benthic survey at EW 1 and along the proposed EW 1 export cable route in fulfillment of the pre-construction benthic monitoring requirements. This baseline benthic survey is the first of several surveying events that will monitor for changes to the benthic habitat in relation to the construction and operation of the Empire Wind Project. As described in detail in the Empire Wind FBMP, the benthic monitoring program employs SPI/PV imagery and sediment grab collection over a BAG survey design (INSPIRE 2023). This benthic component of the monitoring plan was designed to track changes over time in the benthic function of the seafloor surrounding the offshore substation and wind turbine generator foundations in the lease area and adjacent to the planned EW 1 export cable route. The survey design was framed around the hypothesis that effects associated with the project construction and operation will be most pronounced near the installed structures, and decrease with distance from the assets (i.e., lease area foundations and EW 1 export cable). Along the export cable route, these effects are expected to vary based on the surrounding native benthic habitat type and the BAG design was stratified by habitat.

The survey was conducted 10-22 August 2024 onboard the R/V *Atlantic Surveyor.* A total of 90 SPI/PV stations, 30 of which included sediment grab collection, were sampled at EW 1, associated with each of five selected foundations (one OSS and four wind turbine generator foundations), and positioned with increasing distance from the planned foundation locations. A total of 96 SPI/PV stations were sampled at selected areas along the EW 1 export cable route, associated with different levels of habitat heterogeneity, and positioned along transects on either side with increasing distance from the planned export cable centerline.

In general, there were no apparent spatial patterns observed for any of the physical or benthic variables in relation to the distance from the proposed foundation locations or the EW 1 export cable route centerline. Spatial patterns in variables such as prism penetration depth, CMECS Substrate Subgroup, CMECS Biotic Subclass, aRPD depths, successional stage, and sediment type are expected to develop following construction. It is expected that organic matter supply will increase in the sediments directly adjacent to the base of the foundations, as the newly established epifaunal communities that are expected to proliferate on the structures will provide a new supply of organic matter to the seafloor. The Empire Wind FBMP includes additional monitoring of epifaunal growth on the foundation structures and scour protection layers using imagery collected using a remotely operated vehicle (INSPIRE 2023). These data will be used in combination with the SPI/PV and sediment grab data collected in the adjacent sediments to provide an understanding of the contribution of organic matter to the seafloor by the newly developed epifaunal communities on the offshore wind assets.

Future benthic monitoring at EW 1 will employ the same survey design (BAG design), sampling approach and analyses (SPI/PV imagery and sediment grab samples), planned to occur shortly following construction (Y0), 1-year (Y1), 2-years (Y2), 3-years (Y3), and 5-years (Y5) post construction in addition to the monitoring of the epifaunal growth on the foundation structures

and scour protection layers mentioned above. Along the two selected regions of the EW 1 export cable route, future monitoring surveys will employ the same survey design (stratified BAG design), sampling approach and analysis (SPI/PV imagery) and will occur within the first year post-installation, one year post-installation, and two years following cable installation. If results collected along the EW 1 export cable route show that benthic function is indistinguishable from baseline and there is no difference with relation to distance from the cable, no further monitoring will be required.

5.0 REFERENCES

Bull, D.C. and R.B. Williamson. 2001. Prediction of principal metal-binding solid phases in estuarine sediments from color image analysis. Environ. Sci. Tech. 35: 1658-1662.

Bureau of Ocean Energy Management (BOEM) Office of Renewable Energy Programs. 2019. Guidelines for Providing Benthic Habitat Survey Information for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585. June 2019.

Bureau of Ocean Energy Management (BOEM) Office of Renewable Energy Programs. 2024. Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585. June 27, 2024.

Coastal and Marine Ecological Classification Standard (CMECS). 2023. Revised Substrate Component. Prepared by the CMECS Substrate Component Workgroup and Implementation Group. Interim Version, November 2023.

Federal Geographic Data Committee (FGDC). 2012. FGDC-STD-018-2012. Coastal and Marine Ecological Classification Standard. Reston, VA.

Fenchel, T. 1969. The ecology of marine macrobenthos IV. Structure and function of the benthic ecosystem, its chemical and physical factors and the microfauna communities with special reference to the ciliated protozoa. Ophelia 6: 1-182.

Folk, R.L. 1954. The Distinction between Grain Size and Mineral Composition in Sedimentary-Rock Nomenclature. The Journal of Geology, 62, 344-359. https://doi.org/10.1086/626171.

Fredette, T.J., W.F. Bohlen, D.C. Rhoads, and R.W. Morton. 1988. Erosion and resuspension effects of Hurricane Gloria at Long Island Sound dredged material disposal sites. In: Willey, R.G., editor. Water Quality ’88, Seminar Proceedings; 1988 Feb 20–23; Charleston, SC. Davis (CA): U.S. Army Corps of Engineers, Hydraulic Engineering Center. p. 323-334.

Germano, J.D., D.C. Rhoads, R.M. Valente, D. Carey, and M. Solan. 2011. The use of Sediment Profile Imaging (SPI) for environmental impact assessments and monitoring studies: lessons learned from the past four decades. Oceanogr. Mar. Biol. 49: 247-310.

Greene, J.K., M.G. Anderson, J. Odell, and N. Steinberg, eds. 2010. The Northwest Atlantic Marine Ecoregional Assessment: Species, Habitats and Ecosystems. Phase One. The Nature Conservancy, Eastern U.S. Division, Boston, MA.

Guida, V., A. Drohan, H. Welch, J. McHenry, D. Johnson, V. Kentner, J. Brink, D. Timmons, and E. Estela-Gomez. 2017. Habitat Mapping and Assessment of Northeast Wind Energy

Areas. Sterling, VA: US Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2017-088. 312 p.

HDR. 2020. Benthic and Epifaunal Monitoring During Wind Turbine Installation and Operation at the Block Island Wind Farm, Rhode Island – Project Report. Final Report to the U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2020-044. Volume 1: 263 pp; Volume 2:380 pp.

Horn, H.S. 1974. The ecology of secondary succession. Annu. Rev. Ecol. Systemat. 5: 25-37.

Huettel, M., W. Ziebis, and S. Forster. 1996. Flow-induced uptake of particulate matter in permeable sediments. Limnol. Oceanogr. 41: 309-322.

INSPIRE Environmental. 2019a. Standard Operating Procedure for Sediment Profile and Plan View Imaging Sample Collection and Image Analysis. Prepared by INSPIRE Environmental. March 2019.

INSPIRE Environmental. 2019b. Standard Operating Procedure for Sediment Grab Sampling. Prepared by INSPIRE Environmental. May 2019.

INSPIRE Environmental. 2023. Empire Wind Fisheries and Benthic Monitoring Plan. Prepared for Empire Offshore Wind LLC. May 2023.

INSPIRE Environmental. 2024a. Benthic Habitat Mapping Report to Support Construction Compliance; Empire Wind 1. Prepared for Empire Offshore Wind LLC. November 2024.

INSPIRE Environmental. 2024b. Empire Wind Pre-Construction Benthic Monitoring Survey Report, New York State Waters. Prepared for Empire Offshore Wind LLC. February 2024.

Jorgensen, B.B. and T. Fenchel. 1974. The sulfur cycles of a marine sediment model system. Mar. Biol. 24: 189-201.

Karakassis, I, M. Tsapakis, C.J. Smith, and H. Rumohr. 2002. Fish farming impacts in the Mediterranean studied through sediment profiling imagery. Marine Ecology Progress Series 227: 125-133.

Lefaible, N., L. Colson, U. Braeckman, and T. Moens. 2019. Evaluation of turbine-related impacts on macrobenthic communities within two offshore wind farms during the operational phase. In Degraer, S., Brabant, R., Rumes, B. & Vigin, L. (eds). 2019. Environmental Impacts of Offshore Wind Farms in the Belgian Part of the North Sea: Marking a Decade of Monitoring, Research and Innovation. Brussels: Royal Belgian Institute of Natural Sciences, OD Natural Environment, Marine Ecology and Management, 134 p.

Lindeboom, H.J., H.J. Kouwenhoven, M.J.N. Bergman, S. Bouma, S. Brasseur, R. Daan, R.C. Fijn, et al. 2011. Short-term ecological effects of an offshore wind farm in the Dutch coastal zone; a compilation. Environmental Research Letters, 6: 1-13.

Lyle, M. 1983. The brown-green colour transition in marine sediments: a marker of the Fe (III) – Fe (II) redox boundary. Limnol. Oceanogr. 28: 1026-1033.

Marine Surveys. 1984. Chesapeake Bay Disposal Sites Survey: REMOTS® Baseline Monitoring. February 1984. New Haven, Connecticut: final report prepared for Virginia Institute of Marine Science, Gloucester Point, VA.

Methratta, E. 2020. Monitoring fisheries resources at offshore wind farms: BACI vs. BAG designs. ICES Journal of Marine Science. doi:10.1093/icesjms/fsaa026.

Nilsson, H.C. and R. Rosenberg. 1997. Benthic habitat quality assessment of an oxygen stressed fjord by surface and sediment profile images. Journal of Marine Systems 11: 249-264.

NOAA Habitat (NOAA National Marine Fisheries Greater Atlantic Regional Fisheries Office Habitat Conservation and Ecosystem Services Division). 2021. Recommendations for Mapping Fish Habitat. March 2021. https://media.fisheries.noaa.gov/2021-03/March292021_NMFS_Habitat_Mapping_Recommendations.pdf?null

Pearson, T.H. and R. Rosenberg. 1978. Macrobenthic succession in relation to organic enrichment and pollution of the marine environment. Oceanogr. Mar. Biol. 16: 229-311.

Rhoads, D.C. 1974. Organism-sediment relations on the muddy seafloor. Oceanogr. Mar. Biol. 12: 263-300.

Rhoads, D.C. and L.F. Boyer. 1982. The effects of marine benthos on physical properties of sediments. In: McCall, P.L. and M.J.S. Tevesz, editors. Animal-sediment relations. New York (NY): Plenum Press. p. 3-52.

Rhoads, D.C. and J.D. Germano. 1982. Characterization of organism-sediment relations using sediment profile imaging: an efficient method of remote ecological monitoring of the seafloor (REMOTS System). Mar. Ecol. Progr. 8: 115-128.

Rosenberg, R. and R.J. Diaz. 1993. Sulfur bacteria (*Beggiatoa* spp.) mats indicate hypoxic conditions in the inner Stockholm Archipelago. Ambio 22: 32-36.

Rosenberg, R., H.C. Nilsson, and R.J. Diaz. 2001. Response of benthic fauna and changing sediment redox profiles over a hypoxic gradient. Estuar. Coast. Shelf Sci. 53: 343-350.

Simone, M. and J. Grant. 2017. Visual assessment of redoxcline compared to electron potential in coastal marine sediments. Estuar. Coast. Shelf Sci. 188: 156-162.

Sturdivant, S.K., R.J. Díaz., and G.R. Cutter. 2012. Bioturbation in a declining oxygen environment, in situ observations from Wormcam. PLoS ONE 7(4): e34539.

Sturdivant, S.K. and M.S. Shimizu. 2017. In situ organism-sediment interactions: bioturbation and biogeochemistry in a highly depositional estuary. PLoS ONE 12(11): e0187800.

Tetra Tech, Inc. (Tetra Tech). 2022. COP Appendix T: Benthic Resource Characterization Reports. Prepared for Equinor by Tetra Tech for submittal to the Bureau of Ocean Energy Management. May 2022.

Wentworth, C. K. 1922. “A Scale of Grade and Class Terms for Clastic Sediments.” The Journal of Geology 30: 377–392.

Woods Hole Oceanographic Institution (WHOI). 2016. FVCOM Annual Climatology for Temperature, Stratification, and Currents (1978-2013). Northeast United States. Prepared for Northeast Regional Ocean Council, Northeast Ocean Data.

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2024 Pre-Construction Benthic Monitoring Survey Report – Federal Waters

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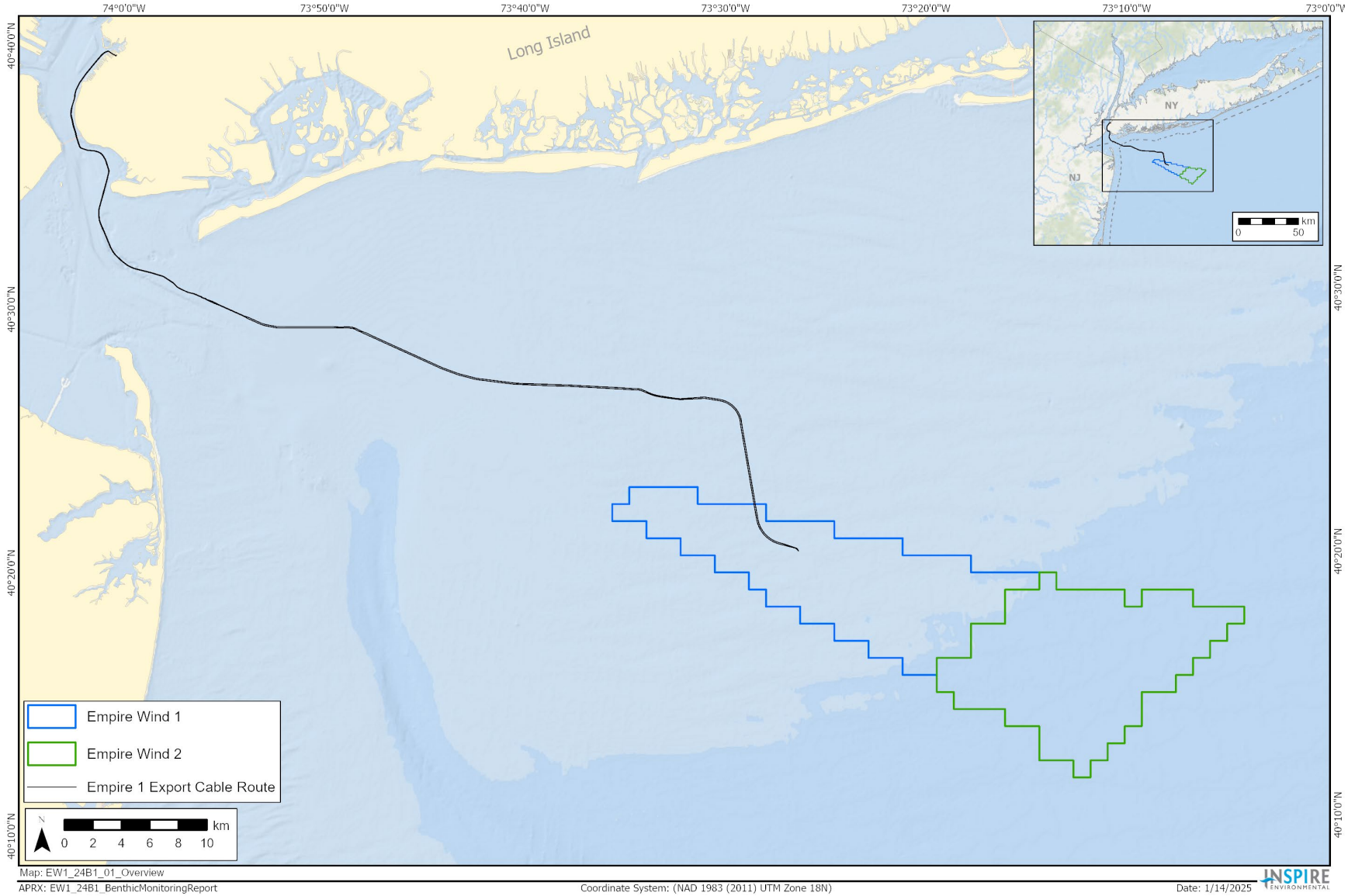


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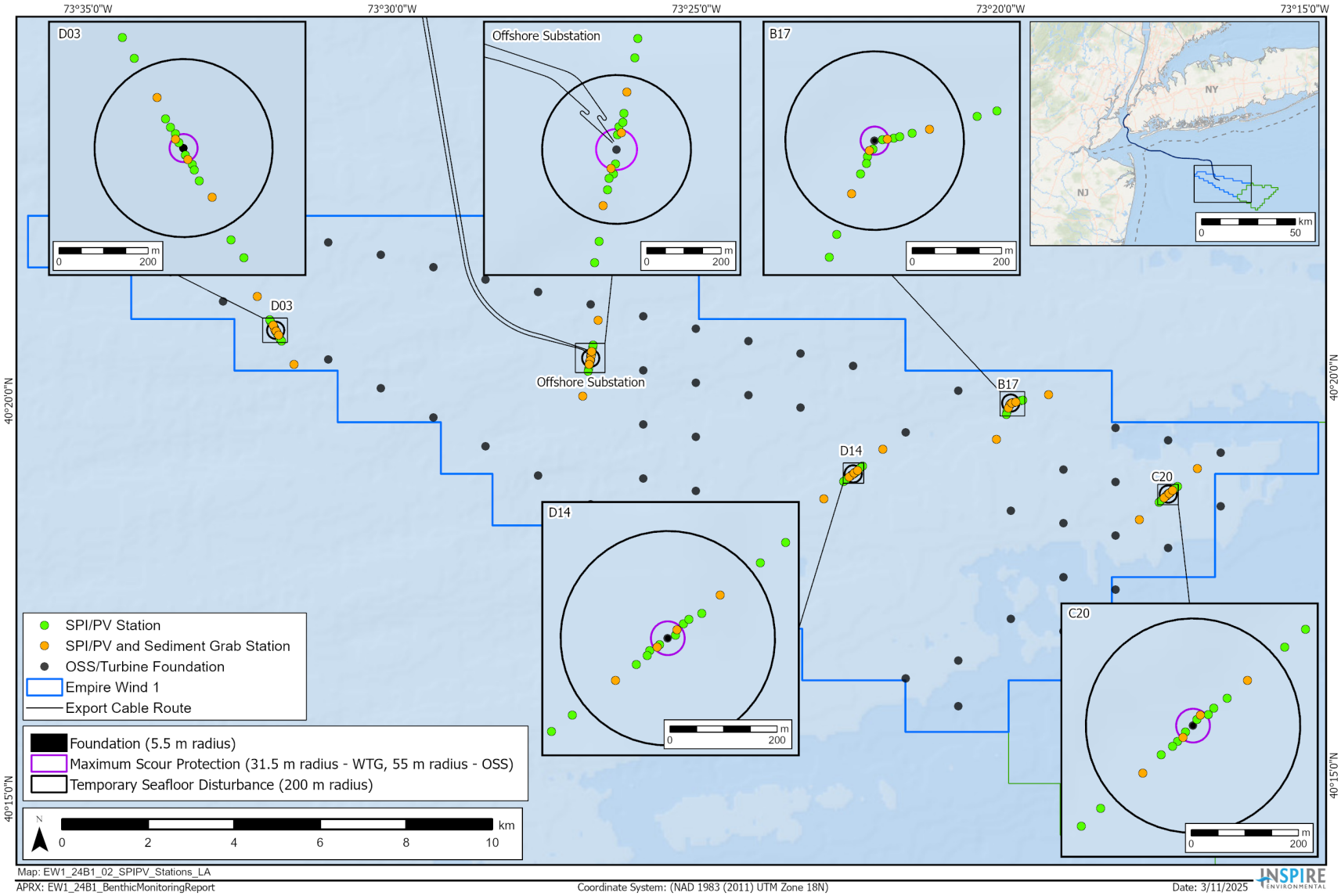


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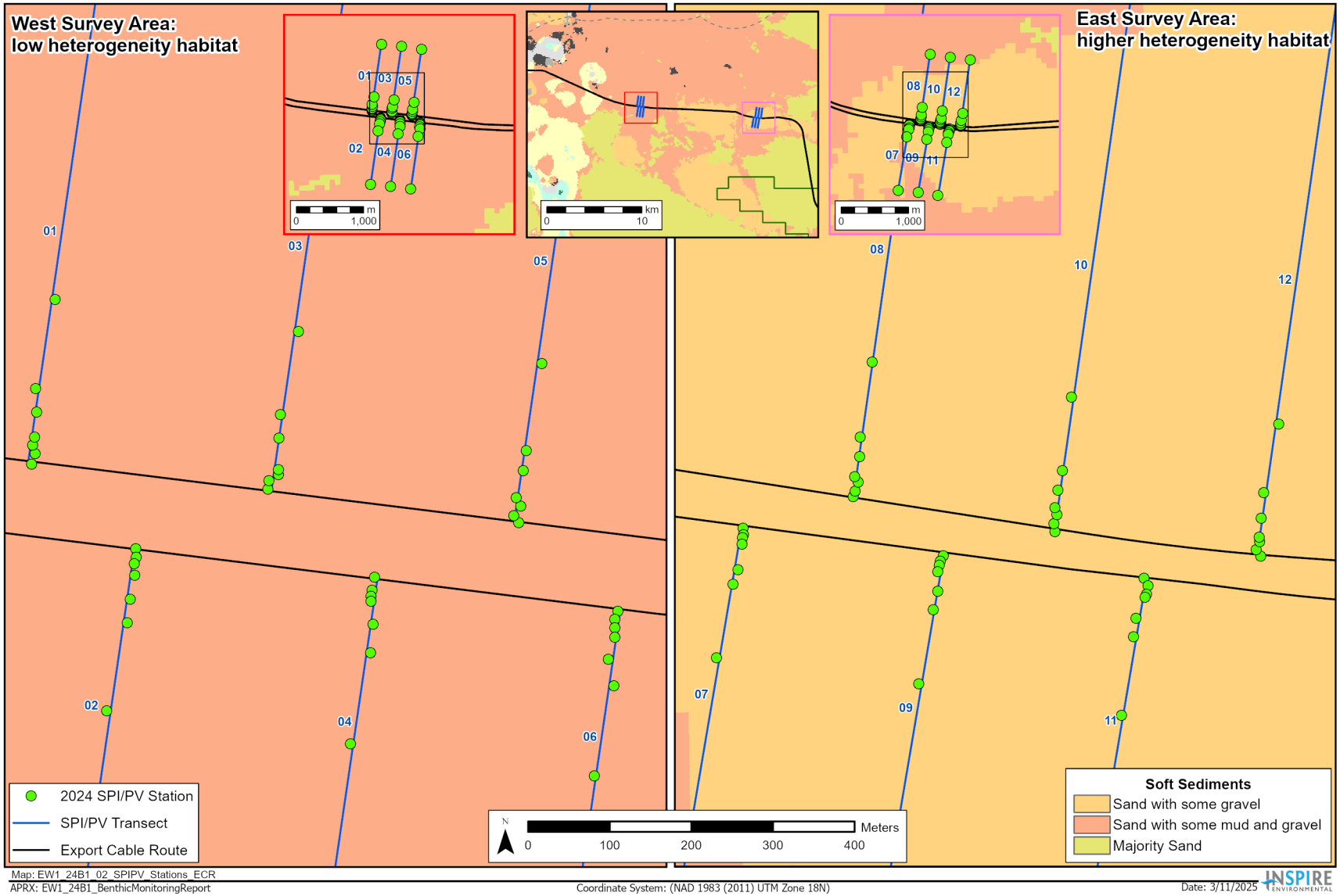


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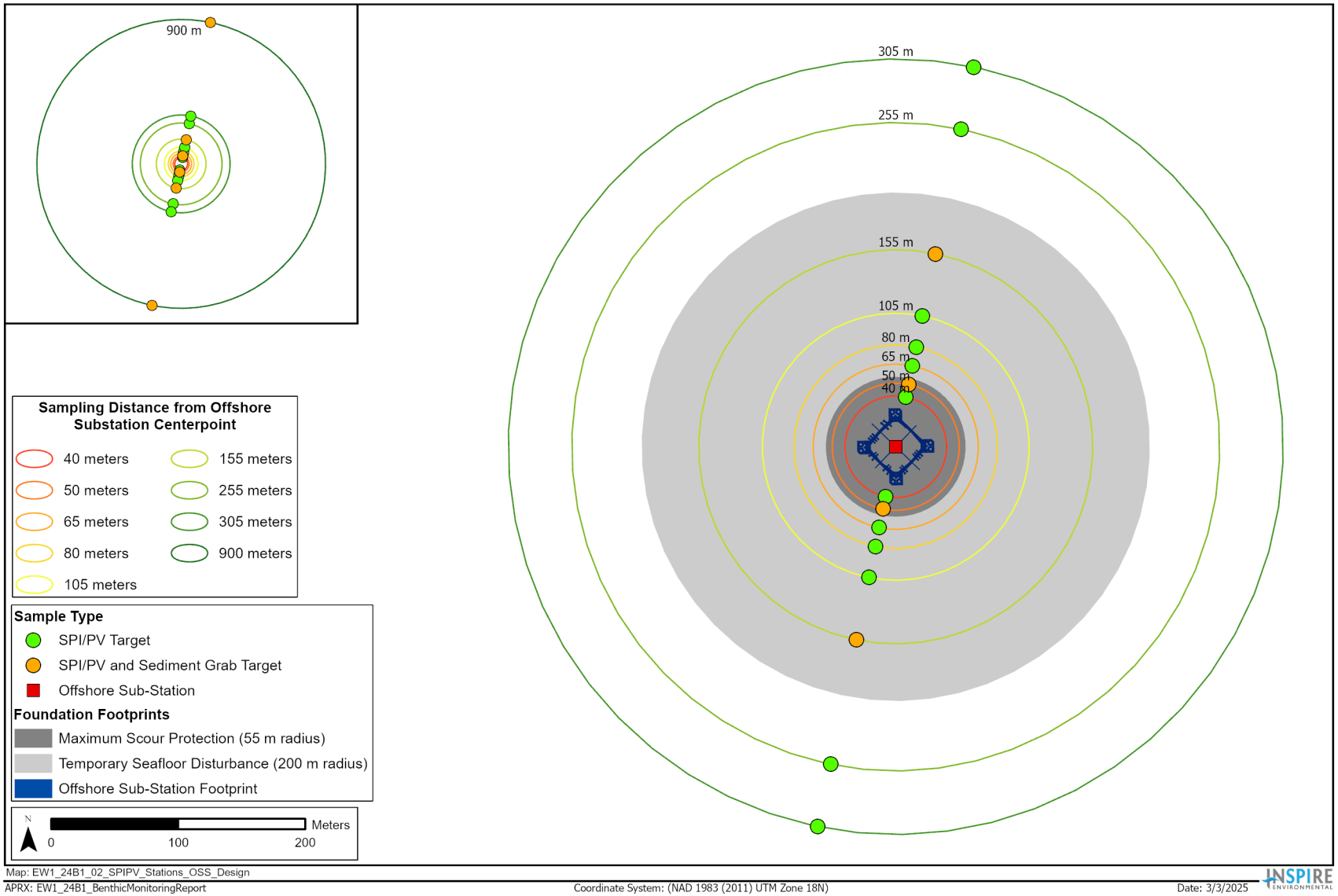


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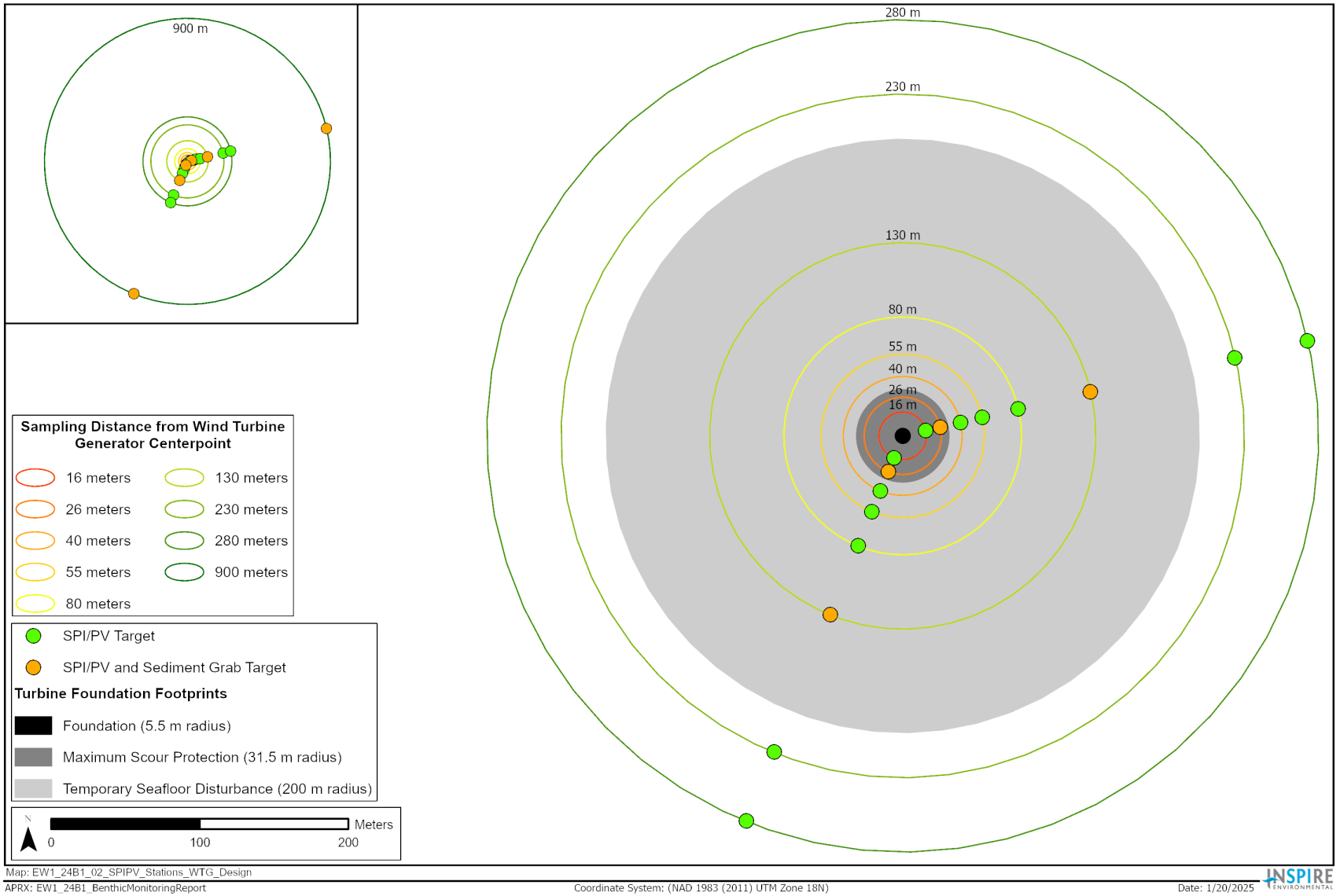


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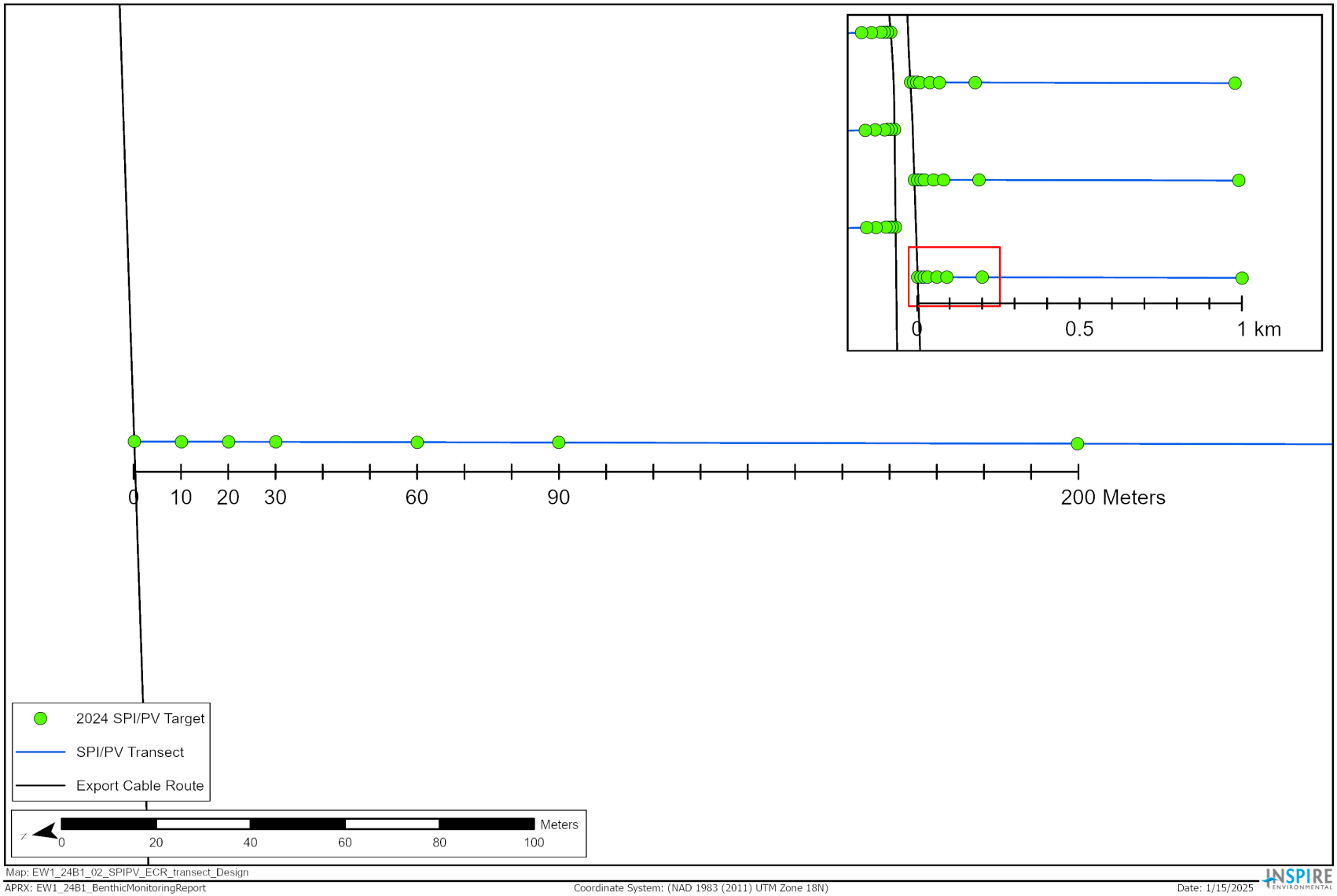


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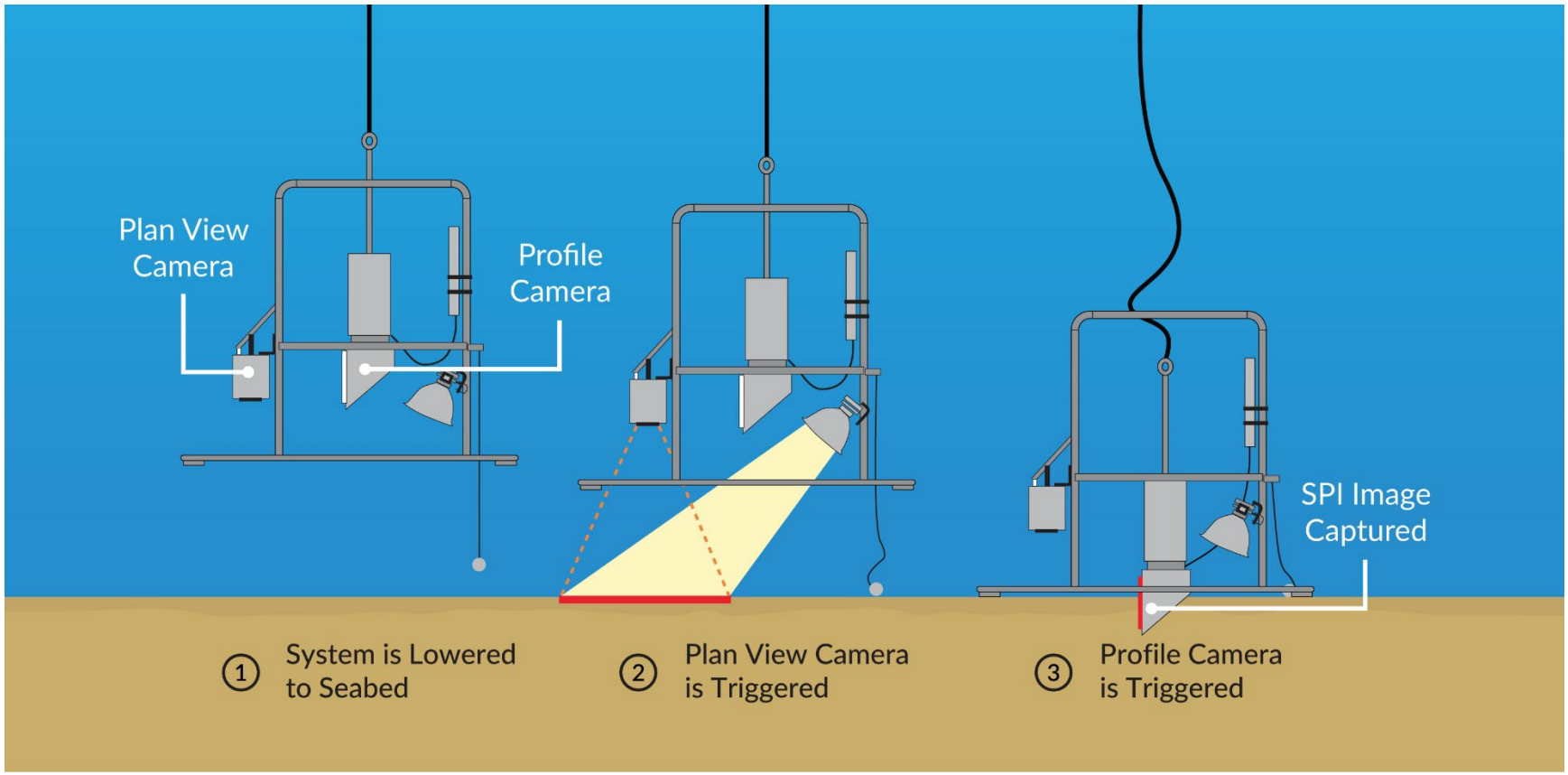


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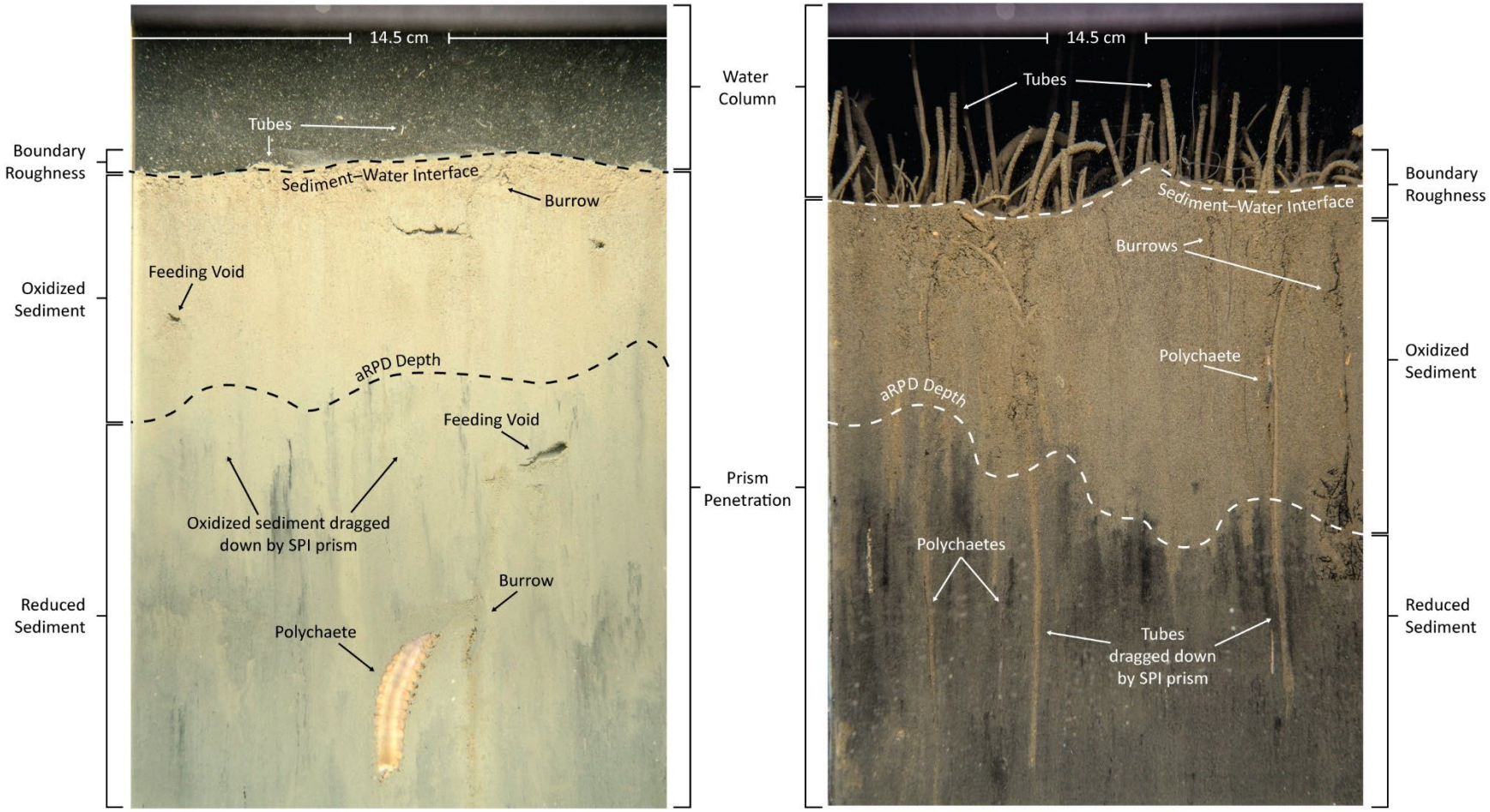


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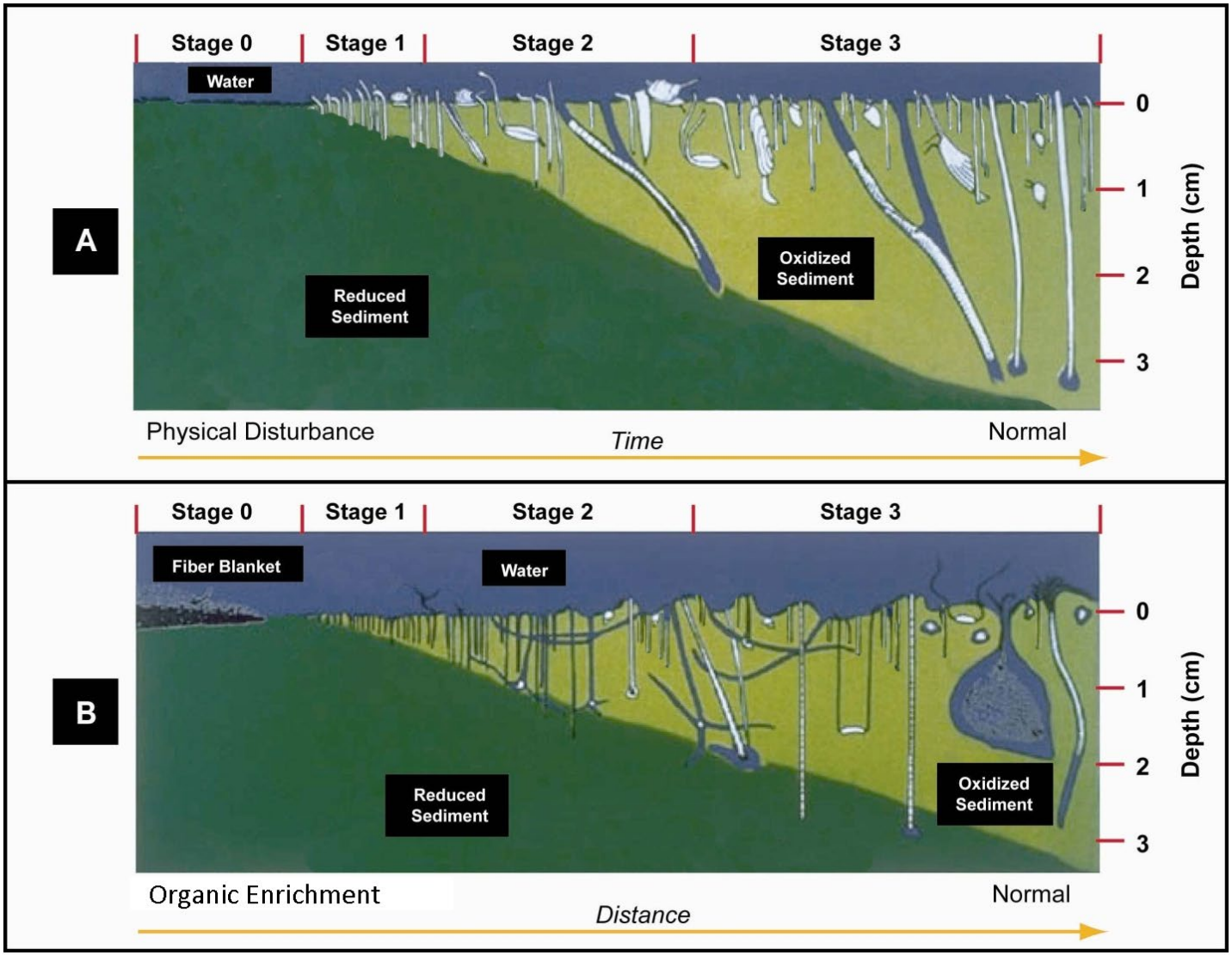


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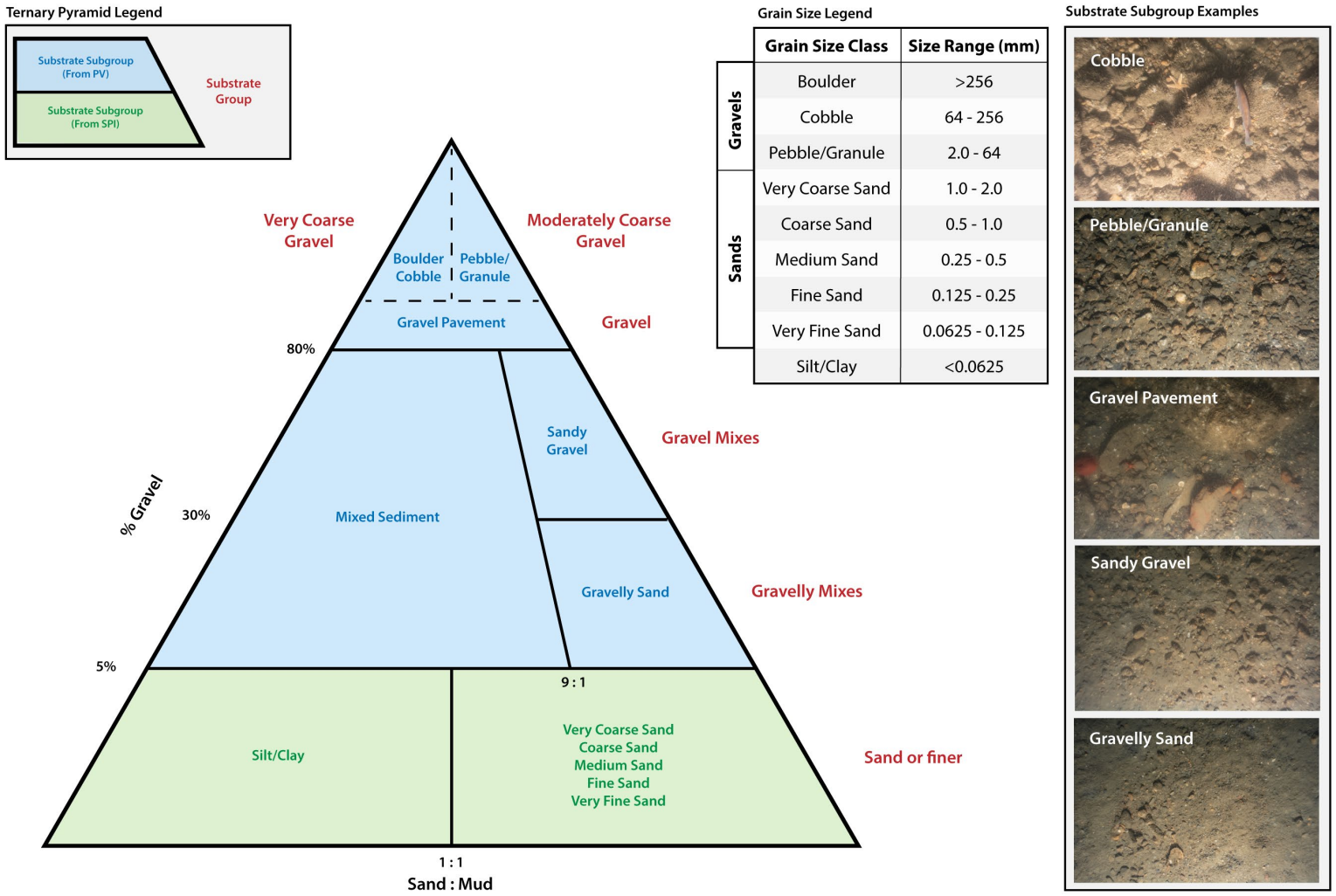


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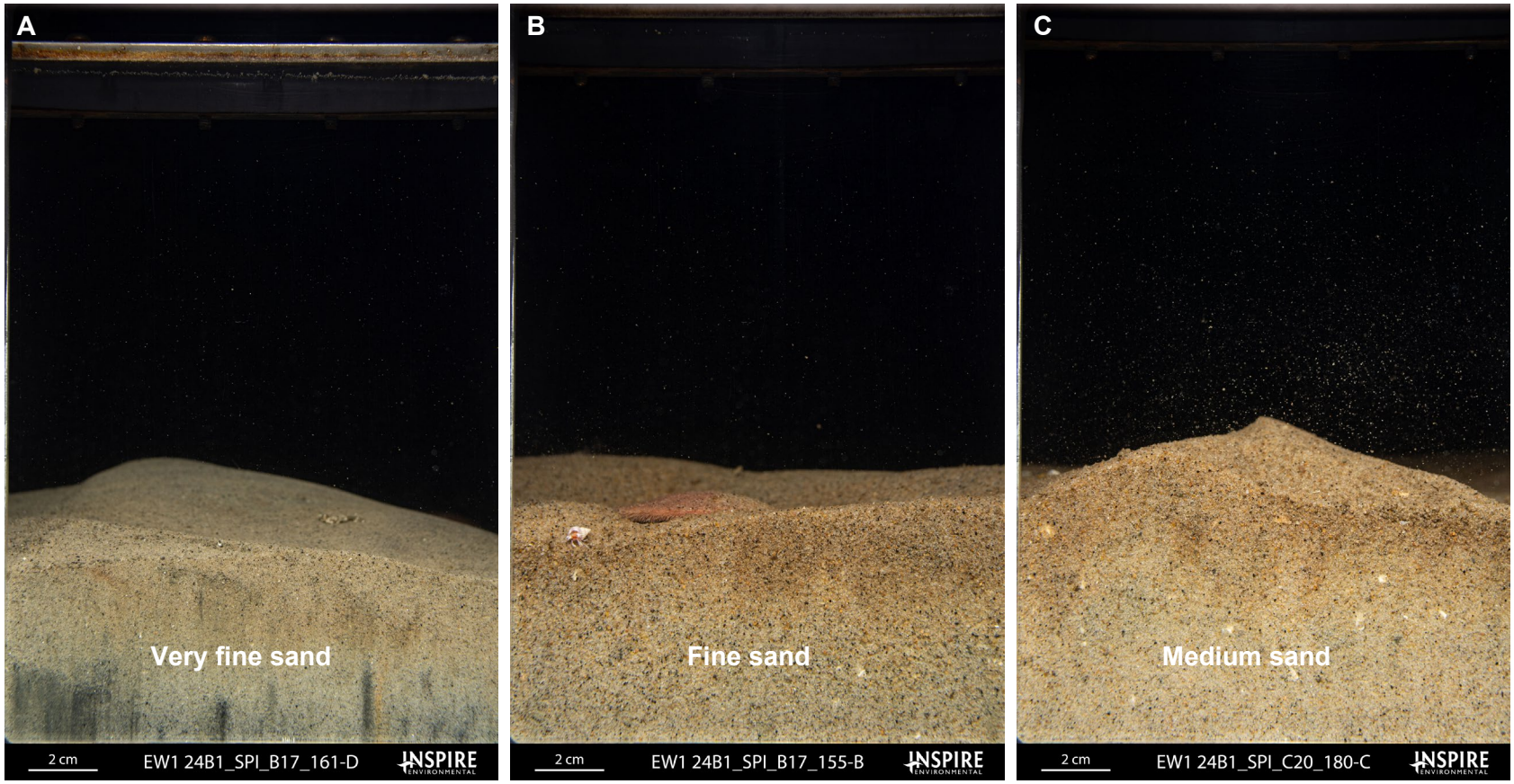


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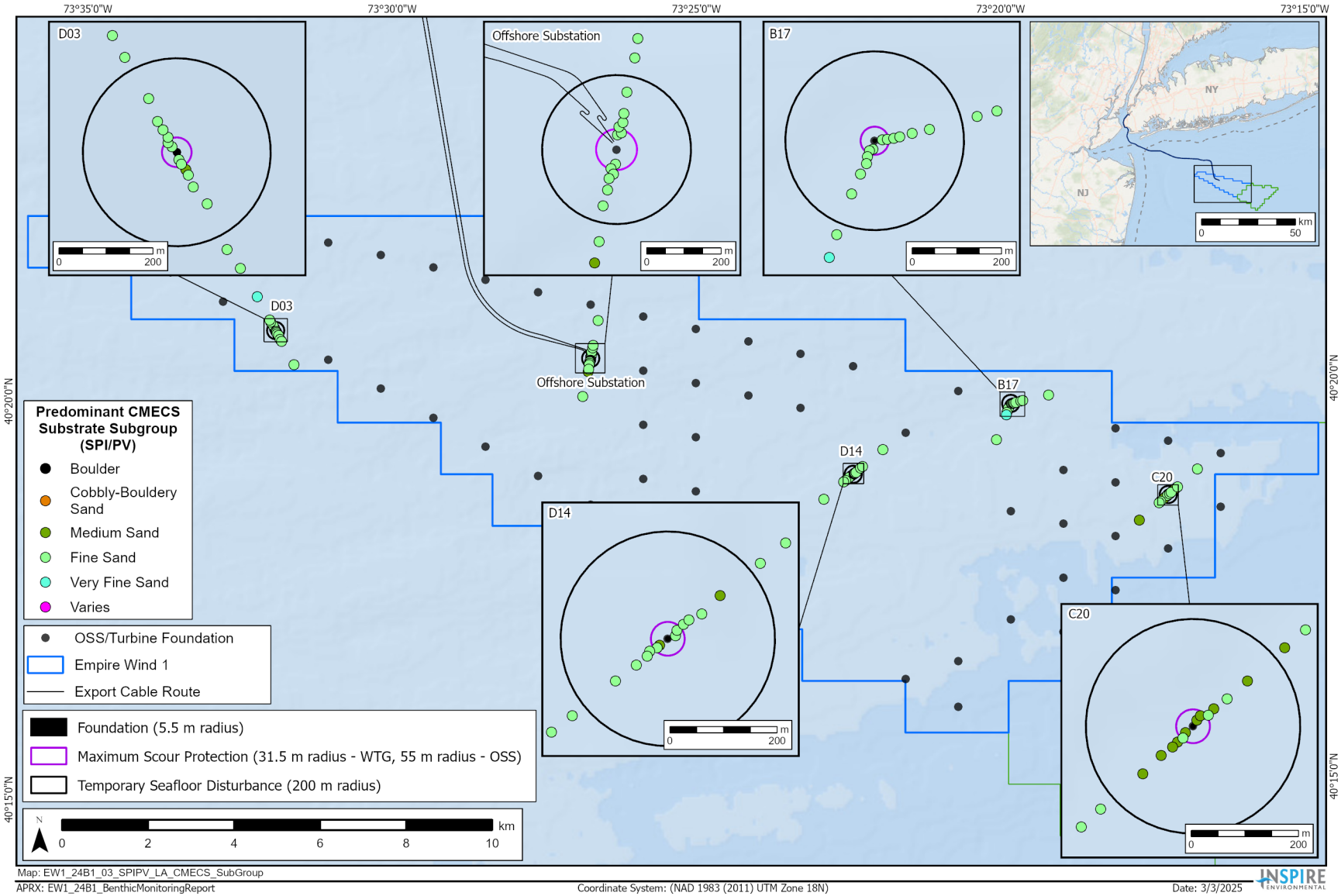


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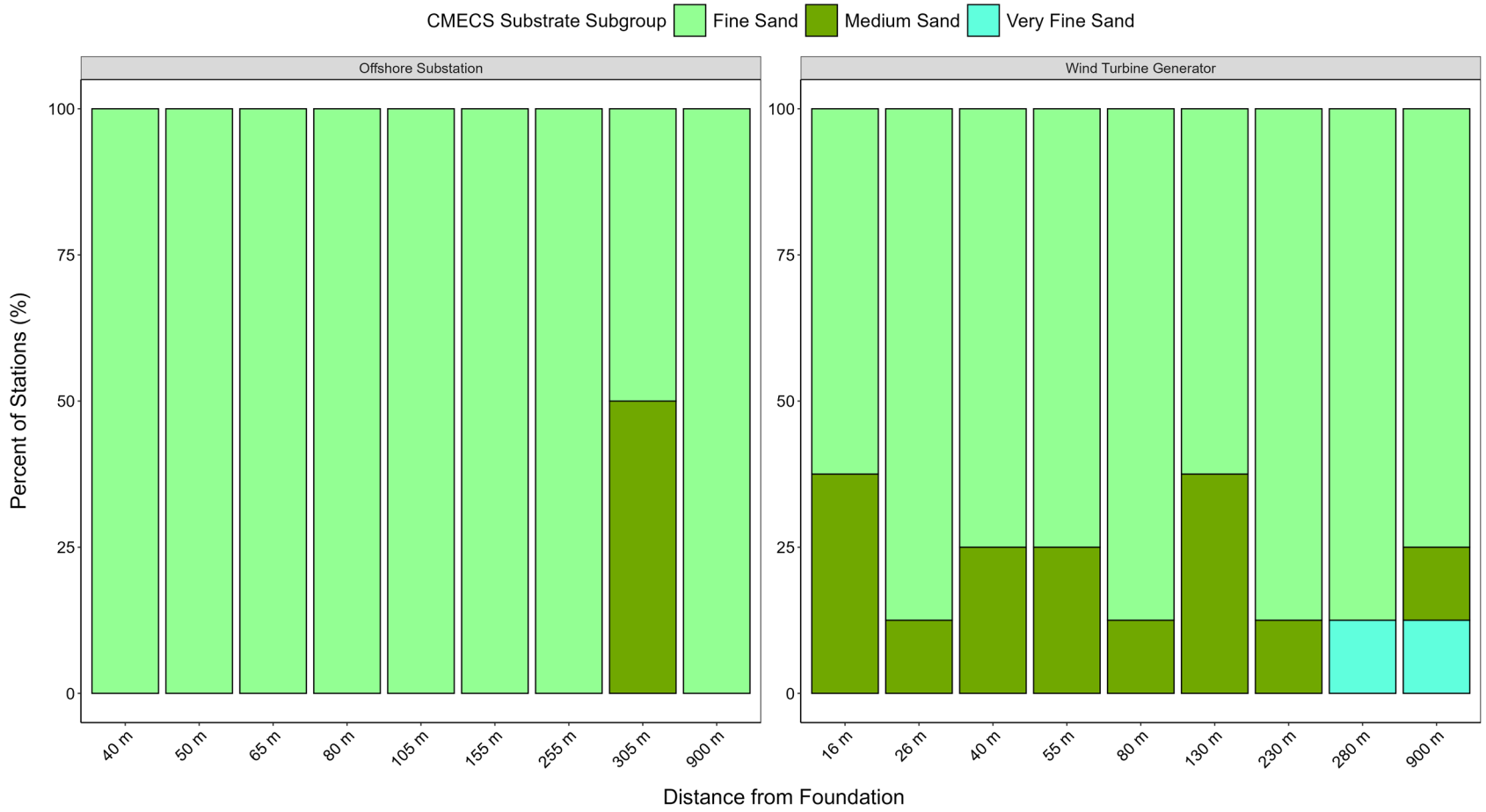


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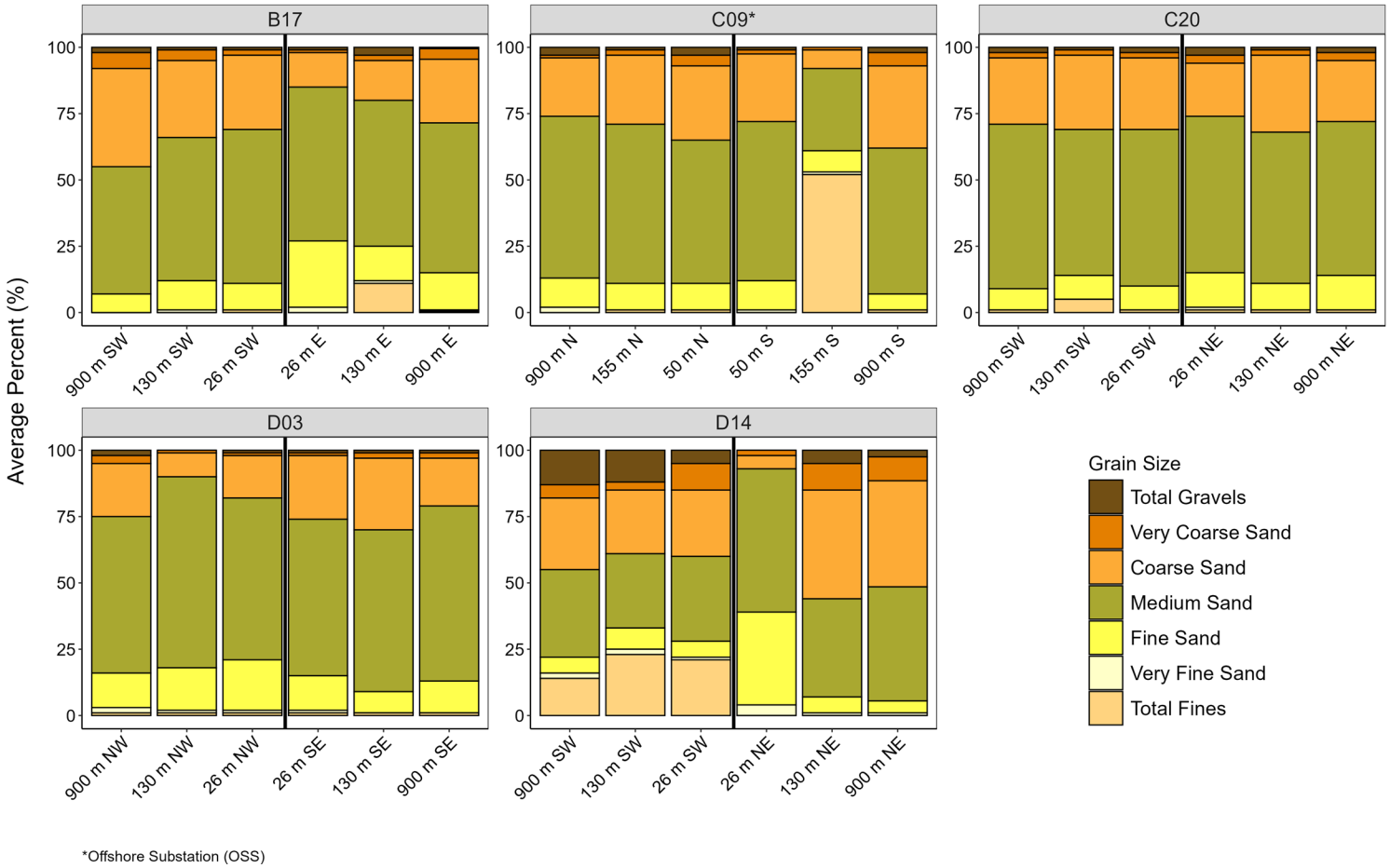


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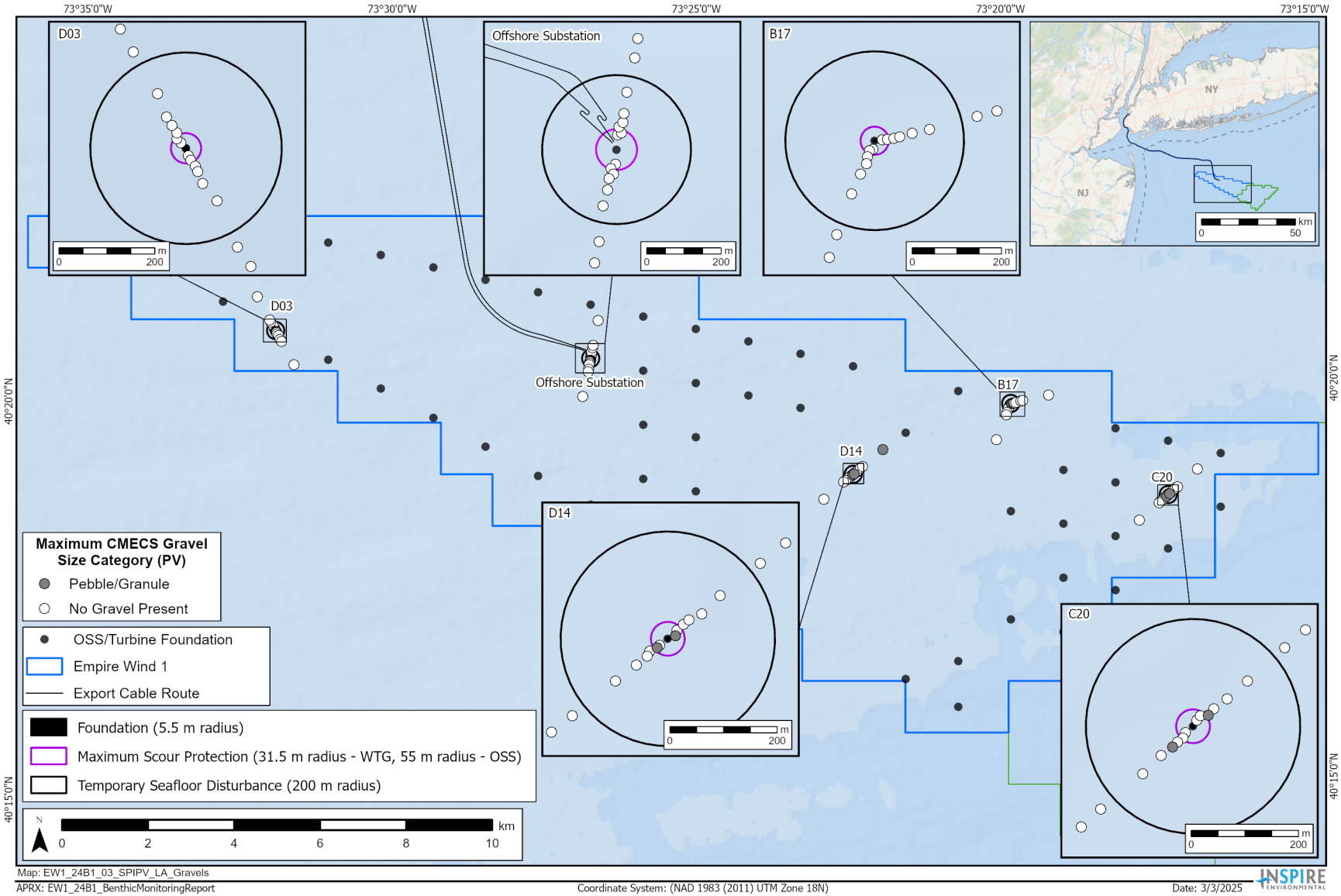


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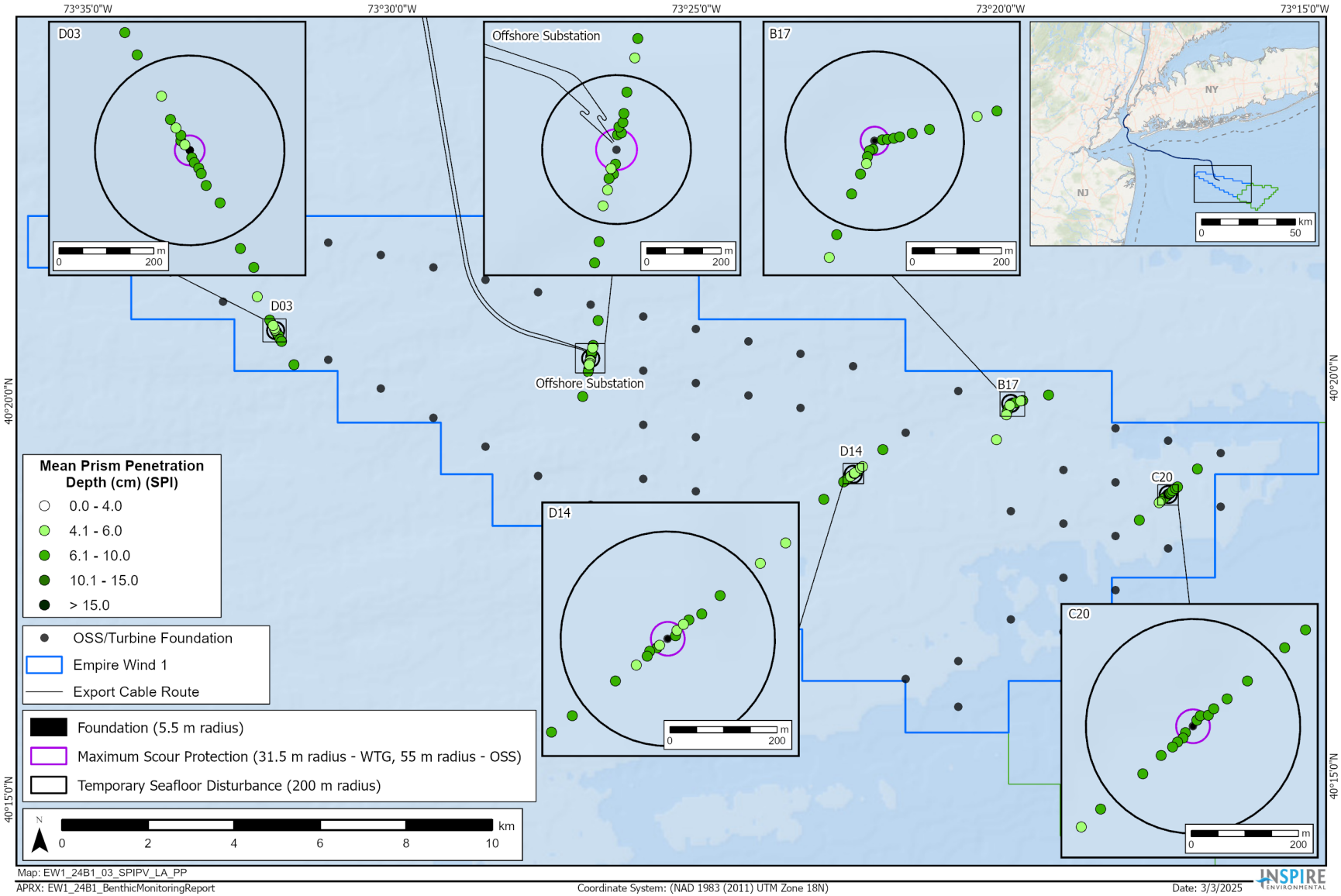


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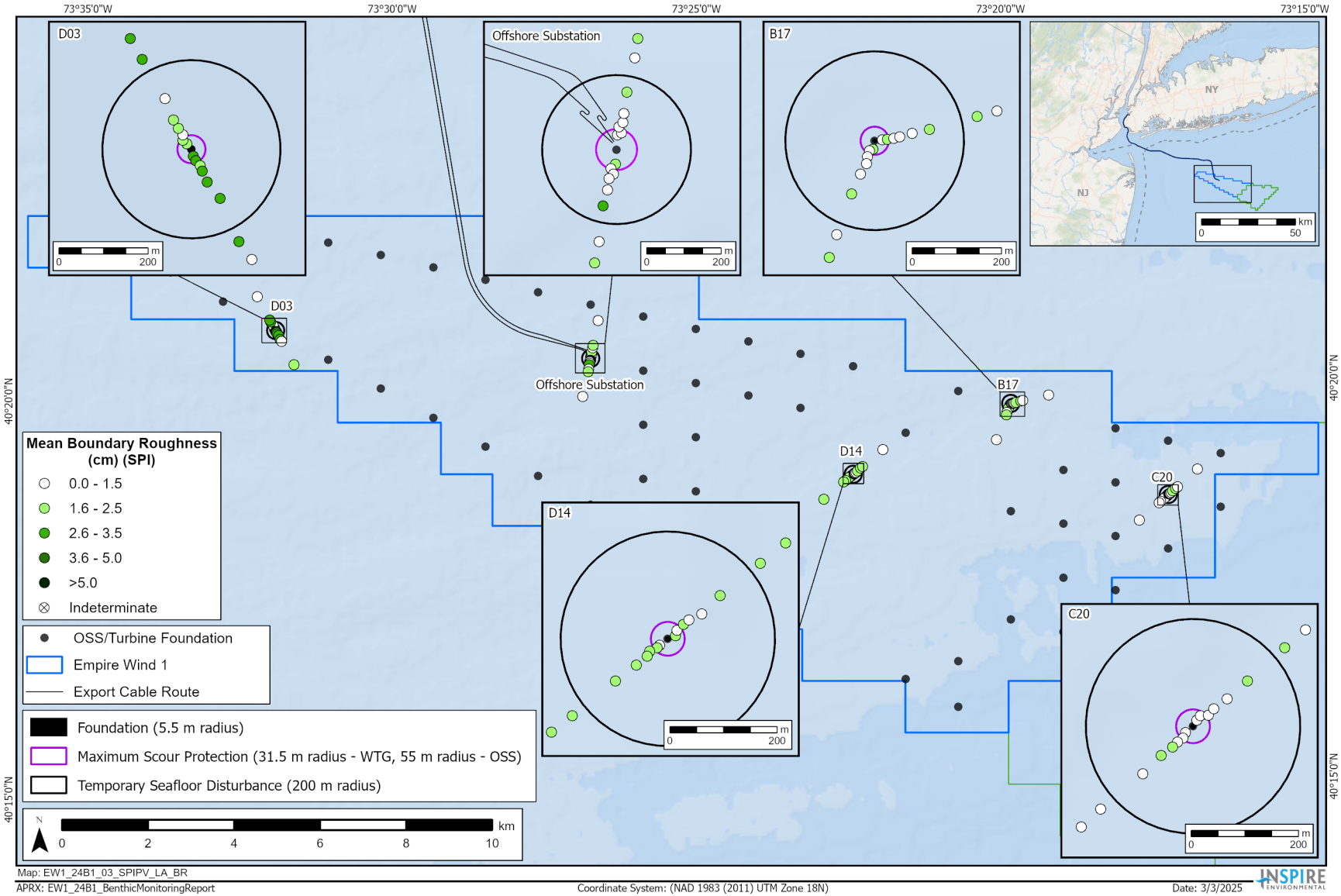


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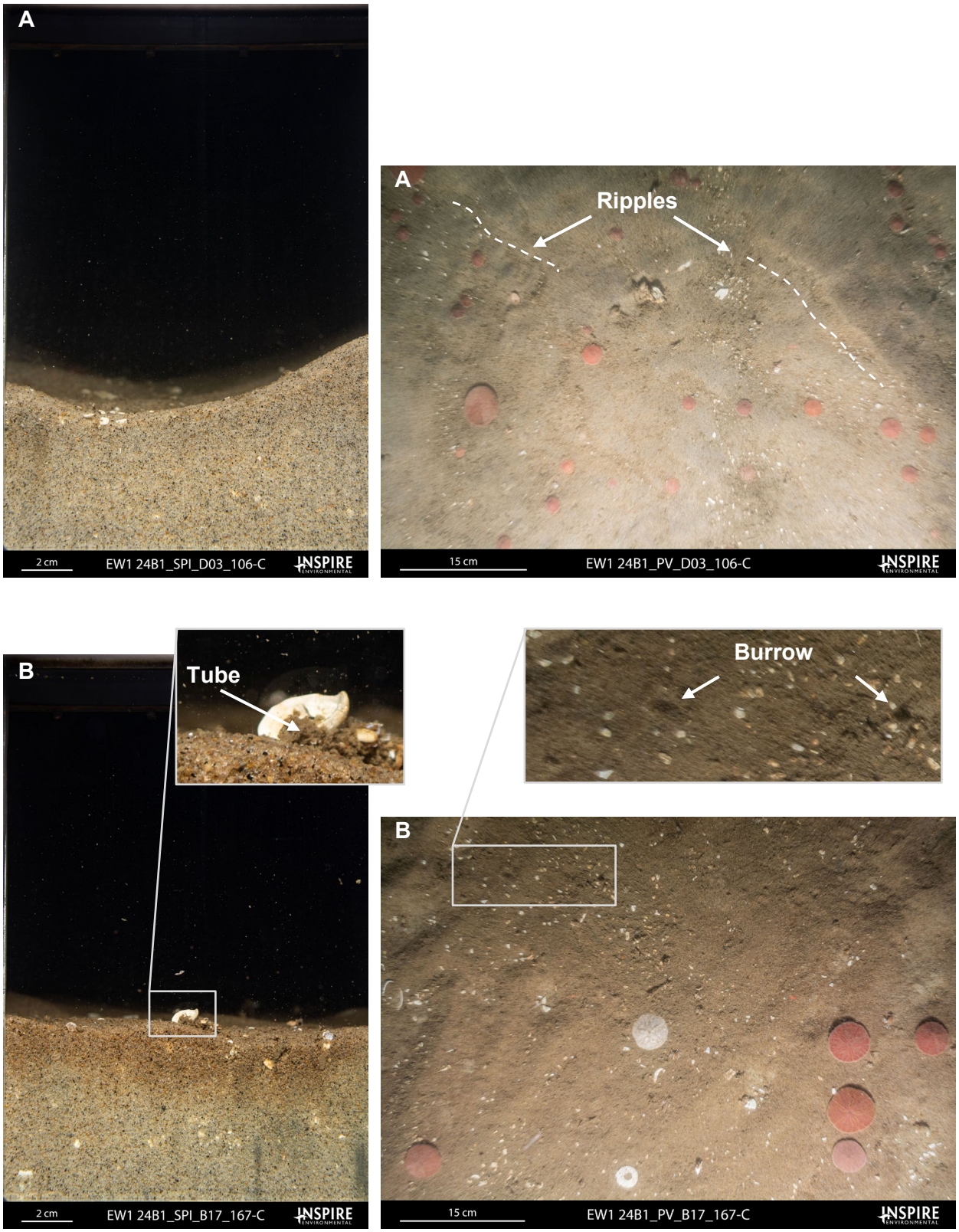


