# Sediment Profile and Plan View Imaging Benthic Assessment Survey in Support of the South Fork Wind Farm Site Assessment

Survey Conducted November 11-15, 2017 and November 20, 2018

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#### LIST OF ACRONYMS

aRPD apparent Redox Potential Discontinuity
BOEM Bureau of Ocean Energy Management

CMECS Coastal and Marine Ecological Classification Standard

COP Construction and Operation Plan

DSLR Digital single-lens reflex
DWSF Deepwater Wind South Fork

FGDC Federal Geographic Data Committee

G&G Geological and Geophysical
GPS Global Positioning System
INSPIRE INSPIRE Environmental, LLC

NEF Nikon Electronic Format
OCS Outer Continental Shelf
OSS Offshore Sub-station
PSD Photoshop Document

PV Plan View

R/V Research Vessel

SFEC South Fork Export Cable

SFEC-NYS South Fork Export Cable - New York State

SFEC-OCS South Fork Export Cable - Outer Continental Shelf

SFWF South Fork Wind Farm
SOD Sediment oxygen demand
SOP Standard operating procedure
SPI Sediment Profile Imaging
WTG Wind Turbine Generator



#### **EXECUTIVE SUMMARY**

As part of Fugro's Geological and Geophysical (G&G) survey for the South Fork Wind Farm (SFWF), proposed by Deepwater Wind South Fork (DWSF) scientists from INSPIRE Environmental performed a combined Sediment Profile and Plan View Imaging (SPI/PV) survey at stations inside the SFWF, along the proposed South Fork Export Cable (SFEC), and at reference stations.

The SFWF is near Cox Ledge on the southern New England outer continental shelf. To ground-truth the sediment types, bedform dynamics, and presence of sensitive habitats and taxa in the SFWF and along the SFEC, the Fugro/INSPIRE project team designed a survey of 98 stations within the SFWF, 60 stations along the SFEC, and three stations within a potential reference area to the east of the SFWF. The reference stations may be compared with stations inside the SFWF in the future if needed. A total of 161 SPI/PV stations were sampled throughout the project. A 141-station SPI/PV survey was conducted November 11-15, 2017 aboard the vessel *R/V Fugro Enterprise* and a 20-station SPI/PV survey was conducted on November 20, 2018 aboard the vessel *R/V Jamie Hanna*.

Four primary spatial areas were considered for interpretation purposes: the SFWF, the section of the SFEC that is in Federal waters on the outer continental shelf (SFEC-OCS), the section of the SFEC that is within New York State waters (SFEC-NYS), and the reference station area to the east of the SFWF. Interpretation of the SPI/PV data provided detail on the benthic habitat characteristics within each group. Three unique benthic habitat types were observed across the surveyed area: patchy cobbles and boulders on sand; sand with mobile gravel, and sand sheets. Each habitat type was defined by a combination of its physical and biological conditions. Sand sheets were the most common habitat across the surveyed area. Sand with mobile gravel was prevalent both within the SFWF, as well as along the SFEC, particularly along the SFEC-OCS section. Patchy cobbles and boulders on sand were only observed within and directly around the SFWF. Habitat types observed at reference area stations were similar to those observed within the SFWF and along the SFEC.

Except for four stations, the dominant Coastal and Marine Ecosystem Classification Standard (CMECS) Biotic Subclass across the surveyed area was Soft Sediment Fauna. Attached Fauna were present as the CMECS Biotic Subclass or Co-occurring Biotic Subclass at approximately one-third of the stations sampled within the SFWF. Attached Fauna were present as the Co-occurring Biotic Subclass at six of the stations sampled along the SFEC-OCS but were not present along the SFEC-NYS. Sensitive taxa were not observed at the SFWF, along the SFEC, or at the reference area.

Collection of SPI/PV imagery from the reference stations provided data on pre-construction physical and biological conditions outside the SFWF at standard distance intervals. These data may be used to support a baseline reference to evaluate future construction and operation impacts to the benthic environment. Results indicate that benthic habitats and biological



communities in the reference area proved to be representative of those found in the SFWF and along the SFEC.

The results and images from this survey establish a baseline of physical and biological features in the SFWF and along the SFEC. These results will also allow DWSF to broadly communicate the results of the baseline benthic assessment survey using images of pre-development conditions. Contributions from this survey will provide valuable information to address the Bureau of Ocean Energy Management (BOEM) guidelines and regulations.

The primary conclusions of the SPI/PV survey were:

- 1. Three benthic habitat types were observed: patchy cobbles and boulders on sand, sand with mobile gravel, and sand sheets. Patchy cobbles and boulders on sand were only observed within and directly around the SFWF. Sand with mobile gravel was found within the SFWF, as well as along the SFEC, particularly along the SFEC-OCS section. Sand sheets were the most common habitat type along the SFEC.
- Soft Sediment Fauna was the dominant CMECS Biotic Subclass observed, characterized by infaunal burrows and occasional tubes and by sand dollars and mobile epifauna. Fish feeding pits were frequently observed within the SFWF and along the SFEC.
- 3. Sensitive taxa were not observed in SPI/PV images across the surveyed area.
- 4. Where hard substrate was present in the form of boulders and large cobble, barnacles and hydroids were the most common attached fauna. These were most prevalent within the SFWF. At stations where sand with mobile gravels and sand sheets were the primary habitat type, the dominant CMECS Biotic Groups included small surface-burrowing fauna and sand dollar beds. Sand dollar beds were most common along the SFEC-OCS. Coralline algae was observed at two stations within the SFWF. Macroflora were not observed within the SFEC.
- 5. The physical and biological characteristics of the reference area were within the range observed across the SFWF and SFEC and may be used to support future monitoring efforts. These data serve as a baseline for comparison to changes that may occur as a result of construction and operation at the SFWF.



#### 1.0 INTRODUCTION

#### 1.1 Project Background

Deepwater Wind South Fork, LLC (DWSF) and the U.S. Department of Interior's Bureau of Ocean Energy Management (BOEM) executed a commercial lease for the development of a wind energy facility on the Outer Continental Shelf (OCS) offshore Rhode Island and Massachusetts (Lease OCS-A 0486, effective October 1, 2013). DWSF awarded Fugro Marine GeoServices, Inc. (Fugro) the Geological & Geophysical (G&G) investigations as part of the preparation of the South Fork Wind Farm and South Fork Export Cable Construction and Operation Plan (COP) Survey for the Lease Area. The South Fork Wind Farm (SFWF) would be located within the Lease Area and would consist of up to 15 wind turbine generators (WTGs), one offshore sub-station (OSS), inter-array cables and an export cable from the OSS to a location on Long Island, New York (Figure 1-1). The WTGs would be placed on monopile foundations. The water depths measured by Fugro in the surveyed area were in the range of 30-45 meters mean lower low water. Based on available information from neighboring sites, the expected stratigraphy may be comprised of dense to very dense silica sand with thick layers of very stiff to hard clay at around 20 m below the seafloor. The data available for the SFWF area suggest that the area is comprised of mostly sandy sediments with some areas of coarser material (gravel or small cobble) and boulder fields, but there is very little site-specific data available (McMaster, 1960; Poppe et al., 2014; McMullen et al., 2009; LaFrance et al., 2010). Benthic community structure has only been inferred from studies in surrounding areas including the Rhode Island Ocean Special Area Management Plan (CRMC, 2010; LaFrance et al., 2010), the Block Island Wind Farm (Deepwater Wind, 2012), and BOEM-funded studies (Collie and King, 2016; Siemann and Smolowitz, 2017). Data available from these studies only suggest what physical substrate and biotic communities may be present within the SFWF and along the SFEC.

The southern New England OCS is an ideal area for offshore wind exploration and development. A slowly sloping shelf in concert with relatively high average wind conditions and large urban population centers provide a prime location for offshore wind energy production. BOEM has produced regulations and guidelines for preparing a COP for the proposed development of all offshore wind projects in U.S. Federal waters. The Sediment Profile and Plan View Imaging (SPI/PV) survey was conducted to provide DWSF with data contributing to:

- BOEM's Guidelines for Information Requirements for a Renewable Energy Construction and Operation Plan (COP) (BOEM, 2016),
- Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585 (BOEM, 2015),
- Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585, prepared by BOEM July 2015 and March 2017 (BOEM, 2017), and



 Guidelines for Providing Benthic Habitat Survey Information for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585 (BOEM, 2013).

SPI/PV imagery is a proven technique to document baseline benthic conditions (physical and biological) as well as any pre-existing pollution or other environmental damage (Germano et al., 2011). This approach can accurately detect and document changes in shallow (21 cm) sediment profiles due to alteration of sedimentary structures resulting from exploration, construction, and operation activities. Furthermore, the imagery is well-suited to inform constituents and stakeholders of baseline and post-construction/operation conditions using a photographic format. These capabilities allow the SPI/PV survey to provide fine-scale ground-truthing of G&G survey data. SPI/PV imagery is also accepted by BOEM for supporting biological surveys. INSPIRE used imagery to support Deepwater Wind's Block Island Wind Farm project in Rhode Island state waters during pre-construction, construction, and post-construction biological and benthic monitoring (Deepwater Wind, 2012; INSPIRE, 2016; INSPIRE, 2017a).

INSPIRE Environmental scientists conducted a 161-station SPI/PV survey at the SFWF, along the South Fork Export Cable (SFEC), and at potential reference stations east of the SFWF on the southern New England OCS (Figure 1-2). The 161 stations across the three survey areas are jointly referred to as the 'surveyed area' throughout the report. Four primary spatial areas were considered for interpretative purposes: the SFWF, the section of the SFEC that is in Federal waters on the OCS (SFEC-OCS), and the section that is within New York State waters (SFEC-NYS), and the reference area to the east of the SFWF (Figures 1-3 and 1-4). The survey was conducted in partnership with Fugro and contributed to Fugro's G&G Survey for its client, DWSF. INSPIRE was subcontracted by Jacobs to analyze SPI/PV images for parameters related to biological benthic assessment. The SPI/PV survey was conducted November 11-15, 2017 aboard the vessel *R/V Fugro Enterprise* and on November 20, 2018 aboard the vessel *R/V Jamie Hanna*.

#### 1.2 Project Objectives

The purpose of the SPI/PV benthic assessment was to provide data about benthic habitats and communities at the SFWF and along the SFEC. Results from the SPI/PV survey are intended to contribute to DWSF's ability to satisfy multiple BOEM COP Guidelines. This SPI/PV study provides a secondary line of data for the assessment of the physical, geological, and biological conditions of the benthic habitat structure within the study area. Pursuant to several BOEM Guidelines, the Coastal and Marine Ecological Classification Standard (CMECS) (Federal Geographic Data Committee [FGDC], 2012) was used to classify dominant biotic groupings. "The Coastal and Marine Ecological Classification Standard (CMECS) is a catalog of terms that provides a means for classifying ecological units using a simple, standard format and common terminology. CMECS offers a way to organize and interpret data about the marine environment, and it provides a common platform for inter-relating data. It builds upon approaches from published national, regional, and local habitat classification procedures, and it offers an umbrella



under which a national coastal and marine ecological classification can grow and evolve." (FGDC, 2012)

The specific objectives of the SPI/PV benthic assessment, derived in part from BOEM Benthic Habitat Guidelines (BOEM, 2013), were to survey stations within the proposed development site and at a potential reference area to:

- Characterize and delineate benthic habitats
  - Characterization of benthic habitat attributes
  - Identification of dominant benthic macrofaunal and macrofloral communities classified to at least the CMECS Biotic Subclass level
  - Documentation of taxa diversity and characterization of benthic community composition visible in SPI and PV images
  - Identification of invasive taxa
- Identify potentially sensitive seafloor habitats, such as corals, submerged aquatic
  vegetation beds, and valuable cobble and boulder habitat (BOEM, 2013). Cobble and
  boulder habitat can serve as nursery ground for juvenile lobster and as preferable
  habitat for squid to deposit their eggs. Both lobster and squid are specific in their habitat
  requirements and are also economically important species in New England. For these
  reasons, federal and state agencies consider evidence of these taxa to indicate
  potentially sensitive habitats.
- Establish a pre-construction baseline that may be used to assess whether detectable changes occur in post-construction benthic habitats associated with proposed operations.
- Determine suitability of the sampled reference area to serve as a control site for future benthic assessment monitoring and assessment surveys.

SPI/PV parameters collected as part of this survey were 'mapped' to corresponding BOEM Benthic Habitat Guidelines (Table 1-1). This allows for a clear representation of how data collected as part of this survey contributed to the completion of the SFWF COP and satisfaction of BOEM Benthic Habitat Guidelines.



Table 1-1. SPI/PV Survey Parameters with Corresponding BOEM COP Requirements and Guidelines

Equipment	Parameter	BOEM COP Guideline					
	Sensitive Taxa	Identification of potentially sensitive seafloor habitat					
	Invasive Taxa	Identification of invasive taxa					
		Characterization of macrofaunal community					
	Soft Sediment Infauna	Identification of taxa diversity					
	Community	Classification to CMECS Biotic Subclass					
		Classification to CMECS Biotic Group					
	Mobile Epifauna	Characterization of macrofaunal community					
SPI	Apparent Daday	Identification of taxa diversity					
	Apparent Redox Potential Discontinuity	Characterization of benthic habitat attributes					
	Sediment Oxygen Demand	Characterization of benthic habitat attributes					
	Successional Stage	Characterization of benthic habitat attributes					
	Low Dissolved Oxygen Presence	Characterization of benthic habitat attributes					
	Methane Presence	Characterization of benthic habitat attributes					
	Sensitive Taxa	Identification of potentially sensitive seafloor habitat					
	Invasive Taxa	Identification of invasive taxa					
		Identification of potentially sensitive seafloor habitat					
	Attached Flora/Fauna	Classification to CMECS Biotic Subclass					
		Classification to CMECS Biotic Group					
	Dominant and	Identification of potentially sensitive seafloor habitat					
PV	Dominant Co-	Classification to CMECS Biotic Subclass     Classification to CMECS Biotic Subclass					
. •	occurring Biotic Group	Classification to CMECS Biotic Group					
	Soft Sediment Infauna Community	<ul><li>Characterization of macrofaunal community</li><li>Identification of potentially sensitive seafloor habitat</li></ul>					
	Mobile Epifauna	Characterization of macrofaunal community					
	· · · · · · · · · · · · · · · · · · ·	,					
	Fish	Characterization of macrofaunal community					
	Burrows/Tubes/Tracks	Characterization of macrofaunal community					
	Flora	Characterization of macrofloral community					



#### 2.0 METHODS

#### 2.1 Field Data Collection and Methods

SPI/PV imaging is a monitoring technique used to provide data on the physical characteristics of the seafloor and the status of the benthic biological community (Germano et al., 2011). SPI has been shown to be a powerful reconnaissance tool that can efficiently map gradients in sediment type, biological communities, or disturbances from physical forces, anthropogenic input, or organic enrichment (Germano et al., 2011). Results and interpretations from SPI/PV data are about dynamic processes that have been deduced from imaged structures; as such, they should be considered hypotheses available for further testing/confirmation.

The 161-station SPI/PV survey (Figure 1-2) was conducted November 11-15, 2017 aboard the vessel R/V Fugro Enterprise and on November 20, 2018 aboard the vessel R/V Jamie Hanna. Although located outside of the final Maximum Work Area at the SFWF, results from Stations 201 and 202 are provided for regional context due to their proximity to the survey area. SPI/PV station locations are provided in Appendix A. The methodology for data acquisition and analysis for these images was consistent with the sampling methods described in detail in INSPIRE's standard operating procedures (INSPIRE, 2017b).

At each station, the vessel was positioned at the target coordinates and the camera was deployed within a defined station tolerance and replicate images were collected. Navigation for the November 2017 survey was provided by Fugro and for the November 2018 survey was provided by INSPIRE. Station positions were recorded onboard by documenting the Global Positioning System (GPS) coordinates of the vessel each time the camera frame was determined to be in contact with the seafloor. Seafloor contact was determined visually when the winch cable was observed to go slack.

Within the SFWF and along the SFEC, a station tolerance of 7.5 meters was used. A minimum of four replicate image pairs (SPI and PV) were collected at each of these stations (Appendix B) and the three replicate images with the best quality (adequate prism penetration, no or minimal sampling artifacts) were selected for analysis (Appendices C and D). Station 101 is at the far eastern end of the SFEC and is located in the southwestern corner of the Maximum Work Area for the SFWF. For presentation of results this station is considered part of the SFEC-OCS; however, the spatial data for this station are best viewed on the maps presenting the SFWF results.

At the reference area to the east of the SFWF, a 300-m diameter watch circle was established at each station and six replicate image pairs were collected within the watch circle. The five replicates with the best quality images from each station were chosen for analysis (Appendices C and D). Two stations sampled in the November 2017 survey (Stations C01 and C02) were sampled as reference stations as they were east of the Maximum Work Area for the SFWF defined at the time. Subsequent to conducting the 2017 survey the Maximum Work Area was expanded. Results from all 5 replicates analyzed at Stations C01 and C02 are included with the results for the SFWF.



## 2.1.1 Sediment Profile Imaging

The SPI technique involves deploying an underwater camera system to photograph a cross-section of the sediment–water interface. High-resolution SPI images were acquired using a Nikon® D7100 digital single-lens reflex (DSLR) camera mounted inside an Ocean Imaging® Model 3731 pressure housing. The pressure housing sat atop a wedge-shaped steel prism with a plexiglass front faceplate and a back mirror, 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. As the prism penetrated the seafloor, a trigger activated a time-delay circuit that fired an internal strobe to obtain a cross-sectional image of the upper 15–20 cm of the sediment column (Figure 2-1). 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 this survey, the ISO-equivalent was set at 640, shutter speed was 1/250, and the f-stop was f11. Images were stored in compressed raw Nikon Electronic Format (NEF) files (approximately 30 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 (Appendix B). Details of the camera settings for each digital image also are available in the associated parameters file embedded in each electronic image file.

Whenever the camera was brought back on board (typically every fifth station during the November 2017 survey and after every station during the November 2018 survey), the frame counter was checked to ensure that the requisite number of replicates had been obtained. In addition, a prism penetration depth indicator on the camera frame was checked to verify that the optical prism had penetrated the bottom to a sufficient depth. If images were missed or the penetration depth was insufficient, the camera frame stop collars were adjusted and/or weights were added or removed, and additional replicate images were taken. Such adjustments were not necessary during this survey, a stop collar setting of 18 inches and 5 weights per side were used on the camera frame for all images collected. 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 (Appendix B). 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 GPS navigation system. 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



navigation system's computer data file. Images were downloaded periodically to verify successful sample acquisition and/or to assess the type(s) of sediment/biota present at a given station. Digital image files were renamed with the appropriate station names immediately after downloading as a further quality assurance step.

## 2.1.2 Plan View Imaging

An Ocean Imaging® Model DSC24000 plan view underwater camera (PV) system with two Ocean Imaging® Model 400-37 Deep Sea Scaling lasers was attached to the sediment profile camera frame and used to collect plan view photographs of the seafloor surface. Both SPI and PV images were collected during each "drop" of the system. The PV system consisted of a Nikon® D-7100 DSLR camera encased in an aluminum 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 cm) regardless of the field-of-view of the PV system. The field-of-view can be varied 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 (Figure 2-1).

During setup and testing of the PV camera, the positions of lasers on the PV camera were checked and calibrated to ensure separation of 26 cm. Test images were also captured to confirm proper camera settings for site conditions. All camera settings were recorded in the field log (Appendix B). For this survey, the ISO-equivalent was set at 640, shutter speed was 1/15; the shutter speed and aperture were both adjusted a couple of times on the first day before selecting the following for the remainder of the survey: a shutter speed of 1/15, an aperture f18. Images were stored in compressed raw NEF files (approximately 30 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 (Appendix B). Details of the camera settings for each digital image also are 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 navigation system's computer data file. In addition, the field crew kept redundant written sample logs (Appendix B). Throughout the survey, PV images were downloaded at the same time as SPI images 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 this survey allowed use of a 0.9 m trigger wire, resulting in a mean image width of 1.0 m and a mean field of view of 0.6 m<sup>2</sup>.