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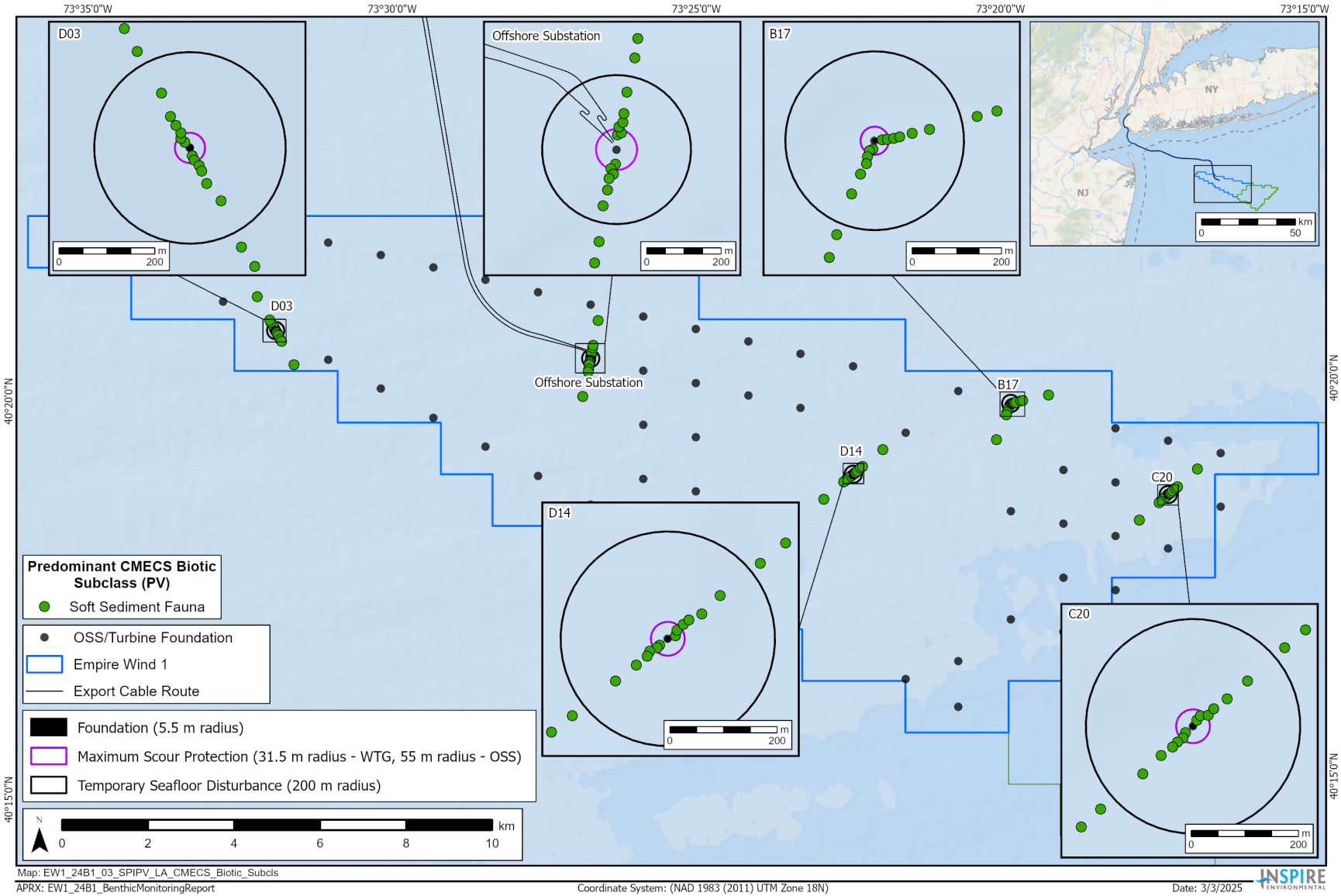


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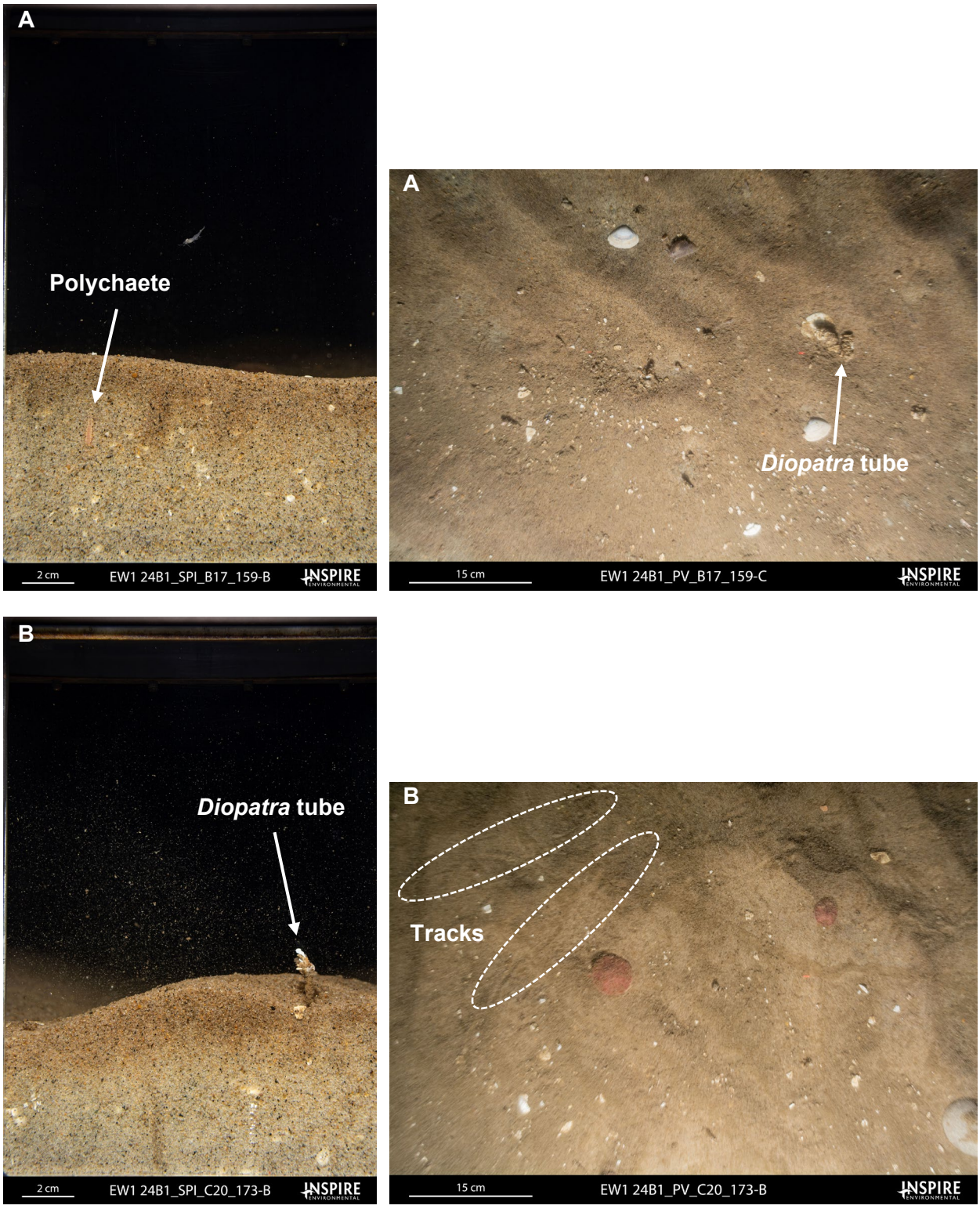


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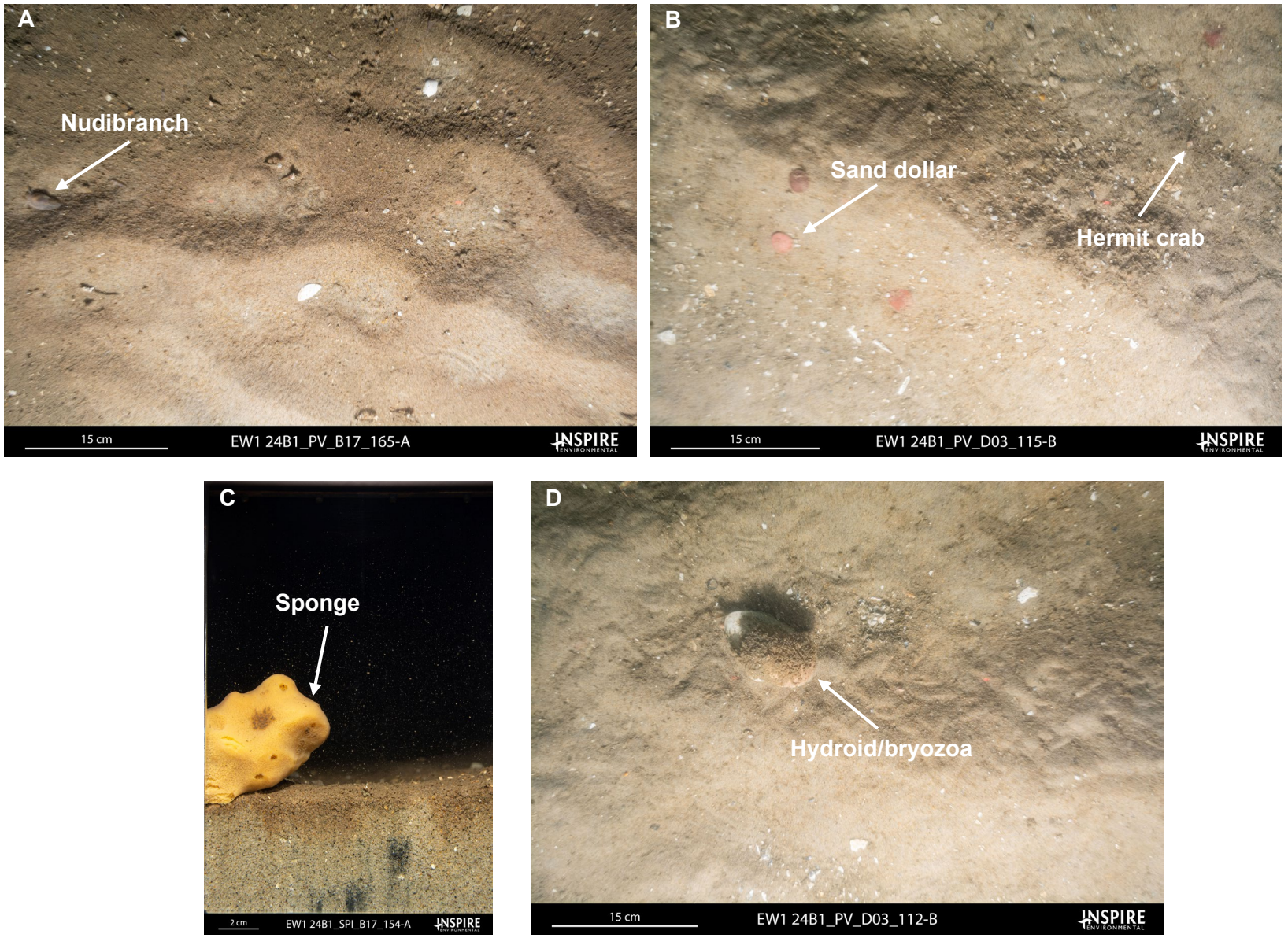


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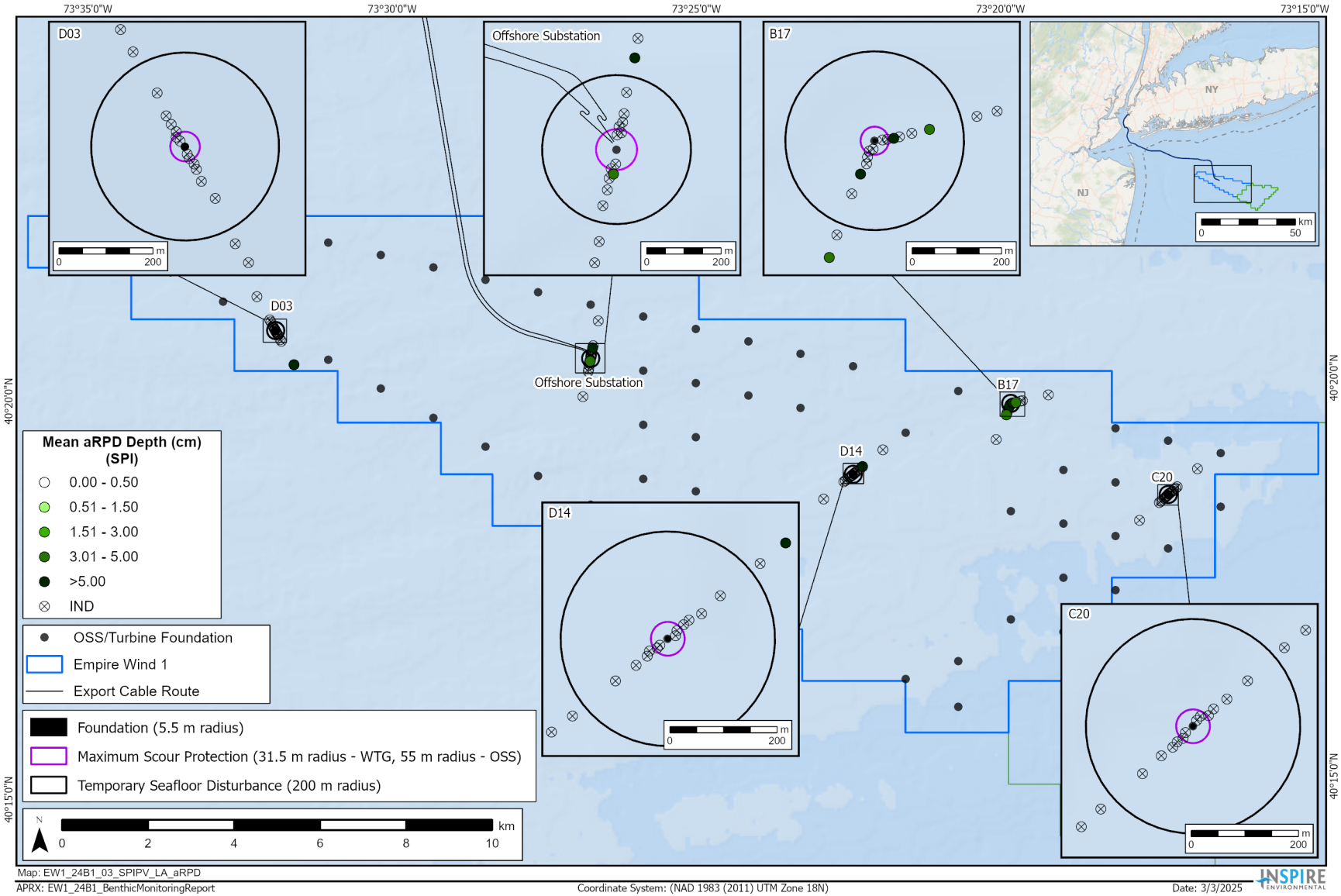


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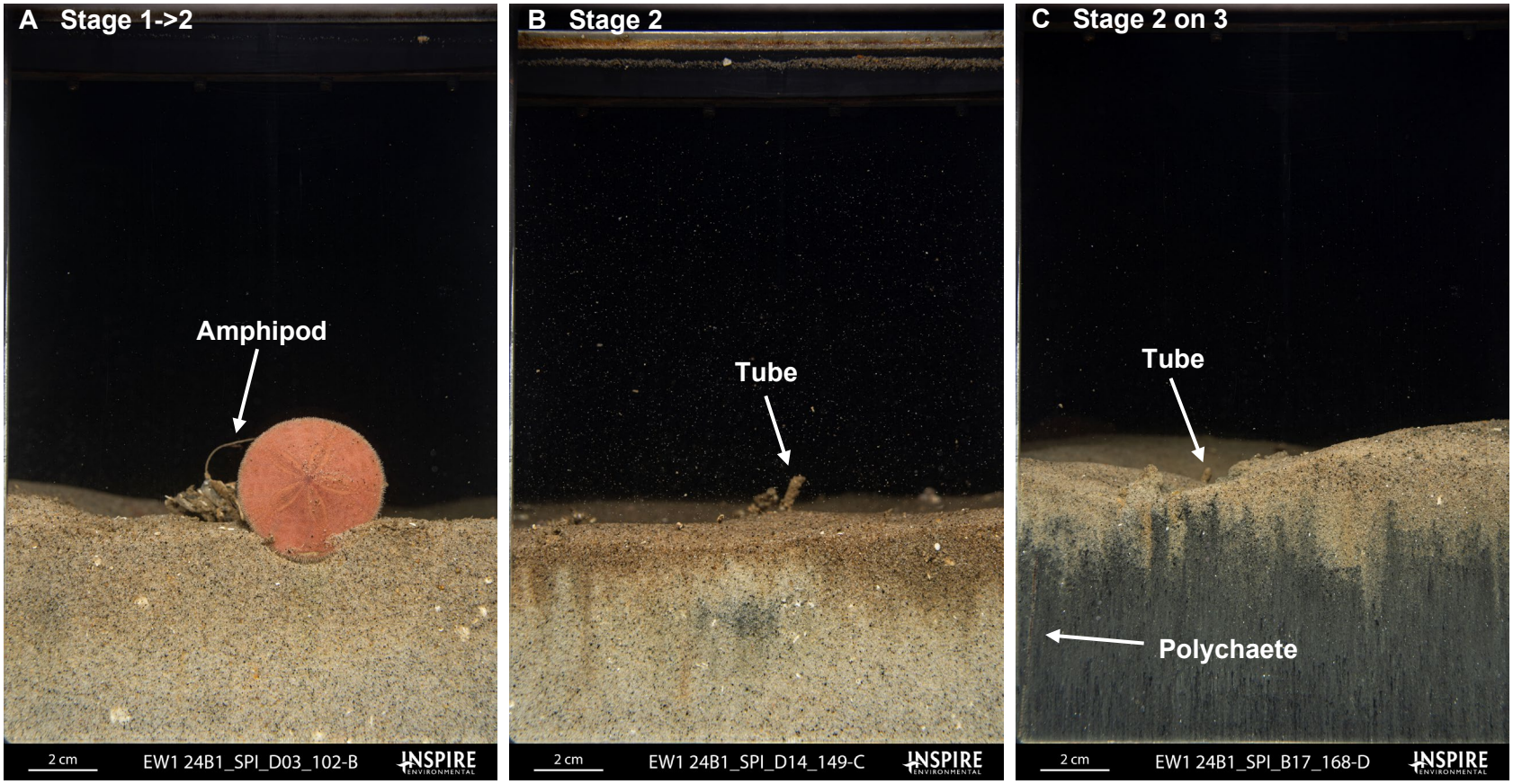


Figure 3-13. Representative profile images depicting observed infaunal successional stage across EW 1 including (A) Stage 1->2 characterized by presence of amphipods and very small tubes at the sediment–water interface, but no evidence of burrowing polychaetes; (B) Stage 2 community indicated by tubes visible on the sediment surface, but no indication of deep burrowing polychaetes; (C) Stage 2 on 3 as characterized by larger tubes at the sediment–water interface with deep burrowing polychaetes at depth

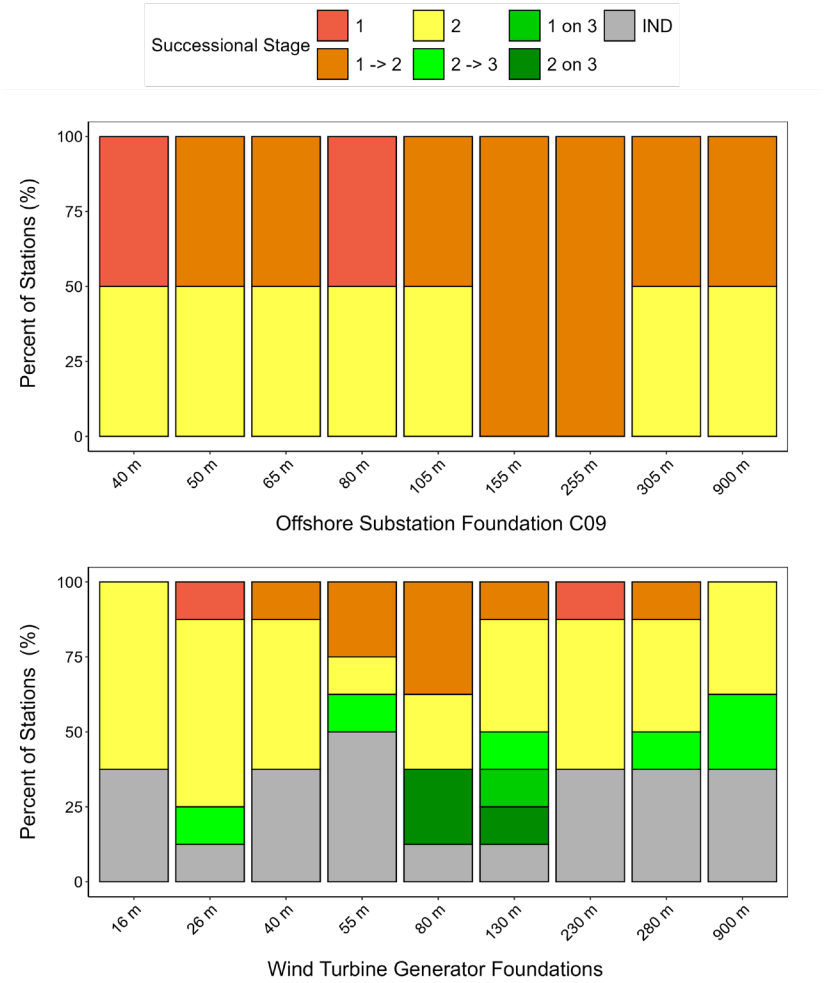


Figure 3-14. Percent of stations at each successional stage organized by increasing distance from offshore substation C09 (n=2) or wind turbine generator Foundations B17, C20, D03 and D14 (n=4))

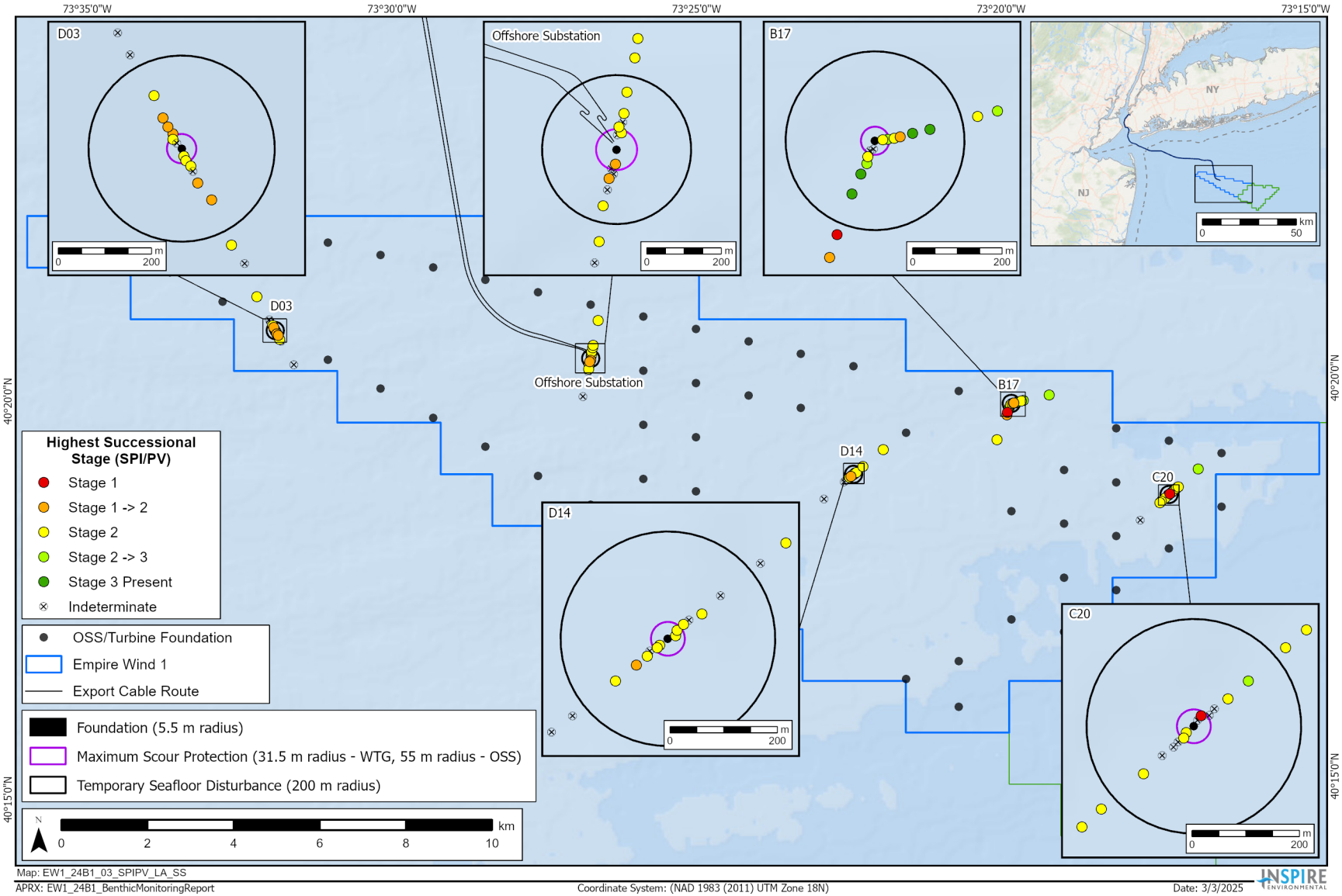


Figure 3-15. Infaunal successional stages documented at EW 1

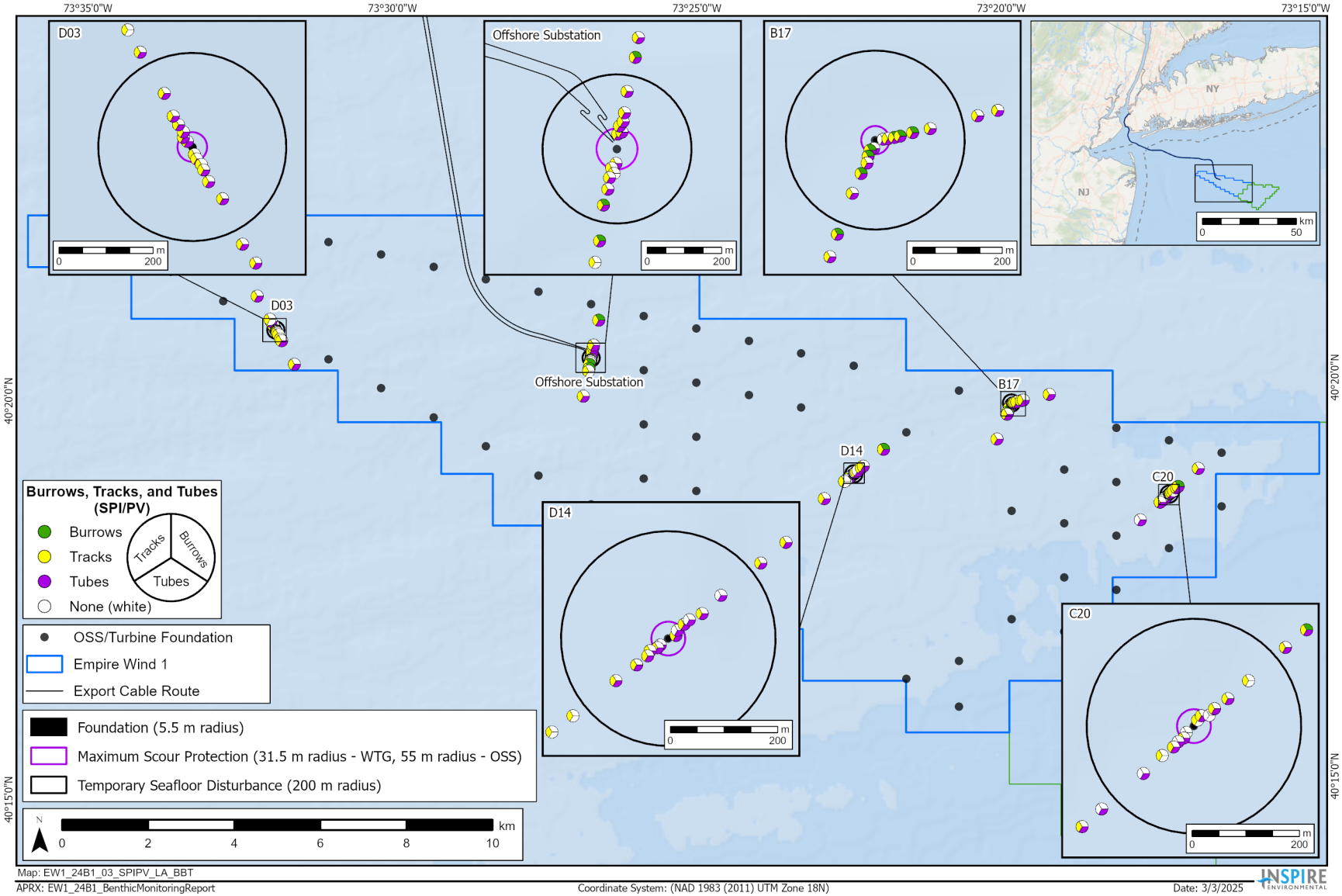


Figure 3-16. Presence of burrows, tracks and tubes at EW 1. Results shown provide presence or absence of burrows, tracks, and/or tubes at each sampling station.

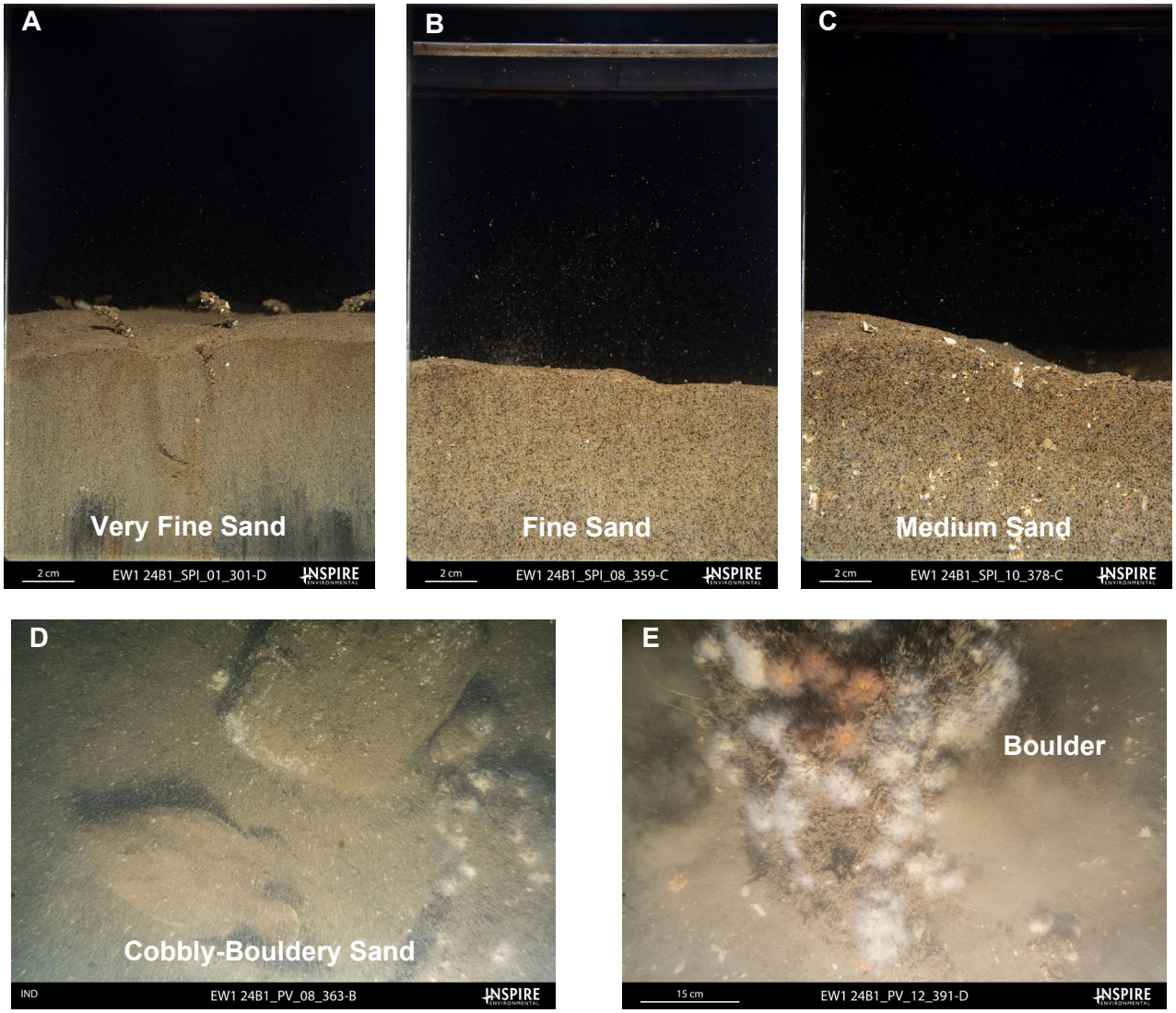


Figure 3-17. Representative profile and plan view images depicting the range in CMECS Substrate Subgroups observed along the EW 1 export cable route including (A) Very Fine Sand; (B) Fine Sand; (C) Medium Sand; (D) Cobbly-Bouldery Sand; and (E) Boulder

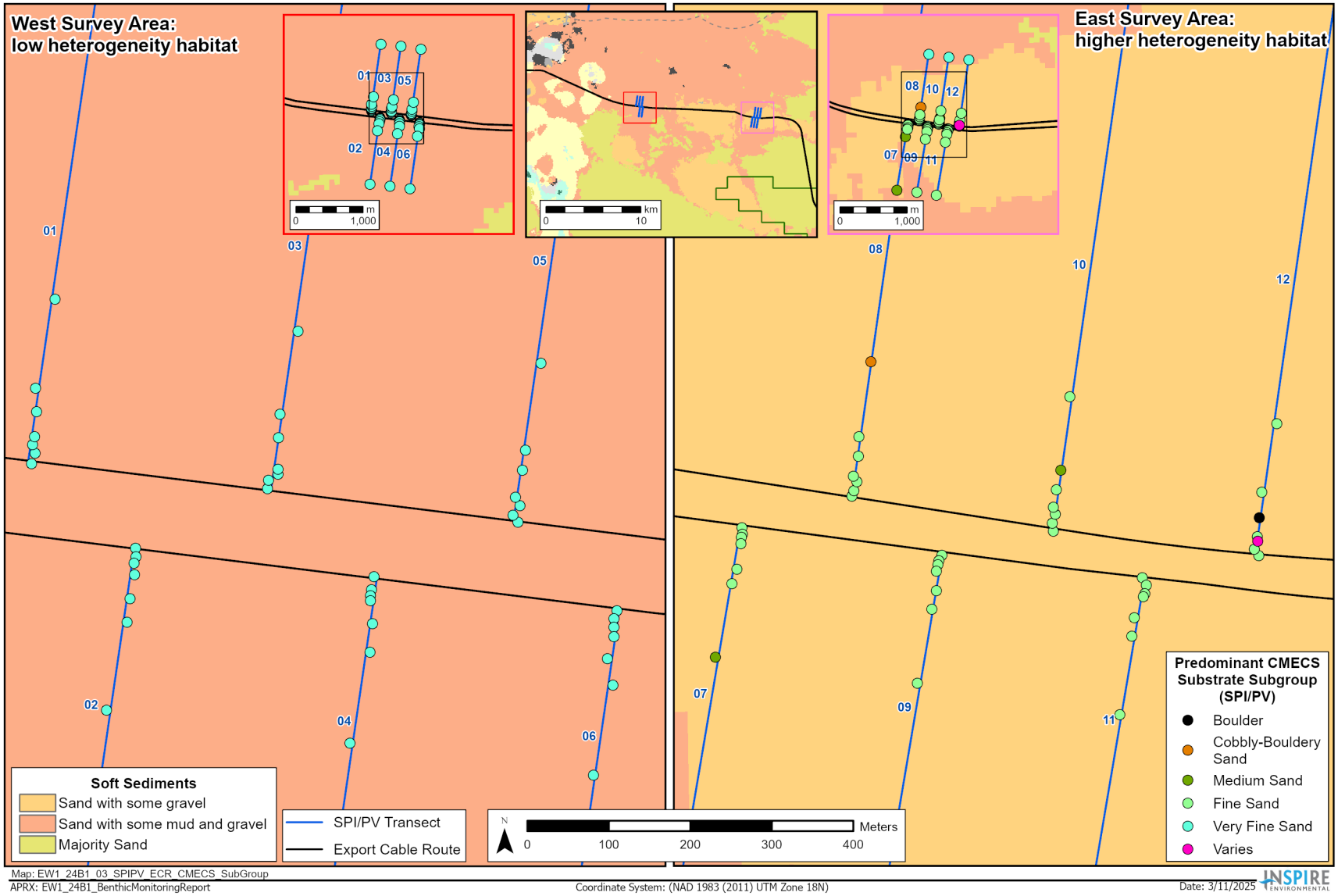


Figure 3-18. Predominant CMECS Substrate Subgroup along the EW 1 planned export cable route survey areas overlaid on Soft Sediment classifications (Greene et al. 2010, updated 2020)

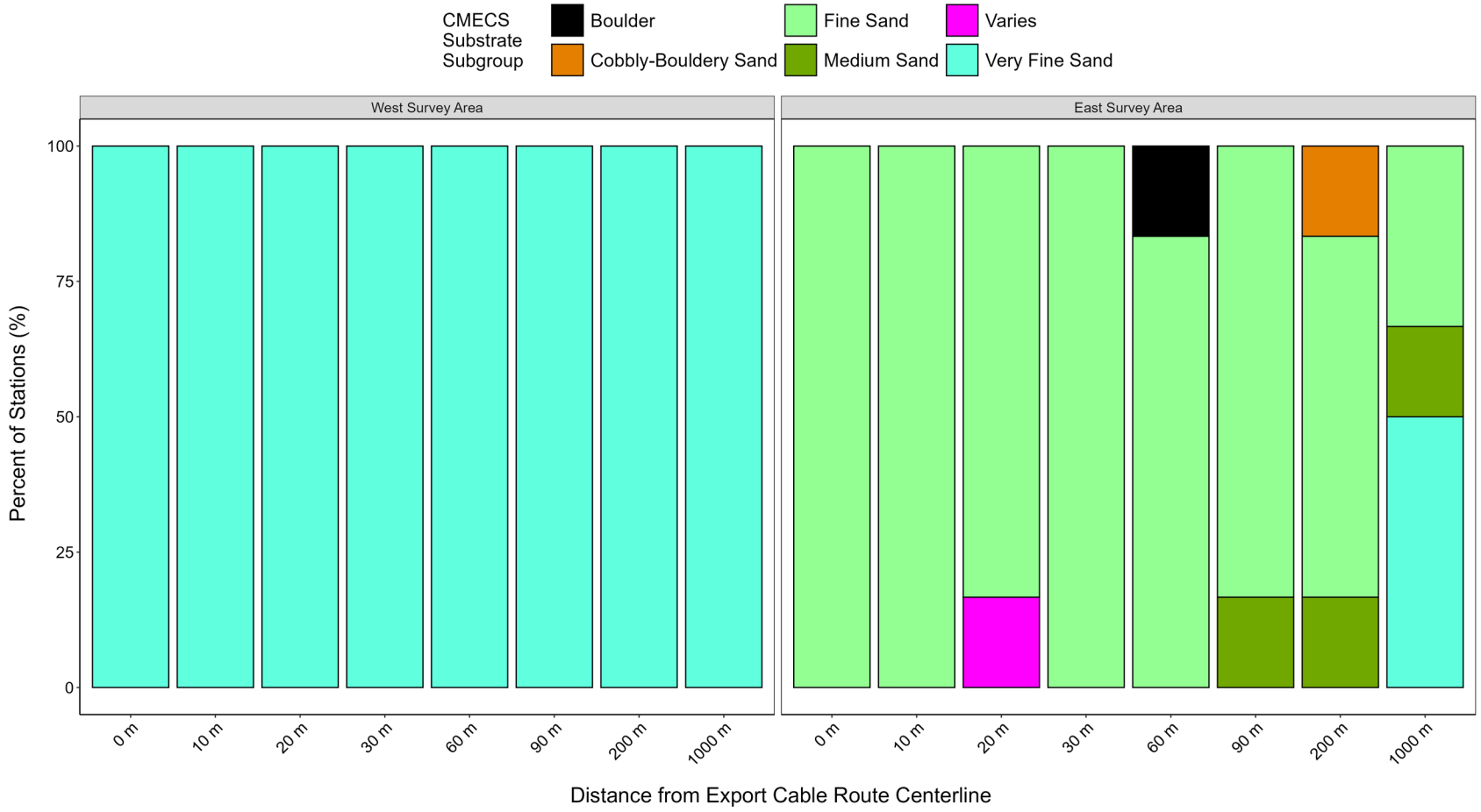


Figure 3-19. Percent of stations in each CMECS Substrate Subgroup organized by distance from export cable route centerline along the EW 1 planned export cable route survey areas

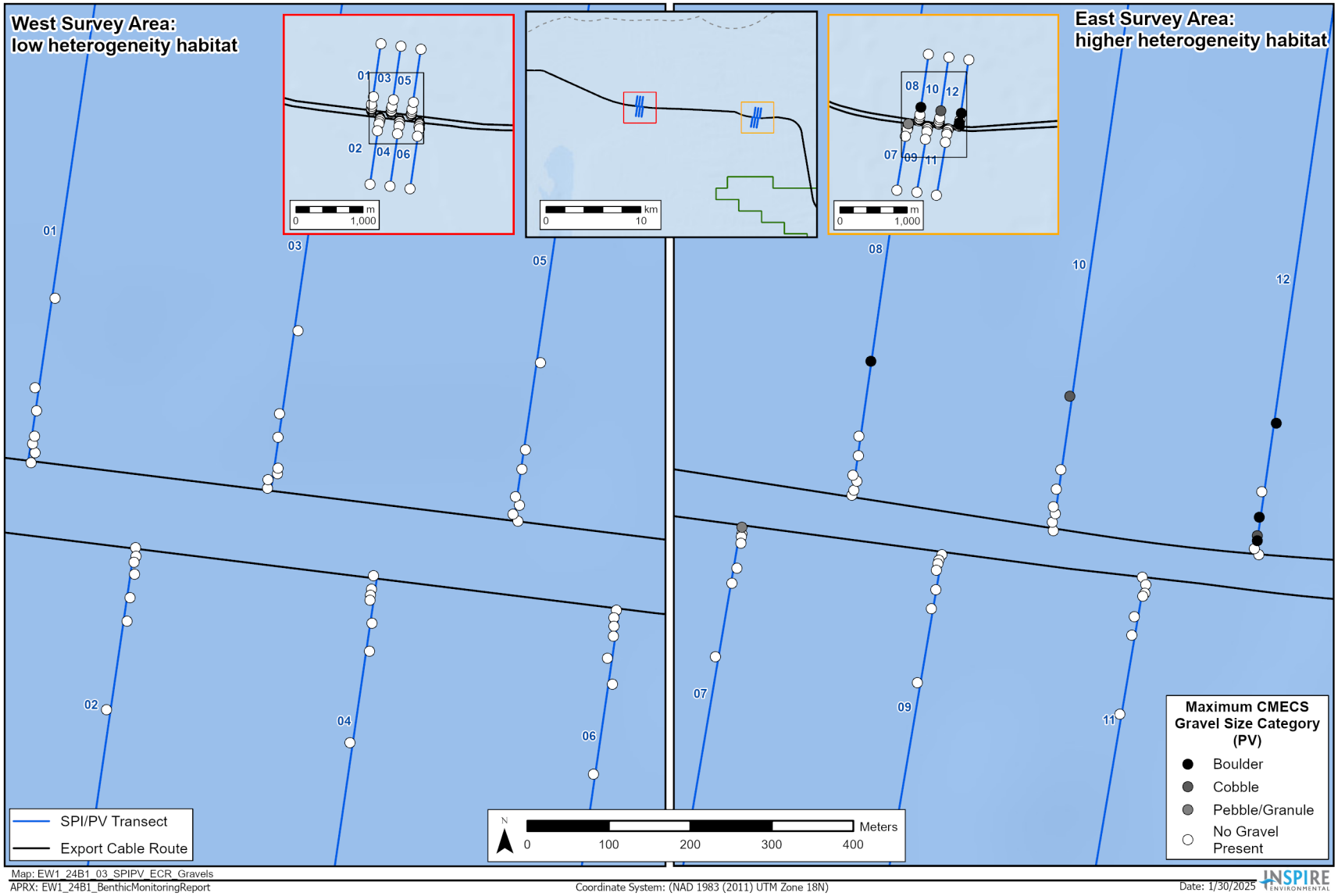


Figure 3-20. Presence of gravel along the EW 1 planned export cable route survey areas

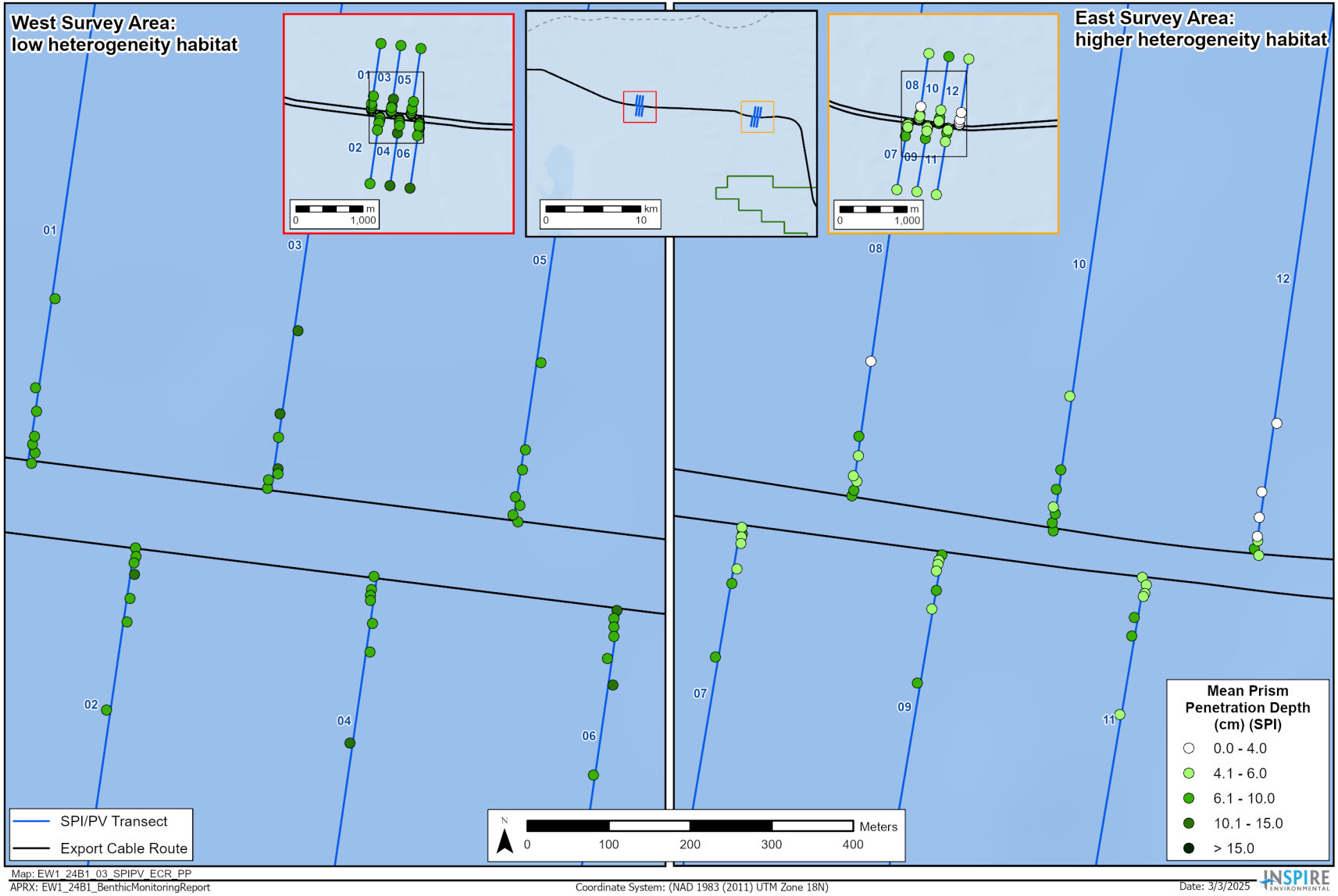


Figure 3-21. Mean station camera prism penetration depths (cm) along the EW 1 planned export cable route survey areas

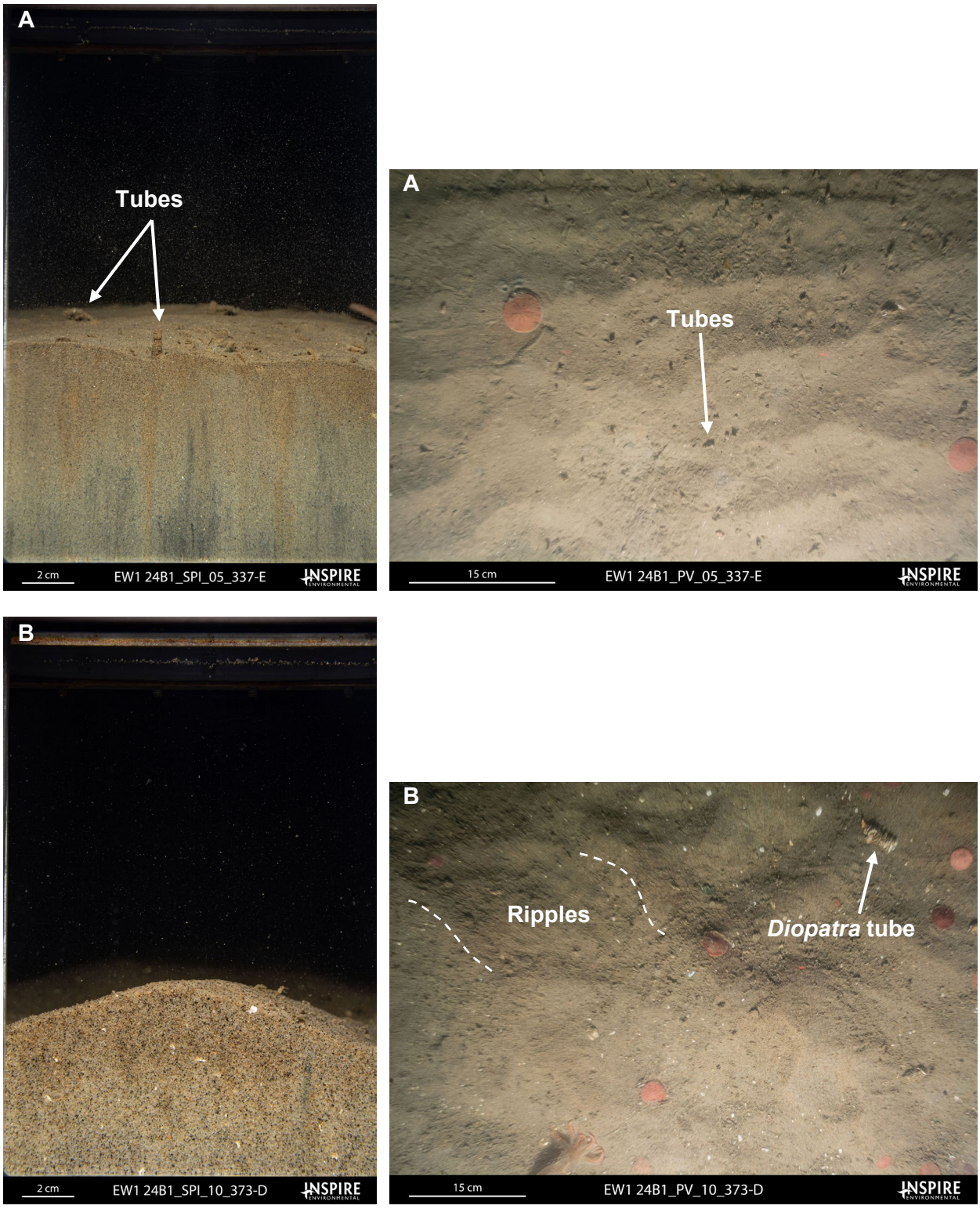


Figure 3-22. Representative profile and plan view images depicting boundary roughness observed along the EW 1 export cable route (A) small boundary roughness likely driven by biological factors; small tubes on the sediment surface and (B) moderate boundary roughness likely from a combination of biological and physical factors; larger *Diopatra* tubes and ripples

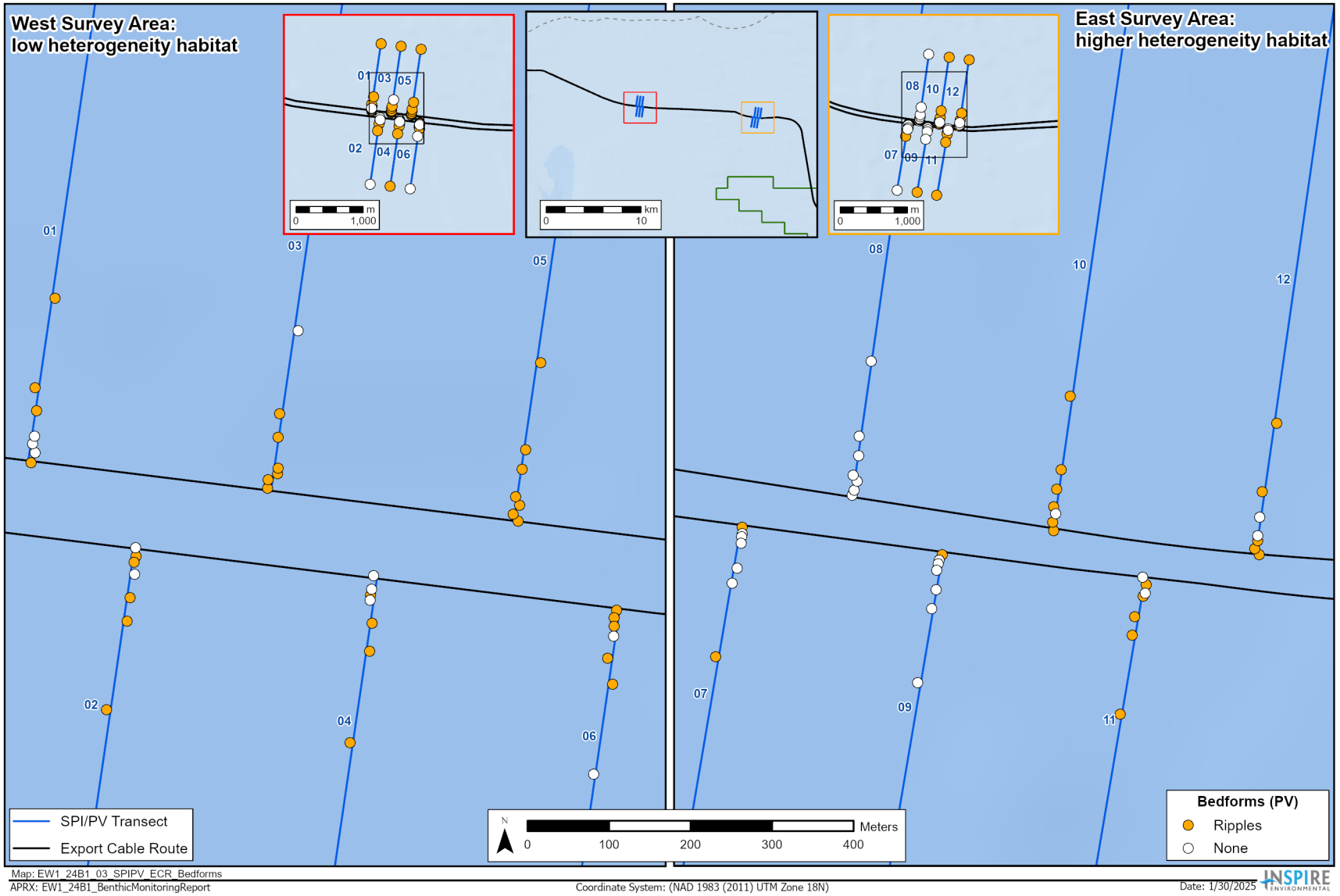


Figure 3-23. Presence of small-scale bedforms (sand ripples) along the EW 1 planned export cable route survey areas

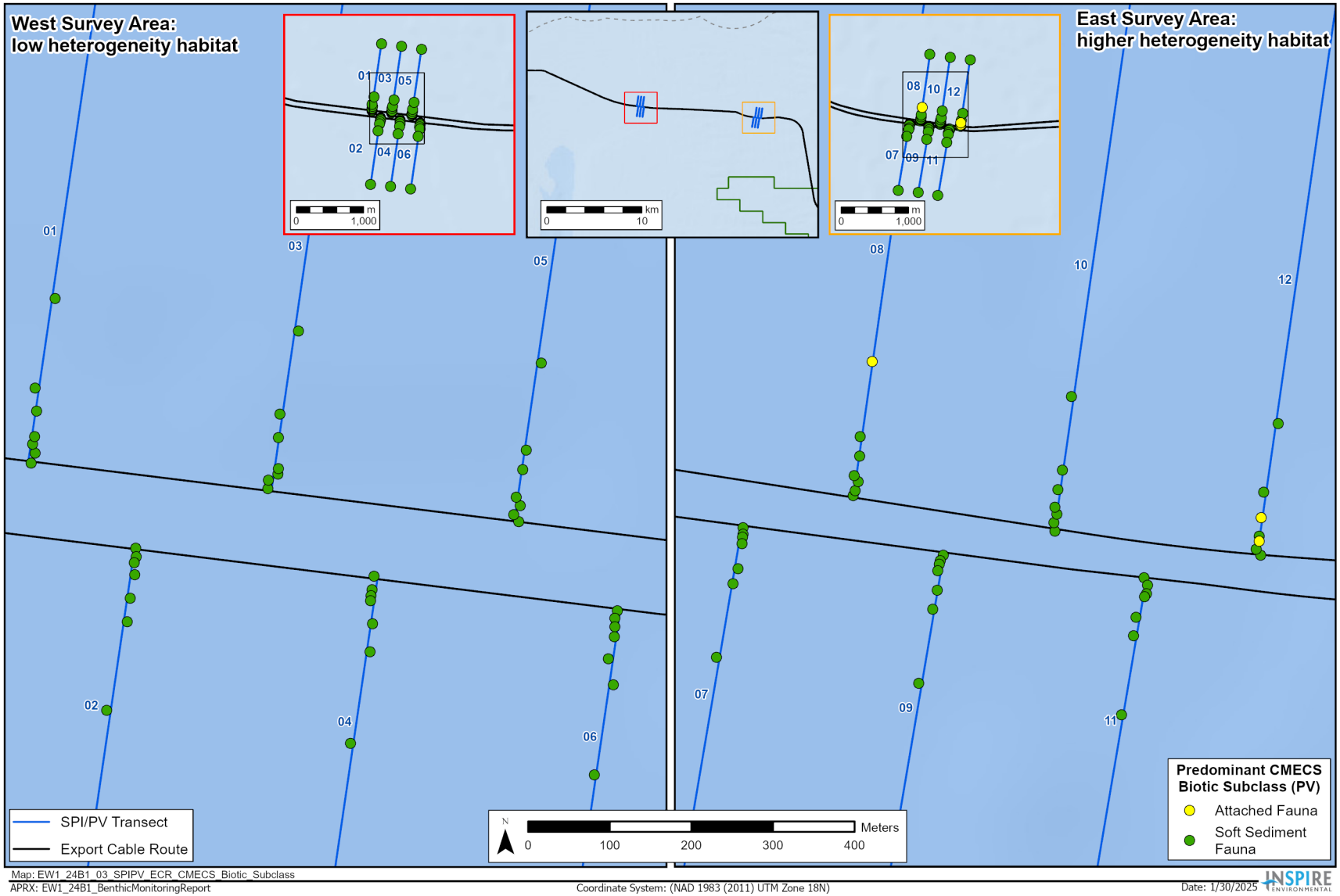


Figure 3-24. CMECS Biotic Subclass documented along the EW 1 planned export cable route survey areas

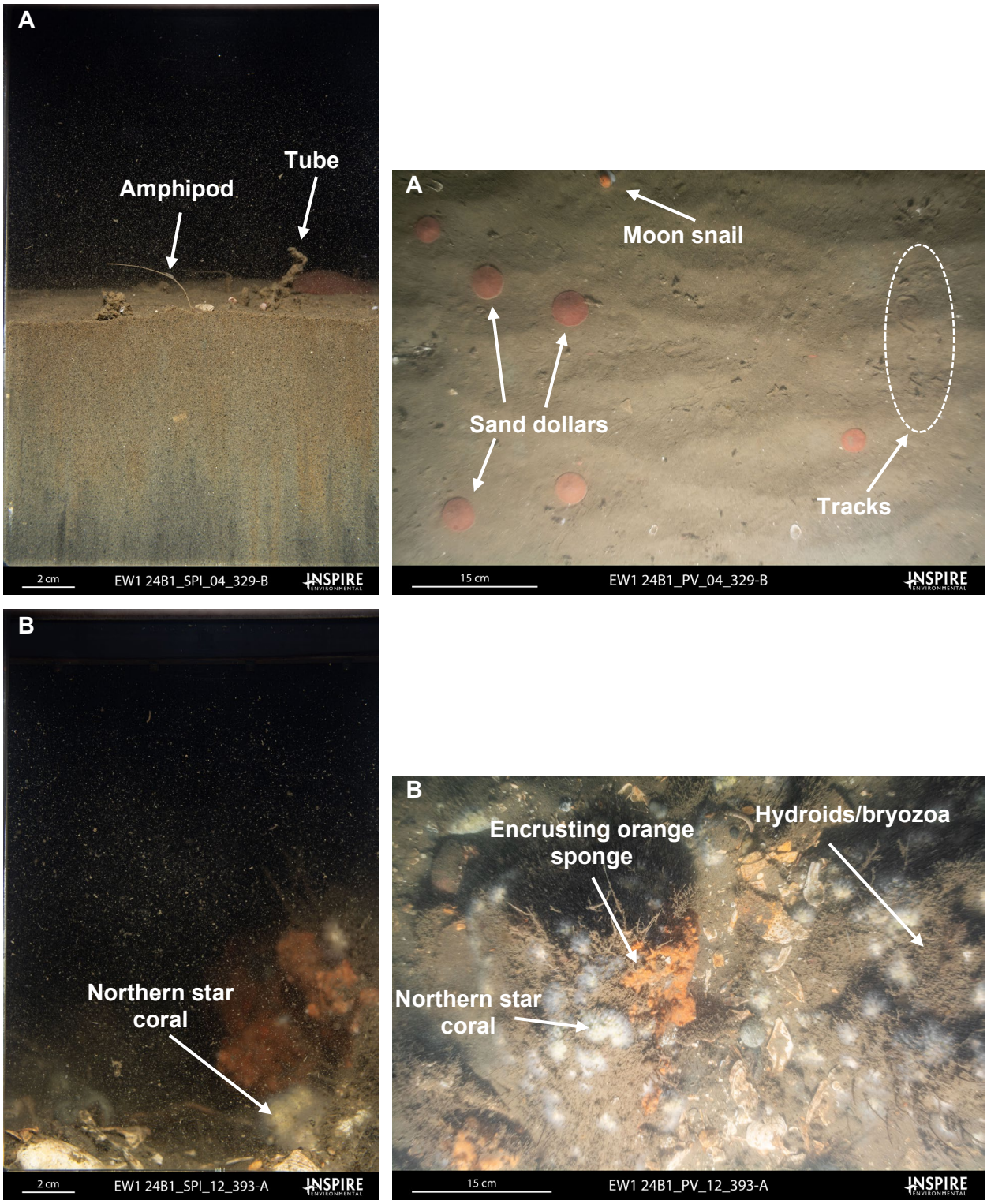


Figure 3-25. Representative profile and plan view images depicting CMECS Biotic Subclass observed along the EW 1 planned export cable route survey areas; (A) Soft Sediment Fauna including Podocerid amphipod and surficial tubes at the sediment–water interface, scattered sand dollars, moon snail and tracks indicating other invertebrates; and (B) Attached Fauna (only found in East survey area) including northern star coral, hydroids/bryozoa, and encrusting orange sponge

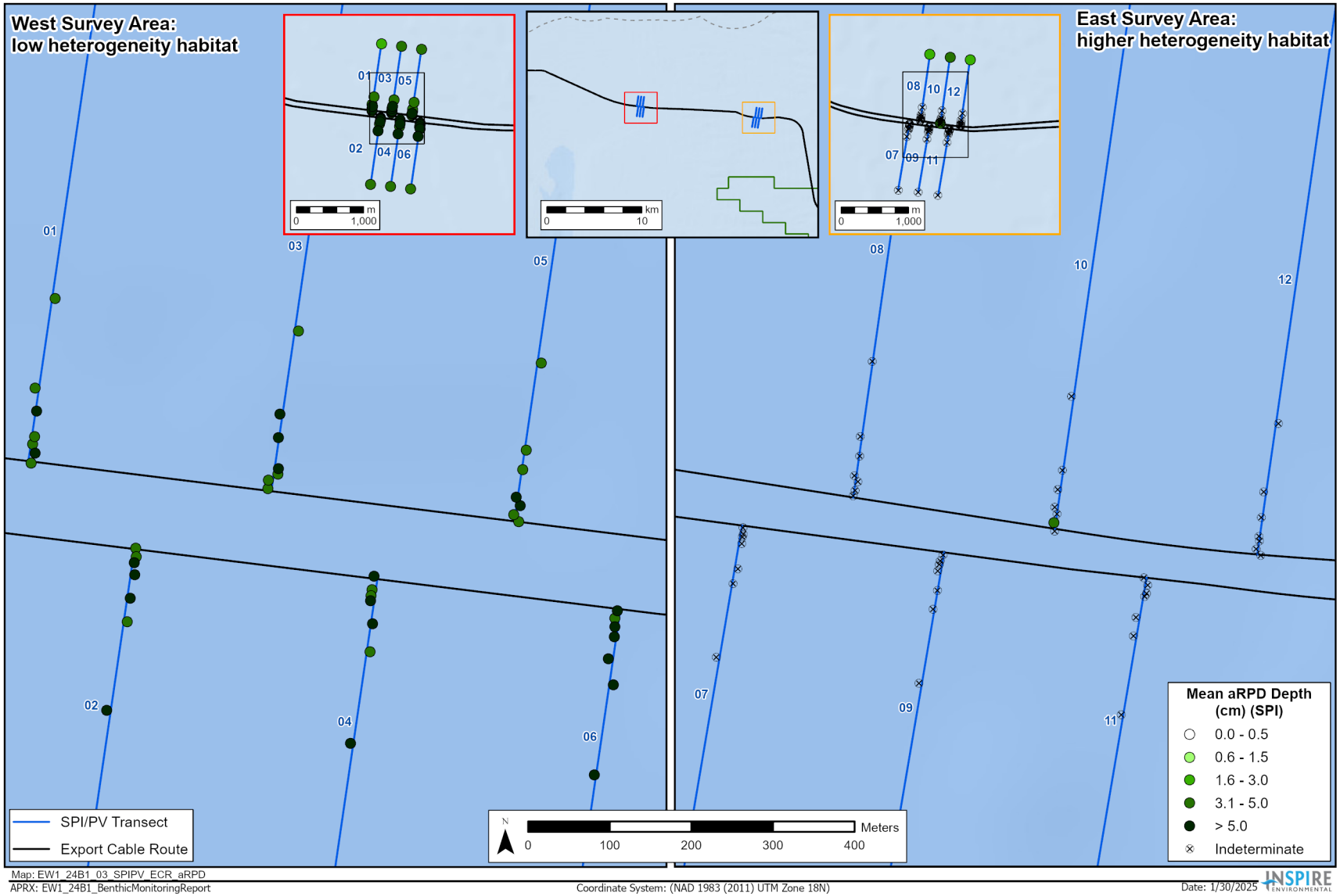


Figure 3-26. Distribution of documented aRPD depths along the EW 1 planned export cable route survey areas

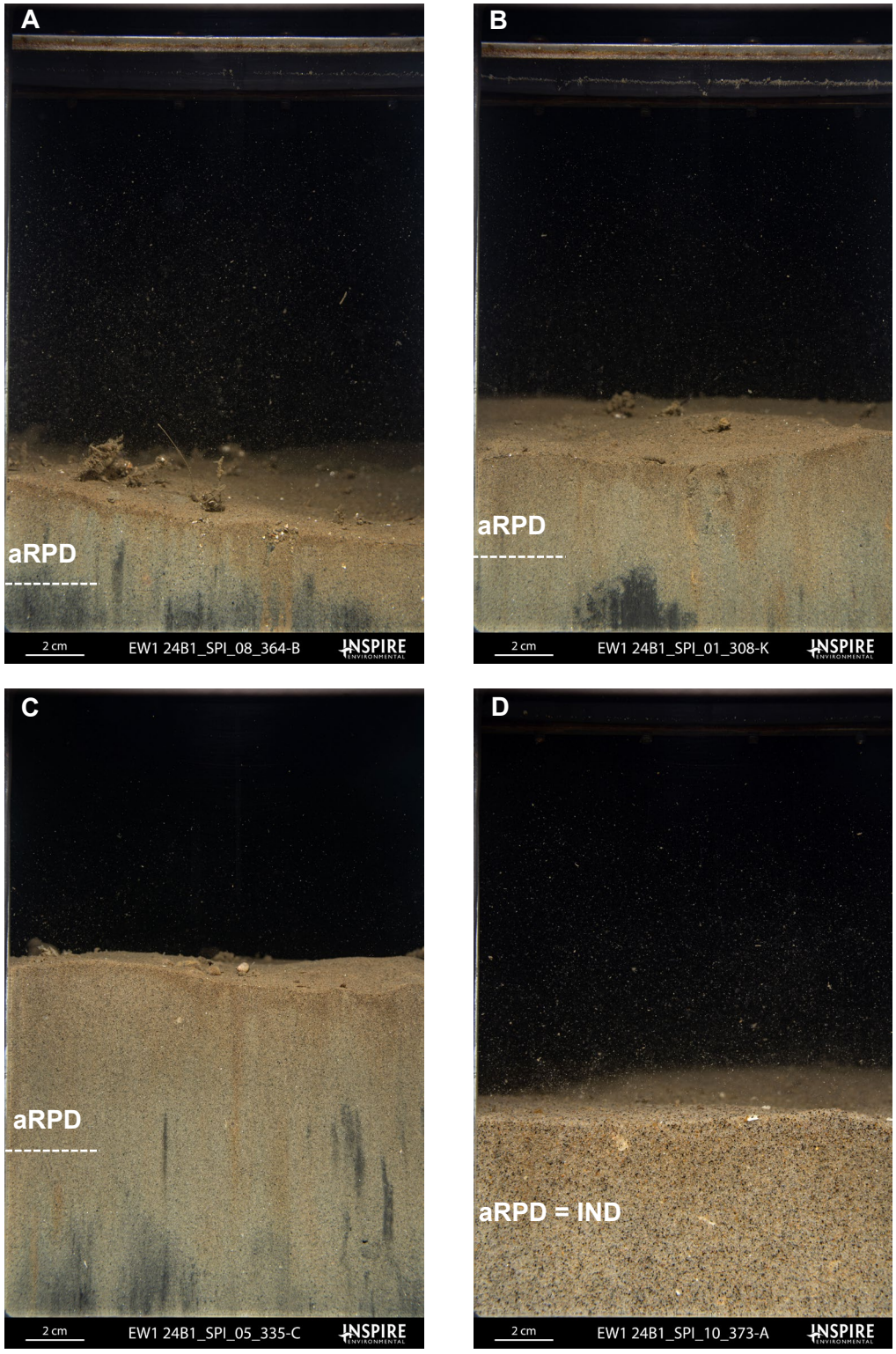


Figure 3-27. Profile imagery depicting the range in aRPD depths documented along the EW 1 planned export cable route including (A) a station with a shallow aRPD depth (1.66 cm); (B) a station with an intermediate aRPD depth (2.83 cm); (C) a station with a relatively deep aRPD depth (6.23 cm); and (D) a station with a sandy sediment column and indeterminate aRPD depth

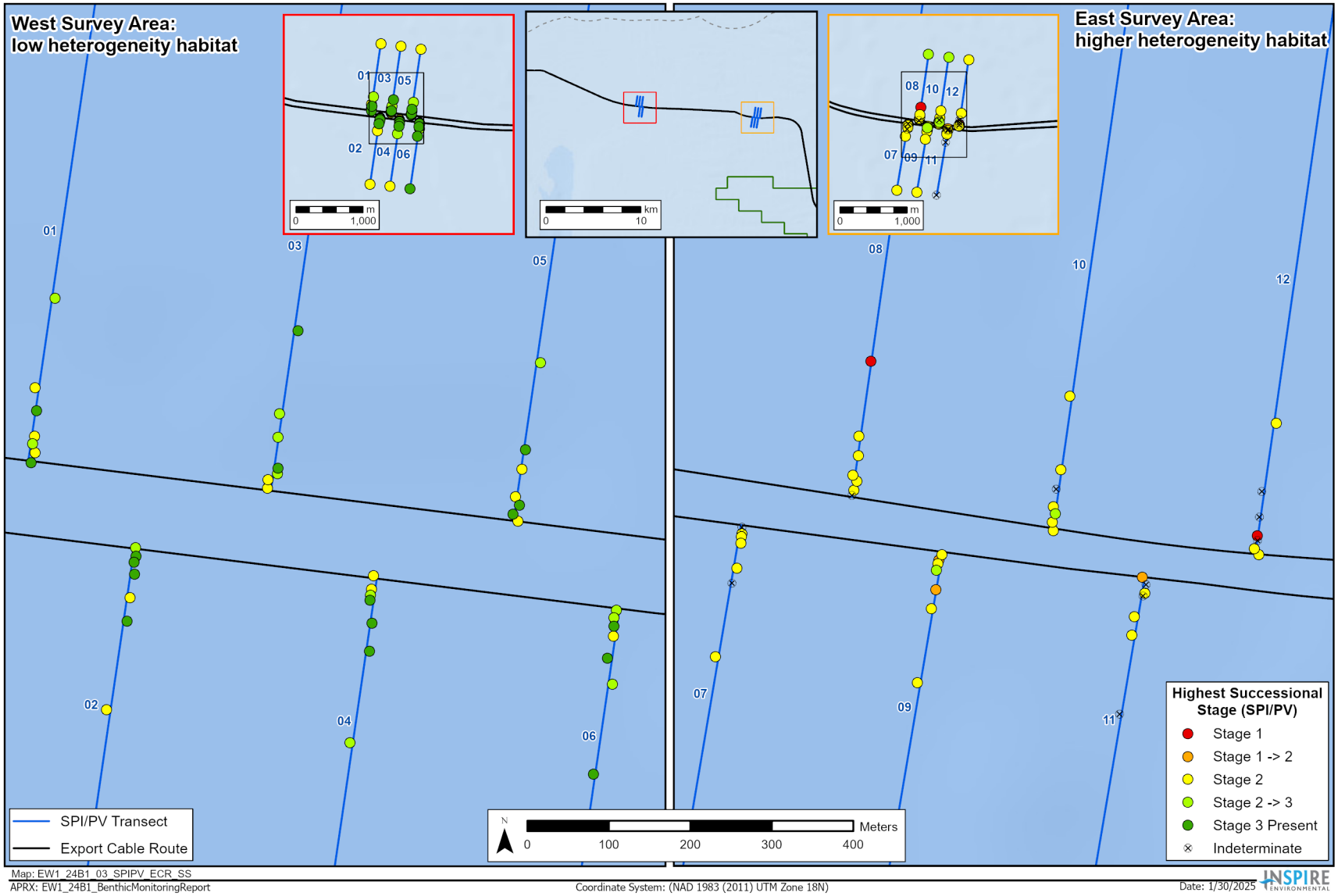


Figure 3-28. Infaunal successional stages along the EW 1 planned export cable route survey areas. Results shown provide an average value for each station.

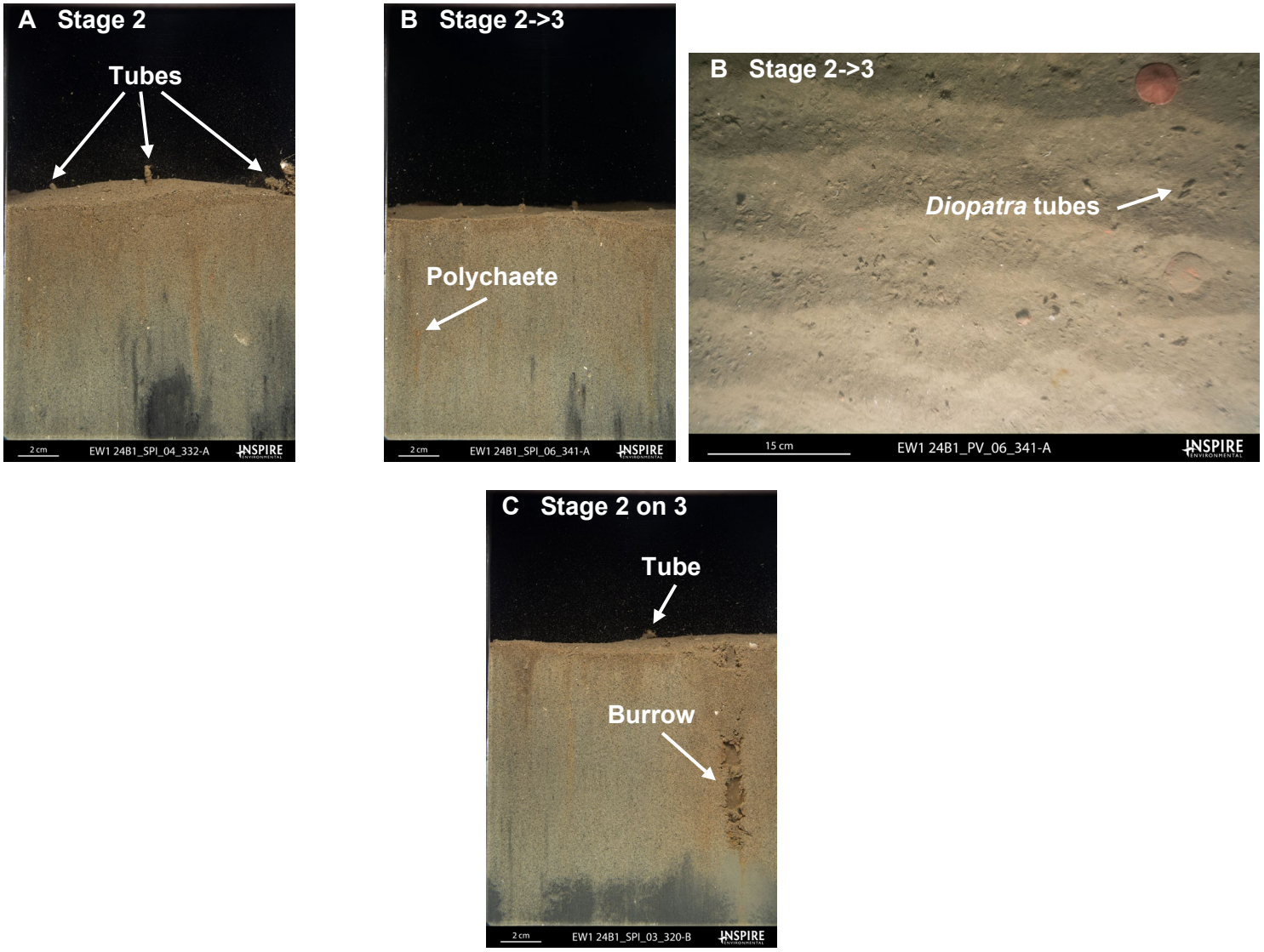


Figure 3-29. Representative profile and plan view images depicting most commonly observed infaunal successional stages along the planned EW1 export cable route including (A) Stage 2 characterized by tubes along the sediment–water interface; (B) Stage 2->3 characterized by burrowing polychaetes in SPI and *Diopatra* tubes in PV image; and (C) Stage 2 on 3 characterized by large burrow and small surficial tubes visible in SPI

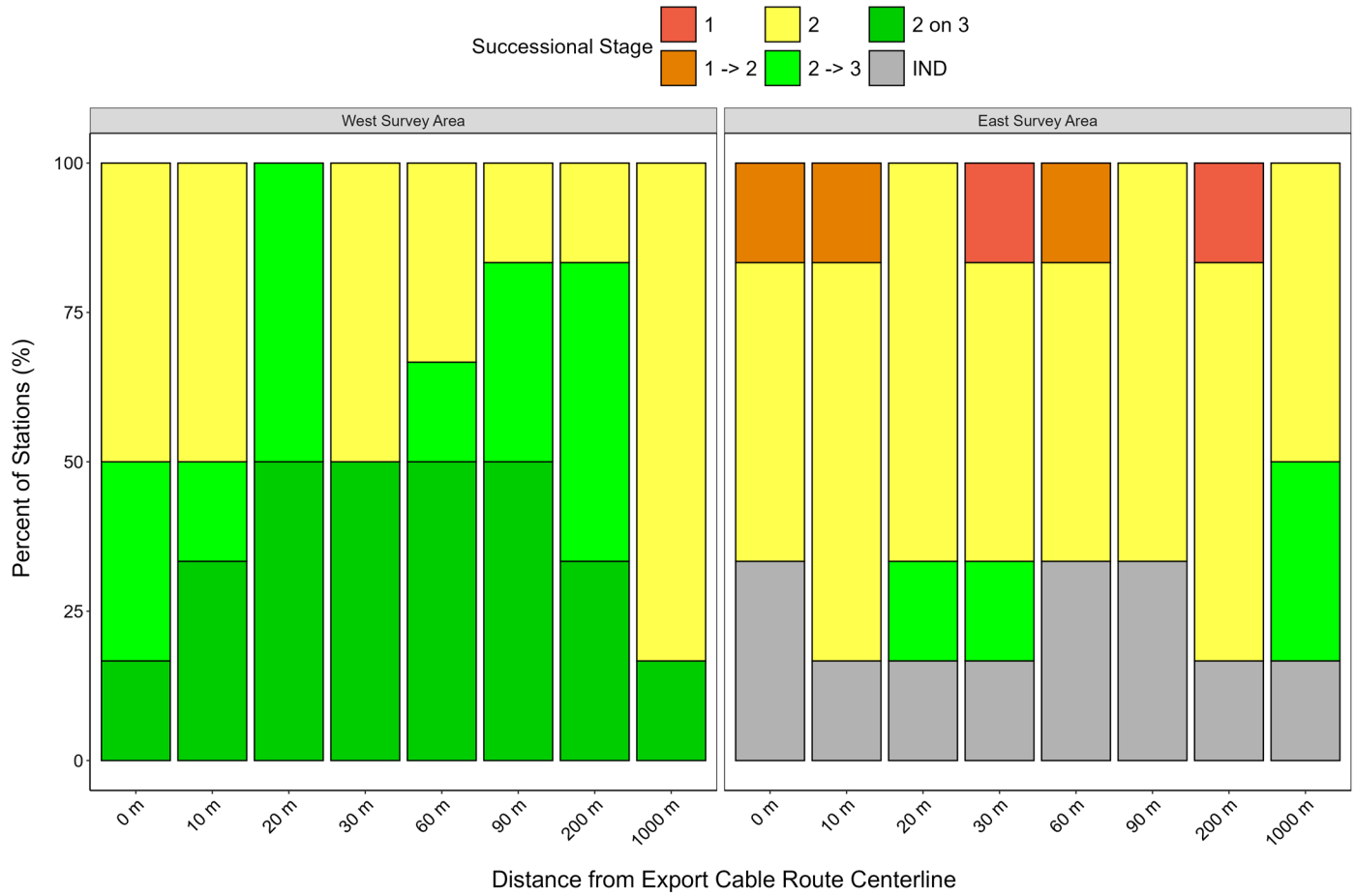


Figure 3-30. Percent of stations with each successional stage organized by increasing distance from EW 1 export cable route centerline in each survey area

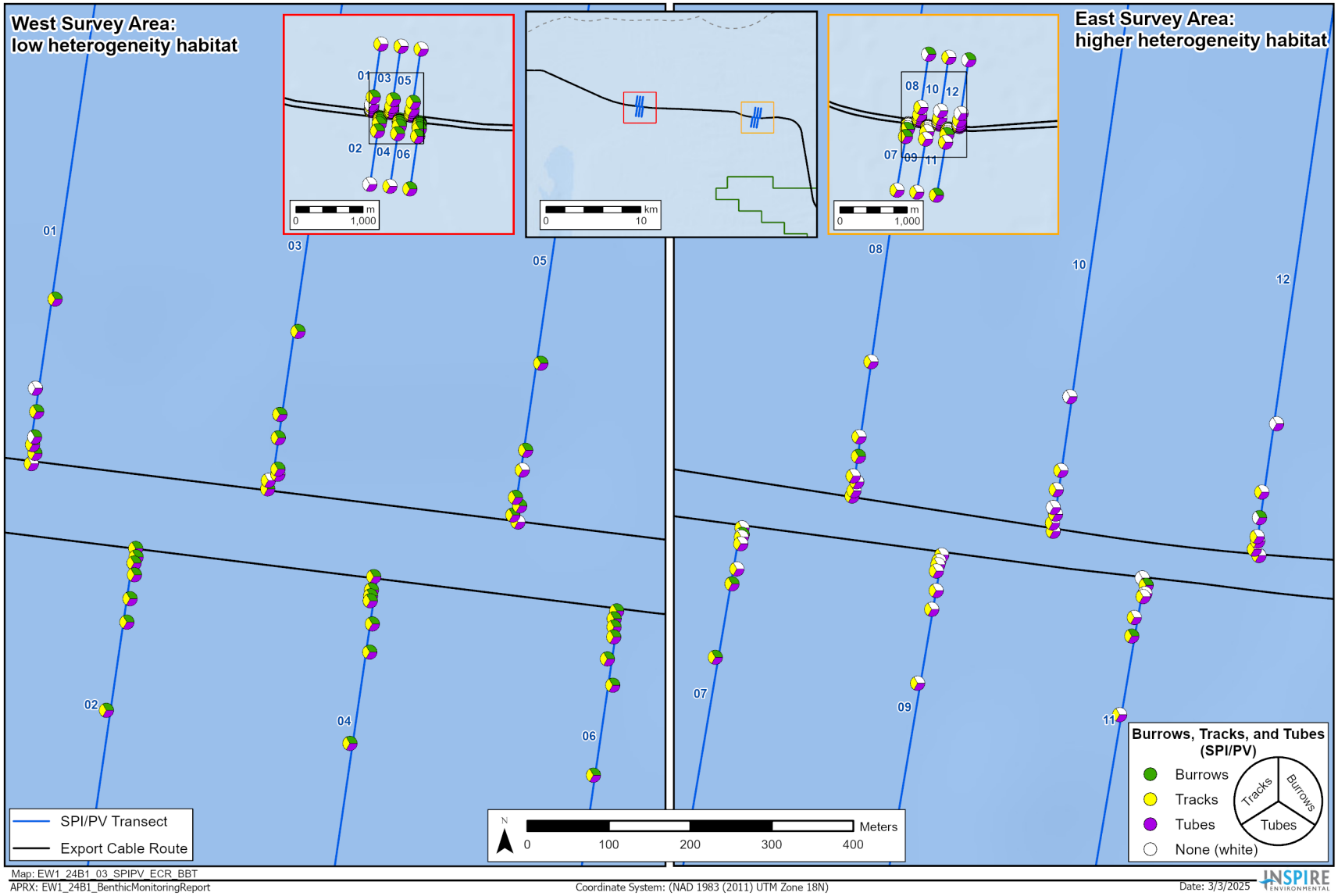


Figure 3-31. Presence of burrows, tracks, and tubes along the EW 1 planned export cable route survey areas. Results shown provide presence or absence of burrows, tracks, and/or tubes at each station.

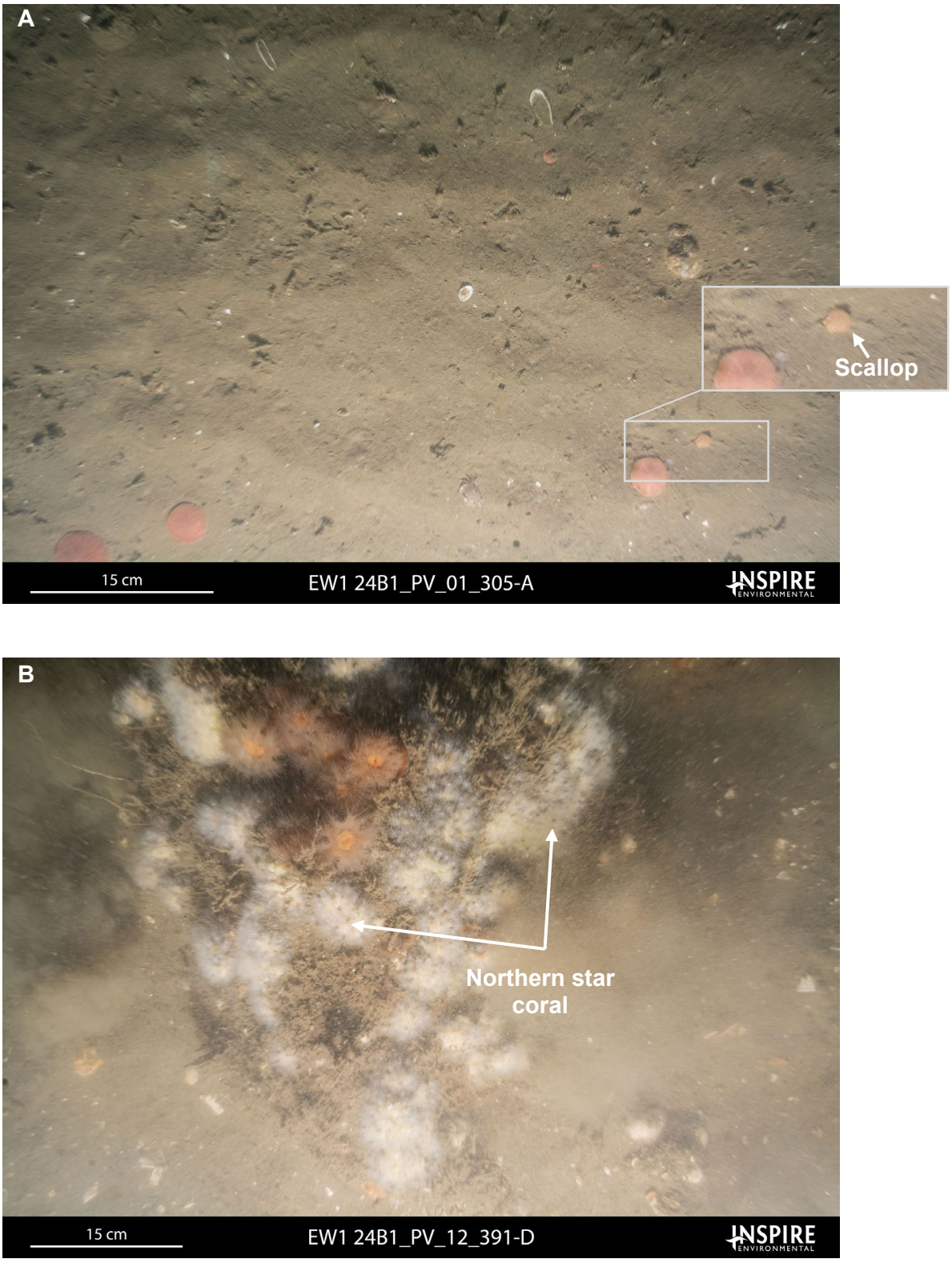


Figure 3-32. Plan view images representing examples of (A) species of concern (Atlantic sea scallop) or (B) sensitive taxa (northern star coral) along the EW 1 planned export cable route survey areas

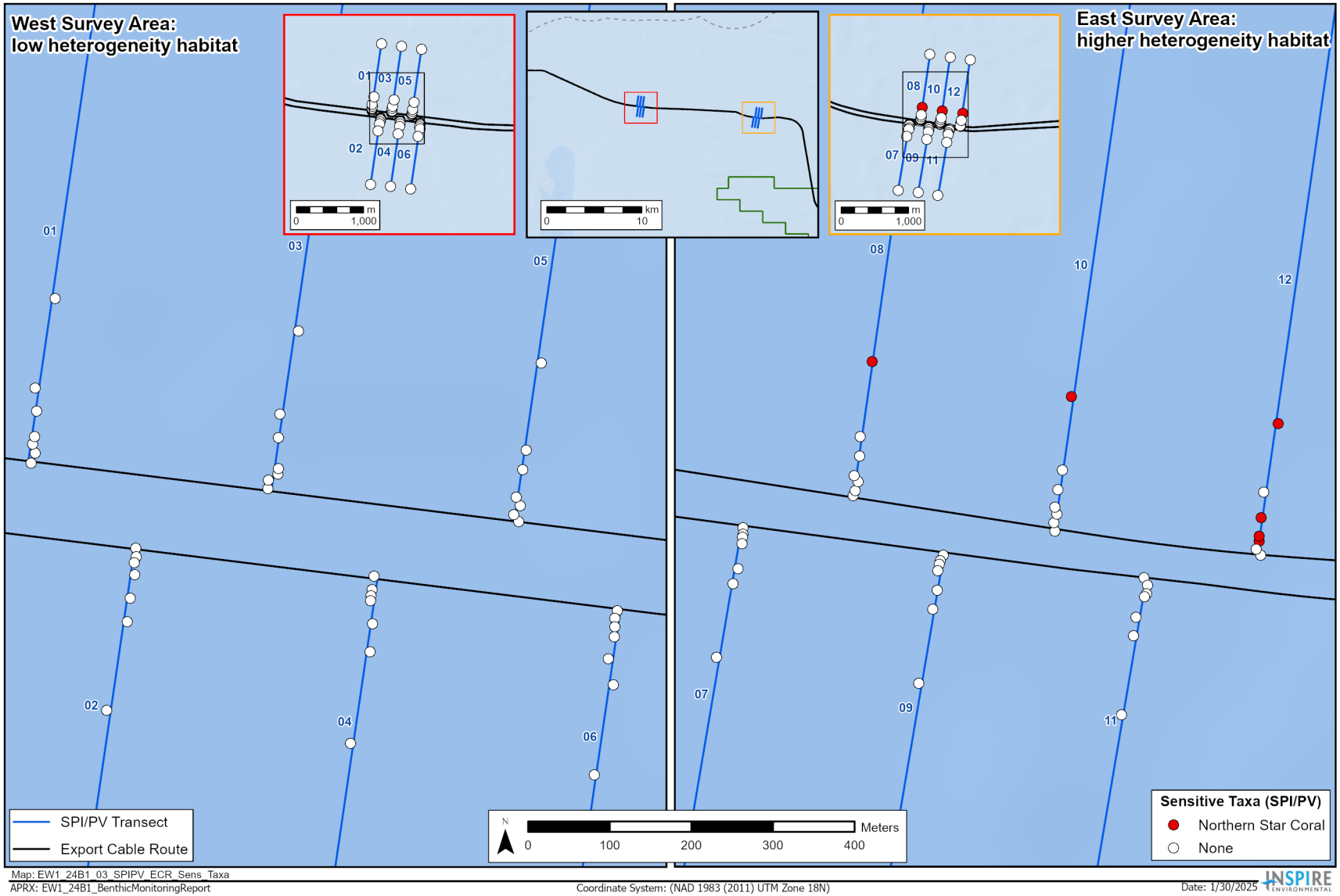


Figure 3-33. Distribution of sensitive taxa observed along the EW 1 planned export cable route survey areas

Empire Wind
2024 Pre-Construction Benthic Monitoring Survey Report – Federal Waters

APPENDICES

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LIST OF APPENDICES

Appendix A – SPI/PV and Sediment Grab Station Locations

Appendix B – Sediment Profile Image Analysis Results

Appendix C – Plan View Image Analysis Results

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Appendix A – SPI/PV and Sediment Grab Station Locations

Area	Foundation/ Transect ID	Distance (m)	Station ID	Replicate	Date	Time	X_UTM18N_m	Y_UTM18N_m	Latitude_NAD83_N	Longitude_NAD83_W	Depth (m)	Field ID
Lease Area	D03	16	D03_100	B	8/12/2024	16:21:01	624548.13	4467351.58	40.3474281	-73.5334690	25.6	100
Lease Area	D03	16	D03_100	C	8/12/2024	16:22:08	624553.07	4467349.01	40.3474042	-73.5334114	25.6	100
Lease Area	D03	16	D03_100	D	8/12/2024	16:23:16	624553.87	4467353.50	40.3474445	-73.5334011	25.6	100
Lease Area	D03	26	D03_101	A	8/12/2024	16:24:32	624539.84	4467359.92	40.3475044	-73.5335650	25.6	101
Lease Area	D03	26	D03_101	C	8/12/2024	16:27:52	624549.13	4467358.68	40.3474919	-73.5334559	25.6	101
Lease Area	D03	26	D03_101	D	8/12/2024	16:29:14	624544.12	4467361.57	40.3475187	-73.5335143	25.6	101
Lease Area	D03	40	D03_102	A	8/12/2024	16:31:00	624539.87	4467371.60	40.3476096	-73.5335624	25.6	102
Lease Area	D03	40	D03_102	B	8/12/2024	16:32:02	624542.99	4467371.82	40.3476111	-73.5335256	25.6	102
Lease Area	D03	40	D03_102	C	8/12/2024	16:33:11	624537.21	4467372.44	40.3476176	-73.5335935	25.6	102
Lease Area	D03	55	D03_103	A	8/12/2024	16:35:47	624529.57	4467386.90	40.3477490	-73.5336806	25.6	103
Lease Area	D03	55	D03_103	B	8/12/2024	16:37:01	624532.07	4467388.32	40.3477614	-73.5336509	25.6	103
Lease Area	D03	55	D03_103	C	8/12/2024	16:38:08	624528.62	4467390.07	40.3477777	-73.5336912	25.6	103
Lease Area	D03	55	D03_103	D	8/12/2024	16:39:17	624530.74	4467393.34	40.3478068	-73.5336656	25.6	103
Lease Area	D03	80	D03_104	A	8/12/2024	16:41:20	624518.24	4467405.28	40.3479162	-73.5338104	25.6	104
Lease Area	D03	80	D03_104	C	8/12/2024	16:43:32	624516.67	4467413.43	40.3479898	-73.5338273	25.6	104
Lease Area	D03	80	D03_104	D	8/12/2024	16:44:37	624520.85	4467412.55	40.3479813	-73.5337783	25.6	104
Lease Area	D03	130	D03_105	A	8/12/2024	16:50:03	624499.13	4467453.61	40.3483543	-73.5340259	25.6	105
Lease Area	D03	130	D03_105	B	8/12/2024	16:51:11	624500.02	4467455.69	40.3483729	-73.5340151	25.6	105
Lease Area	D03	130	D03_105	C	8/12/2024	16:52:22	624491.23	4467452.12	40.3483421	-73.5341192	25.6	105
Lease Area	D03	230	D03_106	A	8/12/2024	16:59:33	624448.03	4467540.99	40.3491489	-73.5346104	25.6	106
Lease Area	D03	230	D03_106	B	8/12/2024	17:00:40	624452.71	4467539.12	40.3491314	-73.5345557	25.6	106
Lease Area	D03	230	D03_106	C	8/12/2024	17:01:55	624445.43	4467541.03	40.3491497	-73.5346410	25.6	106
Lease Area	D03	280	D03_107	A	8/12/2024	17:07:05	624421.42	4467588.45	40.3495803	-73.5349144	25.6	107
Lease Area	D03	280	D03_107	C	8/12/2024	17:10:04	624429.96	4467583.73	40.3495365	-73.5348148	25.6	107
Lease Area	D03	280	D03_107	D	8/12/2024	17:11:09	624423.08	4467584.58	40.3495452	-73.5348956	25.6	107
Lease Area	D03	900	D03_108	A	8/12/2024	17:28:29	624126.74	4468127.48	40.3544789	-73.5382784	26.2	108
Lease Area	D03	900	D03_108	C	8/12/2024	17:30:42	624124.16	4468126.33	40.3544689	-73.5383090	26.2	108
Lease Area	D03	900	D03_108	D	8/12/2024	17:31:54	624130.24	4468124.93	40.3544554	-73.5382377	26.2	108
Lease Area	D03	16	D03_109	B	8/12/2024	15:22:04	624563.21	4467323.95	40.3471770	-73.5332969	25.9	109
Lease Area	D03	16	D03_109	C	8/12/2024	15:23:58	624565.77	4467321.20	40.3471518	-73.5332673	25.9	109
Lease Area	D03	16	D03_109	D	8/12/2024	15:25:37	624566.84	4467327.74	40.3472106	-73.5332535	25.9	109
Lease Area	D03	26	D03_110	A	8/12/2024	15:13:57	624568.06	4467314.41	40.3470904	-73.5332417	25.9	110
Lease Area	D03	26	D03_110	B	8/12/2024	15:15:06	624574.13	4467311.15	40.3470601	-73.5331709	25.9	110
Lease Area	D03	26	D03_110	D	8/12/2024	15:18:36	624573.61	4467316.24	40.3471060	-73.5331760	25.9	110
Lease Area	D03	40	D03_111	A	8/12/2024	15:07:43	624578.09	4467302.54	40.3469819	-73.5331260	25.6	111
Lease Area	D03	40	D03_111	B	8/12/2024	15:08:48	624573.87	4467301.85	40.3469764	-73.5331758	25.6	111
Lease Area	D03	40	D03_111	D	8/12/2024	15:11:40	624578.46	4467304.26	40.3469974	-73.5331213	25.6	111
Lease Area	D03	55	D03_112	A	8/12/2024	15:00:40	624582.91	4467291.02	40.3468775	-73.5330715	25.6	112
Lease Area	D03	55	D03_112	B	8/12/2024	15:01:44	624579.73	4467291.47	40.3468820	-73.5331088	25.6	112
Lease Area	D03	55	D03_112	C	8/12/2024	15:03:39	624582.43	4467288.37	40.3468537	-73.5330776	25.6	112
Lease Area	D03	80	D03_113	A	8/12/2024	14:54:06	624593.57	4467266.02	40.3466507	-73.5329509	25.6	113
Lease Area	D03	80	D03_113	B	8/12/2024	14:55:18	624593.02	4467270.30	40.3466894	-73.5329565	25.6	113
Lease Area	D03	80	D03_113	D	8/12/2024	14:57:37	624595.67	4467272.45	40.3467083	-73.5329249	25.6	113
Lease Area	D03	130	D03_114	A	8/12/2024	14:44:33	624623.18	4467229.60	40.3463183	-73.5326094	25.9	114
Lease Area	D03	130	D03_114	B	8/12/2024	14:46:04	624622.40	4467227.65	40.3463009	-73.5326190	25.9	114
Lease Area	D03	130	D03_114	C	8/12/2024	14:47:19	624619.21	4467229.43	40.3463174	-73.5326562	25.9	114
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Lease Area	D03	230	D03_115	B	8/12/2024	14:35:05	624664.30	4467138.78	40.3454942	-73.5321431	25.6	115
Lease Area	D03	230	D03_115	C	8/12/2024	14:36:19	624667.55	4467134.60	40.3454561	-73.5321057	25.6	115
Lease Area	D03	280	D03_116	A	8/12/2024	14:24:54	624693.75	4467092.98	40.3450773	-73.5318054	25.6	116
Lease Area	D03	280	D03_116	B	8/12/2024	14:26:05	624697.08	4467090.28	40.3450525	-73.5317668	25.6	116
Lease Area	D03	280	D03_116	D	8/12/2024	14:28:27	624691.15	4467092.15	40.3450702	-73.5318362	25.6	116
Lease Area	D03	900	D03_117	A	8/12/2024	14:08:54	624989.30	4466544.82	40.3400962	-73.5284339	27.4	117
Lease Area	D03	900	D03_117	B	8/12/2024	14:10:01	624991.87	4466550.08	40.3401432	-73.5284026	27.4	117
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Lease Area	D03	900	D03_117	F	8/12/2024	17:55:21	624988.46	4466552.43	40.3401649	-73.5284423	27.1	117
Lease Area	C09	40	C09_118	A	8/12/2024	11:28:47	631884.96	4466731.93	40.3407201	-73.4472365	31.1	118
Lease Area	C09	40	C09_118	B	8/12/2024	11:29:51	631885.03	4466727.60	40.3406811	-73.4472365	31.1	118
Lease Area	C09	40	C09_118	C	8/12/2024	11:31:02	631892.37	4466728.04	40.3406839	-73.4471501	31.1	118
Lease Area	C09	50	C09_119	A	8/12/2024	11:34:04	631896.23	4466737.31	40.3407668	-73.4471027	30.8	119
Lease Area	C09	50	C09_119	B	8/12/2024	11:35:41	631886.94	4466740.22	40.3407944	-73.4472114	30.8	119
Lease Area	C09	50	C09_119	D	8/12/2024	11:38:37	631898.05	4466741.13	40.3408009	-73.4470805	30.8	119
Lease Area	C09	65	C09_120	B	8/12/2024	11:41:53	631890.00	4466753.58	40.3409143	-73.4471727	31.1	120
Lease Area	C09	65	C09_120	C	8/12/2024	11:43:38	631892.30	4466759.16	40.3409642	-73.4471445	31.1	120
Lease Area	C09	65	C09_120	D	8/12/2024	11:44:59	631898.54	4466758.95	40.3409613	-73.4470711	31.1	120
Lease Area	C09	80	C09_121	A	8/12/2024	11:46:49	631899.57	4466765.70	40.3410219	-73.4470575	31.1	121

Area	Foundation/ Transect ID	Distance (m)	Station ID	Replicate	Date	Time	X_UTM18N_m	Y_UTM18N_m	Latitude_NAD83_N	Longitude_NAD83_W	Depth (m)	Field ID
Lease Area	C09	80	C09_121	B	8/12/2024	11:48:33	631893.67	4466768.33	40.3410465	-73.4471264	31.1	121
Lease Area	C09	80	C09_121	C	8/12/2024	11:50:20	631895.43	4466773.78	40.3410953	-73.4471046	31.1	121
Lease Area	C09	105	C09_122	A	8/12/2024	11:54:37	631903.13	4466788.94	40.3412307	-73.4470108	31.1	122
Lease Area	C09	105	C09_122	B	8/12/2024	11:56:01	631909.19	4466793.94	40.3412747	-73.4469385	31.1	122
Lease Area	C09	105	C09_122	D	8/12/2024	11:59:07	631898.36	4466795.62	40.3412916	-73.4470656	31.1	122
Lease Area	C09	155	C09_123	A	8/12/2024	12:08:43	631910.15	4466846.25	40.3417457	-73.4469164	31.1	123
Lease Area	C09	155	C09_123	B	8/12/2024	12:09:49	631910.07	4466840.05	40.3416899	-73.4469186	31.1	123
Lease Area	C09	155	C09_123	C	8/12/2024	12:11:02	631916.46	4466838.96	40.3416790	-73.4468436	31.1	123
Lease Area	C09	255	C09_124	A	8/12/2024	12:17:23	631932.33	4466937.63	40.3425651	-73.4466364	31.1	124
Lease Area	C09	255	C09_124	B	8/12/2024	12:18:40	631937.57	4466937.75	40.3425654	-73.4465747	31.1	124
Lease Area	C09	255	C09_124	C	8/12/2024	12:19:53	631936.91	4466944.86	40.3426295	-73.4465810	31.1	124
Lease Area	C09	305	C09_125	A	8/12/2024	12:24:16	631940.66	4466990.57	40.3430406	-73.4465275	32.0	125
Lease Area	C09	305	C09_125	B	8/12/2024	12:25:35	631946.65	4466994.85	40.3430782	-73.4464561	32.0	125
Lease Area	C09	305	C09_125	C	8/12/2024	12:27:00	631948.40	4466989.11	40.3430262	-73.4464367	32.0	125
Lease Area	C09	900	C09_126	A	8/12/2024	12:40:53	632060.95	4467568.57	40.3482270	-73.4449921	32.0	126
Lease Area	C09	900	C09_126	B	8/12/2024	12:42:19	632069.56	4467569.50	40.3482340	-73.4448906	32.0	126
Lease Area	C09	900	C09_126	C	8/12/2024	12:44:13	632065.56	4467574.20	40.3482770	-73.4449367	32.0	126
Lease Area	C09	40	C09_127	A	8/12/2024	10:33:34	631880.51	4466653.52	40.3400146	-73.4473050	31.1	127
Lease Area	C09	40	C09_127	B	8/12/2024	10:34:55	631880.28	4466648.59	40.3399703	-73.4473088	31.1	127
Lease Area	C09	40	C09_127	D	8/12/2024	10:37:53	631873.22	4466657.84	40.3400547	-73.4473899	31.1	127
Lease Area	C09	50	C09_128	A	8/12/2024	10:26:32	631868.73	4466641.09	40.3399046	-73.4474462	31.1	128
Lease Area	C09	50	C09_128	B	8/12/2024	10:27:56	631872.87	4466636.25	40.3398603	-73.4473985	31.1	128
Lease Area	C09	50	C09_128	C	8/12/2024	10:29:29	631878.57	4466642.49	40.3399156	-73.4473301	31.1	128
Lease Area	C09	65	C09_129	B	8/12/2024	10:21:48	631875.14	4466626.73	40.3397742	-73.4473738	31.1	129
Lease Area	C09	65	C09_129	C	8/12/2024	10:23:18	631870.48	4466633.58	40.3398366	-73.4474272	31.1	129
Lease Area	C09	65	C09_129	D	8/12/2024	10:24:34	631863.29	4466629.66	40.3398025	-73.4475126	31.1	129
Lease Area	C09	80	C09_130	A	8/12/2024	10:12:38	631863.13	4466615.09	40.3396713	-73.4475175	31.1	130
Lease Area	C09	80	C09_130	B	8/12/2024	10:14:00	631863.26	4466607.49	40.3396028	-73.4475176	31.1	130
Lease Area	C09	80	C09_130	C	8/12/2024	10:15:31	631871.45	4466610.82	40.3396315	-73.4474205	31.1	130
Lease Area	C09	105	C09_131	A	8/12/2024	10:02:55	631858.55	4466584.12	40.3393931	-73.4475778	30.8	131
Lease Area	C09	105	C09_131	B	8/12/2024	10:04:42	631865.78	4466585.49	40.3394043	-73.4474924	30.8	131
Lease Area	C09	105	C09_131	C	8/12/2024	10:06:05	631864.49	4466594.57	40.3394863	-73.4475058	30.8	131
Lease Area	C09	155	C09_132	A	8/12/2024	9:49:18	631846.67	4466541.57	40.3390118	-73.4477264	31.4	132
Lease Area	C09	155	C09_132	B	8/12/2024	9:51:16	631849.99	4466535.92	40.3389604	-73.4476885	31.4	132
Lease Area	C09	155	C09_132	C	8/12/2024	9:52:43	631850.95	4466539.94	40.3389964	-73.4476764	31.4	132
Lease Area	C09	255	C09_133	A	8/12/2024	9:37:47	631836.38	4466445.57	40.3381488	-73.4478673	31.4	133
Lease Area	C09	255	C09_133	B	8/12/2024	9:39:29	631833.93	4466436.51	40.3380676	-73.4478980	31.4	133
Lease Area	C09	255	C09_133	C	8/12/2024	9:41:06	631826.41	4466437.66	40.3380792	-73.4479863	31.4	133
Lease Area	C09	305	C09_134	A	8/12/2024	9:23:12	631824.16	4466388.14	40.3376335	-73.4480230	31.4	134
Lease Area	C09	305	C09_134	B	8/12/2024	9:24:56	631825.99	4466394.77	40.3376930	-73.4480001	31.4	134
Lease Area	C09	305	C09_134	C	8/12/2024	9:26:18	631820.21	4466397.66	40.3377199	-73.4480675	31.4	134
Lease Area	C09	900	C09_135	A	8/12/2024	8:31:29	631702.19	4465804.36	40.3323953	-73.4495788	31.7	135
Lease Area	C09	900	C09_135	C	8/12/2024	8:34:39	631705.11	4465813.40	40.3324762	-73.4495426	31.7	135
Lease Area	C09	900	C09_135	I	8/12/2024	9:13:06	631696.88	4465808.00	40.3324289	-73.4496406	31.7	135
Lease Area	D14	16	D14_136	A	8/12/2024	5:51:05	637971.83	4463988.83	40.3150326	-73.3761909	33.2	136
Lease Area	D14	16	D14_136	C	8/12/2024	5:54:09	637971.34	4463990.52	40.3150479	-73.3761963	33.2	136
Lease Area	D14	16	D14_136	D	8/12/2024	5:55:10	637974.00	4463989.88	40.3150417	-73.3761652	33.2	136
Lease Area	D14	26	D14_137	A	8/12/2024	6:00:18	637966.87	4463983.77	40.3149878	-73.3762504	32.6	137
Lease Area	D14	26	D14_137	B	8/12/2024	6:02:14	637964.11	4463988.99	40.3150353	-73.3762817	32.6	137
Lease Area	D14	26	D14_137	D	8/12/2024	6:05:40	637961.85	4463982.27	40.3149751	-73.3763097	32.6	137
Lease Area	D14	40	D14_138	A	8/12/2024	6:11:32	637952.91	4463978.16	40.3149396	-73.3764158	32.6	138
Lease Area	D14	40	D14_138	B	8/12/2024	6:14:48	637960.53	4463976.47	40.3149231	-73.3763265	32.6	138
Lease Area	D14	40	D14_138	C	8/12/2024	6:16:35	637957.19	4463968.72	40.3148539	-73.3763675	32.6	138
Lease Area	D14	55	D14_139	A	8/12/2024	6:23:13	637948.49	4463968.57	40.3148540	-73.3764699	32.6	139
Lease Area	D14	55	D14_139	B	8/12/2024	6:24:47	637942.11	4463970.40	40.3148715	-73.3765445	32.9	139
Lease Area	D14	55	D14_139	C	8/12/2024	6:26:19	637946.89	4463962.34	40.3147981	-73.3764900	32.9	139
Lease Area	D14	80	D14_140	A	8/12/2024	6:31:16	637927.76	4463951.74	40.3147058	-73.3767174	32.9	140
Lease Area	D14	80	D14_140	B	8/12/2024	6:33:01	637921.46	4463951.32	40.3147031	-73.3767916	32.9	140
Lease Area	D14	80	D14_140	C	8/12/2024	6:34:16	637924.98	4463944.29	40.3146392	-73.3767517	32.9	140
Lease Area	D14	130	D14_141	A	8/12/2024	6:39:37	637889.30	4463922.29	40.3144469	-73.3771762	32.9	141
Lease Area	D14	130	D14_141	C	8/12/2024	6:43:21	637881.47	4463917.63	40.3144063	-73.3772693	32.9	141
Lease Area	D14	130	D14_141	D	8/12/2024	6:45:13	637886.48	4463911.89	40.3143538	-73.3772116	32.9	141
Lease Area	D14	230	D14_142	A	8/12/2024	6:49:07	637809.13	4463857.05	40.3138726	-73.3781334	32.3	142
Lease Area	D14	230	D14_142	B	8/12/2024	6:50:46	637814.29	4463854.32	40.3138472	-73.3780733	32.3	142
Lease Area	D14	230	D14_142	C	8/12/2024	6:52:26	637812.20	4463849.60	40.3138050	-73.3780989	32.3	142
Lease Area	D14	280	D14_143	A	8/12/2024	6:58:44	637769.94	4463826.93	40.3136079	-73.3786010	32.3	143

Area	Foundation/ Transect ID	Distance (m)	Station ID	Replicate	Date	Time	X_UTM18N_m	Y_UTM18N_m	Latitude_NAD83_N	Longitude_NAD83_W	Depth (m)	Field ID
Lease Area	D14	280	D14_143	B	8/12/2024	7:00:11	637776.51	4463823.09	40.3135722	-73.3785245	32.3	143
Lease Area	D14	280	D14_143	C	8/12/2024	7:01:52	637770.23	4463817.01	40.3135185	-73.3785997	32.3	143
Lease Area	D14	900	D14_144	A	8/12/2024	7:13:26	637299.65	4463425.52	40.3100703	-73.3842199	32.6	144
Lease Area	D14	900	D14_144	B	8/12/2024	7:15:30	637292.79	4463432.39	40.3101333	-73.3842991	32.6	144
Lease Area	D14	900	D14_144	C	8/12/2024	7:17:55	637289.73	4463423.50	40.3100537	-73.3843370	32.6	144
Lease Area	D14	16	D14_145	A	8/12/2024	5:15:44	638001.21	4464006.53	40.3151871	-73.3758415	33.2	145
Lease Area	D14	16	D14_145	B	8/12/2024	5:17:04	637997.61	4464008.89	40.3152090	-73.3758833	33.2	145
Lease Area	D14	16	D14_145	C	8/12/2024	5:18:39	637996.57	4464007.38	40.3151955	-73.3758959	33.2	145
Lease Area	D14	26	D14_146	A	8/12/2024	5:09:35	638003.89	4464016.35	40.3152751	-73.3758078	33.2	146
Lease Area	D14	26	D14_146	B	8/12/2024	5:10:57	638005.78	4464017.36	40.3152839	-73.3757854	33.2	146
Lease Area	D14	26	D14_146	C	8/12/2024	5:12:27	638010.91	4464017.22	40.3152818	-73.3757250	33.2	146
Lease Area	D14	40	D14_147	A	8/12/2024	5:02:00	638016.36	4464027.38	40.3153724	-73.3756587	33.8	147
Lease Area	D14	40	D14_147	B	8/12/2024	5:03:27	638016.25	4464029.59	40.3153923	-73.3756595	33.8	147
Lease Area	D14	40	D14_147	C	8/12/2024	5:04:55	638016.74	4464028.21	40.3153798	-73.3756541	33.8	147
Lease Area	D14	55	D14_148	A	8/12/2024	4:56:18	638026.06	4464035.78	40.3154464	-73.3755428	33.8	148
Lease Area	D14	55	D14_148	B	8/12/2024	4:57:44	638027.42	4464036.89	40.3154562	-73.3755265	33.8	148
Lease Area	D14	55	D14_148	C	8/12/2024	4:59:04	638030.28	4464037.14	40.3154580	-73.3754928	33.8	148
Lease Area	D14	80	D14_149	A	8/12/2024	4:42:34	638049.90	4464047.32	40.3155464	-73.3752598	33.2	149
Lease Area	D14	80	D14_149	B	8/12/2024	4:43:53	638048.44	4464046.37	40.3155381	-73.3752772	33.2	149
Lease Area	D14	80	D14_149	C	8/12/2024	4:45:10	638051.50	4464048.96	40.3155609	-73.3752406	33.2	149
Lease Area	D14	130	D14_150	A	8/12/2024	4:28:25	638084.81	4464081.19	40.3158457	-73.3748418	33.5	150
Lease Area	D14	130	D14_150	B	8/12/2024	4:30:00	638087.57	4464082.32	40.3158554	-73.3748091	33.5	150
Lease Area	D14	130	D14_150	C	8/12/2024	4:31:22	638089.52	4464082.02	40.3158524	-73.3747862	33.5	150
Lease Area	D14	230	D14_151	B	8/12/2024	4:11:15	638159.14	4464141.35	40.3163751	-73.3739543	34.7	151
Lease Area	D14	230	D14_151	C	8/12/2024	4:15:08	638160.40	4464149.37	40.3164472	-73.3739378	34.7	151
Lease Area	D14	230	D14_151	D	8/12/2024	4:16:32	638165.01	4464148.17	40.3164356	-73.3738838	34.7	151
Lease Area	D14	280	D14_152	A	8/12/2024	3:56:34	638206.10	4464179.85	40.3167141	-73.3733935	34.7	152
Lease Area	D14	280	D14_152	B	8/12/2024	3:57:42	638202.38	4464179.19	40.3167088	-73.3734374	34.7	152
Lease Area	D14	280	D14_152	C	8/12/2024	3:59:03	638203.50	4464182.27	40.3167363	-73.3734236	34.7	152
Lease Area	D14	900	D14_153	A	8/12/2024	3:37:18	638676.86	4464570.67	40.3201557	-73.3677703	34.4	153
Lease Area	D14	900	D14_153	B	8/12/2024	3:38:37	638676.50	4464573.10	40.3201776	-73.3677740	34.4	153
Lease Area	D14	900	D14_153	C	8/12/2024	3:40:04	638679.78	4464573.67	40.3201822	-73.3677353	34.4	153
Lease Area	B17	16	B17_154	A	8/12/2024	0:26:29	641645.59	4465628.28	40.3291817	-73.3326078	35.7	154
Lease Area	B17	16	B17_154	B	8/12/2024	0:27:53	641641.25	4465629.94	40.3291974	-73.3326585	35.7	154
Lease Area	B17	16	B17_154	D	8/12/2024	0:30:37	641638.16	4465626.58	40.3291677	-73.3326956	35.7	154
Lease Area	B17	26	B17_155	B	8/12/2024	0:33:59	641637.08	4465624.03	40.3291449	-73.3327088	35.7	155
Lease Area	B17	26	B17_155	C	8/12/2024	0:35:10	641636.06	4465621.53	40.3291225	-73.3327214	35.7	155
Lease Area	B17	26	B17_155	D	8/12/2024	0:36:31	641634.79	4465618.55	40.3290959	-73.3327370	35.7	155
Lease Area	B17	40	B17_156	A	8/12/2024	0:41:10	641632.98	4465610.72	40.3290257	-73.3327600	35.7	156
Lease Area	B17	40	B17_156	B	8/12/2024	0:42:36	641632.10	4465607.09	40.3289932	-73.3327712	35.7	156
Lease Area	B17	40	B17_156	C	8/12/2024	0:43:55	641630.70	4465607.80	40.3289998	-73.3327875	35.7	156
Lease Area	B17	55	B17_157	A	8/12/2024	0:48:43	641630.69	4465595.42	40.3288883	-73.3327904	35.7	157
Lease Area	B17	55	B17_157	B	8/12/2024	0:50:17	641628.50	4465591.60	40.3288543	-73.3328170	35.7	157
Lease Area	B17	55	B17_157	C	8/12/2024	0:52:01	641629.99	4465590.73	40.3288462	-73.3327996	35.7	157
Lease Area	B17	80	B17_158	A	8/12/2024	0:55:51	641617.43	4465572.00	40.3286797	-73.3329516	35.4	158
Lease Area	B17	80	B17_158	B	8/12/2024	0:57:11	641626.06	4465572.00	40.3286782	-73.3328500	35.4	158
Lease Area	B17	80	B17_158	C	8/12/2024	0:58:57	641620.19	4465570.55	40.3286661	-73.3329194	35.4	158
Lease Area	B17	130	B17_159	A	8/12/2024	1:04:00	641597.78	4465527.79	40.3282849	-73.3331926	35.7	159
Lease Area	B17	130	B17_159	B	8/12/2024	1:05:14	641600.62	4465525.59	40.3282646	-73.3331597	35.7	159
Lease Area	B17	130	B17_159	C	8/12/2024	1:06:33	641602.30	4465522.72	40.3282384	-73.3331405	35.7	159
Lease Area	B17	230	B17_160	A	8/12/2024	1:12:30	641564.40	4465436.39	40.3274674	-73.3336056	36.0	160
Lease Area	B17	230	B17_160	C	8/12/2024	1:15:06	641565.34	4465431.13	40.3274199	-73.3335957	36.0	160
Lease Area	B17	230	B17_160	F	8/12/2024	2:51:48	641566.19	4465436.54	40.3274685	-73.3335845	35.7	160
Lease Area	B17	280	B17_161	B	8/12/2024	1:21:39	641547.52	4465386.14	40.3270178	-73.3338154	36.0	161
Lease Area	B17	280	B17_161	C	8/12/2024	1:23:13	641548.18	4465385.40	40.3270110	-73.3338078	36.0	161
Lease Area	B17	280	B17_161	D	8/12/2024	1:24:57	641545.47	4465383.63	40.3269955	-73.3338400	36.0	161
Lease Area	B17	900	B17_162	A	8/12/2024	1:45:11	641312.98	4464809.94	40.3218685	-73.3367025	34.1	162
Lease Area	B17	900	B17_162	B	8/12/2024	1:46:20	641312.83	4464811.25	40.3218803	-73.3367040	34.1	162
Lease Area	B17	900	B17_162	C	8/12/2024	1:47:37	641310.32	4464810.71	40.3218759	-73.3367336	34.1	162
Lease Area	B17	16	B17_163	A	8/11/2024	23:09:16	641666.62	4465648.67	40.3293618	-73.3323558	35.7	163
Lease Area	B17	16	B17_163	B	8/11/2024	23:12:04	641665.26	4465649.86	40.3293727	-73.3323715	35.7	163
Lease Area	B17	16	B17_163	C	8/11/2024	23:13:08	641663.03	4465645.17	40.3293309	-73.3323988	35.7	163
Lease Area	B17	26	B17_164	A	8/11/2024	23:00:27	641677.28	4465650.12	40.3293730	-73.3322300	35.7	164
Lease Area	B17	26	B17_164	B	8/11/2024	23:02:12	641676.46	4465645.31	40.3293298	-73.3322407	35.7	164
Lease Area	B17	26	B17_164	C	8/11/2024	23:03:40	641679.97	4465653.72	40.3294050	-73.3321976	35.7	164
Lease Area	B17	40	B17_165	A	8/11/2024	22:53:23	641691.90	4465652.72	40.3293939	-73.3320574	36.0	165

Area	Foundation/ Transect ID	Distance (m)	Station ID	Replicate	Date	Time	X_UTM18N_m	Y_UTM18N_m	Latitude_NAD83_N	Longitude_NAD83_W	Depth (m)	Field ID
Lease Area	B17	40	B17_165	B	8/11/2024	22:55:08	641690.27	4465658.79	40.3294489	-73.3320752	36.0	165
Lease Area	B17	40	B17_165	D	8/11/2024	22:57:32	641688.68	4465648.69	40.3293582	-73.3320962	36.0	165
Lease Area	B17	55	B17_166	A	8/11/2024	22:46:28	641704.65	4465655.54	40.3294172	-73.3319068	36.0	166
Lease Area	B17	55	B17_166	B	8/11/2024	22:47:41	641700.34	4465653.11	40.3293960	-73.3319580	36.0	166
Lease Area	B17	55	B17_166	C	8/11/2024	22:49:07	641698.61	4465653.45	40.3293994	-73.3319783	36.0	166
Lease Area	B17	80	B17_167	A	8/11/2024	22:38:59	641732.46	4465663.42	40.3294834	-73.3315778	35.4	167
Lease Area	B17	80	B17_167	B	8/11/2024	22:40:20	641726.22	4465658.00	40.3294357	-73.3316524	35.4	167
Lease Area	B17	80	B17_167	C	8/11/2024	22:41:46	641726.61	4465663.17	40.3294822	-73.3316467	35.4	167
Lease Area	B17	130	B17_168	B	8/11/2024	22:32:21	641772.03	4465672.34	40.3295570	-73.3311102	35.4	168
Lease Area	B17	130	B17_168	C	8/11/2024	22:33:44	641774.89	4465680.14	40.3296268	-73.3310748	35.4	168
Lease Area	B17	130	B17_168	D	8/11/2024	22:35:04	641778.22	4465673.82	40.3295693	-73.3310370	35.4	168
Lease Area	B17	230	B17_169	A	8/11/2024	22:20:20	641877.96	4465701.03	40.3297974	-73.3298573	35.1	169
Lease Area	B17	230	B17_169	B	8/11/2024	22:21:48	641876.55	4465694.31	40.3297371	-73.3298754	35.1	169
Lease Area	B17	230	B17_169	C	8/11/2024	22:23:02	641872.18	4465694.80	40.3297423	-73.3299267	35.1	169
Lease Area	B17	280	B17_170	A	8/11/2024	22:12:33	641922.98	4465712.94	40.3298970	-73.3293249	35.7	170
Lease Area	B17	280	B17_170	B	8/11/2024	22:14:47	641923.61	4465704.80	40.3298236	-73.3293193	35.7	170
Lease Area	B17	280	B17_170	C	8/11/2024	22:16:03	641920.93	4465708.25	40.3298551	-73.3293501	35.7	170
Lease Area	B17	900	B17_171	B	8/11/2024	21:58:05	642527.17	4465846.40	40.3309959	-73.3221857	35.1	171
Lease Area	B17	900	B17_171	C	8/11/2024	21:59:35	642520.93	4465849.70	40.3310267	-73.3222584	35.1	171
Lease Area	B17	900	B17_171	D	8/11/2024	22:00:43	642521.35	4465855.39	40.3310779	-73.3222522	35.1	171
Lease Area	C20	16	C20_172	A	8/11/2024	16:55:15	645297.07	4463518.55	40.3095555	-73.2901215	35.1	172
Lease Area	C20	16	C20_172	C	8/11/2024	16:57:37	645299.78	4463519.78	40.3095661	-73.2900893	35.1	172
Lease Area	C20	16	C20_172	D	8/11/2024	16:58:42	645301.92	4463515.90	40.3095308	-73.2900650	35.1	172
Lease Area	C20	26	C20_173	A	8/11/2024	16:48:01	645292.47	4463508.04	40.3094617	-73.2901780	35.1	173
Lease Area	C20	26	C20_173	B	8/11/2024	16:49:16	645287.86	4463510.62	40.3094857	-73.2902316	35.1	173
Lease Area	C20	26	C20_173	C	8/11/2024	16:50:28	645291.07	4463510.36	40.3094828	-73.2901939	35.1	173
Lease Area	C20	40	C20_174	A	8/11/2024	16:39:59	645281.89	4463501.20	40.3094019	-73.2903040	35.7	174
Lease Area	C20	40	C20_174	B	8/11/2024	16:41:07	645275.94	4463505.34	40.3094402	-73.2903730	35.7	174
Lease Area	C20	40	C20_174	C	8/11/2024	16:42:23	645284.60	4463504.97	40.3094354	-73.2902712	35.7	174
Lease Area	C20	40	C20_174	E	8/14/2024	7:49:19	645277.25	4463501.94	40.3094094	-73.2903584	35.1	174
Lease Area	C20	40	C20_174	F	8/14/2024	7:50:45	645279.33	4463506.75	40.3094523	-73.2903328	35.1	174
Lease Area	C20	55	C20_175	B	8/11/2024	16:33:34	645273.31	4463491.43	40.3093154	-73.2904071	35.1	175
Lease Area	C20	55	C20_175	C	8/11/2024	16:35:06	645272.93	4463493.30	40.3093323	-73.2904112	35.1	175
Lease Area	C20	55	C20_175	D	8/11/2024	16:36:18	645265.94	4463491.98	40.3093217	-73.2904937	35.1	175
Lease Area	C20	80	C20_176	A	8/11/2024	16:20:43	645252.20	4463475.57	40.3091763	-73.2906591	35.1	176
Lease Area	C20	80	C20_176	B	8/11/2024	16:22:23	645249.96	4463480.53	40.3092213	-73.2906843	35.1	176
Lease Area	C20	80	C20_176	C	8/11/2024	16:23:48	645250.67	4463475.28	40.3091739	-73.2906771	35.1	176
Lease Area	C20	130	C20_177	A	8/11/2024	16:09:15	645217.12	4463442.12	40.3088811	-73.2910793	35.1	177
Lease Area	C20	130	C20_177	B	8/11/2024	16:12:43	645217.51	4463441.47	40.3088752	-73.2910749	35.1	177
Lease Area	C20	130	C20_177	D	8/11/2024	16:15:40	645213.91	4463441.56	40.3088767	-73.2911172	35.1	177
Lease Area	C20	230	C20_178	C	8/11/2024	15:58:19	645139.34	4463376.08	40.3083000	-73.2920092	35.4	178
Lease Area	C20	230	C20_178	D	8/11/2024	15:59:45	645141.16	4463374.67	40.3082869	-73.2919881	35.4	178
Lease Area	C20	230	C20_178	E	8/11/2024	16:01:02	645140.06	4463381.73	40.3083507	-73.2919995	35.4	178
Lease Area	C20	280	C20_179	A	8/11/2024	15:15:49	645102.80	4463343.13	40.3080096	-73.2924465	35.4	179
Lease Area	C20	280	C20_179	C	8/11/2024	15:18:30	645104.61	4463345.12	40.3080272	-73.2924248	35.4	179
Lease Area	C20	280	C20_179	D	8/11/2024	15:19:44	645101.08	4463340.64	40.3079874	-73.2924673	35.4	179
Lease Area	C20	900	C20_180	B	8/11/2024	14:17:54	644642.23	4462934.74	40.3044117	-73.2979565	35.7	180
Lease Area	C20	900	C20_180	C	8/11/2024	14:20:29	644642.61	4462935.45	40.3044181	-73.2979519	35.7	180
Lease Area	C20	900	C20_180	E	8/11/2024	14:22:55	644633.24	4462929.68	40.3043677	-73.2980634	35.7	180
Lease Area	C20	16	C20_181	C	8/11/2024	18:30:28	645318.15	4463541.59	40.3097593	-73.2898683	34.7	181
Lease Area	C20	16	C20_181	F	8/11/2024	21:04:28	645325.70	4463543.44	40.3097747	-73.2897790	35.7	181
Lease Area	C20	16	C20_181	G	8/11/2024	21:05:51	645320.56	4463537.00	40.3097176	-73.2898410	35.7	181
Lease Area	C20	26	C20_182	A	8/11/2024	18:35:48	645325.21	4463549.60	40.3098302	-73.2897834	34.7	182
Lease Area	C20	26	C20_182	B	8/11/2024	18:37:57	645331.13	4463551.94	40.3098503	-73.2897132	34.7	182
Lease Area	C20	26	C20_182	C	8/11/2024	18:39:18	645336.53	4463546.12	40.3097969	-73.2896510	34.7	182
Lease Area	C20	40	C20_183	A	8/11/2024	18:44:50	645339.92	4463550.60	40.3098367	-73.2896101	34.7	183
Lease Area	C20	40	C20_183	B	8/11/2024	18:46:44	645335.83	4463556.85	40.3098937	-73.2896568	34.7	183
Lease Area	C20	40	C20_183	D	8/11/2024	18:49:35	645341.39	4463560.13	40.3099223	-73.2895907	34.7	183
Lease Area	C20	55	C20_184	A	8/11/2024	18:53:30	645349.56	4463562.81	40.3099450	-73.2894940	35.4	184
Lease Area	C20	55	C20_184	B	8/11/2024	18:54:54	645357.38	4463563.19	40.3099470	-73.2894019	35.4	184
Lease Area	C20	55	C20_184	C	8/11/2024	18:57:19	645355.59	4463569.68	40.3100058	-73.2894214	35.4	184
Lease Area	C20	80	C20_185	A	8/11/2024	19:04:10	645374.61	4463581.37	40.3101077	-73.2891951	35.4	185
Lease Area	C20	80	C20_185	B	8/11/2024	19:06:19	645370.90	4463576.02	40.3100602	-73.2892399	35.4	185
Lease Area	C20	80	C20_185	C	8/11/2024	19:08:33	645366.56	4463579.73	40.3100944	-73.2892901	35.4	185
Lease Area	C20	130	C20_186	A	8/11/2024	19:16:44	645413.02	4463614.98	40.3104037	-73.2887356	34.7	186
Lease Area	C20	130	C20_186	C	8/11/2024	19:19:09	645405.94	4463616.52	40.3104188	-73.2888185	34.7	186

Area	Foundation/ Transect ID	Distance (m)	Station ID	Replicate	Date	Time	X_UTM18N_m	Y_UTM18N_m	Latitude_NAD83_N	Longitude_NAD83_W	Depth (m)	Field ID
Lease Area	C20	130	C20_186	D	8/11/2024	19:20:43	645403.35	4463614.24	40.3103987	-73.2888495	34.7	186
Lease Area	C20	230	C20_187	A	8/11/2024	19:27:12	645481.83	4463676.75	40.3109480	-73.2879121	35.1	187
Lease Area	C20	230	C20_187	B	8/11/2024	19:28:23	645478.45	4463683.00	40.3110049	-73.2879505	35.1	187
Lease Area	C20	230	C20_187	C	8/11/2024	19:29:34	645486.02	4463687.43	40.3110435	-73.2878604	35.1	187
Lease Area	C20	280	C20_188	A	8/11/2024	19:35:58	645521.35	4463709.59	40.3112369	-73.2874398	34.7	188
Lease Area	C20	280	C20_188	B	8/11/2024	19:37:10	645526.09	4463715.68	40.3112909	-73.2873826	34.7	188
Lease Area	C20	280	C20_188	C	8/11/2024	19:38:37	645520.93	4463720.85	40.3113383	-73.2874421	34.7	188
Lease Area	C20	900	C20_189	B	8/11/2024	19:53:12	645988.85	4464127.83	40.3149217	-73.2818449	35.1	189
Lease Area	C20	900	C20_189	C	8/11/2024	19:55:15	645985.60	4464120.25	40.3148540	-73.2818848	35.1	189
Lease Area	C20	900	C20_189	D	8/11/2024	19:57:28	645988.20	4464123.66	40.3148842	-73.2818535	35.1	189
ECR	01	0	01_301	A	8/13/2024	23:56:09	610384.45	4478688.68	40.4515339	-73.6982348	25.9	301
ECR	01	0	01_301	B	8/13/2024	23:57:13	610382.26	4478690.86	40.4515538	-73.6982602	25.9	301
ECR	01	0	01_301	D	8/13/2024	23:59:47	610378.34	4478687.44	40.4515235	-73.6983070	25.9	301
ECR	01	10	01_302	A	8/13/2024	23:51:04	610388.87	4478701.24	40.4516464	-73.6981805	25.9	302
ECR	01	10	01_302	B	8/13/2024	23:52:15	610384.41	4478701.85	40.4516525	-73.6982330	25.9	302
ECR	01	10	01_302	C	8/13/2024	23:53:28	610380.37	4478702.68	40.4516605	-73.6982805	25.9	302
ECR	01	20	01_303	A	8/13/2024	23:45:38	610385.99	4478712.01	40.4517438	-73.6982126	25.9	303
ECR	01	20	01_303	C	8/13/2024	23:48:20	610382.52	4478712.51	40.4517488	-73.6982534	25.9	303
ECR	01	20	01_303	D	8/13/2024	23:49:30	610379.90	4478709.58	40.4517227	-73.6982848	25.9	303
ECR	01	30	01_304	A	8/13/2024	23:37:51	610388.50	4478721.53	40.4518292	-73.6981813	25.9	304
ECR	01	30	01_304	C	8/13/2024	23:40:48	610384.65	4478720.78	40.4518230	-73.6982269	25.9	304
ECR	01	30	01_304	E	8/13/2024	23:43:22	610383.58	4478723.80	40.4518503	-73.6982389	25.9	304
ECR	01	60	01_305	A	8/13/2024	23:32:34	610391.04	4478752.46	40.4521074	-73.6981460	25.9	305
ECR	01	60	01_305	C	8/13/2024	23:34:55	610394.60	4478748.28	40.4520693	-73.6981048	25.9	305
ECR	01	60	01_305	D	8/13/2024	23:36:01	610391.72	4478745.88	40.4520481	-73.6981391	25.9	305
ECR	01	90	01_306	A	8/13/2024	23:26:21	610389.41	4478781.15	40.4523661	-73.6981602	26.5	306
ECR	01	90	01_306	B	8/13/2024	23:27:27	610395.52	4478774.55	40.4523058	-73.6980893	26.5	306
ECR	01	90	01_306	C	8/13/2024	23:28:38	610394.47	4478780.57	40.4523602	-73.6981007	26.5	306
ECR	01	200	01_307	A	8/13/2024	23:12:51	610413.62	4478890.55	40.4533482	-73.6978558	25.9	307
ECR	01	200	01_307	C	8/13/2024	23:15:07	610405.64	4478886.30	40.4533110	-73.6979506	25.9	307
ECR	01	200	01_307	D	8/13/2024	23:16:13	610406.18	4478890.25	40.4533465	-73.6979435	25.9	307
ECR	01	1000	01_308	I	8/13/2024	22:54:49	610528.77	4479677.28	40.4604188	-73.6963611	25.0	308
ECR	01	1000	01_308	J	8/13/2024	22:56:18	610527.40	4479681.94	40.4604609	-73.6963765	25.0	308
ECR	01	1000	01_308	K	8/13/2024	22:57:27	610526.56	4479684.25	40.4604818	-73.6963860	25.0	308
ECR	02	0	02_309	A	8/14/2024	1:04:16	610512.48	4478584.61	40.4505795	-73.6967434	26.5	309
ECR	02	0	02_309	C	8/14/2024	1:06:53	610509.89	4478582.28	40.4505589	-73.6967744	26.5	309
ECR	02	0	02_309	D	8/14/2024	1:08:07	610513.90	4478579.46	40.4505329	-73.6967276	26.5	309
ECR	02	10	02_310	A	8/14/2024	1:09:24	610512.97	4478574.23	40.4504860	-73.6967394	26.5	310
ECR	02	10	02_310	C	8/14/2024	1:12:04	610504.94	4478574.23	40.4504870	-73.6968341	26.5	310
ECR	02	10	02_310	D	8/14/2024	1:13:24	610507.68	4478572.21	40.4504685	-73.6968022	26.5	310
ECR	02	20	02_311	A	8/14/2024	1:15:09	610510.52	4478566.74	40.4504188	-73.6967696	26.5	311
ECR	02	20	02_311	B	8/14/2024	1:16:28	610508.39	4478564.18	40.4503961	-73.6967952	26.5	311
ECR	02	20	02_311	D	8/14/2024	1:19:38	610509.77	4478560.12	40.4503593	-73.6967796	26.5	311
ECR	02	30	02_312	A	8/14/2024	1:21:01	610510.95	4478552.28	40.4502885	-73.6967671	26.5	312
ECR	02	30	02_312	B	8/14/2024	1:22:10	610507.14	4478553.87	40.4503034	-73.6968117	26.5	312
ECR	02	30	02_312	C	8/14/2024	1:23:25	610504.23	4478551.36	40.4502811	-73.6968465	26.5	312
ECR	02	60	02_313	A	8/14/2024	1:27:57	610505.58	4478522.98	40.4500254	-73.6968355	26.5	313
ECR	02	60	02_313	B	8/14/2024	1:29:33	610503.43	4478520.60	40.4500042	-73.6968613	26.5	313
ECR	02	60	02_313	D	8/14/2024	1:32:32	610498.76	4478519.73	40.4499970	-73.6969165	26.5	313
ECR	02	90	02_314	A	8/14/2024	1:34:34	610501.72	4478494.23	40.4497669	-73.6968860	26.8	314
ECR	02	90	02_314	B	8/14/2024	1:36:03	610499.62	4478492.83	40.4497546	-73.6969110	26.8	314
ECR	02	90	02_314	C	8/14/2024	1:37:35	610497.54	4478489.85	40.4497280	-73.6969360	26.8	314
ECR	02	200	02_315	A	8/14/2024	1:44:32	610476.56	4478386.04	40.4487958	-73.6972015	26.8	315
ECR	02	200	02_315	B	8/14/2024	1:46:18	610480.41	4478387.87	40.4488118	-73.6971557	26.8	315
ECR	02	200	02_315	D	8/14/2024	1:48:54	610485.45	4478382.67	40.4487643	-73.6970972	26.8	315
ECR	02	1000	02_316	A	8/14/2024	2:02:16	610362.23	4477592.24	40.4416614	-73.6986873	27.4	316
ECR	02	1000	02_316	B	8/14/2024	2:03:43	610360.88	4477595.36	40.4416897	-73.6987026	27.4	316
ECR	02	1000	02_316	D	8/14/2024	2:06:52	610367.32	4477592.34	40.4416617	-73.6986273	27.4	316
ECR	03	0	03_317	A	8/13/2024	19:03:29	610674.46	4478657.68	40.4512161	-73.6948209	25.9	317
ECR	03	0	03_317	B	8/13/2024	19:04:45	610674.47	4478650.65	40.4511528	-73.6948221	25.9	317
ECR	03	0	03_317	C	8/13/2024	19:05:51	610682.85	4478650.57	40.4511509	-73.6947233	25.9	317
ECR	03	10	03_318	A	8/13/2024	18:58:09	610675.26	4478668.06	40.4513095	-73.6948097	25.9	318
ECR	03	10	03_318	B	8/13/2024	18:59:20	610674.40	4478663.34	40.4512671	-73.6948207	25.9	318
ECR	03	10	03_318	C	8/13/2024	19:00:46	610685.45	4478665.42	40.4512843	-73.6946900	25.9	318
ECR	03	20	03_319	A	8/13/2024	18:52:41	610686.90	4478675.60	40.4513758	-73.6946712	25.9	319
ECR	03	20	03_319	B	8/13/2024	18:53:44	610686.45	4478672.29	40.4513461	-73.6946770	25.9	319

Area	Foundation/ Transect ID	Distance (m)	Station ID	Replicate	Date	Time	X_UTM18N_m	Y_UTM18N_m	Latitude_NAD83_N	Longitude_NAD83_W	Depth (m)	Field ID
ECR	03	20	03_319	C	8/13/2024	18:55:13	610676.04	4478672.27	40.4513473	-73.6947998	25.9	319
ECR	03	30	03_320	A	8/13/2024	18:47:36	610687.05	4478681.96	40.4514331	-73.6946683	25.9	320
ECR	03	30	03_320	B	8/13/2024	18:49:01	610679.36	4478682.02	40.4514347	-73.6947589	25.9	320
ECR	03	30	03_320	C	8/13/2024	18:50:11	610680.39	4478690.57	40.4515115	-73.6947453	25.9	320
ECR	03	60	03_321	A	8/13/2024	18:34:34	610687.49	4478720.35	40.4517788	-73.6946564	25.9	321
ECR	03	60	03_321	B	8/13/2024	18:35:50	610692.09	4478711.39	40.4516975	-73.6946037	25.9	321
ECR	03	60	03_321	C	8/13/2024	18:37:07	610683.04	4478712.13	40.4517054	-73.6947103	25.9	321
ECR	03	90	03_322	A	8/13/2024	18:28:13	610689.37	4478749.08	40.4520373	-73.6946292	25.9	322
ECR	03	90	03_322	C	8/13/2024	18:30:49	610695.36	4478743.70	40.4519881	-73.6945595	25.9	322
ECR	03	90	03_322	D	8/13/2024	18:31:58	610694.83	4478738.93	40.4519452	-73.6945666	25.9	322
ECR	03	200	03_323	A	8/13/2024	18:15:09	610711.70	4478850.88	40.4529512	-73.6943482	25.9	323
ECR	03	200	03_323	B	8/13/2024	18:16:31	610708.39	4478846.95	40.4529163	-73.6943879	25.9	323
ECR	03	200	03_323	C	8/13/2024	18:17:43	610702.68	4478852.90	40.4529706	-73.6944542	25.9	323
ECR	03	1000	03_324	B	8/13/2024	18:01:48	610827.38	4479645.20	40.4600901	-73.6928456	24.7	324
ECR	03	1000	03_324	C	8/13/2024	18:03:10	610824.14	4479643.56	40.4600757	-73.6928841	24.7	324
ECR	03	1000	03_324	D	8/13/2024	18:04:28	610823.85	4479639.67	40.4600407	-73.6928882	24.7	324
ECR	04	0	04_325	A	8/13/2024	19:51:31	610804.61	4478550.07	40.4502295	-73.6933052	25.9	325
ECR	04	0	04_325	B	8/13/2024	19:52:41	610803.61	4478545.02	40.4501842	-73.6933179	25.9	325
ECR	04	0	04_325	C	8/13/2024	19:54:15	610812.79	4478549.36	40.4502221	-73.6932089	25.9	325
ECR	04	10	04_326	A	8/13/2024	19:57:02	610801.81	4478533.73	40.4500827	-73.6933411	25.9	326
ECR	04	10	04_326	B	8/13/2024	19:58:34	610810.59	4478534.01	40.4500841	-73.6932375	25.9	326
ECR	04	10	04_326	C	8/13/2024	19:59:59	610803.09	4478540.44	40.4501430	-73.6933248	25.9	326
ECR	04	20	04_327	A	8/13/2024	20:03:33	610800.70	4478526.40	40.4500169	-73.6933555	25.9	327
ECR	04	20	04_327	C	8/13/2024	20:06:21	610809.87	4478521.61	40.4499725	-73.6932482	25.9	327
ECR	04	20	04_327	D	8/13/2024	20:07:34	610810.33	4478529.32	40.4500419	-73.6932414	25.9	327
ECR	04	30	04_328	A	8/13/2024	20:09:17	610800.32	4478520.38	40.4499627	-73.6933610	25.9	328
ECR	04	30	04_328	B	8/13/2024	20:10:26	610800.90	4478514.57	40.4499103	-73.6933552	25.9	328
ECR	04	30	04_328	D	8/13/2024	20:12:50	610808.95	4478511.82	40.4498845	-73.6932608	25.9	328
ECR	04	60	04_329	A	8/13/2024	20:15:39	610802.87	4478492.05	40.4497072	-73.6933359	25.9	329
ECR	04	60	04_329	B	8/13/2024	20:17:19	610804.97	4478483.83	40.4496329	-73.6933126	25.9	329
ECR	04	60	04_329	C	8/13/2024	20:18:35	610796.89	4478483.79	40.4496336	-73.6934078	25.9	329
ECR	04	90	04_330	B	8/13/2024	20:23:40	610799.72	4478457.45	40.4493960	-73.6933791	25.9	330
ECR	04	90	04_330	C	8/13/2024	20:24:47	610794.05	4478452.18	40.4493493	-73.6934468	25.9	330
ECR	04	90	04_330	D	8/13/2024	20:26:09	610790.01	4478459.53	40.4494160	-73.6934932	25.9	330
ECR	04	200	04_331	A	8/13/2024	20:33:54	610775.42	4478345.44	40.4483904	-73.6936851	25.9	331
ECR	04	200	04_331	B	8/13/2024	20:35:07	610783.59	4478346.10	40.4483952	-73.6935886	25.9	331
ECR	04	200	04_331	C	8/13/2024	20:36:41	610776.51	4478352.38	40.4484527	-73.6936710	25.9	331
ECR	04	1000	04_332	A	8/13/2024	20:49:57	610660.70	4477562.89	40.4413574	-73.6951739	26.5	332
ECR	04	1000	04_332	D	8/13/2024	20:54:14	610663.45	4477554.25	40.4412792	-73.6951430	26.5	332
ECR	04	1000	04_332	E	8/13/2024	20:55:46	610658.94	4477556.19	40.4412973	-73.6951958	26.5	332
ECR	05	0	05_333	A	8/13/2024	14:45:51	610981.58	4478617.02	40.4508089	-73.6912071	26.5	333
ECR	05	0	05_333	B	8/13/2024	14:47:18	610974.79	4478617.30	40.4508124	-73.6912871	26.5	333
ECR	05	0	05_333	C	8/13/2024	14:48:29	610976.25	4478620.95	40.4508450	-73.6912692	26.5	333
ECR	05	10	05_334	A	8/13/2024	14:51:37	610975.29	4478625.61	40.4508871	-73.6912798	26.5	334
ECR	05	10	05_334	B	8/13/2024	14:52:54	610980.16	4478625.86	40.4508887	-73.6912223	26.5	334
ECR	05	10	05_334	D	8/13/2024	14:55:23	610982.95	4478628.42	40.4509114	-73.6911889	26.5	334
ECR	05	20	05_335	A	8/13/2024	14:56:55	610983.74	4478636.83	40.4509871	-73.6911782	26.5	335
ECR	05	20	05_335	B	8/13/2024	14:58:08	610982.05	4478637.09	40.4509896	-73.6911980	26.5	335
ECR	05	20	05_335	C	8/13/2024	14:59:20	610977.08	4478636.95	40.4509890	-73.6912567	26.5	335
ECR	05	30	05_336	A	8/13/2024	15:02:08	610978.56	4478647.27	40.4510818	-73.6912374	26.5	336
ECR	05	30	05_336	B	8/13/2024	15:03:25	610981.26	4478650.51	40.4511106	-73.6912050	26.5	336
ECR	05	30	05_336	D	8/13/2024	15:06:06	610979.13	4478649.54	40.4511022	-73.6912303	26.5	336
ECR	05	60	05_337	A	8/13/2024	15:08:12	610986.89	4478680.82	40.4513829	-73.6911333	26.5	337
ECR	05	60	05_337	E	8/13/2024	16:53:14	610988.43	4478674.09	40.4513220	-73.6911164	26.5	337
ECR	05	60	05_337	F	8/13/2024	16:54:53	610985.72	4478673.94	40.4513210	-73.6911483	26.5	337
ECR	05	90	05_338	A	8/13/2024	15:14:50	610991.05	4478705.09	40.4516009	-73.6910800	26.5	338
ECR	05	90	05_338	B	8/13/2024	15:15:58	610992.30	4478707.05	40.4516184	-73.6910650	26.5	338
ECR	05	90	05_338	C	8/13/2024	15:17:32	610985.46	4478706.11	40.4516108	-73.6911458	26.5	338
ECR	05	200	05_339	A	8/13/2024	15:23:26	611009.57	4478811.81	40.4525596	-73.6908430	26.2	339
ECR	05	200	05_339	B	8/13/2024	15:25:05	611008.89	4478814.66	40.4525854	-73.6908506	26.2	339
ECR	05	200	05_339	D	8/13/2024	15:27:30	611001.47	4478816.09	40.4525993	-73.6909378	26.2	339
ECR	05	1000	05_340	A	8/13/2024	15:48:32	611124.94	4479602.67	40.4596673	-73.6893444	25.0	340
ECR	05	1000	05_340	B	8/13/2024	15:49:42	611124.06	4479605.76	40.4596952	-73.6893542	25.0	340
ECR	05	1000	05_340	D	8/13/2024	15:52:19	611117.62	4479606.90	40.4597063	-73.6894299	25.0	340
ECR	06	0	06_341	A	8/13/2024	12:56:29	611102.75	4478508.01	40.4498109	-73.6897976	26.2	341
ECR	06	0	06_341	B	8/13/2024	12:57:39	611109.88	4478507.33	40.4498038	-73.6897136	26.2	341