## 2.1.3 Image Conversion and Calibration

Following completion of the field operations, the raw image files were color calibrated by synchronizing the raw color profiles to a standard Color Calibration Target that was photographed prior to field operations with the SPI camera. The raw images were then converted to high-resolution Photoshop Document (PSD) format files, using a lossless conversion file process, maintaining an Adobe RGB (1998) color profile. The PSD images were then calibrated and analyzed in Adobe Photoshop®. Linear and area measurements were recorded as the number of pixels and converted to scientific units using the calibration information.

### 2.1.4 SPI and PV Data Analysis

Computer-aided analysis of SPI/PV images provided a set of standard measurements to allow comparisons among different locations and surveys.

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 image interpretation was performed. Spatial distributions of SPI/PV parameters were mapped using ESRI ArcGIS 10.5. Map backgrounds use a regional bathymetric mosaic compiled using NOAA Open File Report and/or client-provided bathymetric data (NOAA, 2019; Green et al., 2010).

## 2.2 Sediment Profile Image Analysis Parameters

The parameters discussed below were assessed and/or measured for each replicate SPI image. Descriptive comments were also made for each replicate image.

#### 2.2.1 Apparent Redox Potential Discontinuity

Aerobic 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. These differences in optical reflectance are clear in SPI images; oxidized surface sediment contains particles coated with ferric hydroxide (an olive or tan color), while reduced muddy sediments below this oxygenated layer are darker, generally gray to black (Fenchel, 1969; Lyle, 1983). The boundary between the lighter colored surface sediment and underlying gray to black sediment is called the apparent redox potential discontinuity (aRPD).

The depth of the aRPD in the sediment column is an important record of dissolved oxygen conditions within sediment porewaters. In the absence of bioturbating organisms, this high reflectance layer (in muds) will typically reach a thickness of 2 mm below the sediment—water interface (Rhoads, 1974). This depth is related to the supply rate of molecular oxygen by



diffusion into the bottom and the consumption of that oxygen by the sediment and associated microflora. In areas that have very high sediment oxygen demand (SOD), the sediment may lack a high reflectance layer even when the overlying water column is aerobic.

In the presence of bioturbating macrofauna, the thickness of the high reflectance layer may be several centimeters. The relationship between the thickness of this high reflectance layer and the presence or absence of free molecular oxygen in the associated porewaters must be considered with caution. The actual redox potential discontinuity is the boundary or horizon that separates the positive Eh¹ region of the sediment column from the underlying negative Eh region. The exact location of this Eh = 0 boundary can be determined accurately only with microelectrodes. No *in situ* Eh measurements were collected; therefore, the imaged optical reflectance boundary is described in this study as the aRPD, and was mapped as a mean value. In general, the depth of the actual Eh = 0 horizon will be either equal to or slightly shallower than the depth of the optical reflectance boundary (Rosenberg et al., 2001), because bioturbating organisms can mix ferric hydroxide-coated particles downward into the bottom below the Eh = 0 horizon. As a result, the mean aRPD depth can be used as an estimate of the depth of porewater exchange, usually due to bioturbation.

The rate of depression of the aRPD within the sediment is relatively slow in organic-rich muds, on the order of 200 to 300 µm per day; therefore, this parameter remains relatively constant over time (Germano and Rhoads, 1984). The rebound in the aRPD is also slow (Germano, 1983). Measurable changes in the aRPD depth using the SPI optical technique can be detected over periods of 1 or 2 months. This parameter is used effectively to document changes (or gradients) that develop over a seasonal or yearly cycle related to water temperature effects on bioturbation rates, seasonal hypoxia, SOD, and infaunal recruitment. Time-series aRPD measurements following a disturbance can be a critical diagnostic element in monitoring the degree of recolonization in an area by the ambient benthos (Rhoads and Germano, 1986).

Another important characteristic of the aRPD is the contrast in reflectance at this boundary. This contrast is related to the interactions among the degree of organic loading, the bioturbation activity in the sediment, and the concentrations of bottom-water dissolved oxygen in an area. High inputs of labile organic material increase SOD and, subsequently, sulfate reduction rates and the associated abundance of sulfide end products, resulting in more highly reduced, lower-reflectance sediments at depth and higher aRPD contrasts. In a region of generally low aRPD contrasts, images with high aRPD contrasts indicate localized sites of relatively large inputs of organic-rich material such as phytoplankton, other naturally occurring organic detritus, dredged material, sewage sludge, or other anthropogenic input.

<sup>&</sup>lt;sup>1</sup> Redox potential is generally reported as Eh, which is the potential generated between a platinum electrode and a standard hydrogen electrode when placed into the medium being tested, where hydrogen is considered the reference electrode.



Because the determination of the aRPD requires discrimination of optical contrast between oxidized and reduced particles, it is difficult, if not impossible, to determine the depth of the aRPD in well-sorted sands of any size that have little to no silt or organic matter in them. When SPI technology is used on sand bottoms, little information regarding aRPD values can be measured. While oxygen has no doubt penetrated beneath the sediment—water interface due to physical forcing factors acting on surface roughness elements (Ziebis et al., 1996; Huettel et al., 1998), estimates of the mean aRPD depths in well-sorted sands with no fine grained (e.g., mud) fraction are indeterminate with conventional white light photography.

## 2.2.2 Infaunal Successional Stage

The mapping of infaunal successional stages is readily accomplished with SPI technology. These stages are recognized in SPI images by the presence of dense assemblages of near-surface polychaetes or gastropods and/or the presence of subsurface feeding voids; both may be present in the same image. Mapping of successional stages is based on the theory that organism-sediment interactions in fine-grained sediments follow a predictable sequence after a major seafloor perturbation. This theory states that primary succession results in "the predictable appearance of macrobenthic invertebrates belonging to specific functional types following a benthic disturbance. These invertebrates interact with sediment in specific ways. Because functional types are the biological units of interest, our definition does not demand a sequential appearance of particular invertebrate species or genera" (Rhoads and Boyer, 1982). This theory is presented in Pearson and Rosenberg (1978) and further developed in Rhoads and Germano (1982) and Rhoads and Boyer (1982).

This continuum of change in animal communities after a disturbance (primary succession) has been 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 community 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 2-2).

After an area of seafloor is disturbed by natural or anthropogenic events, the first invertebrate assemblage (Stage 1) appears within days after the disturbance. Stage 1 consists of assemblages of tiny tube-dwelling marine polychaetes that reach typical population densities of 10<sup>4</sup> to 10<sup>6</sup> individuals per m² (McCall, 1977; Rhoads et al., 1978). These animals feed at or near the sediment–water interface and physically stabilize or bind the sediment surface by producing a mucous "glue" that they use to build their tubes.

If there are no repeated disturbances to the newly colonized area, then these initial tubedwelling suspension or surface-deposit feeding taxa are followed by burrowing, head-down deposit-feeders that rework the sediment deeper and deeper over time and mix oxygen from the overlying water into the sediment. The animals in these later-appearing communities (Stage 2 or 3) are larger, typically have lower overall population densities (10 to 100 individuals per m²), and



can rework the sediments to depths of 3 to 20 cm or more. These animals "loosen" the sedimentary fabric, increase the water content in the sediment, thereby lowering the sediment shear strength, and actively recycle nutrients because of the high exchange rate with the overlying waters resulting from their burrowing and feeding activities.

In dynamic environments, it is simplistic to assume that benthic communities always progress completely and sequentially through all four stages in accordance with the idealized conceptual model depicted in Figure 2-2. 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 exists in an image with Stage 3 fauna, the Stage 1 on 3 designation is used because it is more important to document the presence of recruiting organisms than intermediate Stage 2 fauna.

The same trophic groups seen in shallow water SPI images (tubicolous, or tube-forming fauna concentrated at the sediment–water interface, subsurface burrows or feeding voids with evidence of active mining, or biogenic-graded bedding indicating the presence of subsurface deposit-feeders) are readily apparent in SPI images from slope and deep-sea sediments (Diaz et al. 1994; Diaz 2004).

# 2.2.3 Organic Loading, Sediment Oxygen Demand Level, Sedimentary Methane

Sediment oxygen demand (SOD) represents the overall rate of oxygen consumption, biologically and chemically, by the sediment column. Organic loading to a system results in increased SOD and results in reduced sediments. The relative amount of organic enrichment is indicated by sediment color; darker coloration indicates that sediment is more reduced and has greater organic loading (Fenchel, 1969; Rhoads, 1974; Lyle, 1983; Bull and Williamson, 2001). 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 condition. If organic loading is extremely high, porewater sulfate is depleted and methanogenesis occurs. The process of methanogenesis is indicated by the appearance 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).

#### 2.2.4 Taxa Present

Where visible, flora and fauna were identified to the lowest possible taxonomic grouping. Taxa were grouped into four classifications: sensitive, invasive, mobile epifauna, and soft sediment infauna.



## 2.3 Plan View Image Analysis Parameters

Plan view images record conditions at the seafloor surface in a downward-looking orientation. They provide a much larger field-of-view than SPI images 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 2-3).

#### 2.3.1 Field-of-View

For each replicate PV image, the field-of-view area was measured. The scale information provided by the underwater lasers allows accurate density counts of attached epifaunal colonies, sediment burrow openings, or larger macrofauna or fish which may not have been captured in the sediment profile cross section, as well as measurements of features of interest observed in the image.

## 2.3.2 CMECS Biotic Subclass and CMECS Biotic Group

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. 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 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).

Biotic Subclasses describe dominant biota at a coarse level. Within the Benthic/Attached Biota Biotic Component setting, there are eight classes, of which the Faunal Bed class is of most relevance to the OCS. 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) are often present, but in this study, were primarily used 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)."

Plan view images were assigned one of three Biotic Subclasses (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."
- IND an indeterminate Biotic Subclass

The Biotic Component subclasses of Attached and Soft Sediment Fauna are excellent 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 less suitable 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.

While Biotic Subclasses describe major biological characteristics at a fairly coarse level, Biotic Groups are descriptive terms based on finer distinctions of taxonomy, structure, position, environment, and salinity levels (FGDC, 2012). CMECS provides definitions and descriptions of dozens of Biotic Groups. Only a subset of these Biotic Groups could potentially occur in the surveyed area (based on water depth, latitude, depth, etc.). The full set of defined Biotic Groups are available in the CMECS document (FGDC, 2012) and a subset of Biotic Groups observed within the surveyed area are found in Table 2-1.

#### 2.3.3 Fauna and Flora Presence

The inferred presence of fauna was identified through the presence of burrows, tubes, tracks, foraging pits, and fecal casts. Where fauna and flora were visibly present in SPI/PV images they were identified to the lowest possible taxonomic grouping. Fauna were grouped into five categories: fish, soft sediment infauna, mobile epifauna, sensitive taxa (Section 2.3.4), and



invasive taxa (Section 2.3.5). Where attached flora and fauna were present, the percent coverage of the image was estimated using the CMECS Percent Cover Modifier (FGDC, 2012).

#### 2.3.4 Sensitive Taxa

The image resolution of the SPI/PV survey allows for the identification of sensitive taxa. Sensitive seafloor habitats include corals, submerged aquatic vegetation beds, and valuable cobble and boulder habitat (BOEM, 2013). Cobble and boulder habitat can serve as nursery ground for juvenile lobster and as preferable benthic habitat for squid to deposit their eggs. Both lobster and squid are specific in their habitat requirements and are also economically important species in New England. For these reasons, federal and state agencies consider evidence of these taxa to indicate potentially sensitive habitats. Taxa considered sensitive for this survey included corals, seagrasses, squid eggs, and American lobster. Presence/absence of each sensitive taxa was noted for each replicate PV image.

#### 2.3.5 Invasive Taxa

The introduction of invasive species to the water column and benthic habitat is an important concern related to offshore development. The utilization of vessels originating from many different ports can lead to the introduction of invasive species through fouled hulls and contaminated ballast water. The introduction of new structures—such as scour protection, turbine structure, transmission cable, and concrete mattresses—to the water column and seafloor during construction may also lead to the introduction of invasive species. The SPI/PV survey collected baseline presence/absence data for marine invasive species within the surveyed area. A list of potential invasive species was derived from the Northeastern Aquatic Nuisance Species Panel (https://www.northeastans.org/) and Northeast Marine Introduced Species (https://nemis.mit.edu/introduced\_species.php). The list of invasive species for which SPI and PV images were analyzed are found in Table 2-2. Due to the field of view and image resolution captured by SPI/PV images it is possible that invasive species may be present in the survey area but are not able to be identified within images.



Table 2-1. CMECS Classification Levels Used in Analysis and Classifications for the SFWF Survey

CMECS Term	Scale of Classification	Classifications							
Geoform Component									
Tectonic Setting	Site	Passive Continental Margin							
Physiographic Setting	Site	Continental Shelf							
Geoform Origin	Site	Geologic							
	Substrate Compo	nent							
Substrate Origin	Site	Geologic Substrate							
Substrate Class	SPI/PV	Unconsolidated Mineral Substrate							
*Substrate Subclass	SPI/PV	Fine Unconsolidated Substrate; Coarse Unconsolidated Substrate							
*Substrate Group	PV	Sandy Mud; Muddy Sand; Sand; Slightly Gravelly; Gravelly Sand; Sandy Gravel; Boulder							
<sup>+</sup> Substrate Subgroup	SPI	Silt-Clay; Very Fine Sand; Fine Sand; Medium Sand; Coarse Sand; Very Coarse Sand; Granule; Pebble; Cobble							
	Biotic Compone	ent							
Biotic Setting	SPI/PV	Benthic/Attached Biota							
Biotic Class	SPI/PV	Faunal Bed							
*Biotic Subclass	SPI/PV	Soft Sediment Fauna; Attached Fauna; Inferred Fauna							
⁺Biotic Group	SPI/PV	Small Surface-Burrowing Fauna; Attached Hydroids; Barnacles; Diverse Colonizers; Egg Masses; Pennatulid Bed; Sand Dollar Bed							

<sup>&</sup>lt;sup>+</sup> Indicates variability within the surveyed area at this level of the hierarchy Bold text indicates an overwhelming dominant classification across the surveyed area



Table. 2-2. Invasive species list for SPI and PV image analysis

Taxonomic Group	Scientific Name	Common Name		
Anamana	Diadumene lineata	Orange-striped anemone		
Anemones	Sagartia elegans	Purple anemone		
Crustacean	Caprella mutica	Skeleton shrimp		
	Didemnum vexillum	Sea squirt		
T. minutes	Botrylloides violaceus	Sheath tunicate		
Tunicates	Botryllus schlosseri	Star tunicate		
	Styela clava	Club tunicate		



#### 3.0 RESULTS

A complete set of all the data measured and assessed from each analyzed SPI image is presented in Appendix C; data measured and assessed from each PV image are in Appendix D. Station summary data grouped by spatial area of interest (SFWF, SFEC-OCS, SFEC-NYS, the reference area) are presented in Tables 3-1 through 3-5. Section 3.1 summarizes results for the entire surveyed area. Section 3.2 reports results from the SFWF, Section 3.3 reports results from the SFEC-OCS, Section 3.4 reports results the SFEC-NYS, and Section 3.5 reports results from the reference area.

## 3.1 Types of Biota Observed

The CMECS Biotic Subclass of Soft Sediment Fauna was the dominant Biotic Subclass observed across the surveyed area (Tables 3-1b, 3-2b, 3-3b and 3-4b, Figure 3-1). This subclass is defined as "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)" (see Section 2.3.2 for a full definition) (Figures 3-2, 3-3, and 3-4). Observations of the Soft Sediment Fauna Subclass typically were present in the form of infaunal tubes (Figure 3-5) and burrows (Figure 3-6) visible at the sediment—water interface, epifaunal tracks (Figure 3-7), and pits created by fish foraging on the soft sediment taxa living on and in surficial sediments.

The CMECS Biotic Subclass of Attached Fauna was also observed in the surveyed area, present as either the dominant Subclass for a PV image or, more often, as the Co-occurring Biotic Subclass present (Tables 3-1b, 3-2b, 3-3b and 3-4b, Figure 3-1). This subclass is defined as "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" (see Section 2.3.2 for a full definition). The primary taxa observed within this subclass were barnacles (or evidence of barnacles that had been grazed by fish), bryozoans, hydroids, and occasional anemones (Figure 3-8). The dominant CMECS Co-occurring Biotic Subclasses identified across the surveyed area included Attached Fauna and Soft Sediment Fauna (Tables 3-1b, 3-2b, 3-3b and 3-4b).

The CMECS Biotic Group of Small Surface-Burrowing Fauna was the dominant Biotic Group observed across the surveyed area (Tables 3-1b, 3-2b, 3-3b and 3-4b, Figure 3-9). This group is defined as "Areas dominated by small, burrowing, often worm-like fauna with a body width that is usually <2 millimeters; animals are typically found within 5 centimeters of the sediment—water interface. Common worms include oligochaetes, polychaetes, sipunculids (peanut worms), flatworms, nematodes, priapulids, small enteropneusts (acorn worms), and other phyla. Burrowing fauna other than worms may also be characteristic (e.g., small, surface-burrowing amphipods, mysids, copepods, or isopods). In many areas, surface fauna will be abundant, but individual animals generally associated with this group will be found living deeper than 5 centimeters; these areas are still classified as Small Surface-Burrowing Fauna." Dominant



CMECS Biotic Groups observed across the surveyed area included Attached Hydroids, Barnacles, Diverse Colonizers, Egg Masses, Pennatulid (sea pen) Bed, Sand Dollar Bed, Small Surface Burrowing Fauna, Mobile Mollusks on Soft Sediments, and Small Tube-Building Fauna. Definitions of all CMECS Biotic Groups can be found in the Classification Standard (FGDC 2012).

No sensitive taxa were observed in the SPI and PV images captured across the surveyed area (Tables 3-1, 3-2, 3-3, and 3-4, Figure 3-10). No invasive species were identified within the surveyed area.

# 3.2 South Fork Wind Farm (SFWF)

Ninety-eight SPI/PV stations were sampled at the SFWF (Figure 1-3). Except for four stations (7, 63, 204, and 215), the dominant CMECS Biotic Subclass across the SFWF was Soft Sediment Fauna (Figure 3-11). Cobbles and/or boulders with attached fauna covered most of the PV field-of-view in at least one replicate image at Stations 7, 63, 204, and 215; and one image at Station 63 had widespread coverage of Polymastia sp. sponge indicating the presence of cobbles or boulders buried by a thin layer of sand (Figure 3-12). The dominant CMECS Biotic Subclass at station 7, 63, 204, and 215 was Attached Fauna in at least one replicate per station. Attached Fauna were present as the CMECS Biotic Subclass (Figure 3-11) or Co-occurring Biotic Subclass (Table 3-1b) at approximately one-third of the stations sampled within the SFWF. Sensitive taxa were not observed within the SFWF (Figure 3-13). The dominant CMECS Biotic Group within the SFWF was Small Surface-Burrowing Fauna (69 of 98 stations) (Figures 3-14 and 3-15). Other dominant Biotic Groups present in the SFWF included Attached Hydroids (Figure 3-16), Attached Sponges (Figure 3-12), Barnacles, and Diverse Colonizers (Figure 3-8A). Stations were identified as having an 'Indeterminate' dominant CMECS Biotic Group when turbidity was very high, precluding analysis, and in images where there were no visible indications of fauna (Figure 3-17).