Area	Foundation/ Transect ID	Distance (m)	Station ID	Replicate	Date	Time	X_UTM18N_m	Y_UTM18N_m	Latitude_NAD83_N	Longitude_NAD83_W	Depth (m)	Field ID
ECR	06	0	06_341	C	8/13/2024	12:58:52	611109.88	4478512.94	40.4498544	-73.6897127	26.2	341
ECR	06	10	06_342	A	8/13/2024	12:51:28	611099.61	4478498.43	40.4497251	-73.6898363	26.2	342
ECR	06	10	06_342	B	8/13/2024	12:52:44	611108.88	4478496.97	40.4497107	-73.6897272	26.2	342
ECR	06	10	06_342	C	8/13/2024	12:53:59	611110.14	4478502.15	40.4497572	-73.6897115	26.2	342
ECR	06	20	06_343	A	8/13/2024	12:45:38	611099.47	4478488.26	40.4496335	-73.6898397	26.2	343
ECR	06	20	06_343	B	8/13/2024	12:47:10	611108.98	4478488.63	40.4496355	-73.6897275	26.2	343
ECR	06	20	06_343	C	8/13/2024	12:48:26	611107.02	4478491.91	40.4496653	-73.6897500	26.2	343
ECR	06	30	06_344	A	8/13/2024	12:40:07	611099.10	4478476.07	40.4495237	-73.6898462	26.2	344
ECR	06	30	06_344	B	8/13/2024	12:41:32	611106.36	4478477.14	40.4495324	-73.6897604	26.2	344
ECR	06	30	06_344	C	8/13/2024	12:42:43	611106.67	4478482.06	40.4495767	-73.6897559	26.2	344
ECR	06	60	06_345	A	8/13/2024	12:33:20	611091.33	4478449.12	40.4492820	-73.6899425	26.5	345
ECR	06	60	06_345	C	8/13/2024	12:36:20	611101.39	4478455.40	40.4493373	-73.6898228	26.5	345
ECR	06	60	06_345	D	8/13/2024	12:37:56	611094.84	4478454.45	40.4493296	-73.6899002	26.5	345
ECR	06	90	06_346	A	8/13/2024	12:25:21	611097.92	4478416.84	40.4489904	-73.6898705	26.5	346
ECR	06	90	06_346	B	8/13/2024	12:26:38	611088.61	4478418.15	40.4490035	-73.6899800	26.5	346
ECR	06	90	06_346	C	8/13/2024	12:27:48	611090.52	4478425.20	40.4490667	-73.6899562	26.5	346
ECR	06	200	06_347	A	8/13/2024	12:16:09	611074.23	4478306.44	40.4479992	-73.6901691	26.5	347
ECR	06	200	06_347	B	8/13/2024	12:18:08	611082.62	4478308.40	40.4480158	-73.6900698	26.5	347
ECR	06	200	06_347	C	8/13/2024	12:19:37	611080.68	4478316.61	40.4480900	-73.6900913	26.5	347
ECR	06	1000	06_348	A	8/13/2024	12:00:48	610957.38	4477524.25	40.4409699	-73.6916833	26.8	348
ECR	06	1000	06_348	B	8/13/2024	12:02:35	610959.48	4477514.46	40.4408814	-73.6916602	26.8	348
ECR	06	1000	06_348	C	8/13/2024	12:04:01	610966.19	4477517.14	40.4409046	-73.6915807	26.8	348
ECR	07	0	07_349	A	8/13/2024	9:55:42	622651.02	4477446.29	40.4386253	-73.5538564	25.3	349
ECR	07	0	07_349	B	8/13/2024	9:56:59	622652.41	4477453.93	40.4386939	-73.5538385	25.3	349
ECR	07	0	07_349	C	8/13/2024	9:58:43	622645.76	4477449.09	40.4386513	-73.5539179	25.3	349
ECR	07	10	07_350	A	8/13/2024	9:48:10	622651.30	4477436.71	40.4385390	-73.5538549	25.0	350
ECR	07	10	07_350	C	8/13/2024	9:51:06	622642.75	4477438.85	40.4385595	-73.5539553	25.0	350
ECR	07	10	07_350	D	8/13/2024	9:52:17	622644.44	4477443.48	40.4386010	-73.5539345	25.0	350
ECR	07	20	07_351	A	8/13/2024	9:39:54	622650.03	4477432.69	40.4385030	-73.5538707	25.0	351
ECR	07	20	07_351	B	8/13/2024	9:41:11	622648.67	4477427.39	40.4384554	-73.5538877	25.0	351
ECR	07	20	07_351	E	8/13/2024	9:45:28	622644.46	4477432.20	40.4384994	-73.5539364	25.0	351
ECR	07	30	07_352	A	8/13/2024	9:34:24	622649.17	4477422.90	40.4384149	-73.5538827	25.3	352
ECR	07	30	07_352	B	8/13/2024	9:35:37	622645.88	4477415.65	40.4383501	-73.5539229	25.3	352
ECR	07	30	07_352	C	8/13/2024	9:36:56	622638.09	4477419.51	40.4383860	-73.5540140	25.3	352
ECR	07	60	07_353	A	8/13/2024	9:27:17	622643.48	4477385.78	40.4380814	-73.5539569	24.7	353
ECR	07	60	07_353	B	8/13/2024	9:29:05	622643.44	4477394.65	40.4381613	-73.5539557	24.7	353
ECR	07	60	07_353	C	8/13/2024	9:30:20	622632.98	4477387.60	40.4380994	-73.5540804	24.7	353
ECR	07	90	07_354	A	8/13/2024	9:20:37	622636.27	4477363.94	40.4378858	-73.5540461	24.7	354
ECR	07	90	07_354	B	8/13/2024	9:22:08	622636.06	4477354.80	40.4378035	-73.5540504	24.7	354
ECR	07	90	07_354	C	8/13/2024	9:23:35	622629.80	4477357.71	40.4378306	-73.5541236	24.7	354
ECR	07	200	07_355	A	8/13/2024	9:11:22	622611.70	4477255.78	40.4369153	-73.5543566	24.7	355
ECR	07	200	07_355	B	8/13/2024	9:14:33	622611.52	4477249.37	40.4368576	-73.5543600	24.7	355
ECR	07	200	07_355	C	8/13/2024	9:15:42	622617.49	4477248.44	40.4368484	-73.5542898	24.7	355
ECR	07	1000	07_356	F	8/13/2024	8:54:52	622485.10	4476458.51	40.4297535	-73.5560025	25.0	356
ECR	07	1000	07_356	G	8/13/2024	8:56:21	622477.13	4476460.39	40.4297716	-73.5560960	25.0	356
ECR	07	1000	07_356	H	8/13/2024	8:57:25	622487.24	4476467.10	40.4298306	-73.5559756	25.0	356
ECR	08	0	08_357	A	8/14/2024	4:53:22	622813.01	4477493.17	40.4390236	-73.5519379	25.3	357
ECR	08	0	08_357	B	8/14/2024	4:54:58	622812.63	4477492.31	40.4390159	-73.5519426	25.3	357
ECR	08	0	08_357	C	8/14/2024	4:56:15	622814.42	4477490.93	40.4390032	-73.5519217	25.3	357
ECR	08	0	08_357	D	8/14/2024	4:57:40	622816.07	4477488.16	40.4389780	-73.5519028	25.3	357
ECR	08	10	08_358	A	8/14/2024	4:47:20	622815.72	4477501.08	40.4390944	-73.5519045	25.6	358
ECR	08	10	08_358	B	8/14/2024	4:48:45	622811.49	4477502.46	40.4391075	-73.5519541	25.6	358
ECR	08	10	08_358	C	8/14/2024	4:50:25	622809.36	4477501.56	40.4390997	-73.5519793	25.6	358
ECR	08	10	08_358	F	8/14/2024	5:29:18	622813.17	4477496.68	40.4390552	-73.5519354	25.6	358
ECR	08	20	08_359	A	8/14/2024	4:41:04	622819.95	4477514.07	40.4392108	-73.5518521	25.6	359
ECR	08	20	08_359	B	8/14/2024	4:42:30	622820.74	4477511.43	40.4391869	-73.5518433	25.6	359
ECR	08	20	08_359	C	8/14/2024	4:43:55	622819.09	4477511.05	40.4391837	-73.5518628	25.6	359
ECR	08	30	08_360	A	8/14/2024	4:34:06	622814.67	4477522.69	40.4392892	-73.5519127	25.6	360
ECR	08	30	08_360	C	8/14/2024	4:37:03	622812.18	4477521.95	40.4392829	-73.5519422	25.6	360
ECR	08	30	08_360	D	8/14/2024	4:39:08	622819.68	4477521.56	40.4392783	-73.5518538	25.6	360
ECR	08	60	08_361	A	8/14/2024	4:26:51	622822.56	4477551.64	40.4395488	-73.5518141	25.9	361
ECR	08	60	08_361	B	8/14/2024	4:28:21	622817.96	4477551.91	40.4395519	-73.5518682	25.9	361
ECR	08	60	08_361	C	8/14/2024	4:29:36	622817.03	4477551.36	40.4395471	-73.5518793	25.9	361
ECR	08	90	08_362	A	8/14/2024	4:20:00	622823.38	4477580.42	40.4398079	-73.5517988	25.6	362
ECR	08	90	08_362	B	8/14/2024	4:21:11	622827.87	4477578.91	40.4397936	-73.5517462	25.6	362
ECR	08	90	08_362	C	8/14/2024	4:22:30	622829.59	4477578.79	40.4397923	-73.5517259	25.6	362

Area	Foundation/ Transect ID	Distance (m)	Station ID	Replicate	Date	Time	X_UTM18N_m	Y_UTM18N_m	Latitude_NAD83_N	Longitude_NAD83_W	Depth (m)	Field ID
ECR	08	200	08_363	A	8/14/2024	4:09:32	622840.98	4477690.86	40.4407999	-73.5515700	26.8	363
ECR	08	200	08_363	B	8/14/2024	4:11:07	622846.09	4477690.03	40.4407917	-73.5515099	26.8	363
ECR	08	200	08_363	C	8/14/2024	4:12:27	622843.16	4477688.61	40.4407793	-73.5515448	26.8	363
ECR	08	1000	08_364	A	8/14/2024	3:49:23	622954.97	4478480.20	40.4478920	-73.5500736	25.6	364
ECR	08	1000	08_364	B	8/14/2024	3:50:36	622956.89	4478480.64	40.4478957	-73.5500509	25.6	364
ECR	08	1000	08_364	D	8/14/2024	3:54:14	622953.65	4478485.25	40.4479377	-73.5500882	25.6	364
ECR	09	0	09_365	A	8/13/2024	5:49:22	622945.06	4477406.23	40.4382211	-73.5503982	25.0	365
ECR	09	0	09_365	B	8/13/2024	5:50:42	622945.58	4477410.59	40.4382603	-73.5503913	25.0	365
ECR	09	0	09_365	C	8/13/2024	5:51:57	622947.51	4477410.22	40.4382567	-73.5503686	25.0	365
ECR	09	10	09_366	A	8/13/2024	6:22:21	622940.87	4477397.62	40.4381442	-73.5504493	25.0	366
ECR	09	10	09_366	C	8/13/2024	6:25:22	622950.48	4477401.17	40.4381747	-73.5503353	25.0	366
ECR	09	10	09_366	D	8/13/2024	6:27:00	622948.25	4477396.83	40.4381360	-73.5503625	25.0	366
ECR	09	20	09_367	A	8/13/2024	6:29:02	622939.51	4477392.28	40.4380963	-73.5504664	25.0	367
ECR	09	20	09_367	B	8/13/2024	6:30:35	622939.42	4477386.29	40.4380423	-73.5504686	25.0	367
ECR	09	20	09_367	C	8/13/2024	6:33:00	622945.72	4477385.20	40.4380316	-73.5503945	25.0	367
ECR	09	30	09_368	A	8/13/2024	6:36:59	622937.24	4477382.77	40.4380110	-73.5504950	24.4	368
ECR	09	30	09_368	B	8/13/2024	6:38:43	622946.39	4477380.87	40.4379925	-73.5503875	24.4	368
ECR	09	30	09_368	C	8/13/2024	6:39:56	622936.98	4477376.96	40.4379587	-73.5504992	24.4	368
ECR	09	60	09_369	A	8/13/2024	6:43:51	622936.93	4477354.00	40.4377519	-73.5505042	25.0	369
ECR	09	60	09_369	B	8/13/2024	6:45:38	622931.18	4477353.54	40.4377486	-73.5505720	25.0	369
ECR	09	60	09_369	D	8/13/2024	6:49:01	622942.15	4477348.55	40.4377020	-73.5504437	25.0	369
ECR	09	90	09_370	A	8/13/2024	6:52:56	622930.32	4477326.38	40.4375041	-73.5505874	24.7	370
ECR	09	90	09_370	B	8/13/2024	6:54:22	622937.93	4477323.72	40.4374790	-73.5504983	24.7	370
ECR	09	90	09_370	C	8/13/2024	6:55:46	622927.56	4477321.71	40.4374625	-73.5506209	24.7	370
ECR	09	200	09_371	A	8/13/2024	7:02:05	622909.59	4477217.52	40.4365268	-73.5508528	24.7	371
ECR	09	200	09_371	B	8/13/2024	7:03:42	622918.95	4477216.00	40.4365117	-73.5507428	24.7	371
ECR	09	200	09_371	C	8/13/2024	7:05:24	622916.97	4477208.20	40.4364417	-73.5507677	24.7	371
ECR	09	1000	09_372	A	8/13/2024	7:17:36	622779.18	4476428.79	40.4294425	-73.5525423	24.7	372
ECR	09	1000	09_372	B	8/13/2024	7:19:19	622773.94	4476421.28	40.4293757	-73.5526055	24.7	372
ECR	09	1000	09_372	C	8/13/2024	7:20:39	622780.90	4476419.38	40.4293575	-73.5525238	24.7	372
ECR	10	0	10_373	A	8/13/2024	3:58:59	623109.21	4477441.22	40.4385119	-73.5484566	25.0	373
ECR	10	0	10_373	B	8/13/2024	4:01:22	623106.61	4477447.84	40.4385719	-73.5484860	25.0	373
ECR	10	0	10_373	D	8/13/2024	4:04:01	623111.25	4477443.32	40.4385305	-73.5484322	25.0	373
ECR	10	10	10_374	A	8/13/2024	3:53:28	623108.14	4477453.41	40.4386219	-73.5484669	25.0	374
ECR	10	10	10_374	B	8/13/2024	3:54:34	623108.64	4477455.34	40.4386392	-73.5484606	25.0	374
ECR	10	10	10_374	C	8/13/2024	3:55:52	623114.23	4477458.58	40.4386675	-73.5483941	25.0	374
ECR	10	20	10_375	A	8/13/2024	3:42:41	623112.72	4477466.47	40.4387388	-73.5484104	25.0	375
ECR	10	20	10_375	B	8/13/2024	3:43:55	623107.97	4477463.08	40.4387090	-73.5484670	25.0	375
ECR	10	20	10_375	D	8/13/2024	3:52:20	623111.95	4477463.15	40.4387090	-73.5484201	25.0	375
ECR	10	30	10_376	A	8/13/2024	3:37:14	623109.30	4477476.42	40.4388289	-73.5484487	25.3	376
ECR	10	30	10_376	B	8/13/2024	3:38:49	623114.10	4477475.73	40.4388220	-73.5483923	25.3	376
ECR	10	30	10_376	C	8/13/2024	3:39:59	623116.11	4477475.05	40.4388156	-73.5483687	25.3	376
ECR	10	60	10_377	A	8/13/2024	3:30:21	623113.75	4477502.44	40.4390626	-73.5483913	25.3	377
ECR	10	60	10_377	B	8/13/2024	3:31:33	623114.15	4477505.76	40.4390925	-73.5483859	25.3	377
ECR	10	60	10_377	C	8/13/2024	3:32:56	623118.01	4477507.08	40.4391038	-73.5483401	25.3	377
ECR	10	90	10_378	A	8/13/2024	3:22:11	623120.50	4477530.86	40.4393176	-73.5483062	25.6	378
ECR	10	90	10_378	B	8/13/2024	3:23:50	623119.75	4477535.25	40.4393572	-73.5483142	25.6	378
ECR	10	90	10_378	C	8/13/2024	3:25:00	623123.50	4477534.47	40.4393496	-73.5482701	25.6	378
ECR	10	200	10_379	A	8/13/2024	3:10:44	623133.95	4477639.50	40.4402940	-73.5481266	25.6	379
ECR	10	200	10_379	B	8/13/2024	3:12:06	623134.25	4477643.21	40.4403274	-73.5481223	25.6	379
ECR	10	200	10_379	C	8/13/2024	3:13:24	623140.11	4477644.87	40.4403415	-73.5480529	25.6	379
ECR	10	1000	10_380	A	8/13/2024	2:48:46	623256.91	4478434.76	40.4474381	-73.5465229	25.6	380
ECR	10	1000	10_380	B	8/13/2024	2:50:02	623251.60	4478433.24	40.4474252	-73.5465858	25.6	380
ECR	10	1000	10_380	C	8/13/2024	2:51:19	623247.23	4478433.96	40.4474323	-73.5466372	25.6	380
ECR	11	0	11_381	A	8/12/2024	21:04:07	623240.38	4477372.62	40.4378747	-73.5469238	24.7	381
ECR	11	0	11_381	B	8/12/2024	21:05:34	623248.30	4477371.66	40.4378649	-73.5468306	24.7	381
ECR	11	0	11_381	C	8/12/2024	21:06:48	623248.83	4477377.16	40.4379143	-73.5468233	24.7	381
ECR	11	10	11_382	B	8/12/2024	20:58:00	623246.08	4477361.89	40.4377772	-73.5468587	24.7	382
ECR	11	10	11_382	C	8/12/2024	20:59:49	623237.40	4477365.85	40.4378141	-73.5469603	24.7	382
ECR	11	10	11_382	D	8/12/2024	21:01:49	623245.45	4477363.49	40.4377917	-73.5468658	24.7	382
ECR	11	20	11_383	A	8/12/2024	20:49:37	623244.31	4477349.56	40.4376664	-73.5468820	24.7	383
ECR	11	20	11_383	C	8/12/2024	20:53:00	623235.59	4477355.38	40.4377201	-73.5469836	24.7	383
ECR	11	20	11_383	D	8/12/2024	20:54:45	623237.45	4477351.14	40.4376817	-73.5469625	24.7	383
ECR	11	30	11_384	A	8/12/2024	20:43:00	623241.63	4477345.13	40.4376269	-73.5469144	24.7	384
ECR	11	30	11_384	B	8/12/2024	20:44:27	623241.92	4477338.61	40.4375681	-73.5469123	24.7	384
ECR	11	30	11_384	C	8/12/2024	20:45:50	623234.62	4477340.38	40.4375852	-73.5469980	24.7	384

Area	Foundation/ Transect ID	Distance (m)	Station ID	Replicate	Date	Time	X_UTM18N_m	Y_UTM18N_m	Latitude_NAD83_N	Longitude_NAD83_W	Depth (m)	Field ID
ECR	11	60	11_385	A	8/12/2024	20:36:43	623228.68	4477314.33	40.4373514	-73.5470730	24.7	385
ECR	11	60	11_385	B	8/12/2024	20:37:57	623234.30	4477308.46	40.4372977	-73.5470079	24.7	385
ECR	11	60	11_385	C	8/12/2024	20:39:22	623236.41	4477316.08	40.4373661	-73.5469816	24.7	385
ECR	11	90	11_386	A	8/12/2024	20:27:18	623224.97	4477287.03	40.4371061	-73.5471220	24.7	386
ECR	11	90	11_386	B	8/12/2024	20:28:40	623232.54	4477287.70	40.4371110	-73.5470327	24.7	386
ECR	11	90	11_386	D	8/12/2024	20:32:38	623232.72	4477280.68	40.4370478	-73.5470319	24.7	386
ECR	11	200	11_387	A	8/12/2024	20:16:01	623207.15	4477171.19	40.4360655	-73.5473545	24.4	387
ECR	11	200	11_387	B	8/12/2024	20:17:13	623213.40	4477172.82	40.4360792	-73.5472806	24.4	387
ECR	11	200	11_387	C	8/12/2024	20:18:59	623208.15	4477180.88	40.4361526	-73.5473409	24.4	387
ECR	11	1000	11_388	A	8/12/2024	20:01:10	623071.80	4476383.99	40.4289958	-73.5491023	25.0	388
ECR	11	1000	11_388	B	8/12/2024	20:02:26	623074.54	4476393.27	40.4290790	-73.5490682	25.0	388
ECR	11	1000	11_388	C	8/12/2024	20:04:04	623079.23	4476388.90	40.4290389	-73.5490138	25.0	388
ECR	12	0	12_389	A	8/12/2024	22:04:17	623412.23	4477405.59	40.4381461	-73.5448918	24.7	389
ECR	12	0	12_389	C	8/12/2024	22:06:43	623404.22	4477407.82	40.4381674	-73.5449858	24.7	389
ECR	12	0	12_389	D	8/12/2024	22:07:51	623402.60	4477405.66	40.4381482	-73.5450053	24.7	389
ECR	12	10	12_390	A	8/12/2024	22:10:18	623405.47	4477414.90	40.4382310	-73.5449697	24.7	390
ECR	12	10	12_390	B	8/12/2024	22:11:36	623406.34	4477419.52	40.4382725	-73.5449585	24.7	390
ECR	12	10	12_390	D	8/12/2024	22:14:10	623404.03	4477415.89	40.4382401	-73.5449865	24.7	390
ECR	12	20	12_391	A	8/12/2024	22:16:15	623410.26	4477426.81	40.4383375	-73.5449109	24.7	391
ECR	12	20	12_391	B	8/12/2024	22:17:27	623412.18	4477423.16	40.4383044	-73.5448890	24.7	391
ECR	12	20	12_391	D	8/12/2024	22:20:00	623405.58	4477425.04	40.4383223	-73.5449664	24.7	391
ECR	12	30	12_392	A	8/12/2024	22:21:30	623409.54	4477433.49	40.4383978	-73.5449181	24.7	392
ECR	12	30	12_392	B	8/12/2024	22:22:39	623415.59	4477436.38	40.4384229	-73.5448462	24.7	392
ECR	12	30	12_392	C	8/12/2024	22:24:19	623409.66	4477436.20	40.4384222	-73.5449162	24.7	392
ECR	12	30	12_392	D	8/12/2024	22:25:32	623412.16	4477437.16	40.4384305	-73.5448865	24.7	392
ECR	12	60	12_393	A	8/12/2024	22:28:08	623413.00	4477461.40	40.4386487	-73.5448719	24.7	393
ECR	12	60	12_393	B	8/12/2024	22:29:20	623416.95	4477461.74	40.4386511	-73.5448253	24.7	393
ECR	12	60	12_393	D	8/12/2024	22:31:57	623413.31	4477469.97	40.4387258	-73.5448666	24.7	393
ECR	12	90	12_394	A	8/12/2024	22:35:00	623416.44	4477498.98	40.4389866	-73.5448241	25.6	394
ECR	12	90	12_394	B	8/12/2024	22:36:13	623422.33	4477493.25	40.4389341	-73.5447557	25.6	394
ECR	12	90	12_394	C	8/12/2024	22:37:36	623421.57	4477497.16	40.4389694	-73.5447639	25.6	394
ECR	12	200	12_395	A	8/12/2024	22:49:52	623438.23	4477599.60	40.4398896	-73.5445477	25.6	395
ECR	12	200	12_395	B	8/12/2024	22:52:14	623437.28	4477601.97	40.4399111	-73.5445584	25.6	395
ECR	12	200	12_395	C	8/12/2024	22:53:30	623431.76	4477601.63	40.4399088	-73.5446235	25.6	395
ECR	12	200	12_395	D	8/12/2024	22:55:02	623433.34	4477602.78	40.4399189	-73.5446047	25.6	395
ECR	12	1000	12_396	A	8/12/2024	23:13:12	623551.13	4478395.18	40.4470379	-73.5430622	25.0	396
ECR	12	1000	12_396	B	8/12/2024	23:14:20	623548.24	4478393.11	40.4470197	-73.5430966	25.0	396
ECR	12	1000	12_396	C	8/12/2024	23:15:29	623543.39	4478396.20	40.4470483	-73.5431532	25.0	396

Area	Sample Type	Foundation	Distance (m)	Station ID	Replicate	Date	Time	X_UTM18N_m	Y_UTM18N_m	Latitude_NAD83_N	Longitude_NAD83_W	Depth (m)	Field ID	Sample ID
Lease Area	Grab (GS, Chem)	D03	26	D03_101	A	8/10/2024	22:56:33	624543.59	4467364.32	40.3475435	-73.5335200	25.9	101	EW1_24B1_GRAB_101A
Lease Area	Grab (GS, Chem)	D03	130	D03_105	A	8/10/2024	20:46:30	624494.68	4467451.56	40.3483365	-73.5340787	25.6	105	EW1_24B1_GRAB_105A
Lease Area	Grab (GS, Chem)	D03	900	D03_108	A	8/10/2024	22:36:09	624129.42	4468125.41	40.3544598	-73.5382473	27.1	108	EW1_24B1_GRAB_108A
Lease Area	Grab (GS, Chem)	D03	26	D03_110	A	8/10/2024	21:27:19	624567.18	4467313.44	40.3470817	-73.5332522	25.6	110	EW1_24B1_GRAB_110A
Lease Area	Grab (GS, Chem)	D03	130	D03_114	A	8/10/2024	21:56:24	624618.27	4467221.70	40.3462479	-73.5326688	25.6	114	EW1_24B1_GRAB_114A
Lease Area	Grab (GS, Chem)	D03	900	D03_117	C	8/10/2024	23:36:34	624985.38	4466549.81	40.3401417	-73.5284791	27.4	117	EW1_24B1_GRAB_117C
Lease Area	Grab (GS, Chem)	C09	50	C09_119	A	8/11/2024	2:26:48	631890.34	4466743.56	40.3408240	-73.4471707	30.5	119	EW1_24B1_GRAB_119A
Lease Area	Grab (GS, Chem)	C09	155	C09_123	A	8/11/2024	3:04:14	631913.51	4466846.59	40.3417482	-73.4468768	30.2	123	EW1_24B1_GRAB_123A
Lease Area	Grab (GS, Chem)	C09	900	C09_126	A	8/11/2024	3:21:11	632057.01	4467571.11	40.3482505	-73.4450379	31.1	126	EW1_24B1_GRAB_126A
Lease Area	Grab (GS, Chem)	C09	50	C09_128	B	8/11/2024	1:45:54	631873.73	4466643.26	40.3399233	-73.4473869	31.1	128	EW1_24B1_GRAB_128B
Lease Area	Grab (GS, Chem)	C09	50	C09_128	C	8/11/2024	2:08:43	631875.65	4466643.16	40.3399221	-73.4473644	31.1	128	EW1_24B1_GRAB_128C_DUP
Lease Area	Grab (GS, Chem)	C09	155	C09_132	A	8/11/2024	1:16:40	631857.39	4466536.90	40.3389680	-73.4476012	31.4	132	EW1_24B1_GRAB_132A
Lease Area	Grab (GS, Chem)	C09	900	C09_135	B	8/11/2024	0:50:20	631701.75	4465814.97	40.3324909	-73.4495818	31.7	135	EW1_24B1_GRAB_135B
Lease Area	Grab (GS, Chem)	D14	26	D14_137	B	8/11/2024	5:19:45	637974.08	4463981.61	40.3149672	-73.3761660	32.9	137	EW1_24B1_GRAB_137B
Lease Area	Grab (GS, Chem)	D14	130	D14_141	A	8/11/2024	4:48:50	637883.30	4463914.97	40.3143820	-73.3772484	32.6	141	EW1_24B1_GRAB_141A
Lease Area	Grab (GS, Chem)	D14	900	D14_144	B	8/11/2024	4:29:43	637288.88	4463427.52	40.3100901	-73.3843461	32.6	144	EW1_24B1_GRAB_144B
Lease Area	Grab (GS, Chem)	D14	26	D14_146	A	8/11/2024	5:36:55	638006.79	4464018.37	40.3152928	-73.3757733	33.2	146	EW1_24B1_GRAB_146A
Lease Area	Grab (GS, Chem)	D14	130	D14_150	A	8/11/2024	5:51:54	638085.49	4464078.87	40.3158246	-73.3748343	33.2	150	EW1_24B1_GRAB_150A
Lease Area	Grab (GS, Chem)	D14	900	D14_153	A	8/11/2024	6:39:46	638678.92	4464569.77	40.3201472	-73.3677463	33.8	153	EW1_24B1_GRAB_153A
Lease Area	Grab (GS, Chem)	D14	900	D14_153	B	8/11/2024	6:56:07	638675.55	4464569.43	40.3201447	-73.3677860	33.8	153	EW1_24B1_GRAB_153B_DUP
Lease Area	Grab (GS, Chem)	B17	26	B17_155	A	8/11/2024	8:10:38	641640.45	4465620.12	40.3291091	-73.3326700	34.7	155	EW1_24B1_GRAB_155A
Lease Area	Grab (GS, Chem)	B17	130	B17_159	A	8/11/2024	7:52:31	641601.48	4465526.71	40.3282745	-73.3331493	34.7	159	EW1_24B1_GRAB_159A
Lease Area	Grab (GS, Chem)	B17	900	B17_162	B	8/11/2024	7:35:15	641307.91	4464812.58	40.3218932	-73.3367616	33.5	162	EW1_24B1_GRAB_162B
Lease Area	Grab (GS, Chem)	B17	26	B17_164	A	8/11/2024	8:28:45	641669.60	4465647.44	40.3293502	-73.3323210	35.1	164	EW1_24B1_GRAB_164A
Lease Area	Grab (GS, Chem)	B17	130	B17_168	A	8/11/2024	8:44:02	641775.75	4465671.55	40.3295493	-73.3310666	35.1	168	EW1_24B1_GRAB_168A
Lease Area	Grab (GS, Chem)	B17	900	B17_171	A	8/11/2024	9:08:21	642529.76	4465853.45	40.3310590	-73.3221537	35.1	171	EW1_24B1_GRAB_171A
Lease Area	Grab (GS, Chem)	B17	900	B17_171	B	8/11/2024	9:27:03	642528.21	4465850.82	40.3310356	-73.3221725	35.1	171	EW1_24B1_GRAB_171B_DUP
Lease Area	Grab (GS, Chem)	C20	26	C20_173	A	8/11/2024	11:07:45	645291.57	4463515.61	40.3095300	-73.2901868	36.0	173	EW1_24B1_GRAB_173A
Lease Area	Grab (GS, Chem)	C20	130	C20_177	A	8/11/2024	11:22:35	645217.64	4463446.49	40.3089204	-73.2910722	35.7	177	EW1_24B1_GRAB_177A
Lease Area	Grab (GS, Chem)	C20	900	C20_180	A	8/11/2024	11:47:02	644639.78	4462936.25	40.3044258	-73.2979850	35.7	180	EW1_24B1_GRAB_180A
Lease Area	Grab (GS, Chem)	C20	26	C20_182	A	8/11/2024	10:51:17	645330.20	4463548.46	40.3098191	-73.2897250	35.7	182	EW1_24B1_GRAB_182A
Lease Area	Grab (GS, Chem)	C20	130	C20_186	A	8/11/2024	10:35:42	645408.29	4463610.66	40.3103657	-73.2887922	35.4	186	EW1_24B1_GRAB_186A
Lease Area	Grab (GS, Chem)	C20	900	C20_189	A	8/11/2024	10:16:49	645984.24	4464130.41	40.3149457	-73.2818985	35.4	189	EW1_24B1_GRAB_189A

Appendix B – Sediment Profile Image Analysis Results

Notes:
IND=Indeterminate
1 Grain Size: “/” indicates layer of one phi size range over another.
2 Successional Stage: “on” indicates one Stage is found on top of another Stage (i.e., 1 on 3); “->” indicates one Stage is progressing to another Stage (i.e., 2 -> 3).

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
ECR	01_301	A	8/13/2024	23:56:20	15	5	14.56	4 to 3/>4	>4	1	>4 to 1	10.78	10.44	11.22	No	0.78	3.94	No	No
ECR	01_301	B	8/13/2024	23:57:27	15	5	14.56	4 to 3	>4	1	>4 to 1	9.42	9.28	9.72	No	0.44	3.03	No	No
ECR	01_301	D	8/14/2024	0:00:01	15	5	14.56	4 to 3	>4	1	>4 to 1	8.44	7.90	8.91	No	1.01	4.46	No	No
ECR	01_302	A	8/13/2024	23:51:19	15	5	14.56	4 to 3	>4	1	>4 to 1	9.38	8.99	9.86	No	0.87	4.13	No	No
ECR	01_302	B	8/13/2024	23:52:30	15	5	14.56	4 to 3	>4	1	>4 to 1	9.82	9.39	10.10	No	0.71	6.48	No	No
ECR	01_302	C	8/13/2024	23:53:41	15	5	14.56	4 to 3	>4	1	>4 to 1	10.64	10.47	10.93	No	0.46	4.84	No	No
ECR	01_303	A	8/13/2024	23:45:52	15	5	14.56	4 to 3	>4	1	>4 to 1	8.93	8.55	9.50	No	0.95	5.55	No	No
ECR	01_303	C	8/13/2024	23:48:34	15	5	14.56	4 to 3	>4	1	>4 to 1	10.52	9.68	10.95	No	1.27	4.78	No	No
ECR	01_303	D	8/13/2024	23:49:44	15	5	14.56	4 to 3	>4	1	>4 to 1	8.68	8.33	9.20	No	0.87	3.28	No	No
ECR	01_304	A	8/13/2024	23:38:05	15	5	14.56	4 to 3	>4	1	>4 to 1	8.89	8.69	9.18	No	0.49	3.93	No	No
ECR	01_304	C	8/13/2024	23:41:03	15	5	14.56	4 to 3	>4	1	>4 to 1	8.43	7.74	8.84	No	1.11	2.94	No	No
ECR	01_304	E	8/13/2024	23:43:35	15	5	14.56	4 to 3	>4	1	>4 to 1	10.70	10.38	10.93	No	0.55	4.23	No	No
ECR	01_305	A	8/13/2024	23:32:49	15	5	14.56	4 to 3	>4	1	>4 to 1	8.32	8.18	8.65	No	0.46	4.50	No	No
ECR	01_305	C	8/13/2024	23:35:08	15	5	14.56	4 to 3	>4	1	>4 to 1	9.37	9.08	9.76	No	0.68	3.46	No	No
ECR	01_305	D	8/13/2024	23:36:15	15	5	14.56	4 to 3	>4	1	>4 to 1	10.16	9.88	10.54	No	0.66	9.18	Yes	No
ECR	01_306	A	8/13/2024	23:26:35	15	5	14.56	4 to 3	>4	1	>4 to 1	8.22	7.89	8.65	No	0.75	3.37	No	No
ECR	01_306	B	8/13/2024	23:27:40	15	5	14.56	4 to 3	>4	1	>4 to 1	11.13	10.61	11.53	No	0.92	4.57	No	No
ECR	01_306	C	8/13/2024	23:28:53	15	5	14.56	4 to 3	>4	1	>4 to 1	9.73	9.16	10.25	No	1.09	4.54	No	No
ECR	01_307	A	8/13/2024	23:13:02	15	5	14.56	4 to 3	>4	1	>4 to 1	7.93	7.34	8.31	No	0.96	4.04	No	No
ECR	01_307	C	8/13/2024	23:15:20	15	5	14.56	4 to 3	>4	1	>4 to 1	8.12	7.94	8.55	No	0.61	3.01	No	No
ECR	01_307	D	8/13/2024	23:16:28	15	5	14.56	4 to 3	>4	1	>4 to 1	9.38	8.12	10.00	No	1.88	4.23	No	No
ECR	01_308	I	8/13/2024	22:55:01	15	5	14.56	4 to 3	>4	1	>4 to 1	6.45	6.07	7.26	No	1.19	2.91	No	No
ECR	01_308	J	8/13/2024	22:56:33	15	5	14.56	4 to 3	>4	1	>4 to 1	6.36	5.49	7.14	No	1.65	2.93	No	No
ECR	01_308	K	8/13/2024	22:57:41	15	5	14.56	4 to 3	>4	1	>4 to 1	6.19	5.85	6.95	No	1.10	2.83	No	No
ECR	02_309	A	8/14/2024	1:04:29	15	5	14.56	4 to 3	>4	1	>4 to 1	11.17	10.89	11.41	No	0.52	5.25	No	No
ECR	02_309	C	8/14/2024	1:07:07	15	5	14.56	4 to 3	>4	1	>4 to 1	10.03	9.70	10.39	No	0.69	3.77	No	No
ECR	02_309	D	8/14/2024	1:08:22	15	5	14.56	4 to 3	>4	0	>4 to 0	8.21	7.89	8.55	No	0.66	4.24	No	No
ECR	02_310	A	8/14/2024	1:09:39	15	5	14.56	4 to 3	>4	0	>4 to 0	8.44	8.08	8.77	No	0.69	5.11	No	No
ECR	02_310	C	8/14/2024	1:12:20	15	5	14.56	4 to 3	>4	1	>4 to 1	8.98	8.72	9.37	No	0.65	3.90	No	No
ECR	02_310	D	8/14/2024	1:13:38	15	5	14.56	4 to 3	>4	1	>4 to 1	8.40	8.17	8.75	No	0.58	3.20	No	No
ECR	02_311	A	8/14/2024	1:15:24	15	5	14.56	4 to 3	>4	1	>4 to 1	9.90	9.50	10.27	No	0.78	IND	Yes	No
ECR	02_311	B	8/14/2024	1:16:42	15	5	14.56	4 to 3	>4	2	>4 to 2	10.44	9.87	11.27	No	1.40	5.14	No	No
ECR	02_311	D	8/14/2024	1:19:53	15	5	14.56	4 to 3	>4	1	>4 to 1	9.01	8.47	9.40	No	0.93	4.90	No	No
ECR	02_312	A	8/14/2024	1:21:16	15	5	14.56	4 to 3	>4	1	>4 to 1	9.20	9.03	9.47	No	0.44	7.16	Yes	No
ECR	02_312	B	8/14/2024	1:22:24	15	5	14.56	4 to 3	>4	1	>4 to 1	9.70	9.17	10.15	No	0.99	5.98	No	No
ECR	02_312	C	8/14/2024	1:23:40	15	5	14.56	4 to 3	>4	1	>4 to 1	11.33	11.02	11.80	No	0.78	8.31	Yes	No
ECR	02_313	A	8/14/2024	1:28:11	15	5	14.56	4 to 3	>4	1	>4 to 1	8.76	8.46	9.08	No	0.63	IND	No	No
ECR	02_313	B	8/14/2024	1:29:47	15	5	14.56	4 to 3	>4	0	>4 to 0	8.17	7.50	8.72	No	1.22	5.89	No	No
ECR	02_313	D	8/14/2024	1:32:47	15	5	14.56	4 to 3	>4	1	>4 to 1	9.91	9.41	10.66	No	1.25	4.25	No	No
ECR	02_314	A	8/14/2024	1:34:48	15	5	14.56	4 to 3	>4	1	>4 to 1	7.88	7.50	8.53	No	1.03	4.23	No	No
ECR	02_314	B	8/14/2024	1:36:16	15	5	14.56	4 to 3	>4	1	>4 to 1	10.21	9.92	10.59	No	0.67	5.38	No	No
ECR	02_314	C	8/14/2024	1:37:49	15	5	14.56	4 to 3	>4	1	>4 to 1	7.96	7.62	8.28	No	0.66	5.15	No	No
ECR	02_315	A	8/14/2024	1:44:47	15	5	14.56	4 to 3	>4	1	>4 to 1	8.62	8.28	9.08	No	0.80	4.20	No	No
ECR	02_315	B	8/14/2024	1:46:32	15	5	14.56	4 to 3	>4	1	>4 to 1	8.49	8.33	8.79	No	0.46	5.81	No	No
ECR	02_315	D	8/14/2024	1:49:06	15	5	14.56	4 to 3	>4	1	>4 to 1	7.89	7.37	8.60	No	1.23	5.41	No	No

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
ECR	02_316	A	8/14/2024	2:02:30	15	5	14.56	4 to 3	>4	1	>4 to 1	7.41	7.02	7.80	No	0.78	3.09	No	No
ECR	02_316	B	8/14/2024	2:03:57	15	5	14.56	4 to 3	>4	1	>4 to 1	9.16	8.72	9.88	No	1.17	3.42	No	No
ECR	02_316	D	8/14/2024	2:07:07	15	5	14.56	4 to 3	>4	1	>4 to 1	12.10	11.64	12.70	No	1.06	4.17	No	No
ECR	03_317	A	8/13/2024	19:03:44	15	5	14.56	4 to 3	>4	1	>4 to 1	8.80	8.50	9.13	No	0.63	4.03	No	No
ECR	03_317	B	8/13/2024	19:04:59	15	5	14.56	4 to 3	>4	1	>4 to 1	9.02	8.52	9.64	No	1.13	3.58	No	No
ECR	03_317	C	8/13/2024	19:06:06	15	5	14.56	4 to 3	>4	1	>4 to 1	9.28	9.06	9.81	No	0.75	6.23	No	No
ECR	03_318	A	8/13/2024	18:58:24	15	5	14.56	4 to 3	>4	1	>4 to 1	7.62	7.16	8.14	No	0.98	4.34	No	No
ECR	03_318	B	8/13/2024	18:59:35	15	5	14.56	4 to 3	>4	1	>4 to 1	8.78	8.39	9.08	No	0.69	4.85	No	No
ECR	03_318	C	8/13/2024	19:01:01	15	5	14.56	4 to 3	>4	1	>4 to 1	8.37	7.93	8.91	No	0.99	3.85	No	No
ECR	03_319	A	8/13/2024	18:52:52	15	5	14.56	4 to 3	>4	1	>4 to 1	8.94	8.68	9.47	No	0.79	5.54	No	No
ECR	03_319	B	8/13/2024	18:53:58	15	5	14.56	4 to 3	>4	1	>4 to 1	8.17	7.92	8.77	No	0.85	3.88	No	No
ECR	03_319	C	8/13/2024	18:55:28	15	5	14.56	4 to 3	>4	1	>4 to 1	9.59	9.34	9.98	No	0.64	5.00	No	No
ECR	03_320	A	8/13/2024	18:47:51	15	5	14.56	4 to 3	>4	0	>4 to 0	9.80	9.11	10.73	No	1.63	6.49	No	No
ECR	03_320	B	8/13/2024	18:49:16	15	5	14.56	4 to 3/>4	>4	1	>4 to 1	13.97	13.79	14.42	No	0.64	9.46	No	No
ECR	03_320	C	8/13/2024	18:50:26	15	5	14.56	4 to 3	>4	0	>4 to 0	7.84	7.58	8.19	No	0.60	4.35	No	No
ECR	03_321	A	8/13/2024	18:34:49	15	5	14.56	4 to 3	>4	0	>4 to 0	7.93	7.66	8.36	No	0.70	3.65	No	No
ECR	03_321	B	8/13/2024	18:36:05	15	5	14.56	4 to 3	>4	1	>4 to 1	10.21	9.76	10.78	No	1.02	5.54	No	No
ECR	03_321	C	8/13/2024	18:37:22	15	5	14.56	4 to 3	>4	1	>4 to 1	11.53	11.36	11.85	No	0.49	7.54	No	No
ECR	03_322	A	8/13/2024	18:28:27	15	5	14.56	4 to 3	>4	1	>4 to 1	10.45	10.10	10.81	No	0.71	4.26	No	No
ECR	03_322	C	8/13/2024	18:31:03	15	5	14.56	4 to 3	>4	1	>4 to 1	10.52	10.27	10.88	No	0.61	8.12	No	No
ECR	03_322	D	8/13/2024	18:32:12	15	5	14.56	4 to 3	>4	1	>4 to 1	9.43	9.30	9.76	No	0.47	4.79	No	No
ECR	03_323	A	8/13/2024	18:15:24	15	5	14.56	4 to 3	>4	1	>4 to 1	9.67	9.00	10.20	No	1.20	5.85	No	No
ECR	03_323	B	8/13/2024	18:16:46	15	5	14.56	4 to 3	>4	1	>4 to 1	12.25	11.91	12.51	No	0.60	4.07	No	No
ECR	03_323	C	8/13/2024	18:17:57	15	5	14.56	4 to 3	>4	1	>4 to 1	10.09	9.64	10.46	No	0.82	3.30	No	No
ECR	03_324	B	8/13/2024	18:02:03	15	5	14.56	4 to 3	>4	1	>4 to 1	5.99	5.61	6.95	No	1.34	3.51	No	No
ECR	03_324	C	8/13/2024	18:03:25	15	5	14.56	4 to 3	>4	1	>4 to 1	6.03	5.66	6.44	No	0.78	3.58	No	No
ECR	03_324	D	8/13/2024	18:04:42	15	5	14.56	4 to 3	>4	1	>4 to 1	6.67	6.34	7.17	No	0.83	3.63	No	No
ECR	04_325	A	8/13/2024	19:51:46	15	5	14.56	4 to 3	>4	1	>4 to 1	9.53	8.95	10.22	No	1.28	7.96	No	No
ECR	04_325	B	8/13/2024	19:52:56	15	5	14.56	4 to 3	>4	1	>4 to 1	6.47	6.27	6.83	No	0.56	IND	No	No
ECR	04_325	C	8/13/2024	19:54:30	15	5	14.56	4 to 3	>4	1	>4 to 1	9.75	9.35	10.34	No	1.00	6.66	No	No
ECR	04_326	A	8/13/2024	19:57:17	15	5	14.56	4 to 3	>4	1	>4 to 1	7.44	7.04	7.99	No	0.95	IND	Yes	No
ECR	04_326	B	8/13/2024	19:58:49	15	5	14.56	4 to 3	>4	1	>4 to 1	9.06	8.80	9.42	No	0.62	IND	Yes	No
ECR	04_326	C	8/13/2024	20:00:13	15	5	14.56	4 to 3	>4	1	>4 to 1	9.29	8.32	10.32	No	2.01	4.70	No	No
ECR	04_327	A	8/13/2024	20:03:48	15	5	14.56	4 to 3	>4	1	>4 to 1	9.52	9.28	9.94	No	0.66	4.75	No	No
ECR	04_327	C	8/13/2024	20:06:36	15	5	14.56	4 to 3	>4	1	>4 to 1	9.25	8.72	9.79	No	1.07	4.40	No	No
ECR	04_327	D	8/13/2024	20:07:48	15	5	14.56	4 to 3	>4	1	>4 to 1	8.83	8.59	9.20	No	0.61	4.36	No	No
ECR	04_328	A	8/13/2024	20:09:31	15	5	14.56	4 to 3	>4	1	>4 to 1	9.28	8.99	9.72	No	0.73	6.66	No	No
ECR	04_328	B	8/13/2024	20:10:41	15	5	14.56	4 to 3	>4	1	>4 to 1	9.73	9.39	10.13	No	0.74	5.52	No	No
ECR	04_328	D	8/13/2024	20:13:12	15	5	14.56	4 to 3	>4	1	>4 to 1	9.44	9.21	9.67	No	0.45	4.60	No	No
ECR	04_329	A	8/13/2024	20:15:53	15	5	14.56	4 to 3	>4	1	>4 to 1	10.91	10.66	11.25	No	0.59	6.23	No	No
ECR	04_329	B	8/13/2024	20:17:31	15	5	14.56	4 to 3	>4	1	>4 to 1	9.69	9.36	10.15	No	0.79	5.11	No	No
ECR	04_329	C	8/13/2024	20:18:50	15	5	14.56	4 to 3	>4	1	>4 to 1	8.63	8.03	9.30	No	1.27	4.29	No	No
ECR	04_330	B	8/13/2024	20:23:50	15	5	14.56	4 to 3	>4	1	>4 to 1	8.70	8.28	9.03	No	0.75	4.77	No	No
ECR	04_330	C	8/13/2024	20:25:02	15	5	14.56	4 to 3	>4	1	>4 to 1	8.02	7.60	8.69	No	1.10	4.71	No	No
ECR	04_330	D	8/13/2024	20:26:24	15	5	14.56	4 to 3	>4	1	>4 to 1	10.19	9.82	10.49	No	0.67	4.30	No	No

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
ECR	04_331	A	8/13/2024	20:34:09	15	5	14.56	4 to 3	>4	1	>4 to 1	10.40	10.02	10.76	No	0.74	5.74	No	No
ECR	04_331	B	8/13/2024	20:35:21	15	5	14.56	4 to 3	>4	1	>4 to 1	11.16	10.67	11.63	No	0.96	5.99	No	No
ECR	04_331	C	8/13/2024	20:36:55	15	5	14.56	4 to 3	>4	1	>4 to 1	10.48	10.29	10.78	No	0.50	4.85	No	No
ECR	04_332	A	8/13/2024	20:50:07	15	5	14.56	4 to 3	>4	1	>4 to 1	12.15	11.64	12.68	No	1.04	4.18	No	No
ECR	04_332	D	8/13/2024	20:54:28	15	5	14.56	4 to 3	>4	1	>4 to 1	11.76	11.37	12.21	No	0.84	3.37	No	No
ECR	04_332	E	8/13/2024	20:56:01	15	5	14.56	4 to 3	>4	1	>4 to 1	10.90	10.44	11.35	No	0.91	2.76	No	No
ECR	05_333	A	8/13/2024	14:46:02	15	5	14.56	4 to 3	>4	1	>4 to 1	8.46	7.42	9.08	No	1.66	4.07	No	No
ECR	05_333	B	8/13/2024	14:47:32	15	5	14.56	4 to 3	>4	1	>4 to 1	8.86	8.28	9.30	No	1.02	4.16	No	No
ECR	05_333	C	8/13/2024	14:48:44	15	5	14.56	4 to 3	>4	1	>4 to 1	9.67	9.12	10.22	No	1.10	4.44	No	No
ECR	05_334	A	8/13/2024	14:51:52	15	5	14.56	4 to 3	>4	1	>4 to 1	8.64	8.50	9.03	No	0.53	4.53	No	No
ECR	05_334	B	8/13/2024	14:53:07	15	5	14.56	4 to 3	>4	1	>4 to 1	9.15	8.78	9.45	No	0.67	5.07	No	No
ECR	05_334	D	8/13/2024	14:55:38	15	5	14.56	4 to 3	>4	1	>4 to 1	7.57	7.16	8.24	No	1.08	3.27	No	No
ECR	05_335	A	8/13/2024	14:57:09	15	5	14.56	4 to 3	>4	1	>4 to 1	7.63	7.41	8.06	No	0.65	6.37	No	No
ECR	05_335	B	8/13/2024	14:58:23	15	5	14.56	4 to 3	>4	1	>4 to 1	9.82	9.47	10.20	No	0.73	6.47	No	No
ECR	05_335	C	8/13/2024	14:59:32	15	5	14.56	4 to 3	>4	1	>4 to 1	11.89	11.43	12.51	No	1.07	6.23	No	No
ECR	05_336	A	8/13/2024	15:02:22	15	5	14.56	4 to 3	>4	1	>4 to 1	9.15	9.03	9.50	No	0.47	4.62	No	No
ECR	05_336	B	8/13/2024	15:03:39	15	5	14.56	4 to 3	>4	1	>4 to 1	8.79	8.67	9.15	No	0.48	5.25	No	No
ECR	05_336	D	8/13/2024	15:06:19	15	5	14.56	4 to 3	>4	1	>4 to 1	9.32	8.95	9.62	No	0.67	6.75	No	No
ECR	05_337	A	8/13/2024	15:08:26	15	5	14.56	4 to 3	>4	1	>4 to 1	10.84	10.50	11.15	No	0.65	IND	No	No
ECR	05_337	E	8/13/2024	16:53:23	15	5	14.56	4 to 3	>4	1	>4 to 1	8.12	7.61	8.69	No	1.08	2.79	No	No
ECR	05_337	F	8/13/2024	16:55:06	15	5	14.56	4 to 3	>4	1	>4 to 1	8.86	8.59	9.25	No	0.66	3.37	No	No
ECR	05_338	A	8/13/2024	15:15:02	15	5	14.56	4 to 3	>4	0	>4 to 0	8.45	8.33	8.77	No	0.44	4.05	No	No
ECR	05_338	B	8/13/2024	15:16:12	15	5	14.56	4 to 3	>4	1	>4 to 1	8.61	6.43	9.40	No	2.97	2.73	No	No
ECR	05_338	C	8/13/2024	15:17:47	15	5	14.56	4 to 3	>4	1	>4 to 1	13.00	12.42	13.35	No	0.93	3.54	No	No
ECR	05_339	A	8/13/2024	15:23:41	15	5	14.56	4 to 3	>4	1	>4 to 1	7.48	6.80	8.09	No	1.29	3.89	No	No
ECR	05_339	B	8/13/2024	15:25:19	15	5	14.56	4 to 3	>4	1	>4 to 1	7.54	6.90	8.45	No	1.56	4.37	No	No
ECR	05_339	D	8/13/2024	15:27:44	15	5	14.56	4 to 3	>4	0	>4 to 0	9.59	9.38	10.03	No	0.65	5.09	No	No
ECR	05_340	A	8/13/2024	15:48:46	15	5	14.56	4 to 3	>4	2	>4 to 2	5.72	5.49	6.03	No	0.54	3.01	No	No
ECR	05_340	B	8/13/2024	15:49:56	15	5	14.56	4 to 3	>4	1	>4 to 1	7.02	6.58	7.50	No	0.92	3.89	No	No
ECR	05_340	D	8/13/2024	15:52:33	15	5	14.56	4 to 3	>4	1	>4 to 1	6.19	6.00	6.49	No	0.49	3.14	No	No
ECR	06_341	A	8/13/2024	12:56:44	15	5	14.56	4 to 3	>4	1	>4 to 1	11.07	10.67	11.41	No	0.74	8.49	Yes	No
ECR	06_341	B	8/13/2024	12:57:54	15	5	14.56	4 to 3	>4	1	>4 to 1	8.46	8.22	8.77	No	0.55	5.19	No	No
ECR	06_341	C	8/13/2024	12:59:07	15	5	14.56	4 to 3	>4	1	>4 to 1	12.89	12.72	13.42	No	0.70	4.67	No	No
ECR	06_342	A	8/13/2024	12:51:40	15	5	14.56	4 to 3	>4	1	>4 to 1	9.42	9.19	9.74	No	0.55	5.72	Yes	No
ECR	06_342	B	8/13/2024	12:52:59	15	5	14.56	4 to 3	>4	1	>4 to 1	9.91	9.65	10.25	No	0.59	4.08	No	No
ECR	06_342	C	8/13/2024	12:54:13	15	5	14.56	4 to 3	>4	1	>4 to 1	10.13	8.95	10.54	No	1.59	3.39	No	No
ECR	06_343	A	8/13/2024	12:45:53	15	5	14.56	4 to 3	>4	1	>4 to 1	8.14	7.72	8.75	No	1.03	4.01	No	No
ECR	06_343	B	8/13/2024	12:47:25	15	5	14.56	4 to 3	>4	1	>4 to 1	10.52	10.21	10.90	No	0.70	6.88	No	No
ECR	06_343	C	8/13/2024	12:48:41	15	5	14.56	4 to 3	>4	1	>4 to 1	9.52	9.09	9.91	No	0.81	4.92	No	No
ECR	06_344	A	8/13/2024	12:40:22	15	5	14.56	4 to 3	>4	1	>4 to 1	11.12	10.71	11.56	No	0.85	5.11	No	No
ECR	06_344	B	8/13/2024	12:41:47	15	5	14.56	4 to 3	>4	1	>4 to 1	8.43	8.08	9.08	No	1.01	3.98	No	No
ECR	06_344	C	8/13/2024	12:42:57	15	5	14.56	4 to 3	>4	1	>4 to 1	10.50	10.09	11.03	No	0.94	9.32	Yes	No
ECR	06_345	A	8/13/2024	12:33:32	15	5	14.56	4 to 3	>4	1	>4 to 1	9.41	9.28	9.69	No	0.41	5.46	No	No

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
ECR	06_345	C	8/13/2024	12:36:35	15	5	14.56	4 to 3/>4	>4	1	>4 to 1	11.27	10.70	11.75	No	1.06	4.57	No	No
ECR	06_345	D	8/13/2024	12:38:08	15	5	14.56	4 to 3	>4	1	>4 to 1	7.77	7.37	8.28	No	0.91	5.35	No	No
ECR	06_346	A	8/13/2024	12:25:33	15	5	14.56	4 to 3	>4	1	>4 to 1	8.89	8.52	9.45	No	0.92	3.03	No	No
ECR	06_346	B	8/13/2024	12:26:51	15	5	14.56	4 to 3	>4	1	>4 to 1	10.60	10.15	11.10	No	0.95	6.89	No	No
ECR	06_346	C	8/13/2024	12:28:03	15	5	14.56	4 to 3	>4	1	>4 to 1	11.48	11.34	11.92	No	0.58	5.20	No	No
ECR	06_347	A	8/13/2024	12:16:23	15	5	14.56	4 to 3	>4	1	>4 to 1	7.81	6.43	8.53	No	2.10	4.98	No	No
ECR	06_347	B	8/13/2024	12:18:23	15	5	14.56	4 to 3	>4	2	>4 to 2	9.43	9.08	9.94	No	0.86	5.46	No	No
ECR	06_347	C	8/13/2024	12:19:52	15	5	14.56	4 to 3	>4	1	>4 to 1	9.50	8.99	10.22	No	1.24	5.83	No	No
ECR	06_348	A	8/13/2024	12:00:59	15	5	14.56	4 to 3	>4	1	>4 to 1	10.24	9.92	10.66	No	0.74	5.12	No	No
ECR	06_348	B	8/13/2024	12:02:46	15	5	14.56	4 to 3	>4	1	>4 to 1	11.84	10.89	12.48	No	1.59	4.48	No	No
ECR	06_348	C	8/13/2024	12:04:16	15	5	14.56	4 to 3	>4	1	>4 to 1	9.12	8.64	9.59	No	0.95	3.94	No	No
ECR	07_349	A	8/13/2024	9:55:57	15	5	14.56	3 to 2	>4	1	>4 to 1	5.10	3.40	6.44	No	3.04	IND	No	No
ECR	07_349	B	8/13/2024	9:57:13	15	5	14.56	3 to 2	>4	0	>4 to 0	6.21	5.05	7.60	No	2.55	IND	No	No
ECR	07_349	C	8/13/2024	9:58:59	15	5	14.56	3 to 2	>4	1	>4 to 1	6.42	6.15	7.14	No	1.00	IND	No	No
ECR	07_350	A	8/13/2024	9:48:25	15	5	14.56	3 to 2	>4	0	>4 to 0	6.93	4.82	7.80	No	2.98	IND	No	No
ECR	07_350	C	8/13/2024	9:51:20	15	5	14.56	3 to 2	>4	1	>4 to 1	6.20	5.31	7.00	No	1.69	IND	No	No
ECR	07_350	D	8/13/2024	9:52:32	15	5	14.56	3 to 2	>4	0	>4 to 0	7.81	6.62	8.57	No	1.95	IND	No	No
ECR	07_351	A	8/13/2024	9:40:08	15	5	14.56	3 to 2	>4	1	>4 to 1	4.36	4.20	4.59	No	0.39	IND	No	No
ECR	07_351	B	8/13/2024	9:41:26	15	5	14.56	3 to 2	>4	0	>4 to 0	4.86	3.58	7.38	No	3.81	IND	No	No
ECR	07_351	E	8/13/2024	9:45:43	15	5	14.56	3 to 2	>4	1	>4 to 1	5.77	4.93	7.17	No	2.24	IND	No	No
ECR	07_352	A	8/13/2024	9:34:38	15	5	14.56	3 to 2	>4	1	>4 to 1	4.53	4.03	5.03	No	1.00	IND	No	No
ECR	07_352	B	8/13/2024	9:35:52	15	5	14.56	2 to 1	>4	1	>4 to 1	7.21	5.84	8.06	No	2.22	IND	No	No
ECR	07_352	C	8/13/2024	9:37:10	15	5	14.56	3 to 2	>4	1	>4 to 1	5.79	5.63	6.22	No	0.59	IND	No	No
ECR	07_353	A	8/13/2024	9:27:29	15	5	14.56	3 to 2	>4	1	>4 to 1	5.85	4.81	6.49	No	1.68	IND	No	No
ECR	07_353	B	8/13/2024	9:29:19	15	5	14.56	3 to 2	>4	1	>4 to 1	2.82	2.45	3.23	No	0.78	IND	No	No
ECR	07_353	C	8/13/2024	9:30:34	15	5	14.56	3 to 2	>4	1	>4 to 1	4.79	4.52	5.27	No	0.75	IND	No	No
ECR	07_354	A	8/13/2024	9:20:52	15	5	14.56	3 to 2	>4	1	>4 to 1	5.16	4.69	5.64	No	0.95	IND	No	No
ECR	07_354	B	8/13/2024	9:22:21	15	5	14.56	3 to 2	>4	1	>4 to 1	6.65	6.20	7.58	No	1.38	IND	No	No
ECR	07_354	C	8/13/2024	9:23:50	15	5	14.56	2 to 1	>4	0	>4 to 0	8.71	7.34	9.25	No	1.91	IND	No	No
ECR	07_355	A	8/13/2024	9:11:37	15	5	14.56	2 to 1	>4	1	>4 to 1	7.79	6.60	8.72	No	2.12	IND	No	No
ECR	07_355	B	8/13/2024	9:14:47	15	5	14.56	3 to 2	>4	1	>4 to 1	5.63	4.54	6.95	No	2.41	IND	No	No
ECR	07_355	C	8/13/2024	9:15:55	15	5	14.56	2 to 1	>4	1	>4 to 1	5.31	3.56	6.63	No	3.07	IND	No	No
ECR	07_356	F	8/13/2024	8:55:07	15	5	14.56	2 to 1	>4	1	>4 to 1	4.61	4.24	5.40	No	1.15	IND	No	No
ECR	07_356	G	8/13/2024	8:56:35	15	5	14.56	2 to 1	>4	0	>4 to 0	5.21	4.34	6.41	No	2.08	IND	No	No
ECR	07_356	H	8/13/2024	8:57:40	15	5	14.56	2 to 1	>4	0	>4 to 0	5.86	4.68	6.63	No	1.95	IND	No	No
ECR	08_357	A	8/14/2024	4:53:35	14	5	14.56	3 to 2	>4	0	>4 to 0	5.76	5.36	6.34	No	0.99	IND	No	No
ECR	08_357	B	8/14/2024	4:55:11	14	5	14.56	3 to 2	>4	1	>4 to 1	6.27	4.46	7.12	No	2.65	IND	No	No
ECR	08_357	C	8/14/2024	4:56:29	14	5	14.56	3 to 2	>4	0	>4 to 0	6.34	6.15	6.76	No	0.61	IND	No	No
ECR	08_358	A	8/14/2024	4:47:35	14	5	14.56	3 to 2	>4	1	>4 to 1	5.65	4.93	6.24	No	1.31	IND	No	No
ECR	08_358	B	8/14/2024	4:48:57	14	5	14.56	3 to 2	>4	1	>4 to 1	7.07	6.79	7.31	No	0.52	IND	No	No
ECR	08_358	C	8/14/2024	4:50:40	14	5	14.56	3 to 2	>4	1	>4 to 1	5.72	5.24	6.29	No	1.06	IND	No	No
ECR	08_359	A	8/14/2024	4:41:19	14	5	14.56	3 to 2	>4	1	>4 to 1	4.40	3.91	5.27	No	1.36	IND	No	No
ECR	08_359	B	8/14/2024	4:42:45	14	5	14.56	3 to 2	>4	1	>4 to 1	5.52	5.32	5.83	No	0.51	IND	No	No
ECR	08_359	C	8/14/2024	4:44:09	14	5	14.56	3 to 2	>4	1	>4 to 1	7.21	6.48	7.92	No	1.43	IND	No	No

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
ECR	08_360	A	8/14/2024	4:34:20	14	5	14.56	3 to 2	>4	1	>4 to 1	4.77	4.32	5.73	No	1.41	IND	No	No
ECR	08_360	C	8/14/2024	4:37:17	14	5	14.56	3 to 2	>4	1	>4 to 1	5.95	5.83	6.17	No	0.34	IND	No	No
ECR	08_360	D	8/14/2024	4:39:22	14	5	14.56	3 to 2	>4	0	>4 to 0	5.13	4.96	5.64	No	0.68	IND	No	No
ECR	08_361	A	8/14/2024	4:27:05	14	5	14.56	3 to 2	>4	1	>4 to 1	6.33	4.56	7.17	No	2.61	IND	No	No
ECR	08_361	B	8/14/2024	4:28:36	14	5	14.56	3 to 2	>4	1	>4 to 1	5.83	4.86	6.29	No	1.43	IND	No	No
ECR	08_361	C	8/14/2024	4:29:50	14	5	14.56	3 to 2	>4	1	>4 to 1	5.92	5.45	6.44	No	0.99	IND	No	No
ECR	08_362	A	8/14/2024	4:20:15	14	5	14.56	3 to 2	>4	1	>4 to 1	6.39	5.90	6.80	No	0.90	IND	No	No
ECR	08_362	B	8/14/2024	4:21:25	14	5	14.56	3 to 2	>4	1	>4 to 1	6.56	5.65	7.50	No	1.86	IND	No	No
ECR	08_362	C	8/14/2024	4:22:44	14	5	14.56	3 to 2	>4	1	>4 to 1	6.52	5.25	7.26	No	2.01	IND	No	No
ECR	08_363	A	8/14/2024	4:09:46	14	5	14.56	IND	>4	2	>4 to 2	0.24	0.00	0.96	No	0.96	IND	No	No
ECR	08_363	B	8/14/2024	4:11:22	14	5	14.56	3 to 2	>4	-6	>4 to -6	0.94	0.00	1.73	No	1.73	IND	No	No
ECR	08_363	C	8/14/2024	4:12:41	14	5	14.56	IND	>4	2	>4 to 2	0.42	0.00	1.00	No	1.00	IND	No	No
ECR	08_364	A	8/14/2024	3:49:37	15	5	14.56	4 to 3	>4	1	>4 to 1	6.45	6.25	6.90	No	0.64	2.48	No	No
ECR	08_364	B	8/14/2024	3:50:50	15	5	14.56	4 to 3	>4	1	>4 to 1	4.07	3.11	5.49	No	2.38	1.66	No	No
ECR	08_364	D	8/14/2024	3:54:28	15	5	14.56	4 to 3	>4	1	>4 to 1	5.05	4.59	5.47	No	0.88	3.93	Yes	No
ECR	09_365	A	8/13/2024	5:49:37	15	5	14.56	3 to 2	>4	1	>4 to 1	8.24	7.18	8.84	No	1.67	IND	No	No
ECR	09_365	B	8/13/2024	5:50:57	15	5	14.56	3 to 2	>4	1	>4 to 1	5.78	4.70	6.78	No	2.08	IND	No	No
ECR	09_365	C	8/13/2024	5:52:12	15	5	14.56	3 to 2	>4	1	>4 to 1	6.20	5.28	7.24	No	1.96	IND	No	No
ECR	09_366	A	8/13/2024	6:22:35	15	5	14.56	3 to 2	>4	1	>4 to 1	5.06	4.74	5.81	No	1.07	IND	No	No
ECR	09_366	C	8/13/2024	6:25:37	15	5	14.56	3 to 2	>4	1	>4 to 1	6.57	6.01	7.19	No	1.18	IND	No	No
ECR	09_366	D	8/13/2024	6:27:16	15	5	14.56	3 to 2	>4	1	>4 to 1	6.39	4.12	8.14	No	4.02	IND	No	No
ECR	09_367	A	8/13/2024	6:29:17	15	5	14.56	3 to 2	>4	1	>4 to 1	5.78	5.37	6.17	No	0.80	IND	No	No
ECR	09_367	B	8/13/2024	6:30:50	15	5	14.56	3 to 2	>4	1	>4 to 1	6.61	5.28	7.19	No	1.91	IND	No	No
ECR	09_367	C	8/13/2024	6:33:15	15	5	14.56	3 to 2	>4	1	>4 to 1	5.70	5.22	6.41	No	1.19	IND	No	No
ECR	09_368	A	8/13/2024	6:37:14	15	5	14.56	3 to 2	>4	0	>4 to 0	5.73	4.80	6.68	No	1.88	IND	No	No
ECR	09_368	B	8/13/2024	6:38:57	15	5	14.56	3 to 2	>4	0	>4 to 0	5.02	4.81	5.45	No	0.64	IND	No	No
ECR	09_368	C	8/13/2024	6:40:11	15	5	14.56	3 to 2	>4	1	>4 to 1	6.84	4.98	8.84	No	3.87	IND	No	No
ECR	09_369	A	8/13/2024	6:44:06	15	5	14.56	3 to 2	>4	1	>4 to 1	6.70	6.12	7.60	No	1.48	IND	No	No
ECR	09_369	B	8/13/2024	6:45:52	15	5	14.56	3 to 2	>4	1	>4 to 1	5.93	5.22	6.95	No	1.72	IND	No	No
ECR	09_369	D	8/13/2024	6:49:16	15	5	14.56	3 to 2	>4	1	>4 to 1	5.73	5.04	6.12	No	1.08	IND	No	No
ECR	09_370	A	8/13/2024	6:53:10	15	5	14.56	3 to 2	>4	1	>4 to 1	6.65	5.22	8.06	No	2.84	IND	No	No
ECR	09_370	B	8/13/2024	6:54:37	15	5	14.56	3 to 2	>4	1	>4 to 1	5.75	4.93	6.34	No	1.41	IND	No	No
ECR	09_370	C	8/13/2024	6:56:01	15	5	14.56	3 to 2	>4	1	>4 to 1	5.64	5.20	6.07	No	0.88	IND	No	No
ECR	09_371	A	8/13/2024	7:02:19	15	5	14.56	3 to 2	>4	1	>4 to 1	5.03	3.87	6.88	No	3.00	IND	No	No
ECR	09_371	B	8/13/2024	7:03:56	15	5	14.56	3 to 2	>4	1	>4 to 1	8.26	7.40	8.89	No	1.49	IND	No	No
ECR	09_371	C	8/13/2024	7:05:39	15	5	14.56	3 to 2	>4	1	>4 to 1	7.24	6.22	8.33	No	2.11	IND	No	No
ECR	09_372	A	8/13/2024	7:17:49	15	5	14.56	3 to 2	>4	1	>4 to 1	4.39	3.88	5.01	No	1.13	IND	No	No
ECR	09_372	B	8/13/2024	7:19:33	15	5	14.56	3 to 2	>4	1	>4 to 1	3.89	3.19	5.61	No	2.43	IND	No	No
ECR	09_372	C	8/13/2024	7:20:53	15	5	14.56	3 to 2	>4	1	>4 to 1	4.58	4.10	5.27	No	1.17	IND	No	No
ECR	10_373	A	8/13/2024	3:59:14	15	5	14.56	3 to 2	>4	1	>4 to 1	6.89	6.69	7.26	No	0.58	IND	No	No
ECR	10_373	B	8/13/2024	4:01:37	15	5	14.56	3 to 2	>4	0	>4 to 0	7.34	6.54	8.65	No	2.11	IND	No	No
ECR	10_373	D	8/13/2024	4:04:15	15	5	14.56	3 to 2	>4	0	>4 to 0	6.43	4.89	7.43	No	2.54	IND	No	No
ECR	10_374	A	8/13/2024	3:53:43	15	5	14.56	3 to 2	>4	1	>4 to 1	5.53	4.85	6.15	No	1.29	IND	No	No
ECR	10_374	B	8/13/2024	3:54:50	15	5	14.56	3 to 2	>4	0	>4 to 0	6.72	6.51	7.07	No	0.56	4.52	No	No
ECR	10_374	C	8/13/2024	3:56:07	15	5	14.56	3 to 2	>4	1	>4 to 1	7.32	6.94	7.87	No	0.93	IND	No	No
ECR	10_375	A	8/13/2024	3:42:57	15	5	14.56	3 to 2	>4	0	>4 to 0	6.04	5.32	7.75	No	2.43	IND	No	No
ECR	10_375	B	8/13/2024	3:44:08	15	5	14.56	3 to 2	>4	1	>4 to 1	4.88	4.20	6.71	No	2.50	IND	No	No

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
ECR	10_375	D	8/13/2024	3:52:34	15	5	14.56	3 to 2	>4	1	>4 to 1	8.42	7.80	8.81	No	1.01	IND	No	No
ECR	10_376	A	8/13/2024	3:37:29	15	5	14.56	3 to 2	>4	0	>4 to 0	6.73	4.74	8.33	No	3.59	IND	No	No
ECR	10_376	B	8/13/2024	3:39:04	15	5	14.56	3 to 2	>4	0	>4 to 0	5.17	4.96	5.61	No	0.66	IND	No	No
ECR	10_376	C	8/13/2024	3:40:14	15	5	14.56	3 to 2	>4	1	>4 to 1	5.11	4.28	6.34	No	2.06	IND	No	No
ECR	10_377	A	8/13/2024	3:30:35	15	5	14.56	3 to 2	>4	1	>4 to 1	6.50	5.13	7.31	No	2.18	IND	No	No
ECR	10_377	B	8/13/2024	3:31:48	15	5	14.56	3 to 2	>4	1	>4 to 1	5.74	5.46	6.05	No	0.59	IND	No	No
ECR	10_377	C	8/13/2024	3:33:11	15	5	14.56	3 to 2	>4	0	>4 to 0	6.09	5.48	6.71	No	1.23	IND	No	No
ECR	10_378	A	8/13/2024	3:22:26	15	5	14.56	2 to 1	>4	0	>4 to 0	7.15	6.21	7.65	No	1.45	IND	No	No
ECR	10_378	B	8/13/2024	3:24:04	15	5	14.56	3 to 2	>4	-1	>4 to -1	5.16	4.15	7.00	No	2.84	IND	No	No
ECR	10_378	C	8/13/2024	3:25:15	15	5	14.56	2 to 1	>4	0	>4 to 0	7.96	6.84	8.87	No	2.03	IND	No	No
ECR	10_379	A	8/13/2024	3:10:59	15	5	14.56	3 to 2	>4	0	>4 to 0	6.24	4.69	6.98	No	2.29	IND	No	No
ECR	10_379	B	8/13/2024	3:12:20	15	5	14.56	3 to 2	>4	-1	>4 to -1	5.54	5.31	6.03	No	0.71	IND	No	No
ECR	10_379	C	8/13/2024	3:13:39	15	5	14.56	IND	>4	1	>4 to 1	0.42	0.00	1.37	No	1.37	IND	No	No
ECR	10_380	A	8/13/2024	2:49:01	15	5	14.56	4 to 3	>4	1	>4 to 1	5.23	4.93	5.61	No	0.68	2.75	No	No
ECR	10_380	B	8/13/2024	2:50:17	15	5	14.56	4 to 3	>4	1	>4 to 1	10.30	9.76	10.90	No	1.14	3.64	No	No
ECR	10_380	C	8/13/2024	2:51:35	15	5	14.56	4 to 3	>4	1	>4 to 1	4.10	3.74	4.52	No	0.78	4.10	Yes	No
ECR	11_381	A	8/12/2024	21:04:22	15	5	14.56	3 to 2	>4	0	>4 to 0	6.48	5.41	7.29	No	1.87	IND	No	No
ECR	11_381	B	8/12/2024	21:05:48	15	5	14.56	3 to 2	>4	1	>4 to 1	5.49	4.86	6.49	No	1.63	IND	No	No
ECR	11_381	C	8/12/2024	21:07:02	15	5	14.56	3 to 2	>4	0	>4 to 0	5.92	3.93	7.07	No	3.14	IND	No	No
ECR	11_382	B	8/12/2024	20:58:13	15	5	14.56	3 to 2	>4	1	>4 to 1	7.27	6.42	8.38	No	1.96	IND	No	No
ECR	11_382	C	8/12/2024	21:00:03	15	5	14.56	3 to 2	>4	0	>4 to 0	5.79	4.28	6.68	No	2.40	IND	No	No
ECR	11_382	D	8/12/2024	21:02:03	15	5	14.56	3 to 2	>4	1	>4 to 1	4.99	4.59	5.67	No	1.07	IND	No	No
ECR	11_383	A	8/12/2024	20:49:51	15	5	14.56	3 to 2	>4	1	>4 to 1	5.23	4.62	6.15	No	1.53	IND	No	No
ECR	11_383	C	8/12/2024	20:53:13	15	5	14.56	3 to 2	>4	1	>4 to 1	4.26	3.88	4.79	No	0.91	IND	No	No
ECR	11_383	D	8/12/2024	20:54:59	15	5	14.56	3 to 2	>4	0	>4 to 0	6.75	5.93	7.67	No	1.75	IND	No	No
ECR	11_384	A	8/12/2024	20:43:14	15	5	14.56	3 to 2	>4	0	>4 to 0	5.96	5.08	6.51	No	1.43	IND	No	No
ECR	11_384	B	8/12/2024	20:44:40	15	5	14.56	3 to 2	>4	0	>4 to 0	6.61	5.83	8.14	No	2.31	IND	No	No
ECR	11_384	C	8/12/2024	20:46:04	15	5	14.56	3 to 2	>4	1	>4 to 1	4.72	4.06	6.07	No	2.01	IND	No	No
ECR	11_385	A	8/12/2024	20:36:56	15	5	14.56	3 to 2	>4	1	>4 to 1	6.58	4.60	8.09	No	3.49	IND	No	No
ECR	11_385	B	8/12/2024	20:38:08	15	5	14.56	3 to 2	>4	1	>4 to 1	6.97	6.54	8.04	No	1.50	IND	No	No
ECR	11_385	C	8/12/2024	20:39:36	15	5	14.56	3 to 2	>4	0	>4 to 0	9.20	7.74	9.86	No	2.12	IND	No	No
ECR	11_386	A	8/12/2024	20:27:33	15	5	14.56	3 to 2	>4	1	>4 to 1	7.53	6.75	8.43	No	1.67	IND	No	No
ECR	11_386	B	8/12/2024	20:28:55	15	5	14.56	3 to 2	>4	1	>4 to 1	5.82	4.79	6.78	No	1.99	IND	No	No
ECR	11_386	D	8/12/2024	20:32:51	15	5	14.56	3 to 2	>4	1	>4 to 1	5.21	4.37	6.66	No	2.29	IND	No	No
ECR	11_387	A	8/12/2024	20:16:13	15	5	14.56	3 to 2	>4	1	>4 to 1	6.04	5.60	6.36	No	0.77	IND	No	No
ECR	11_387	B	8/12/2024	20:17:28	15	5	14.56	3 to 2	>4	1	>4 to 1	4.47	4.26	4.74	No	0.48	IND	No	No
ECR	11_387	C	8/12/2024	20:19:14	15	5	14.56	3 to 2	>4	1	>4 to 1	4.91	4.24	5.57	No	1.33	IND	No	No
ECR	11_388	A	8/12/2024	20:01:24	15	5	14.56	3 to 2	>4	0	>4 to 0	6.10	5.68	6.54	No	0.86	IND	No	No
ECR	11_388	B	8/12/2024	20:02:40	15	5	14.56	3 to 2	>4	1	>4 to 1	5.36	5.09	5.93	No	0.83	IND	No	No
ECR	11_388	C	8/12/2024	20:04:18	15	5	14.56	3 to 2	>4	0	>4 to 0	5.31	4.28	7.07	No	2.79	IND	No	No
ECR	12_389	A	8/12/2024	22:04:31	15	5	14.56	3 to 2	>4	1	>4 to 1	5.86	4.96	6.41	No	1.45	IND	No	No
ECR	12_389	C	8/12/2024	22:06:57	15	5	14.56	3 to 2	>4	-1	>4 to -1	6.76	6.12	7.55	No	1.43	IND	No	No
ECR	12_389	D	8/12/2024	22:08:05	15	5	14.56	3 to 2	>4	-1	>4 to -1	4.97	4.10	6.03	No	1.92	IND	No	No
ECR	12_390	A	8/12/2024	22:10:33	15	5	14.56	3 to 2	>4	0	>4 to 0	5.47	4.69	7.02	No	2.33	IND	No	No
ECR	12_390	B	8/12/2024	22:11:49	15	5	14.56	3 to 2	>4	-1	>4 to -1	7.00	6.34	8.50	No	2.16	IND	No	No
ECR	12_390	D	8/12/2024	22:14:24	15	5	14.56	3 to 2	>4	1	>4 to 1	8.02	7.45	8.69	No	1.25	IND	No	No
ECR	12_391	A	8/12/2024	22:16:29	15	5	14.56	3 to 2	>4	0	>4 to 0	4.80	4.07	5.10	No	1.03	IND	No	No
ECR	12_391	B	8/12/2024	22:17:39	15	5	14.56	3 to 2	>4	0	>4 to 0	8.11	6.38	8.87	No	2.48	IND	No	No

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
ECR	12_391	D	8/12/2024	22:20:14	15	5	14.56	IND	IND	IND	IND to IND	0.00	0.00	0.00	No	IND	IND	No	IND
ECR	12_392	A	8/12/2024	22:21:44	15	5	14.56	3 to 2	>4	1	>4 to 1	4.65	4.25	5.40	No	1.14	IND	No	No
ECR	12_392	B	8/12/2024	22:22:52	15	5	14.56	IND	IND	IND	IND to IND	IND	IND	IND	No	IND	IND	No	IND
ECR	12_392	C	8/12/2024	22:24:33	15	5	14.56	3 to 2	>4	0	>4 to 0	2.65	2.28	3.13	No	0.86	IND	No	No
ECR	12_393	A	8/12/2024	22:28:22	15	5	14.56	IND	IND	IND	IND to IND	0.00	0.00	0.00	No	IND	IND	No	IND
ECR	12_393	B	8/12/2024	22:29:30	15	5	14.56	IND	IND	IND	IND to IND	0.00	0.00	0.00	No	IND	IND	No	IND
ECR	12_393	D	8/12/2024	22:32:09	15	5	14.56	IND	IND	IND	IND to IND	0.00	0.00	0.00	No	IND	IND	No	IND
ECR	12_394	A	8/12/2024	22:35:15	15	5	14.56	IND	IND	IND	IND to IND	IND	IND	IND	No	IND	IND	No	IND
ECR	12_394	B	8/12/2024	22:36:23	15	5	14.56	3 to 2	>4	0	>4 to 0	1.96	0.00	3.09	No	3.09	IND	No	No
ECR	12_394	C	8/12/2024	22:37:50	15	5	14.56	IND	IND	IND	IND to IND	IND	IND	IND	No	IND	IND	No	IND
ECR	12_395	A	8/12/2024	22:50:06	15	5	14.56	3 to 2	>4	1	>4 to 1	0.38	0.00	1.66	No	1.66	IND	No	No
ECR	12_395	B	8/12/2024	22:52:28	15	5	14.56	3 to 2	>4	1	>4 to 1	3.17	2.22	3.96	No	1.74	IND	No	No
ECR	12_395	C	8/12/2024	22:53:43	15	5	14.56	3 to 2	>4	1	>4 to 1	1.82	0.92	3.40	No	2.48	IND	No	No
ECR	12_396	A	8/12/2024	23:13:24	15	5	14.56	4 to 3	>4	2	>4 to 2	3.67	2.17	5.13	No	2.96	2.83	Yes	No
ECR	12_396	B	8/12/2024	23:14:34	15	5	14.56	4 to 3	>4	2	>4 to 2	4.59	4.30	5.13	No	0.83	2.99	No	No
ECR	12_396	C	8/12/2024	23:15:43	15	5	14.56	4 to 3	>4	1	>4 to 1	4.82	4.50	5.52	No	1.02	2.44	No	No
Lease Area	B17_154	A	8/12/2024	0:26:44	15	5	14.56	3 to 2	>4	1	>4 to 1	5.88	5.46	6.54	No	1.07	IND	No	No
Lease Area	B17_154	B	8/12/2024	0:28:08	15	5	14.56	3 to 2	>4	1	>4 to 1	6.73	5.84	7.22	No	1.38	IND	No	No
Lease Area	B17_154	D	8/12/2024	0:30:52	15	5	14.56	3 to 2	>4	1	>4 to 1	8.24	6.07	9.86	No	3.79	IND	No	No
Lease Area	B17_155	B	8/12/2024	0:34:05	15	5	14.56	3 to 2	>4	1	>4 to 1	6.57	5.92	7.24	No	1.32	IND	No	No
Lease Area	B17_155	C	8/12/2024	0:35:24	15	5	14.56	3 to 2	>4	1	>4 to 1	6.46	6.17	6.76	No	0.59	IND	No	No
Lease Area	B17_155	D	8/12/2024	0:36:47	15	5	14.56	3 to 2	>4	1	>4 to 1	6.88	6.45	7.60	No	1.15	IND	No	No
Lease Area	B17_156	A	8/12/2024	0:41:25	15	5	14.56	3 to 2	>4	1	>4 to 1	5.08	4.81	5.47	No	0.66	IND	No	No
Lease Area	B17_156	B	8/12/2024	0:42:50	15	5	14.56	3 to 2	>4	1	>4 to 1	6.68	6.42	7.07	No	0.65	IND	No	No
Lease Area	B17_156	C	8/12/2024	0:44:10	15	5	14.56	3 to 2	>4	1	>4 to 1	7.53	7.18	8.26	No	1.08	IND	No	No
Lease Area	B17_157	A	8/12/2024	0:48:59	14	5	14.56	3 to 2	>4	1	>4 to 1	6.37	5.78	6.80	No	1.02	IND	No	No
Lease Area	B17_157	B	8/12/2024	0:50:33	14	5	14.56	3 to 2	>4	0	>4 to 0	5.55	5.05	6.36	No	1.31	IND	No	No
Lease Area	B17_157	C	8/12/2024	0:52:15	14	5	14.56	3 to 2	>4	1	>4 to 1	5.79	5.44	6.92	No	1.48	IND	No	No
Lease Area	B17_158	A	8/12/2024	0:56:06	14	5	14.56	3 to 2/>4	>4	1	>4 to 1	8.74	8.17	9.18	No	1.01	3.34	No	No
Lease Area	B17_158	B	8/12/2024	0:57:27	14	5	14.56	4 to 3	>4	1	>4 to 1	7.32	6.90	7.80	No	0.90	5.57	No	No
Lease Area	B17_158	C	8/12/2024	0:59:12	14	5	14.56	3 to 2/>4	>4	1	>4 to 1	9.81	9.43	10.18	No	0.75	6.38	No	No
Lease Area	B17_159	A	8/12/2024	1:04:15	14	5	14.56	3 to 2	>4	-1	>4 to -1	7.37	5.75	9.11	No	3.36	IND	No	No
Lease Area	B17_159	B	8/12/2024	1:05:29	14	5	14.56	3 to 2	>4	0	>4 to 0	7.60	7.11	8.14	No	1.02	IND	No	No
Lease Area	B17_159	C	8/12/2024	1:06:48	14	5	14.56	3 to 2	>4	1	>4 to 1	5.13	4.83	5.54	No	0.70	IND	No	No
Lease Area	B17_160	A	8/12/2024	1:12:46	14	5	14.56	3 to 2	>4	1	>4 to 1	6.35	5.97	7.04	No	1.08	IND	No	No
Lease Area	B17_160	C	8/12/2024	1:15:21	14	5	14.56	3 to 2	>4	1	>4 to 1	6.77	5.87	7.34	No	1.47	IND	No	No
Lease Area	B17_160	F	8/12/2024	2:52:03	14	5	14.56	3 to 2	>4	0	>4 to 0	5.26	4.81	6.03	No	1.22	IND	No	No
Lease Area	B17_161	B	8/12/2024	1:21:54	14	5	14.56	4 to 3	>4	1	>4 to 1	5.80	4.37	6.56	No	2.19	5.80	Yes	No
Lease Area	B17_161	C	8/12/2024	1:23:28	14	5	14.56	4 to 3	>4	1	>4 to 1	5.05	3.98	6.54	No	2.56	3.95	No	No
Lease Area	B17_161	D	8/12/2024	1:25:12	14	5	14.56	4 to 3	>4	1	>4 to 1	5.43	4.81	5.83	No	1.02	3.46	No	No
Lease Area	B17_162	A	8/12/2024	1:45:14	14	5	14.56	3 to 2	>4	0	>4 to 0	4.15	3.97	4.57	No	0.60	IND	No	No

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
Lease Area	B17_162	B	8/12/2024	1:46:35	14	5	14.56	3 to 2	>4	0	>4 to 0	6.37	5.49	7.07	No	1.58	IND	No	No
Lease Area	B17_162	C	8/12/2024	1:47:52	14	5	14.56	3 to 2	>4	0	>4 to 0	6.56	6.02	7.38	No	1.36	IND	No	No
Lease Area	B17_163	A	8/11/2024	23:09:09	15	5	14.56	3 to 2	>4	1	>4 to 1	6.61	6.39	6.88	No	0.49	IND	No	No
Lease Area	B17_163	B	8/11/2024	23:12:18	15	5	14.56	3 to 2	>4	0	>4 to 0	7.19	6.92	7.43	No	0.51	IND	No	No
Lease Area	B17_163	C	8/11/2024	23:13:20	15	5	14.56	3 to 2	>4	0	>4 to 0	5.12	4.22	6.29	No	2.07	IND	No	No
Lease Area	B17_164	A	8/11/2024	23:00:42	15	5	14.56	3 to 2	>4	0	>4 to 0	6.50	4.82	7.19	No	2.37	IND	No	No
Lease Area	B17_164	B	8/11/2024	23:02:26	15	5	14.56	3 to 2	>4	1	>4 to 1	7.41	6.11	8.55	No	2.44	IND	No	No
Lease Area	B17_164	C	8/11/2024	23:03:55	15	5	14.56	3 to 2	>4	1	>4 to 1	6.34	6.02	6.83	No	0.80	IND	No	No
Lease Area	B17_165	A	8/11/2024	22:53:33	15	5	14.56	3 to 2	>4	1	>4 to 1	6.37	5.20	7.24	No	2.04	5.64	Yes	No
Lease Area	B17_165	B	8/11/2024	22:55:23	15	5	14.56	3 to 2	>4	0	>4 to 0	5.98	5.80	6.36	No	0.56	IND	No	No
Lease Area	B17_165	D	8/11/2024	22:57:47	15	5	14.56	3 to 2	>4	1	>4 to 1	7.31	7.10	7.58	No	0.48	IND	No	No
Lease Area	B17_166	A	8/11/2024	22:46:43	15	5	14.56	3 to 2	>4	0	>4 to 0	5.67	5.31	5.97	No	0.66	IND	No	No
Lease Area	B17_166	B	8/11/2024	22:47:56	15	5	14.56	3 to 2	>4	1	>4 to 1	5.07	4.83	5.32	No	0.48	IND	No	No
Lease Area	B17_166	C	8/11/2024	22:49:22	15	5	14.56	3 to 2	>4	1	>4 to 1	7.67	7.28	8.43	No	1.15	IND	No	No
Lease Area	B17_167	A	8/11/2024	22:39:14	15	5	14.56	3 to 2	>4	1	>4 to 1	7.58	7.11	7.94	No	0.83	IND	No	No
Lease Area	B17_167	B	8/11/2024	22:40:35	15	5	14.56	3 to 2	>4	0	>4 to 0	5.91	5.68	6.12	No	0.44	IND	No	No
Lease Area	B17_167	C	8/11/2024	22:42:01	15	5	14.56	3 to 2	>4	0	>4 to 0	6.72	6.29	7.46	No	1.17	IND	No	No
Lease Area	B17_168	B	8/11/2024	22:32:32	15	5	14.56	3 to 2	>4	1	>4 to 1	6.33	5.55	6.78	No	1.23	4.52	No	No
Lease Area	B17_168	C	8/11/2024	22:33:58	15	5	14.56	3 to 2	>4	0	>4 to 0	6.57	4.93	7.94	No	3.01	4.40	No	No
Lease Area	B17_168	D	8/11/2024	22:35:15	15	5	14.56	4 to 3/>4	>4	1	>4 to 1	7.99	7.31	8.72	No	1.41	1.60	No	No
Lease Area	B17_169	A	8/11/2024	22:20:35	15	5	14.56	3 to 2	>4	1	>4 to 1	5.73	4.63	7.14	No	2.52	IND	No	No
Lease Area	B17_169	B	8/11/2024	22:21:57	15	5	14.56	3 to 2	>4	1	>4 to 1	4.52	4.25	4.93	No	0.68	IND	No	No
Lease Area	B17_169	C	8/11/2024	22:23:17	15	5	14.56	2 to 1	>4	0	>4 to 0	6.30	5.51	7.04	No	1.54	IND	No	No
Lease Area	B17_170	A	8/11/2024	22:12:48	15	5	14.56	3 to 2	>4	0	>4 to 0	6.61	6.32	6.83	No	0.51	IND	No	No
Lease Area	B17_170	B	8/11/2024	22:15:02	15	5	14.56	3 to 2	>4	0	>4 to 0	8.09	7.74	8.55	No	0.81	IND	No	No
Lease Area	B17_170	C	8/11/2024	22:16:17	15	5	14.56	3 to 2	>4	1	>4 to 1	7.69	7.46	8.11	No	0.65	IND	No	No
Lease Area	B17_171	B	8/11/2024	21:58:20	15	5	14.56	3 to 2	>4	1	>4 to 1	6.83	6.56	7.55	No	1.00	IND	No	No
Lease Area	B17_171	C	8/11/2024	21:59:44	15	5	14.56	3 to 2	>4	0	>4 to 0	6.72	6.15	7.26	No	1.12	IND	No	No
Lease Area	B17_171	D	8/11/2024	22:00:57	15	5	14.56	3 to 2	>4	0	>4 to 0	6.58	6.00	7.97	No	1.97	IND	No	No
Lease Area	C09_118	A	8/12/2024	11:29:01	15	5	14.56	3 to 2	>4	0	>4 to 0	5.36	4.74	6.88	No	2.14	IND	No	No
Lease Area	C09_118	B	8/12/2024	11:30:05	15	5	14.56	3 to 2	>4	0	>4 to 0	6.61	5.61	7.50	No	1.89	IND	No	No
Lease Area	C09_118	C	8/12/2024	11:31:16	15	5	14.56	3 to 2	>4	1	>4 to 1	7.22	7.07	7.48	No	0.41	IND	No	No
Lease Area	C09_119	A	8/12/2024	11:34:18	15	5	14.56	3 to 2	>4	1	>4 to 1	5.66	5.32	6.34	No	1.02	IND	No	No
Lease Area	C09_119	B	8/12/2024	11:35:55	15	5	14.56	3 to 2	>4	1	>4 to 1	6.79	6.05	7.29	No	1.24	IND	No	No
Lease Area	C09_119	D	8/12/2024	11:38:52	15	5	14.56	3 to 2	>4	0	>4 to 0	7.49	6.54	8.48	No	1.93	IND	No	No
Lease Area	C09_120	B	8/12/2024	11:42:08	15	5	14.56	3 to 2	>4	1	>4 to 1	6.43	6.23	6.83	No	0.60	IND	No	No
Lease Area	C09_120	C	8/12/2024	11:43:52	15	5	14.56	3 to 2	>4	1	>4 to 1	6.56	6.28	6.98	No	0.69	IND	No	No
Lease Area	C09_120	D	8/12/2024	11:45:14	15	5	14.56	3 to 2	>4	1	>4 to 1	5.83	5.58	6.41	No	0.83	IND	No	No
Lease Area	C09_121	A	8/12/2024	11:47:04	15	5	14.56	3 to 2	>4	-2	>4 to -2	7.99	7.53	8.45	No	0.92	IND	No	No
Lease Area	C09_121	B	8/12/2024	11:48:47	15	5	14.56	3 to 2	>4	0	>4 to 0	6.71	6.34	7.19	No	0.86	IND	No	No
Lease Area	C09_121	C	8/12/2024	11:50:34	15	5	14.56	3 to 2	>4	1	>4 to 1	6.18	5.43	6.73	No	1.30	IND	No	No
Lease Area	C09_122	A	8/12/2024	11:54:51	15	5	14.56	3 to 2	>4	1	>4 to 1	5.70	5.24	6.12	No	0.89	IND	No	No
Lease Area	C09_122	B	8/12/2024	11:56:10	15	5	14.56	3 to 2	>4	0	>4 to 0	7.09	6.47	7.48	No	1.01	IND	No	No
Lease Area	C09_122	D	8/12/2024	11:59:20	15	5	14.56	3 to 2	>4	0	>4 to 0	6.39	6.16	6.68	No	0.52	IND	No	No
Lease Area	C09_123	A	8/12/2024	12:08:57	15	5	14.56	3 to 2	>4	0	>4 to 0	7.19	6.47	7.82	No	1.35	IND	No	No
Lease Area	C09_123	B	8/12/2024	12:10:04	15	5	14.56	3 to 2	>4	1	>4 to 1	6.19	5.01	7.41	No	2.40	IND	No	No
Lease Area	C09_123	C	8/12/2024	12:11:16	15	5	14.56	3 to 2	>4	0	>4 to 0	7.47	5.53	8.67	No	3.15	IND	No	No

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
Lease Area	C09_124	A	8/12/2024	12:17:38	15	5	14.56	3 to 2	>4	0	>4 to 0	4.91	4.41	5.47	No	1.06	IND	No	No
Lease Area	C09_124	B	8/12/2024	12:18:55	15	5	14.56	3 to 2	>4	-1	>4 to -1	6.63	6.01	7.43	No	1.42	5.61	Yes	No
Lease Area	C09_124	C	8/12/2024	12:20:07	15	5	14.56	3 to 2	>4	0	>4 to 0	5.42	4.91	6.12	No	1.22	IND	No	No
Lease Area	C09_125	A	8/12/2024	12:24:30	15	5	14.56	3 to 2	>4	1	>4 to 1	6.62	5.25	7.46	No	2.21	IND	No	No
Lease Area	C09_125	B	8/12/2024	12:25:50	15	5	14.56	3 to 2	>4	0	>4 to 0	5.44	5.31	5.64	No	0.33	IND	No	No
Lease Area	C09_125	C	8/12/2024	12:27:15	15	5	14.56	3 to 2	>4	1	>4 to 1	7.42	6.13	8.41	No	2.28	IND	No	No
Lease Area	C09_126	A	8/12/2024	12:41:06	15	5	14.56	3 to 2	>4	1	>4 to 1	7.38	6.97	8.06	No	1.09	IND	No	No
Lease Area	C09_126	B	8/12/2024	12:42:34	15	5	14.56	3 to 2	>4	0	>4 to 0	6.32	5.95	6.71	No	0.76	IND	No	No
Lease Area	C09_126	C	8/12/2024	12:44:28	15	5	14.56	3 to 2	>4	1	>4 to 1	5.89	5.46	6.29	No	0.83	IND	No	No
Lease Area	C09_127	A	8/12/2024	10:33:49	15	5	14.56	3 to 2	>4	0	>4 to 0	6.41	5.13	7.60	No	2.48	IND	No	No
Lease Area	C09_127	B	8/12/2024	10:35:10	15	5	14.56	3 to 2	>4	0	>4 to 0	7.06	6.23	7.99	No	1.77	IND	No	No
Lease Area	C09_127	D	8/12/2024	10:38:07	15	5	14.56	3 to 2	>4	0	>4 to 0	6.57	6.39	6.88	No	0.49	IND	No	No
Lease Area	C09_128	A	8/12/2024	10:26:45	15	5	14.56	3 to 2	>4	0	>4 to 0	6.00	5.79	6.41	No	0.62	IND	No	No
Lease Area	C09_128	B	8/12/2024	10:28:10	15	5	14.56	3 to 2	>4	0	>4 to 0	5.67	4.76	6.49	No	1.73	IND	No	No
Lease Area	C09_128	C	8/12/2024	10:29:42	15	5	14.56	3 to 2	>4	0	>4 to 0	5.82	4.83	6.85	No	2.01	IND	No	No
Lease Area	C09_129	B	8/12/2024	10:22:02	15	5	14.56	3 to 2	>4	1	>4 to 1	6.08	5.37	6.63	No	1.26	IND	No	No
Lease Area	C09_129	C	8/12/2024	10:23:32	15	5	14.56	3 to 2	>4	0	>4 to 0	6.61	5.88	8.14	No	2.26	IND	No	No
Lease Area	C09_129	D	8/12/2024	10:24:48	15	5	14.56	3 to 2	>4	0	>4 to 0	6.01	5.41	6.44	No	1.03	4.34	No	No
Lease Area	C09_130	A	8/12/2024	10:12:51	15	5	14.56	3 to 2	>4	1	>4 to 1	5.88	5.10	7.17	No	2.06	IND	No	No
Lease Area	C09_130	B	8/12/2024	10:14:15	15	5	14.56	3 to 2	>4	0	>4 to 0	6.46	6.15	7.07	No	0.92	IND	No	No
Lease Area	C09_130	C	8/12/2024	10:15:44	15	5	14.56	3 to 2	>4	0	>4 to 0	5.84	5.33	6.80	No	1.47	IND	No	No
Lease Area	C09_131	A	8/12/2024	10:03:08	15	5	14.56	3 to 2	>4	1	>4 to 1	5.30	4.93	5.71	No	0.78	IND	No	No
Lease Area	C09_131	B	8/12/2024	10:04:57	15	5	14.56	3 to 2	>4	1	>4 to 1	5.81	5.15	6.34	No	1.19	IND	No	No
Lease Area	C09_131	C	8/12/2024	10:06:20	15	5	14.56	3 to 2	>4	0	>4 to 0	5.79	5.46	6.15	No	0.68	IND	No	No
Lease Area	C09_132	A	8/12/2024	9:49:32	15	5	14.56	3 to 2	>4	1	>4 to 1	4.76	3.70	6.41	No	2.72	IND	No	No
Lease Area	C09_132	B	8/12/2024	9:51:31	15	5	14.56	3 to 2	>4	1	>4 to 1	4.70	3.14	6.68	No	3.54	IND	No	No
Lease Area	C09_132	C	8/12/2024	9:52:58	15	5	14.56	3 to 2	>4	1	>4 to 1	6.06	4.80	7.38	No	2.58	IND	No	No
Lease Area	C09_133	A	8/12/2024	9:38:01	15	5	14.56	3 to 2	>4	1	>4 to 1	6.59	6.32	7.10	No	0.78	IND	No	No
Lease Area	C09_133	B	8/12/2024	9:39:42	15	5	14.56	3 to 2	>4	0	>4 to 0	7.76	6.32	8.53	No	2.20	IND	No	No
Lease Area	C09_133	C	8/12/2024	9:41:20	15	5	14.56	3 to 2	>4	0	>4 to 0	5.49	4.81	6.03	No	1.22	IND	No	No
Lease Area	C09_134	A	8/12/2024	9:23:26	15	5	14.56	2 to 1	>4	-1	>4 to -1	7.75	7.04	8.65	No	1.61	IND	No	No
Lease Area	C09_134	B	8/12/2024	9:25:10	15	5	14.56	3 to 2	>4	-2	>4 to -2	6.60	5.25	8.36	No	3.11	IND	No	No
Lease Area	C09_134	C	8/12/2024	9:26:33	15	5	14.56	2 to 1	>4	-1	>4 to -1	5.81	5.39	6.58	No	1.19	IND	No	No
Lease Area	C09_135	A	8/12/2024	8:31:44	15	5	14.56	3 to 2	>4	0	>4 to 0	5.64	5.32	6.10	No	0.78	IND	No	No
Lease Area	C09_135	C	8/12/2024	8:34:54	15	5	14.56	3 to 2	>4	0	>4 to 0	7.06	5.89	8.55	No	2.65	IND	No	No
Lease Area	C09_135	I	8/12/2024	9:13:21	15	5	14.56	2 to 1	>4	0	>4 to 0	5.56	5.27	5.97	No	0.70	IND	No	No
Lease Area	C20_172	A	8/11/2024	16:55:28	15	5	14.56	3 to 2	>4	0	>4 to 0	6.97	6.52	7.43	No	0.91	IND	No	No
Lease Area	C20_172	C	8/11/2024	16:57:50	15	5	14.56	2 to 1	>4	-1	>4 to -1	6.31	5.12	7.22	No	2.10	IND	No	No
Lease Area	C20_172	D	8/11/2024	16:58:56	15	5	14.56	2 to 1	>4	0	>4 to 0	8.98	8.27	9.30	No	1.03	IND	No	No
Lease Area	C20_173	A	8/11/2024	16:48:16	15	5	14.56	3 to 2	>4	0	>4 to 0	6.17	5.85	6.76	No	0.91	IND	No	No
Lease Area	C20_173	B	8/11/2024	16:49:31	15	5	14.56	3 to 2	>4	0	>4 to 0	6.63	5.29	7.46	No	2.16	IND	No	No
Lease Area	C20_173	C	8/11/2024	16:50:43	15	5	14.56	2 to 1	>4	0	>4 to 0	6.68	6.35	7.50	No	1.15	IND	No	No
Lease Area	C20_174	A	8/11/2024	16:40:13	15	5	14.56	2 to 1	>4	0	>4 to 0	7.47	5.65	8.33	No	2.68	IND	No	No
Lease Area	C20_174	B	8/11/2024	16:41:20	15	5	14.56	3 to 2	>4	0	>4 to 0	7.12	6.66	7.62	No	0.97	IND	No	No
Lease Area	C20_174	C	8/11/2024	16:42:33	15	5	14.56	2 to 1	>4	-1	>4 to -1	7.27	6.90	7.89	No	1.00	IND	No	No
Lease Area	C20_175	B	8/11/2024	16:33:44	15	5	14.56	2 to 1	>4	0	>4 to 0	6.80	5.99	7.87	No	1.88	IND	No	No
Lease Area	C20_175	C	8/11/2024	16:35:21	15	5	14.56	3 to 2	>4	-1	>4 to -1	4.86	4.59	5.32	No	0.73	IND	No	No

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
Lease Area	C20_175	D	8/11/2024	16:36:32	15	5	14.56	2 to 1	>4	0	>4 to 0	7.37	5.73	7.99	No	2.26	IND	No	No
Lease Area	C20_176	A	8/11/2024	16:20:57	15	5	14.56	2 to 1	>4	0	>4 to 0	4.45	3.64	5.71	No	2.06	IND	No	No
Lease Area	C20_176	B	8/11/2024	16:22:37	15	5	14.56	3 to 2	>4	-1	>4 to -1	6.67	5.87	7.70	No	1.83	IND	No	No
Lease Area	C20_176	C	8/11/2024	16:24:02	15	5	14.56	2 to 1	>4	0	>4 to 0	7.58	7.16	8.02	No	0.86	IND	No	No
Lease Area	C20_177	A	8/11/2024	16:09:29	15	5	14.56	2 to 1	>4	0	>4 to 0	6.58	5.71	7.07	No	1.36	IND	No	No
Lease Area	C20_177	B	8/11/2024	16:12:58	15	5	14.56	2 to 1	>4	-1	>4 to -1	5.92	5.80	6.17	No	0.37	IND	No	No
Lease Area	C20_177	D	8/11/2024	16:15:54	15	5	14.56	2 to 1	>4	0	>4 to 0	6.81	6.10	8.14	No	2.04	IND	No	No
Lease Area	C20_178	C	8/11/2024	15:58:31	15	5	14.56	3 to 2	>4	1	>4 to 1	6.76	6.34	7.46	No	1.12	IND	No	No
Lease Area	C20_178	D	8/11/2024	15:59:58	15	5	14.56	3 to 2	>4	1	>4 to 1	7.75	7.09	8.41	No	1.31	IND	No	No
Lease Area	C20_178	E	8/11/2024	16:01:15	15	5	14.56	3 to 2	>4	1	>4 to 1	6.93	6.20	8.21	No	2.01	IND	No	No
Lease Area	C20_179	A	8/11/2024	15:16:07	15	5	14.56	3 to 2	>4	0	>4 to 0	4.56	4.10	5.73	No	1.63	IND	No	No
Lease Area	C20_179	C	8/11/2024	15:18:43	15	5	14.56	3 to 2	>4	0	>4 to 0	6.58	6.22	7.02	No	0.80	IND	No	No
Lease Area	C20_179	D	8/11/2024	15:19:58	15	5	14.56	3 to 2	>4	0	>4 to 0	5.85	4.96	6.34	No	1.38	IND	No	No
Lease Area	C20_180	B	8/11/2024	14:18:05	15	5	14.56	3 to 2	>4	0	>4 to 0	6.30	6.07	6.76	No	0.69	IND	No	No
Lease Area	C20_180	C	8/11/2024	14:20:43	15	5	14.56	2 to 1	>4	0	>4 to 0	7.50	6.69	8.53	No	1.84	IND	No	No
Lease Area	C20_180	E	8/11/2024	14:23:07	15	5	14.56	2 to 1	>4	0	>4 to 0	5.41	4.51	6.32	No	1.81	IND	No	No
Lease Area	C20_181	C	8/11/2024	18:30:43	15	5	14.56	2 to 1	>4	0	>4 to 0	7.26	6.85	8.43	No	1.58	IND	No	No
Lease Area	C20_181	F	8/11/2024	21:04:42	15	5	14.56	2 to 1	>4	0	>4 to 0	8.05	7.44	8.48	No	1.03	IND	No	No
Lease Area	C20_181	G	8/11/2024	21:06:06	15	5	14.56	2 to 1	>4	0	>4 to 0	7.67	7.14	8.38	No	1.24	IND	No	No
Lease Area	C20_182	A	8/11/2024	18:36:01	15	5	14.56	2 to 1	>4	0	>4 to 0	7.19	6.59	7.89	No	1.30	IND	No	No
Lease Area	C20_182	B	8/11/2024	18:38:06	15	5	14.56	2 to 1	>4	0	>4 to 0	7.16	6.70	7.58	No	0.88	IND	No	No
Lease Area	C20_182	C	8/11/2024	18:39:33	15	5	14.56	3 to 2	>4	0	>4 to 0	6.10	5.78	6.51	No	0.73	IND	No	No
Lease Area	C20_183	A	8/11/2024	18:45:05	15	5	14.56	3 to 2	>4	0	>4 to 0	5.64	5.01	6.71	No	1.70	IND	No	No
Lease Area	C20_183	B	8/11/2024	18:46:59	15	5	14.56	3 to 2	>4	0	>4 to 0	6.81	6.62	7.17	No	0.54	IND	No	No
Lease Area	C20_183	D	8/11/2024	18:49:49	15	5	14.56	3 to 2	>4	-1	>4 to -1	7.29	6.69	7.99	No	1.30	IND	No	No
Lease Area	C20_184	A	8/11/2024	18:53:45	15	5	14.56	2 to 1	>4	-1	>4 to -1	7.39	7.06	7.60	No	0.55	IND	No	No
Lease Area	C20_184	B	8/11/2024	18:55:09	15	5	14.56	3 to 2	>4	0	>4 to 0	6.57	5.80	7.65	No	1.85	IND	No	No
Lease Area	C20_184	C	8/11/2024	18:57:34	15	5	14.56	2 to 1	>4	0	>4 to 0	6.87	5.80	7.55	No	1.75	IND	No	No
Lease Area	C20_185	A	8/11/2024	19:04:24	15	5	14.56	2 to 1	>4	0	>4 to 0	7.06	6.27	8.04	No	1.77	IND	No	No
Lease Area	C20_185	B	8/11/2024	19:06:34	15	5	14.56	3 to 2	>4	0	>4 to 0	6.54	6.27	6.88	No	0.61	IND	No	No
Lease Area	C20_185	C	8/11/2024	19:08:47	15	5	14.56	3 to 2	>4	0	>4 to 0	6.18	5.76	6.80	No	1.04	IND	No	No
Lease Area	C20_186	A	8/11/2024	19:16:58	15	5	14.56	2 to 1	>4	0	>4 to 0	8.38	6.94	9.13	No	2.19	IND	No	No
Lease Area	C20_186	C	8/11/2024	19:19:24	15	5	14.56	2 to 1	>4	-1	>4 to -1	6.10	5.56	6.78	No	1.22	IND	No	No
Lease Area	C20_186	D	8/11/2024	19:20:57	15	5	14.56	2 to 1	>4	0	>4 to 0	6.59	6.12	7.82	No	1.70	IND	No	No
Lease Area	C20_187	A	8/11/2024	19:27:27	15	5	14.56	3 to 2	>4	0	>4 to 0	6.22	5.51	7.07	No	1.55	IND	No	No
Lease Area	C20_187	B	8/11/2024	19:28:38	15	5	14.56	2 to 1	>4	-1	>4 to -1	5.58	4.20	7.00	No	2.80	IND	No	No
Lease Area	C20_187	C	8/11/2024	19:29:48	15	5	14.56	2 to 1	>4	0	>4 to 0	7.50	6.88	8.43	No	1.55	IND	No	No
Lease Area	C20_188	A	8/11/2024	19:36:13	15	5	14.56	2 to 1	>4	0	>4 to 0	7.14	5.93	8.11	No	2.18	IND	No	No
Lease Area	C20_188	B	8/11/2024	19:37:25	15	5	14.56	3 to 2	>4	0	>4 to 0	6.75	6.56	7.02	No	0.46	IND	No	No
Lease Area	C20_188	C	8/11/2024	19:38:51	15	5	14.56	3 to 2	>4	0	>4 to 0	7.71	7.07	8.43	No	1.36	IND	No	No
Lease Area	C20_189	B	8/11/2024	19:53:25	15	5	14.56	3 to 2	>4	0	>4 to 0	6.55	5.77	7.29	No	1.52	IND	No	No
Lease Area	C20_189	C	8/11/2024	19:55:30	15	5	14.56	3 to 2	>4	1	>4 to 1	5.63	5.06	6.19	No	1.13	IND	No	No
Lease Area	C20_189	D	8/11/2024	19:57:43	15	5	14.56	3 to 2	>4	0	>4 to 0	7.20	6.80	7.60	No	0.80	IND	No	No
Lease Area	D03_100	B	8/12/2024	16:21:13	15	5	14.56	3 to 2	>4	1	>4 to 1	5.41	5.01	6.66	No	1.65	IND	No	No
Lease Area	D03_100	C	8/12/2024	16:22:22	15	5	14.56	3 to 2	>4	1	>4 to 1	6.04	5.58	6.85	No	1.26	IND	No	No
Lease Area	D03_100	D	8/12/2024	16:23:29	15	5	14.56	3 to 2	>4	1	>4 to 1	5.65	4.60	6.71	No	2.10	IND	No	No
Lease Area	D03_101	A	8/12/2024	16:24:50	15	5	14.56	3 to 2	>4	1	>4 to 1	7.17	6.05	8.19	No	2.13	IND	No	No

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
Lease Area	D03_101	C	8/12/2024	16:28:05	15	5	14.56	3 to 2	>4	0	>4 to 0	8.62	7.56	9.79	No	2.22	IND	No	No
Lease Area	D03_101	D	8/12/2024	16:29:26	15	5	14.56	3 to 2	>4	1	>4 to 1	8.62	7.76	9.13	No	1.37	IND	No	No
Lease Area	D03_102	A	8/12/2024	16:31:09	15	5	14.56	3 to 2	>4	1	>4 to 1	4.93	3.74	5.95	No	2.21	IND	No	No
Lease Area	D03_102	B	8/12/2024	16:32:16	15	5	14.56	3 to 2	>4	1	>4 to 1	6.37	6.12	6.73	No	0.61	IND	No	No
Lease Area	D03_102	C	8/12/2024	16:33:25	15	5	14.56	3 to 2	>4	1	>4 to 1	7.05	6.75	7.58	No	0.83	IND	No	No
Lease Area	D03_103	A	8/12/2024	16:36:01	15	5	14.56	3 to 2	>4	1	>4 to 1	5.96	5.56	7.12	No	1.55	IND	No	No
Lease Area	D03_103	B	8/12/2024	16:37:04	15	5	14.56	3 to 2	>4	1	>4 to 1	3.80	3.26	4.74	No	1.48	IND	No	No
Lease Area	D03_103	D	8/12/2024	16:39:29	15	5	14.56	3 to 2	>4	-1	>4 to -1	5.45	4.64	6.58	No	1.94	IND	No	No
Lease Area	D03_104	A	8/12/2024	16:41:34	15	5	14.56	3 to 2	>4	0	>4 to 0	8.88	8.40	9.40	No	1.00	IND	No	No
Lease Area	D03_104	C	8/12/2024	16:43:46	15	5	14.56	3 to 2	>4	0	>4 to 0	7.17	6.07	8.33	No	2.26	IND	No	No
Lease Area	D03_104	D	8/12/2024	16:44:51	15	5	14.56	3 to 2	>4	1	>4 to 1	5.78	4.69	7.43	No	2.75	IND	No	No
Lease Area	D03_105	A	8/12/2024	16:50:16	15	5	14.56	3 to 2	>4	1	>4 to 1	6.45	6.07	7.02	No	0.95	IND	No	No
Lease Area	D03_105	B	8/12/2024	16:51:23	15	5	14.56	3 to 2	>4	1	>4 to 1	5.62	5.13	6.07	No	0.95	IND	No	No
Lease Area	D03_105	C	8/12/2024	16:52:36	15	5	14.56	3 to 2	>4	1	>4 to 1	5.42	4.32	6.88	No	2.56	IND	No	No
Lease Area	D03_106	A	8/12/2024	16:59:47	15	5	14.56	3 to 2	>4	1	>4 to 1	7.11	4.46	8.87	No	4.40	IND	No	No
Lease Area	D03_106	B	8/12/2024	17:00:54	15	5	14.56	3 to 2	>4	1	>4 to 1	7.10	6.42	8.14	No	1.71	IND	No	No
Lease Area	D03_106	C	8/12/2024	17:02:04	15	5	14.56	3 to 2	>4	0	>4 to 0	6.09	5.05	8.48	No	3.42	IND	No	No
Lease Area	D03_107	A	8/12/2024	17:07:19	15	5	14.56	3 to 2	>4	0	>4 to 0	8.01	5.84	9.25	No	3.41	IND	No	No
Lease Area	D03_107	C	8/12/2024	17:10:17	15	5	14.56	3 to 2	>4	0	>4 to 0	5.33	4.71	5.79	No	1.07	IND	No	No
Lease Area	D03_107	D	8/12/2024	17:11:23	15	5	14.56	3 to 2	>4	0	>4 to 0	7.07	5.02	9.15	No	4.13	IND	No	No
Lease Area	D03_108	A	8/12/2024	17:28:40	15	5	14.56	4 to 3	>4	0	>4 to 0	5.52	5.26	6.03	No	0.76	IND	No	No
Lease Area	D03_108	C	8/12/2024	17:30:56	15	5	14.56	4 to 3	>4	0	>4 to 0	4.26	3.52	5.49	No	1.97	IND	No	No
Lease Area	D03_108	D	8/12/2024	17:32:08	15	5	14.56	4 to 3	>4	0	>4 to 0	6.01	5.63	6.46	No	0.83	IND	No	No
Lease Area	D03_109	B	8/12/2024	15:22:17	15	5	14.56	3 to 2	>4	1	>4 to 1	6.29	5.84	6.80	No	0.96	IND	No	No
Lease Area	D03_109	C	8/12/2024	15:24:13	15	5	14.56	3 to 2	>4	0	>4 to 0	7.51	5.26	8.67	No	3.41	IND	No	No
Lease Area	D03_109	D	8/12/2024	15:25:47	15	5	14.56	3 to 2	>4	1	>4 to 1	6.02	3.97	8.45	No	4.49	IND	No	No
Lease Area	D03_110	A	8/12/2024	15:14:11	15	5	14.56	3 to 2	>4	0	>4 to 0	7.66	7.04	8.26	No	1.22	IND	No	No
Lease Area	D03_110	B	8/12/2024	15:15:20	15	5	14.56	3 to 2	>4	0	>4 to 0	5.79	3.63	8.14	No	4.50	IND	No	No
Lease Area	D03_110	D	8/12/2024	15:18:51	15	5	14.56	2 to 1	>4	0	>4 to 0	7.01	5.43	7.80	No	2.37	IND	No	No
Lease Area	D03_111	A	8/12/2024	15:07:51	15	5	14.56	2 to 1	>4	0	>4 to 0	7.01	6.43	7.41	No	0.98	IND	No	No
Lease Area	D03_111	B	8/12/2024	15:09:03	15	5	14.56	2 to 1	>4	0	>4 to 0	7.94	6.35	9.35	No	3.00	IND	No	No
Lease Area	D03_111	D	8/12/2024	15:11:55	15	5	14.56	2 to 1	>4	0	>4 to 0	8.34	6.38	9.47	No	3.09	IND	No	No
Lease Area	D03_112	A	8/12/2024	15:00:50	15	5	14.56	3 to 2	>4	0	>4 to 0	6.41	5.21	8.02	No	2.80	IND	No	No
Lease Area	D03_112	B	8/12/2024	15:01:58	15	5	14.56	3 to 2	>4	-1	>4 to -1	5.24	4.08	6.10	No	2.02	IND	No	No
Lease Area	D03_112	C	8/12/2024	15:03:54	15	5	14.56	3 to 2	>4	0	>4 to 0	6.73	4.56	9.20	No	4.65	IND	No	No
Lease Area	D03_113	A	8/12/2024	14:54:20	15	5	14.56	3 to 2	>4	0	>4 to 0	8.16	7.59	8.65	No	1.06	IND	No	No
Lease Area	D03_113	B	8/12/2024	14:55:31	15	5	14.56	2 to 1	>4	0	>4 to 0	6.72	5.79	7.60	No	1.81	IND	No	No
Lease Area	D03_113	D	8/12/2024	14:57:51	15	5	14.56	3 to 2	>4	0	>4 to 0	8.27	5.43	10.37	No	4.94	IND	No	No
Lease Area	D03_114	A	8/12/2024	14:44:44	15	5	14.56	3 to 2	>4	0	>4 to 0	5.74	4.79	7.48	No	2.69	IND	No	No
Lease Area	D03_114	B	8/12/2024	14:46:15	15	5	14.56	3 to 2	>4	0	>4 to 0	8.23	6.29	9.52	No	3.23	IND	No	No
Lease Area	D03_114	C	8/12/2024	14:47:34	15	5	14.56	3 to 2	>4	0	>4 to 0	6.48	5.16	8.50	No	3.34	IND	No	No
Lease Area	D03_115	A	8/12/2024	14:33:25	15	5	14.56	3 to 2	>4	0	>4 to 0	6.68	5.13	8.65	No	3.51	IND	No	No
Lease Area	D03_115	B	8/12/2024	14:35:19	15	5	14.56	3 to 2	>4	0	>4 to 0	7.58	6.86	8.87	No	2.01	IND	No	No
Lease Area	D03_115	C	8/12/2024	14:36:28	15	5	14.56	3 to 2	>4	0	>4 to 0	10.13	8.41	11.00	No	2.58	IND	No	No
Lease Area	D03_116	A	8/12/2024	14:25:07	15	5	14.56	3 to 2	>4	0	>4 to 0	7.43	6.28	8.81	No	2.53	IND	No	No
Lease Area	D03_116	B	8/12/2024	14:26:19	15	5	14.56	3 to 2	>4	1	>4 to 1	5.47	5.15	5.93	No	0.78	IND	No	No
Lease Area	D03_116	D	8/12/2024	14:28:37	15	5	14.56	3 to 2	>4	1	>4 to 1	6.68	6.01	7.17	No	1.16	IND	No	No

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
Lease Area	D03_117	A	8/12/2024	14:09:07	15	5	14.56	3 to 2	>4	1	>4 to 1	7.07	5.83	9.13	No	3.30	IND	No	No
Lease Area	D03_117	B	8/12/2024	14:10:14	15	5	14.56	3 to 2	>4	1	>4 to 1	6.16	4.81	7.55	No	2.75	IND	No	No
Lease Area	D03_117	C	8/12/2024	14:11:25	15	5	14.56	3 to 2	>4	1	>4 to 1	9.77	9.13	10.44	No	1.31	7.72	No	No
Lease Area	D14_136	A	8/12/2024	5:51:19	14	5	14.56	2 to 1	>4	0	>4 to 0	6.14	5.61	6.56	No	0.95	IND	No	No
Lease Area	D14_136	C	8/12/2024	5:54:23	14	5	14.56	2 to 1	>4	-1	>4 to -1	5.30	4.71	6.00	No	1.29	IND	No	No
Lease Area	D14_136	D	8/12/2024	5:55:24	14	5	14.56	2 to 1	>4	0	>4 to 0	6.17	5.85	6.98	No	1.13	IND	No	No
Lease Area	D14_137	A	8/12/2024	6:00:33	14	5	14.56	3 to 2	>4	0	>4 to 0	7.42	6.54	8.16	No	1.62	IND	No	No
Lease Area	D14_137	B	8/12/2024	6:02:30	14	5	14.56	3 to 2	>4	-2	>4 to -2	5.80	3.88	7.62	No	3.75	IND	No	No
Lease Area	D14_137	D	8/12/2024	6:05:55	14	5	14.56	3 to 2	>4	0	>4 to 0	5.77	4.97	7.12	No	2.14	IND	No	No
Lease Area	D14_138	A	8/12/2024	6:11:46	14	5	14.56	3 to 2	>4	0	>4 to 0	6.47	5.71	7.92	No	2.21	IND	No	No
Lease Area	D14_138	B	8/12/2024	6:15:00	14	5	14.56	3 to 2	>4	1	>4 to 1	6.08	5.58	6.80	No	1.22	IND	No	No
Lease Area	D14_138	C	8/12/2024	6:16:47	14	5	14.56	3 to 2	>4	0	>4 to 0	6.63	4.50	8.28	No	3.78	IND	No	No
Lease Area	D14_139	A	8/12/2024	6:23:26	15	5	14.56	3 to 2	>4	0	>4 to 0	6.50	5.78	7.46	No	1.67	IND	No	No
Lease Area	D14_139	B	8/12/2024	6:25:02	15	5	14.56	3 to 2	>4	0	>4 to 0	6.98	5.79	7.99	No	2.20	IND	No	No
Lease Area	D14_139	C	8/12/2024	6:26:34	15	5	14.56	3 to 2	>4	0	>4 to 0	6.17	5.48	6.54	No	1.06	IND	No	No
Lease Area	D14_140	A	8/12/2024	6:31:29	15	5	14.56	3 to 2	>4	0	>4 to 0	4.96	4.52	5.61	No	1.10	IND	No	No
Lease Area	D14_140	B	8/12/2024	6:33:15	15	5	14.56	3 to 2	>4	0	>4 to 0	4.70	3.90	6.41	No	2.51	IND	No	No
Lease Area	D14_140	C	8/12/2024	6:34:31	15	5	14.56	3 to 2	>4	0	>4 to 0	6.28	5.71	6.80	No	1.09	IND	No	No
Lease Area	D14_141	A	8/12/2024	6:39:51	15	5	14.56	3 to 2	>4	0	>4 to 0	5.89	5.68	6.46	No	0.78	IND	No	No
Lease Area	D14_141	C	8/12/2024	6:43:37	15	5	14.56	3 to 2	>4	1	>4 to 1	6.44	5.61	7.43	No	1.82	IND	No	No
Lease Area	D14_141	D	8/12/2024	6:45:28	15	5	14.56	3 to 2	>4	0	>4 to 0	6.18	4.23	7.50	No	3.27	IND	No	No
Lease Area	D14_142	A	8/12/2024	6:49:21	15	5	14.56	3 to 2	>4	0	>4 to 0	6.80	5.48	7.94	No	2.46	IND	No	No
Lease Area	D14_142	B	8/12/2024	6:51:01	15	5	14.56	3 to 2	>4	0	>4 to 0	5.90	5.48	6.39	No	0.91	IND	No	No
Lease Area	D14_142	C	8/12/2024	6:52:41	15	5	14.56	3 to 2	>4	0	>4 to 0	6.57	5.20	7.24	No	2.04	IND	No	No
Lease Area	D14_143	A	8/12/2024	6:58:59	15	5	14.56	3 to 2	>4	0	>4 to 0	6.39	4.97	7.53	No	2.56	IND	No	No
Lease Area	D14_143	B	8/12/2024	7:00:24	15	5	14.56	3 to 2	>4	0	>4 to 0	6.89	5.87	7.77	No	1.91	IND	No	No
Lease Area	D14_143	C	8/12/2024	7:02:06	15	5	14.56	3 to 2	>4	0	>4 to 0	6.41	5.16	7.29	No	2.12	IND	No	No
Lease Area	D14_144	A	8/12/2024	7:13:40	15	5	14.56	3 to 2	>4	0	>4 to 0	7.27	6.32	7.77	No	1.46	IND	No	No
Lease Area	D14_144	B	8/12/2024	7:15:45	15	5	14.56	3 to 2	>4	1	>4 to 1	5.75	5.03	6.78	No	1.75	IND	No	No
Lease Area	D14_144	C	8/12/2024	7:18:09	15	5	14.56	3 to 2	>4	1	>4 to 1	6.00	4.99	7.14	No	2.15	IND	No	No
Lease Area	D14_145	A	8/12/2024	5:15:59	14	5	14.56	3 to 2	>4	-2	>4 to -2	6.85	6.42	7.58	No	1.17	IND	No	No
Lease Area	D14_145	B	8/12/2024	5:17:19	14	5	14.56	3 to 2	>4	0	>4 to 0	5.86	5.41	6.61	No	1.19	IND	No	No
Lease Area	D14_145	C	8/12/2024	5:18:54	14	5	14.56	3 to 2	>4	0	>4 to 0	7.12	5.50	8.33	No	2.83	IND	No	No
Lease Area	D14_146	A	8/12/2024	5:09:49	14	5	14.56	3 to 2	>4	0	>4 to 0	6.79	6.23	7.38	No	1.15	IND	No	No
Lease Area	D14_146	B	8/12/2024	5:11:12	14	5	14.56	3 to 2	>4	1	>4 to 1	5.06	4.22	6.12	No	1.91	IND	No	No
Lease Area	D14_146	C	8/12/2024	5:12:41	14	5	14.56	3 to 2	>4	1	>4 to 1	5.74	5.29	6.76	No	1.46	IND	No	No
Lease Area	D14_147	A	8/12/2024	5:02:15	14	5	14.56	3 to 2	>4	0	>4 to 0	3.93	3.60	4.59	No	1.00	IND	No	No
Lease Area	D14_147	B	8/12/2024	5:03:42	14	5	14.56	3 to 2	>4	1	>4 to 1	5.37	4.25	7.02	No	2.77	IND	No	No
Lease Area	D14_147	C	8/12/2024	5:05:10	14	5	14.56	3 to 2	>4	1	>4 to 1	6.73	5.79	7.38	No	1.59	IND	No	No
Lease Area	D14_148	A	8/12/2024	4:56:32	14	5	14.56	3 to 2	>4	1	>4 to 1	6.33	6.12	6.68	No	0.56	IND	No	No
Lease Area	D14_148	B	8/12/2024	4:57:59	14	5	14.56	3 to 2	>4	0	>4 to 0	6.54	4.78	7.29	No	2.51	IND	No	No
Lease Area	D14_148	C	8/12/2024	4:59:19	14	5	14.56	3 to 2	>4	0	>4 to 0	5.67	5.32	6.32	No	1.00	IND	No	No
Lease Area	D14_149	A	8/12/2024	4:42:47	14	5	14.56	3 to 2	>4	1	>4 to 1	6.55	5.60	6.92	No	1.33	IND	No	No
Lease Area	D14_149	B	8/12/2024	4:44:08	14	5	14.56	3 to 2	>4	1	>4 to 1	7.44	6.21	8.14	No	1.93	IND	No	No
Lease Area	D14_149	C	8/12/2024	4:45:25	14	5	14.56	3 to 2	>4	1	>4 to 1	6.10	5.77	6.68	No	0.91	IND	No	No
Lease Area	D14_150	A	8/12/2024	4:28:39	14	5	14.56	2 to 1	>4	0	>4 to 0	6.79	5.57	7.55	No	1.98	IND	No	No

Area	Station ID	Replicate	Date	Time	Stop Collar Setting (in)	Weights per Side (#)	Image Width (cm)	Grain Size Major Mode (phi)[1]	Grain Size Minimum (phi)	Grain Size Maximum (phi)	Grain Size Range (phi)	Penetration Mean (cm)	Penetration Minimum (cm)	Penetration Maximum (cm)	Over-penetration?	Boundary Roughness (cm)	aRPD Mean (cm)	aRPD > Pen	Beggiatoa Present?
Lease Area	D14_150	B	8/12/2024	4:30:15	14	5	14.56	2 to 1	>4	0	>4 to 0	7.27	5.43	9.25	No	3.82	IND	No	No
Lease Area	D14_150	C	8/12/2024	4:31:37	14	5	14.56	2 to 1	>4	-1	>4 to -1	8.38	7.87	8.96	No	1.10	IND	No	No
Lease Area	D14_151	B	8/12/2024	4:11:30	14	5	14.56	3 to 2	>4	1	>4 to 1	5.75	5.40	6.36	No	0.96	IND	No	No
Lease Area	D14_151	C	8/12/2024	4:15:19	14	5	14.56	3 to 2	>4	1	>4 to 1	4.91	4.15	5.45	No	1.30	IND	No	No
Lease Area	D14_151	D	8/12/2024	4:16:45	14	5	14.56	3 to 2	>4	1	>4 to 1	7.46	5.89	8.57	No	2.68	IND	No	No
Lease Area	D14_152	A	8/12/2024	3:56:46	14	5	14.56	3 to 2	>4	0	>4 to 0	6.64	6.17	7.58	No	1.41	IND	No	No
Lease Area	D14_152	B	8/12/2024	3:57:57	14	5	14.56	3 to 2	>4	1	>4 to 1	6.39	5.98	7.31	No	1.34	5.56	Yes	No
Lease Area	D14_152	C	8/12/2024	3:59:18	14	5	14.56	3 to 2	>4	1	>4 to 1	4.78	3.91	6.41	No	2.50	IND	No	No
Lease Area	D14_153	A	8/12/2024	3:37:33	14	5	14.56	3 to 2	>4	-1	>4 to -1	5.17	4.97	5.37	No	0.40	IND	No	No
Lease Area	D14_153	B	8/12/2024	3:38:53	14	5	14.56	3 to 2	>4	0	>4 to 0	7.67	6.67	8.31	No	1.64	IND	No	No
Lease Area	D14_153	C	8/12/2024	3:40:19	14	5	14.56	3 to 2	>4	0	>4 to 0	6.34	6.01	6.83	No	0.82	IND	No	No

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	01_301	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	01_301	B	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	01_301	D	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	01_302	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	01_302	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	01_302	C	No	No	Medium	None	None	None	Yes	None	Ampelisca	Diopatra	None
ECR	01_303	A	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	None Observed	None
ECR	01_303	C	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	01_303	D	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	01_304	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	01_304	C	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	01_304	E	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	01_305	A	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	01_305	C	No	No	Medium	None	None	None	Yes	None	Podocerid	None Observed	None
ECR	01_305	D	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	01_306	A	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	01_306	B	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	01_306	C	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	01_307	A	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	01_307	C	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	01_307	D	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	01_308	I	No	No	Medium	None	None	None	Yes	None	None	None Observed	IND
ECR	01_308	J	No	No	Medium	None	None	None	No	None	None	None Observed	None
ECR	01_308	K	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	02_309	A	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	02_309	C	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	02_309	D	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	02_310	A	No	No	Medium	None	None	None	Yes	None	Podocerid	None Observed	None
ECR	02_310	C	No	No	Medium	None	None	None	Yes	None	Podocerid	Diopatra	None
ECR	02_310	D	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	02_311	A	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	02_311	B	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	02_311	D	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	Polychaete	None
ECR	02_312	A	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	None Observed	None
ECR	02_312	B	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	02_312	C	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	None Observed	None
ECR	02_313	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	02_313	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	02_313	D	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	02_314	A	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	02_314	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	02_314	C	No	No	Medium	None	None	None	Yes	None	Podocerid	None Observed	None
ECR	02_315	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	02_315	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	02_315	D	No	No	Medium	None	None	None	Yes	None	None	None Observed	None

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	02_316	A	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	02_316	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	02_316	D	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	03_317	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	03_317	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	03_317	C	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	03_318	A	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	03_318	B	No	No	Medium	None	None	None	Yes	None	IND	None Observed	None
ECR	03_318	C	No	No	Medium	None	None	None	Yes	None	Podocerid	None Observed	None
ECR	03_319	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	03_319	B	No	No	Medium	None	None	None	No	None	None	None Observed	None
ECR	03_319	C	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	03_320	A	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	03_320	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	03_320	C	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	03_321	A	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	03_321	B	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	03_321	C	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	03_322	A	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	03_322	C	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	03_322	D	No	No	Medium	None	None	None	No	None	None	None Observed	None
ECR	03_323	A	No	No	Medium	None	None	None	Yes	Moon Snail Egg Case	None	Polychaete	None
ECR	03_323	B	No	No	Medium	None	None	None	Yes	None	None	Diopatra, Polychaete	None
ECR	03_323	C	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	03_324	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	03_324	C	No	No	Medium	None	None	None	No	None	None	None Observed	None
ECR	03_324	D	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	04_325	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	04_325	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	04_325	C	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	04_326	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	04_326	B	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	04_326	C	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	04_327	A	No	No	Medium	None	None	None	Yes	None	Unidentified Amphipod, Podocerid	None Observed	None
ECR	04_327	C	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	04_327	D	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	04_328	A	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	04_328	B	No	No	Medium	None	None	None	Yes	None	Ampelisca	Polychaete	None
ECR	04_328	D	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	04_329	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	04_329	B	No	No	Medium	None	None	None	Yes	None	Podocerid	None Observed	None
ECR	04_329	C	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	None Observed	None
ECR	04_330	B	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	04_330	C	No	No	Medium	None	None	None	No	None	None	None Observed	None
ECR	04_330	D	No	No	Medium	None	None	None	Yes	None	None	None Observed	None

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	04_331	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	04_331	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	04_331	C	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	04_332	A	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	Diopatra	None
ECR	04_332	D	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	04_332	E	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	05_333	A	No	No	Medium	None	None	None	Yes	None	Ampelisca	IND	None
ECR	05_333	B	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	None Observed	None
ECR	05_333	C	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	05_334	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	05_334	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	05_334	D	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	05_335	A	No	No	Medium	None	None	None	Yes	None	Ampelisca	Polychaete	None
ECR	05_335	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	05_335	C	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	05_336	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	05_336	B	No	No	Medium	None	None	None	Yes	None	Podocerid	None Observed	None
ECR	05_336	D	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	05_337	A	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
ECR	05_337	E	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	05_337	F	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	05_338	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	05_338	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	05_338	C	No	No	Medium	None	None	None	No	None	None	None Observed	None
ECR	05_339	A	No	No	Medium	None	None	None	No	None	IND	None Observed	None
ECR	05_339	B	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	05_339	D	No	No	Medium	None	None	None	Yes	None	None	IND	None
ECR	05_340	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	05_340	B	No	No	Medium	None	None	None	No	None	None	None Observed	None
ECR	05_340	D	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	06_341	A	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	None Observed	None
ECR	06_341	B	No	No	Medium	None	None	None	No	None	None	IND	None
ECR	06_341	C	No	No	Medium	None	None	None	Yes	None	Podocerid	None Observed	None
ECR	06_342	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	06_342	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	06_342	C	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	06_343	A	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	None Observed	None
ECR	06_343	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	06_343	C	No	No	Medium	None	None	None	Yes	None	None	Polychaetes	None
ECR	06_344	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	06_344	B	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	06_344	C	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	06_345	A	No	No	Medium	None	None	None	No	None	None	None Observed	None

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	06_345	C	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	Polychaete	None
ECR	06_345	D	No	No	Medium	None	None	None	No	None	None	None Observed	None
ECR	06_346	A	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	06_346	B	No	No	Medium	None	None	None	No	None	None	None Observed	None
ECR	06_346	C	No	No	Medium	None	None	None	Yes	None	Podocerid	IND	None
ECR	06_347	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	06_347	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	06_347	C	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	Polychaete	None
ECR	06_348	A	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	None Observed	None
ECR	06_348	B	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	None Observed	None
ECR	06_348	C	No	No	Medium	None	None	None	Yes	None	Ampelisca, Podocerid	None Observed	None
ECR	07_349	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	07_349	B	No	No	Low	None	None	None	No	None	Podocerid	None Observed	None
ECR	07_349	C	No	No	Medium	None	None	None	No	None	None	None Observed	None
ECR	07_350	A	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	07_350	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	07_350	D	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	07_351	A	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	07_351	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	07_351	E	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	07_352	A	No	No	Low	None	None	None	No	None	None	Diopatra	None
ECR	07_352	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	07_352	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	07_353	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	07_353	B	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	07_353	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	07_354	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	07_354	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	07_354	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	07_355	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	07_355	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	07_355	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	07_356	F	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	07_356	G	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	07_356	H	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	08_357	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	08_357	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	08_357	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	08_358	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	08_358	B	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	08_358	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	08_359	A	No	No	Low	None	None	None	No	None	None	Diopatra	None
ECR	08_359	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	08_359	C	No	No	Low	None	None	None	No	None	None	None Observed	None

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	08_360	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	08_360	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	08_360	D	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	08_361	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	08_361	B	No	No	Low	None	None	None	Yes	None	Podocerid	None Observed	None
ECR	08_361	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	08_362	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	08_362	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	08_362	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	08_363	A	No	No	IND	None	None	None	No	None	None	None Observed	None
ECR	08_363	B	No	No	IND	Northern Star Coral	None	None	Yes	None	None	None Observed	Barnacle, Northern Star Coral
ECR	08_363	C	No	No	IND	None	None	None	Yes	None	None	None Observed	None
ECR	08_364	A	No	No	Medium	None	None	None	Yes	None	Podocerid	IND	None
ECR	08_364	B	No	No	Medium	None	None	None	Yes	None	Podocerid	Diopatra, Unidentified Infauna	None
ECR	08_364	D	No	No	Medium	None	None	None	Yes	None	Podocerid	Diopatra, Polychaete	None
ECR	09_365	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	09_365	B	No	No	Low	None	None	None	Yes	None	Podocerid	Diopatra	None
ECR	09_365	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	09_366	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	09_366	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	09_366	D	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	09_367	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	09_367	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	09_367	C	No	No	Low	None	None	None	No	None	None	IND	None
ECR	09_368	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	09_368	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	09_368	C	No	No	Low	None	None	None	Yes	None	None	Polychaete	None
ECR	09_369	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	09_369	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	09_369	D	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	09_370	A	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	09_370	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	09_370	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	09_371	A	No	No	Medium	None	None	None	Yes	None	Podocerid	Diopatra	None
ECR	09_371	B	No	No	Low	None	None	None	Yes	None	Podocerid	Diopatra	None
ECR	09_371	C	No	No	Low	None	None	None	Yes	None	Podocerid	None Observed	None
ECR	09_372	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	09_372	B	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	09_372	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	10_373	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	10_373	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	10_373	D	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	10_374	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	10_374	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	10_374	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	10_375	A	No	No	Low	None	None	None	No	None	None	Polychaete	None
ECR	10_375	B	No	No	Low	None	None	None	No	None	None	None Observed	None

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	10_375	D	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	10_376	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	10_376	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	10_376	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	10_377	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	10_377	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	10_377	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	10_378	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	10_378	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	10_378	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	10_379	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	10_379	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	10_379	C	No	No	IND	None	None	None	No	None	None	None Observed	Polymastia Sponge
ECR	10_380	A	No	No	Medium	None	None	None	Yes	None	Podocerid	Diopatra, Polychaete	None
ECR	10_380	B	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
ECR	10_380	C	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
ECR	11_381	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	11_381	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	11_381	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	11_382	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	11_382	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	11_382	D	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	11_383	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	11_383	C	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	11_383	D	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	11_384	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	11_384	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	11_384	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	11_385	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	11_385	B	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	11_385	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	11_386	A	No	No	Low	None	None	None	Yes	None	Podocerid	Diopatra	None
ECR	11_386	B	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	11_386	D	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	11_387	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	11_387	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	11_387	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	11_388	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	11_388	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	11_388	C	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	12_389	A	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	12_389	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	12_389	D	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
ECR	12_390	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	12_390	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	12_390	D	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	12_391	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	12_391	B	No	No	Low	None	None	None	No	None	None	None Observed	None

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	12_391	D	IND	IND	IND	Northern Star Coral	None	IND	Yes	None	None	None Observed	Bryozoa/Hydroids, Northern Star Coral, Encrusting Orange Sponge
ECR	12_392	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	12_392	B	IND	IND	IND	None	None	None	IND	None	None	None Observed	IND
ECR	12_392	C	No	No	Low	None	None	None	IND	None	None	None Observed	None
ECR	12_393	A	IND	No	IND	Northern Star Coral	None	IND	IND	None	None	None Observed	Bryozoa/Hydroids, Northern Star Coral, Encrusting Orange Sponge
ECR	12_393	B	IND	IND	IND	IND	None	None	Yes	None	None	None Observed	Bryozoa/Hydroids
ECR	12_393	D	IND	IND	IND	Northern Star Coral	None	None	IND	None	None	None Observed	Northern Star Coral
ECR	12_394	A	IND	IND	IND	None	None	None	No	None	None	None Observed	None
ECR	12_394	B	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	12_394	C	IND	IND	IND	None	None	None	No	None	None	None Observed	None
ECR	12_395	A	No	No	IND	None	None	None	No	None	None	None Observed	None
ECR	12_395	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
ECR	12_395	C	No	No	Low	None	None	None	No	None	None	None Observed	None
ECR	12_396	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
ECR	12_396	B	No	No	Medium	None	None	None	Yes	None	Podocerid	Diopatra	None
ECR	12_396	C	No	No	Medium	None	None	None	Yes	None	Podocerid	Diopatra	None
Lease Area	B17_154	A	No	No	Medium	None	None	None	No	None	None	None Observed	Sponge
Lease Area	B17_154	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_154	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_155	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_155	C	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
Lease Area	B17_155	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_156	A	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
Lease Area	B17_156	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_156	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_157	A	No	No	Low	None	None	None	Yes	None	Podocerid	None Observed	None
Lease Area	B17_157	B	No	No	Low	None	None	None	No	None	None	Polychaete	None
Lease Area	B17_157	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	B17_158	A	No	No	Medium	None	None	None	Yes	None	None	Polychaete	None
Lease Area	B17_158	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
Lease Area	B17_158	C	No	No	Medium	None	None	None	Yes	None	Ampelisca	None Observed	None
Lease Area	B17_159	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_159	B	No	No	Low	None	None	None	No	None	None	Polychaete	None
Lease Area	B17_159	C	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
Lease Area	B17_160	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_160	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	B17_160	F	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	B17_161	B	No	No	Low	None	None	None	Yes	None	Ampelisca	None Observed	None
Lease Area	B17_161	C	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	B17_161	D	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	B17_162	A	No	No	Low	None	None	None	Yes	None	None	Diopatra	None

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
Lease Area	B17_162	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	B17_162	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_163	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_163	B	No	No	Low	None	None	None	Yes	None	Ampelisca	None Observed	None
Lease Area	B17_163	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_164	A	No	No	Low	None	None	None	IND	None	None	None Observed	None
Lease Area	B17_164	B	No	No	Low	None	None	None	Yes	None	None	Polychaete	None
Lease Area	B17_164	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_165	A	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
Lease Area	B17_165	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_165	D	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
Lease Area	B17_166	A	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	B17_166	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_166	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_167	A	No	No	Low	None	None	None	Yes	None	None	Polychaetes	None
Lease Area	B17_167	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	B17_167	C	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
Lease Area	B17_168	B	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	B17_168	C	No	No	Low	None	None	None	No	None	None	Polychaete	None
Lease Area	B17_168	D	No	No	High	None	None	None	Yes	None	Ampelisca	Polychaete	None
Lease Area	B17_169	A	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	B17_169	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	B17_169	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_170	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	B17_170	B	No	No	Low	None	None	None	Yes	None	None	Diopatra, Polychaete	None
Lease Area	B17_170	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	B17_171	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_171	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	B17_171	D	No	No	Low	None	None	None	Yes	None	None	Polychaete	None
Lease Area	C09_118	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_118	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_118	C	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_119	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C09_119	B	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_119	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_120	B	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_120	C	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_120	D	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
Lease Area	C09_121	A	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_121	B	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_121	C	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_122	A	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_122	B	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_122	D	No	No	Low	None	None	None	No	None	None	Diopatra	None
Lease Area	C09_123	A	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_123	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_123	C	No	No	Low	None	None	None	No	None	None	None Observed	None

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
Lease Area	C09_124	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_124	B	No	No	Medium	None	None	None	Yes	None	None	None Observed	None
Lease Area	C09_124	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_125	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C09_125	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C09_125	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_126	A	No	No	Low	None	None	None	No	None	None	Polychaete	None
Lease Area	C09_126	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_126	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C09_127	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_127	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_127	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_128	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_128	B	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_128	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_129	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_129	C	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_129	D	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_130	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_130	B	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_130	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_131	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_131	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_131	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_132	A	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
Lease Area	C09_132	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C09_132	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_133	A	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	C09_133	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_133	C	No	No	Medium	None	None	None	Yes	None	Podocerid	None Observed	None
Lease Area	C09_134	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_134	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_134	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_135	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_135	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C09_135	I	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_172	A	No	No	Medium	None	None	None	No	None	None	Polychaete	None
Lease Area	C20_172	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_172	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_173	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_173	B	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
Lease Area	C20_173	C	No	No	Low	None	None	None	No	None	None	Polychaete	None
Lease Area	C20_174	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_174	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_174	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_175	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_175	C	No	No	Low	None	None	None	No	None	None	None Observed	None

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
Lease Area	C20_175	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_176	A	No	No	Low	None	None	None	No	IND	None	None Observed	None
Lease Area	C20_176	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_176	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_177	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_177	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C20_177	D	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C20_178	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C20_178	D	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C20_178	E	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_179	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_179	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C20_179	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_180	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_180	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_180	E	No	No	Low	None	None	None	No	None	None	IND	None
Lease Area	C20_181	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_181	F	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_181	G	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_182	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_182	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C20_182	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_183	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_183	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_183	D	No	No	Low	None	None	None	IND	None	None	None Observed	None
Lease Area	C20_184	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_184	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_184	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_185	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C20_185	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C20_185	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C20_186	A	No	No	Low	None	None	None	No	None	None	Polychaete	None
Lease Area	C20_186	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_186	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_187	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C20_187	B	No	No	Low	None	None	None	IND	None	None	None Observed	None
Lease Area	C20_187	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_188	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_188	B	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
Lease Area	C20_188	C	No	No	Medium	None	None	None	Yes	None	None	Diopatra	None
Lease Area	C20_189	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	C20_189	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	C20_189	D	No	No	Medium	None	None	None	No	None	None	Polychaete	None
Lease Area	D03_100	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_100	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_100	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_101	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
Lease Area	D03_101	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_101	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_102	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_102	B	No	No	Low	None	None	None	No	None	Podocerid	None Observed	None
Lease Area	D03_102	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_103	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_103	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_103	D	No	No	Low	None	None	None	No	None	Podocerid	None Observed	None
Lease Area	D03_104	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_104	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_104	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_105	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_105	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_105	C	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
Lease Area	D03_106	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_106	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_106	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_107	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_107	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_107	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_108	A	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
Lease Area	D03_108	C	No	No	Low	None	None	None	No	None	None	Diopatra	None
Lease Area	D03_108	D	No	No	Low	None	None	None	No	None	Podocerid	Diopatra	None
Lease Area	D03_109	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_109	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D03_109	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_110	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_110	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D03_110	D	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D03_111	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_111	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D03_111	D	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D03_112	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_112	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_112	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D03_113	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_113	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_113	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_114	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_114	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D03_114	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_115	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D03_115	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_115	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_116	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_116	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D03_116	D	No	No	Low	None	None	None	No	None	None	None Observed	None

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
Lease Area	D03_117	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_117	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D03_117	C	No	No	Medium	None	None	None	No	None	None	None Observed	None
Lease Area	D14_136	A	No	No	Low	None	None	None	No	None	None	Diopatra	None
Lease Area	D14_136	C	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
Lease Area	D14_136	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_137	A	No	No	Low	None	None	None	No	None	None	Polychaete	None
Lease Area	D14_137	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_137	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_138	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_138	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_138	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_139	A	No	No	Low	None	None	None	No	None	None	Diopatra	None
Lease Area	D14_139	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D14_139	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_140	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_140	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_140	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_141	A	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
Lease Area	D14_141	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_141	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_142	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_142	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_142	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_142	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_142	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_143	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_143	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_143	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_144	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_144	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_144	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_145	A	No	No	Low	None	None	None	Yes	None	None	Diopatra	None
Lease Area	D14_145	B	No	No	Low	None	None	None	IND	None	None	None Observed	None
Lease Area	D14_145	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_146	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_146	B	No	No	Low	None	None	None	Yes	None	None	Diopatra, Unidentified Infauna	None
Lease Area	D14_146	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_147	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_147	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_147	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D14_148	A	No	No	Low	None	None	None	IND	None	None	None Observed	None
Lease Area	D14_148	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_148	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_149	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_149	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_149	C	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D14_150	A	No	No	Low	None	None	None	No	None	None	None Observed	None

Area	Station ID	Replicate	Methane Present?	Low DO Present?	Sediment Oxygen Demand	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
Lease Area	D14_150	B	No	No	Low	None	None	None	No	None	IND	None Observed	None
Lease Area	D14_150	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_151	B	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_151	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_151	D	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_152	A	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_152	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D14_152	C	No	No	Low	None	None	None	No	None	None	None Observed	None
Lease Area	D14_153	A	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D14_153	B	No	No	Low	None	None	None	Yes	None	None	None Observed	None
Lease Area	D14_153	C	No	No	Low	None	None	None	No	None	None	None Observed	None