Soft sediment infauna, predominantly indicated by surface tubes and burrows, were observed at over half of all SFWF stations (Figures 3-18 and 3-19). Burrows were observed in PV images at approximately half of all stations within the SFWF (56 of 98) (Table 3-1b). Burrows were present at stations with dominant CMECS Biotic Subclasses of Soft Sediment Fauna as well as Attached Fauna. Tubes were visible in the PV image at 15 of 98 stations within the SFWF; however, tubes were observed at 41 of 98 stations in the SPI images (Table 3-1a). The other infauna identified in the SFWF from SPI images were polychaetes (Stations 12, 15, 16, 202, and 217) and bivalves (Station 202) (Table 3-1a, Figure 3-20). The most frequently observed infaunal successional stages observed in the SFWF were Stage 2 (Figure 3-21). Over half (115 of 178) of all SPI replicates in the SFWF were classified as 'IND' for the infaunal successional stage parameter (Figure 3-22). Successional stage theory was developed in soft mostly silt/clay environments and relies to some extent on features that are more likely to be encountered in these environments. Therefore, it is difficult to determine successional stage in sandy environments. Additionally, sand typically has higher relative bearing strength then silt resulting



in shallower (<10 cm vs <20 cm) camera prism penetration depths, which limits the ability to detect sub-surface infaunal structures used to assess successional stage.

Epifauna observed with SPI (Figure 3-23) and PV imagery (Figure 3-14) within the SFWF included an anemone, barnacles, bryozoans, a hermit crab, hydroids, sand dollars, sea scallops, sea pens, sea stars, and sponges (Table 3-1a, Table 3-1b, Figure 3-24, Appendix C, Appendix D). When cobbles and boulders were present, hydroids, bryozoans and barnacles were the most frequently observed epifauna (Figure 3-8). No single epifauna type was present at a majority of sand sheet habitats, although sand dollars and shrimp were observed (Table 3-1b, Appendix D). The most common percent coverage of attached fauna on hard substrate was sparse (1 to <30 percent) at 16 of 98 stations and trace (<1 percent) at 10 of 98 stations, station 63 had moderate cover (30 to <70 percent) in one replicate image (Figure 3-12), the remaining stations had no coverage of attached fauna or lacked hard substrate (Table 3-1b, Figure 3-25). The percent coverage of attached fauna was in most cases directly proportional to the percentage of the image with hard substrate. Epifaunal tracks were present at 47 of 98 stations, and where observed were often numerous within the image (Table 3-1b and Figure 3-26).

Fish were observed at 12 of 98 stations; in some cases, image resolution and viewing angle (i.e., top-down) prevented positive taxonomic identification of fish species (Figures 3-27 and 3-28). Coralline algae was observed at two stations (217 and 219) within the SFWF. Macroflora were not observed at any other stations within the SFWF.

Station mean aRPD values within the SFWF averaged 2.0 cm and ranged from 0.3 to 4.3 cm (Table 3-1a and Figures 3-29 and 3-30). However, the aRPD could not be determined at 83 of the 98 stations due to camera prism penetration depths shallower than the aRPD boundary and to the difficulty in optically determining oxidation of coarse grain sediments. The aRPD could be determined at most stations in the northern section of the SFWF where sediments were fine sands and silts (INSPIRE, 2019). Station 15 had a very shallow aRPD and indications of organic enrichment, including high sediment oxygen demand (Table 3-1a, Figure 3-31). A few other stations in the northeastern corner had medium sediment oxygen demand, indicated by the presence of gray reduced sediments near the sediment–water interface; all other stations had low sediment oxygen demand. No indications of low water column dissolved oxygen were observed (Table 3-1a). One very small methane bubble was observed at Station 12 (Table 3-1a, Figure 3-32).

# 3.3 South Fork Export Cable (SFEC) – Outer Continental Shelf (OCS)

Fifty-four SPI/PV stations were sampled along the SFEC-OCS (Figure 1-4). The dominant CMECS Biotic Subclass along the SFEC-OCS was Soft Sediment Fauna at all stations where Biotic Subclass could be determined (Figure 3-1). Attached Fauna were present as the Co-occurring Biotic Subclass at six of the stations sampled along the SFEC-OCS (Table 3-2b). Three of these stations occurred directly outside of the SFWF and the other three stations were found on the far western edge of the SFEC-OCS. Sensitive taxa were not observed at any stations along the SFEC-OCS (Figure 3-10). The dominant CMECS Biotic Group within the



SFEC-OCS was Small Surface-Burrowing Fauna (43 of 54 stations) (Table 3-3b, Figure 3-9). Other dominant Biotic Groups and co-occurring Biotic Groups present along the SFEC-OCS included Sand Dollar Beds and Attached Hydroids (Table 3-2b, Figure 3-9).

Soft sediment infauna, predominantly indicated by surface tubes and burrows, were observed at approximately half of all SFEC-OCS stations (Table 3-2a, Table 3-2b, Figures 3-5 and 3-6). Burrows were observed in PV images at over half of all stations along the SFEC-OCS (31 of 54). Burrows were present at stations with dominant CMECS Biotic Subclasses of Soft Sediment Fauna, both where Small Surface-Burrowing Fauna and/or Sand Dollar Beds were the dominant Biotic Groups present. Tubes were only visible in the PV image at 3 of 54 stations along the SFEC-OCS; however, tubes were observed at 25 stations in the SPI images (Tables 3-2a and 3-2b). The other infauna identified in the SFEC-OCS from SPI images were polychaetes (Stations 113, 129, 140 and 156) (Table 3-2a, Figure 3-5). The most frequently observed infaunal successional stage observed within the SFEC-OCS was Stage 2, with 23 of the 60 replicates exhibiting Stage 2 fauna (Table 3-2a, Figure 3-33). Almost half (25 of 60) of all SPI replicates in the SFEC-OCS were classified as 'IND' for infaunal successional stage (see Section 3.2 for description).

Epifauna observed with SPI (Figure 3-34) and PV imagery (Figure 3-9) along the SFEC-OCS included anemones, barnacles, bryozoans, a crab, gastropods, hydroids, limpets, sand dollars, a scallop, shrimp, and sea pens (Table 3-2a and 3-2b, Appendix C, Appendix D). When cobbles and boulders were present, hydroids and barnacles were the most frequently observed epifauna. No single epifauna type was present at a majority of sand sheet habitats, though sand dollars were most frequent (Table 3-2b). Attached fauna on hard substrate was sparse (1 to <30 percent) at 3 of 54 stations (Table 3-2b, Figure 3-35, see Figure 3-25 to view sparse cover at Station 101). The percent coverage of attached fauna was in most cases directly proportional to the percentage of the image with hard substrate. Epifaunal tracks were present at 22 of 54 stations, and where observed were often numerous within the image (Table 3-2b and Figure 3-7).

Fish were observed at 5 stations; in some cases, image resolution and viewing angle (i.e., top-down) prevented positive taxonomic identification of fish species (Table 3-2b and Figure 3-36). Flora were not observed along the SFEC-OCS (Table 3-2b).

Station mean aRPD values along the SFEC-OCS averaged 2.3 cm and ranged from 1.0 to 6.6 cm (Table 3-2a and Figure 3-37). However, the aRPD could not be determined at 40 of the 54 stations due to camera prism penetration depths shallower than the aRPD boundary and to the difficulty in optically determining oxidation of coarse grain sediments. The majority of stations had low sediment oxygen demand (49 of 54) and no stations had high sediment oxygen demand (Figure 3-38). A few stations interspersed along the SFEC-OCS had medium sediment oxygen demand, indicated by the presence of gray reduced sediments near the sediment—water interface. No indications of low water column dissolved oxygen or methane bubbles were observed (Table 3-2a).



# 3.4 South Fork Export Cable (SFEC) – New York State (NYS)

Six SPI/PV stations were sampled along the SFEC-NYS (Figure 1-4). No features could be determined from PV images at stations 159 and 160 due to high turbidity in the water column obscuring view of the seafloor surface (Table 3-3b). The dominant CMECS Biotic Subclass along the SFEC-NYS was Soft Sediment Fauna at all stations where Biotic Subclass could be determined (Figure 3-1). Attached Fauna were not present as the Biotic Subclass or Cooccurring Biotic Subclass at any SFEC-NYS station (Table 3-3b). Sensitive taxa were not observed at any stations along the SFEC-NYS (Figure 3-10).

Soft sediment infauna, predominantly indicated by surface tubes and burrows, were observed at just over half of all SFEC-NYS stations (Table 3-3a, Table 3-3b, Figures 3-5 and 3-6). Burrows were observed in PV images at 2 of the 4 stations along the SFEC-NYS where there was acceptable visibility. Burrows were present at stations with dominant CMECS Biotic Subclasses of Soft Sediment Fauna, both where Small Surface-Burrowing Fauna and/or Sand Dollar Beds were the dominant Biotic Groups present. Tubes were not visible in the PV images; however, tubes were observed at 3 stations in the SPI images (Table 3-3a). Infaunal successional stages observed along the SFEC-NYS were predominantly Stage 2, with 4 of the 5 stations exhibiting Stage 2 fauna (Table 3-3a, Figure 3-33).

Sand dollars and tubes were the only epifauna observed within the SFEC-NYS and epifaunal tracks were present at two stations (Table 3-3a and 3-3b, Figure 3-7, Figure 3-9, Figure 3-34, Appendix C, Appendix D). Fish and living flora were not observed along the SFEC-NYS (Table 3-3b).

Station mean aRPD values along the SFEC-OCS averaged 2.6 cm and ranged from 2.5 to 2.8 cm (Table 3-3a, Figure 3-37). The aRPD could only be determined at 3 of the 6 stations due to camera prism penetration depths shallower than the aRPD boundary and to the difficulty in optically determining oxidation of coarse grain sediments. All but one SFEC-NYS station had low sediment oxygen demand (5 of 6) and a single station had medium sediment oxygen demand, indicated by the presence of gray reduced sediments near the sediment—water interface (Figure 3-38). No indications of low water column dissolved oxygen or methane bubbles were observed (Table 3-3a).

#### 3.5 Reference Area

Three SPI/PV stations, with five replicates analyzed per station, were sampled at a potential reference area (Figure 1-2). The dominant CMECS Biotic Subclass in the reference area was Soft Sediment Fauna at all stations (Table 3-4b, Figure 3-1). Attached Fauna were present as the Co-occurring Biotic Subclass at two replicates at Station C05, at the eastern end of the area (Table 3-4b). Attached fauna included sea pens attached to the seafloor and cobbles, with hydroids directly attached to the sea pens (Table 3-4b, Figure 3-39). Sensitive taxa were not observed at any stations within the reference area (Figure 3-10). The dominant CMECS Biotic Group within the reference area was Small Surface-Burrowing Fauna (Table 3-4b). Other



dominant Biotic Groups and Co-occurring Biotic Groups present in the reference area included Attached Hydroids and Pennatulid Bed.

Soft sediment infauna, predominantly indicated by surface tubes and/or burrows, were observed at all reference area stations (Table 3-4a, Figures 3-5 and 3-6). Burrows were observed in PV images at 2 of the 3 reference area stations (Table 3-4b). Burrows were present at stations with dominant CMECS Biotic Subclasses of Soft Sediment Fauna. Tubes were visible in a single PV image in the reference area; however, tubes were observed at all stations in the SPI images (Table 3-4a, Figure 3-5). The other infauna identified in the reference area from SPI images were potential polychaetes and potential ampharetids. Infaunal successional stages observed within the reference area were predominantly Stage 1 (7 of 15 replicates) and Stage 2 (5 of 15 replicates) (Table 3-4a and Figure 3-33). A single replicate in Station C04 exhibited a Stage 3 successional stage. Two of the fifteen SPI replicates in the reference area were classified as 'IND' for the infaunal successional stage parameter (see Section 3.2 for description).

Epifauna observed with SPI (Figure 3-34) and PV imagery (Figure 3-9) within the reference area included barnacles, a gastropod, sea pens, and hydroids (Tables 3-4a and 3-4b, Figure 3-39, Appendix C, Appendix D). When cobbles and boulders were present, hydroids and barnacles were the most frequently observed epifauna. No single epifauna type was present at a majority of sand sheet habitats, although hydroids and sea pens were observed (Table 3-4b). Attached fauna on hard substrate was sparse (1 to <30 percent) at 2 of 15 replicates (Figure 3-35). The percent coverage of attached fauna was in most cases directly proportional to the percentage of the image with hard substrate. Epifaunal tracks were present at all stations and were often numerous within the image (Table 3-4b, Figure 3-7).

Fish (windowpane flounder and a sea robin) were observed at 2 of 3 stations (Figure 3-36). Flora were not observed at any reference area station (Table 3-4b).

The aRPD could be determined for one of the three reference area stations (C03), the station mean was 2.7 cm (Table 3-4a and Figure 3-37). The aRPD could not be determined at the other 2 stations due to camera prism penetration depths shallower than the aRPD boundary and to the difficulty in optically determining oxidation of coarse grain sediments. All reference area stations had low oxygen demand sediments (Figure 3-38). No indications of low water column dissolved oxygen or methane bubbles were observed in the reference area (Table 3-4a).



Table 3-1a. Summary of Sediment Profile Image Analysis Results at the SFWF

Area	SFWF Station	SPI Replicate Count (n)	Water Depth (m)	Mean aRPD Depth (cm)	Sediment Oxygen Demand Level (by station)	Low Dissolved Oxygen Presence (by station)	Methane Presence (by station)		sional eplicat		Infauna Present (by station)	Epifauna Present (by station)	Invasive Taxa Present (by station)	Sensitive Taxa Present (by station)
SFWF	001	3	33.8	IND	Low	No	No	IND	IND	IND	None	None	No	No
SFWF	002	1	34.2	IND	Low	No	No	2			Tubes	None	No	No
SFWF	003	1	35.7	0.8	Low	No	No	2			Tubes	None	No	No
SFWF	004	1	35.8	0.9	Low	No	No	2			Tubes	None	No	No
SFWF	005	1	36.5	1.1	Low	No	No	2			Tubes	None	No	No
SFWF	006	1	35.8	3.0	Low	No	No	2 -> 3			None	None	No	No
SFWF	007	3	37.5	IND	None	No	No	IND	IND	IND	None	Barnacles, Hydroids	No	No
SFWF	008	1	37.4	1.3	Low	No	No	2			None	None	No	No
SFWF	009	1	35.9	IND	Low	No	No	2			Tubes	None	No	No
SFWF	010	1	38.8	IND	Low	No	No	2			Tubes	None	No	No
SFWF	011	1	37.2	IND	Low	No	No	2			Tubes	None	No	No
SFWF	012	1	40.3	1.1	Medium	No	Yes	2			Polychaete(s), Tubes	None	No	No
SFWF	013	1	37.9	1.5	Low	No	No	1 -> 2			None	None	No	No
SFWF	014	1	40.3	1.2	Medium	No	No	2			None	None	No	No
SFWF	015	1	41.3	0.3	High	No	No	2			Polychaete(s), Tubes	None	No	No
SFWF	016	1	35.7	IND	None	No	No	IND			Polychaete(s)	None	No	No
SFWF	017	1	34.7	IND	Low	No	No	IND			None	None	No	No
SFWF	018	3	34.9	IND	Low	No	No	IND	IND	IND	Tubes	Barnacles, Hydroids, Tubes	No	No
SFWF	019	1	34.8	IND	Low	No	No	IND			None	None	No	No
SFWF	020	1	34.6	IND	Low	No	No	1			Tubes	None	No	No
SFWF	021	1	34.3	IND	Low	No	No	IND			Tubes	None	No	No
SFWF	022	1	34.6	IND	Low	No	No	IND			Tubes	None	No	No
SFWF	023	3	35.2	IND	Low	No	No	IND	IND	IND	Tubes	Hydroid(s)	No	No
SFWF	024	1	34.9	IND	Low	No	No	2			Tubes	None	No	No
SFWF	025	1	36.6	IND	Low	No	No	IND			None	None	No	No
SFWF	026	1	35.2	IND	Low	No	No	2			Tubes	None	No	No
SFWF	027	1	35.1	4.2	Low	No	No	2			Tubes	None	No	No
SFWF	028	1	34.5	IND	Low	No	No	IND			Tubes	None	No	No
SFWF	029	1	35.5	IND	Low	No	No	IND			Tubes	None	No	No
SFWF	030	1	36.3	IND	Medium	No	No	IND			None	None	No	No
SFWF	031	1	36.4	IND	Medium	No	No	IND			None	None	No	No
SFWF	032	1	35.0	IND	Low	No	No	2			Tubes	None	No	No
SFWF	033	1	36.7	IND	Low	No	No	IND			None	None	No	No
SFWF	034	3	34.7	IND	Low	No	No	2	IND	IND	Tubes	None	No	No
SFWF	035	1	36.0	IND	Low	No	No	IND			Tubes	None	No	No



Area	SFWF Station	SPI Replicate Count (n)	Water Depth (m)	Mean aRPD Depth (cm)	Sediment Oxygen Demand Level (by station)	Low Dissolved Oxygen Presence (by station)	Methane Presence (by station)		sional eplicat	Stage (by te) <sup>a</sup>	Infauna Present (by station)	Epifauna Present (by station)	Invasive Taxa Present (by station)	Sensitive Taxa Present (by station)
SFWF	036	3	36.6	IND	Low	No	No	2	IND	IND	Tubes	Barnacles, Hydroids	No	No
SFWF	037	1	35.4	4.3	Low	No	No	2			Tubes	None	No	No
SFWF	038	1	34.8	IND	Low	No	No	IND			None	None	No	No
SFWF	039	3	35.2	IND	Low	No	No	IND	IND	IND	None	Barnacles, Hydroids	No	No
SFWF	040	1	35.7	IND	Low	No	No	IND			None	None	No	No
SFWF	041	1	34.8	2.1	Low	No	No	2			Tubes	None	No	No
SFWF	042	1	34.7	IND	Low	No	No	IND			None	None	No	No
SFWF	043	1	35.1	IND	Low	No	No	2			Tubes	None	No	No
SFWF	044	1	35.2	IND	Low	No	No	2			Tubes	None	No	No
SFWF	045	1	35.4	IND	Low	No	No	2			Tubes	None	No	No
SFWF	046	1	35.2	IND	Low	No	No	1			None	None	No	No
SFWF	047	1	34.8	IND	Low	No	No	IND			None	None	No	No
SFWF	048	1	35.8	IND	Low	No	No	IND			None	None	No	No
SFWF	049	1	34.9	IND	Low	No	No	2			Tubes	None	No	No
SFWF	050	1	35.6	IND	Low	No	No	IND			None	None	No	No
SFWF	051	1	36.0	IND	Low	No	No	IND			None	None	No	No
SFWF	052	1	35.3	IND	Low	No	No	IND			None	None	No	No
SFWF	053	1	35.8	IND	Low	No	No	1			None	None	No	No
SFWF	054	3	35.6	IND	Low	No	No	2	2	IND	None	None	No	No
SFWF	055	1	36.1	IND	Low	No	No	IND			None	None	No	No
SFWF	056	1	35.2	IND	Low	No	No	IND			None	None	No	No
SFWF	057	3	35.7	IND	Low	No	No	IND	IND	IND	None	None	No	No
SFWF	058	1	35.8	IND	Low	No	No	IND			None	None	No	No
SFWF	059	1	36.4	IND	Low	No	No	IND			None	None	No	No
SFWF	060	1	35.8	IND	IND	No	No	IND			None	None	No	No
SFWF	061	3	36.0	IND	IND	No	No	1	1 -> 2	IND	Tubes	Barnacles	No	No
SFWF	062	3	35.5	IND	IND	No	No	1	2	2	Tubes	None	No	No
SFWF	063	3	35.9	IND	Low	No	No	1	IND	IND	None	Tubes	No	No
SFWF	064	3	36.7	IND	Low	No	No	1	IND	IND	Tubes	None	No	No
SFWF	065	1	36.8	IND	Low	No	No	IND			None	None	No	No
SFWF	066	3	35.8	IND	Low	No	No	1	IND	IND	Unidentified infauna	None	No	No
SFWF	067	1	36.4	IND	Low	No	No	IND			None	None	No	No
SFWF	068	3	35.5	IND	Low	No	No	1	IND	IND	None	Barnacles, Hydroids, Tubes	No	No
SFWF	069	1	35.5	IND	Low	No	No	IND			None	None	No	No
SFWF	070	3	35.1	IND	Low	No	No	IND	IND	IND	None	Barnacles, Hydroids	No	No
SFWF	071	1	35.6	IND	Low	No	No	IND			None	None	No	No
SFWF	072	1	36.2	IND	Low	No	No	1			None	None	No	No