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
ECR	01_301	A	Sand Dollar	0	4.05	2	None	None	
ECR	01_301	B	Snails	1	6.64	2 on 3	None	None	
ECR	01_301	D	None	1	4.89	2 on 3	None	None	
ECR	01_302	A	None	0	4.13	2	None	None	
ECR	01_302	B	Sand Dollar, Snail	0	6.48	2	None	None	
ECR	01_302	C	Hermit Crab	0	4.84	2	None	None	
ECR	01_303	A	Sand Dollar, Snail	0	5.55	2	None	None	
ECR	01_303	C	None	0	4.78	2	None	None	
ECR	01_303	D	Crab	0	7.28	2 -> 3	None	None	
ECR	01_304	A	Hermit Crabs	0	3.93	2	None	None	
ECR	01_304	C	Sand Dollars, Snail	0	7.47	2	None	None	
ECR	01_304	E	None	0	4.23	2	None	None	
ECR	01_305	A	Sand Dollar	0	4.50	2	None	None	
ECR	01_305	C	Crab, Sand Dollars, Snail	0	2.83	2	None	None	
ECR	01_305	D	Sand Dollar	1	6.82	2 on 3	None	None	aRPD greater than penetration on left side of image.
ECR	01_306	A	None	0	3.37	2	None	None	
ECR	01_306	B	None	0	4.57	2	None	None	
ECR	01_306	C	None	0	4.54	2	None	None	
ECR	01_307	A	None	0	5.62	2 -> 3	None	None	
ECR	01_307	C	Hermit Crab	0	3.78	2	None	None	
ECR	01_307	D	Sand Dollars	0	4.23	2	None	None	
ECR	01_308	I	None	0	2.91	2	None	None	
ECR	01_308	J	None	0	2.93	1	None	None	
ECR	01_308	K	None	0	4.15	2	None	None	
ECR	02_309	A	None	0	9.73	2 -> 3	None	None	
ECR	02_309	C	None	0	3.77	2	None	None	
ECR	02_309	D	Crab, Hermit Crab, Sand Dollar	0	4.24	2	None	None	
ECR	02_310	A	Hermit Crab	1	4.72	2 on 3	None	None	
ECR	02_310	C	Crab, Sand Dollar, Snail	0	4.39	2	None	None	
ECR	02_310	D	Snails	0	3.88	2 -> 3	None	None	
ECR	02_311	A	None	0	IND	2	None	None	
ECR	02_311	B	None	1	8.26	2 on 3	None	None	
ECR	02_311	D	Sand Dollar	0	8.39	2 -> 3	None	None	
ECR	02_312	A	Crab	0	7.16	2	None	None	aRPD greater than penetration on left side of image.
ECR	02_312	B	IND	0	5.98	2	None	None	
ECR	02_312	C	None	1	10.40	2 on 3	None	None	aRPD greater than penetration at center of image.
ECR	02_313	A	None	0	IND	2	None	None	
ECR	02_313	B	None	0	5.89	2	None	None	
ECR	02_313	D	None	0	4.25	2	None	None	
ECR	02_314	A	None	0	4.23	2	None	None	
ECR	02_314	B	None	0	5.38	2	None	None	
ECR	02_314	C	None	1	7.04	2 on 3	None	None	
ECR	02_315	A	Crab, Hermit Crab	0	4.20	2	None	None	
ECR	02_315	B	Crab, Sand Dollar	0	5.81	2	None	None	
ECR	02_315	D	Hermit Crab	0	5.41	2	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
ECR	02_316	A	None	0	3.09	2	None	None	
ECR	02_316	B	Snail	0	3.42	2	None	None	
ECR	02_316	D	Sand Dollar, Shrimp	0	4.17	2	IND	None	
ECR	03_317	A	None	0	4.03	2	None	None	
ECR	03_317	B	Crab, Sand Dollar	0	3.58	2	None	None	
ECR	03_317	C	None	0	6.23	2	None	None	Possible ampelisca tubes in far field.
ECR	03_318	A	Sand Dollar	0	4.34	2	None	None	
ECR	03_318	B	None	0	3.95	2	None	None	Amphipod on sediment-water interface at center, no tube.
ECR	03_318	C	Snail	0	3.85	2	None	None	
ECR	03_319	A	None	0	5.54	2	None	None	
ECR	03_319	B	Sand Dollar	0	3.88	2	None	None	
ECR	03_319	C	None	0	4.14	2 -> 3	None	None	
ECR	03_320	A	None	0	6.49	2	None	None	
ECR	03_320	B	None	0	11.18	2 on 3	None	None	Large transected burrow at right, to near bottom of aRPD.
ECR	03_320	C	None	0	6.19	2	None	None	
ECR	03_321	A	None	0	3.65	2	None	None	
ECR	03_321	B	None	0	7.58	2 -> 3	None	None	
ECR	03_321	C	None	0	5.68	2	None	None	
ECR	03_322	A	None	0	7.50	2 -> 3	None	None	
ECR	03_322	C	None	0	8.61	2 -> 3	None	None	
ECR	03_322	D	None	0	3.13	2	None	None	
ECR	03_323	A	None	0	6.41	2 -> 3	None	None	Moon snail egg case in background of image.
ECR	03_323	B	None	0	12.13	2 on 3	None	None	
ECR	03_323	C	Sand Dollar	0	3.41	2 -> 3	None	None	
ECR	03_324	B	None	0	3.51	2	None	None	
ECR	03_324	C	None	0	3.58	2	None	None	
ECR	03_324	D	Snails	0	3.63	2	None	None	
ECR	04_325	A	Snail	0	7.96	2	None	None	
ECR	04_325	B	Sand Dollar	0	IND	2	None	None	
ECR	04_325	C	Sand Dollar	0	3.89	2	None	None	
ECR	04_326	A	Snails	0	IND	2	None	None	
ECR	04_326	B	None	0	IND	2	None	None	
ECR	04_326	C	None	0	4.70	2	None	None	
ECR	04_327	A	Sand Dollar	0	4.75	2	None	None	Amphipod outside of any tubes or stacks at sediment-water interface just left of center.
ECR	04_327	C	None	0	4.40	2	None	None	
ECR	04_327	D	Sand Dollar	0	4.36	2 -> 3	None	None	Possible edge of small void at right ~2 cm below sediment-water interface.
ECR	04_328	A	Hermit Crabs	1	6.71	2 on 3	None	None	
ECR	04_328	B	Snail	2	7.34	2 on 3	None	None	
ECR	04_328	D	Crab	0	4.60	2	None	None	
ECR	04_329	A	None	0	6.23	2	None	None	
ECR	04_329	B	Hermit Crabs, Sand Dollar	0	5.11	2	None	None	
ECR	04_329	C	None	1	3.45	2 on 3	None	None	
ECR	04_330	B	None	0	6.15	2 on 3	None	None	
ECR	04_330	C	None	0	4.71	IND	None	None	Burrows identified in PV.
ECR	04_330	D	None	0	4.30	2	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
ECR	04_331	A	None	0	9.41	2 -> 3	None	None	
ECR	04_331	B	Sand Dollar, Snail	0	5.99	2	None	None	
ECR	04_331	C	Snail	0	4.85	2	None	None	
ECR	04_332	A	None	0	4.18	2	None	None	
ECR	04_332	D	None	0	3.37	2	None	None	
ECR	04_332	E	None	0	5.97	2	None	None	
ECR	05_333	A	None	0	4.07	2	None	None	Ampelisca amphipod emerging from split in side of tube.
ECR	05_333	B	None	0	4.16	2	None	None	
ECR	05_333	C	None	0	4.44	2	None	None	
ECR	05_334	A	None	0	4.53	2	None	None	
ECR	05_334	B	Snails	1	4.27	2 on 3	None	None	
ECR	05_334	D	None	0	6.95	2 on 3	None	None	
ECR	05_335	A	None	1	7.41	2 on 3	None	None	
ECR	05_335	B	Snail	0	6.47	2	None	None	
ECR	05_335	C	Snail	0	8.75	2	None	None	
ECR	05_336	A	Hermit Crab, Snail	0	4.62	2	None	None	
ECR	05_336	B	None	0	5.25	2	None	None	
ECR	05_336	D	None	0	6.75	1	None	None	
ECR	05_337	A	None	0	3.55	2	None	None	
ECR	05_337	E	Sand Dollar	0	2.79	2	None	None	
ECR	05_337	F	None	0	3.37	2	None	None	
ECR	05_338	A	None	0	6.88	2 -> 3	None	None	Burrows identified in PV. Stage 2 tube present on surface far field.
ECR	05_338	B	Crab	2	7.49	2 on 3	None	None	
ECR	05_338	C	Sand Dollars	0	3.54	1 -> 2	None	None	Sparse tubes in PV.
ECR	05_339	A	IND	0	3.89	2	None	None	Amphipod in suspension at right; snail or hermit crab at sediment-water interface, covered with some growth and lots of suspension.
ECR	05_339	B	None	0	4.37	2	None	None	
ECR	05_339	D	None	0	8.98	2 -> 3	None	None	
ECR	05_340	A	None	0	3.01	2	None	None	
ECR	05_340	B	IND	0	3.89	1 -> 2	None	None	Snail or hermit crab in far field at left of center.
ECR	05_340	D	None	0	3.14	2	None	None	
ECR	06_341	A	None	0	7.67	2 -> 3	None	None	
ECR	06_341	B	None	0	4.28	2	None	None	
ECR	06_341	C	None	0	9.96	2 -> 3	None	None	Indications of relict voids.
ECR	06_342	A	Sand Dollar	0	5.72	2	None	None	
ECR	06_342	B	None	0	4.08	2	None	None	
ECR	06_342	C	None	0	7.44	2 -> 3	None	None	Closed void or end of burrow in reduced sediment at center.
ECR	06_343	A	None	0	4.01	2	None	None	
ECR	06_343	B	None	1	1.41	2 on 3	None	None	
ECR	06_343	C	None	1	8.17	2 on 3	None	None	
ECR	06_344	A	None	0	5.11	2	None	None	
ECR	06_344	B	Hermit Crab	0	3.98	2	None	None	
ECR	06_344	C	None	0	9.32	2	None	None	
ECR	06_345	A	None	0	5.46	2	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
ECR	06_345	C	Crab	0	9.50	2 on 3	None	None	
ECR	06_345	D	None	0	5.35	2	None	None	
ECR	06_346	A	Snail	0	3.03	2	None	None	
ECR	06_346	B	IND	0	5.13	2 -> 3	None	None	Transected burrow at depth.
ECR	06_346	C	None	0	3.01	2 -> 3	None	None	Possible polychaete ~3-4 cm and possible transected burrow at left.
ECR	06_347	A	Sand Dollar	0	4.98	2 -> 3	None	None	Burrows identified in PV.
ECR	06_347	B	None	0	5.46	2 -> 3	None	None	Burrows identified in PV.
ECR	06_347	C	None	0	8.99	2 on 3	None	None	
ECR	06_348	A	None	0	5.12	2	None	None	
ECR	06_348	B	Snail	1	11.42	2 on 3	None	None	
ECR	06_348	C	Snails	0	5.95	2	None	None	
ECR	07_349	A	None	0	IND	IND	None	None	
ECR	07_349	B	Sand Dollars	0	IND	IND	None	None	
ECR	07_349	C	Sand Dollars	0	IND	IND	None	None	
ECR	07_350	A	None	0	IND	2	None	None	
ECR	07_350	C	Sand Dollar	0	IND	IND	None	None	
ECR	07_350	D	None	0	IND	2	None	None	
ECR	07_351	A	Sand Dollars	0	IND	2	None	None	
ECR	07_351	B	None	0	IND	IND	None	None	
ECR	07_351	E	None	0	IND	2	None	None	
ECR	07_352	A	None	0	IND	2	None	None	Diopatra tube.
ECR	07_352	B	Sand Dollar	0	IND	IND	None	None	
ECR	07_352	C	Sand Dollars, Snail	0	IND	IND	None	None	
ECR	07_353	A	Sand Dollar	0	IND	IND	None	None	
ECR	07_353	B	Sand Dollars	0	IND	2	None	None	
ECR	07_353	C	None	0	IND	IND	None	None	
ECR	07_354	A	Sand Dollars	0	IND	IND	None	None	
ECR	07_354	B	Sand Dollars	0	IND	IND	None	None	
ECR	07_354	C	Sand Dollars	0	IND	IND	None	None	
ECR	07_355	A	None	0	IND	2	None	None	
ECR	07_355	B	Hermit Crab, Sand Dollars	0	IND	IND	None	None	
ECR	07_355	C	Sand Dollars	0	IND	IND	None	None	
ECR	07_356	F	Sand Dollars	0	IND	IND	None	None	
ECR	07_356	G	Sand Dollars	0	IND	2	None	None	
ECR	07_356	H	None	0	IND	2	None	None	
ECR	08_357	A	Sand Dollars	0	IND	IND	None	None	
ECR	08_357	B	None	0	IND	IND	None	None	
ECR	08_357	C	None	0	IND	IND	None	None	
ECR	08_358	A	Sand Dollar	0	IND	IND	None	None	
ECR	08_358	B	Sand Dollars	0	IND	2	None	None	
ECR	08_358	C	None	0	IND	1 -> 2	None	None	
ECR	08_359	A	Sand Dollar	0	IND	2	None	None	Diopatra in far field.
ECR	08_359	B	Sand Dollar	0	IND	IND	None	None	
ECR	08_359	C	None	0	IND	IND	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
ECR	08_360	A	None	0	IND	2	None	None	
ECR	08_360	C	None	0	IND	2	None	None	
ECR	08_360	D	None	0	IND	1 -> 2	None	None	
ECR	08_361	A	None	0	IND	2	None	None	
ECR	08_361	B	None	0	IND	2	None	None	
ECR	08_361	C	None	0	IND	1	None	None	
ECR	08_362	A	None	0	IND	IND	None	None	
ECR	08_362	B	None	0	IND	2	None	None	
ECR	08_362	C	None	0	IND	1 -> 2	None	None	
ECR	08_363	A	None	0	IND	IND	None	None	
ECR	08_363	B	None	0	IND	IND	None	None	Northern star coral in background of image confirmed by PV image.
ECR	08_363	C	None	0	IND	1	None	None	
ECR	08_364	A	None	0	6.03	2 -> 3	None	None	
ECR	08_364	B	None	0	2.64	2 -> 3	None	None	
ECR	08_364	D	None	0	4.82	2 -> 3	None	None	
ECR	09_365	A	Sand Dollar	0	IND	2	None	None	
ECR	09_365	B	None	0	IND	2	None	None	
ECR	09_365	C	Sand Dollar	0	IND	IND	None	None	
ECR	09_366	A	Sand Dollars	0	IND	IND	None	None	
ECR	09_366	C	Sand Dollar	0	IND	1 -> 2	None	None	
ECR	09_366	D	Sand Dollars	0	IND	IND	None	None	
ECR	09_367	A	Hermit Crab, Sand Dollars	0	IND	1 -> 2	None	None	
ECR	09_366	D	Sand Dollars	0	IND	IND	None	None	
ECR	09_367	A	Hermit Crab, Sand Dollars	0	IND	1 -> 2	None	None	
ECR	09_367	B	Sand Dollars	0	IND	IND	None	None	
ECR	09_367	C	Sand Dollars	0	IND	2	None	None	Possible polychaete at 2-3 cm at center.
ECR	09_368	A	Sand Dollars	0	IND	1 -> 2	None	None	
ECR	09_368	B	Hermit Crab, Sand Dollars	0	IND	IND	None	None	
ECR	09_368	C	Sand Dollars	0	5.72	2 -> 3	None	None	
ECR	09_369	A	Sand Dollars	0	IND	IND	None	None	
ECR	09_369	B	Hermit Crab, Sand Dollars	0	IND	1 -> 2	None	None	
ECR	09_369	D	Sand Dollars	0	IND	1 -> 2	None	None	
ECR	09_370	A	Hermit Crab, Sand Dollars	0	IND	2	None	None	
ECR	09_370	B	Sand Dollars	0	IND	IND	None	None	
ECR	09_370	C	Sand Dollars	0	IND	IND	None	None	
ECR	09_371	A	Sand Dollars	0	IND	2	None	None	
ECR	09_371	B	Sand Dollar	0	IND	2	None	None	
ECR	09_371	C	Sand Dollars	0	IND	2	None	None	
ECR	09_372	A	None	0	IND	IND	None	None	
ECR	09_372	B	Sand Dollars	0	IND	2	None	None	
ECR	09_372	C	Sand Dollars	0	IND	IND	None	None	
ECR	10_373	A	None	0	IND	IND	None	None	
ECR	10_373	B	None	0	IND	1 -> 2	None	None	
ECR	10_373	D	None	0	IND	2	None	None	
ECR	10_374	A	None	0	IND	IND	None	None	
ECR	10_374	B	None	0	4.52	IND	None	None	
ECR	10_374	C	None	0	IND	2	None	None	
ECR	10_375	A	None	0	5.58	2 -> 3	None	None	
ECR	10_375	B	None	0	IND	IND	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
ECR	10_375	D	Sand Dollars	0	IND	1 -> 2	None	None	
ECR	10_376	A	None	0	IND	2	None	None	
ECR	10_376	B	None	0	IND	IND	None	None	
ECR	10_376	C	None	0	IND	1 -> 2	Unidentified Fish	None	Tiny fish facing faceplate at sediment-water interface, to right of center.
ECR	10_377	A	None	0	IND	IND	None	None	
ECR	10_377	B	None	0	IND	IND	None	None	Smear of fines in upper 2-3 cms.
ECR	10_377	C	None	0	IND	IND	None	None	
ECR	10_378	A	None	0	IND	IND	None	None	
ECR	10_378	B	None	0	IND	2	None	None	
ECR	10_378	C	None	0	IND	1 -> 2	None	None	
ECR	10_379	A	None	0	IND	2	None	None	
ECR	10_379	B	None	0	IND	IND	None	None	
ECR	10_379	C	None	0	IND	IND	None	None	
ECR	10_380	A	None	0	2.61	2 -> 3	None	None	
ECR	10_380	B	None	0	3.64	2	None	None	
ECR	10_380	C	None	0	4.10	2	None	None	
ECR	11_381	A	None	0	IND	1	None	None	
ECR	11_381	B	None	0	IND	1 -> 2	None	None	
ECR	11_381	C	None	0	IND	1 -> 2	None	None	
ECR	11_382	B	None	0	IND	IND	None	None	
ECR	11_382	C	None	0	IND	IND	None	None	
ECR	11_382	D	None	0	IND	IND	None	None	
ECR	11_383	A	None	0	IND	1 -> 2	None	None	
ECR	11_383	C	Sand Dollar	0	IND	2	None	None	
ECR	11_383	D	Sand Dollar	0	IND	IND	None	None	
ECR	11_384	A	None	0	IND	IND	None	None	
ECR	11_384	B	None	0	IND	IND	None	None	
ECR	11_384	C	None	0	IND	IND	None	None	
ECR	11_385	A	None	0	IND	IND	None	None	
ECR	11_385	B	None	0	IND	2	None	None	
ECR	11_385	C	Sand Dollar	0	IND	2	None	None	
ECR	11_386	A	Sand Dollar, Snail	0	IND	2	None	None	
ECR	11_386	B	None	0	IND	2	None	None	
ECR	11_386	D	None	0	IND	2	None	None	
ECR	11_387	A	None	0	IND	IND	None	None	
ECR	11_387	B	Hermit Crabs, Sand Dollar	0	IND	IND	None	None	
ECR	11_387	C	None	0	IND	IND	None	None	
ECR	11_388	A	Sand Dollars	0	IND	IND	None	None	Burrows (cerianthid) identified in PV.
ECR	11_388	B	Sand Dollar	0	IND	IND	None	None	
ECR	11_388	C	Sand Dollars	0	IND	IND	None	None	
ECR	12_389	A	None	0	IND	IND	None	None	
ECR	12_389	C	None	0	IND	IND	None	None	
ECR	12_389	D	None	0	IND	2	None	None	
ECR	12_390	A	None	0	IND	2	None	None	
ECR	12_390	B	None	0	IND	2	None	None	
ECR	12_390	D	None	0	IND	2	None	None	
ECR	12_391	A	None	0	IND	IND	None	None	Possible diopatra at sediment-water interface.
ECR	12_391	B	None	0	IND	IND	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
ECR	12_391	D	Snails	0	IND	IND	None	None	
ECR	12_392	A	None	0	IND	1	None	None	Fine sand behind thin smear of >4 against prism.
ECR	12_392	B	None	IND	IND	IND	None	None	Cobble/boulder in far field, with likely grazed barnacles.
ECR	12_392	C	None	0	IND	IND	None	None	
ECR	12_393	A	None	0	IND	IND	None	None	
ECR	12_393	B	Snail	0	IND	IND	None	None	
ECR	12_393	D	None	0	IND	IND	None	None	Northern star coral confirmed in PV.
ECR	12_394	A	None	0	IND	IND	None	None	
ECR	12_394	B	None	0	IND	IND	None	None	
ECR	12_394	C	None	0	IND	IND	None	None	
ECR	12_395	A	None	0	IND	IND	None	None	
ECR	12_395	B	None	0	IND	2	None	None	
ECR	12_395	C	None	0	IND	IND	None	None	
ECR	12_396	A	None	0	2.83	IND	None	None	
ECR	12_396	B	None	0	2.99	2	None	None	
ECR	12_396	C	None	0	2.44	2	None	None	
Lease Area	B17_154	A	Snail	0	IND	IND	None	None	
Lease Area	B17_154	B	Sand Dollar	0	IND	IND	None	None	
Lease Area	B17_154	D	None	0	IND	IND	None	None	
Lease Area	B17_155	B	Hermit Crab, Sand Dollar	0	IND	IND	None	None	
Lease Area	B17_155	C	None	0	IND	IND	None	None	
Lease Area	B17_155	D	Crab	0	IND	IND	None	None	
Lease Area	B17_156	A	None	0	IND	2	None	None	
Lease Area	B17_156	B	Shrimp	0	IND	IND	None	None	
Lease Area	B17_156	C	None	0	IND	IND	None	None	
Lease Area	B17_157	A	None	0	IND	IND	None	None	Possible shrimp in far field facing backward.
Lease Area	B17_157	B	Sand Dollar	0	5.04	2 -> 3	None	None	
Lease Area	B17_157	C	None	0	IND	IND	None	None	
Lease Area	B17_158	A	None	0	5.23	2 on 3	None	None	
Lease Area	B17_158	B	None	0	5.57	2	None	None	
Lease Area	B17_158	C	None	0	6.38	2	None	None	
Lease Area	B17_159	A	Sand Dollar	0	IND	1	None	None	
Lease Area	B17_159	B	Shrimp	0	3.48	1 on 3	None	None	Shrimp in water column.
Lease Area	B17_159	C	None	0	IND	2	None	None	
Lease Area	B17_160	A	None	0	IND	IND	None	None	
Lease Area	B17_160	C	None	0	IND	1	None	None	
Lease Area	B17_160	F	None	0	IND	IND	None	None	
Lease Area	B17_161	B	Sand Dollars	0	5.80	IND	None	None	
Lease Area	B17_161	C	Crab, Sand Dollar	0	3.95	1 -> 2	None	None	Object (perhaps carapace or shell) at penetration maximum to right of center, appears to be drag-down artifact based on disturbance of fecal pellets at Sediment-water interface.
Lease Area	B17_161	D	None	0	3.46	1 -> 2	None	None	
Lease Area	B17_162	A	None	0	IND	2	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
Lease Area	B17_162	B	None	0	IND	2	None	None	
Lease Area	B17_162	C	None	0	IND	IND	None	None	
Lease Area	B17_163	A	None	0	IND	IND	None	None	
Lease Area	B17_163	B	None	0	IND	2	None	None	
Lease Area	B17_163	C	None	0	IND	IND	None	None	
Lease Area	B17_164	A	Sand Dollar	0	IND	IND	None	None	
Lease Area	B17_164	B	None	0	5.47	2 -> 3	None	None	
Lease Area	B17_164	C	Sand Dollar	0	IND	IND	None	None	
Lease Area	B17_165	A	None	0	5.64	2	None	None	
Lease Area	B17_165	B	Snail	0	IND	IND	None	None	
Lease Area	B17_165	D	None	0	IND	2	None	None	
Lease Area	B17_166	A	None	0	IND	1 -> 2	None	None	
Lease Area	B17_166	B	None	0	IND	IND	None	None	
Lease Area	B17_166	C	None	0	IND	IND	None	None	
Lease Area	B17_167	A	None	0	7.49	2 on 3	None	None	Several narrow worms in sediment column.
Lease Area	B17_167	B	None	0	IND	1	None	None	
Lease Area	B17_167	C	None	0	IND	2	None	None	
Lease Area	B17_168	B	Sand Dollars	0	4.52	IND	None	None	
Lease Area	B17_168	C	Sand Dollars	0	6.08	1 on 3	None	None	
Lease Area	B17_168	D	None	0	7.81	2 on 3	None	None	
Lease Area	B17_169	A	None	0	IND	IND	None	None	
Lease Area	B17_169	B	None	0	IND	2	None	None	
Lease Area	B17_169	C	Sand Dollars	0	IND	IND	None	None	
Lease Area	B17_170	A	None	0	IND	2	None	None	
Lease Area	B17_170	B	None	0	3.38	2 -> 3	None	None	
Lease Area	B17_170	C	None	0	IND	2	None	None	
Lease Area	B17_171	B	Shrimp	0	IND	1 -> 2	None	None	
Lease Area	B17_171	C	Sand Dollar	0	IND	1	None	None	
Lease Area	B17_171	D	None	0	3.35	2 -> 3	None	None	
Lease Area	C09_118	A	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_118	B	None	0	IND	IND	None	None	
Lease Area	C09_118	C	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_119	A	Sand Dollars	0	IND	2	None	None	
Lease Area	C09_119	B	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_119	D	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_120	B	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_120	C	Sand Dollar	0	IND	IND	None	None	
Lease Area	C09_120	D	Sand Dollar	0	IND	2	None	None	
Lease Area	C09_121	A	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_121	B	Sand Dollars	0	IND	IND	None	None	Possible diopatra in far field.
Lease Area	C09_121	C	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_122	A	Sand Dollar	0	IND	IND	None	None	
Lease Area	C09_122	B	Sand Dollars, Shrimp	0	IND	IND	None	None	
Lease Area	C09_122	D	Sand Dollars	0	IND	2	None	None	
Lease Area	C09_123	A	None	0	IND	IND	None	None	
Lease Area	C09_123	B	Sand Dollars	0	IND	2	None	None	Likely diopatra.
Lease Area	C09_123	C	Sand Dollars	0	IND	IND	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
Lease Area	C09_124	A	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_124	B	None	0	5.61	2	None	None	
Lease Area	C09_124	C	None	0	IND	IND	None	None	
Lease Area	C09_125	A	None	0	IND	1 -> 2	None	None	
Lease Area	C09_125	B	Sand Dollar	0	IND	2	None	None	
Lease Area	C09_125	C	None	0	IND	1	None	None	
Lease Area	C09_126	A	Sand Dollars	0	IND	2	None	None	
Lease Area	C09_126	B	None	0	IND	1 -> 2	None	None	
Lease Area	C09_126	C	None	0	IND	1 -> 2	None	None	Burrows identified in PV.
Lease Area	C09_127	A	Sand Dollar	0	IND	1 -> 2	None	None	
Lease Area	C09_127	B	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_127	D	Sand Dollar	0	IND	IND	None	None	
Lease Area	C09_128	A	Sand Dollar	0	IND	IND	None	None	
Lease Area	C09_128	B	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_128	C	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_129	B	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_129	C	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_129	D	None	0	4.34	IND	None	None	
Lease Area	C09_130	A	Sand Dollars	0	IND	1 -> 2	None	None	
Lease Area	C09_130	B	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_130	C	None	0	IND	IND	None	None	
Lease Area	C09_131	A	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_131	B	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_131	C	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_132	A	None	0	IND	2	None	None	
Lease Area	C09_132	B	None	0	IND	IND	None	None	
Lease Area	C09_132	C	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_133	A	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_133	B	None	0	IND	IND	None	None	
Lease Area	C09_133	C	Sand Dollars	0	IND	2	None	None	
Lease Area	C09_134	A	None	0	IND	IND	None	None	
Lease Area	C09_134	B	None	0	IND	IND	None	None	
Lease Area	C09_134	C	Sand Dollar	0	IND	IND	None	None	
Lease Area	C09_135	A	Sand Dollar	0	IND	IND	None	None	Possible diopatra in far field.
Lease Area	C09_135	C	Sand Dollars	0	IND	IND	None	None	
Lease Area	C09_135	I	Sand Dollars	0	IND	IND	None	None	
Lease Area	C20_172	A	None	0	2.44	2	None	None	
Lease Area	C20_172	C	Sand Dollar	0	IND	IND	None	None	
Lease Area	C20_172	D	Sand Dollar	0	IND	IND	None	None	
Lease Area	C20_173	A	Snail	0	IND	IND	None	None	
Lease Area	C20_173	B	None	0	IND	2	None	None	
Lease Area	C20_173	C	None	0	2.71	1 -> 2	None	None	
Lease Area	C20_174	A	None	0	IND	IND	None	None	
Lease Area	C20_174	B	None	0	IND	IND	None	None	
Lease Area	C20_174	C	None	0	IND	IND	None	None	
Lease Area	C20_175	B	None	0	IND	IND	None	None	
Lease Area	C20_175	C	None	0	IND	IND	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
Lease Area	C20_175	D	Sand Dollar	0	IND	IND	None	None	
Lease Area	C20_176	A	Sand Dollar	0	IND	IND	None	None	Translucent material at right on sediment-water interface.
Lease Area	C20_176	B	None	0	IND	IND	None	None	
Lease Area	C20_176	C	None	0	IND	IND	None	None	
Lease Area	C20_177	A	None	0	IND	IND	None	None	
Lease Area	C20_177	B	None	0	IND	2	None	None	
Lease Area	C20_177	D	None	0	IND	2	None	None	
Lease Area	C20_178	C	None	0	IND	2	None	None	
Lease Area	C20_178	D	None	0	IND	2	None	None	
Lease Area	C20_178	E	None	0	IND	IND	None	None	
Lease Area	C20_179	A	Sand Dollar	0	IND	IND	None	None	
Lease Area	C20_179	C	None	0	IND	2	None	None	
Lease Area	C20_179	D	None	0	IND	IND	None	None	
Lease Area	C20_180	B	None	0	IND	IND	None	None	
Lease Area	C20_180	C	None	0	IND	IND	None	None	
Lease Area	C20_180	E	Sand Dollars	0	4.94	IND	None	None	Possible cerianthid in drag-down at right.
Lease Area	C20_181	C	None	0	IND	IND	None	None	
Lease Area	C20_181	F	None	0	IND	IND	None	None	
Lease Area	C20_181	G	None	0	IND	IND	None	None	
Lease Area	C20_182	A	Sand Dollar	0	IND	IND	None	None	
Lease Area	C20_182	B	None	0	IND	1	None	None	
Lease Area	C20_182	C	None	0	IND	IND	None	None	
Lease Area	C20_183	A	None	0	IND	IND	None	None	
Lease Area	C20_183	B	Sand Dollars	0	IND	IND	None	None	
Lease Area	C20_183	D	Sand Dollars	0	IND	IND	None	None	
Lease Area	C20_184	A	Sand Dollar	0	IND	IND	None	None	
Lease Area	C20_184	B	None	0	IND	IND	None	None	
Lease Area	C20_184	C	None	0	IND	IND	None	None	
Lease Area	C20_185	A	None	0	IND	2	None	None	
Lease Area	C20_185	B	Sand Dollar	0	IND	2	None	None	
Lease Area	C20_185	C	None	0	IND	2	None	None	
Lease Area	C20_186	A	None	0	7.36	2 -> 3	None	None	
Lease Area	C20_186	C	None	0	IND	IND	None	None	
Lease Area	C20_186	D	None	0	IND	IND	None	None	
Lease Area	C20_187	A	None	0	IND	2	None	None	
Lease Area	C20_187	B	None	0	IND	IND	None	None	
Lease Area	C20_187	C	None	0	IND	IND	None	None	
Lease Area	C20_188	A	Sand Dollar	0	IND	IND	None	None	
Lease Area	C20_188	B	None	0	IND	2	None	None	
Lease Area	C20_188	C	None	0	IND	2	None	None	
Lease Area	C20_189	B	None	0	IND	2	None	None	
Lease Area	C20_189	C	None	0	IND	IND	None	None	
Lease Area	C20_189	D	None	0	6.27	2 -> 3	None	None	
Lease Area	D03_100	B	None	0	IND	IND	None	None	
Lease Area	D03_100	C	Sand Dollar, Shrimp	0	IND	IND	None	None	
Lease Area	D03_100	D	Sand Dollars	0	IND	IND	None	None	
Lease Area	D03_101	A	None	0	IND	2	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
Lease Area	D03_101	C	None	0	IND	IND	None	None	
Lease Area	D03_101	D	None	0	IND	IND	None	None	
Lease Area	D03_102	A	None	0	IND	IND	None	None	
Lease Area	D03_102	B	Sand Dollar	0	IND	1 -> 2	None	None	Likely diopatra.
Lease Area	D03_102	C	Sand Dollar	0	IND	1 -> 2	None	None	
Lease Area	D03_103	A	Sand Dollars	0	IND	IND	None	None	
Lease Area	D03_103	B	Sand Dollars	0	IND	IND	None	None	
Lease Area	D03_103	D	None	0	IND	1 -> 2	None	None	
Lease Area	D03_104	A	Sand Dollar	0	IND	1 -> 2	None	None	
Lease Area	D03_104	C	Sand Dollar	0	IND	1 -> 2	None	None	
Lease Area	D03_104	D	None	0	IND	1 -> 2	None	None	
Lease Area	D03_105	A	Sand Dollars	0	IND	IND	None	None	
Lease Area	D03_105	B	Sand Dollars	0	IND	IND	None	None	
Lease Area	D03_105	C	Sand Dollars	0	IND	2	None	None	
Lease Area	D03_106	A	None	0	IND	IND	None	None	
Lease Area	D03_106	B	None	0	IND	IND	None	None	
Lease Area	D03_106	C	None	0	IND	IND	None	None	
Lease Area	D03_107	A	None	0	IND	IND	None	None	
Lease Area	D03_107	C	None	0	IND	IND	None	None	
Lease Area	D03_107	D	None	0	IND	IND	None	None	
Lease Area	D03_108	A	None	0	5.14	2	None	None	
Lease Area	D03_108	C	None	0	IND	2	None	None	
Lease Area	D03_108	D	Sand Dollars	0	IND	2	None	None	
Lease Area	D03_108	C	None	0	IND	2	None	None	
Lease Area	D03_108	D	Sand Dollars	0	IND	2	None	None	
Lease Area	D03_109	B	Sand Dollar	0	IND	IND	None	None	
Lease Area	D03_109	C	None	0	IND	2	None	None	
Lease Area	D03_109	D	Sand Dollars	0	IND	IND	None	None	
Lease Area	D03_110	A	None	0	IND	IND	None	None	
Lease Area	D03_110	B	None	0	IND	2	None	None	
Lease Area	D03_110	D	None	0	IND	IND	None	None	
Lease Area	D03_111	A	None	0	IND	IND	None	None	
Lease Area	D03_111	B	None	0	IND	2	None	None	
Lease Area	D03_111	D	None	0	4.38	2	None	None	
Lease Area	D03_112	A	None	0	IND	IND	None	None	
Lease Area	D03_112	B	None	0	IND	IND	None	None	
Lease Area	D03_112	C	Sand Dollar	0	IND	IND	None	None	
Lease Area	D03_113	A	Snail	0	IND	1 -> 2	None	None	
Lease Area	D03_113	B	None	0	IND	IND	None	None	
Lease Area	D03_113	D	None	0	IND	IND	None	None	
Lease Area	D03_114	A	None	0	IND	IND	None	None	
Lease Area	D03_114	B	None	0	IND	1 -> 2	None	None	
Lease Area	D03_114	C	None	0	IND	IND	None	None	
Lease Area	D03_115	A	None	0	IND	2	None	None	
Lease Area	D03_115	B	None	0	IND	IND	None	None	
Lease Area	D03_115	C	None	0	IND	IND	None	None	
Lease Area	D03_116	A	None	0	IND	IND	None	None	
Lease Area	D03_116	B	None	0	IND	IND	None	None	
Lease Area	D03_116	D	None	0	IND	IND	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
Lease Area	D03_117	A	None	0	IND	IND	None	None	
Lease Area	D03_117	B	Sand Dollar	0	IND	IND	None	None	
Lease Area	D03_117	C	Hermit Crab	0	7.72	IND	None	None	
Lease Area	D14_136	A	Crab	0	IND	2	None	None	
Lease Area	D14_136	C	None	0	IND	2	None	None	
Lease Area	D14_136	D	None	0	IND	IND	None	None	
Lease Area	D14_137	A	None	0	4.22	2	None	None	
Lease Area	D14_137	B	None	0	IND	IND	None	None	
Lease Area	D14_137	D	None	0	IND	IND	None	None	
Lease Area	D14_138	A	None	0	IND	IND	None	None	
Lease Area	D14_138	B	None	0	IND	IND	None	None	
Lease Area	D14_138	C	None	0	IND	IND	None	None	
Lease Area	D14_139	A	Crab, Sand Dollar	0	IND	2	None	None	
Lease Area	D14_139	B	None	0	IND	2	None	None	
Lease Area	D14_139	C	None	0	IND	2	None	None	
Lease Area	D14_140	A	None	0	IND	IND	None	None	
Lease Area	D14_140	B	None	0	IND	1 -> 2	None	None	
Lease Area	D14_140	C	None	0	IND	1	None	None	
Lease Area	D14_141	A	None	0	IND	2	None	None	
Lease Area	D14_141	C	None	0	IND	IND	None	None	
Lease Area	D14_141	D	Sand Dollars	0	IND	IND	None	None	
Lease Area	D14_142	A	Crab, Sand Dollar	0	IND	IND	None	None	
Lease Area	D14_142	B	Crab	0	IND	IND	None	None	
Lease Area	D14_142	C	Sand Dollar	0	IND	IND	None	None	
Lease Area	D14_143	A	None	0	IND	IND	None	None	
Lease Area	D14_143	B	Sand Dollars	0	IND	IND	None	None	
Lease Area	D14_143	C	None	0	IND	IND	None	None	
Lease Area	D14_144	A	None	0	IND	IND	None	None	
Lease Area	D14_144	B	Sand Dollars	0	IND	IND	None	None	
Lease Area	D14_144	C	Sand Dollars	0	IND	IND	None	None	
Lease Area	D14_145	A	Sand Dollar	0	IND	2	None	None	
Lease Area	D14_145	B	None	0	IND	IND	None	None	
Lease Area	D14_145	C	None	0	IND	IND	None	None	
Lease Area	D14_146	A	Sand Dollar	0	IND	IND	None	None	
Lease Area	D14_146	B	None	0	3.99	2	None	None	
Lease Area	D14_146	C	None	0	IND	IND	None	None	
Lease Area	D14_147	A	Sand Dollar, Shrimp	0	IND	IND	None	None	
Lease Area	D14_147	B	None	0	IND	IND	None	None	
Lease Area	D14_147	C	Hermit Crab	0	IND	2	None	None	
Lease Area	D14_148	A	None	0	IND	IND	None	None	
Lease Area	D14_148	B	None	0	IND	IND	None	None	
Lease Area	D14_148	C	Sand Dollars	0	IND	IND	None	None	
Lease Area	D14_149	A	None	0	IND	IND	None	None	
Lease Area	D14_149	B	Sand Dollar	0	IND	IND	None	None	
Lease Area	D14_149	C	None	0	IND	2	None	None	
Lease Area	D14_150	A	Sand Dollar	0	IND	IND	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Number of Feeding Voids	Maximum Bioturbation Depth (cm)	Successional Stage[2]	Fish and Squid	Macroalgae	Comments
Lease Area	D14_150	B	None	0	IND	IND	None	None	Amphipod on sediment-water interface at left, no tube.
Lease Area	D14_150	C	None	0	IND	IND	None	None	
Lease Area	D14_151	B	None	0	IND	IND	None	None	
Lease Area	D14_151	C	None	0	IND	IND	None	None	
Lease Area	D14_151	D	Sand Dollar	0	IND	IND	None	None	
Lease Area	D14_152	A	Sand Dollar	0	IND	2	None	None	
Lease Area	D14_152	B	Sand Dollars	0	5.56	2	None	None	
Lease Area	D14_152	C	Sand Dollar	0	IND	1 -> 2	None	None	
Lease Area	D14_153	A	Hermit Crab	0	IND	2	None	None	
Lease Area	D14_153	B	None	0	IND	2	None	None	
Lease Area	D14_153	C	None	0	IND	IND	None	None	

Appendix C – Plan View Image Analysis Results

Notes:
IND=Indeterminate
N/A=Not Applicable

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
ECR	01_301	A	8/13/2024	23:56:01	62.13	41.42	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	01_301	B	8/13/2024	23:57:07	60.47	40.31	0.24	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_301	D	8/13/2024	23:59:42	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	01_302	A	8/13/2024	23:51:00	55.40	36.93	0.20	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_302	B	8/13/2024	23:52:11	63.96	42.64	0.27	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_302	C	8/13/2024	23:53:22	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_303	A	8/13/2024	23:45:33	70.94	47.29	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_303	C	8/13/2024	23:48:14	64.12	42.75	0.27	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_303	D	8/13/2024	23:49:25	64.04	42.69	0.27	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_304	A	8/13/2024	23:37:46	61.25	40.83	0.25	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_304	C	8/13/2024	23:40:44	69.89	46.59	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_304	E	8/13/2024	23:43:16	69.52	46.35	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_305	A	8/13/2024	23:32:30	68.57	45.71	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	Sea Scallop	None	Soft Sediment Fauna
ECR	01_305	C	8/13/2024	23:34:49	68.06	45.38	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	01_305	D	8/13/2024	23:35:56	67.30	44.87	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_306	A	8/13/2024	23:26:16	64.12	42.75	0.27	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_306	B	8/13/2024	23:27:22	70.18	46.78	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_306	C	8/13/2024	23:28:34	61.61	41.07	0.25	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	01_307	A	8/13/2024	23:12:43	64.12	42.75	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	01_307	C	8/13/2024	23:15:01	69.52	46.35	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_307	D	8/13/2024	23:16:09	68.60	45.73	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	01_308	I	8/13/2024	22:54:42	68.42	45.61	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	IND	None	None	Soft Sediment Fauna
ECR	01_308	J	8/13/2024	22:56:14	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	01_308	K	8/13/2024	22:57:22	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	02_309	A	8/14/2024	1:04:10	77.27	51.51	0.40	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_309	C	8/14/2024	1:06:48	76.25	50.83	0.39	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_309	D	8/14/2024	1:08:03	74.07	49.38	0.37	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_310	A	8/14/2024	1:09:19	78.08	52.05	0.41	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	02_310	C	8/14/2024	1:12:00	79.15	52.77	0.42	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	02_310	D	8/14/2024	1:13:19	81.38	54.25	0.44	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	02_311	A	8/14/2024	1:15:04	80.00	53.33	0.43	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	02_311	B	8/14/2024	1:16:23	79.47	52.98	0.42	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_311	D	8/14/2024	1:19:33	77.96	51.97	0.41	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	02_312	A	8/14/2024	1:20:57	74.39	49.59	0.37	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_312	B	8/14/2024	1:22:05	79.27	52.85	0.42	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_312	C	8/14/2024	1:23:21	78.51	52.34	0.41	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_313	A	8/14/2024	1:27:52	77.96	51.97	0.41	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	02_313	B	8/14/2024	1:29:27	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
ECR	02_313	D	8/14/2024	1:32:28	75.14	50.10	0.38	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_314	A	8/14/2024	1:34:29	81.63	54.42	0.44	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	02_314	B	8/14/2024	1:35:57	79.63	53.09	0.42	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_314	C	8/14/2024	1:37:30	76.58	51.06	0.39	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_315	A	8/14/2024	1:44:28	78.55	52.37	0.41	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_315	B	8/14/2024	1:46:13	77.84	51.90	0.40	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	02_315	D	8/14/2024	1:48:48	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_316	A	8/14/2024	2:02:10	84.28	56.19	0.47	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_316	B	8/14/2024	2:03:38	78.67	52.45	0.41	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	02_316	D	8/14/2024	2:06:48	75.18	50.12	0.38	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	03_317	A	8/13/2024	19:03:25	54.22	36.15	0.20	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	03_317	B	8/13/2024	19:04:41	58.17	38.78	0.23	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	03_317	C	8/13/2024	19:05:47	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	03_318	A	8/13/2024	18:58:05	61.10	40.74	0.25	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	03_318	B	8/13/2024	18:59:16	49.07	32.71	0.16	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	03_318	C	8/13/2024	19:00:42	63.88	42.59	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	03_319	A	8/13/2024	18:52:33	59.84	39.89	0.24	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	03_319	B	8/13/2024	18:53:39	58.23	38.82	0.23	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	03_319	C	8/13/2024	18:55:09	51.93	34.62	0.18	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	03_320	A	8/13/2024	18:47:32	60.61	40.40	0.24	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	03_320	B	8/13/2024	18:48:57	58.23	38.82	0.23	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	03_320	C	8/13/2024	18:50:07	60.72	40.48	0.25	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	03_321	A	8/13/2024	18:34:30	48.48	32.32	0.16	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	03_321	B	8/13/2024	18:35:46	59.09	39.39	0.23	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	03_321	C	8/13/2024	18:37:03	60.12	40.08	0.24	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	03_322	A	8/13/2024	18:28:07	59.56	39.71	0.24	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	03_322	C	8/13/2024	18:30:44	60.32	40.22	0.24	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	03_322	D	8/13/2024	18:31:53	58.69	39.13	0.23	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	03_323	A	8/13/2024	18:15:05	58.10	38.73	0.23	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	03_323	B	8/13/2024	18:16:27	62.05	41.37	0.26	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	03_323	C	8/13/2024	18:17:39	56.96	37.97	0.22	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	03_324	B	8/13/2024	18:01:44	66.75	44.50	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	03_324	C	8/13/2024	18:03:06	49.27	32.85	0.16	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	03_324	D	8/13/2024	18:04:24	63.49	42.33	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	04_325	A	8/13/2024	19:51:27	65.30	43.53	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	04_325	B	8/13/2024	19:52:37	63.34	42.22	0.27	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
ECR	04_325	C	8/13/2024	19:54:11	65.66	43.77	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	04_326	A	8/13/2024	19:56:58	66.41	44.27	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	04_326	B	8/13/2024	19:58:30	69.80	46.53	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	04_326	C	8/13/2024	19:59:54	65.27	43.51	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	04_327	A	8/13/2024	20:03:29	68.51	45.67	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	04_327	C	8/13/2024	20:06:17	68.42	45.61	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	04_327	D	8/13/2024	20:07:29	68.63	45.75	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	04_328	A	8/13/2024	20:09:12	67.27	44.85	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	04_328	B	8/13/2024	20:10:22	68.06	45.38	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	04_328	D	8/13/2024	20:12:53	66.13	44.09	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	04_329	A	8/13/2024	20:15:34	69.15	46.10	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	04_329	B	8/13/2024	20:17:13	70.75	47.17	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	04_329	C	8/13/2024	20:18:31	67.62	45.08	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	04_330	B	8/13/2024	20:23:31	66.21	44.14	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	04_330	C	8/13/2024	20:24:43	68.66	45.77	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	04_330	D	8/13/2024	20:26:04	66.75	44.50	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	04_331	A	8/13/2024	20:33:50	66.16	44.11	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	04_331	B	8/13/2024	20:35:02	69.99	46.66	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	04_331	C	8/13/2024	20:36:37	65.52	43.68	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	04_332	A	8/13/2024	20:49:48	70.94	47.29	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	04_332	D	8/13/2024	20:54:09	69.92	46.62	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	04_332	E	8/13/2024	20:55:41	72.93	48.62	0.35	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	05_333	A	8/13/2024	14:45:43	71.53	47.68	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_333	B	8/13/2024	14:47:14	58.71	39.14	0.23	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_333	C	8/13/2024	14:48:25	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_334	A	8/13/2024	14:51:33	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_334	B	8/13/2024	14:52:48	64.52	43.01	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_334	D	8/13/2024	14:55:18	63.57	42.38	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_335	A	8/13/2024	14:56:50	59.86	39.91	0.24	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_335	B	8/13/2024	14:58:04	61.98	41.32	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_335	C	8/13/2024	14:59:13	64.54	43.03	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_336	A	8/13/2024	15:02:03	61.08	40.72	0.25	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_336	B	8/13/2024	15:03:20	58.36	38.91	0.23	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_336	D	8/13/2024	15:06:01	56.83	37.89	0.22	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_337	A	8/13/2024	15:08:07	58.67	39.11	0.23	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_337	E	8/13/2024	16:53:05	60.39	40.26	0.24	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_337	F	8/13/2024	16:54:48	58.32	38.88	0.23	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_338	A	8/13/2024	15:14:43	56.96	37.97	0.22	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_338	B	8/13/2024	15:15:53	57.99	38.66	0.22	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
ECR	05_338	C	8/13/2024	15:17:28	61.32	40.88	0.25	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_339	A	8/13/2024	15:23:22	61.93	41.29	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_339	B	8/13/2024	15:25:00	59.68	39.79	0.24	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_339	D	8/13/2024	15:27:26	59.29	39.53	0.23	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_340	A	8/13/2024	15:48:28	64.04	42.69	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_340	B	8/13/2024	15:49:38	55.54	37.02	0.21	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	05_340	D	8/13/2024	15:52:15	59.05	39.36	0.23	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_341	A	8/13/2024	12:56:25	59.95	39.97	0.24	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_341	B	8/13/2024	12:57:35	62.23	41.48	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_341	C	8/13/2024	12:58:48	65.24	43.50	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_342	A	8/13/2024	12:51:22	67.56	45.04	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_342	B	8/13/2024	12:52:40	59.23	39.48	0.23	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_342	C	8/13/2024	12:53:54	70.18	46.78	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_343	A	8/13/2024	12:45:34	64.38	42.92	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_343	B	8/13/2024	12:47:07	61.88	41.25	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_343	C	8/13/2024	12:48:22	67.27	44.85	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_344	A	8/13/2024	12:40:03	70.27	46.85	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	06_344	B	8/13/2024	12:41:28	66.41	44.27	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	06_344	C	8/13/2024	12:42:39	64.95	43.30	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	06_345	A	8/13/2024	12:33:13	65.24	43.50	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_345	C	8/13/2024	12:36:16	65.33	43.55	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	06_345	D	8/13/2024	12:37:49	65.08	43.39	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	06_346	A	8/13/2024	12:25:14	67.80	45.20	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_346	B	8/13/2024	12:26:32	68.12	45.41	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	06_346	C	8/13/2024	12:27:44	65.24	43.50	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	06_347	A	8/13/2024	12:16:04	67.47	44.98	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	06_347	B	8/13/2024	12:18:05	71.63	47.75	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	06_347	C	8/13/2024	12:19:33	69.71	46.47	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	06_348	A	8/13/2024	12:00:39	67.97	45.32	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	06_348	B	8/13/2024	12:02:28	64.28	42.85	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	06_348	C	8/13/2024	12:03:57	67.42	44.94	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_349	A	8/13/2024	9:55:39	66.50	44.33	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	07_349	B	8/13/2024	9:56:54	67.10	44.73	0.30	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	None	None	None	None	Soft Sediment Fauna
ECR	07_349	C	8/13/2024	9:58:40	68.06	45.38	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_350	A	8/13/2024	9:48:06	67.53	45.02	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_350	C	8/13/2024	9:51:01	68.97	45.98	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
ECR	07_350	D	8/13/2024	9:52:13	66.07	44.05	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_351	A	8/13/2024	9:39:49	64.44	42.96	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_351	B	8/13/2024	9:41:07	69.15	46.10	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_351	E	8/13/2024	9:45:24	69.15	46.10	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_352	A	8/13/2024	9:34:19	68.33	45.55	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_352	B	8/13/2024	9:35:33	67.10	44.73	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_352	C	8/13/2024	9:36:51	68.15	45.43	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_353	A	8/13/2024	9:27:11	68.97	45.98	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_353	B	8/13/2024	9:29:01	71.63	47.75	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_353	C	8/13/2024	9:30:16	72.93	48.62	0.35	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_354	A	8/13/2024	9:20:33	70.65	47.10	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_354	B	8/13/2024	9:22:03	69.15	46.10	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_354	C	8/13/2024	9:23:31	65.66	43.77	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_355	A	8/13/2024	9:11:18	68.63	45.75	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_355	B	8/13/2024	9:14:28	66.33	44.22	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_355	C	8/13/2024	9:15:37	70.59	47.06	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	07_356	F	8/13/2024	8:54:48	71.01	47.34	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_356	G	8/13/2024	8:56:17	70.59	47.06	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	07_356	H	8/13/2024	8:57:21	64.92	43.28	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_357	A	8/14/2024	4:53:16	70.37	46.91	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_357	B	8/14/2024	4:54:51	78.39	52.26	0.41	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_357	D	8/14/2024	4:57:35	78.39	52.26	0.41	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_358	B	8/14/2024	4:48:38	75.76	50.51	0.38	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_358	C	8/14/2024	4:50:21	80.08	53.39	0.43	Sand or finer	Sand or finer	N/A	N/A	None	None	IND	None	Soft Sediment Fauna
ECR	08_358	F	8/14/2024	5:29:12	80.16	53.44	0.43	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_359	A	8/14/2024	4:40:59	81.21	54.14	0.44	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_359	B	8/14/2024	4:42:25	82.76	55.17	0.46	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_359	C	8/14/2024	4:43:50	78.47	52.31	0.41	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_360	A	8/14/2024	4:34:02	74.86	49.90	0.37	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_360	C	8/14/2024	4:36:58	79.03	52.68	0.42	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_360	D	8/14/2024	4:39:03	81.50	54.34	0.44	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_361	A	8/14/2024	4:26:46	81.76	54.51	0.45	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_361	B	8/14/2024	4:28:16	82.28	54.85	0.45	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_361	C	8/14/2024	4:29:30	76.92	51.28	0.39	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_362	A	8/14/2024	4:19:55	78.91	52.60	0.42	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_362	B	8/14/2024	4:21:06	79.59	53.06	0.42	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_362	C	8/14/2024	4:22:25	81.63	54.42	0.44	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_363	A	8/14/2024	4:09:26	79.43	52.95	0.42	Gravelly Mixes	Gravelly Sand	Cobble	Cobble	None	Northern Star Coral	None	None	Attached Fauna
ECR	08_363	B	8/14/2024	4:11:02	IND	IND	IND	Gravel Mixes	Sandy Gravel	Boulder	Boulder	None	Northern Star Coral	IND	None	Attached Fauna
ECR	08_363	C	8/14/2024	4:12:22	73.93	49.29	0.36	Gravelly Mixes	Gravelly Sand	Cobble	Cobble	None	IND	None	None	Soft Sediment Fauna
ECR	08_364	A	8/14/2024	3:49:18	77.04	51.36	0.40	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_364	B	8/14/2024	3:50:31	82.45	54.97	0.45	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	08_364	D	8/14/2024	3:54:09	74.46	49.64	0.37	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
ECR	09_365	A	8/13/2024	5:49:18	73.45	48.96	0.36	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_365	B	8/13/2024	5:50:38	71.23	47.49	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_365	C	8/13/2024	5:51:54	72.83	48.55	0.35	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	09_366	A	8/13/2024	6:22:17	70.21	46.80	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_366	C	8/13/2024	6:25:19	68.51	45.67	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_366	D	8/13/2024	6:26:57	68.30	45.53	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_367	A	8/13/2024	6:28:59	69.80	46.53	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_367	B	8/13/2024	6:30:31	71.72	47.82	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_367	C	8/13/2024	6:32:57	67.74	45.16	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_368	A	8/13/2024	6:36:55	68.90	45.94	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_368	B	8/13/2024	6:38:39	71.01	47.34	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_368	C	8/13/2024	6:39:52	70.78	47.19	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_369	A	8/13/2024	6:43:47	69.86	46.57	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_369	B	8/13/2024	6:45:33	70.94	47.29	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_369	D	8/13/2024	6:48:57	67.91	45.28	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_370	A	8/13/2024	6:52:51	71.14	47.42	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_370	B	8/13/2024	6:54:19	69.46	46.30	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_370	C	8/13/2024	6:55:42	65.63	43.75	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_371	A	8/13/2024	7:02:00	70.02	46.68	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_371	B	8/13/2024	7:03:37	71.66	47.77	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_371	C	8/13/2024	7:05:20	73.45	48.96	0.36	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_372	A	8/13/2024	7:17:30	72.39	48.26	0.35	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_372	B	8/13/2024	7:19:15	72.26	48.17	0.35	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	09_372	C	8/13/2024	7:20:34	74.25	49.50	0.37	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_373	A	8/13/2024	3:58:56	71.79	47.86	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_373	B	8/13/2024	4:01:18	69.18	46.12	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_373	D	8/13/2024	4:03:56	75.51	50.34	0.38	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_374	A	8/13/2024	3:53:25	72.09	48.06	0.35	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	10_374	B	8/13/2024	3:54:31	68.90	45.94	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_374	C	8/13/2024	3:55:49	65.49	43.66	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	10_375	A	8/13/2024	3:42:38	65.52	43.68	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	10_375	B	8/13/2024	3:43:50	69.80	46.53	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	10_375	D	8/13/2024	3:52:16	68.18	45.45	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	10_376	A	8/13/2024	3:37:10	69.77	46.51	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	10_376	B	8/13/2024	3:38:46	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_376	C	8/13/2024	3:39:56	68.51	45.67	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_377	A	8/13/2024	3:30:17	69.33	46.22	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_377	B	8/13/2024	3:31:29	67.33	44.89	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_377	C	8/13/2024	3:32:53	70.56	47.04	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_378	A	8/13/2024	3:22:07	67.10	44.73	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_378	B	8/13/2024	3:23:46	67.21	44.81	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_378	C	8/13/2024	3:24:56	69.43	46.28	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_379	A	8/13/2024	3:10:41	71.53	47.68	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_379	B	8/13/2024	3:12:02	70.24	46.83	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
ECR	10_379	C	8/13/2024	3:13:21	70.65	47.10	0.33	Gravelly Mixes	Gravelly Sand	Cobble	Cobble	None	Northern Star Coral	None	None	Soft Sediment Fauna
ECR	10_380	A	8/13/2024	2:48:42	68.81	45.88	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	10_380	B	8/13/2024	2:49:58	70.62	47.08	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	10_380	C	8/13/2024	2:51:16	68.90	45.94	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_381	A	8/12/2024	21:04:03	71.04	47.36	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	11_381	B	8/12/2024	21:05:30	65.24	43.50	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	11_381	C	8/12/2024	21:06:44	63.88	42.59	0.27	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	11_382	B	8/12/2024	20:57:55	63.88	42.59	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_382	C	8/12/2024	20:59:45	66.84	44.56	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_382	D	8/12/2024	21:01:45	70.94	47.29	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	11_383	A	8/12/2024	20:49:33	64.68	43.12	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	11_383	C	8/12/2024	20:52:55	67.86	45.24	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	11_383	D	8/12/2024	20:54:42	71.07	47.38	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	11_384	A	8/12/2024	20:42:56	67.27	44.85	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	11_384	B	8/12/2024	20:44:22	66.19	44.12	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_384	C	8/12/2024	20:45:46	69.52	46.35	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_385	A	8/12/2024	20:36:39	66.50	44.33	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	IND	None	None	Soft Sediment Fauna
ECR	11_385	B	8/12/2024	20:37:50	67.39	44.92	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_385	C	8/12/2024	20:39:19	63.60	42.40	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_386	A	8/12/2024	20:27:15	62.58	41.72	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_386	B	8/12/2024	20:28:37	62.68	41.78	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_386	D	8/12/2024	20:32:33	61.64	41.09	0.25	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_387	A	8/12/2024	20:15:55	70.02	46.68	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_387	B	8/12/2024	20:17:10	68.03	45.36	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_387	C	8/12/2024	20:18:56	67.65	45.10	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	11_388	A	8/12/2024	20:01:06	68.30	45.53	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_388	B	8/12/2024	20:02:23	66.50	44.33	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	11_388	C	8/12/2024	20:04:00	67.71	45.14	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	12_389	A	8/12/2024	22:04:13	66.41	44.27	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	12_389	C	8/12/2024	22:06:39	65.57	43.72	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	12_389	D	8/12/2024	22:07:47	69.06	46.04	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	12_390	A	8/12/2024	22:10:15	73.38	48.92	0.36	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	12_390	B	8/12/2024	22:11:31	68.30	45.53	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Inferred Fauna
ECR	12_390	D	8/12/2024	22:14:06	71.53	47.68	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	12_391	A	8/12/2024	22:16:11	67.77	45.18	0.31	Gravelly Mixes	Gravelly Sand	Cobble	Cobble	Ripples	Northern Star Coral	None	None	Attached Fauna
ECR	12_391	B	8/12/2024	22:17:22	66.02	44.01	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	12_391	D	8/12/2024	22:19:56	82.45	54.97	0.45	Gravel Mixes	Sandy Gravel	Boulder	Boulder	None	Northern Star Coral	None	None	Attached Fauna
ECR	12_392	A	8/12/2024	22:21:26	71.53	47.68	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
ECR	12_392	C	8/12/2024	22:24:15	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	IND	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
ECR	12_392	D	8/12/2024	22:25:27	IND	IND	IND	Gravelly Mixes	Gravelly Sand	Cobble	Cobble	None	Northern Star Coral	None	None	Attached Fauna
ECR	12_393	A	8/12/2024	22:28:04	63.65	42.43	0.27	Very Coarse Gravel	Boulder	Boulder	Boulder	None	Northern Star Coral	None	None	Attached Fauna
ECR	12_393	B	8/12/2024	22:29:12	59.43	39.62	0.24	Very Coarse Gravel	Boulder	Boulder	Boulder	None	Northern Star Coral	None	None	Attached Fauna
ECR	12_393	D	8/12/2024	22:31:51	IND	IND	IND	Gravel Mixes	Sandy Gravel	Boulder	Boulder	None	Northern Star Coral	None	None	Attached Fauna
ECR	12_394	A	8/12/2024	22:34:57	67.77	45.18	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	12_394	B	8/12/2024	22:36:05	71.01	47.34	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	12_394	C	8/12/2024	22:37:32	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	12_395	A	8/12/2024	22:49:48	67.07	44.71	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	Northern Star Coral	None	None	Soft Sediment Fauna
ECR	12_395	B	8/12/2024	22:52:10	70.72	47.14	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	Northern Star Coral	None	None	Soft Sediment Fauna
ECR	12_395	D	8/12/2024	22:54:57	69.18	46.12	0.32	Gravelly Mixes	Gravelly Sand	Boulder	Boulder	None	IND	None	None	Attached Fauna
ECR	12_396	A	8/12/2024	23:13:06	68.18	45.45	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	12_396	B	8/12/2024	23:14:16	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
ECR	12_396	C	8/12/2024	23:15:25	69.58	46.39	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_154	A	8/12/2024	0:26:26	71.33	47.55	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_154	B	8/12/2024	0:27:50	71.82	47.88	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_154	D	8/12/2024	0:30:34	70.46	46.97	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_155	B	8/12/2024	0:33:47	69.43	46.28	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_155	C	8/12/2024	0:35:07	66.92	44.62	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_155	D	8/12/2024	0:36:29	73.14	48.76	0.36	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_156	A	8/12/2024	0:41:07	69.99	46.66	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_156	B	8/12/2024	0:42:32	71.23	47.49	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_156	C	8/12/2024	0:43:53	70.75	47.17	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_157	A	8/12/2024	0:48:40	71.92	47.95	0.34	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	B17_157	B	8/12/2024	0:50:14	67.97	45.32	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_157	C	8/12/2024	0:51:56	70.40	46.93	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_158	A	8/12/2024	0:55:48	68.81	45.88	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_158	B	8/12/2024	0:57:09	71.82	47.88	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_158	C	8/12/2024	0:58:55	73.86	49.24	0.36	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_159	A	8/12/2024	1:03:57	69.12	46.08	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_159	B	8/12/2024	1:05:11	70.21	46.80	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_159	C	8/12/2024	1:06:30	71.96	47.97	0.35	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_160	A	8/12/2024	1:12:28	74.04	49.36	0.37	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_160	C	8/12/2024	1:15:03	72.69	48.46	0.35	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_160	F	8/12/2024	2:51:45	70.30	46.87	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_161	B	8/12/2024	1:21:37	71.30	47.53	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
Lease Area	B17_161	C	8/12/2024	1:23:10	69.58	46.39	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_161	D	8/12/2024	1:24:55	65.88	43.92	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_162	A	8/12/2024	1:45:08	71.36	47.58	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_162	B	8/12/2024	1:46:17	67.71	45.14	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_162	C	8/12/2024	1:47:34	67.83	45.22	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_163	A	8/11/2024	23:08:52	70.27	46.85	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_163	B	8/11/2024	23:12:00	67.33	44.89	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_163	C	8/11/2024	23:13:02	67.80	45.20	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	B17_164	A	8/11/2024	23:00:24	67.07	44.71	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_164	B	8/11/2024	23:02:09	55.50	37.00	0.21	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	B17_164	C	8/11/2024	23:03:37	70.94	47.29	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_165	A	8/11/2024	22:53:16	66.50	44.33	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_165	B	8/11/2024	22:55:05	62.65	41.77	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_165	D	8/11/2024	22:57:30	68.18	45.45	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	B17_166	A	8/11/2024	22:46:26	66.41	44.27	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_166	B	8/11/2024	22:47:38	68.24	45.49	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	B17_166	C	8/11/2024	22:49:04	66.02	44.01	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_167	A	8/11/2024	22:38:56	62.68	41.78	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_167	B	8/11/2024	22:40:17	68.57	45.71	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_167	C	8/11/2024	22:41:43	69.06	46.04	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_168	B	8/11/2024	22:32:14	65.49	43.66	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	B17_168	C	8/11/2024	22:33:40	64.54	43.03	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	B17_168	D	8/11/2024	22:34:57	66.24	44.16	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_169	A	8/11/2024	22:20:17	67.71	45.14	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	B17_169	B	8/11/2024	22:21:39	69.86	46.57	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_169	C	8/11/2024	22:22:59	69.33	46.22	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	B17_170	A	8/11/2024	22:12:30	68.00	45.34	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_170	B	8/11/2024	22:14:44	72.69	48.46	0.35	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_170	C	8/11/2024	22:15:59	66.92	44.62	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_171	B	8/11/2024	21:58:03	69.12	46.08	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	B17_171	C	8/11/2024	21:59:25	66.30	44.20	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	B17_171	D	8/11/2024	22:00:39	65.14	43.42	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_118	A	8/12/2024	11:28:43	65.88	43.92	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_118	B	8/12/2024	11:29:47	68.24	45.49	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_118	C	8/12/2024	11:30:59	64.17	42.78	0.27	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_119	A	8/12/2024	11:34:00	71.36	47.58	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_119	B	8/12/2024	11:35:37	64.65	43.10	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_119	D	8/12/2024	11:38:34	66.61	44.41	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_120	B	8/12/2024	11:41:50	68.36	45.57	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_120	C	8/12/2024	11:43:34	70.72	47.14	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_120	D	8/12/2024	11:44:56	65.74	43.83	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_121	A	8/12/2024	11:46:46	70.72	47.14	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_121	B	8/12/2024	11:48:29	70.37	46.91	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
Lease Area	C09_121	C	8/12/2024	11:50:16	69.80	46.53	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_122	A	8/12/2024	11:54:33	72.26	48.17	0.35	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_122	B	8/12/2024	11:55:53	67.33	44.89	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_122	D	8/12/2024	11:59:02	67.01	44.67	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_123	A	8/12/2024	12:08:40	63.18	42.12	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_123	B	8/12/2024	12:09:46	65.24	43.50	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_123	C	8/12/2024	12:10:58	66.16	44.11	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_124	A	8/12/2024	12:17:20	57.14	38.10	0.22	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_124	B	8/12/2024	12:18:37	68.03	45.36	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_124	C	8/12/2024	12:19:49	66.81	44.54	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_125	A	8/12/2024	12:24:12	66.10	44.07	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_125	B	8/12/2024	12:25:32	71.01	47.34	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_125	C	8/12/2024	12:26:57	68.54	45.69	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_126	A	8/12/2024	12:40:49	70.27	46.85	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_126	B	8/12/2024	12:42:16	70.72	47.14	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_126	C	8/12/2024	12:44:10	69.24	46.16	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_127	A	8/12/2024	10:33:31	72.22	48.15	0.35	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_127	B	8/12/2024	10:34:52	61.68	41.12	0.25	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_127	D	8/12/2024	10:37:47	62.78	41.85	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_128	A	8/12/2024	10:26:28	64.78	43.19	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_128	B	8/12/2024	10:27:53	68.03	45.36	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_128	C	8/12/2024	10:29:24	64.84	43.23	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_129	B	8/12/2024	10:21:44	64.41	42.94	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_129	C	8/12/2024	10:23:14	65.68	43.79	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_129	D	8/12/2024	10:24:31	70.37	46.91	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_130	A	8/12/2024	10:12:33	67.44	44.96	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_130	B	8/12/2024	10:13:57	69.24	46.16	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_130	C	8/12/2024	10:15:27	72.69	48.46	0.35	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_131	A	8/12/2024	10:02:50	65.88	43.92	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_131	B	8/12/2024	10:04:39	66.75	44.50	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_131	C	8/12/2024	10:06:02	67.86	45.24	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_132	A	8/12/2024	9:49:14	67.86	45.24	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_132	B	8/12/2024	9:51:12	70.30	46.87	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_132	C	8/12/2024	9:52:40	64.95	43.30	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_133	A	8/12/2024	9:37:43	69.12	46.08	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_133	B	8/12/2024	9:39:25	67.13	44.75	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_133	C	8/12/2024	9:41:03	71.96	47.97	0.35	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_134	A	8/12/2024	9:23:08	71.01	47.34	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Inferred Fauna
Lease Area	C09_134	B	8/12/2024	9:24:52	69.46	46.30	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_134	C	8/12/2024	9:26:15	73.00	48.67	0.36	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_135	A	8/12/2024	8:31:27	74.86	49.90	0.37	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C09_135	C	8/12/2024	8:34:37	63.03	42.02	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C09_135	I	8/12/2024	9:13:03	67.97	45.32	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
Lease Area	C20_172	A	8/11/2024	16:55:10	71.82	47.88	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_172	C	8/11/2024	16:57:32	67.86	45.24	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_172	D	8/11/2024	16:58:39	65.38	43.59	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_173	A	8/11/2024	16:47:58	61.83	41.22	0.25	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_173	B	8/11/2024	16:49:13	71.53	47.68	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_173	C	8/11/2024	16:50:26	69.71	46.47	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_174	B	8/11/2024	16:41:04	69.96	46.64	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_174	E	8/14/2024	7:49:14	78.91	52.60	0.42	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	C20_174	F	8/14/2024	7:50:39	76.47	50.98	0.39	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_175	B	8/11/2024	16:33:27	66.87	44.58	0.30	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_175	C	8/11/2024	16:35:03	70.21	46.80	0.33	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_175	D	8/11/2024	16:36:14	63.80	42.54	0.27	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_176	A	8/11/2024	16:20:39	67.97	45.32	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_176	B	8/11/2024	16:22:18	65.24	43.50	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_176	C	8/11/2024	16:23:45	69.43	46.28	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_177	A	8/11/2024	16:09:12	72.02	48.01	0.35	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_177	B	8/11/2024	16:12:40	72.02	48.01	0.35	Sand or finer	Sand or finer	N/A	N/A	IND	None	None	None	Soft Sediment Fauna
Lease Area	C20_177	D	8/11/2024	16:15:37	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_178	C	8/11/2024	15:58:14	72.42	48.28	0.35	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_178	D	8/11/2024	15:59:41	67.13	44.75	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_178	E	8/11/2024	16:00:59	70.08	46.72	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_179	A	8/11/2024	15:15:46	70.37	46.91	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_179	C	8/11/2024	15:18:26	69.99	46.66	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_179	D	8/11/2024	15:19:41	64.41	42.94	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_180	B	8/11/2024	14:17:47	68.60	45.73	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_180	C	8/11/2024	14:20:24	69.52	46.35	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_180	E	8/11/2024	14:22:50	72.22	48.15	0.35	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_181	C	8/11/2024	18:30:25	68.15	45.43	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_181	F	8/11/2024	21:04:23	64.28	42.85	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_181	G	8/11/2024	21:05:49	67.80	45.20	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_182	A	8/11/2024	18:35:43	69.15	46.10	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_182	B	8/11/2024	18:37:48	67.13	44.75	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_182	C	8/11/2024	18:39:16	63.39	42.26	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_183	A	8/11/2024	18:44:47	66.87	44.58	0.30	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_183	B	8/11/2024	18:46:42	68.06	45.38	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_183	D	8/11/2024	18:49:31	68.78	45.86	0.32	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_184	A	8/11/2024	18:53:27	62.05	41.37	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_184	B	8/11/2024	18:54:51	67.97	45.32	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_184	C	8/11/2024	18:57:16	67.36	44.91	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_185	A	8/11/2024	19:04:06	67.01	44.67	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_185	B	8/11/2024	19:06:17	69.99	46.66	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_185	C	8/11/2024	19:08:30	68.51	45.67	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_186	A	8/11/2024	19:16:40	66.50	44.33	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_186	C	8/11/2024	19:19:06	71.14	47.42	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna

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Lease Area	C20_186	D	8/11/2024	19:20:40	57.59	38.39	0.22	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_187	A	8/11/2024	19:27:09	62.33	41.55	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_187	B	8/11/2024	19:28:20	65.00	43.33	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_187	C	8/11/2024	19:29:30	69.67	46.45	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_188	A	8/11/2024	19:35:55	65.66	43.77	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_188	B	8/11/2024	19:37:07	67.59	45.06	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_188	C	8/11/2024	19:38:34	66.95	44.64	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_189	B	8/11/2024	19:53:08	70.40	46.93	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_189	C	8/11/2024	19:55:12	62.88	41.92	0.26	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	C20_189	D	8/11/2024	19:57:26	68.09	45.40	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_100	B	8/12/2024	16:20:56	69.99	46.66	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_100	C	8/12/2024	16:22:05	68.06	45.38	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_100	D	8/12/2024	16:23:12	69.71	46.47	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_101	A	8/12/2024	16:24:32	69.89	46.59	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_101	C	8/12/2024	16:27:47	72.32	48.22	0.35	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_101	D	8/12/2024	16:29:08	69.52	46.35	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_102	A	8/12/2024	16:30:51	65.00	43.33	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_102	B	8/12/2024	16:31:58	67.10	44.73	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_102	C	8/12/2024	16:33:07	68.87	45.92	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_103	A	8/12/2024	16:35:44	69.15	46.10	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_103	B	8/12/2024	16:36:56	66.90	44.60	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_103	C	8/12/2024	16:38:05	68.15	45.43	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_104	A	8/12/2024	16:41:17	66.75	44.50	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_104	C	8/12/2024	16:43:28	69.24	46.16	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_104	D	8/12/2024	16:44:34	68.33	45.55	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_105	A	8/12/2024	16:49:58	67.39	44.92	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_105	B	8/12/2024	16:51:04	64.65	43.10	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_105	C	8/12/2024	16:52:18	68.36	45.57	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_106	A	8/12/2024	16:59:29	69.67	46.45	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_106	B	8/12/2024	17:00:36	73.69	49.13	0.36	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_106	C	8/12/2024	17:01:46	67.97	45.32	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_107	A	8/12/2024	17:07:01	65.82	43.88	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_107	C	8/12/2024	17:10:00	66.67	44.44	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_107	D	8/12/2024	17:11:05	67.44	44.96	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_108	A	8/12/2024	17:28:22	70.18	46.78	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_108	C	8/12/2024	17:30:38	70.21	46.80	0.33	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_108	D	8/12/2024	17:31:50	IND	IND	IND	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_109	B	8/12/2024	15:21:59	67.18	44.79	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_109	C	8/12/2024	15:23:55	66.33	44.22	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_109	D	8/12/2024	15:25:29	62.65	41.77	0.26	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_110	A	8/12/2024	15:13:53	69.80	46.53	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_110	B	8/12/2024	15:15:02	68.51	45.67	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_110	D	8/12/2024	15:18:33	65.00	43.33	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_111	A	8/12/2024	15:07:34	69.58	46.39	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_111	B	8/12/2024	15:08:45	65.85	43.90	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
Lease Area	D03_111	D	8/12/2024	15:11:37	68.24	45.49	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_112	A	8/12/2024	15:00:32	63.39	42.26	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_112	B	8/12/2024	15:01:40	65.11	43.41	0.28	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Attached Fauna
Lease Area	D03_112	C	8/12/2024	15:03:36	69.00	46.00	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_113	A	8/12/2024	14:54:03	67.97	45.32	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_113	B	8/12/2024	14:55:14	62.60	41.73	0.26	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_113	D	8/12/2024	14:57:34	65.68	43.79	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_114	A	8/12/2024	14:44:26	67.97	45.32	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_114	B	8/12/2024	14:45:58	66.78	44.52	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_114	C	8/12/2024	14:47:16	67.83	45.22	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_115	A	8/12/2024	14:33:07	63.31	42.21	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_115	B	8/12/2024	14:35:01	63.73	42.48	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_115	C	8/12/2024	14:36:10	67.24	44.83	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_116	A	8/12/2024	14:24:50	65.24	43.50	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_116	B	8/12/2024	14:26:01	67.56	45.04	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_116	D	8/12/2024	14:28:19	65.80	43.86	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_117	A	8/12/2024	14:08:50	61.83	41.22	0.25	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D03_117	C	8/12/2024	14:11:08	67.27	44.85	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D03_117	F	8/12/2024	17:55:14	71.72	47.82	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_136	A	8/12/2024	5:51:01	66.24	44.16	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D14_136	C	8/12/2024	5:54:05	65.05	43.37	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_136	D	8/12/2024	5:55:07	57.23	38.15	0.22	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	None
Lease Area	D14_137	A	8/12/2024	6:00:15	63.26	42.17	0.27	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_137	B	8/12/2024	6:02:12	63.70	42.47	0.27	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_137	D	8/12/2024	6:05:37	67.15	44.77	0.30	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_138	A	8/12/2024	6:11:29	67.18	44.79	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_138	B	8/12/2024	6:14:43	65.08	43.39	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_138	C	8/12/2024	6:16:30	67.36	44.91	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_139	A	8/12/2024	6:23:09	70.46	46.97	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_139	B	8/12/2024	6:24:44	62.90	41.94	0.26	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D14_139	C	8/12/2024	6:26:16	68.63	45.75	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_140	A	8/12/2024	6:31:11	70.40	46.93	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_140	B	8/12/2024	6:32:57	66.35	44.24	0.29	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D14_140	C	8/12/2024	6:34:13	63.88	42.59	0.27	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D14_141	A	8/12/2024	6:39:34	67.83	45.22	0.31	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D14_141	C	8/12/2024	6:43:19	66.98	44.65	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_141	D	8/12/2024	6:45:10	61.22	40.82	0.25	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_142	A	8/12/2024	6:49:04	69.24	46.16	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_142	B	8/12/2024	6:50:43	66.72	44.48	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_142	C	8/12/2024	6:52:23	66.07	44.05	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_143	A	8/12/2024	6:58:40	63.60	42.40	0.27	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_143	B	8/12/2024	7:00:06	61.59	41.06	0.25	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_143	C	8/12/2024	7:01:49	58.21	38.81	0.23	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_144	A	8/12/2024	7:13:23	66.41	44.27	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m^2)	CMECS Substrate Group	CMECS Substrate Subgroup	Maximum CMECS Gravel Size Category	Dominant CMECS Gravel Size Category	Bedforms	Type of Sensitive Taxa	Type of Species of Concern	Type of Non-Native Taxa	CMECS Biotic Subclass
Lease Area	D14_144	B	8/12/2024	7:15:28	66.87	44.58	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D14_144	C	8/12/2024	7:17:52	65.49	43.66	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_145	A	8/12/2024	5:15:41	66.24	44.16	0.29	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_145	B	8/12/2024	5:17:02	61.20	40.80	0.25	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_145	C	8/12/2024	5:18:36	70.30	46.87	0.33	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_146	A	8/12/2024	5:09:32	65.24	43.50	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_146	B	8/12/2024	5:10:52	65.57	43.72	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_146	C	8/12/2024	5:12:24	74.29	49.52	0.37	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_147	A	8/12/2024	5:01:57	65.16	43.44	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_147	B	8/12/2024	5:03:24	64.84	43.23	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_147	C	8/12/2024	5:04:53	66.07	44.05	0.29	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_148	A	8/12/2024	4:56:14	67.42	44.94	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_148	B	8/12/2024	4:57:42	67.36	44.91	0.30	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_148	C	8/12/2024	4:59:01	71.43	47.62	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_149	A	8/12/2024	4:42:30	69.33	46.22	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_149	B	8/12/2024	4:43:51	59.77	39.85	0.24	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_149	C	8/12/2024	4:45:08	67.53	45.02	0.30	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D14_150	A	8/12/2024	4:28:21	69.33	46.22	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D14_150	B	8/12/2024	4:29:57	71.23	47.49	0.34	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_150	C	8/12/2024	4:31:19	64.86	43.24	0.28	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_151	B	8/12/2024	4:11:12	70.81	47.21	0.33	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_151	C	8/12/2024	4:15:01	68.87	45.92	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_151	D	8/12/2024	4:16:28	69.06	46.04	0.32	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D14_152	A	8/12/2024	3:56:27	63.41	42.28	0.27	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D14_152	B	8/12/2024	3:57:40	69.71	46.47	0.32	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_152	C	8/12/2024	3:59:00	68.15	45.43	0.31	Sand or finer	Sand or finer	N/A	N/A	Ripples	None	None	None	Soft Sediment Fauna
Lease Area	D14_153	A	8/12/2024	3:37:15	63.36	42.24	0.27	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D14_153	B	8/12/2024	3:38:34	62.58	41.72	0.26	Sand or finer	Sand or finer	N/A	N/A	None	None	None	None	Soft Sediment Fauna
Lease Area	D14_153	C	8/12/2024	3:40:01	67.86	45.24	0.31	Sand or finer	Sand or finer	Pebble/Granule	Pebble/Granule	None	None	None	None	Soft Sediment Fauna