Area	SFWF Station	SPI Replicate Count (n)	Water Depth (m)	Mean aRPD Depth (cm)	Sediment Oxygen Demand Level (by station)	Low Dissolved Oxygen Presence (by station)	Methane Presence (by station)	Successional Stage (by replicate) <sup>a</sup>			Infauna Present (by station)	Epifauna Present (by station)	Invasive Taxa Present (by station)	Sensitive Taxa Present (by station)
SFWF	073	1	35.5	IND	Low	No	No	IND			None	None	No	No
SFWF	074	1	35.8	IND	Low	No	No	IND			None	None	No	No
SFWF	075	1	36.2	IND	Low	No	No	IND			None	None	No	No
SFWF	076	1	37.1	IND	Low	No	No	IND			None	None	No	No
SFWF	201	3	34.7	IND	Low	No	No	2	2	IND	Tubes	Bryozoan	No	No
SFWF	202	3	44.2	3.1	Low	No	No	2	2 -> 3	2 on 3	Bivalves, Polychaete(s), Tubes	None	No	No
SFWF	203	3	36.6	IND	Low	No	No	IND	IND	IND	None	Shrimp	No	No
SFWF	204	3	35.4	IND	Low	IND	IND	IND	IND	IND	IND	Bryozoans, Barnacles	No	No
SFWF	205	3	35.4	IND	Low	No	No	2	IND	IND	None	Corymorpha (hydroid), Amphipod	No	No
SFWF	206	3	36.3	IND	Low	No	No	2	2	IND	Tubes	Bryozoans, Barnacles	No	No
SFWF	207	3	37.5	IND	Low	No	No	2	IND	IND	Tubes	None	No	No
SFWF	208	3	34.1	IND	Low	No	No	2	IND	IND	Tubes	None	No	No
SFWF	209	3	36.6	IND	Low	No	No	2	2	IND	Tubes	None	No	No
SFWF	210	3	34.1	IND	Low	No	No	2	IND	IND	Tubes	None	No	No
SFWF	211	3	35.1	IND	Low	No	No	IND	IND	IND	None	None	No	No
SFWF	212	3	33.5	IND	Low	No	No	2	IND	IND	Tubes	None	No	No
SFWF	213	3	34.1	IND	Low	No	No	IND	IND	IND	None	None	No	No
SFWF	214	3	34.1	IND	Low	No	No	IND	IND	IND	None	None	No	No
SFWF	215	3	34.7	IND	Low	No	No	IND	IND	IND	None	None	No	No
SFWF	216	3	32.9	IND	Low	No	No	IND	IND	IND	None	None	No	No
SFWF	217	3	33.5	IND	Low	No	No	2	IND	IND	Polychaete(s)	None	No	No
SFWF	218	3	33.2	IND	Low	No	No	IND	IND	IND	None	None	No	No
SFWF	219	3	33.8	IND	Low	No	No	1	1	IND	None	Hydroid(s)	No	No
SFWF SFWF	220 C01	<u>2</u> 5	36.0 37.8	2.0	Low Low	No No	No No	IND 1	IND   IND   IND	IND   IND	None None	None None	No No	No No
SFWF	C02	5	36.5	2.6	Low	No	No	1		IND   IND	Tubes	None	No	No
01 111	002		00.0	2.0		WF STATION S		STATIS		112  12	14500	110110	110	110
	n = 98										_			
	Max		44.2	4.3										
	Min		32.9	0.3										
	Mean		35.8	2.0										
	Standard Deviation			1.2										
					OVE	RALL STATION	SUMMAR	Y STAT	ISTICS	S	-			
	n = 161													
	Max		48.0	6.6										



Area	SFWF Station	SPI Replicate Count (n)	Water Depth (m)	Mean aRPD Depth (cm)	Sediment Oxygen Demand Level (by station)	Methane Presence (by station)	Succes	sional eplicat	Infauna Present (by station)	Epifauna Present (by station)	Invasive Taxa Present (by station)	Sensitive Taxa Present (by station)
	Min		16.1	0.3								
	Mean		36.1	2.2								
	Standard Deviation		5.2	1.3								



a 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) "|" symbol in Successional Stage columns indicates a fourth and fifth replicate (Stations C01 and C02 only).

Table 3-1b. Summary of Plan View Image Analysis Results at the SFWF

SFWF Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Habitat Type
001	3	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	No	Yes	IND	Hydroids	None	None	NoN	Sand with lo mobile gravel
002	1	Soft Sediment Fauna	None	IND	None	None	No	No	Yes	IND	None	None	None	NoN	lo Sand sheet
003	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	NoN	lo Sand sheet
004	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	NoN	lo Sand sheet
005	1	Soft Sediment Fauna	None	IND	None	None	No	No	Yes	IND	None	None	None	NoN	lo Sand sheet
006	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	IND	None	None	NoN	lo Sand sheet
007	3	Soft Sediment Fauna, Attached Fauna	Attached Fauna (2)	Attached Hydroids, Diverse Colonizers, Small Surface- Burrowing Fauna	Attached Hydroids, Small Surface- Burrowing Fauna	Moderate (30 to <70%)	Yes	No	No	IND	Anemone, Barnacle, Hydroids	None	None	NoN	Patchy cobbles & boulders on sand
008	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	None	NoN	lo Sand sheet
009	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	None	NoN	lo Sand sheet
010	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	None	NoN	lo Sand sheet
011	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	None	NoN	lo Sand sheet



SFWF Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present Sensitive Taxa Present	Habitat Type
012	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	NoNo	Sand sheet
013	1	Soft Sediment Fauna	None	IND	None	None	No	No	Yes	IND	None	None	None	NoNo	Sand sheet
014	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	None	NoNo	Sand sheet
015	1	Soft Sediment Fauna	None	IND	None	None	IND	No	No	IND	Shrimp	None	None	NoNo	Sand sheet
016	1	IND	Attached Fauna (1)	IND	None	IND	No	No	No	IND	None	None	None	NoNo	Sand with mobile gravel
017	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	NoNo	
018	3	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	No	No	IND	Barnacles, Hydroids	None	None	NoNo	Patchy cobbles & boulders on sand
019	1	IND	Attached Fauna (1)	IND	None	None	No	No	No	IND	None	None	None	NoNo	Sand with mobile gravel
020	1	Soft Sediment Fauna	None	IND	None	None	No	No	Yes	IND	None	None	None	NoNo	Sand sheet
021	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	IND	No No	Sand sheet
022	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	None	NoNo	Sand with mobile gravel
023	3	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	No	No	IND	Hydroids, Sand Dollar, Sponges	Dead seaweed	None	NoNo	Patchy cobbles & boulders on sand



SFWF Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
024	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	Nol	No S	Sand sheet
025	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	Nol	No S	Sand sheet
026	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	None	Nol	No S	Sand sheet
027	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	None	Nol	No S	Sand sheet
028	1	Soft Sediment Fauna	None	IND	Attached Hydroids	Trace (<1%)	No	No	No	IND	Hydroids	None	None	Nol	No S	Sand sheet
029	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	Unknown	Nol	No S	Sand sheet
030	1	Soft Sediment Fauna	None	IND	None	None	No	No	Yes	IND	None	None	None	Nol	No S	Sand sheet
031	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	Nol	No S	Sand sheet
032	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	None	Nol	No S	Sand sheet
033	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	None	Nol		Sand with mobile gravel
034	3	Soft Sediment Fauna	Attached Fauna (2)	Small Surface- Burrowing Fauna	Attached Hydroids	Trace (<1%)	Yes	No	No	IND	Barnacles, Hydroids	None	None	Nol	No	Patchy cobbles & boulders on sand
035	1	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	Attached Hydroids	Trace (<1%)	No	IND	IND	IND	Barnacles, Hydroids	None	Lefteye flatfish	Nol		Sand with mobile gravel



SFWF Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
036	3	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	No	No	Yes	IND	Barnacles, Hydroids	None	None	Nol	Vo	Patchy cobbles & boulders on sand
037	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	Nol	Νo	Sand sheet
038	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Small Tube- Building Fauna	None	Yes	Yes	Yes	IND	IND	None	None	Nol	No	Sand with mobile gravel
039	3	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	No	No	IND	Hydroids	None	None	Nol	Vo	Patchy cobbles & boulders on sand
040	1	Soft Sediment Fauna	Attached Fauna (2)	Small Surface- Burrowing Fauna	Small Tube- Building Fauna	None	No	Yes	No	IND	None	None	None	Nol	Vο	Sand with mobile gravel
041	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	Yes	IND	None	None	None	Nol	No	Sand sheet
042	1	Soft Sediment Fauna	Attached Fauna (2)	Small Surface- Burrowing Fauna	Barnacles	Trace (<1%)	Yes	No	No	IND	Barnacles, Hydroids, Sea Scallop	None	None	Nol	Νo	Sand with mobile gravel
043	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	No	IND	None	None	Unknown	NoN	No	Sand sheet
044	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	Yes	IND	None	None	None	Nol	Vο	Sand sheet
045	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	Yes	IND	None	None	None	NoN	No	Sand sheet
046	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	Yes	IND	None	None	None	Nol	No	Sand sheet
047	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	Yes	IND	None	None	None	Nol	No	Sand sheet



SFWF Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
048	1	Soft Sediment Fauna	Attached Fauna (2)	IND	None	None	No	No	No	IND	None	None	None	Nol		Sand with mobile gravel
049	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	None	Nol	No S	and sheet
050	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	Yes	IND	None	None	None	Nol		Sand with mobile gravel
051	1	Soft Sediment Fauna	Attached Fauna (1)	IND	None	None	No	No	No	IND	None	None	None	Nol		Sand with mobile gravel
052	1	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	Small Tube- Building Fauna	None	No	Yes	Yes	IND	None	None	None	Nol	_	Sand with mobile gravel
053	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	Yes	IND	None	None	None	Nol	No S	and sheet
054	3	Soft Sediment Fauna	Attached Fauna (2)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	Yes	No	IND	Hydroids	None	None	Nol	100	Patchy cobbles & boulders on sand
055	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	Sea pen	None	Sea robin	Nol	No	Sand with mobile gravel
056	1	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	None	None	No	No	No	IND	Sea scallop	None	None	Nol	No I	Patchy cobbles & boulders on sand
057	3	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	Yes	Yes	IND	Barnacles, Hydroids, Sea pen(s)	None	None	Nol	ا ا ا	Patchy cobbles & boulders on sand
058	1	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	None	None	Yes	Yes	Yes	IND	Hermit crab	None	None	Nol		Sand with mobile gravel



SFWF Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
059	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	No	No	Sand with mobile gravel
060	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	No	No	Sand with mobile gravel
061	3	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	No	No	IND	Barnacles, Hydroids, Sea pen(s)	None	None	No	No	Patchy cobbles & boulders on sand
062	3	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	Yes	Yes	IND	Barnacles, Hydroids, Sea pen(s)	None	None	No	No	Patchy cobbles & boulders on sand
063	3	Attached Fauna, Soft Sediment Fauna	Attached Fauna (1), Soft Sediment Fauna (2)	Attached Hydroids, Attached Sponges, Small Surface- Burrowing Fauna	Attached Hydroids, Small Surface- Burrowing Fauna	Moderate (30 to <70%)	Yes	Yes	Yes	IND	Barnacles, Hydroids, Sea pen, Sea star, Sponges	None	None	No	No	Patchy cobbles & boulders on sand
064	3	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	Attached Hydroids, Barnacles	Sparse (1 to <30%)	Yes	No	No	IND	Barnacles, Hydroids, Sea pen(s)	None	None	No	No	Patchy cobbles & boulders on sand
065	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	No	No	Sand with mobile gravel
066	3	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	No	No	IND	Barnacles, Hydroids, Sea pen(s)	None	None	No	No	Patchy cobbles & boulders on sand
067	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	No	No	Sand sheet
068	3	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	None	Trace (<1%)	Yes	Yes	Yes	IND	Barnacles	None	None	No	No	Sand with mobile gravel



SFWF Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
069	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	Sand dollar, Sea scallop	None	IND	No	No	Sand sheet
070	3	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	Attached Hydroids, Barnacles	Sparse (1 to <30%)	Yes	No	No	IND	Barnacles, Hydroids, Sea pen(s)	None	None	No	No	Patchy cobbles & boulders on sand
071	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	No	IND	None	None	IND	No	No	Sand with mobile gravel
072	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	No	No	Sand sheet
073	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	Hermit crab	None	None	No	No	Sand sheet
074	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	No	No	Sand sheet
075	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	No	IND	None	None	None	No	No	Sand with mobile gravel
076	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	No	No	Sand sheet
201	3	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	Attached Bryozoans, Barnacles	Trace (<1%)	Yes	Yes	Yes	No	Bryozoans, Barnacles, Shrimp	None	None	No	No	Patchy cobbles & boulders on sand
202	3	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	Yes	Yes	IND	None	None	None	No	No	Sand sheet
203	3	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Mobile Mollusks on Soft Sediments	None	Yes	No	No	IND	Sea scallop	None	None	No	No	Sand with mobile gravel
204	3	Attached Fauna; Soft	Attached Fauna (2), Soft	Small Surface- Burrowing Fauna,	Small Surface- Burrowing	Sparse (1 to <30%)	Yes	No	Yes	IND	Grazed barnacles,	None	None	No	No	Patchy cobbles &



SFWF Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present Sensitive Taxa Present	Habitat Type
		Sediment Fauna	Sediment Fauna (1)	Diverse Colonizers	Fauna, Barnacles						Bryozoans, Shrimp				boulders on sand
205	3	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	Attached Hydroids	Trace (<1%)	Yes	Yes	Yes	IND	Hydroids	None	Unknown	No No	Patchy cobbles & boulders on sand
206	3	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	Attached Bryozoans	Sparse (1 to <30%)	Yes	No	Yes	IND	Hydroids, Bryozoans, Barnacles	None	None	NoNo	Patchy cobbles & boulders on sand
207	3	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	No No	Sand sheet
208	3	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	Monkfish	NoNo	Sand sheet
209	3	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	No No	Sand sheet
210	3	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	Yes	Yes	IND	None	None	None	No No	Sand sheet
211	3	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	Unknown	No No	Sand sheet
212	3	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Small Tube- Building Fauna	None	Yes	Yes	No	Tubes	Shrimp	None	None	No No	Sand sheet
213	3	Soft Sediment Fauna	Attached Fauna (2)	Small Surface- Burrowing Fauna	Attached Bryozoans	Trace (<1%)	Yes	No	Yes	IND	Hydroids, Bryozoans, Barnacles	None	None	No No	Patchy cobbles & boulders on sand
214	3	Soft Sediment Fauna	Attached Fauna (2)	Small Surface- Burrowing Fauna	Attached Hydroids	Trace (<1%)	Yes	No	Yes	IND	Hydroids	None	None	No No	gravel
215	3	Attached Fauna; Soft	None	Small Surface- Burrowing Fauna, Barnacles	None	Trace (<1%)	IND	No	No	IND	Barnacles, Shrimp	None	None	No No	Sand with mobile gravel



SFWF Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present
		Sediment Fauna; IND													
216	3	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	NoN	Sand with lo mobile gravel
217	3	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	Attached Bryozoans	Sparse (1 to <30%)	IND	Yes	Yes	IND	Bryozoans, Barnacles	Coralline algae	Unknown	NoN	Patchy cobbles & boulders on sand
218	3	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	Hermit crab	None	None	NoN	
219	3	Soft Sediment Fauna	Attached Fauna (2)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	No	Yes	IND	Hydroids, Barnacles, Bryozoans	Coralline algae	None	NoN	Sand with lo mobile gravel
220	3	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	Unknown	NoN	lo Sand sheet
C01	5	IND	None	IND	None	None	No	No	No	IND	Shrimp	None	None	NoN	Sand with lo mobile gravel
C02	5	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	NoN	lo Sand sheet



Table 3-2a. Summary of Sediment Profile Image Analysis Results along the SFEC-OCS

Area	Station	SPI Replicate Count (n)	Water Depth (m)	Mean aRPD Depth (cm)	Sediment Oxygen Demand Level (by station)	Low Dissolved Oxygen Presence (by station)	Methane Presence (by station)		sional eplicat	Stage (by e)ª	Infauna Present (by station)	Epifauna Present (by station)	Invasive Taxa Present (by station)	Sensitive Taxa Present (by station)
SFEC- OCS	101	3	34.8	IND	Low	No	No	IND	IND	IND	None	Bryozoans, Hydroids, Tubes	No	No
SFEC- OCS	102	3	35.4	IND	Low	No	No	2	2	IND	Tubes	Barnacles, Hydroids	No	No
SFEC- OCS	103	1	38.6	1.2	Medium	No	No	2			Tubes	None	No	No
SFEC- OCS	104	3	38.3	IND	Low	No	No	1 -> 2	1 -> 2	IND	Tubes	Crab, Gastropod(s)	No	No
SFEC- OCS	105	1	40.5	IND	Low	No	No	IND			None	None	No	No
SFEC- OCS	106	1	42.7	IND	Low	No	No	IND			None	None	No	No
SFEC- OCS	107	1	42.6	IND	Low	No	No	IND			None	None	No	No
SFEC- OCS	108	1	43.2	IND	Low	No	No	1			Tubes	None	No	No
SFEC- OCS	109	1	43.2	IND	Low	No	No	1			None	None	No	No
SFEC- OCS	110	1	44.9	IND	Low	No	No	2			None	None	No	No
SFEC- OCS	111	1	46.8	IND	Low	No	No	1			None	None	No	No
SFEC- OCS	112	1	45.6	IND	Low	No	No	IND			None	None	No	No
SFEC- OCS	113	1	43.6	IND	Low	No	No	3			Polychaete(s)	Sand Dollar	No	No
SFEC- OCS	114	1	42.3	IND	Low	No	No	2			Tubes	None	No	No
SFEC- OCS	115	1	44.5	IND	Low	No	No	IND			Tubes	None	No	No
SFEC- OCS	116	1	45.1	IND	Low	No	No	IND			None	None	No	No
SFEC- OCS	117	1	48.0	IND	Low	No	No	IND			Unidentified Organism	None	No	No
SFEC- OCS	118	1	47.7	IND	Low	No	No	2			Tubes	None	No	No
SFEC- OCS	119	1	46.9	6.6	Low	No	No	2			None	None	No	No
SFEC- OCS	120	1	45.7	1.6	Low	No	No	2			Tubes	None	No	No