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	01_301	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	01_301	B	None	None	None	No	No	Yes	None	Podocerid	Diopatra	None
ECR	01_301	D	None	None	None	No	No	Yes	None	IND	None Observed	IND
ECR	01_302	A	Inferred Fauna	None	None	Yes	Yes	Yes	Skate Egg Case	None	Clam	None
ECR	01_302	B	None	None	None	No	No	Yes	None	Podocerids	Diopatra	Tunicate
ECR	01_302	C	None	None	None	IND	IND	Yes	None	IND	IND	None
ECR	01_303	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	Podocerids	Diopatra	None
ECR	01_303	C	None	None	None	No	No	Yes	None	Podocerids	None Observed	Serpulid
ECR	01_303	D	None	None	None	Yes	No	Yes	None	Podocerids, Tube-Building Amphipods	None Observed	None
ECR	01_304	A	None	None	None	Yes	No	Yes	None	Podocerids	None Observed	None
ECR	01_304	C	None	None	None	No	No	Yes	None	Podocerids	None Observed	None
ECR	01_304	E	None	None	None	Yes	No	Yes	None	None	Diopatra	None
ECR	01_305	A	None	None	None	No	No	Yes	None	None	None Observed	None
ECR	01_305	C	None	None	None	Yes	No	Yes	None	None	None Observed	None
ECR	01_305	D	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	01_306	A	None	None	None	No	No	Yes	None	None	None Observed	None
ECR	01_306	B	None	None	None	No	No	Yes	None	None	None Observed	Tunicate
ECR	01_306	C	None	None	None	No	No	Yes	None	Podocerids	None Observed	None
ECR	01_307	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	01_307	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	01_307	D	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	01_308	I	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	01_308	J	None	None	None	IND	IND	Yes	None	IND	IND	IND
ECR	01_308	K	None	None	None	IND	IND	Yes	None	IND	IND	IND
ECR	02_309	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	Podocerids	Diopatra	None
ECR	02_309	C	None	None	None	No	No	Yes	None	Tube-Building Amphipods	None Observed	None
ECR	02_309	D	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Diopatra	None
ECR	02_310	A	Inferred Fauna	None	None	Yes	Yes	Yes	Moon Snail Egg Case	None	Diopatra	None
ECR	02_310	C	None	None	None	Yes	No	Yes	None	None	Diopatra	None
ECR	02_310	D	None	None	None	No	No	Yes	None	Podocerids	Diopatra	None
ECR	02_311	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	02_311	B	None	None	None	Yes	No	Yes	None	Podocerids	None Observed	None
ECR	02_311	D	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	02_312	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	02_312	B	None	None	None	Yes	No	Yes	None	None	None Observed	None
ECR	02_312	C	Inferred Fauna	None	None	Yes	Yes	Yes	Moon Snail Egg Case	Podocerids, Tube-Building Amphipods	None Observed	None
ECR	02_313	A	Inferred Fauna	None	None	No	Yes	Yes	Moon Snail Egg Case	None	None Observed	None
ECR	02_313	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	02_313	D	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Diopatra	None
ECR	02_314	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Diopatra	None
ECR	02_314	B	None	None	None	Yes	No	Yes	None	None	Diopatra	None
ECR	02_314	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	02_315	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	02_315	B	None	None	None	No	No	Yes	None	Podocerid	None Observed	None
ECR	02_315	D	Inferred Fauna	None	None	No	Yes	Yes	Moon Snail Egg Case	None	None Observed	None
ECR	02_316	A	Inferred Fauna	None	None	No	No	Yes	Moon Snail Egg Case	Podocerids	Diopatra	None
ECR	02_316	B	None	None	None	IND	No	Yes	None	None	None Observed	None
ECR	02_316	D	Inferred Fauna	None	None	No	No	Yes	Moon Snail Egg Case	None	None Observed	None
ECR	03_317	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	03_317	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	Podocerids	None Observed	None
ECR	03_317	C	None	None	None	IND	IND	Yes	None	IND	IND	None
ECR	03_318	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	03_318	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	03_318	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	03_319	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	03_319	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	03_319	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	03_320	A	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerid	None Observed	None
ECR	03_320	B	Inferred Fauna	None	None	No	Yes	Yes	None	Tube-Building Amphipods	None Observed	None
ECR	03_320	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	03_321	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	Podocerids	None Observed	None
ECR	03_321	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	Tube-Building Amphipods	None Observed	None
ECR	03_321	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	Podocerids	Cerianthid	None
ECR	03_322	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	Podocerids, Tube-Building Amphipods	None Observed	None
ECR	03_322	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthid	None
ECR	03_322	D	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	03_323	A	Inferred Fauna	None	None	No	Yes	Yes	Moon Snail Egg Case	None	None Observed	None
ECR	03_323	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthids	None
ECR	03_323	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	03_324	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	03_324	C	None	None	None	No	No	Yes	None	None	None Observed	None
ECR	03_324	D	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	04_325	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	Podocerid	Cerianthid	None
ECR	04_325	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	04_325	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	Tube-Building Amphipods	Cerianthids	None
ECR	04_326	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_326	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_326	C	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids, Tube-Building Amphipods	None Observed	None
ECR	04_327	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthid	None
ECR	04_327	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_327	D	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_328	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_328	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_328	D	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_329	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_329	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	04_329	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_330	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	Podocerids, Tube-Building Amphipods	None Observed	None
ECR	04_330	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_330	D	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_331	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	04_331	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_331	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	04_332	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	04_332	D	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	04_332	E	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	05_333	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	05_333	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	05_333	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	05_334	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	Tube-Building Amphipods	None Observed	None
ECR	05_334	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	05_334	D	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthid	None
ECR	05_335	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthid, Crustacean	None
ECR	05_335	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthid	None
ECR	05_335	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	05_336	A	Inferred Fauna	None	None	No	Yes	Yes	None	Tube-Building Amphipods	None Observed	None
ECR	05_336	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	Tube-Building Amphipods	Cerianthid	None
ECR	05_336	D	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	05_337	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	05_337	E	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	05_337	F	None	None	None	No	No	Yes	None	None	None Observed	None
ECR	05_338	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	05_338	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	05_338	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	05_339	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	05_339	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	05_339	D	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	05_340	A	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	None Observed	None
ECR	05_340	B	Inferred Fauna	None	None	No	Yes	Yes	None	Tube-Building Amphipods	None Observed	None
ECR	05_340	D	None	None	None	No	No	Yes	None	Tube-Building Amphipods	None Observed	None
ECR	06_341	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	06_341	B	Inferred Fauna	None	None	No	Yes	Yes	None	Tube-Building Amphipods	None Observed	None
ECR	06_341	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthid	None
ECR	06_342	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	06_342	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	Podocerid	None Observed	None
ECR	06_342	C	Inferred Fauna	None	None	No	Yes	Yes	None	Tube-Building Amphipods	None Observed	None
ECR	06_343	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	06_343	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	06_343	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	06_344	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	06_344	B	None	None	None	Yes	No	Yes	None	None	Cerianthid	None
ECR	06_344	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	Tube-Building Amphipods	None Observed	None
ECR	06_345	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	06_345	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	Tube-Building Amphipods	None Observed	None
ECR	06_345	D	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	06_346	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	Podocerids	None Observed	None
ECR	06_346	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	06_346	C	Inferred Fauna	None	None	Yes	Yes	Yes	Moon Snail Egg Case	Tube-Building Amphipods	None Observed	None
ECR	06_347	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthid	None
ECR	06_347	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
ECR	06_347	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	06_348	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	06_348	B	Inferred Fauna	None	None	Yes	No	Yes	Moon Snail Egg Case	None	Cerianthids	None
ECR	06_348	C	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Diopatra	None
ECR	07_349	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	07_349	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	07_349	C	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	07_350	A	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	07_350	C	None	None	None	No	No	Yes	None	None	Diopatra	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	07_350	D	None	None	None	Yes	No	Yes	None	None	Cerianthid, Diopatra	None
ECR	07_351	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	07_351	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	Barnacles
ECR	07_351	E	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	Diopatra	None
ECR	07_352	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	07_352	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	07_352	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	07_353	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	07_353	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	07_353	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	07_354	A	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	07_354	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthid, Diopatra	None
ECR	07_354	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	07_355	A	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	07_355	B	None	None	None	Yes	No	Yes	None	None	Diopatra	None
ECR	07_355	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	07_356	F	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	07_356	G	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	07_356	H	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	08_357	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	08_357	B	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	08_357	D	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	08_358	B	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	08_358	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Clam, Diopatra	None
ECR	08_358	F	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	08_359	A	Inferred Fauna	None	None	No	Yes	Yes	None	none	Diopatra	None
ECR	08_359	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	08_359	C	None	None	None	No	No	Yes	None	None	None Observed	None
ECR	08_360	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	08_360	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	08_360	D	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	Diopatra	None
ECR	08_361	A	None	None	None	Yes	No	Yes	None	None	Diopatra	None
ECR	08_361	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	08_361	C	Inferred Fauna	None	None	No	No	Yes	None	None	Diopatra	None
ECR	08_362	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	08_362	B	None	None	None	No	No	Yes	None	None	None Observed	None
ECR	08_362	C	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	08_363	A	Inferred Fauna	Sparse (1 to <30%)	None	No	Yes	IND	None	IND	IND	Bryozoa/Hydroids, Northern Star Coral, Encrusting Orange Sponge
ECR	08_363	B	IND	Moderate (30 to <70%)	None	IND	IND	IND	IND	IND	IND	Northern Star Coral
ECR	08_363	C	Attached Fauna	Trace (<1%)	None	IND	Yes	Yes	None	IND	IND	Northern Star Coral
ECR	08_364	A	None	None	None	No	No	Yes	None	Podocerids	None Observed	None
ECR	08_364	B	None	None	None	No	No	Yes	None	Podocerids	None Observed	None
ECR	08_364	D	None	None	None	Yes	No	Yes	None	Podocerids	None Observed	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	09_365	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_365	B	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	Diopatra	None
ECR	09_365	C	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	09_366	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_366	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_366	D	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_367	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	09_367	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_367	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_368	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_368	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
ECR	09_368	C	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	09_369	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_369	B	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	Diopatra	None
ECR	09_369	D	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_370	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_370	B	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	Diopatra	None
ECR	09_370	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_371	A	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	09_371	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_371	C	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	09_372	A	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	09_372	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	09_372	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	10_373	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	10_373	B	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	10_373	D	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	10_374	A	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	10_374	B	IND	None	None	No	IND	Yes	None	IND	Diopatra	None
ECR	10_374	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	10_375	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	10_375	B	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	Diopatra	None
ECR	10_375	D	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	10_376	A	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	10_376	B	None	None	None	No	No	Yes	None	None	IND	None
ECR	10_376	C	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	10_377	A	None	None	None	No	No	Yes	None	None	None Observed	None
ECR	10_377	B	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	Diopatra	None
ECR	10_377	C	None	None	None	No	No	Yes	None	None	IND	None
ECR	10_378	A	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	10_378	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	10_378	C	None	None	None	No	No	Yes	None	Podocerids	Diopatra	None
ECR	10_379	A	None	None	None	No	No	Yes	None	None	None Observed	None
ECR	10_379	B	None	None	None	No	No	Yes	None	None	None Observed	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	10_379	C	Attached Fauna	Moderate (30 to <70%)	None	No	IND	IND	None	IND	None Observed	Bryozoa/Hydroids, Northern Star Coral, Polymastia Sponge
ECR	10_380	A	None	None	None	No	No	Yes	None	Podocerids, Tube-Building Amphipods	None Observed	None
ECR	10_380	B	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	None Observed	None
ECR	10_380	C	None	None	None	No	No	Yes	None	Podocerids	None Observed	None
ECR	11_381	A	None	None	None	No	No	Yes	None	Podocerids	Diopatra	None
ECR	11_381	B	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	11_381	C	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	11_382	B	None	None	None	Yes	No	Yes	None	None	Cerianthid, Diopatra	None
ECR	11_382	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	11_382	D	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	11_383	A	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	11_383	C	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	11_383	D	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	11_384	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	11_384	B	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	11_384	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	11_385	A	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	11_385	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	11_385	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	11_386	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
ECR	11_386	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	11_386	D	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Diopatra	None
ECR	11_387	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	11_387	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	11_387	C	Inferred Fauna	None	None	No	No	Yes	Skate Egg Case	None	Diopatra	None
ECR	11_388	A	Inferred Fauna	None	None	Yes	Yes	No	None	None	Cerianthid	None
ECR	11_388	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	11_388	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
ECR	12_389	A	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	12_389	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
ECR	12_389	D	None	None	None	No	No	Yes	None	None	Diopatra	None
ECR	12_390	A	None	None	None	No	No	No	None	None	None Observed	None
ECR	12_390	B	None	None	None	No	Yes	No	None	None	None Observed	None
ECR	12_390	D	None	None	None	No	No	Yes	None	None	None Observed	None
ECR	12_391	A	Soft Sediment Fauna	Sparse (1 to <30%)	None	No	Yes	No	None	None	None Observed	Bryozoa/Hydroids, Northern Star Coral
ECR	12_391	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	12_391	D	IND	Dense (70 to <90%)	None	IND	IND	IND	IND	IND	IND	Anemones, Bryozoa/Hydroids, Northern Star Coral
ECR	12_392	A	None	None	None	No	No	Yes	None	None	None Observed	None
ECR	12_392	C	IND	None	None	IND	No	Yes	None	None	Diopatra	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
ECR	12_392	D	Soft Sediment Fauna	Sparse (1 to <30%)	None	No	Yes	Yes	None	None	IND	Bryozoa/Hydroids, Northern Star Coral
ECR	12_393	A	Soft Sediment Fauna	Dense (70 to <90%)	None	No	No	No	None	None	None Observed	Bryozoa/Hydroids, Northern Star Coral, Encrusting Orange Sponge
ECR	12_393	B	Soft Sediment Fauna	Moderate (30 to <70%)	None	Yes	No	Yes	None	None	None Observed	Yellow Sponge, Bryozoa/Hydroids, Northern Star Coral, Encrusting Orange Sponge
ECR	12_393	D	Inferred Fauna	Moderate (30 to <70%)	None	No	No	Yes	None	None	IND	Bryozoa/Hydroids, Northern Star Coral, Encrusting Orange Sponge
ECR	12_394	A	None	None	None	No	No	Yes	None	None	None Observed	Polymastia Sponge
ECR	12_394	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
ECR	12_394	C	None	None	None	No	No	Yes	None	None	None Observed	None
ECR	12_395	A	Attached Fauna	Trace (<1%)	None	No	No	Yes	None	None	None Observed	Northern Star Coral
ECR	12_395	B	Attached Fauna	Trace (<1%)	None	No	No	Yes	None	None	Diopatra	Northern Star Coral
ECR	12_395	D	Soft Sediment Fauna	Sparse (1 to <30%)	None	No	No	No	None	None	None Observed	Bryozoa/Hydroids
ECR	12_396	A	None	None	None	Yes	No	Yes	None	Podocerids	None Observed	None
ECR	12_396	B	None	None	None	No	No	Yes	None	None	None Observed	None
ECR	12_396	C	None	None	None	No	No	Yes	None	Podocerids, Tube-Building Amphipods	None Observed	None
Lease Area	B17_154	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	Sponge
Lease Area	B17_154	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	B17_154	D	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	B17_155	B	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	B17_155	C	None	None	None	No	No	Yes	None	Tube-Building Amphipods	Diopatra	None
Lease Area	B17_155	D	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthids	None
Lease Area	B17_156	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	B17_156	B	None	None	None	Yes	No	Yes	None	None	Cerianthid, Diopatra	None
Lease Area	B17_156	C	Inferred Fauna	None	None	No	No	Yes	Moon Snail Egg Cases	None	None Observed	None
Lease Area	B17_157	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	B17_157	B	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	B17_157	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	B17_158	A	None	None	None	Yes	No	Yes	None	None	None Observed	None
Lease Area	B17_158	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	B17_158	C	None	None	None	Yes	No	Yes	None	None	Diopatra	None
Lease Area	B17_159	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	B17_159	B	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	B17_159	C	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	B17_160	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	B17_160	C	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	B17_160	F	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthid, Diopatra	None
Lease Area	B17_161	B	None	None	None	No	No	No	None	None	None Observed	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
Lease Area	B17_161	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	B17_161	D	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	B17_162	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	B17_162	B	Inferred Fauna	None	None	No	No	Yes	Moon Snail Egg Case	None	None Observed	None
Lease Area	B17_162	C	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	B17_163	A	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	B17_163	B	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	B17_163	C	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	B17_164	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	B17_164	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	B17_164	C	Inferred Fauna	None	None	No	No	Yes	Skate Egg Case	None	Diopatra	None
Lease Area	B17_165	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	B17_165	B	Inferred Fauna	None	None	Yes	No	Yes	Moon Snail Egg Case	None	Cerianthid	None
Lease Area	B17_165	D	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	B17_166	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	B17_166	B	Inferred Fauna	None	None	Yes	Yes	No	None	None	None Observed	None
Lease Area	B17_166	C	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	B17_167	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	B17_167	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	B17_167	C	Inferred Fauna	None	None	Yes	Yes	No	None	None	None Observed	None
Lease Area	B17_168	B	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	B17_168	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	B17_168	D	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	B17_169	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	B17_169	B	Inferred Fauna	None	None	No	Yes	Yes	Skate Egg Case	None	Diopatra	None
Lease Area	B17_169	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	B17_170	A	Inferred Fauna	None	None	No	No	Yes	Skate Egg Case	None	Diopatra	None
Lease Area	B17_170	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	B17_170	C	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	B17_171	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	B17_171	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	B17_171	D	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	C09_118	A	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C09_118	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	C09_118	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_119	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_119	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	C09_119	D	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_120	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_120	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_120	D	Inferred Fauna	None	None	Yes	Yes	No	None	None	Cerianthid	None
Lease Area	C09_121	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	C09_121	B	None	None	None	No	No	Yes	None	None	Diopatra	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
Lease Area	C09_121	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_122	A	Inferred Fauna	None	None	No	Yes	No	Skate Egg Case	None	None Observed	None
Lease Area	C09_122	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	C09_122	D	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_123	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	C09_123	B	Inferred Fauna	None	None	No	Yes	Yes	Moon Snail Egg Case	Podocerid	Diopatra	None
Lease Area	C09_123	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_124	A	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C09_124	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	Encrusting Orange Sponge
Lease Area	C09_124	C	Inferred Fauna	None	None	Yes	Yes	No	Moon Snail Egg Case	None	None Observed	Bryozoa/Hydroids
Lease Area	C09_125	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	C09_125	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_125	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_126	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_126	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	C09_126	C	Inferred Fauna	None	None	Yes	Yes	No	None	None	None Observed	None
Lease Area	C09_127	A	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	C09_127	B	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C09_127	D	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_128	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_128	B	None	None	None	No	No	Yes	None	Podocerid	Diopatra	None
Lease Area	C09_128	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	C09_129	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_129	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_129	D	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_130	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_130	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	C09_130	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_131	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_131	B	None	None	None	No	No	Yes	None	Podocerids	Diopatra	None
Lease Area	C09_131	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	C09_132	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthid, Diopatra	None
Lease Area	C09_132	B	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthid	None
Lease Area	C09_132	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_133	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	Cerianthid, Diopatra	None
Lease Area	C09_133	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	C09_133	C	None	None	None	Yes	No	Yes	None	None	None Observed	None
Lease Area	C09_134	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_134	B	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C09_134	C	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C09_135	A	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C09_135	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C09_135	I	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
Lease Area	C20_172	A	None	None	None	No	No	No	None	IND	None Observed	None
Lease Area	C20_172	C	IND	None	None	IND	IND	IND	None	IND	None Observed	None
Lease Area	C20_172	D	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_173	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_173	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_173	C	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_174	B	IND	None	None	No	IND	Yes	None	IND	IND	None
Lease Area	C20_174	E	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_174	F	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	C20_175	B	None	None	None	No	No	Yes	None	IND	IND	None
Lease Area	C20_175	C	None	None	None	No	No	No	None	IND	None Observed	None
Lease Area	C20_175	D	Inferred Fauna	None	None	No	Yes	No	None	IND	None Observed	None
Lease Area	C20_176	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_176	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_176	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_177	A	None	None	None	No	No	No	None	IND	None Observed	None
Lease Area	C20_177	B	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	C20_177	D	Inferred Fauna	None	None	No	No	Yes	Moon Snail Egg Case	None	Diopatra	None
Lease Area	C20_178	C	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	C20_178	D	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	C20_178	E	IND	None	None	IND	IND	IND	None	IND	IND	None
Lease Area	C20_179	A	None	None	None	No	No	No	None	IND	None Observed	None
Lease Area	C20_179	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	C20_179	D	IND	None	None	IND	IND	IND	None	IND	IND	None
Lease Area	C20_180	B	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_180	C	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_180	E	None	None	None	No	No	Yes	None	None	Diopatra	Hydroid
Lease Area	C20_181	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_181	F	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_181	G	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_182	A	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_182	B	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_182	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_183	A	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_183	B	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_183	D	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_184	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	C20_184	B	Inferred Fauna	None	None	No	IND	IND	None	None	None Observed	None
Lease Area	C20_184	C	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_185	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	C20_185	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_185	C	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_186	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_186	C	None	None	None	No	No	No	None	None	None Observed	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
Lease Area	C20_186	D	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_187	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_187	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_187	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	C20_188	A	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	C20_188	B	Inferred Fauna	None	None	Yes	Yes	No	None	None	Cerianthid	None
Lease Area	C20_188	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	C20_189	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	C20_189	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	C20_189	D	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	D03_100	B	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	D03_100	C	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	D03_100	D	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_101	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D03_101	C	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	D03_101	D	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	D03_102	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_102	B	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerid	Diopatra	None
Lease Area	D03_102	C	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	D03_103	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_103	B	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	D03_103	C	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	D03_104	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D03_104	C	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	Diopatra	None
Lease Area	D03_104	D	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	D03_105	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_105	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_105	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D03_106	A	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	Diopatra	None
Lease Area	D03_106	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D03_106	C	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	D03_107	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_107	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_107	D	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	D03_108	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D03_108	C	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	Diopatra	None
Lease Area	D03_108	D	None	None	None	No	No	Yes	None	Podocerids	Diopatra	None
Lease Area	D03_109	B	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	D03_109	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D03_109	D	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D03_110	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_110	B	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	D03_110	D	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_111	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_111	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
Lease Area	D03_111	D	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	D03_112	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D03_112	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	Bryozoa/Hydroids
Lease Area	D03_112	C	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	D03_113	A	Inferred Fauna	None	None	No	Yes	Yes	None	Podocerids	Diopatra	None
Lease Area	D03_113	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_113	D	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D03_114	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_114	B	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	D03_114	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_115	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_115	B	Inferred Fauna	None	None	No	Yes	No	None	None	Clam	None
Lease Area	D03_115	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_116	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_116	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D03_116	D	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	D03_117	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D03_117	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D03_117	F	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_136	A	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	D14_136	C	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	D14_136	D	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	D14_137	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_137	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	D14_137	D	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_138	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D14_138	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_138	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_139	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_139	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_139	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D14_140	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_140	B	Inferred Fauna	None	None	No	Yes	No	Moon Snail Egg Case	None	None Observed	None
Lease Area	D14_140	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	D14_141	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_141	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D14_141	D	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_142	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_142	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_142	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_143	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_143	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_143	C	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_144	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None

Area	Station ID	Replicate	Co-occurring CMECS Biotic Subclass	Percent Cover of All Attached Fauna	Percent Cover of Non-Native Taxa	Burrows Present?	Tracks Present?	Tubes Present?	Eggs	Type of Amphipods	Infauna	Sessile Epifauna
Lease Area	D14_144	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_144	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	Hydroid
Lease Area	D14_145	A	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	D14_145	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D14_145	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D14_146	A	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	D14_146	B	None	None	None	No	No	Yes	None	Podocerid	Diopatra	None
Lease Area	D14_146	C	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	D14_147	A	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_147	B	Inferred Fauna	None	None	No	Yes	No	None	None	None Observed	None
Lease Area	D14_147	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D14_148	A	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	D14_148	B	None	None	None	No	No	IND	None	None	None Observed	None
Lease Area	D14_148	C	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	D14_149	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	D14_149	B	None	None	None	No	No	Yes	None	None	Diopatra	None
Lease Area	D14_149	C	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	D14_150	A	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	D14_150	B	None	None	None	No	No	No	None	None	None Observed	None
Lease Area	D14_150	C	None	None	None	No	No	Yes	None	None	None Observed	None
Lease Area	D14_151	B	None	None	None	No	No	Yes	None	Podocerids	None Observed	None
Lease Area	D14_151	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	Diopatra	None
Lease Area	D14_151	D	Inferred Fauna	None	None	No	No	Yes	Skate Egg Case	None	Diopatra	None
Lease Area	D14_152	A	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	D14_152	B	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	D14_152	C	Inferred Fauna	None	None	No	Yes	Yes	None	None	None Observed	None
Lease Area	D14_153	A	Inferred Fauna	None	None	Yes	Yes	Yes	None	None	None Observed	None
Lease Area	D14_153	B	IND	None	None	IND	IND	Yes	None	None	IND	None
Lease Area	D14_153	C	None	None	None	No	No	Yes	None	None	None Observed	None

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
ECR	01_301	A	Crabs, Shrimp, Sand Dollars	None	None	
ECR	01_301	B	Crab, Hermit Crabs, Sand Dollars	None	None	
ECR	01_301	D	Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
ECR	01_302	A	Crab, Sand Dollars,	None	None	Yellow clam partially buried to right of left laser.
ECR	01_302	B	Crab, Hermit Crabs, Sand Dollars	None	None	Solitary tunicate in center of image.
ECR	01_302	C	Crabs, Hermit Crabs, Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
ECR	01_303	A	Crab, Moon Snail, Sand Dollars, Shrimp	None	None	
ECR	01_303	C	Crabs, Hermit Crabs, Sand Dollars	None	None	
ECR	01_303	D	Crab, Sand Dollars, Snails	None	None	
ECR	01_304	A	Crab, Hermit Crabs, Sand Dollars, Snails	None	None	
ECR	01_304	C	Crabs, Sand Dollars, Snail	None	None	
ECR	01_304	E	Crabs, Sand Dollars	None	None	
ECR	01_305	A	Crabs, Sand Dollars, Sea Scallop	None	None	Small sea scallop in bottom-right corner.
ECR	01_305	C	Crab, Sand Dollars, Snails	None	None	
ECR	01_305	D	Crab, Sand Dollars	None	None	
ECR	01_306	A	Crabs, Sand Dollars, Shrimp	None	None	
ECR	01_306	B	Crabs, Sand Dollars	Unidentified Fish	None	
ECR	01_306	C	Crabs, Sand Dollars, Shrimp	None	None	
ECR	01_307	A	Crab, Sand Dollars	None	None	
ECR	01_307	C	Crabs, Sand Dollar, Shrimp	None	None	
ECR	01_307	D	Sand Dollars, Shrimp	None	None	
ECR	01_308	I	Crabs, Sand Dollars	None	None	Unable to identify lone squid egg in bottom-right of image.
ECR	01_308	J	Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
ECR	01_308	K	Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
ECR	02_309	A	Crabs, Sand Dollars	None	None	
ECR	02_309	C	Sand Dollar	None	None	
ECR	02_309	D	Crabs, Hermit Crabs, Sand Dollars	None	None	
ECR	02_310	A	Crabs, Hermit Crabs, Sand Dollars	None	None	
ECR	02_310	C	Crabs, Hermit Crabs, Sand Dollars	None	None	
ECR	02_310	D	Crabs, Hermit Crabs, Sand Dollars	None	None	
ECR	02_311	A	Crabs, Hermit Crabs, Sand Dollars	None	None	
ECR	02_311	B	Crabs	None	None	
ECR	02_311	D	Crabs, Hermit Crab, Sand Dollars, Snail	None	None	
ECR	02_312	A	Crabs, Sand Dollars	None	None	
ECR	02_312	B	Crabs, Hermit Crab, Moon Snail, Sand Dollars, Snail	None	None	
ECR	02_312	C	Crabs, Sand Dollars	None	None	
ECR	02_313	A	Crabs, Sand Dollars, Shrimp, Snails	None	None	
ECR	02_313	B	Crabs, Hermit Crabs, Sand Dollars	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
ECR	02_313	D	Sand Dollars, Snails	None	None	
ECR	02_314	A	Crabs, Hermit Crabs, Sand Dollars	None	None	
ECR	02_314	B	Crabs, Sand Dollars	None	None	
ECR	02_314	C	Cancer Crab, Crabs, Sand Dollars	None	None	
ECR	02_315	A	Crabs, Hermit Crab, Sand Dollars	None	None	
ECR	02_315	B	Crabs, Sand Dollars	None	None	
ECR	02_315	D	Sand Dollars	None	None	
ECR	02_316	A	Crabs, Hermit Crabs, Sand Dollar	None	None	
ECR	02_316	B	Crabs, Hermit Crabs, Shrimp, Sand Dollars	None	None	
ECR	02_316	D	Crabs, Sand Dollars	None	None	
ECR	03_317	A	Hermit Crabs, Crab, Sand Dollar	None	None	
ECR	03_317	B	Crabs, Hermit Crab, Sand Dollars	None	None	
ECR	03_317	C	Hermit Crab	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
ECR	03_318	A	Hermit Crab, Sand Dollars	None	None	
ECR	03_318	B	Hermit Crabs, Sand Dollars	None	None	
ECR	03_318	C	Sand Dollar	None	None	
ECR	03_319	A	Hermit Crabs, Sand Dollars	None	None	
ECR	03_319	B	Sand Dollars	None	None	
ECR	03_319	C	Hermit Crab	None	None	
ECR	03_320	A	Sand Dollars	None	None	
ECR	03_320	B	Hermit Crabs, Sand Dollars	None	None	
ECR	03_320	C	Sand Dollars	None	None	
ECR	03_321	A	Sand Dollars	None	None	
ECR	03_321	B	Sand Dollars	None	None	
ECR	03_321	C	Sand Dollar	None	None	
ECR	03_322	A	Sand Dollars	None	None	
ECR	03_322	C	Sand Dollars	None	None	
ECR	03_322	D		None	None	
ECR	03_323	A	Crabs, Hermit Crab, Sand Dollars	None	None	
ECR	03_323	B	Sand Dollar	None	None	
ECR	03_323	C	Sand Dollars	None	None	Unidentified organism with associated track in center of image.
ECR	03_324	B	Hermit Crabs, Sand Dollars	None	None	
ECR	03_324	C	Sand Dollars, Snails	None	None	Small snails in upper-left of image.
ECR	03_324	D	Crab, Sand Dollars	None	None	
ECR	04_325	A	Sand Dollars, Snail	None	None	
ECR	04_325	B	Hermit Crab, Sand Dollars	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
ECR	04_325	C	Crabs, Hermit Crabs, Sand Dollars	None	None	
ECR	04_326	A	Hermit Crabs, Moon Snail, Sand Dollars	None	None	
ECR	04_326	B	Hermit Crab, Sand Dollars	None	None	
ECR	04_326	C	Sand Dollar	None	None	
ECR	04_327	A	Crabs, Sand Dollars	None	None	
ECR	04_327	C	Hermit Crabs, Sand Dollars	None	None	
ECR	04_327	D	Crab, Sand Dollar	None	None	
ECR	04_328	A	Crabs, Sand Dollars	None	None	
ECR	04_328	B	Hermit Crab, Sand Dollar, Snails	None	None	
ECR	04_328	D	Crabs, Sand Dollar	None	None	
ECR	04_329	A	Crabs, Sand Dollars	None	None	
ECR	04_329	B	Moon Snail, Sand Dollars	None	None	
ECR	04_329	C	Crabs, Hermit Crab, Sand Dollars	None	None	
ECR	04_330	B	Crabs, Hermit Crab, Sand Dollars	None	None	
ECR	04_330	C	Crabs, Hermit Crab, Sand Dollars	None	None	
ECR	04_330	D	Crabs, Hermit Crab, Sand Dollars	None	None	
ECR	04_331	A	Crabs, Sand Dollars, snails	None	None	
ECR	04_331	B	Crabs, Hermit Crabs, Sand Dollars	None	None	
ECR	04_331	C	Crabs, Sand Dollar	None	None	
ECR	04_332	A	Cancer Crab, Crabs, Hermit Crabs, Sand Dollars	None	None	
ECR	04_332	D	Crabs, Hermit Crabs, Moon Snail, Sand Dollar	None	None	
ECR	04_332	E	Crabs, Sand Dollars	None	None	
ECR	05_333	A	Sand Dollars	None	None	
ECR	05_333	B	Sand Dollars, Snails	None	None	
ECR	05_333	C	Crab, Hermit Crabs, Sand Dollars	None	None	
ECR	05_334	A	Hermit Crab	None	None	
ECR	05_334	B	Hermit Crab	None	None	
ECR	05_334	D	Crab, Hermit Crabs, Sand Dollars	None	None	Cerianthid in upper-left corner of image.
ECR	05_335	A	Hermit Crabs, Sand Dollar	None	None	
ECR	05_335	B	Hermit Crab, Sand Dollars	None	None	
ECR	05_335	C	None	None	None	
ECR	05_336	A	Crab, Sand Dollar	None	None	Seagrass debris.
ECR	05_336	B	Hermit Crab, Nudibranch	None	None	
ECR	05_336	D	Hermit Crabs	None	None	
ECR	05_337	A	Hermit Crabs, Sand Dollars, Snails	None	None	
ECR	05_337	E	Hermit Crabs, Sand Dollars	None	None	
ECR	05_337	F	Hermit Crabs, Sand Dollars	None	None	
ECR	05_338	A	Sand Dollars	None	None	
ECR	05_338	B	Hermit Crabs, Sand Dollars	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
ECR	05_338	C	Hermit Crabs, Sand Dollars	None	None	
ECR	05_339	A	Snails	None	None	
ECR	05_339	B	Hermit Crab	None	None	
ECR	05_339	D	Sand Dollars	None	None	
ECR	05_340	A	None	None	None	
ECR	05_340	B	Hermit Crab, Snail	None	None	
ECR	05_340	D	Hermit Crabs	None	None	
ECR	06_341	A	Crab, Hermit Crab, Sand Dollars	None	None	
ECR	06_341	B	Sand Dollar, Snails	None	None	
ECR	06_341	C	Sand Dollars, Snails	None	None	
ECR	06_342	A	Hermit Crab, Sand Dollar	None	None	
ECR	06_342	B	Hermit Crabs	None	None	
ECR	06_342	C	Hermit Crabs, Sand Dollars	None	None	
ECR	06_343	A	Snail	None	None	
ECR	06_343	B	Hermit Crab, Sand Dollar, Snails	None	None	
ECR	06_343	C	Hermit Crab	None	None	
ECR	06_344	A	Sand Dollars, Snails	None	None	
ECR	06_344	B	Sand Dollars, Snails	None	None	
ECR	06_344	C	Crab, Hermit Crab, Sand Dollar, Snails	None	None	
ECR	06_345	A	Nudibranch, Sand Dollar	None	None	
ECR	06_345	C	Cancer Crab, Hermit Crabs, Sand Dollars, Snails	None	None	
ECR	06_345	D	Hermit Crabs	None	None	
ECR	06_346	A	Hermit Crab, Sand Dollars	None	None	
ECR	06_346	B	Sand Dollars	None	None	
ECR	06_346	C	Snail, Hermit Crabs	None	None	
ECR	06_347	A	Sand Dollars, Snails	None	None	
ECR	06_347	B	Crab, Snails	None	None	
ECR	06_347	C	Sand Dollars, Snails	None	None	
ECR	06_348	A	Cancer Crabs, Hermit Crabs, Sand Dollars	None	None	
ECR	06_348	B	Cancer Crabs, Nudibranch, Sand Dollar	None	None	Nudibranch at bottom of image.
ECR	06_348	C	Crabs, Cancer Crabs, Sand Dollars	None	None	
ECR	07_349	A	Sand Dollars	None	None	
ECR	07_349	B	Hermit Crab, Sand Dollars	None	None	
ECR	07_349	C	Hermit Crab, Sand Dollars	None	None	
ECR	07_350	A	Hermit Crab, Sand Dollars	None	None	
ECR	07_350	C	Sand Dollars	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
ECR	07_350	D	Sand Dollars	None	None	Retracted cerianthid in bottom-middle of image.
ECR	07_351	A	Hermit Crabs, Sand Dollars, Snail	None	None	
ECR	07_351	B	Hermit Crab, Sand Dollars	None	None	Clam shell on surface.
ECR	07_351	E	Hermit Crab, Sand Dollars	None	None	
ECR	07_352	A	Cancer Crab, Hermit Crab, Sand Dollars	None	None	
ECR	07_352	B	Hermit Crabs, Sand Dollars	None	None	
ECR	07_352	C	Sand Dollars, Snail	None	None	
ECR	07_353	A	Hermit Crabs, Sand Dollars	Flounder	None	
ECR	07_353	B	Sand Dollars	None	None	
ECR	07_353	C	Hermit Crab, Sand Dollars, Snail	None	None	
ECR	07_354	A	Sand Dollars, Snail	None	None	
ECR	07_354	B	Sand Dollars	None	None	Retracted cerianthid in upper-left corner of image.
ECR	07_354	C	Sand Dollars, Snail	None	None	
ECR	07_355	A	Hermit Crab, Sand Dollars	None	None	
ECR	07_355	B	Sand Dollars	None	None	
ECR	07_355	C	Sand Dollars	None	None	
ECR	07_356	F	Sand Dollars	None	None	
ECR	07_356	G	Hermit Crabs, Sand Dollars	None	None	
ECR	07_356	H	Sand Dollars	None	None	
ECR	08_357	A	Sand Dollars	Squid	None	
ECR	08_357	B	Sand Dollars	None	None	
ECR	08_357	D	Sand Dollars	None	None	
ECR	08_358	B	Hermit Crabs, Sand Dollars	None	None	
ECR	08_358	C	Sand Dollars	None	None	Possible Atlantic surfclam in lower right of image, light orange clam on surface.
ECR	08_358	F	Sand Dollars	None	None	
ECR	08_359	A	Hermit Crabs, Sand Dollars	None	None	
ECR	08_359	B	Hermit Crab, Sand Dollars	None	None	
ECR	08_359	C	Hermit Crab, Sand Dollars	None	None	
ECR	08_360	A	Sand Dollars	None	None	
ECR	08_360	C	Sand Dollars	None	None	
ECR	08_360	D	Hermit Crab, Sand Dollars	None	None	
ECR	08_361	A	Hermit Crabs, Sand Dollars	None	None	
ECR	08_361	B	Moon Snail, Sand Dollars	Flounder	None	
ECR	08_361	C	Sand Dollars	None	None	
ECR	08_362	A	Sand Dollar	None	None	
ECR	08_362	B	None	None	None	
ECR	08_362	C	None	None	None	
ECR	08_363	A	None	None	None	Northern star coral on possible buried cobble or underlying substrate. Other growth on substrate.
ECR	08_363	B	IND	Flounder	None	Some turbidity. Boulders with minimal growth and flounder. Grazed barnacles on the rock surface.
ECR	08_363	C	IND	None	None	Some turbidity. Small patch of northern star coral on possible buried cobble or underlying substrate.
ECR	08_364	A	None	None	None	
ECR	08_364	B	None	None	None	
ECR	08_364	D	None	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
ECR	09_365	A	Sand Dollars	None	None	
ECR	09_365	B	Sand Dollars	None	None	
ECR	09_365	C	Sand Dollars	None	None	
ECR	09_366	A	Sand Dollars	None	None	
ECR	09_366	C	Hermit Crabs, Sand Dollars	None	None	
ECR	09_366	D	Hermit Crabs, Sand Dollars	None	None	
ECR	09_367	A	Sand Dollars	None	None	
ECR	09_367	B	Sand Dollars	None	None	
ECR	09_367	C	Hermit Crab, Sand Dollars	None	None	
ECR	09_368	A	Hermit Crab, Sand Dollars	None	None	
ECR	09_368	B	Hermit Crabs, Sand Dollars	None	None	
ECR	09_368	C	Hermit Crab, Sand Dollars, Snail	None	None	
ECR	09_369	A	Hermit Crab, Sand Dollars	None	None	
ECR	09_369	B	Sand Dollars	None	None	
ECR	09_369	D	Hermit Crab, Sand Dollars	None	None	
ECR	09_370	A	Hermit Crab, Sand Dollars	None	None	
ECR	09_370	B	Hermit Crab, Sand Dollars	None	None	
ECR	09_370	C	Sand Dollars	None	None	
ECR	09_371	A	Sand Dollars	None	None	
ECR	09_371	B	Hermit Crabs, Sand Dollars	None	None	
ECR	09_371	C	Sand Dollars	None	None	
ECR	09_372	A	Hermit Crab, Sand Dollars	None	None	
ECR	09_372	B	Sand Dollars	None	None	
ECR	09_372	C	Hermit Crab, Sand Dollars	None	None	
ECR	10_373	A	Sand Dollars	None	None	
ECR	10_373	B	Sand Dollars	None	None	
ECR	10_373	D	Sand Dollars	Squid	None	
ECR	10_374	A	Sand Dollar	None	None	
ECR	10_374	B	Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
ECR	10_374	C	Sand Dollars	None	None	
ECR	10_375	A	None	None	None	
ECR	10_375	B	Sand Dollars	None	None	
ECR	10_375	D	Sand Dollars	None	None	
ECR	10_376	A	Sand Dollars	None	None	
ECR	10_376	B	Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
ECR	10_376	C	Hermit Crab, Sand Dollar	None	None	
ECR	10_377	A	Snails	None	None	
ECR	10_377	B	None	None	None	
ECR	10_377	C	IND	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
ECR	10_378	A	None	None	None	
ECR	10_378	B	None	None	None	
ECR	10_378	C	Sand Dollar	None	None	
ECR	10_379	A	None	None	None	
ECR	10_379	B	None	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
ECR	10_379	C	None	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
ECR	10_380	A	Hermit Crab	None	None	
ECR	10_380	B	None	None	None	
ECR	10_380	C	None	None	None	
ECR	11_381	A	Sand Dollar	None	None	
ECR	11_381	B	Sand Dollar	None	None	
ECR	11_381	C	Sand Dollar	None	None	
ECR	11_382	B	None	None	None	Retracted cerianthid at top of image.
ECR	11_382	C	Sand Dollars	None	None	
ECR	11_382	D	Hermit Crab	None	None	
ECR	11_383	A	Sand Dollars	None	None	
ECR	11_383	C	Moon Snail, Sand Dollars	None	None	Small moon snail at top of image.
ECR	11_383	D	Sand Dollars, Shrimp	None	None	
ECR	11_384	A	Sand Dollar	None	None	
ECR	11_384	B	Sand Dollars	None	None	
ECR	11_384	C	Sand Dollars	None	None	
ECR	11_385	A	Sand Dollars	None	None	Unable to identify lone squid egg in center-right of image.
ECR	11_385	B	Sand Dollars	None	None	
ECR	11_385	C	Sand Dollars	None	None	
ECR	11_386	A	Sand Dollars	None	None	
ECR	11_386	B	Sand Dollars	None	None	
ECR	11_386	D	Sand Dollars	None	None	
ECR	11_387	A	Sand Dollars	None	None	
ECR	11_387	B	Sand Dollars	None	None	
ECR	11_387	C	Sand Dollars	None	None	
ECR	11_388	A	Hermit Crab, Sand Dollars, Snail	None	None	
ECR	11_388	B	Hermit Crabs, Sand Dollars	None	None	
ECR	11_388	C	Sand Dollars	None	None	
ECR	12_389	A	None	None	None	
ECR	12_389	C	Hermit Crab	None	None	
ECR	12_389	D	None	None	None	
ECR	12_390	A	None	None	None	
ECR	12_390	B	None	None	None	
ECR	12_390	D	None	None	None	
ECR	12_391	A	None	None	None	Apparent northern star coral and attached fauna on a buried substrate.
ECR	12_391	B	None	None	None	
ECR	12_391	D	IND	None	None	Slightly turbid. Northern star coral and encrusting sponges on boulders with attached growth.
ECR	12_392	A	None	None	None	
ECR	12_392	C	None	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
ECR	12_392	D	None	None	None	Apparent northern star coral and attached fauna on a buried substrate. Slightly out of focus and difficult to identify smaller features.
ECR	12_393	A	None	None	None	Northern star coral and encrusting sponges on boulders with attached growth.
ECR	12_393	B	None	None	None	Northern star coral and encrusting sponges on boulders with attached growth.
ECR	12_393	D	None	None	None	Northern star coral and encrusting sponges on boulders with attached growth. Slightly turbid, difficult to see finer substrate details.
ECR	12_394	A	None	None	None	
ECR	12_394	B	None	None	None	
ECR	12_394	C	None	None	None	
ECR	12_395	A	None	None	None	
ECR	12_395	B	None	None	None	
ECR	12_395	D	None	None	None	
ECR	12_396	A	None	None	None	
ECR	12_396	B	Hermit Crab	None	None	
ECR	12_396	C	None	None	None	
Lease Area	B17_154	A	Crabs, Sand Dollar, Shrimp	None	None	
Lease Area	B17_154	B	Crab, Hermit Crabs, Sand Dollars, Snail	None	None	
Lease Area	B17_154	D	Sand Dollars, Shrimp	None	None	
Lease Area	B17_155	B	Crab, Sand Dollars, Shrimp	None	None	
Lease Area	B17_155	C	None	None	None	
Lease Area	B17_155	D	Crabs, Sand Dollars, Shrimp	None	None	Retracted cerianthids in upper left, upper right, and bottom of image.
Lease Area	B17_156	A	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_156	B	Crabs, Sand Dollar, Shrimp	None	None	Small cerianthid on right side of image.
Lease Area	B17_156	C	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_157	A	Crabs. Hermit Crab, Sand Dollars, Shrimp	None	None	
Lease Area	B17_157	B	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_157	C	Sand Dollars, Shrimp	None	None	
Lease Area	B17_158	A	Crabs, Hermit Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_158	B	Crabs, Sand Dollar, Shrimp	None	None	
Lease Area	B17_158	C	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_159	A	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_159	B	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_159	C	Crab, Hermit Crab, Nudibranch, Shrimp	None	None	
Lease Area	B17_160	A	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_160	C	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_160	F	Crabs, Hermit Crabs, Sand Dollars, Shrimp	None	None	Small cerianthid on right side of image.
Lease Area	B17_161	B	Crabs, Hermit Crab, Sand Dollars	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
Lease Area	B17_161	C	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_161	D	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_162	A	Crab, Sand Dollar, Shrimp	None	None	
Lease Area	B17_162	B	Crabs, Hermit Crab, Sand Dollar, Shrimp	None	None	
Lease Area	B17_162	C	Crabs, Sand Dollar, Shrimp	None	None	
Lease Area	B17_163	A	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_163	B	Crabs, Shrimp	None	None	
Lease Area	B17_163	C	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_164	A	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_164	B	Crabs, Sand Dollar, Shrimp	None	None	
Lease Area	B17_164	C	Sand Dollars, Shrimp	None	None	
Lease Area	B17_165	A	Hermit Crabs, Nudibranch, Shrimp	None	None	
Lease Area	B17_165	B	Sand Dollars, Shrimp	None	None	
Lease Area	B17_165	D	Hermit Crab, Sand Dollar, Shrimp	None	None	
Lease Area	B17_166	A	Crabs, Sand Dollar, Shrimp	None	None	
Lease Area	B17_166	B	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_166	C	Crab, Sand Dollar, Shrimp	None	None	
Lease Area	B17_167	A	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_167	B	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_167	C	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_168	B	Hermit Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_168	C	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_168	D	Crabs, Hermit Crab, Sand Dollars, Shrimp	None	None	
Lease Area	B17_169	A	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_169	B	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_169	C	Crabs, Sand Dollars, Shrimp	Flounder	None	
Lease Area	B17_170	A	Crabs, Nudibranch, Sand Dollar, Shrimp	None	None	
Lease Area	B17_170	B	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_170	C	Crab, Sand Dollars, Shrimp	None	None	
Lease Area	B17_171	B	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	B17_171	C	Crabs, Hermit Crab, Sand Dollars, Shrimp	None	None	
Lease Area	B17_171	D	Hermit Crab, Sand Dollars, Shrimp	None	None	
Lease Area	C09_118	A	Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_118	B	Hermit Crabs, Sand Dollars	None	None	
Lease Area	C09_118	C	Hermit Crabs, Sand Dollars	None	None	
Lease Area	C09_119	A	Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_119	B	Hermit Crabs, Sand Dollars	None	None	
Lease Area	C09_119	D	Crab, Sand Dollars	None	None	
Lease Area	C09_120	B	Hermit Crabs, Sand Dollars, Snails, Shrimp	None	None	
Lease Area	C09_120	C	Sand Dollars	None	None	
Lease Area	C09_120	D	Hermit Crabs, Sand Dollars	None	None	Small cerianthid on right side of image.
Lease Area	C09_121	A	Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_121	B	Hermit Crabs, Sand Dollars	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
Lease Area	C09_121	C	Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_122	A	Hermit Crabs, Sand Dollars	None	None	
Lease Area	C09_122	B	Sand Dollars	None	None	
Lease Area	C09_122	D	Sand Dollars	None	None	
Lease Area	C09_123	A	Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_123	B	Crab, Hermit Crabs, Sand Dollars	None	Seagrass	Apparent uprooted seagrass on sediment surface, with other fauna including sand dollars and a moon snail egg case. Seagrass not listed in sensitive species as its uprooted and not a meadow/bed.
Lease Area	C09_123	C	Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_124	A	Hermit Crabs, Sand Dollars	None	None	
Lease Area	C09_124	B	Hermit Crabs, Sand Dollars	None	None	Sea scallop shell on surface. Appears to be a single valve.
Lease Area	C09_124	C	Hermit Crabs, Sand Dollars	None	None	Bryozoa/Hydroids on broken shell.
Lease Area	C09_125	A	Sand Dollars	None	None	
Lease Area	C09_125	B	Sand Dollars	None	None	
Lease Area	C09_125	C	Sand Dollars	None	None	
Lease Area	C09_126	A	Crab, Hermit Crab	None	None	
Lease Area	C09_126	B	Sand Dollars	None	None	
Lease Area	C09_126	C	Sand Dollars, Shrimp	None	None	
Lease Area	C09_127	A	Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_127	B	Crab, Sand Dollars	None	None	
Lease Area	C09_127	D	Sand Dollars	None	None	
Lease Area	C09_128	A	Sand Dollars	None	None	
Lease Area	C09_128	B	Crabs, Hermit Crabs, Sand Dollars	None	None	
Lease Area	C09_128	C	Hermit Crab, Crabs, Sand Dollars	None	None	
Lease Area	C09_129	B	Hermit Crabs, Sand Dollars	None	None	
Lease Area	C09_129	C	Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_129	D	Sand Dollars, Snails	None	None	
Lease Area	C09_130	A	Crab, Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_130	B	Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_130	C	Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_131	A	Hermit Crab, Cancer Crab, Sand Dollars	None	None	
Lease Area	C09_131	B	Crab, Hermit Crabs, Sand Dollars	None	None	
Lease Area	C09_131	C	Sand Dollars	None	None	
Lease Area	C09_132	A	Sand Dollars	None	None	Retracted cerianthid in bottom left of image.
Lease Area	C09_132	B	Crab, Sand Dollars	None	None	Retracted cerianthid in center of image.
Lease Area	C09_132	C	Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_133	A	Crabs, Sand Dollars	None	None	Retracted cerianthid in right of image.
Lease Area	C09_133	B	Sand Dollars	None	None	
Lease Area	C09_133	C	Sand Dollars, Shrimp	None	None	
Lease Area	C09_134	A	None	None	None	
Lease Area	C09_134	B	Sand Dollars	None	None	
Lease Area	C09_134	C	Hermit Crabs, Sand Dollars	None	None	
Lease Area	C09_135	A	Hermit Crab, Sand Dollars	None	None	
Lease Area	C09_135	C	Sand Dollars	None	None	
Lease Area	C09_135	I	Hermit Crab, Sand Dollars, Snails	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
Lease Area	C20_172	A	Crabs, Sand Dollar	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
Lease Area	C20_172	C	Crab, Sand Dollar, Snail	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
Lease Area	C20_172	D	Crab	None	None	
Lease Area	C20_173	A	Crab	None	None	
Lease Area	C20_173	B	Sand Dollars	None	None	
Lease Area	C20_173	C	Crabs, Sand Dollars	None	None	
Lease Area	C20_174	B	Crab, Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
Lease Area	C20_174	E	Crab, Sand Dollar, Shrimp	None	None	
Lease Area	C20_174	F	Crabs, Shrimp	None	None	
Lease Area	C20_175	B	Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
Lease Area	C20_175	C	Crab, Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
Lease Area	C20_175	D	Crab, Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
Lease Area	C20_176	A	Sand Dollars	None	None	
Lease Area	C20_176	B	Crabs, Sand Dollars	None	None	
Lease Area	C20_176	C	Crabs, Sand Dollars	None	None	
Lease Area	C20_177	A	Crabs, Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
Lease Area	C20_177	B	Sand Dollar	None	None	
Lease Area	C20_177	D	Crabs, Sand Dollars	None	None	
Lease Area	C20_178	C	Crab	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
Lease Area	C20_178	D	Crab, Sand Dollars	None	None	
Lease Area	C20_178	E	Crab, Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
Lease Area	C20_179	A	Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
Lease Area	C20_179	C	Crab, Snail	None	None	
Lease Area	C20_179	D	Sand Dollar	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
Lease Area	C20_180	B	Crabs, Sand Dollars	None	None	
Lease Area	C20_180	C	Sand Dollars	None	None	
Lease Area	C20_180	E	Crabs, Sand Dollars	None	None	
Lease Area	C20_181	C	Sand Dollars	None	None	
Lease Area	C20_181	F	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	C20_181	G	Crabs, Sand Dollars, Shrimp, Snails	None	None	
Lease Area	C20_182	A	Hermit Crab, Sand Dollars	None	None	
Lease Area	C20_182	B	Cancer Crab, Hermit Crabs, Sand Dollars	None	None	
Lease Area	C20_182	C	Crabs, Hermit Crabs, Sand Dollars	None	None	
Lease Area	C20_183	A	Crabs, Sand Dollar	None	None	
Lease Area	C20_183	B	Crabs, Sand Dollars	None	None	
Lease Area	C20_183	D	Crab, Sand Dollars, Shrimp	None	None	
Lease Area	C20_184	A	Crabs, Sand Dollars	None	None	
Lease Area	C20_184	B	Crab, Sand Dollars	None	None	
Lease Area	C20_184	C	Sand Dollars	None	None	
Lease Area	C20_185	A	Crab, Hermit Crab, Sand Dollar	None	None	
Lease Area	C20_185	B	Cancer Crab, Crabs, Sand Dollars	None	None	
Lease Area	C20_185	C	Hermit Crab, Sand Dollars	None	None	
Lease Area	C20_186	A	Crabs, Sand Dollars	None	None	
Lease Area	C20_186	C	Sand Dollar	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
Lease Area	C20_186	D	Crabs, Sand Dollar	None	None	
Lease Area	C20_187	A	Crabs, Sand Dollar	None	None	
Lease Area	C20_187	B	Crabs, Sand Dollars	None	None	
Lease Area	C20_187	C	Crab, Sand Dollar	None	None	
Lease Area	C20_188	A	Crabs, Hermit Crabs, Sand Dollars	Flounder	None	
Lease Area	C20_188	B	Crabs, Sand Dollar, Shrimp	None	None	
Lease Area	C20_188	C	None	None	None	
Lease Area	C20_189	B	Hermit Crab, Sand Dollars	None	None	
Lease Area	C20_189	C	Crabs, Sand Dollars	None	None	
Lease Area	C20_189	D	Crabs	None	None	
Lease Area	D03_100	B	Hermit Crab, Sand Dollars	None	None	
Lease Area	D03_100	C	Sand Dollars, Hermit Crabs	None	None	
Lease Area	D03_100	D	Hermit Crab, Sand Dollars	None	None	
Lease Area	D03_101	A	Sand Dollars	None	None	
Lease Area	D03_101	C	Sand Dollars	None	None	
Lease Area	D03_101	D	Hermit Crabs, Sand Dollars, Snails	None	None	
Lease Area	D03_102	A	Sand Dollars, Snails	None	None	
Lease Area	D03_102	B	Sand Dollars	None	None	
Lease Area	D03_102	C	Sand Dollars	None	None	
Lease Area	D03_103	A	Hermit Crab, Sand Dollars	None	None	
Lease Area	D03_103	B	Hermit Crab, Sand Dollars	None	None	
Lease Area	D03_103	C	Sand Dollars	None	None	
Lease Area	D03_104	A	Hermit Crabs, Sand Dollars	None	None	
Lease Area	D03_104	C	Hermit Crabs, Sand Dollars	None	None	
Lease Area	D03_104	D	Hermit Crabs, Sand Dollars	None	None	Clam shell on surface.
Lease Area	D03_105	A	Sand Dollars	None	None	
Lease Area	D03_105	B	Hermit Crab, Sand Dollars	None	None	
Lease Area	D03_105	C	Hermit Crab, Sand Dollars	None	None	
Lease Area	D03_106	A	Cancer Crab, Hermit Crabs, Sand Dollars	None	None	
Lease Area	D03_106	B	Sand Dollars	None	None	
Lease Area	D03_106	C	Hermit Crab, Sand Dollars	None	None	
Lease Area	D03_107	A	Sand Dollars	None	None	
Lease Area	D03_107	C	Hermit Crabs, Sand Dollars	None	None	
Lease Area	D03_107	D	Sand Dollars	None	None	
Lease Area	D03_108	A	Hermit Crabs, Sand Dollars	None	None	
Lease Area	D03_108	C	Sand Dollars	None	None	
Lease Area	D03_108	D	Sand Dollars	None	None	
Lease Area	D03_109	B	Sand Dollars	None	None	
Lease Area	D03_109	C	Sand Dollars, Snails	None	None	
Lease Area	D03_109	D	Sand Dollars	None	None	
Lease Area	D03_110	A	Sand Dollars, Snail	None	None	
Lease Area	D03_110	B	Sand Dollars	None	None	
Lease Area	D03_110	D	Hermit Crabs, Sand Dollars	None	None	
Lease Area	D03_111	A	Sand Dollars	None	None	
Lease Area	D03_111	B	Crab, Sand Dollars	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
Lease Area	D03_111	D	Hermit Crabs, Sand Dollars	None	None	
Lease Area	D03_112	A	Hermit Crab, Nudibranch, Sand Dollars	None	None	Nudibranch on upper edge of image.
Lease Area	D03_112	B	Hermit Crabs	None	None	
Lease Area	D03_112	C	Hermit Crab, Sand Dollars	None	None	
Lease Area	D03_113	A	Sand Dollars	None	None	
Lease Area	D03_113	B	Hermit Crab	None	None	
Lease Area	D03_113	D	Hermit Crabs	None	None	
Lease Area	D03_114	A	Hermit Crab, Sand Dollars	None	None	
Lease Area	D03_114	B	Sand Dollars	None	None	
Lease Area	D03_114	C	Hermit Crabs	None	None	
Lease Area	D03_115	A	Sand Dollars	None	None	
Lease Area	D03_115	B	Hermit Crabs, Sand Dollars	None	None	Small clam in upper center of image at bottom of sand ripple.
Lease Area	D03_115	C	Sand Dollars	None	None	
Lease Area	D03_116	A	Hermit Crabs, Sand Dollar	None	None	
Lease Area	D03_116	B	Hermit Crab, Sand Dollars	None	None	
Lease Area	D03_116	D	Sand Dollars	None	None	
Lease Area	D03_117	A	Sand Dollars	None	None	
Lease Area	D03_117	C	Hermit Crabs, Sand Dollars	None	None	
Lease Area	D03_117	F	Hermit Crabs, Sand Dollars	None	None	
Lease Area	D14_136	A	Crabs, Hermit Crabs, Sand Dollars, Snails, Shrimp	None	None	
Lease Area	D14_136	C	Hermit Crab, Snail	None	None	
Lease Area	D14_136	D	None	None	None	
Lease Area	D14_137	A	Crabs, Hermit Crabs, Sand Dollar	None	None	
Lease Area	D14_137	B	Crabs, Hermit Crab, Sand Dollar	None	None	
Lease Area	D14_137	D	Crabs, Shrimp, Sand Dollar	None	None	
Lease Area	D14_138	A	Crabs, Shrimp, Sand Dollar	None	None	
Lease Area	D14_138	B	Crab, Hermit Crab, Sand Dollar	None	None	
Lease Area	D14_138	C	Crabs, Shrimp	None	None	
Lease Area	D14_139	A	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	D14_139	B	Crabs, Hermit Crab	None	None	
Lease Area	D14_139	C	Crabs, Hermit Crab, Sand Dollars	None	None	
Lease Area	D14_140	A	Crabs, Hermit Crab, Sand Dollars	None	None	
Lease Area	D14_140	B	Crabs, Hermit Crab, Sand Dollars	None	None	
Lease Area	D14_140	C	Crab, Hermit Crabs, Sand Dollars	None	None	
Lease Area	D14_141	A	Crabs, Hermit Crab	None	None	
Lease Area	D14_141	C	Hermit Crabs, Sand Dollar	None	None	
Lease Area	D14_141	D	Sand Dollars	None	None	
Lease Area	D14_142	A	Crabs, Sand Dollars	None	None	
Lease Area	D14_142	B	Crabs, Sand Dollars	None	None	
Lease Area	D14_142	C	Crab, Sand Dollars	None	None	
Lease Area	D14_143	A	Crabs, Sand Dollars	None	None	
Lease Area	D14_143	B	Crab, Sand Dollars, Shrimp	None	None	
Lease Area	D14_143	C	Crabs, Sand Dollars	None	None	
Lease Area	D14_144	A	Hermit Crabs, Sand Dollar	None	None	

Area	Station ID	Replicate	Mobile Epifauna	Fish and Squid	Macroalgae and SAV	Comments
Lease Area	D14_144	B	Crab, Sand Dollars, Shrimp	None	None	
Lease Area	D14_144	C	Sand Dollars	None	None	
Lease Area	D14_145	A	Sand Dollars	None	None	
Lease Area	D14_145	B	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	D14_145	C	Crabs, Hermit Crab, Sand Dollars	None	None	
Lease Area	D14_146	A	Crabs, Sand Dollars	None	None	
Lease Area	D14_146	B	Crabs, Nudibranch, Sand Dollar, Shrimp	None	None	
Lease Area	D14_146	C	Crabs, Hermit Crab, Sand Dollars, Shrimp	None	None	
Lease Area	D14_147	A	Crabs, Sand Dollars	None	None	
Lease Area	D14_147	B	Crabs, Sand Dollar, Shrimp	None	None	
Lease Area	D14_147	C	Crabs, Sand Dollars	None	None	
Lease Area	D14_148	A	Crabs, Hermit Crab, Sand Dollars, Shrimp	None	None	
Lease Area	D14_148	B	Sand Dollars	None	None	
Lease Area	D14_148	C	Crabs, Sand Dollars, Snail, Shrimp	None	None	
Lease Area	D14_149	A	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	D14_149	B	Crabs, Sand Dollars, Shrimp, Snails	None	None	
Lease Area	D14_149	C	Crab, Hermit Crab, Sand Dollars, Shrimp	None	None	
Lease Area	D14_150	A	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	D14_150	B	Crabs, Hermit Crabs, Sand Dollar, Shrimp	None	None	
Lease Area	D14_150	C	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	D14_151	B	Sand Dollars, Shrimp	None	None	
Lease Area	D14_151	C	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	D14_151	D	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	D14_152	A	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	D14_152	B	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	D14_152	C	Crabs, Sand Dollars, Shrimp	None	None	
Lease Area	D14_153	A	Crabs, Shrimp	None	None	
Lease Area	D14_153	B	Sand Dollars	None	None	Slightly turbid, difficult to identify finer surficial characteristics.
Lease Area	D14_153	C	Crabs, Hermit Crab, Sea Stars, Shrimp	None	None	

Appendix D – Sediment Profile and Plan View Image Station Results

Notes:
IND=Indeterminate
N/A=Not Applicable
1 Successional Stage: “on” indicates one Stage is found on top of another Stage (i.e., 1 on 3); “->” indicates one Stage is progressing to another Stage (i.e., 2 -> 3).
2 Variable determined from combined SPI/PV analysis.
3 Substrate classifications updated to 2024 CMECS standards. For included subgroups, when dominant gravel size is known, “Gravel” terms are replaced with size-specific terms (i.e., “bouldery”, “cobbly”), or a combination of the two with the more dominant size first (CMECS 2023). When "Pebble/Granule" is the dominant gravel size, "/Granule" is removed for clarity.

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Water Depth (m)	SPI Replicate (n)	Mean Prism Penetration Depth (cm)	Mean Boundary Roughness (cm)	Mean aRPD Depth (cm)	Mean Maximum Bioturbation Depth (cm)	SPI Predominant Sediment Type	Predominant Sediment Oxygen Demand	Mean Number of Feeding Voids	Highest Successional Stage[1,2]	PV Replicate (n)	Predominant CMECS Substrate Group[2]	Predominant CMECS Substrate Subgroup[2]
Lease Area	SPI/PV	D03	16	NW	D03_100	25.6	3	5.7	1.7	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	26	NW	D03_101	25.6	3	8.1	1.9	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	40	NW	D03_102	25.6	3	6.1	1.2	IND	IND	Fine sand	Low	0.0	1 -> 2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	55	NW	D03_103	25.6	3	5.1	1.7	IND	IND	Fine sand	Low	0.0	1 -> 2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	80	NW	D03_104	25.6	3	7.3	2.0	IND	IND	Fine sand	Low	0.0	1 -> 2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	130	NW	D03_105	25.6	3	5.8	1.5	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	230	NW	D03_106	25.6	3	6.8	3.2	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	280	NW	D03_107	25.6	3	6.8	2.9	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	900	NW	D03_108	26.2	3	5.3	1.2	IND	5.1	Very fine sand	Low	0.0	2	3	Sand or finer	Very Fine Sand
Lease Area	SPI/PV	D03	16	SE	D03_109	25.9	3	6.6	3.0	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	26	SE	D03_110	25.9	3	6.8	2.7	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	40	SE	D03_111	25.6	3	7.8	2.4	IND	4.4	Medium sand	Low	0.0	2	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	D03	55	SE	D03_112	25.6	3	6.1	3.2	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	80	SE	D03_113	25.6	3	7.7	2.6	IND	IND	Fine sand	Low	0.0	1 -> 2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	130	SE	D03_114	25.9	3	6.8	3.1	IND	IND	Fine sand	Low	0.0	1 -> 2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	230	SE	D03_115	25.6	3	8.1	2.7	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	280	SE	D03_116	25.6	3	6.5	1.5	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D03	900	SE	D03_117	27.4	3	7.7	2.5	7.7	7.7	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	40	N	C09_118	31.1	3	6.4	1.5	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	50	N	C09_119	30.8	3	6.6	1.4	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	65	N	C09_120	31.1	3	6.3	0.7	IND	IND	Fine sand	Medium	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	80	N	C09_121	31.1	3	7.0	1.0	IND	IND	Fine sand	Medium	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	105	N	C09_122	31.1	3	6.4	0.8	IND	IND	Fine sand	Medium	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	155	N	C09_123	31.1	3	6.9	2.3	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	255	N	C09_124	31.1	3	5.7	1.2	5.6	5.6	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	305	N	C09_125	32.0	3	6.5	1.6	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	900	N	C09_126	32.0	3	6.5	0.9	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	40	S	C09_127	31.1	3	6.7	1.6	IND	IND	Fine sand	Low	0.0	1 -> 2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	50	S	C09_128	31.1	3	5.8	1.5	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	65	S	C09_129	31.1	3	6.2	1.5	4.3	4.3	Fine sand	Medium	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	80	S	C09_130	31.1	3	6.1	1.5	IND	IND	Fine sand	Low	0.0	1 -> 2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	105	S	C09_131	30.8	3	5.6	0.9	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	155	S	C09_132	31.4	3	5.2	2.9	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	255	S	C09_133	31.4	3	6.6	1.4	IND	IND	Fine sand	Medium	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C09	305	S	C09_134	31.4	3	6.7	2.0	IND	IND	Medium sand	Low	0.0	IND	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	C09	900	S	C09_135	31.7	3	6.1	1.4	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	16	SW	D14_136	33.2	3	5.9	1.1	IND	IND	Medium sand	Low	0.0	2	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	D14	26	SW	D14_137	32.6	3	6.3	2.5	IND	4.2	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	40	SW	D14_138	32.6	3	6.4	2.4	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	55	SW	D14_139	32.8	3	6.5	1.6	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	80	SW	D14_140	32.9	3	5.3	1.6	IND	IND	Fine sand	Low	0.0	1 -> 2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	130	SW	D14_141	32.9	3	6.2	2.0	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	230	SW	D14_142	32.3	3	6.4	1.8	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	280	SW	D14_143	32.3	3	6.6	2.2	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	900	SW	D14_144	32.6	3	6.3	1.8	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	16	NE	D14_145	33.2	3	6.6	1.7	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	26	NE	D14_146	33.2	3	5.9	1.5	IND	4.0	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	40	NE	D14_147	33.8	3	5.3	1.8	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	55	NE	D14_148	33.8	3	6.2	1.4	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	80	NE	D14_149	33.2	3	6.7	1.4	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	130	NE	D14_150	33.5	3	7.5	2.3	IND	IND	Medium sand	Low	0.0	IND	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	D14	230	NE	D14_151	34.7	3	6.0	1.6	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Water Depth (m)	SPI Replicate (n)	Mean Prism Penetration Depth (cm)	Mean Boundary Roughness (cm)	Mean aRPD Depth (cm)	Mean Maximum Bioturbation Depth (cm)	SPI Predominant Sediment Type	Predominant Sediment Oxygen Demand	Mean Number of Feeding Voids	Highest Successional Stage[1,2]	PV Replicate (n)	Predominant CMECS Substrate Group[2]	Predominant CMECS Substrate Subgroup[2]
Lease Area	SPI/PV	D14	280	NE	D14_152	34.7	3	5.9	1.7	5.6	5.6	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	D14	900	NE	D14_153	34.4	3	6.4	1.0	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	16	SW	B17_154	35.7	3	6.9	2.1	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	26	SW	B17_155	35.7	3	6.6	1.0	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	40	SW	B17_156	35.7	3	6.4	0.8	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	55	SW	B17_157	35.7	3	5.9	1.3	IND	5.0	Fine sand	Low	0.0	2 -> 3	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	80	SW	B17_158	35.4	3	8.6	0.9	5.1	5.7	Fine sand over silt/clay	Medium	0.0	2 on 3	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	130	SW	B17_159	35.7	3	6.7	1.7	IND	3.5	Fine sand	Low	0.0	1 on 3	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	230	SW	B17_160	35.9	3	6.1	1.3	IND	IND	Fine sand	Low	0.0	1	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	280	SW	B17_161	36.0	3	5.4	1.9	4.4	4.4	Very fine sand	Medium	0.0	1 -> 2	3	Sand or finer	Very Fine Sand
Lease Area	SPI/PV	B17	900	SW	B17_162	34.1	3	5.7	1.2	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	16	E	B17_163	35.7	3	6.3	1.0	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	26	E	B17_164	35.7	3	6.7	1.9	IND	5.5	Fine sand	Low	0.0	2 -> 3	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	40	E	B17_165	36.0	3	6.6	1.0	5.6	5.6	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	55	E	B17_166	36.0	3	6.1	0.8	IND	IND	Fine sand	Low	0.0	1 -> 2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	80	E	B17_167	35.4	3	6.7	0.8	IND	7.5	Fine sand	Low	0.0	2 on 3	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	130	E	B17_168	35.4	3	7.0	1.9	3.5	6.1	Fine sand	Varies	0.0	2 on 3	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	230	E	B17_169	35.1	3	5.5	1.6	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	280	E	B17_170	35.7	3	7.5	0.7	IND	3.4	Fine sand	Low	0.0	2 -> 3	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	B17	900	E	B17_171	35.1	3	6.7	1.4	IND	3.4	Fine sand	Low	0.0	2 -> 3	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C20	16	SW	C20_172	35.1	3	7.4	1.3	IND	2.4	Medium sand	Low	0.0	2	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	C20	26	SW	C20_173	35.1	3	6.5	1.4	IND	2.7	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C20	40	SW	C20_174	35.7	3	7.3	1.5	IND	IND	Medium sand	Low	0.0	IND	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	C20	55	SW	C20_175	35.1	3	6.3	1.6	IND	IND	Medium sand	Low	0.0	IND	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	C20	80	SW	C20_176	35.1	3	6.2	1.6	IND	IND	Medium sand	Low	0.0	IND	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	C20	130	SW	C20_177	35.1	3	6.4	1.3	IND	IND	Medium sand	Low	0.0	2	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	C20	230	SW	C20_178	35.4	3	7.1	1.5	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C20	280	SW	C20_179	35.4	3	5.7	1.3	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C20	900	SW	C20_180	35.7	3	6.4	1.4	IND	4.9	Medium sand	Low	0.0	IND	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	C20	16	NE	C20_181	35.4	3	7.7	1.3	IND	IND	Medium sand	Low	0.0	IND	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	C20	26	NE	C20_182	34.7	3	6.8	1.0	IND	IND	Medium sand	Low	0.0	1	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	C20	40	NE	C20_183	34.7	3	6.6	1.2	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C20	55	NE	C20_184	35.4	3	6.9	1.4	IND	IND	Medium sand	Low	0.0	IND	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	C20	80	NE	C20_185	35.4	3	6.6	1.1	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C20	130	NE	C20_186	34.7	3	7.0	1.7	IND	7.4	Medium sand	Low	0.0	2 -> 3	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	C20	230	NE	C20_187	35.1	3	6.4	2.0	IND	IND	Medium sand	Low	0.0	2	3	Sand or finer	Medium Sand
Lease Area	SPI/PV	C20	280	NE	C20_188	34.7	3	7.2	1.3	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
Lease Area	SPI/PV	C20	900	NE	C20_189	35.1	3	6.5	1.1	IND	6.3	Fine sand	Low	0.0	2 -> 3	3	Sand or finer	Fine Sand
ECR - West	SPI/PV	N/A	0	N	01_301	25.9	3	9.5	0.7	3.8	5.2	Very fine sand	Medium	0.7	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	10	N	01_302	25.9	3	9.9	0.7	5.2	5.2	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	20	N	01_303	25.9	3	9.4	1.0	4.5	5.9	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	30	N	01_304	25.9	3	9.3	0.7	3.7	5.2	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	60	N	01_305	25.9	3	9.3	0.6	5.7	4.7	Very fine sand	Medium	0.3	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	90	N	01_306	26.5	3	9.7	0.9	4.2	4.2	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	200	N	01_307	25.9	3	8.5	1.2	3.8	4.5	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	1000	N	01_308	25.0	3	6.3	1.3	2.9	3.3	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	0	S	02_309	26.5	3	9.8	0.6	4.4	5.9	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Water Depth (m)	SPI Replicate (n)	Mean Prism Penetration Depth (cm)	Mean Boundary Roughness (cm)	Mean aRPD Depth (cm)	Mean Maximum Bioturbation Depth (cm)	SPI Predominant Sediment Type	Predominant Sediment Oxygen Demand	Mean Number of Feeding Voids	Highest Successional Stage[1,2]	PV Replicate (n)	Predominant CMECS Substrate Group[2]	Predominant CMECS Substrate Subgroup[2]
ECR - West	SPI/PV	N/A	10	S	02_310	26.5	3	8.6	0.6	4.1	4.3	Very fine sand	Medium	0.3	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	20	S	02_311	26.5	3	9.8	1.0	5.0	8.3	Very fine sand	Medium	0.3	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	30	S	02_312	26.5	3	10.1	0.7	7.1	7.8	Very fine sand	Medium	0.3	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	60	S	02_313	26.5	3	8.9	1.0	5.1	5.1	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	90	S	02_314	26.8	3	8.7	0.8	4.9	5.6	Very fine sand	Medium	0.3	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	200	S	02_315	26.8	3	8.3	0.8	5.1	5.1	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	1000	S	02_316	27.4	3	9.6	1.0	3.6	3.6	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	0	N	03_317	25.9	3	9.0	0.8	4.6	4.6	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	10	N	03_318	25.9	3	8.3	0.9	4.3	4.0	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	20	N	03_319	25.9	3	8.9	0.8	4.8	4.5	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	30	N	03_320	25.9	3	10.5	1.0	6.8	8.0	Very fine sand	Medium	0.0	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	60	N	03_321	25.9	3	9.9	0.7	5.6	5.6	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	90	N	03_322	25.9	3	10.1	0.6	5.7	6.4	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	200	N	03_323	25.9	3	10.7	0.9	4.4	7.3	Very fine sand	Medium	0.0	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	1000	N	03_324	24.7	3	6.2	1.0	3.6	3.6	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	0	S	04_325	25.9	3	8.6	0.9	7.3	5.9	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	10	S	04_326	25.9	3	8.6	1.2	4.7	4.7	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	20	S	04_327	25.9	3	9.2	0.8	4.5	4.5	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	30	S	04_328	25.9	3	9.5	0.6	5.6	6.2	Very fine sand	Medium	1.0	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	60	S	04_329	25.9	3	9.7	0.9	5.2	4.9	Very fine sand	Medium	0.3	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	90	S	04_330	25.9	3	9.0	0.8	4.6	5.1	Very fine sand	Medium	0.0	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	200	S	04_331	25.9	3	10.7	0.7	5.5	6.8	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	1000	S	04_332	26.5	3	11.6	0.9	3.4	4.5	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	0	N	05_333	26.5	3	9.0	1.3	4.2	4.2	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	10	N	05_334	26.5	3	8.5	0.8	4.3	5.3	Very fine sand	Medium	0.3	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	20	N	05_335	26.5	3	9.8	0.8	6.4	7.5	Very fine sand	Medium	0.3	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	30	N	05_336	26.5	3	9.1	0.5	5.5	5.5	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	60	N	05_337	26.5	3	9.3	0.8	3.1	3.2	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	90	N	05_338	26.5	3	10.0	1.4	3.4	6.0	Very fine sand	Medium	0.7	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	200	N	05_339	26.2	3	8.2	1.2	4.4	5.7	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	1000	N	05_340	25.0	3	6.3	0.6	3.3	3.3	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	0	S	06_341	26.2	3	10.8	0.7	6.1	7.3	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	10	S	06_342	26.2	3	9.8	0.9	4.4	5.7	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	20	S	06_343	26.2	3	9.4	0.8	5.3	4.5	Very fine sand	Medium	0.7	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	30	S	06_344	26.2	3	10.0	0.9	6.1	6.1	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	60	S	06_345	26.5	3	9.5	0.8	5.1	6.8	Very fine sand	Medium	0.0	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	90	S	06_346	26.5	3	10.3	0.8	5.0	3.7	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Water Depth (m)	SPI Replicate (n)	Mean Prism Penetration Depth (cm)	Mean Boundary Roughness (cm)	Mean aRPD Depth (cm)	Mean Maximum Bioturbation Depth (cm)	SPI Predominant Sediment Type	Predominant Sediment Oxygen Demand	Mean Number of Feeding Voids	Highest Successional Stage[1,2]	PV Replicate (n)	Predominant CMECS Substrate Group[2]	Predominant CMECS Substrate Subgroup[2]
ECR - West	SPI/PV	N/A	200	S	06_347	26.5	3	8.9	1.4	5.4	6.5	Very fine sand	Medium	0.0	2 on 3	3	Sand or finer	Very Fine Sand
ECR - West	SPI/PV	N/A	1000	S	06_348	26.8	3	10.4	1.1	4.5	7.5	Very fine sand	Medium	0.3	2 on 3	3	Sand or finer	Very Fine Sand
ECR - East	SPI/PV	N/A	0	S	07_349	25.3	3	5.9	2.2	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	10	S	07_350	25.0	3	7.0	2.2	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	20	S	07_351	25.0	3	5.0	2.1	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	30	S	07_352	25.3	3	5.8	1.3	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	60	S	07_353	24.7	3	4.5	1.1	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	90	S	07_354	24.7	3	6.8	1.4	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	200	S	07_355	24.7	3	6.2	2.5	IND	IND	Medium sand	Low	0.0	2	3	Sand or finer	Medium Sand
ECR - East	SPI/PV	N/A	1000	S	07_356	25.0	3	5.2	1.7	IND	IND	Medium sand	Low	0.0	2	3	Sand or finer	Medium Sand
ECR - East	SPI/PV	N/A	0	N	08_357	25.3	3	6.1	1.4	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	10	N	08_358	25.6	3	6.1	1.0	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	20	N	08_359	25.6	3	5.7	1.1	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	30	N	08_360	25.6	3	5.3	0.8	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	60	N	08_361	25.9	3	6.0	1.7	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	90	N	08_362	25.6	3	6.5	1.6	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	200	N	08_363	26.8	3	0.5	1.2	IND	IND	Fine sand	IND	0.0	1	3	Gravelly Mixes	Gravelly Sand
ECR - East	SPI/PV	N/A	1000	N	08_364	25.6	3	5.2	1.3	2.7	4.5	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand
ECR - East	SPI/PV	N/A	0	S	09_365	25.0	3	6.7	1.9	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	10	S	09_366	25.0	3	6.0	2.1	IND	IND	Fine sand	Low	0.0	1 -> 2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	20	S	09_367	25.0	3	6.0	1.3	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	30	S	09_368	24.4	3	5.9	2.1	IND	5.7	Fine sand	Low	0.0	2 -> 3	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	60	S	09_369	25.0	3	6.1	1.4	IND	IND	Fine sand	Low	0.0	1 -> 2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	90	S	09_370	24.7	3	6.0	1.7	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	200	S	09_371	24.7	3	6.8	2.2	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	1000	S	09_372	24.7	3	4.3	1.6	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	0	N	10_373	25.0	3	6.9	1.7	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	10	N	10_374	25.0	3	6.5	0.9	4.5	4.5	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	20	N	10_375	25.0	3	6.4	2.0	IND	5.6	Fine sand	Low	0.0	2 -> 3	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	30	N	10_376	25.3	3	5.7	2.1	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	60	N	10_377	25.3	3	6.1	1.3	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	90	N	10_378	25.6	3	6.8	2.1	IND	IND	Medium sand	Low	0.0	2	3	Sand or finer	Medium Sand
ECR - East	SPI/PV	N/A	200	N	10_379	25.6	3	4.1	1.5	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	1000	N	10_380	25.6	3	6.5	0.9	3.5	3.4	Very fine sand	Medium	0.0	2 -> 3	3	Sand or finer	Very Fine Sand
ECR - East	SPI/PV	N/A	0	S	11_381	24.7	3	6.0	2.2	IND	IND	Fine sand	Low	0.0	1 -> 2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	10	S	11_382	24.7	3	6.0	1.8	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	20	S	11_383	24.7	3	5.4	1.4	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	30	S	11_384	24.7	3	5.8	1.9	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	60	S	11_385	24.7	3	7.6	2.4	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	90	S	11_386	24.7	3	6.2	2.0	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	200	S	11_387	24.4	3	5.1	0.9	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	1000	S	11_388	25.0	3	5.6	1.5	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	0	N	12_389	24.7	3	5.9	1.6	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	10	N	12_390	24.7	3	6.8	1.9	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	20	N	12_391	24.7	3	4.3	1.8	IND	IND	Fine sand	Low	0.0	IND	3	Varies	Varies
ECR - East	SPI/PV	N/A	30	N	12_392	24.7	3	3.7	1.0	IND	IND	Fine sand	Low	0.0	1	3	Sand or finer	Fine Sand