Area	Station	SPI Replicate Count (n)	Water Depth (m)	Mean aRPD Depth (cm)	Sediment Oxygen Demand Level (by station)	Low Dissolved Oxygen Presence (by station)	Methane Presence (by station)		sional eplica	Stage (by te) <sup>a</sup>	Infauna Present (by station)	Epifauna Present (by station)	Invasive Taxa Present (by station)	Sensitive Taxa Present (by station)
SFEC- OCS	121	1	44.0	3.3	Low	No	No	2			Tubes	None	No	No
SFEC- OCS	122	1	40.4	IND	Low	No	No	2			Tubes	Sand Dollar	No	No
SFEC- OCS	123	1	41.1	IND	Low	No	No	IND			None	None	No	No
SFEC- OCS	124	1	42.5	IND	Low	No	No	2			Tubes	None	No	No
SFEC- OCS	125	1	47.0	1.0	Medium	No	No	2			Tubes	Sand Dollar	No	No
SFEC- OCS	126	1	41.3	IND	Low	No	No	IND			None	Sand Dollar	No	No
SFEC- OCS	127	1	40.9	IND	Low	No	No	IND			None	Shrimp	No	No
SFEC- OCS	128	1	46.8	IND	Low	No	No	2			Tubes	None	No	No
SFEC- OCS	129	1	46.9	1.9	Medium	No	No	2 on 3			Polychaete(s), Tubes	None	No	No
SFEC- OCS	130	1	45.7	1.6	Medium	No	No	2			Tubes	None	No	No
SFEC- OCS	131	1	45.4	1.5	Low	No	No	2			Tubes	None	No	No
SFEC- OCS	132	1	42.1	IND	Low	No	No	2			None	None	No	No
SFEC- OCS	133	1	39.0	IND	Low	No	No	IND			None	None	No	No
SFEC- OCS	134	1	35.6	IND	Low	No	No	IND			None	None	No	No
SFEC- OCS	135	1	33.9	IND	Low	No	No	IND			None	None	No	No
SFEC- OCS	136	1	32.9	IND	Low	No	No	2			Tubes	None	No	No
SFEC- OCS	137	1	32.8	IND	Low	No	No	IND			None	None	No	No
SFEC- OCS	138	1	31.6	IND	Low	No	No	2			None	Sand Dollar	No	No
SFEC- OCS	139	1	31.7	IND	Low	No	No	IND			None	Sand Dollar	No	No
SFEC- OCS	140	1	30.8	2.2	Low	No	No	2			Polychaete(s)	Sand Dollar	No	No
SFEC- OCS	141	1	30.0	IND	Low	No	No	IND			None	None	No	No



Area	Station	SPI Replicate Count (n)	Water Depth (m)	Mean aRPD Depth (cm)	Sediment Oxygen Demand Level (by station)	Low Dissolved Oxygen Presence (by station)	Methane Presence (by station)		sional eplica		Infauna Present (by station)	Epifauna Present (by station)	Invasive Taxa Present (by station)	Sensitive Taxa Present (by station)
SFEC- OCS	142	1	24.7	IND	Low	No	No	2			Tubes	Gastropod(s)	No	No
SFEC- OCS	146	1	30.2	4.4	Low	No	No	IND			None	None	No	No
SFEC- OCS	147	1	30.5	IND	Low	No	No	IND			None	None	No	No
SFEC- OCS	148	1	29.7	IND	Low	No	No	2			Tubes	None	No	No
SFEC- OCS	149	1	28.8	IND	Low	No	No	1			Tubes	None	No	No
SFEC- OCS	150	1	30.9	1.2	Low	No	No	2			Tubes	None	No	No
SFEC- OCS	151	1	31.3	IND	Low	No	No	IND			None	Limpets	No	No
SFEC- OCS	152	1	31.1	IND	Low	No	No	1			None	None	No	No
SFEC- OCS	153	1	30.7	1.8	Low	No	No	1			Tubes	None	No	No
SFEC- OCS	154	1	30.5	1.7	Low	No	No	2			Tubes	None	No	No
SFEC- OCS	155	1	31.6	1.8	Low	No	No	1			Tubes	Sand Dollar	No	No
SFEC- OCS	156	1	31.5	IND	Medium	No	No	1 on 3			Polychaete(s)	Gastropod(s)	No	No
SFEC- OCS	157	1	29.9	IND	Low	No	No	IND			Tubes	None	No	No
					SF	WF STATION S	UMMARY	STATIS	rics					
	n = 54													
	Max		48.0	6.6										
	Min Mean		24.7 38.4	1.0 2.3										
	Standard Deviation		30.4	1.6										
	Deviation		l		OVE	RALL STATION	SUMMAR	Y STATI	STICS	S				<u>I</u>
	n = 161													
	Max		48.0	6.6										
	Min		16.1	0.3										
	Mean		36.1	2.2										
	Standard Deviation		5.2	1.3										

a 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)



Table 3-2b. Summary of Plan View Image Analysis Results along the SFEC-OCS

SFEC- OCS Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	<b>Burrow Presence</b>	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
101	3	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	No	Yes	IND	Barnacles, Hydroids	None	None	No	No	Patchy cobbles & boulders on sand
102	3	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	No	Yes	IND	Anemone, Barnacles, Hydroids, Sea pen	None	Black sea bass	No	No	Patchy cobbles & boulders on sand
103	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	Yes	No	IND		None	None	No	No	Sand sheet
104	3	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	Attached Hydroids	Sparse (1 to <30%)	Yes	No	No	IND	Anemone, Barnacle, Hermit crab, Hydroids, Sand dollar, Sea pens, Sea scallop	None	None	No	No	Patchy cobbles & boulders on sand
105	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	Scup	No	No	Sand sheet
106	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	No	No	Sand sheet
107	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	Sea pen	None	None	No	No	Sand with mobile gravel
108	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	Hydroids, Sea pen	None	IND	No	No	Sand with mobile gravel



SFEC- OCS Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
109	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	No	No	Sand with mobile gravel
110	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	No	No	Sand sheet
111	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	No	IND	Sea pen, shrimp	None	None	No	No	Sand with mobile gravel
112	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	No	IND	Sand dollar, Sea pen, shrimp	None	IND	No	No	Sand with mobile gravel
113	1	Soft Sediment Fauna	None	Sand Dollar Bed	None	None	No	No	Yes	IND	Sand dollar	None	None	No	No	Sand sheet
114	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	Sand dollar	None	None	No	No	Sand sheet
115	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	No	No	Yes	IND	Sand dollar	None	None	No	No	Sand sheet
116	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	Yes	No	Yes	IND	Sand dollar	None	None	No	No	Sand sheet
117	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	IND	IND	IND	IND	Sand dollar	IND	None	No	No	Sand sheet
118	1	Soft Sediment Fauna	None	Small Surface-	None	None	Yes	No	No	IND	Hermit crab, shrimp	None	IND	No	No	Sand sheet



SFEC- OCS Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
				Burrowing Fauna												
119	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	No	IND	Sea star	None	None	No	No	Sand sheet
120	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	No	No	Sand sheet
121	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	No	No	Sand sheet
122	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	Yes	Yes	No	IND	Sand dollars	None	None	No	No	Sand sheet
123	1	Soft Sediment Fauna	None	IND	None	None	No	No	No	IND	None	None	None	No	No	Sand sheet
124	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	No	No	Sand sheet
125	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	Yes	Yes	Yes	IND	Sand dollars	None	None	No	No	Sand sheet
126	1	Soft Sediment Fauna	None	Sand Dollar Bed	Small Surface- Burrowing Fauna	None	Yes	No	Yes	IND	Sand dollar	None	None	No	No	Sand sheet
127	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	Yes	IND	None	None	None	No	No	Sand sheet



SFEC- OCS Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
128	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	IND	No	No	IND	Shrimp	None	None	No	No	Sand sheet
129	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	IND	INE	IND	IND	IND	IND	IND	No	Sand sheet
130	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	IND	IND	INE	IND	Sea pen?	IND	IND	IND	No	Sand sheet
131	1	IND	None	IND	None	IND	IND	IND	INE	IND	IND	IND	IND	IND	IND	Sand sheet
132	1	IND	None	IND	None	IND	IND	IND	INE	IND	IND	IND	IND	IND	IND	Sand with mobile gravel
133	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	IND	INE	IND	IND	IND	IND	IND	IND	Sand sheet
134	1	IND	None	IND	None	None	No	No	No	IND	None	None	None	No	No	Sand with mobile gravel
135	1	Soft Sediment Fauna	None	IND	None	None	IND	IND	INE	IND	Sand dollar	IND	IND	IND	No	Sand with mobile gravel
136	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	IND	IND	INE	IND	Sand dollar	IND	IND	No	No	Sand sheet
137	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	Yes	SIND	Sand dollar	None	None	No	No	Sand with mobile gravel
138	1	Soft Sediment Fauna	None	Sand Dollar Bed	Small Surface- Burrowing Fauna	None	No	No	Yes	IND	Sand dollar	None	None	No	No	Sand sheet



SFEC- OCS Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
139	1	Soft Sediment Fauna	None	Sand Dollar Bed	Small Surface- Burrowing Fauna	None	Yes	No	Yes	IND	Sand dollar	None	None	No	No	Sand sheet
140	1	Soft Sediment Fauna	None	Sand Dollar Bed	Small Surface- Burrowing Fauna	None	No	No	Yes	IND	Sand dollar	None	None	No	No	Sand sheet
141	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	No	No	Sand sheet
142	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	Yes	IND	IND, potential gastropod	None	None	No	No	Sand sheet
146	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	No	No	Yes	IND	Sand dollar	None	None	No	No	Sand sheet
147	1	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	Yes	No	Yes	IND	Gastropod or hermit crab, Sand dollar	None	None	No	No	Sand sheet
148	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	No	No	Yes	IND	Sand dollar	None	None	No	No	Sand sheet
149	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	Yes	No	Yes	IND	Sand dollar, Slipper shell	None	None	No	No	Sand sheet
150	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	IND	No	No	IND	Sand dollar	None	None	No	No	Sand sheet
151	1	Soft Sediment Fauna	Attached Fauna (3)	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	Barnacles, Slipper shells	None	None	No	No	Sand sheet



SFEC- OCS Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
152	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	Yes	No	No	IND	Sand dollar	None	None	No	No	Sand sheet
153	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	Sand dollar	None	Winter skate	No	No	Sand sheet
154	1	Soft Sediment Fauna	None	IND	Sand Dollar Bed	None	IND	IND	IND	IND	IND	IND	IND	IND	No	Sand sheet
155	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	Yes	No	No	IND	Sand dollar	None	None	No	No	Sand sheet
156	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	No	IND	None	None	None	No	No	Sand sheet
157	1 ) = Indetermi	Soft Sediment Fauna	Attached Fauna (1)	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	Yes	No	Yes	IND	Hermit crab, Sand dollar	None	None	No	No	Sand sheet



Table 3-3a. Summary of Sediment Profile Image Analysis Results along the SFEC-NYS

Area	Station	SPI Replicate Count (n)	Water Depth (m)	Mean aRPD Depth (cm)	Sediment Oxygen Demand Level (by station)	Low Dissolved Oxygen Presence (by station)	Methane Presence (by station)		sional eplica		Infauna Present (by station)	Epifauna Present (by station)	Invasive Taxa Present (by station)	Sensitive Taxa Present (by station)
SFEC- NYS	143	1	26.1	2.6	Low	No	No	2			None	None	No	No
SFEC- NYS	144	1	22.5	2.8	Low	No	No	2			None	None	No	No
SFEC- NYS	145	1	17.1	IND	Low	No	No	2			Tubes	None	No	No
SFEC- NYS	158	1	24.8	IND	Low	No	No	2			Tubes	None	No	No
SFEC- NYS	159	1	21.1	2.5	Medium	No	No	1 on 3			Tubes	None	No	No
SFEC- NYS	160	1	16.1	IND	Low	No	No	IND			None	None	No	No
		•			SF	WF STATION S	UMMARY	STATIST	TICS			•	•	
	n = 6													
	Max		26.1	2.8										
	Min		16.1	2.5										
	Mean		21.3	2.6										
	Standard Deviation			0.2										
					OVE	RALL STATION	SUMMAR	Y STATI	STICS	S				
	n = 161													
	Max		48.0	6.6										
	Min		16.1	0.3										
	Mean		36.1	2.2										
	Standard Deviation		5.2	1.3										



a 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)

Table 3-3b. Summary of Plan View Image Analysis Results along the SFEC-NYS

SFEC- NYS Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
143	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	None	No	No	Sand sheet
144	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	No	No	Yes	IND	None	None	None	No	No	Sand with mobile gravel
145	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	Yes	No	No	IND	Sand dollar	None	None	No	No	Sand sheet
158	1	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Sand Dollar Bed	None	No	No	No	IND	Sand dollar	None	None	No	No	Sand sheet
159	1	IND	None	IND	None	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	Sand sheet
160 ) = Indeter	1	IND	None	IND	None	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND	IND



Summary of Sediment Profile Image Analysis Results at the Reference Area Table 3-4a.

Area	Station	SPI Replicate Count (n)	Water Depth (m)	Mean aRPD Depth (cm)	Sediment Oxygen Demand Level (by station)	Low Dissolved Oxygen Presence (by station)			sional eplica	Stage (by te)ª	Infauna Present (by station)	Epifauna Present (by station)	Invasive Taxa Present (by station)	Sensitive Taxa Present (by station)
Reference	C03	5	35.4	2.7	Low	No	No	1	1   1	2   IND	Tubes	None	No	No
Reference	C04	5	36.6	IND	Low	No	No	1	2   2	2 3	Ampharetid(?), Tubes	None	No	No
Reference	C05	5	35.0	IND	Low	No	No	1	1   1	2   IND	Polychaete(s), Tubes	Barnacles, Gastropod, Hydroids	No	No
					SF	WF STATION S	UMMARY	<b>STATIS</b>	TICS					
	n = 3													
	Max		36.6	2.7										
	Min		35.0	2.7										
	Mean		35.7	2.7										
	Standard Deviation													
	•			•	OVE	RALL STATION	SUMMAR	Y STAT	ISTICS	S				
	n = 161													
	Max		48.0	6.6										
	Min		16.1	0.3										
	Mean		36.1	2.2										
	Standard Deviation		5.2	1.3										



a 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) "|" symbol in Successional Stage columns indicates a fourth and fifth replicate (Reference Stations C03-C05).

Table 3-4b. Summary of Plan View Image Analysis Results at the Reference Area

Reference Station	PV Replicate Count (n)	Dominant CMECS Biotic Subclass	Dominant CMECS Co- occurring Biotic Subclass	Dominant CMECS Biotic Group	Dominant CMECS Co- occurring Biotic Group	Maximum Attached Fauna Percent Cover (CMECS Percent Cover Modifier)	Burrow Presence	Tubes Presence	Tracks Presence	Infauna Present	Epifauna Present	Flora Present	Fish Present	Invasive Taxa Present	Sensitive Taxa Present	Habitat Type
C03	5	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	None	None	Yes	No	Yes	IND	None	None	Sea robin	No	No	Sand sheet
C04	5	Soft Sediment Fauna	None	Small Surface- Burrowing Fauna	Pennatulid Bed	None	No	Yes	Yes	IND	Hydroids, Sea pen	None	None	No	No	Sand sheet
C05	5	Soft Sediment Fauna	Attached Fauna (2)	Small Surface- Burrowing Fauna, Pennatulid Bed	Attached Hydroids	Sparse (1 to <30%)	Yes	No	Yes	INC	Hydroids, Sea Pens, Sponge	None	Windowpane flounder	No	No	Patchy cobbles & boulders on sand



#### 4.0 DISCUSSION

The purpose of the SPI/PV survey was to collect data about benthic habitats and fauna to provide site characterization information at the SFWF and along the SFEC. Results from the SPI/PV survey satisfy multiple BOEM COP and G&G Guidelines (Table 4-1). This SPI/PV study provided primary lines of evidence for the assessment of the physical, geological, and biological conditions of the surficial sediments within the surveyed area and complement the landscape-scale data collected in the G&G survey. All BOEM regulations and guideline recommendations relevant to benthic assessment were considered in the design and execution of data collection and analysis (Table 4-1). By collecting data in consideration of these regulations and guidelines, federal regulators have the best available information for review of the COP and establishing baseline conditions in the surveyed area. The SPI and PV images were useful in mapping physical and biological properties of the surface sediments and documented and characterized benthic habitats within the SFWF, along the SFEC, and within the potential reference area.

Sediment types observed in SPI and PV images were more varied within and near the SFWF than along the SFEC. Sediments along the SFEC, both SFEC-OCS and SFEC-NYS, were primarily composed of sands. Medium and coarse sands dominated sediments observed along the SFEC-OCS, and very fine to very coarse sand dominated sediments along the SFEC-NYS (INSPIRE, 2019).

Three broad habitat types were identified within the SFWF and along the SFEC; patchy cobbles and boulders on sand, sand with mobile gravel, and sand sheets (Table 4-2, Figures 4-1 and 4-2). These habitat types were defined based on their physical habitat structure and mobility, as well as their dominant CMECS Biotic Subclass and CMECS Biotic Group. Results from the SPI/PV survey indicated that the patchy cobble and boulders on sand habitat type had a limited spatial prevalence in the surveyed area and was present within and immediately adjacent to the SFWF. Cobbles and boulders can provide habitat for a diverse range of taxa and serve as valuable habitat for juvenile lobsters and as a place for squid to deposit their eggs. Sand with mobile gravel and sand sheet habitat types each had higher coverage both within the SFWF as well as along the SFEC. The SFEC, including both the SFEC-OCS and SFEC-NYS, were both predominantly represented by sand sheet habitats. These results are supported by an interpolation of sediment types in the broader region derived from SPI and PV data from this survey and from four additional existing data sets (INSPIRE, 2019; Malek et al., 2015; USGS, 2017; Collie and King, 2016; BOEM, 2017) (Figure 4-3). Each of these five grain size data sets (INSPIRE, 2019; Malek et al., 2015; USGS, 2017; Collie and King, 2016; BOEM, 2017) were converted to the same grain size scales to standardize data. The recategorized data was combined into a shapefile and data were interpolated using an inverse distance weighting model. A 1.8 km neighborhood size parameter, based on the target spacing between SPI stations along the SFEC, was applied to the model (Figure 4-3). Results from this meta-analysis corroborated habitat types identified through the SPI/PV survey. Larger grain sizes were identified in the meta-analysis (Figure 4-3) as predominantly occurring with the SFWF and just



to the southwest of the SFWF along the SFEC, results that agree with images collected in the SPI/PV survey.

Dominant CMECS Biotic Subclasses and Biotic Groups were strongly correlated with surficial sediments. Variable presence of gravel (i.e., granules, pebbles, cobbles, boulders) on sandy substrates characterized much of the SFWF and portions of the SFEC in the area immediately southwest of the SFWF. Where present, gravels, particularly cobbles and boulders, were often colonized by attached epifauna, predominantly hydroids, barnacles, and occasional anemones. These attached fauna were present in approximately one-third of the stations sampled within the SFWF, five of the fifty-four stations sampled along the SFEC-OCS, and at none of the six stations along the SFEC-NYS (Figure 3-34). The dominant CMECS Biotic Subclass throughout the surveyed area was Soft Sediment Fauna, evidenced by infaunal tubes and burrowing, fish foraging activity, and, at several stations along the SFEC-OCS, sand dollars. Soft Sediment Fauna were associated with sands, ranging from fine to coarse, which were prevalent throughout the surveyed area. At stations with larger sediment grain sizes present (e.g., pebbles, cobbles, boulders) a greater diversity of fauna were observed including hydroids, barnacles, anemones, and sea pens. Sensitive taxa were not observed in SPI/PV images within the SFWF (Figure 3-13). No invasive species were identified in SPI/PV images from this survey.

Stage 1 and Stage 2 successional stages were the dominant communities present both within the SFWF and along the SFEC. Stage 3 successional stages were only identified in a total of six replicates. Based on the sediments and evidence of hydrodynamic forcing present throughout the surveyed area, primarily sands and sand ripple bedforms, it is unlikely the Stage 3 successional stages occur with any frequency in the surveyed area. In many dynamic coastal habitats, there are insufficient organic loads within medium and coarse sandy sediments to support head-down deposit feeders and, therefore, Stage 3 successional stages are not able to become established. Additionally, the high mobility of the sand ripples leads to high turnover in infauna and creates an environment that favors Stage 1 and Stage 2 communities. These communities are more resilient and quicker to recover following disturbance to the sediment than are Stage 3 communities.

Results from the SPI/PV survey suggest the cobble and boulder on sand habitat is patchy in and around the SFWF. Cobbles and boulders appear to be patchy at both the sub-square meter scale of the SPI/PV survey and at a larger landscape scale. Sensitive taxa and attached fauna (e.g., hydroids, barnacles) were often associated with patchy cobbles and boulders on sand habitats. Further, the presence of boulders in mixed bottom types has been noted as an important feature for understanding the distribution of lobsters (*Homarus americanus*) and Jonah crab (*Cancer borealis*) in the region of the SFWF (Collie and King, 2016). It is likely that non-mobile hard bottom habitats such as the patchy cobbles and boulders on sand habitats observed in this survey serve as habitats for lobsters and Jonah crab as well as provide substrate for squid eggs, hydroids, and barnacles.

The type of commercial and recreational fishing that occurs at a location is strongly correlated with the benthic habitat present at that location (Table 4-3). Bottom tending gears, even bottom



trawls equipped with rock-hoppers are unlikely to frequent areas with large cobbles and boulders. As such, these environments are infrequently, if ever, disturbed by scallop dredges or bottom trawls. Conversely, sand sheet habitats on the southern New England continental shelf are heavily fished by dragged bottom gears and therefore undergo frequent disturbances to the benthic environment. Gears designed to fish areas with boulders present such as fish pots, gill nets, longlines, and rod and reel create less disturbance to the benthos.

Within the potential reference area, surficial sediments and Biotic Subclasses proved representative of those found in the SFWF and along the SFEC. Sediments were heterogeneous, primarily composed sands with medium to high bearing capacity, and gravel was found on the seafloor surface at one of the reference stations (INSPIRE, 2019). Soft sediment fauna was the dominant Biotic Subclass imaged within the reference area and Attached Fauna were the Co-occurring Biotic Subclass at Station C05 where sea pens and hydroids were observed attached to cobbles (Table 3-4b, Figure 3-39). These stations may be used as reference sites in the future to quantify any substantial changes in the benthic community composition associated with the proposed SFWF construction and operation.

The SPI/PV survey was conducted in late fall (November), a time when attached flora and fauna may be present in relatively lower abundances than may occur in late summer months. Seasonal differences (August v. March) in attached fauna and, especially, flora coverage was observed in PV and video imagery collected at the Block Island Wind Farm (INSPIRE, 2016). The presence of flora and total percent cover of attached fauna observed in the SPI/PV images collected for this survey may be an underrepresentation of the biotic life that utilizes the surveyed area. PV and video sampling of attached fauna in additional seasons would provide a seasonal comparison to the baseline data collected in this survey. Seasonal sampling, one survey per season for two years, is a recommendation in the Benthic Habitat Survey guidelines (BOEM, 2013). Epifauna and attached flora distribution and coverage are likely to vary seasonally in southern New England waters. However, based on the latitude, water depth, and hydrodynamic forcing within the SFWF, large scale changes in infaunal benthic community composition are unlikely to occur on either seasonal or inter-annual scales. Naturally occurring disturbances of surface sediments, the primary driver of benthic community shifts, occur at much smaller spatial scales than that of the SFWF and SFEC and are therefore unlikely to be detected in inter-annual surveys.



Table 4-1. BOEM Guidelines, SPI Survey Approaches and Results

Guideline	SPI/PV Survey Approach and/or Parameter(s)	Results
I don't for any district for any district forms and	Fuiferne Informe Transle Discours Flore	Coralline algae observed
Identify and confirm benthic flora and fauna	Epifauna, Infauna, Tracks, Burrows, Flora, CMECS Biotic Subclass and Group	Soft Sediment Fauna dominated with patchy presence of Attached Fauna
Establish a pre-construction baseline	Epifauna, Infauna, Tracks, Burrows, Flora, CMECS Biotic Subclass and Group	Sample density within the SFWF and along the SFEC establishes a baseline benthic characterization
Collect data to reduce uncertainty associated with baseline estimates and to inform interpretation of survey results	Epifauna, Infauna, Tracks, Burrows, Flora, CMECS Biotic Subclass and Group	Results from the SPI/PV survey may be integrated and analyzed with regional data to reduce uncertainty in existing data sets
Identify communities of sessile and slow	Epifauna, Infauna, CMECS Biotic	Habitat Types
moving marine invertebrates	Subclass and Group	Lists of observed species and CMECS Biotic Groups
	0 0.45000	Sensitive taxa types recorded (none observed)
Identify consitive benthic behitete	Sensitive Taxa; CMECS Substrate Group;	Attached Fauna presence/coverage
Identify sensitive benthic habitats	CMECS Biotic Subclass (dominant and co-occurring)	Habitat Types
	oo oodannig)	*best to integrate with G&G data for full picture
Characterize seasonal and inter-annual variability of benthic community	Sampled in Fall during biologically active period (Nov)	Communities seen in proposed project (nearshore sands, shelf sands and cobble) not subject to substantial inter-annual variability
Identify areas to serve as baseline reference	Sampled 3 stations in potential reference area	Identified
Characterize and delineate hard bottom	in G8G SDI analysis and report	Habitat Types
gradients and rock outcroppings	in G&G SPI analysis and report	*best to integrate with G&G data for full picture
Characterize surficial sediments	in G&G SPI analysis and report	Complete - G&G SPI Analysis and Report



 Table 4-2.
 South Fork Wind Farm and Export Cable Habitat Types

Habitat Type	Physical Habitat Stability	CMECS Benthic Biotic Subclass	Dominant CMECS Benthic Biotic Groups	Other Benthic Taxa Likely Present	Spatial Prevalence in Region <sup>1</sup>
Patchy cobbles & boulders on sand	io stable	Soft Sediment	Small Surface-Burrowing Fauna;	Anemones; Lobster ( <i>Homarus americanus</i> ); Jonah crab ( <i>Cancer borealis</i> ); Sea pens (Pennatulidae); Sea scallops ( <i>Placopecten magellanicus</i> ); Shrimp; Squid (Loliginidae)	Limited

#### Example SPI and PV Images Patchy Cobbles & Boulders on Sand







Habitat Type	Physical Habitat Stability	CMECS Benthic Biotic Subclass	Dominant CMECS Benthic Biotic Groups	Other Benthic Taxa Likely Present	Spatial Prevalence in Region <sup>1</sup>	
Sand with mobile	Mobile	Soft Sediment	Small Surface-Burrowing Fauna;	Lobster (Homarus americanus); Jonah crab (Cancer	Common	
gravel	iviobile	Fauna	Small Tube-Building Fauna	borealis); ); Sea scallop (Placopecten magellanicus)	Common	

#### **Example SPI and PV Images Sand with Mobile Gravel**

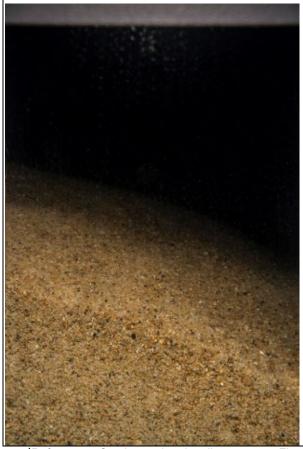






Habitat Type	Physical Habitat Stability	CMECS Benthic Biotic Subclass	Dominant CMECS Benthic Biotic Groups	Other Benthic Taxa Likely Present	Spatial Prevalence in Region <sup>1</sup>
Sand sheets	Mobile	Soft Sediment	Sand Dollar Beds; Small Surface- Burrowing Fauna; Small Tube- Building Fauna	Jonah crab (Cancer borealis); Horseshoe crab (Limulus polyphemus); Ocean quahog (Arctica islandica); Sand dollar (Echinorachnius parma; Sea scallop (Placopecten magellanicus); surfclam (Spisula solidissima); Channeled whelk (Busycotypus canaliculatus); Amphipods	Very common

#### **Example SPI and PV Images Sand Sheets**





<sup>1</sup>References: See Interpolated sediments map, Figure 4-3. (using data from Malek, 2015; usSEABED, Collie and King, 2016; BOEM OCS, 2017)



Table 4-3. Fishing Gear Associations with South Fork Wind Farm and Export Cable Habitat Types

Habitat Type	Physical Habitat Stability	Associated Fishing Gear	Resiliency to Disturbance	Spatial Prevalence in Region
Patchy cobbles & boulders on sand	Mix of mobile & stable	Fixed and Recreational Gear: Gill net, fish pot, lobster pot, longline, rod and reel	Lower	Limited
Sand with mobile gravel	Mobile	Mixed	High	Common
Sand sheets	Mobile	Mobile gear: Scallop dredge, bottom trawl	Very High	Very common



#### 5.0 CONCLUSIONS

The information provided by this SPI/PV survey provides a valuable set of physical and biological characteristics of the seafloor at the SFWF and along the SFEC. These data can be used to ground-truth data the G&G survey results and contribute to satisfying BOEM regulations and guidelines for COP preparation. Data collected from the reference area would be useful for future, post-development comparison and would serve as a representation of background and baseline conditions.

The primary conclusions of the SPI/PV survey were:

- 1. Three benthic habitat types were observed: patchy cobbles and boulders on sand, sand with mobile gravel, and sand sheets. Patchy cobbles and boulders on sand were only observed within and directly around the SFWF. Sand with mobile gravel was found within the SFWF, as well as along the SFEC, particularly along the SFEC-OCS section. Sand sheets were the most common habitat type along the SFEC.
- Soft Sediment Fauna was the dominant CMECS Biotic Subclass observed, characterized by infaunal burrows and occasional tubes and by sand dollars and mobile epifauna. Fish feeding pits were frequently observed within the SFWF and along the SFEC.
- 3. Sensitive taxa were not observed in SPI/PV images in the surveyed area.
- 4. Where hard substrate was present in the form of boulders and large cobble, barnacles and hydroids were the most common attached fauna. These were most prevalent within the SFWF. At stations where sand with mobile gravels and sand sheets were the primary habitat type, the dominant CMECS Biotic Groups included small surface-burrowing fauna and sand dollar beds. Sand dollar beds were most common along the SFEC-OCS. Coralline algae was observed at two stations within the SFWF. Macroflora were not observed within the SFEC.
- 5. The physical and biological characteristics of the reference area were within the range observed across the SFWF and SFEC and may be used to support future monitoring efforts. These data serve as a baseline for comparison to changes that may occur as a result of construction and operation at the SFWF.



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### Sediment Profile and Plan View Imaging Benthic Assessment Survey in Support of the South Fork Wind Farm Site Assessment

Survey Conducted November 11-15, 2017 and November 20, 2018

## **FIGURES**

#### Prepared for:



**Jacobs Engineering Group** 

and

# South Fork Wind Farm

Deepwater Wind South Fork, LLC

Submitted by:

**INSPIRE**ENVIRONMENTAL

INSPIRE Environmental Newport, Rhode Island 02840

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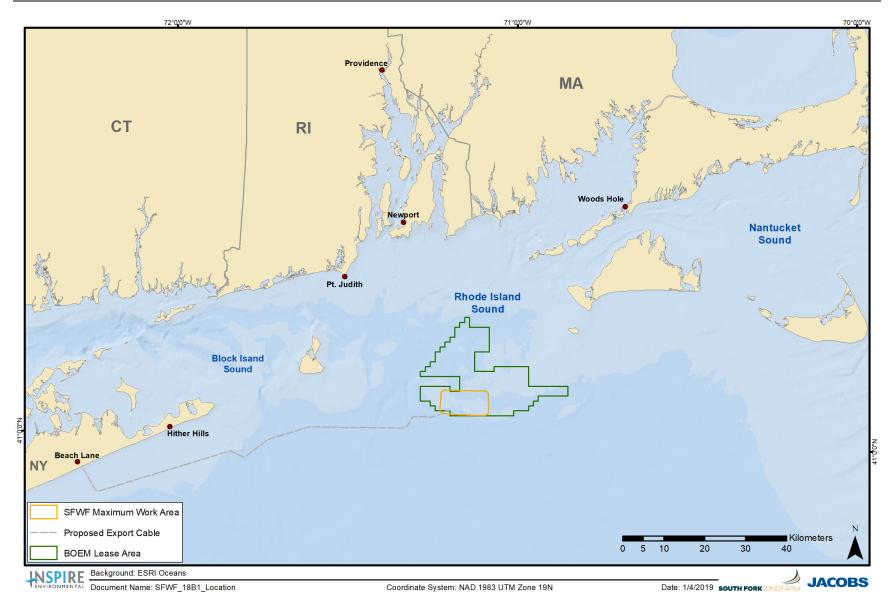


Figure 1-1. Location of the planned South Fork Wind Farm and Export Cable



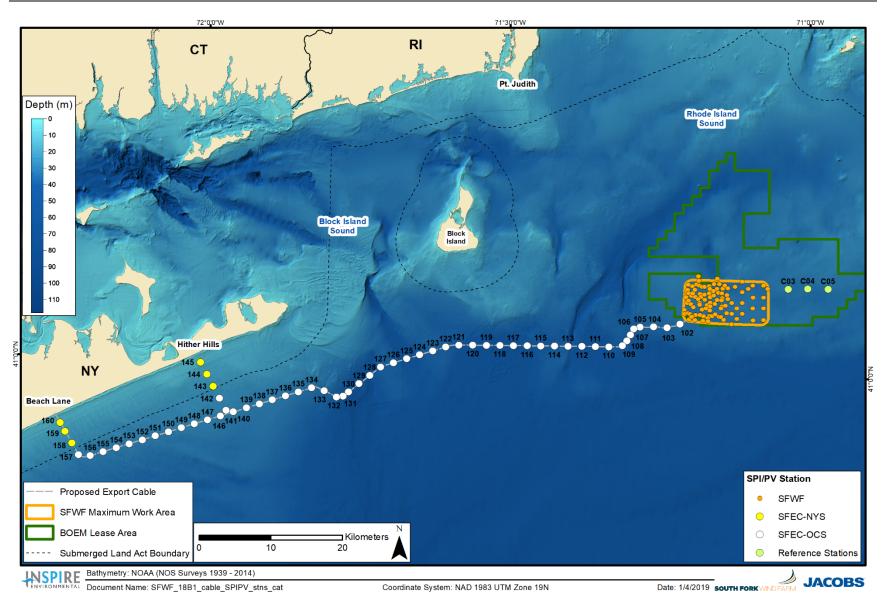


Figure 1-2. Station locations sampled with SPI/PV



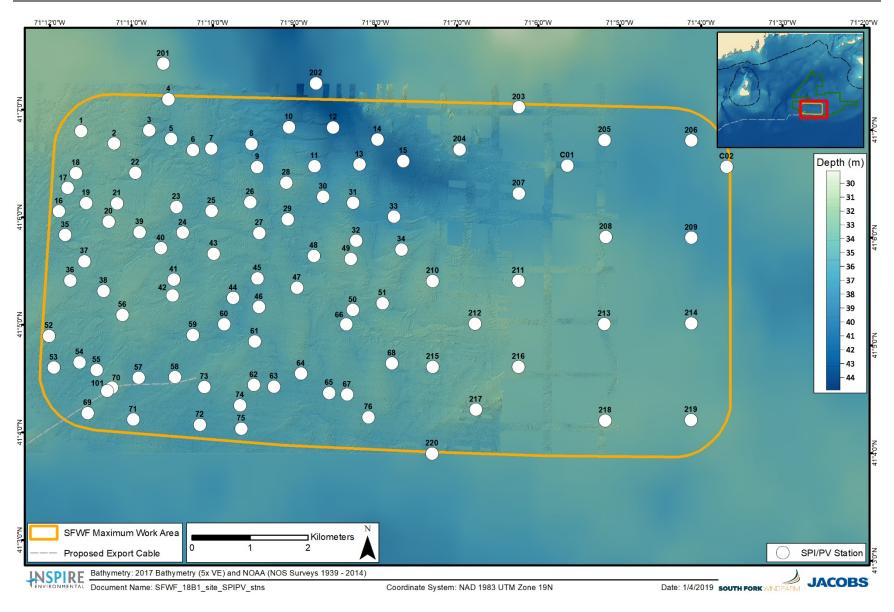


Figure 1-3. Station locations sampled with SPI and PV at the SFWF



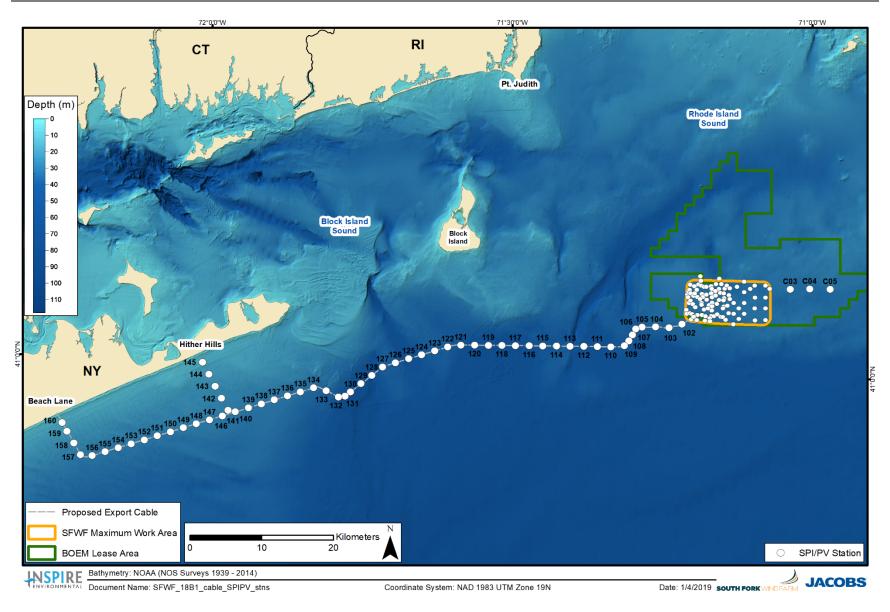


Figure 1-4. Station locations sampled with SPI and PV along the South Fork Export Cable and at a reference area



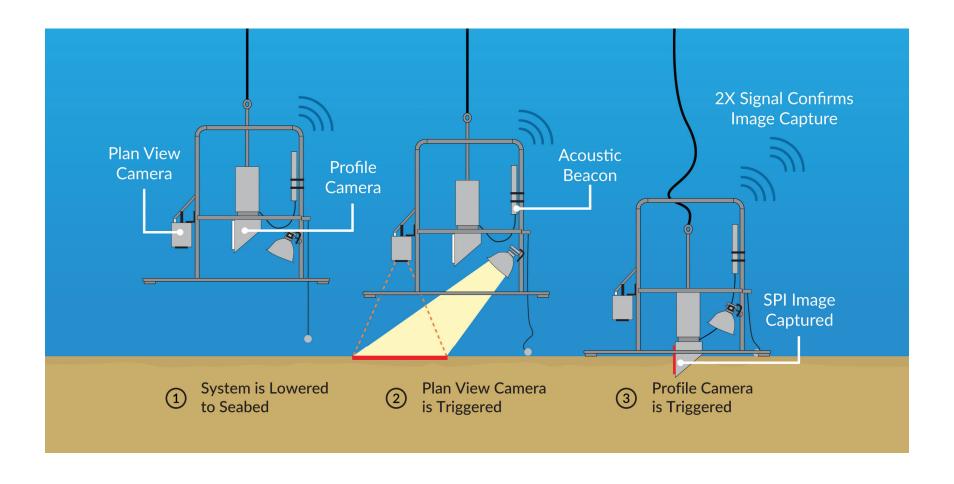


Figure 2-1. Schematic diagram of the operation of the sediment profile and plan view camera imaging system



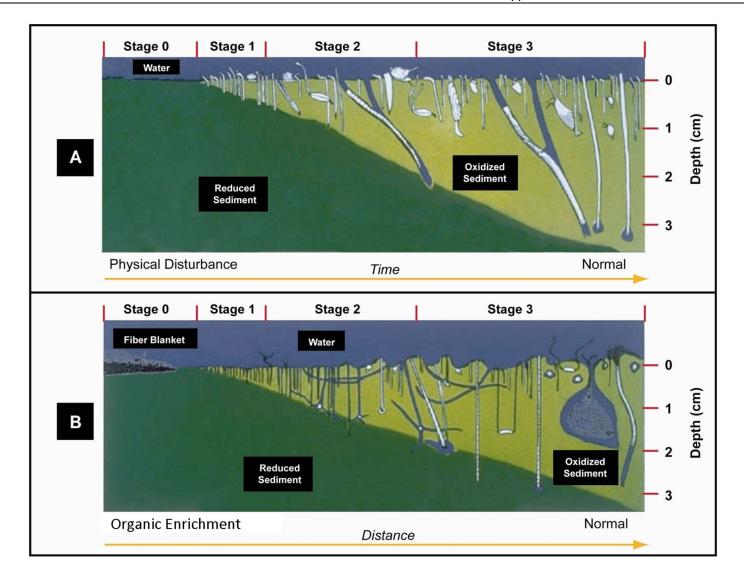


Figure 2-2. The stages of infaunal succession as a response of soft-bottom benthic communities to (A) physical disturbance or (B) organic enrichment; from Rhoads and Germano (1982)





Figure 2-3. This representative plan view image shows the sampling relationship between plan view and sediment profile images. Note: plan view images differ between surveys and stations and the area covered by each plan view image may vary slightly between images and stations.