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Water Depth (m)	SPI Replicate (n)	Mean Prism Penetration Depth (cm)	Mean Boundary Roughness (cm)	Mean aRPD Depth (cm)	Mean Maximum Bioturbation Depth (cm)	SPI Predominant Sediment Type	Predominant Sediment Oxygen Demand	Mean Number of Feeding Voids	Highest Successional Stage[1,2]	PV Replicate (n)	Predominant CMECS Substrate Group[2]	Predominant CMECS Substrate Subgroup[2]
ECR - East	SPI/PV	N/A	60	N	12_393	24.7	3	0.0	IND	IND	IND	IND	IND	0.0	IND	3	Very Coarse Gravel	Boulder
ECR - East	SPI/PV	N/A	90	N	12_394	25.6	3	2.0	3.1	IND	IND	Fine sand	Low	0.0	IND	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	200	N	12_395	25.6	3	1.8	2.0	IND	IND	Fine sand	Low	0.0	2	3	Sand or finer	Fine Sand
ECR - East	SPI/PV	N/A	1000	N	12_396	25.0	3	4.4	1.6	2.8	2.8	Very fine sand	Medium	0.0	2	3	Sand or finer	Very Fine Sand

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Predominant CMECS Substrate Subgroup (2023)[2,3]	Dominant CMECS Gravel Size Category (# of replicates)	Maximum CMECS Gravel Size Category	Predominant CMECS Biotic Subclass	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Sensitive Taxa Present[2]	Non-Native Taxa Present[2]	Species of Concern Present[2]	Amphipods Present[2]
Lease Area	SPI/PV	D03	16	NW	D03_100	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D03	26	NW	D03_101	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D03	40	NW	D03_102	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
Lease Area	SPI/PV	D03	55	NW	D03_103	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid
Lease Area	SPI/PV	D03	80	NW	D03_104	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
Lease Area	SPI/PV	D03	130	NW	D03_105	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D03	230	NW	D03_106	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
Lease Area	SPI/PV	D03	280	NW	D03_107	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D03	900	NW	D03_108	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
Lease Area	SPI/PV	D03	16	SE	D03_109	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D03	26	SE	D03_110	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D03	40	SE	D03_111	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D03	55	SE	D03_112	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D03	80	SE	D03_113	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
Lease Area	SPI/PV	D03	130	SE	D03_114	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D03	230	SE	D03_115	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D03	280	SE	D03_116	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D03	900	SE	D03_117	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	40	N	C09_118	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	50	N	C09_119	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	65	N	C09_120	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	80	N	C09_121	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	105	N	C09_122	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	155	N	C09_123	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid
Lease Area	SPI/PV	C09	255	N	C09_124	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	305	N	C09_125	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	900	N	C09_126	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	40	S	C09_127	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	50	S	C09_128	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid
Lease Area	SPI/PV	C09	65	S	C09_129	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	80	S	C09_130	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	105	S	C09_131	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
Lease Area	SPI/PV	C09	155	S	C09_132	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	255	S	C09_133	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid
Lease Area	SPI/PV	C09	305	S	C09_134	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C09	900	S	C09_135	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	16	SW	D14_136	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	26	SW	D14_137	Fine Sand	Pebble/Granule (3)	Pebble/Granule	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	40	SW	D14_138	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	55	SW	D14_139	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	80	SW	D14_140	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	130	SW	D14_141	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	230	SW	D14_142	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	280	SW	D14_143	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	900	SW	D14_144	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	16	NE	D14_145	Fine Sand	Pebble/Granule (3)	Pebble/Granule	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	26	NE	D14_146	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid
Lease Area	SPI/PV	D14	40	NE	D14_147	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	55	NE	D14_148	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	80	NE	D14_149	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	130	NE	D14_150	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	230	NE	D14_151	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Predominant CMECS Substrate Subgroup (2023)[2,3]	Dominant CMECS Gravel Size Category (# of replicates)	Maximum CMECS Gravel Size Category	Predominant CMECS Biotic Subclass	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Sensitive Taxa Present[2]	Non-Native Taxa Present[2]	Species of Concern Present[2]	Amphipods Present[2]
Lease Area	SPI/PV	D14	280	NE	D14_152	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	D14	900	NE	D14_153	Fine Sand	Pebble/Granule (1)	Pebble/Granule	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	B17	16	SW	B17_154	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	B17	26	SW	B17_155	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Tube-Building Amphipods
Lease Area	SPI/PV	B17	40	SW	B17_156	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	B17	55	SW	B17_157	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid
Lease Area	SPI/PV	B17	80	SW	B17_158	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca
Lease Area	SPI/PV	B17	130	SW	B17_159	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	B17	230	SW	B17_160	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	B17	280	SW	B17_161	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca
Lease Area	SPI/PV	B17	900	SW	B17_162	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	B17	16	E	B17_163	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca
Lease Area	SPI/PV	B17	26	E	B17_164	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	B17	40	E	B17_165	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	B17	55	E	B17_166	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	B17	80	E	B17_167	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	B17	130	E	B17_168	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca
Lease Area	SPI/PV	B17	230	E	B17_169	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	B17	280	E	B17_170	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	B17	900	E	B17_171	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	16	SW	C20_172	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	26	SW	C20_173	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	40	SW	C20_174	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	55	SW	C20_175	Medium Sand	Pebble/Granule (3)	Pebble/Granule	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	80	SW	C20_176	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	130	SW	C20_177	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	230	SW	C20_178	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	280	SW	C20_179	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	900	SW	C20_180	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	16	NE	C20_181	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	26	NE	C20_182	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	40	NE	C20_183	Fine Sand	Pebble/Granule (2)	Pebble/Granule	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	55	NE	C20_184	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	80	NE	C20_185	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	130	NE	C20_186	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	230	NE	C20_187	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	280	NE	C20_188	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
Lease Area	SPI/PV	C20	900	NE	C20_189	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - West	SPI/PV	N/A	0	N	01_301	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerid
ECR - West	SPI/PV	N/A	10	N	01_302	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerids
ECR - West	SPI/PV	N/A	20	N	01_303	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerids, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	30	N	01_304	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - West	SPI/PV	N/A	60	N	01_305	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	Sea Scallop	Podocerid
ECR - West	SPI/PV	N/A	90	N	01_306	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - West	SPI/PV	N/A	200	N	01_307	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - West	SPI/PV	N/A	1000	N	01_308	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - West	SPI/PV	N/A	0	S	02_309	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids, Tube-Building Amphipods

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Predominant CMECS Substrate Subgroup (2023)[2,3]	Dominant CMECS Gravel Size Category (# of replicates)	Maximum CMECS Gravel Size Category	Predominant CMECS Biotic Subclass	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Sensitive Taxa Present[2]	Non-Native Taxa Present[2]	Species of Concern Present[2]	Amphipods Present[2]
ECR - West	SPI/PV	N/A	10	S	02_310	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - West	SPI/PV	N/A	20	S	02_311	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerids
ECR - West	SPI/PV	N/A	30	S	02_312	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerids, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	60	S	02_313	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - West	SPI/PV	N/A	90	S	02_314	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid
ECR - West	SPI/PV	N/A	200	S	02_315	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid
ECR - West	SPI/PV	N/A	1000	S	02_316	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - West	SPI/PV	N/A	0	N	03_317	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - West	SPI/PV	N/A	10	N	03_318	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid
ECR - West	SPI/PV	N/A	20	N	03_319	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - West	SPI/PV	N/A	30	N	03_320	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerid, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	60	N	03_321	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	90	N	03_322	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	200	N	03_323	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - West	SPI/PV	N/A	1000	N	03_324	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - West	SPI/PV	N/A	0	S	04_325	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerid, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	10	S	04_326	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerids, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	20	S	04_327	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid, Unidentified Amphipod
ECR - West	SPI/PV	N/A	30	S	04_328	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca
ECR - West	SPI/PV	N/A	60	S	04_329	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerid
ECR - West	SPI/PV	N/A	90	S	04_330	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	200	S	04_331	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca
ECR - West	SPI/PV	N/A	1000	S	04_332	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerid
ECR - West	SPI/PV	N/A	0	N	05_333	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerid
ECR - West	SPI/PV	N/A	10	N	05_334	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Tube-Building Amphipods
ECR - West	SPI/PV	N/A	20	N	05_335	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca
ECR - West	SPI/PV	N/A	30	N	05_336	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	60	N	05_337	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca
ECR - West	SPI/PV	N/A	90	N	05_338	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - West	SPI/PV	N/A	200	N	05_339	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - West	SPI/PV	N/A	1000	N	05_340	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	0	S	06_341	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerid, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	10	S	06_342	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	20	S	06_343	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerid
ECR - West	SPI/PV	N/A	30	S	06_344	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Tube-Building Amphipods
ECR - West	SPI/PV	N/A	60	S	06_345	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerid, Tube-Building Amphipods
ECR - West	SPI/PV	N/A	90	S	06_346	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerids, Tube-Building Amphipods

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Predominant CMECS Substrate Subgroup (2023)[2,3]	Dominant CMECS Gravel Size Category (# of replicates)	Maximum CMECS Gravel Size Category	Predominant CMECS Biotic Subclass	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Sensitive Taxa Present[2]	Non-Native Taxa Present[2]	Species of Concern Present[2]	Amphipods Present[2]
ECR - West	SPI/PV	N/A	200	S	06_347	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerid
ECR - West	SPI/PV	N/A	1000	S	06_348	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerid
ECR - East	SPI/PV	N/A	0	S	07_349	Fine Sand	Pebble/Granule (1)	Pebble/Granule	Soft Sediment Fauna	None	None	None	None	Podocerid
ECR - East	SPI/PV	N/A	10	S	07_350	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	20	S	07_351	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - East	SPI/PV	N/A	30	S	07_352	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	60	S	07_353	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	90	S	07_354	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	200	S	07_355	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	1000	S	07_356	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	0	N	08_357	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	10	N	08_358	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	20	N	08_359	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	30	N	08_360	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - East	SPI/PV	N/A	60	N	08_361	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid
ECR - East	SPI/PV	N/A	90	N	08_362	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	200	N	08_363	Cobbly-Bouldery Sand	Boulder (1), Cobble (2)	Boulder	Attached Fauna	Moderate (30 to <70%)	Northern Star Coral	None	None	None
ECR - East	SPI/PV	N/A	1000	N	08_364	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - East	SPI/PV	N/A	0	S	09_365	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - East	SPI/PV	N/A	10	S	09_366	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	20	S	09_367	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	30	S	09_368	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	60	S	09_369	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - East	SPI/PV	N/A	90	S	09_370	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - East	SPI/PV	N/A	200	S	09_371	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid
ECR - East	SPI/PV	N/A	1000	S	09_372	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	0	N	10_373	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	10	N	10_374	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	20	N	10_375	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - East	SPI/PV	N/A	30	N	10_376	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	60	N	10_377	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - East	SPI/PV	N/A	90	N	10_378	Medium Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - East	SPI/PV	N/A	200	N	10_379	Fine Sand	Cobble (1)	Cobble	Soft Sediment Fauna	Moderate (30 to <70%)	Northern Star Coral	None	None	None
ECR - East	SPI/PV	N/A	1000	N	10_380	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Ampelisca, Podocerids, Tube-Building Amphipods
ECR - East	SPI/PV	N/A	0	S	11_381	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids
ECR - East	SPI/PV	N/A	10	S	11_382	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	20	S	11_383	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	30	S	11_384	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	60	S	11_385	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	90	S	11_386	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerid
ECR - East	SPI/PV	N/A	200	S	11_387	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	1000	S	11_388	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	0	N	12_389	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	10	N	12_390	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	20	N	12_391	Varies	Boulder (1), Cobble (1)	Boulder	Attached Fauna	Dense (70 to <90%)	Northern Star Coral	None	None	None
ECR - East	SPI/PV	N/A	30	N	12_392	Fine Sand	Cobble (1)	Cobble	Soft Sediment Fauna	Sparse (1 to <30%)	Northern Star Coral	None	None	None

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Predominant CMECS Substrate Subgroup (2023)[2,3]	Dominant CMECS Gravel Size Category (# of replicates)	Maximum CMECS Gravel Size Category	Predominant CMECS Biotic Subclass	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Sensitive Taxa Present[2]	Non-Native Taxa Present[2]	Species of Concern Present[2]	Amphipods Present[2]
ECR - East	SPI/PV	N/A	60	N	12_393	Boulder	Boulder (3)	Boulder	Attached Fauna	Dense (70 to <90%)	Northern Star Coral	None	None	None
ECR - East	SPI/PV	N/A	90	N	12_394	Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	None
ECR - East	SPI/PV	N/A	200	N	12_395	Fine Sand	Boulder (1)	Boulder	Soft Sediment Fauna	Sparse (1 to <30%)	Northern Star Coral	None	None	None
ECR - East	SPI/PV	N/A	1000	N	12_396	Very Fine Sand	N/A	N/A	Soft Sediment Fauna	None	None	None	None	Podocerids, Tube-Building Amphipods

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Infauna Present[2]	Sessile Epifauna Present[2]	Mobile Epifauna Present[2]	Fish and Squid Present[2]
Lease Area	SPI/PV	D03	16	NW	D03_100	Diopatra	None	Hermit Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	D03	26	NW	D03_101	Diopatra	None	Hermit Crabs, Sand Dollars, Snails	None
Lease Area	SPI/PV	D03	40	NW	D03_102	Diopatra	None	Sand Dollars, Snails	None
Lease Area	SPI/PV	D03	55	NW	D03_103	Diopatra	None	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	D03	80	NW	D03_104	Diopatra	None	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	D03	130	NW	D03_105	Diopatra	None	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	D03	230	NW	D03_106	Diopatra	None	Cancer Crab, Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	D03	280	NW	D03_107	None Observed	None	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	D03	900	NW	D03_108	Diopatra	None	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	D03	16	SE	D03_109	Diopatra	None	Sand Dollars, Snails	None
Lease Area	SPI/PV	D03	26	SE	D03_110	None Observed	None	Hermit Crabs, Sand Dollars, Snail	None
Lease Area	SPI/PV	D03	40	SE	D03_111	Diopatra	None	Crab, Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	D03	55	SE	D03_112	Diopatra	Bryozoa/Hydroids	Hermit Crabs, Nudibranch, Sand Dollars	None
Lease Area	SPI/PV	D03	80	SE	D03_113	Diopatra	None	Hermit Crabs, Sand Dollars, Snail	None
Lease Area	SPI/PV	D03	130	SE	D03_114	Diopatra	None	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	D03	230	SE	D03_115	None Observed	None	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	D03	280	SE	D03_116	Diopatra	None	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	D03	900	SE	D03_117	Diopatra	None	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	C09	40	N	C09_118	Diopatra	None	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	C09	50	N	C09_119	Diopatra	None	Crab, Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	C09	65	N	C09_120	Cerianthid, Diopatra	None	Hermit Crabs, Sand Dollars, Shrimp, Snails	None
Lease Area	SPI/PV	C09	80	N	C09_121	Diopatra	None	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	C09	105	N	C09_122	Diopatra	None	Hermit Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	C09	155	N	C09_123	Diopatra	None	Crab, Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	C09	255	N	C09_124	None Observed	Bryozoa/Hydroids, Encrusting Orange Sponge	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	C09	305	N	C09_125	Diopatra	None	Sand Dollars	None
Lease Area	SPI/PV	C09	900	N	C09_126	Polychaete	None	Crab, Hermit Crab, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	C09	40	S	C09_127	Diopatra	None	Crab, Hermit Crab, Sand Dollars	None
Lease Area	SPI/PV	C09	50	S	C09_128	Diopatra	None	Crabs, Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	C09	65	S	C09_129	None Observed	None	Hermit Crabs, Sand Dollars, Snails	None
Lease Area	SPI/PV	C09	80	S	C09_130	Diopatra	None	Crab, Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	C09	105	S	C09_131	Diopatra	None	Cancer Crab, Crab, Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	C09	155	S	C09_132	Cerianthids, Diopatra	None	Crab, Hermit Crab, Sand Dollars	None
Lease Area	SPI/PV	C09	255	S	C09_133	Cerianthid, Diopatra	None	Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	C09	305	S	C09_134	None Observed	None	Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	C09	900	S	C09_135	None Observed	None	Hermit Crabs, Sand Dollars, Snails	None
Lease Area	SPI/PV	D14	16	SW	D14_136	Diopatra	None	Crabs, Hermit Crabs, Sand Dollars, Shrimp, Snails	None
Lease Area	SPI/PV	D14	26	SW	D14_137	Polychaete	None	Crabs, Hermit Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	D14	40	SW	D14_138	Diopatra	None	Crabs, Hermit Crab, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	D14	55	SW	D14_139	Diopatra	None	Crabs, Hermit Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	D14	80	SW	D14_140	None Observed	None	Crabs, Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	D14	130	SW	D14_141	Diopatra	None	Crabs, Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	D14	230	SW	D14_142	None Observed	None	Crabs, Sand Dollars	None
Lease Area	SPI/PV	D14	280	SW	D14_143	None Observed	None	Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	D14	900	SW	D14_144	Diopatra	Hydroid	Crab, Hermit Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	D14	16	NE	D14_145	Diopatra	None	Crabs, Hermit Crab, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	D14	26	NE	D14_146	Diopatra, Unidentified Infauna	None	Crabs, Hermit Crab, Nudibranch, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	D14	40	NE	D14_147	Diopatra	None	Crabs, Hermit Crab, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	D14	55	NE	D14_148	Diopatra	None	Crabs, Hermit Crab, Sand Dollars, Shrimp, Snail	None
Lease Area	SPI/PV	D14	80	NE	D14_149	Diopatra	None	Crabs, Hermit Crab, Sand Dollars, Shrimp, Snails	None
Lease Area	SPI/PV	D14	130	NE	D14_150	None Observed	None	Crabs, Hermit Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	D14	230	NE	D14_151	Diopatra	None	Crabs, Sand Dollars, Shrimp	None

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Infauna Present[2]	Sessile Epifauna Present[2]	Mobile Epifauna Present[2]	Fish and Squid Present[2]
Lease Area	SPI/PV	D14	280	NE	D14_152	None Observed	None	Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	D14	900	NE	D14_153	None Observed	None	Crabs, Hermit Crabs, Sand Dollars, Sea Stars, Shrimp	None
Lease Area	SPI/PV	B17	16	SW	B17_154	Diopatra	Sponges	Crabs, Hermit Crabs, Sand Dollars, Shrimp, Snails	None
Lease Area	SPI/PV	B17	26	SW	B17_155	Cerianthids, Diopatra	None	Crabs, Hermit Crab, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	40	SW	B17_156	Cerianthid, Diopatra	None	Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	55	SW	B17_157	Polychaete	None	Crabs, Hermit Crab, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	80	SW	B17_158	Diopatra, Polychaete	None	Crabs, Hermit Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	130	SW	B17_159	Diopatra, Polychaete	None	Crabs, Hermit Crab, Nudibranch, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	230	SW	B17_160	Cerianthid, Diopatra	None	Crabs, Hermit Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	280	SW	B17_161	None Observed	None	Crabs, Hermit Crab, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	900	SW	B17_162	Diopatra	None	Crabs, Hermit Crab, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	16	E	B17_163	Diopatra	None	Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	26	E	B17_164	Diopatra, Polychaete	None	Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	40	E	B17_165	Cerianthid, Diopatra	None	Hermit Crabs, Nudibranch, Sand Dollars, Shrimp, Snail	None
Lease Area	SPI/PV	B17	55	E	B17_166	None Observed	None	Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	80	E	B17_167	Diopatra, Polychaetes	None	Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	130	E	B17_168	Diopatra, Polychaetes	None	Crabs, Hermit Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	230	E	B17_169	Diopatra	None	Crabs, Sand Dollars, Shrimp	Flounder
Lease Area	SPI/PV	B17	280	E	B17_170	Diopatra, Polychaete	None	Crabs, Nudibranch, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	B17	900	E	B17_171	Polychaete	None	Crabs, Hermit Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	C20	16	SW	C20_172	Polychaete	None	Crabs, Sand Dollars, Snail	None
Lease Area	SPI/PV	C20	26	SW	C20_173	Diopatra, Polychaete	None	Crabs, Sand Dollars, Snail	None
Lease Area	SPI/PV	C20	40	SW	C20_174	Diopatra	None	Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	C20	55	SW	C20_175	None Observed	None	Crabs, Sand Dollars	None
Lease Area	SPI/PV	C20	80	SW	C20_176	None Observed	None	Crabs, Sand Dollars	None
Lease Area	SPI/PV	C20	130	SW	C20_177	Diopatra	None	Crabs, Sand Dollars	None
Lease Area	SPI/PV	C20	230	SW	C20_178	Diopatra	None	Crabs, Sand Dollars	None
Lease Area	SPI/PV	C20	280	SW	C20_179	None Observed	None	Crab, Sand Dollars, Snail	None
Lease Area	SPI/PV	C20	900	SW	C20_180	Diopatra	Hydroid	Crabs, Sand Dollars	None
Lease Area	SPI/PV	C20	16	NE	C20_181	None Observed	None	Crabs, Sand Dollars, Shrimp, Snails	None
Lease Area	SPI/PV	C20	26	NE	C20_182	None Observed	None	Cancer Crab, Crabs, Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	C20	40	NE	C20_183	None Observed	None	Crabs, Sand Dollars, Shrimp	None
Lease Area	SPI/PV	C20	55	NE	C20_184	Diopatra	None	Crabs, Sand Dollars	None
Lease Area	SPI/PV	C20	80	NE	C20_185	None Observed	None	Cancer Crab, Crabs, Hermit Crabs, Sand Dollars	None
Lease Area	SPI/PV	C20	130	NE	C20_186	Polychaete	None	Crabs, Sand Dollars	None
Lease Area	SPI/PV	C20	230	NE	C20_187	None Observed	None	Crabs, Sand Dollars	None
Lease Area	SPI/PV	C20	280	NE	C20_188	Cerianthid, Diopatra	None	Crabs, Hermit Crabs, Sand Dollars, Shrimp	Flounder
Lease Area	SPI/PV	C20	900	NE	C20_189	Diopatra, Polychaete	None	Crabs, Hermit Crab, Sand Dollars	None
ECR - West	SPI/PV	N/A	0	N	01_301	Diopatra	None	Crabs, Hermit Crabs, Sand Dollars, Shrimp, Snails	None
ECR - West	SPI/PV	N/A	10	N	01_302	Clam, Diopatra	Tunicate	Crabs, Hermit Crabs, Sand Dollars, Snail	None
ECR - West	SPI/PV	N/A	20	N	01_303	Diopatra, Polychaete	Serpulid	Crabs, Hermit Crabs, Moon Snail, Sand Dollars, Shrimp, Snails	None
ECR - West	SPI/PV	N/A	30	N	01_304	Diopatra, Polychaete	None	Crabs, Hermit Crabs, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	60	N	01_305	Diopatra	None	Crabs, Sand Dollars, Sea Scallop, Snails	None
ECR - West	SPI/PV	N/A	90	N	01_306	Diopatra	Tunicate	Crabs, Sand Dollars, Shrimp	Unidentified Fish
ECR - West	SPI/PV	N/A	200	N	01_307	Polychaetes	None	Crabs, Hermit Crab, Sand Dollars, Shrimp	None
ECR - West	SPI/PV	N/A	1000	N	01_308	None Observed	None	Crabs, Sand Dollars	None
ECR - West	SPI/PV	N/A	0	S	02_309	Diopatra	None	Crabs, Hermit Crabs, Sand Dollars	None

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Infauna Present[2]	Sessile Epifauna Present[2]	Mobile Epifauna Present[2]	Fish and Squid Present[2]
ECR - West	SPI/PV	N/A	10	S	02_310	Diopatra, Polychaete	None	Crabs, Hermit Crabs, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	20	S	02_311	Polychaetes	None	Crabs, Hermit Crabs, Sand Dollars, Snail	None
ECR - West	SPI/PV	N/A	30	S	02_312	Diopatra	None	Crabs, Hermit Crab, Moon Snail, Sand Dollars, Snail	None
ECR - West	SPI/PV	N/A	60	S	02_313	Diopatra	None	Crabs, Hermit Crabs, Sand Dollars, Shrimp, Snails	None
ECR - West	SPI/PV	N/A	90	S	02_314	Diopatra	None	Cancer Crab, Crabs, Hermit Crabs, Sand Dollars	None
ECR - West	SPI/PV	N/A	200	S	02_315	None Observed	None	Crabs, Hermit Crabs, Sand Dollars	None
ECR - West	SPI/PV	N/A	1000	S	02_316	Diopatra, Polychaete	None	Crabs, Hermit Crabs, Sand Dollars, Shrimp, Snail	None
ECR - West	SPI/PV	N/A	0	N	03_317	None Observed	None	Crabs, Hermit Crabs, Sand Dollars	None
ECR - West	SPI/PV	N/A	10	N	03_318	Diopatra	None	Hermit Crabs, Sand Dollars, Snail	None
ECR - West	SPI/PV	N/A	20	N	03_319	Polychaete	None	Hermit Crabs, Sand Dollars	None
ECR - West	SPI/PV	N/A	30	N	03_320	Polychaete	None	Hermit Crabs, Sand Dollars	None
ECR - West	SPI/PV	N/A	60	N	03_321	Cerianthid, Diopatra, Polychaete	None	Sand Dollars	None
ECR - West	SPI/PV	N/A	90	N	03_322	Cerianthid, Polychaetes	None	Sand Dollars	None
ECR - West	SPI/PV	N/A	200	N	03_323	Cerianthids, Diopatra, Polychaetes	None	Crabs, Hermit Crab, Sand Dollars	None
ECR - West	SPI/PV	N/A	1000	N	03_324	None Observed	None	Crab, Hermit Crabs, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	0	S	04_325	Cerianthids	None	Crabs, Hermit Crabs, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	10	S	04_326	None Observed	None	Hermit Crabs, Moon Snail, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	20	S	04_327	Cerianthid	None	Crabs, Hermit Crabs, Sand Dollars	None
ECR - West	SPI/PV	N/A	30	S	04_328	Polychaete	None	Crabs, Hermit Crabs, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	60	S	04_329	None Observed	None	Crabs, Hermit Crabs, Moon Snail, Sand Dollars	None
ECR - West	SPI/PV	N/A	90	S	04_330	Polychaete	None	Crabs, Hermit Crabs, Sand Dollars	None
ECR - West	SPI/PV	N/A	200	S	04_331	None Observed	None	Crabs, Hermit Crabs, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	1000	S	04_332	Diopatra, Polychaete	None	Cancer Crab, Crabs, Hermit Crabs, Moon Snail, Sand Dollars	None
ECR - West	SPI/PV	N/A	0	N	05_333	None Observed	None	Crab, Hermit Crabs, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	10	N	05_334	Cerianthid, Polychaete	None	Crab, Hermit Crabs, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	20	N	05_335	Cerianthids, Crustacean, Polychaete	None	Hermit Crabs, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	30	N	05_336	Cerianthid	None	Crab, Hermit Crabs, Nudibranch, Sand Dollar, Snail	None
ECR - West	SPI/PV	N/A	60	N	05_337	Polychaete	None	Hermit Crabs, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	90	N	05_338	None Observed	None	Crab, Hermit Crabs, Sand Dollars	None
ECR - West	SPI/PV	N/A	200	N	05_339	Diopatra	None	Hermit Crab, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	1000	N	05_340	None Observed	None	Hermit Crabs, Snail	None
ECR - West	SPI/PV	N/A	0	S	06_341	Cerianthid	None	Crab, Hermit Crab, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	10	S	06_342	None Observed	None	Hermit Crabs, Sand Dollars	None
ECR - West	SPI/PV	N/A	20	S	06_343	Polychaetes	None	Hermit Crabs, Sand Dollar, Snails	None
ECR - West	SPI/PV	N/A	30	S	06_344	Cerianthid, Diopatra	None	Crab, Hermit Crabs, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	60	S	06_345	Polychaete	None	Cancer Crab, Crab, Hermit Crabs, Nudibranch, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	90	S	06_346	None Observed	None	Hermit Crabs, Sand Dollars, Snails	None

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Infauna Present[2]	Sessile Epifauna Present[2]	Mobile Epifauna Present[2]	Fish and Squid Present[2]
ECR - West	SPI/PV	N/A	200	S	06_347	Cerianthid, Polychaete	None	Crab, Sand Dollars, Snails	None
ECR - West	SPI/PV	N/A	1000	S	06_348	Cerianthids, Diopatra	None	Cancer Crabs, Crabs, Hermit Crabs, Nudibranch, Sand Dollars, Snails	None
ECR - East	SPI/PV	N/A	0	S	07_349	Diopatra	None	Hermit Crabs, Sand Dollars	None
ECR - East	SPI/PV	N/A	10	S	07_350	Cerianthid, Diopatra	None	Hermit Crab, Sand Dollars	None
ECR - East	SPI/PV	N/A	20	S	07_351	Diopatra	Barnacles	Hermit Crabs, Sand Dollars, Snail	None
ECR - East	SPI/PV	N/A	30	S	07_352	Diopatra	None	Cancer Crab, Hermit Crabs, Sand Dollars, Snails	None
ECR - East	SPI/PV	N/A	60	S	07_353	Diopatra	None	Hermit Crabs, Sand Dollars, Snail	Flounder
ECR - East	SPI/PV	N/A	90	S	07_354	Cerianthid, Diopatra	None	Sand Dollars, Snails	None
ECR - East	SPI/PV	N/A	200	S	07_355	Diopatra	None	Hermit Crabs, Sand Dollars	None
ECR - East	SPI/PV	N/A	1000	S	07_356	Diopatra	None	Hermit Crabs, Sand Dollars	None
ECR - East	SPI/PV	N/A	0	N	08_357	Diopatra	None	Sand Dollars	Squid
ECR - East	SPI/PV	N/A	10	N	08_358	Clam, Diopatra	None	Hermit Crabs, Sand Dollars	None
ECR - East	SPI/PV	N/A	20	N	08_359	Diopatra	None	Hermit Crabs, Sand Dollars	None
ECR - East	SPI/PV	N/A	30	N	08_360	Diopatra	None	Hermit Crab, Sand Dollars	None
ECR - East	SPI/PV	N/A	60	N	08_361	Diopatra	None	Hermit Crabs, Moon Snail, Sand Dollars	Flounder
ECR - East	SPI/PV	N/A	90	N	08_362	Diopatra	None	Sand Dollar	None
ECR - East	SPI/PV	N/A	200	N	08_363	IND	Barnacle, Bryozoa/Hydroids, Northern Star Coral, Encrusting Orange Sponge	None	Flounder
ECR - East	SPI/PV	N/A	1000	N	08_364	Diopatra, Polychaete, Unidentified Infauna	None	None	None
ECR - East	SPI/PV	N/A	0	S	09_365	Diopatra	None	Sand Dollars	None
ECR - East	SPI/PV	N/A	10	S	09_366	Diopatra	None	Hermit Crabs, Sand Dollars	None
ECR - East	SPI/PV	N/A	20	S	09_367	Diopatra	None	Hermit Crabs, Sand Dollars	None
ECR - East	SPI/PV	N/A	30	S	09_368	Diopatra, Polychaete	None	Hermit Crabs, Sand Dollars, Snail	None
ECR - East	SPI/PV	N/A	60	S	09_369	Diopatra	None	Hermit Crabs, Sand Dollars	None
ECR - East	SPI/PV	N/A	90	S	09_370	Diopatra	None	Hermit Crabs, Sand Dollars	None
ECR - East	SPI/PV	N/A	200	S	09_371	Diopatra	None	Hermit Crabs, Sand Dollars	None
ECR - East	SPI/PV	N/A	1000	S	09_372	Diopatra	None	Hermit Crabs, Sand Dollars	None
ECR - East	SPI/PV	N/A	0	N	10_373	Diopatra	None	Sand Dollars	Squid
ECR - East	SPI/PV	N/A	10	N	10_374	Diopatra	None	Sand Dollars	None
ECR - East	SPI/PV	N/A	20	N	10_375	Diopatra, Polychaete	None	Sand Dollars	None
ECR - East	SPI/PV	N/A	30	N	10_376	Diopatra	None	Hermit Crab, Sand Dollars	Unidentified Fish
ECR - East	SPI/PV	N/A	60	N	10_377	Diopatra	None	Snails	None
ECR - East	SPI/PV	N/A	90	N	10_378	Diopatra	None	Sand Dollar	None
ECR - East	SPI/PV	N/A	200	N	10_379	None Observed	Bryozoa/Hydroids, Northern Star Coral, Polymastia Sponges	None	None
ECR - East	SPI/PV	N/A	1000	N	10_380	Diopatra, Polychaete	None	Hermit Crab	None
ECR - East	SPI/PV	N/A	0	S	11_381	Diopatra	None	Sand Dollars	None
ECR - East	SPI/PV	N/A	10	S	11_382	Cerianthid, Diopatra	None	Hermit Crab, Sand Dollars	None
ECR - East	SPI/PV	N/A	20	S	11_383	Diopatra	None	Moon Snail, Sand Dollars, Shrimp	None
ECR - East	SPI/PV	N/A	30	S	11_384	Diopatra	None	Sand Dollars	None
ECR - East	SPI/PV	N/A	60	S	11_385	Diopatra	None	Sand Dollars	None
ECR - East	SPI/PV	N/A	90	S	11_386	Diopatra	None	Sand Dollars, Snail	None
ECR - East	SPI/PV	N/A	200	S	11_387	Diopatra	None	Hermit Crabs, Sand Dollars	None
ECR - East	SPI/PV	N/A	1000	S	11_388	Cerianthid, Diopatra	None	Hermit Crabs, Sand Dollars, Snail	None
ECR - East	SPI/PV	N/A	0	N	12_389	Diopatra	None	Hermit Crab	None
ECR - East	SPI/PV	N/A	10	N	12_390	None Observed	None	None	None
ECR - East	SPI/PV	N/A	20	N	12_391	None Observed	Anemones, Bryozoa/Hydroids, Northern Star Coral, Encrusting Orange Sponge	Snails	None
ECR - East	SPI/PV	N/A	30	N	12_392	Diopatra	Bryozoa/Hydroids, Northern Star Coral	None	None

Area	Sample Type	WTG/ OSS ID	Distance (m)	Direction	Station ID	Infauna Present[2]	Sessile Epifauna Present[2]	Mobile Epifauna Present[2]	Fish and Squid Present[2]
ECR - East	SPI/PV	N/A	60	N	12_393	None Observed	Bryozoa/Hydroids, Northern Star Coral, Encrusting Orange Sponges, Yellow Sponge	Snail	None
ECR - East	SPI/PV	N/A	90	N	12_394	None Observed	Polymastia Sponge	None	None
ECR - East	SPI/PV	N/A	200	N	12_395	Diopatra	Bryozoa/Hydroids, Northern Star Coral	None	None
ECR - East	SPI/PV	N/A	1000	N	12_396	Diopatra	None	Hermit Crab	None

Appendix E – Sediment Sample Log Forms

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/10/24	**Vessel:** Atlantic Surveyor	**Recorder:** SV
Sample ID: EW1_24B1_GRAB_105A		**Photograph (Y/N)** Y	
Sampling Staff: SV, MK, PB		**Penetration** (cm): 8.5	**Sample Time:** (local) 20:46
Sampling Gear (Single Van Veen 0.04 m² / Double Van Veen 0.1 m² / Box Core / Ponar)			

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* A	*	*	*	*
5 WTS				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: (Light Brown) Tannish Orange Greenish Gray Olive Gray Light Gray Dark Gray Black Other:

Type: Cobble Gravel Sand: [coarse (med) fine] Silt Clay Wood chips Shells or Shell Hash Other:

Odor: (None) Slight Strong Petroleum H_2S Other:

Density: Hard Solid (Firm) Soft Loose

Debris Present: Yes (No) Type:

Overlying Water Present: (Yes) No

Misc: Biota

Detritus

Sample Interval Range: Entire grab

Analysis Type:

BCA

(Grain Size
Chemical)

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/10/24	**Vessel:** Atlantic Surveyor	**Recorder:** SV
Sample ID: EW1_24B1_GRAB_ 110A		**Photograph (Y/N)** Y	
Sampling Staff: SV, MK, PB		**Penetration** (cm): 7.5	**Sample Time:** (local) 21:27
Sampling Gear (Single Van Veen 0.04 m² ✓) Double Van Veen 0.1 m² / Box Core / Ponar			

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* A	*	*	*	*
5 wts				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: (Light Brown) Tannish Orange Greenish Gray Olive Gray Light Gray Dark Gray Black Other:

Type: Cobble Gravel Sand: [coarse (med) fine] Silt Clay Wood chips Shells or Shell Hash Other:

Odor: (None) Slight Strong Petroleum H_2S Other:

Density: Hard Solid (Firm) Soft Loose

Debris Present: Yes (No) Type:

Overlying Water Present: (Yes) No

Misc: Biota shell

Detritus

Sample Interval Range: Entire Sample

Analysis Type:

BCA

(Grain Size ✓)

(Chemical ✓)

No. of Sample Jars: 2

Field Activities / Comments / Observations:

Extra material taken for duplicate

*EW1_24B1_GRAB_DUP1

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/10/24	Atlantic Surveyor	SV

Sample ID: EW1_24B1_GRAB_ 114 A

Photograph (Y/N) Y

Sampling Staff: SV, MK, PB

Penetration (cm): 9.25

Sample Time: (local) 21:56

Sampling Gear

- (Single Van Veen 0.04 m²)
- Double Van Veen 0.1 m²
- Box Core
- Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* A	*	*	*	*
5wts				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: (Light Brown) Tannish Orange Greenish Gray Olive Gray Light Gray Dark Gray Black Other:

Type: Cobble Gravel Sand: [coarse (med) fine] Silt Clay Wood chips Shells or Shell Hash Other:

Odor: (None) Slight Strong Petroleum H_2S Other:

Density: Hard Solid (Firm) Soft Loose

Debris Present: Yes (No) Type:

Overlying Water Present: (Yes) No

Misc: Biota

Detritus

Sample Interval Range: Entire grab

Analysis Type:

BCA

- (Grain Size)
- Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/10/24	**Vessel:** Atlantic Surveyor	**Recorder:** SV
Sample ID: EW1_24B1_GRAB_ 108A		**Photograph (Y/N)** Y	
Sampling Staff: SV, MK, PB		**Penetration** (cm): 9	**Sample Time:** (local) 22:36
Sampling Gear Single Van Veen 0.04 m² (Box Core) / Double Van Veen 0.1 m² (Ponar)			

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* A	*	*	*	*
5wts				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: (Light Brown) Tannish Orange Greenish Gray Olive Gray Light Gray Dark Gray Black Other:

Type: Cobble Gravel Sand: [coarse (med) fine] Silt Clay Wood chips Shells or Shell Hash Other:

Odor: (None) Slight Strong Petroleum H_2S Other:

Density: Hard Solid (Firm) Soft Loose

Debris Present: Yes (No) Type:

Overlying Water Present: (Yes) No

Misc: Biota

Detritus

Sample Interval Range: Entire grab

Analysis Type:

BCA

(Grain Size
Chemical)

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/10/24	**Vessel:** Atlantic Surveyor	**Recorder:** SV
Sample ID: EW1_24B1_GRAB_101A		**Photograph (Y/N)** Y	
Sampling Staff: SV, MK, PB		**Penetration** (cm): 9cm	**Sample Time:** (local) 22:56
Sampling Gear (Single Van Veen 0.04 m² ✓; Double Van Veen 0.1 m²; Box Core; Ponar)			

Grab Attempt
(A= Accepted; R = Rejected)
Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* A	*	*	*	*
Swts				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: (Light Brown) Tannish Orange Greenish Gray Olive Gray Light Gray Dark Gray Black Other:

Type: Cobble Gravel Sand: [coarse (med) fine] Silt Clay Wood chips Shells or Shell Hash Other:

Odor: (None) Slight Strong Petroleum H_2S Other:

Density: Hard Solid (Firm) Soft Loose

Debris Present: Yes (No) Type:

Overlying Water Present: (Yes) No

Misc: Biota

Detritus

Sample Interval Range: Entire grab

Analysis Type:

BCA

(Grain Size ✓)

(Chemical ✓)

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/10/24	**Vessel:** Atlantic Surveyor	**Recorder:** SV
Sample ID: EW1_24B1_GRAB_117C		**Photograph (Y/N)** Y	
Sampling Staff: SV MK PB		**Penetration** (cm): 8cm	**Sample Time:** (local) 23:36
Sampling Gear (Single Van Veen 0.04 m²) Box Core Double Van Veen 0.1 m² Ponar			

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* R 5wts Not triggered	* R 5wts Not triggered	* A 5wts	*	*
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: (Light Brown) Tannish Orange Greenish Gray (Olive Gray) Light Gray Dark Gray Black Other:

Type: Cobble Gravel Sand: [coarse med (fine)] Silt Clay Wood chips Shells or Shell Hash Other:

Odor: (None) Slight Strong Petroleum H_2S Other:

Density: Hard Solid (Firm) Soft Loose

Debris Present: Yes (No) Type:

Overlying Water Present: (Yes) No

Misc: Biota Sand dollar

Detritus

Sample Interval Range: Entire Grab

Analysis Type:

BCA

(Grain Size
Chemical)

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/11/2024	**Vessel:** Atlantic Surveyor	**Recorder:** KG
Sample ID: EW1_24B1_GRAB_ 135B		**Photograph (Y/N)** Y	
Sampling Staff: MS, KG, JR		**Penetration** (cm): 9	**Sample Time:** (local) 00:50
Sampling Gear (Single Van Veen 0.04 m² / Double Van Veen 0.1 m² / Box Core / Ponar)			

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT = 5	* WT = 5	*	*	*
NOTRIP - R	A			
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown Tannish Orange Greenish Gray (Olive Gray) Light Gray Dark Gray Black Other:

Type: Cobble Gravel (Sand: [coarse med fine]) Silt Clay Wood chips Shells or Shell Hash Other:

Odor: (None) Slight Strong Petroleum H_2S Other:

Density: Hard Solid (Firm) Soft Loose

Debris Present: Yes (No) Type:

Overlying Water Present: Yes (No)

Misc: Biota

Detritus

Sample Interval Range:

Analysis Type:

BCA

(Grain Size
Chemical)

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_ 132A

Photograph (Y/N): Y

Sampling Staff: MS, JR, KG

Penetration (cm): 8.5

Sample Time: (local) 01:16

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT = 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: (Light Brown) Tannish Orange Greenish Gray Olive Gray Light Gray Dark Gray Black Other:

Type: Cobble Gravel Sand: [coarse (med) fine] Silt Clay Wood chips Shells or Shell Hash Other:

Odor: (None) Slight Strong Petroleum H_2S Other:

Density: Hard Solid (Firm) Soft Loose

Debris Present: Yes (No) Type:

Overlying Water Present: Yes (No)

Misc: Biota

Detritus

Sample Interval Range:

Analysis Type:

BCA

- [ ] Grain Size
- [ ] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG / MS

Sample ID: EW1_24B1_GRAB_128B

Photograph (Y/N) Y

Sampling Staff: MS, KG, JR

Penetration (cm): 8.5

Sample Time: (local) 01:45

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT = 5	* WT = 5	*	*	*
R - OT	A			
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, (Olive Gray), Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, Sand: [coarse, med, fine], Silt, Clay, Wood chips, (Shells or Shell Hash), Other:

Odor: (None), Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, (Solid), Firm, Soft, Loose

Debris Present: (Yes), No, Type: Shells

Overlying Water Present: Yes, (No)

Misc: (Biota) common sand dollar

Detritus

Sample Interval Range:

Analysis Type:

BCA

- [x] Grain Size
- [ ] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

Rep A outside watch Circle, Rejected.

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_ 128C - DUP

Photograph (Y/N): Y

Sampling Staff: JR, MS, KG

Penetration (cm): 9

Sample Time: (local) 02:08

Sampling Gear

- (Single Van Veen 0.04 m²)
- Double Van Veen 0.1 m²
- Box Core
- Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT = 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, (Olive Gray), Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, Sand: [coarse, med, fine], Silt, Clay, Wood chips, Shells or Shell Hash, Other:

Odor: (None), Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, (Solid), Firm, Soft, Loose

Debris Present: Yes, (No), Type:

Overlying Water Present: Yes, (No)

Misc: (Biota) common sand dollar

Detritus

Sample Interval Range:

Analysis Type:

BCA

(Grain Size)

Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/11/2024	**Vessel:** Atlantic Surveyor	**Recorder:** KG
Sample ID: EW1_24B1_GRAB_ 119A		**Photograph (Y/N)** Y	
Sampling Staff: MS, KG, J, R		**Penetration** (cm): 9	**Sample Time:** (local) 02:26
Sampling Gear Single Van Veen 0.04 m² (Box Core) / Double Van Veen 0.1 m² (Ponar)			

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT=5 A	*	*	*	*
6	**7**	**8**	**9**	**10**
* ~~A~~	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, (Olive Gray), Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, Sand: [coarse, (med), fine], Silt, Clay, Wood chips, (Shells or Shell Hash), Other:

Odor: (None), Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, (Solid), Firm, Soft, Loose

Debris Present: Yes, (No), Type:

Overlying Water Present: Yes, (No)

Misc: (Biota) dog whelks, clam worms, Detritus

Sample Interval Range:

Analysis Type:

BCA

(Grain Size)

(Chemical)

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/11/2024	**Vessel:** Atlantic Surveyor	**Recorder:** KG
Sample ID: EW1_24B1_GRAB_ 123A		**Photograph (Y/N)** Y	
Sampling Staff: MS, JR, KG		**Penetration** (cm): 8.75	**Sample Time:** (local) 03:04
Sampling Gear (Single Van Veen 0.04 m² selected; Box Core; Double Van Veen 0.1 m²; Ponar)			

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT=5 A	*	*	*	*
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown Tannish Orange Greenish Gray Olive Gray Light Gray Dark Gray Black Other:

Type: Cobble Gravel Sand: [coarse med fine] Silt Clay Wood chips Shells or Shell Hash Other:

Odor: None Slight Strong Petroleum H_2S Other:

Density: Hard Solid Firm Soft Loose

Debris Present: Yes No Type:

Overlying Water Present: Yes No

Misc: Biota common sand dollar

Detritus

Sample Interval Range:

Analysis Type:

BCA

Grain Size

Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_ 126A

Photograph (Y/N) Y

Sampling Staff: MS, KG, JR

Penetration (cm): 9

Sample Time: (local) 03:21

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT = 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, (Olive Gray), Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, (Sand: [coarse, med, fine]), Silt, Clay, Wood chips, (Shells or Shell Hash), Other:

Odor: (None), Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, (Solid), Firm, Soft, Loose

Debris Present: Yes, (No), Type:

Overlying Water Present: Yes, (No)

Misc: (Biota) clam worms, Detritus

Sample Interval Range:

Analysis Type:

BCA

- [x] Grain Size
- [x] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_ 144

Photograph (Y/N) Y

Sampling Staff: MS, KG, JR

Penetration (cm): 8.75

Sample Time: (local) 04:29

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT = 5	* WT = 5	*	*	*
R - DB	A			
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown Tannish Orange Greenish Gray (Olive Gray) Light Gray Dark Gray Black Other:

Type: Cobble Gravel Sand: [coarse (med) fine] Silt Clay Wood chips Shells or Shell Hash Other:

Odor: (None) Slight Strong Petroleum H_2S Other:

Density: Hard Solid (Firm) Soft Loose

Debris Present: Yes (No) Type:

Overlying Water Present: Yes (No)

Misc: Biota sand dollar

Detritus

Sample Interval Range:

Analysis Type:

BCA

- [x] Grain Size
- [ ] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/11/2024	**Vessel:** Atlantic Surveyor	**Recorder:** KG
Sample ID: EW1_24B1_GRAB_ 141A		**Photograph (Y/N)** Y	
Sampling Staff: MS, KG, JR		**Penetration** (cm): 9	**Sample Time:** (local) 04:48
Sampling Gear Single Van Veen 0.04 m² (Box Core) Double Van Veen 0.1 m² Ponar			

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT = 5 A	*	*	*	*
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, (Olive Gray), Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, (Sand: [coarse, med, fine]), Silt, Clay, Wood chips, (Shells or Shell Hash), Other:

Odor: None, (Slight), Strong, Petroleum, H_2S, Other:

Density: Hard, (Solid), Firm, Soft, Loose

Debris Present: Yes, (No), Type:

Overlying Water Present: Yes, (No)

Misc: Biota None

Detritus

Sample Interval Range:

Analysis Type:

BCA

(Grain Size)

Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_137B

Photograph (Y/N): Y

Sampling Staff: KG, MS, JR

Penetration (cm): 9

Sample Time: (local) 05:19

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT: 5	* WT: 5	*	*	*
R - OT	A			
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown Tannish Orange Greenish Gray (Olive Gray) Light Gray Dark Gray Black Other:

Type: Cobble Gravel Sand: [coarse (med) fine] Silt Clay Wood chips Shells or Shell Hash Other:

Odor: (None) Slight Strong Petroleum H_2S Other:

Density: Hard Solid (Firm) Soft Loose

Debris Present: Yes (No) Type:

Overlying Water Present: Yes (No)

Misc: Biota

Detritus

Sample Interval Range:

Analysis Type:

BCA

- [ ] Grain Size
- [ ] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

Rep A outside watch circle

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/11/2024	**Vessel:** Atlantic Surveyor	**Recorder:** KG

Sample ID: EW1_24B1_GRAB_ 146A

Photograph (Y/N) Y

Sampling Staff: MS, JR, KG

Penetration (cm): 8.5

Sample Time: (local) 05:36

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT: 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, (Olive Gray), Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, (Sand: [coarse, med, fine]), Silt, Clay, Wood chips, (Shells or Shell Hash), Other:

Odor: None, (Slight), Strong, Petroleum, H_2S, Other:

Density: Hard, (Solid), Firm, Soft, Loose

Debris Present: Yes, (No), Type:

Overlying Water Present: Yes, (No)

Misc: Biota None

Detritus

Sample Interval Range:

Analysis Type:

BCA

- [x] Grain Size
- [ ] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_ 150A

Photograph (Y/N) Y

Sampling Staff: MS, KG, JR

Penetration (cm): 9

Sample Time: (local) 05:57

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT: 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, Olive Gray, Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, Sand: [coarse, med, fine], Silt, Clay, Wood chips, Shells or Shell Hash, Other:

Odor: None, Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, Solid, Firm, Soft, Loose

Debris Present: Yes, No, Type:

Overlying Water Present: Yes, No

Misc: Biota None

Detritus

Sample Interval Range:

Analysis Type:

BCA

- [ ] Grain Size
- [ ] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID:	Photograph (Y/N)
EW1_24B1_GRAB_ 153A	Y

Sampling Staff:	Penetration (cm):	Sample Time: (local)
MS, KG, JR	9	06:39

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT: 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, Olive Gray, Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, Sand: [coarse, med, fine], Silt, Clay, Wood chips, Shells or Shell Hash, Other:

Odor: None, Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, Solid, Firm, Soft, Loose

Debris Present: Yes, No, Type:

Overlying Water Present: Yes, No

Misc: Biota, clam worm, Detritus

Sample Interval Range:

Analysis Type:

- BCA
- [x] Grain Size
- [ ] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_ 153B_DUP

Photograph (Y/N): Y

Sampling Staff: MS, JR, KG

Penetration (cm): 8.75

Sample Time: (local) 06:56

Sampling Gear

- Single Van Veen 0.04 m² (circled)
- Double Van Veen 0.1 m²
- Box Core
- Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* wt: 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, Olive Gray, Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, Sand: [coarse, med, fine], Silt, Clay, Wood chips, Shells or Shell Hash, Other:

Odor: None, Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, Solid, Firm, Soft, Loose

Debris Present: Yes, No, Type:

Overlying Water Present: Yes, No

Misc: Biota: common sand dollar, clam worm, flat worm

Detritus

Sample Interval Range:

Analysis Type:

BCA

- Grain Size
- Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID:	Photograph (Y/N)
EW1_24B1_GRAB_1602B	Y

Sampling Staff:	Penetration (cm):	Sample Time: (local)
MS, KG, JR	9	07:35

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* wt: 5	* wt: 5	*	*	*
R - DB	A			
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, (Olive Gray), Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, (Sand: [coarse, med, fine]), Silt, Clay, Wood chips, (Shells or Shell Hash), Other:

Odor: (None), Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, (Solid), Firm, Soft, Loose

Debris Present: Yes, (No), Type:

Overlying Water Present: Yes, (No)

Misc: (Biota) clam worms, Detritus

Sample Interval Range:

Analysis Type:

BCA

- [x] Grain Size
- [ ] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_ 159A

Photograph (Y/N): Y

Sampling Staff: MS, JR, KG

Penetration (cm): 9

Sample Time: (local) 07:52

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* wt: 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown Tannish Orange Greenish Gray Olive Gray Light Gray Dark Gray Black Other:

Type: Cobble Gravel Sand: [coarse med fine] Silt Clay Wood chips Shells or Shell Hash Other:

Odor: None Slight Strong Petroleum H_2S Other:

Density: Hard Solid Firm Soft Loose

Debris Present: Yes No Type:

Overlying Water Present: Yes No

Misc: Biota clam worm

Detritus

Sample Interval Range:

Analysis Type:

BCA

- [ ] Grain Size
- [ ] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/11/2024	**Vessel:** Atlantic Surveyor	**Recorder:** KG
Sample ID: EW1_24B1_GRAB_ 155A		**Photograph (Y/N)** Y	
Sampling Staff: MS, JR, KG		**Penetration** (cm): 9	**Sample Time:** (local) 08:10
Sampling Gear [x] Single Van Veen 0.04 m² [ ] Double Van Veen 0.1 m² [ ] Box Core [ ] Ponar			

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* Wt: 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, Olive Gray, Light Gray, Dark Gray, Black
Other:

Type: Cobble, Gravel, Sand: [coarse, med, fine], Silt, Clay, Wood chips, Shells or Shell Hash, Other:

Odor: None, Slight, Strong, Petroleum, H_2S
Other:

Density: Hard, Solid, Firm, Soft, Loose

Debris Present: Yes, No Type:

Overlying Water Present: Yes, No

Misc: Biota clam worms

Detritus

Sample Interval Range:

Analysis Type:

BCA

[x] Grain Size

[x] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/11/2024	**Vessel:** Atlantic Surveyor	**Recorder:** KG
Sample ID: EW1_24B1_GRAB_ 164A		**Photograph (Y/N)** Y	
Sampling Staff: MS, JR, KG		**Penetration** (cm):	**Sample Time:** (local) 08:28

Sampling Gear

Single Van Veen 0.04 m² (selected)
Double Van Veen 0.1 m²
Box Core
Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT: 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown Tannish Orange Greenish Gray Olive Gray Light Gray Dark Gray Black Other:

Type: Cobble Gravel Sand: [coarse med fine] Silt Clay Wood chips Shells or Shell Hash Other:

Odor: None Slight Strong Petroleum H_2S Other:

Density: Hard Solid Firm Soft Loose

Debris Present: Yes No Type:

Overlying Water Present: Yes No

Misc: Biota

Detritus

Sample Interval Range:

Analysis Type:

BCA

Grain Size (selected)

Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_168A

Photograph (Y/N): Y

Sampling Staff: KG, MS, JR

Penetration (cm): 8.75

Sample Time: (local) 08:44

Sampling Gear

- (Single Van Veen 0.04 m²)
- Double Van Veen 0.1 m²
- Box Core
- Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* wt:5 A	*	*	*	*
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, (Olive Gray), Light Gray, Dark Gray, (Black), Other:

Type: Cobble, Gravel, (Sand: [coarse, med, fine]), Silt, Clay, Wood chips, Shells or Shell Hash, Other:

Odor: (None), Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, (Solid), Firm, Soft, Loose

Debris Present: Yes, (No), Type:

Overlying Water Present: Yes, (No)

Misc: Biota sand dollars

Detritus

Sample Interval Range:

Analysis Type:

BCA

(Grain Size
Chemical)

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_171A

Photograph (Y/N): Y

Sampling Staff: MS, JR, KG

Penetration (cm): 9

Sample Time: (local) 09:08

Sampling Gear

- (Single Van Veen 0.04 m²)
- Double Van Veen 0.1 m²
- Box Core
- Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT:5	*	*	*	*
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, (Olive Gray), Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, (Sand: [coarse, med, fine]), Silt, Clay, Wood chips, Shells or Shell Hash, Other:

Odor: None, (Slight), Strong, Petroleum, H_2S, Other:

Density: Hard, (Solid), Firm, Soft, Loose

Debris Present: Yes, (No), Type:

Overlying Water Present: Yes, (No)

Misc: Biota common sand dollar

Detritus

Sample Interval Range:

Analysis Type:

BCA

- (Grain Size)
- (Chemical)

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_171B_DUP

Photograph (Y/N): Y

Sampling Staff: MS, KG, JR

Penetration (cm): 9

Sample Time: (local) 09:27

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT:5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, (Olive Gray), Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, (Sand: [coarse, med, fine]), Silt, Clay, Wood chips, Shells or Shell Hash, Other:

Odor: None, (Slight), Strong, Petroleum, H_2S, Other:

Density: Hard, (Solid), Firm, Soft, Loose

Debris Present: Yes, (No), Type:

Overlying Water Present: Yes, (No)

Misc: Biota NONE

Detritus

Sample Interval Range:

Analysis Type:

BCA

- [x] Grain Size
- [x] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08|11|2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_ 189A

Photograph (Y/N) Y

Sampling Staff: MS, JR, KG

Penetration (cm): 9

Sample Time: (local) 10:16

Sampling Gear

- Single Van Veen 0.04 m² (selected)
- Double Van Veen 0.1 m²
- Box Core
- Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* Wt: 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, Olive Gray, Light Gray, Dark Gray, Black
Other: Brown

Type: Cobble, Gravel, Sand: [coarse, med, fine], Silt, Clay, Wood chips, Shells or Shell Hash, Other:

Odor: None, Slight, Strong, Petroleum, H_2S
Other:

Density: Hard, Solid, Firm, Soft, Loose

Debris Present: Yes, No, Type:

Overlying Water Present: Yes, No

Misc: Biota Tube worm

Detritus

Sample Interval Range:

Analysis Type:

BCA

- Grain Size
- Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_186A

Photograph (Y/N): Y

Sampling Staff: MS, KG, JR

Penetration (cm): 9

Sample Time: (local) 10:35

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT: 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: (Light Brown) Tannish Orange Greenish Gray (Olive Gray) Light Gray Dark Gray Black Other:

Type: Cobble Gravel (Sand: [coarse med fine]) Silt Clay Wood chips Shells or Shell Hash Other:

Odor: (None) Slight Strong Petroleum H_2S Other:

Density: Hard (Solid) Firm Soft Loose

Debris Present: Yes (No) Type:

Overlying Water Present: Yes (No)

Misc: Biota None

Detritus

Sample Interval Range:

Analysis Type:

BCA

- [x] Grain Size
- [ ] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_ 182A

Photograph (Y/N): Y

Sampling Staff: MS, KG, JR

Penetration (cm): 8.75

Sample Time: (local) 10:51

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT:5	*	*	*	*
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, Olive Gray, Light Gray, Dark Gray, (Black), Other: Brown

Type: Cobble, Gravel, (Sand: [coarse, med, fine]), Silt, Clay, Wood chips, (Shells or Shell Hash), Other:

Odor: (None), Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, (Solid), Firm, Soft, Loose

Debris Present: Yes, (No), Type:

Overlying Water Present: Yes, (No)

Misc: (Biota) clam worm, Detritus

Sample Interval Range:

Analysis Type:

- [ ] BCA
- [x] Grain Size
- [x] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name: 2024 EW1 Pre-Construction Benthic Monitoring Survey	**Sample Date:** 08/11/2024	**Vessel:** Atlantic Surveyor	**Recorder:** KG
Sample ID: EW1_24B1_GRAB_ 173A		**Photograph (Y/N)** Y	
Sampling Staff: MS, JR, KG		**Penetration** (cm): 9	**Sample Time:** (local) 11:07
Sampling Gear Single Van Veen 0.04 m² (Box Core) Double Van Veen 0.1 m² (Ponar)			

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* wt: 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, Olive Gray, Light Gray, Dark Gray, Black, Other: BROWN

Type: Cobble, Gravel, Sand: [coarse, med, fine], Silt, Clay, Wood chips, Shells or Shell Hash, Other:

Odor: None, Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, Solid, Firm, Soft, Loose

Debris Present: Yes, No, Type:

Overlying Water Present: Yes, No

Misc: Biota common sand dollar

Detritus

Sample Interval Range:

Analysis Type:

BCA

Grain Size

Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_ 177A

Photograph (Y/N): Y

Sampling Staff: MS, JR, KG.

Penetration (cm): 8

Sample Time: (local) 11:22

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT: 5	*	*	*	*
A				
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, (Olive Gray), Light Gray, Dark Gray, (Black), Other:

Type: Cobble, Gravel, (Sand: [coarse, med, fine]), Silt, Clay, Wood chips, (Shells or Shell Hash), Other:

Odor: (None), Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, (Solid), Firm, Soft, Loose

Debris Present: Yes, (No), Type:

Overlying Water Present: Yes, (No)

Misc: Biota common sand dollar, shrimp, clam worm

Detritus

Sample Interval Range:

Analysis Type:

BCA

- [x] Grain Size
- [x] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

INSPIRE ENVIRONMENTAL

Sediment Sample Log

Project Name:	Sample Date:	Vessel:	Recorder:
2024 EW1 Pre-Construction Benthic Monitoring Survey	08/11/2024	Atlantic Surveyor	KG

Sample ID: EW1_24B1_GRAB_ 180A

Photograph (Y/N) Y

Sampling Staff: MS, KG, JR

Penetration (cm): 9

Sample Time: (local) 11:47

Sampling Gear

- [x] Single Van Veen 0.04 m²
- [ ] Double Van Veen 0.1 m²
- [ ] Box Core
- [ ] Ponar

Grab Attempt
(A= Accepted; R = Rejected)

Codes: DB = Debris Interference; **DS** = Disturbed Surface; **NS** = No Sediment in sampler; **OP** = Over Penetration; **OT** = Other

1	2	3	4	5
* WT:5 A	*	*	*	*
6	**7**	**8**	**9**	**10**
*	*	*	*	*

**Note any modifications to the Grab (i.e. weights used/side (WT:#), mud doors (MD), increased surface area (SA))*

Sample Description

Color: Light Brown, Tannish Orange, Greenish Gray, Olive Gray, Light Gray, Dark Gray, Black, Other:

Type: Cobble, Gravel, Sand: [coarse, med, fine], Silt, Clay, Wood chips, Shells or Shell Hash, Other:

Odor: None, Slight, Strong, Petroleum, H_2S, Other:

Density: Hard, Solid, Firm, Soft, Loose

Debris Present: Yes, No, Type:

Overlying Water Present: Yes, No

Misc: Biota juvenile crab sp., common sand dollar, oyster, Detritus

Sample Interval Range:

Analysis Type:

BCA

- [ ] Grain Size
- [ ] Chemical

No. of Sample Jars: 2

Field Activities / Comments / Observations:

Appendix F – Sediment Grain Size and Chemistry Results

Notes:
U = Not detected at the reporting limit (e.g., 0.1%). 0% was used for summarization of grain size results, and 1/2*reporting limit was used for summarization of chemistry results.
Grain Size: Wentworth classification was used in laboratory analysis for scale of grain size results.
1 Field duplicates (Sample ID "DUP") were averaged with station replicates before summation of totals.
2 Limit of Reporting 0.1%
3 Limit of Reporting 0.2%

WTG/ OSS	Distance (m)	Sample ID[1]	Station ID	Replicate	Method Detection and Reporting Limit (%)	Boulder (%) (>256 mm)	Cobbles (%) (64-256 mm)	Pebble (%) (4.0-64 mm)	Granule (%) (2.0-4.0 mm)	Total Gravel (%)	Very Coarse Sand (%) (1.0-2.0 mm)	Coarse Sand (%) (0.5-1.0 mm)	Medium Sand (%) 0.25-0.5 mm)	Fine Sand (%) 0.125-0.25 mm)	Very Fine Sand (%) (0.0625-0.125 mm)	Total Sand (%)	Silt (%) (3.9-62.5 um)	Clay (%) (<3.9 um)	Total Fines (%)
D03	26	EW1_24B1_GRAB_101A	101	A	0.1	U	U	U	1.0	1.0	1.0	16.0	61.0	19.0	1.0	98.0	1.0	U	1.0
D03	130	EW1_24B1_GRAB_105A	105	A	0.1	U	U	U	U	U	1.0	9.0	72.0	16.0	1.0	99.0	1.0	U	1.0
D03	900	EW1_24B1_GRAB_108A	108	A	0.1	U	U	1.0	1.0	2.0	3.0	20.0	59.0	13.0	2.0	97.0	1.0	U	1.0
D03	26	EW1_24B1_GRAB_110A	110	A	0.1	U	U	U	1.0	1.0	1.0	24.0	59.0	13.0	1.0	98.0	1.0	U	1.0
D03	130	EW1_24B1_GRAB_114A	114	A	0.1	U	U	U	1.0	1.0	2.0	27.0	61.0	8.0	U	98.0	1.0	U	1.0
D03	900	EW1_24B1_GRAB_117C	117	C	0.1	U	U	U	1.0	1.0	2.0	18.0	66.0	12.0	U	98.0	1.0	U	1.0
C09	50	EW1_24B1_GRAB_119A	119	A	0.1	U	U	1.0	2.0	3.0	4.0	28.0	54.0	10.0	U	96.0	1.0	U	1.0
C09	155	EW1_24B1_GRAB_123A	123	A	0.1	U	U	U	1.0	1.0	2.0	26.0	60.0	10.0	U	98.0	1.0	U	1.0
C09	900	EW1_24B1_GRAB_126A	126	A	0.1	U	U	2.0	1.0	3.0	1.0	22.0	61.0	11.0	2.0	97.0	U	U	U
C09	50	EW1_24B1_GRAB_128B	128	B	0.1	U	U	U	1.0	1.0	2.0	28.0	58.0	10.0	1.0	99.0	U	U	U
C09	50	EW1_24B1_GRAB_128C_DUP	128	C	0.1	U	U	U	1.0	1.0	1.0	23.0	62.0	12.0	1.0	99.0	U	U	U
C09	155	EW1_24B1_GRAB_132A	132	A	0.1	U	U	U	U	U	1.0	7.0	31.0	8.0	1.0	48.0	49.0	3.0	52.0
C09	900	EW1_24B1_GRAB_135B	135	B	0.1	U	U	U	2.0	2.0	5.0	31.0	55.0	6.0	U	97.0	1.0	U	1.0
D14	26	EW1_24B1_GRAB_137B	137	B	0.1	U	U	1.0	4.0	5.0	10.0	25.0	32.0	6.0	1.0	74.0	20.0	1.0	21.0
D14	130	EW1_24B1_GRAB_141A	141	A	0.1	U	U	7.0	5.0	12.0	3.0	24.0	28.0	8.0	2.0	65.0	21.0	2.0	23.0
D14	900	EW1_24B1_GRAB_144B	144	B	0.1	U	U	9.0	4.0	13.0	5.0	27.0	33.0	6.0	2.0	73.0	13.0	1.0	14.0
D14	26	EW1_24B1_GRAB_146A	146	A	0.1	U	U	U	U	U	2.0	5.0	54.0	35.0	4.0	100.0	U	U	U
D14	130	EW1_24B1_GRAB_150A	150	A	0.1	U	U	3.0	2.0	5.0	10.0	41.0	37.0	6.0	1.0	95.0	U	U	U
D14	900	EW1_24B1_GRAB_153A	153	A	0.1	U	U	U	3.0	3.0	12.0	38.0	42.0	4.0	1.0	97.0	U	U	U
D14	900	EW1_24B1_GRAB_153B_DUP	153	B	0.1	U	U	U	2.0	2.0	6.0	42.0	44.0	5.0	1.0	98.0	U	U	U
B17	26	EW1_24B1_GRAB_155A	155	A	0.1	U	U	U	1.0	1.0	2.0	28.0	58.0	10.0	U	98.0	1.0	U	1.0
B17	130	EW1_24B1_GRAB_159A	159	A	0.1	U	U	U	1.0	1.0	4.0	29.0	54.0	11.0	1.0	99.0	U	U	U
B17	900	EW1_24B1_GRAB_162B	162	B	0.1	U	U	U	2.0	2.0	6.0	37.0	48.0	7.0	U	98.0	U	U	U
B17	26	EW1_24B1_GRAB_164A	164	A	0.1	U	U	U	1.0	1.0	1.0	13.0	58.0	25.0	2.0	99.0	U	U	U
B17	130	EW1_24B1_GRAB_168A	168	A	0.1	U	U	2.0	1.0	3.0	2.0	15.0	55.0	13.0	1.0	86.0	11.0	U	11.0
B17	900	EW1_24B1_GRAB_171A	171	A	0.1	U	U	U	1.0	1.0	7.0	34.0	45.0	12.0	1.0	99.0	U	U	U
B17	900	EW1_24B1_GRAB_171B_DUP	171	B	0.1	U	U	U	U	U	1.0	14.0	68.0	16.0	U	99.0	1.0	U	1.0
C20	26	EW1_24B1_GRAB_173A	173	A	0.1	U	U	U	2.0	2.0	2.0	27.0	59.0	9.0	U	97.0	1.0	U	1.0
C20	130	EW1_24B1_GRAB_177A	177	A	0.1	U	U	U	1.0	1.0	2.0	28.0	55.0	9.0	U	94.0	5.0	U	5.0
C20	900	EW1_24B1_GRAB_180A	180	A	0.1	U	U	2.0	U	2.0	2.0	25.0	62.0	8.0	U	97.0	1.0	U	1.0
C20	26	EW1_24B1_GRAB_182A	182	A	0.1	U	U	1.0	2.0	3.0	3.0	20.0	59.0	13.0	1.0	96.0	1.0	U	1.0
C20	130	EW1_24B1_GRAB_186A	186	A	0.1	U	U	U	1.0	1.0	2.0	29.0	57.0	10.0	U	98.0	1.0	U	1.0
C20	900	EW1_24B1_GRAB_189A	189	A	0.1	U	U	1.0	1.0	2.0	3.0	23.0	58.0	13.0	U	97.0	1.0	U	1.0

WTG	Distance (m)	Sample ID[1]	Station ID	Replicate	Total Moisture (%)	Total Ash (%)	Total Organic Matter Calculated (%)	Total Organic Carbon (%)[2]	Total Hydrogen (%)[3]	Total Nitrogen (%)[2]
D03	26	EW1_24B1_GRAB_101A	101	A	20.22	99.59	0.41	U	U	U
D03	130	EW1_24B1_GRAB_105A	105	A	19.44	99.54	0.46	U	U	U
D03	900	EW1_24B1_GRAB_108A	108	A	18.99	99.64	0.36	U	U	U
D03	26	EW1_24B1_GRAB_110A	110	A	17.30	99.53	0.47	0.39	U	U
D03	130	EW1_24B1_GRAB_114A	114	A	16.42	99.55	0.45	0.16	U	U
D03	900	EW1_24B1_GRAB_117C	117	C	20.68	99.58	0.42	0.15	U	U
C09	50	EW1_24B1_GRAB_119A	119	A	18.24	99.29	0.71	0.12	U	U
C09	155	EW1_24B1_GRAB_123A	123	A	18.67	99.60	0.40	U	U	U
C09	900	EW1_24B1_GRAB_126A	126	A	20.64	99.34	0.66	U	U	U
C09	50	EW1_24B1_GRAB_128B	128	B	20.35	99.47	0.53	U	U	U
C09	50	EW1_24B1_GRAB_128C_DUP	128	C	20.87	99.43	0.57	U	U	U
C09	155	EW1_24B1_GRAB_132A	132	A	21.34	99.42	0.58	U	U	U
C09	900	EW1_24B1_GRAB_135B	135	B	19.56	99.33	0.67	U	U	U
D14	26	EW1_24B1_GRAB_137B	137	B	19.79	99.63	0.37	U	U	U
D14	130	EW1_24B1_GRAB_141A	141	A	16.96	99.61	0.39	0.19	0.2	U
D14	900	EW1_24B1_GRAB_144B	144	B	19.26	99.57	0.43	U	U	U
D14	26	EW1_24B1_GRAB_146A	146	A	19.36	99.46	0.54	0.16	U	U
D14	130	EW1_24B1_GRAB_150A	150	A	16.26	99.35	0.65	0.12	U	U
D14	900	EW1_24B1_GRAB_153A	153	A	17.68	99.14	0.86	0.13	U	U
D14	900	EW1_24B1_GRAB_153B_DUP	153	B	17.12	99.39	0.61	U	0.2	U
B17	26	EW1_24B1_GRAB_155A	155	A	17.91	99.45	0.55	0.13	U	U
B17	130	EW1_24B1_GRAB_159A	159	A	19.42	99.48	0.52	0.13	U	U
B17	900	EW1_24B1_GRAB_162B	162	B	18.33	99.17	0.83	0.11	U	U
B17	26	EW1_24B1_GRAB_164A	164	A	18.80	99.48	0.52	0.13	U	U
B17	130	EW1_24B1_GRAB_168A	168	A	18.22	99.47	0.53	0.14	U	U
B17	900	EW1_24B1_GRAB_171A	171	A	17.88	99.58	0.42	U	U	U
B17	900	EW1_24B1_GRAB_171B_DUP	171	B	18.65	99.59	0.41	U	U	U
C20	26	EW1_24B1_GRAB_173A	173	A	17.94	99.58	0.42	0.11	U	U
C20	130	EW1_24B1_GRAB_177A	177	A	18.98	99.66	0.34	0.14	U	U
C20	900	EW1_24B1_GRAB_180A	180	A	19.61	99.68	0.32	0.18	U	U
C20	26	EW1_24B1_GRAB_182A	182	A	19.74	99.53	0.47	0.14	U	U
C20	130	EW1_24B1_GRAB_186A	186	A	19.15	99.54	0.46	U	0.2	U
C20	900	EW1_24B1_GRAB_189A	189	A	17.99	99.57	0.43	U	U	U