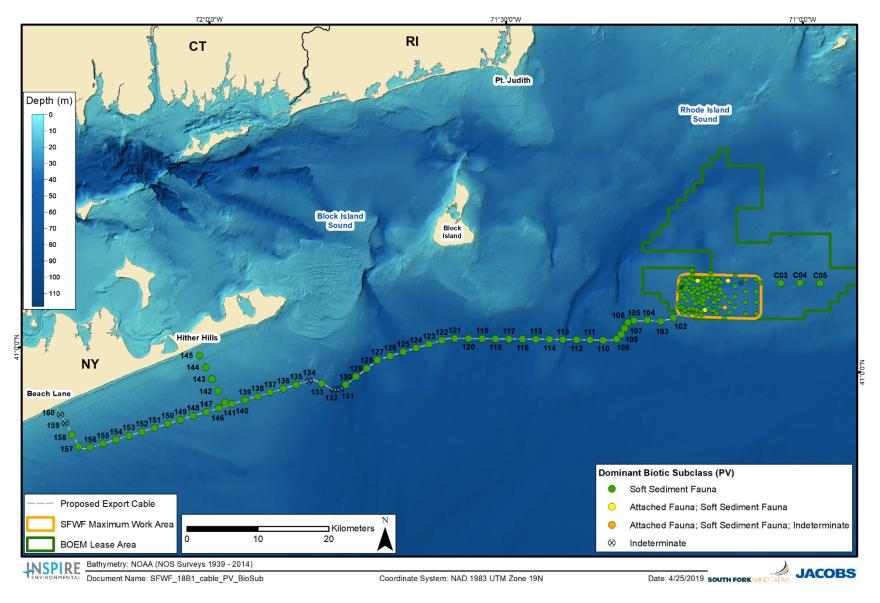


Figure 3-1. CMECS Biotic Subclass determined from PV images across the surveyed area



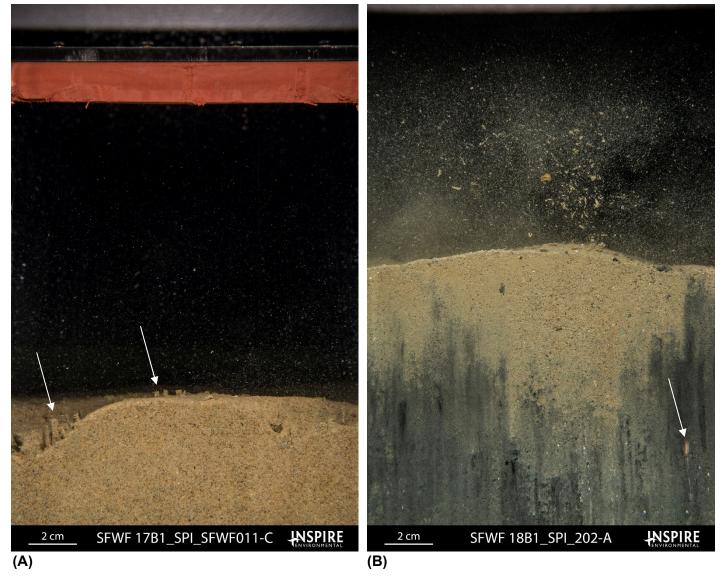


Figure 3-2. Representative SPI images showing evidence of the CMECS Soft Sediment Fauna Biotic Subclass, in this case (A) short infaunal tubes (arrows) in sand and (B) an infaunal polychaete (arrow) in very fine sand







Figure 3-3. Representative PV images showing evidence of the CMECS Soft Sediment Fauna Biotic Subclass, in this case (A) fish foraging pits with associated fecal casts, as well as burrowing activity and (B) extensive burrowing activity





Figure 3-4. SPI and PV images showing evidence of the CMECS Soft Sediment Fauna Biotic Subclass, in this case a sand dollar (Echinorachnius parma) bed on sand found along the South Fork Export Cable



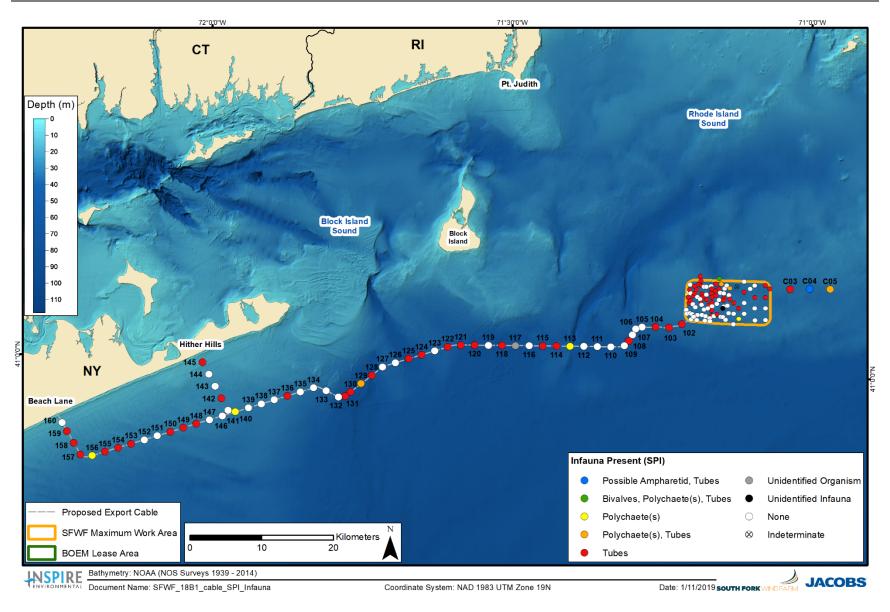


Figure 3-5. Infauna identified from SPI images across the surveyed area



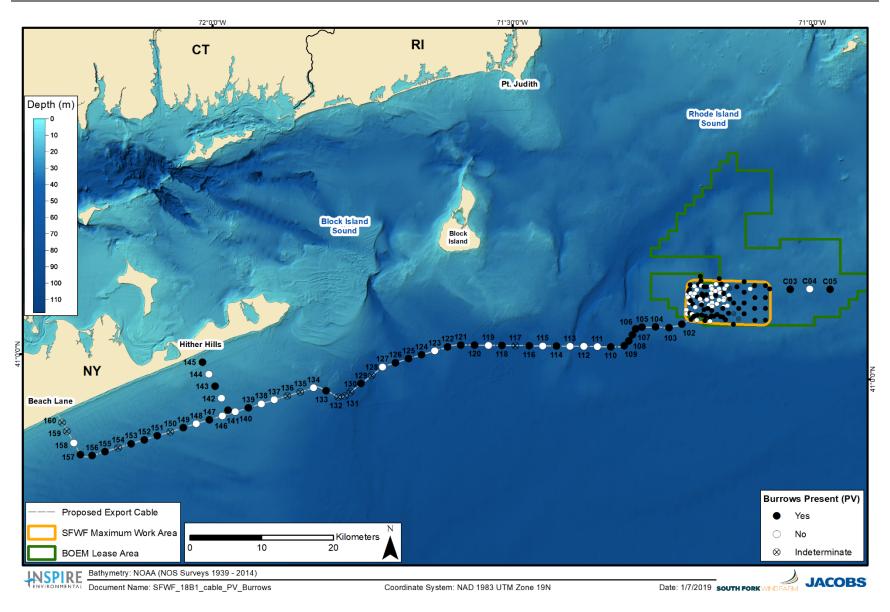


Figure 3-6. Presence of burrows identified from PV images across the surveyed area



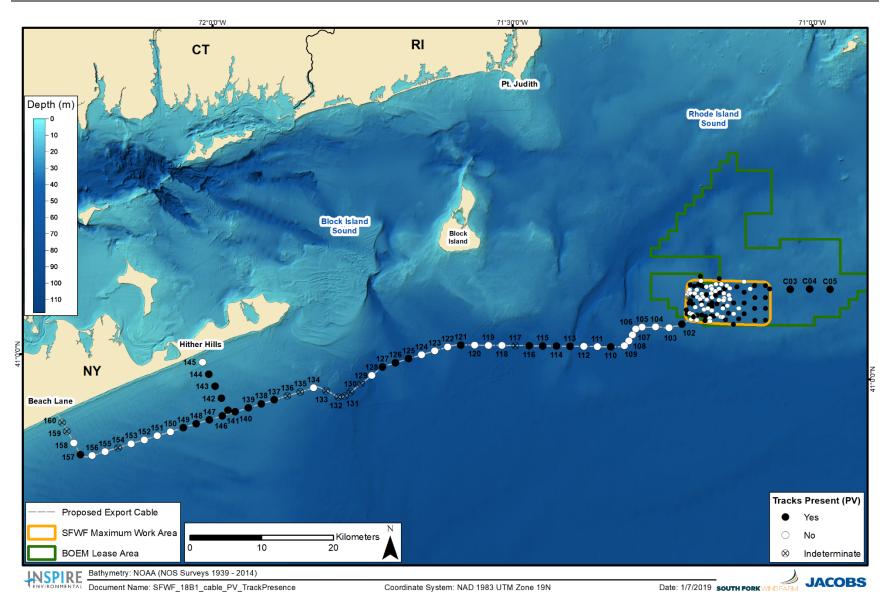


Figure 3-7. Presence of tracks identified from PV images across the surveyed area

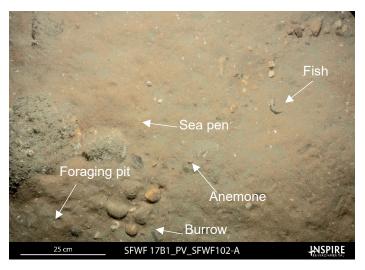




**(A)** The boulder is colonized by hydroids and barnacles, many of which have been grazed. A large orange anemone is attached to the boulder on the far left of the PV image.



(B) Small and medium cobbles with attached hydroids. Smaller cobbles and pebbles are uncolonized



**(C)** Hydroids and grazed barnacles are visible on the large cobbles and boulder. A sea pen and an anemone are in the sand near the image center. A small unidentified fish is visible on the right side of the image. Infaunal burrows are present in the bottom center of the PV image and fish foraging pits in lower right and lower left.

Figure 3-8. Representative PV and SPI images from Stations 7, 205, and 102 showing cobbles and boulders with attached fauna



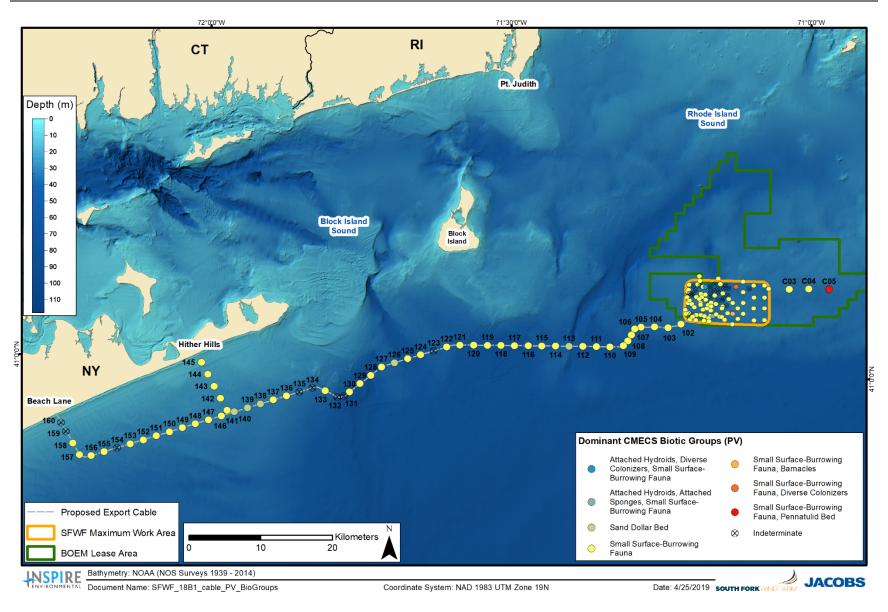


Figure 3-9. CMECS Biotic Group determined from PV images across the surveyed area



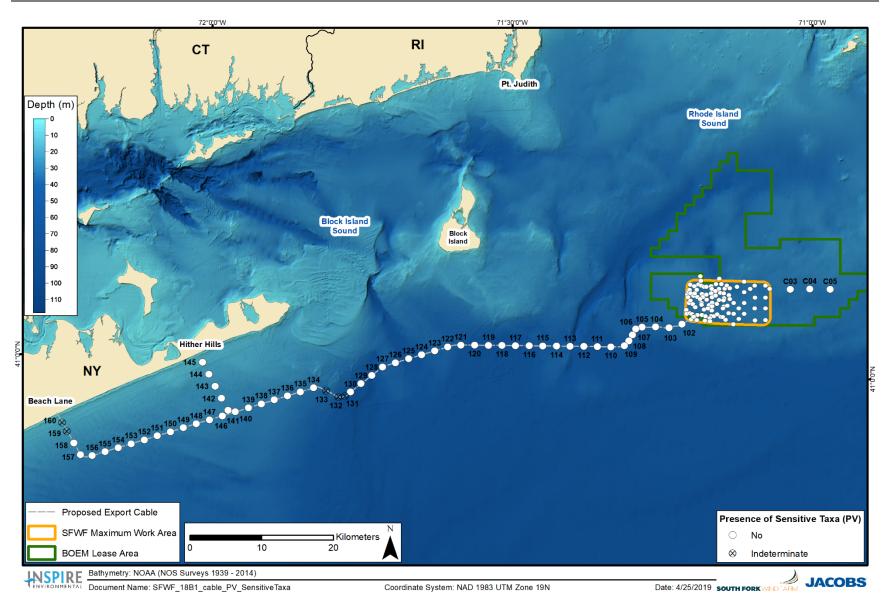


Figure 3-10. Presence of sensitive taxa observed in PV images across the surveyed area



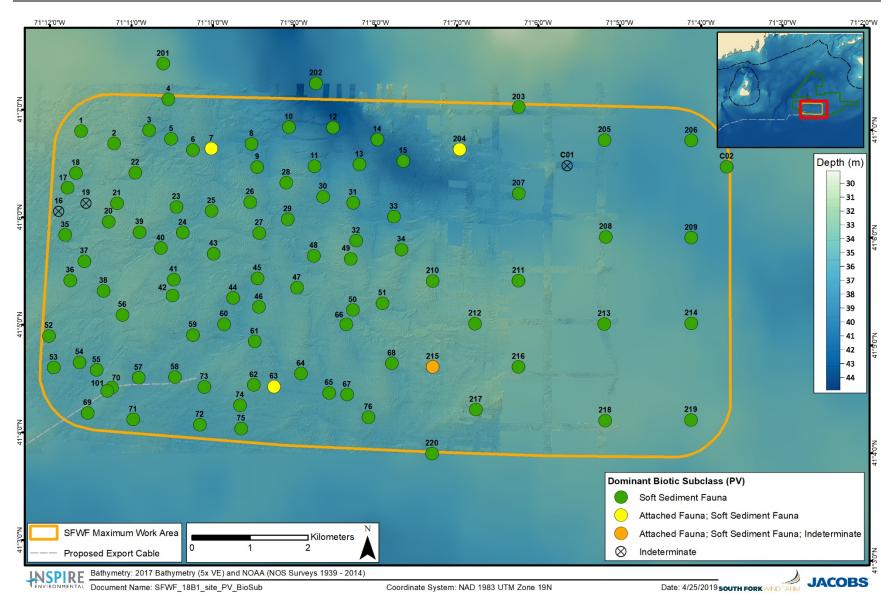


Figure 3-11. CMECS Biotic Subclass determined from PV images at the SFWF



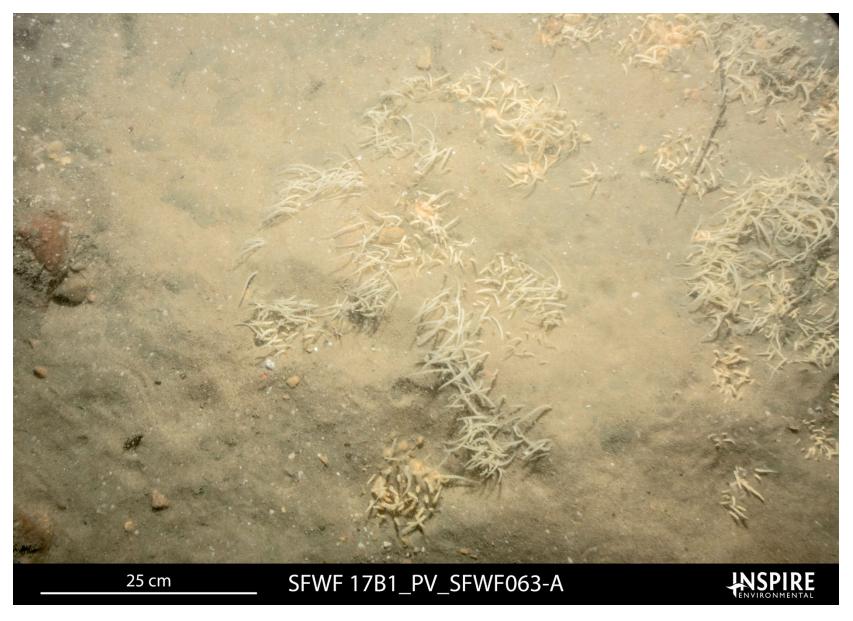


Figure 3-12. PV images from Station 63 showing widespread coverage of Polymastia sp. sponges indicating the presence of cobbles or boulders thinly covered with sand



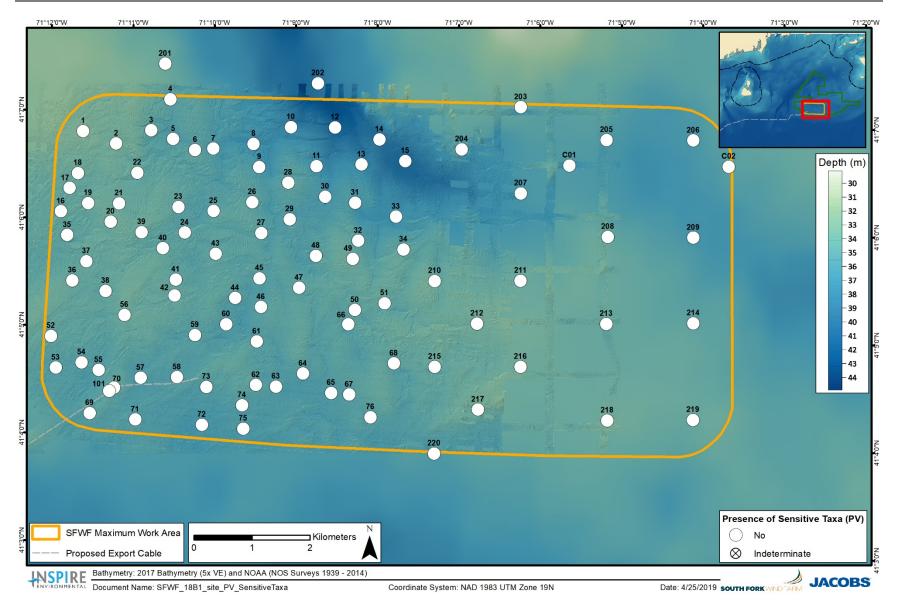


Figure 3-13. Presence of sensitive taxa observed in PV images at the SFWF



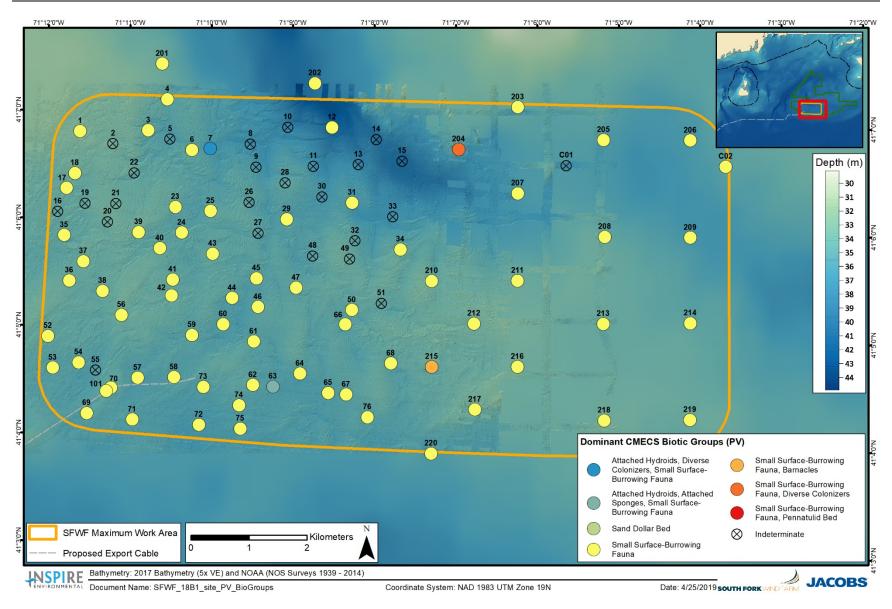


Figure 3-14. CMECS Biotic Group determined from PV images across the SFWF



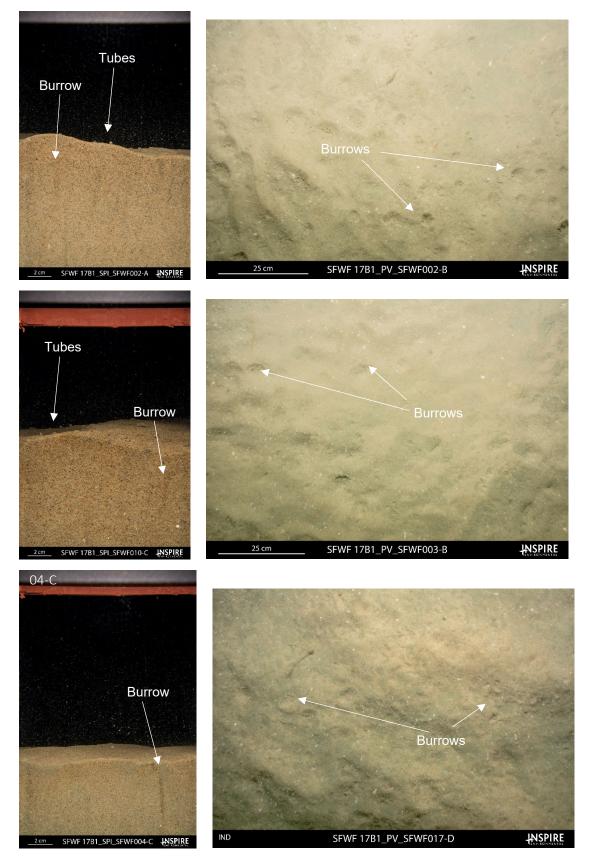


Figure 3-15. Representative SPI and PV images where Small Surface-Burrowing Fauna CMECS Biotic Groups were observed



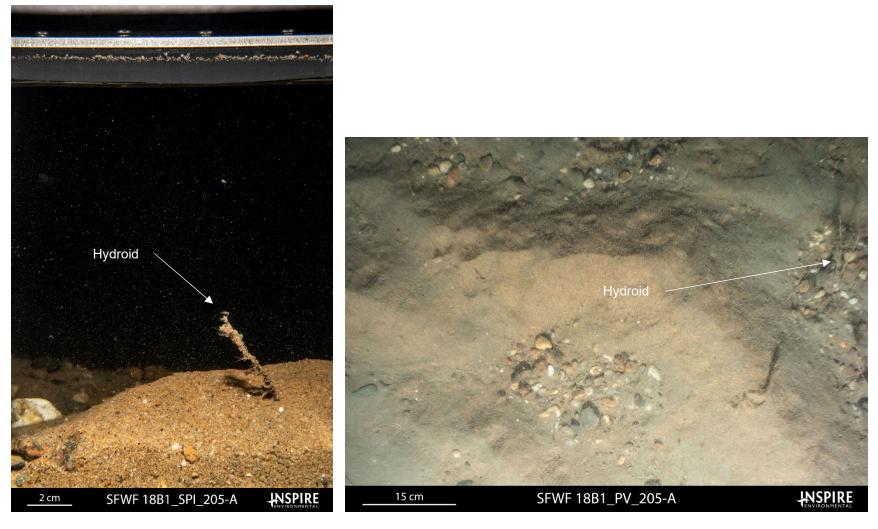


Figure 3-16. Representative SPI and PV images where the Attached Hydroids CMECS Biotic Group was observed



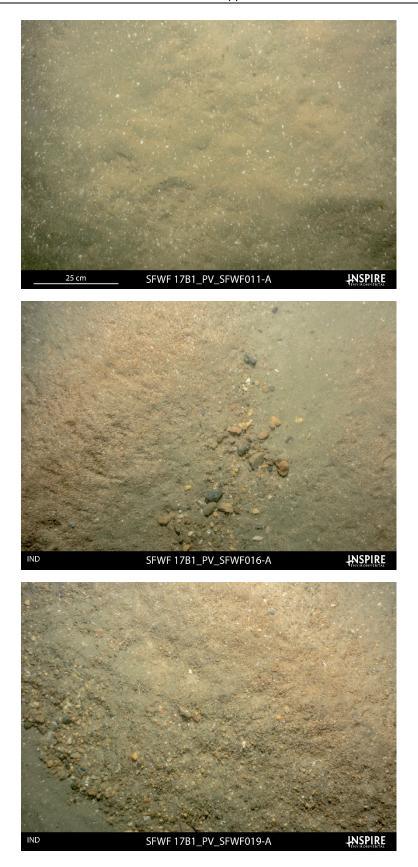


Figure 3-17. Representative PV images where the CMECS Biotic Group was indeterminate due to no fauna being visible in the image



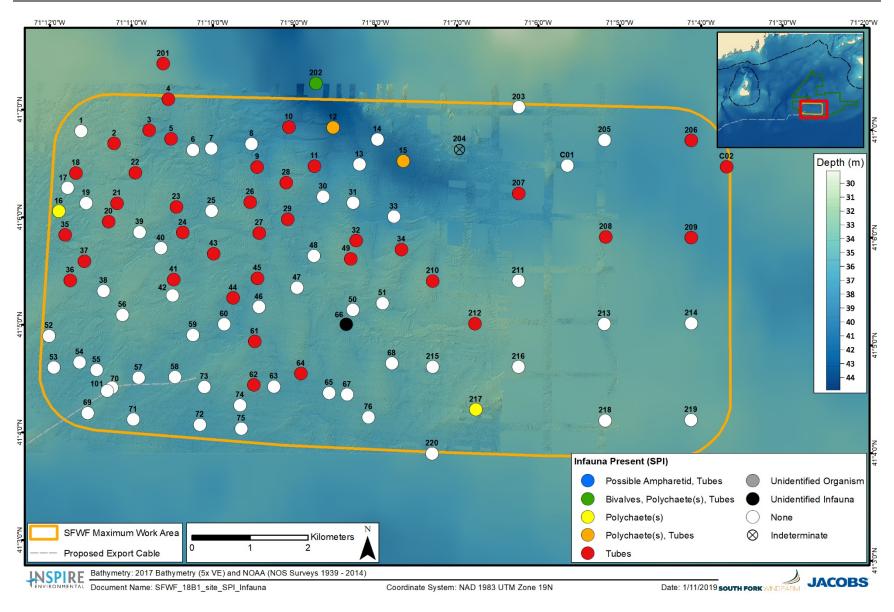


Figure 3-18. Presence of infauna identified from SPI images at the SFWF



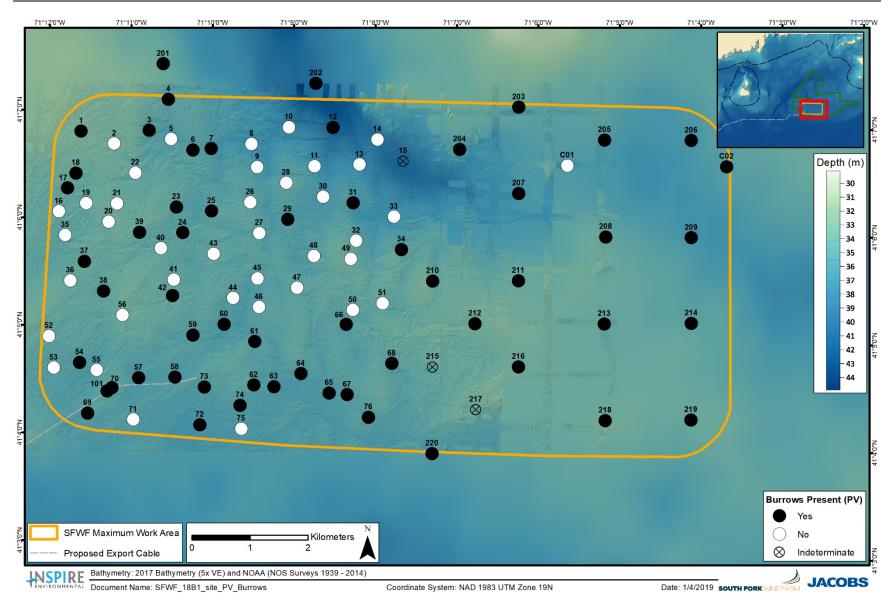


Figure 3-19. Presence of burrows identified from PV images at the SFWF



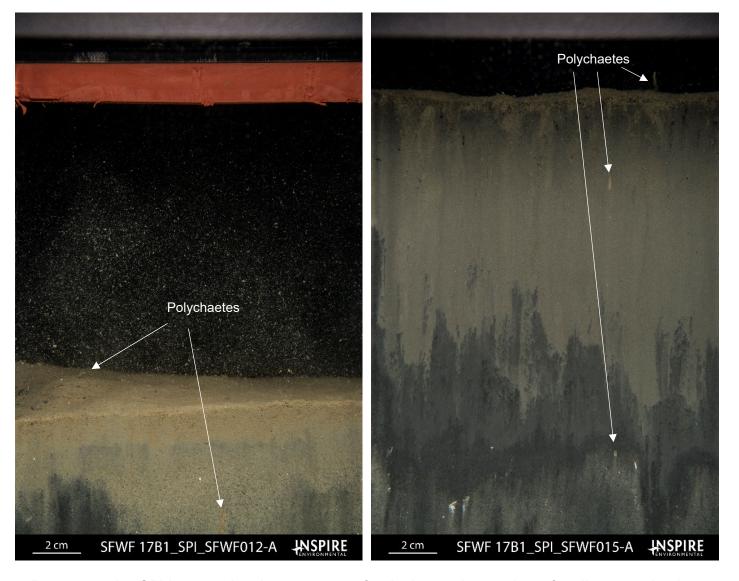


Figure 3-20. Representative SPI images showing presence of polychaetes in a variety of sediment grain sizes



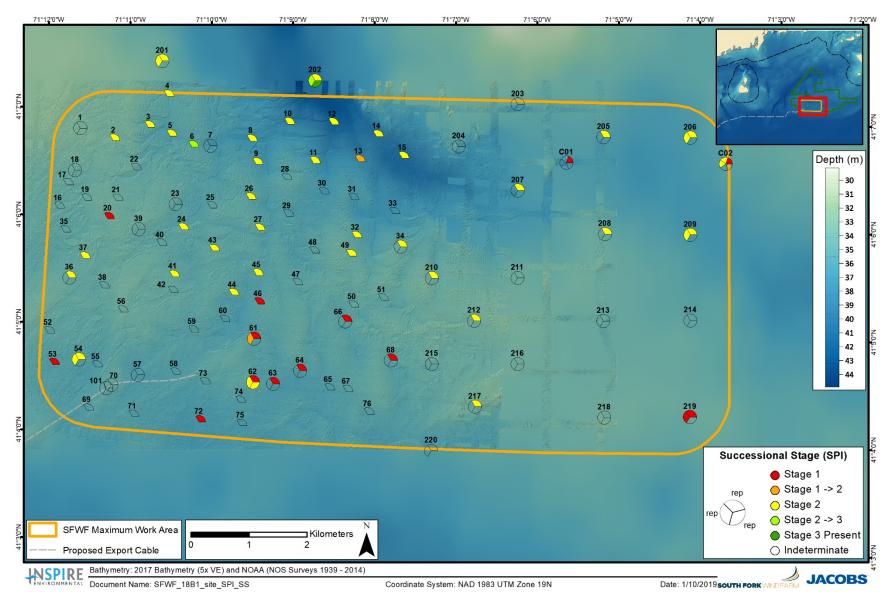


Figure 3-21. Spatial distribution of infaunal successional stages at the SFWF. Results shown provide a value for each of the three replicate images for each sampling station; where only one replicate was analyzed, only one "slice" of the pie is shown.



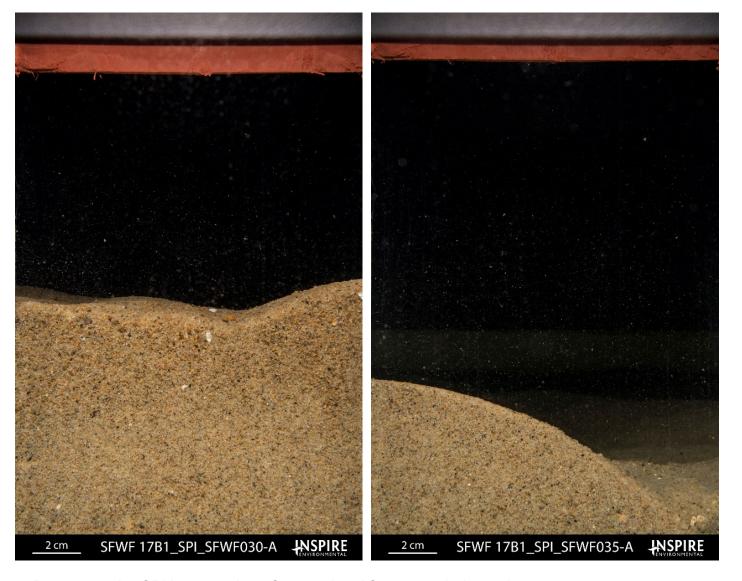


Figure 3-22. Representative SPI images where Successional Stage was indeterminate



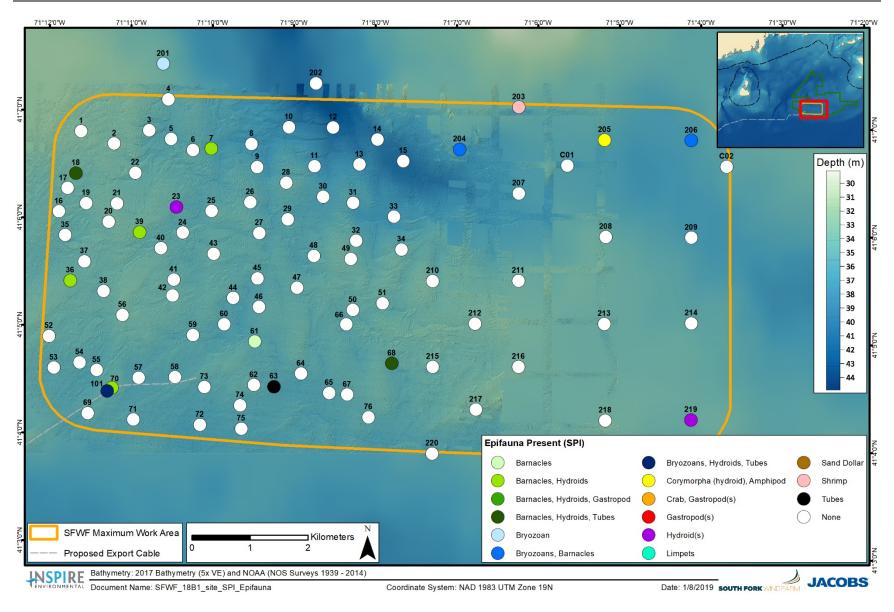


Figure 3-23. Epifauna identified from SPI images at the SFWF



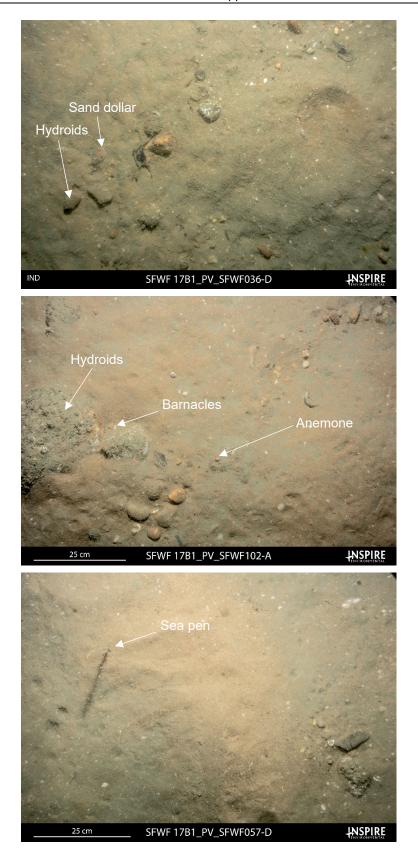


Figure 3-24. Representative PV images showing epifauna observed (barnacle, anemone, hydroids, sand dollars, sea pens)



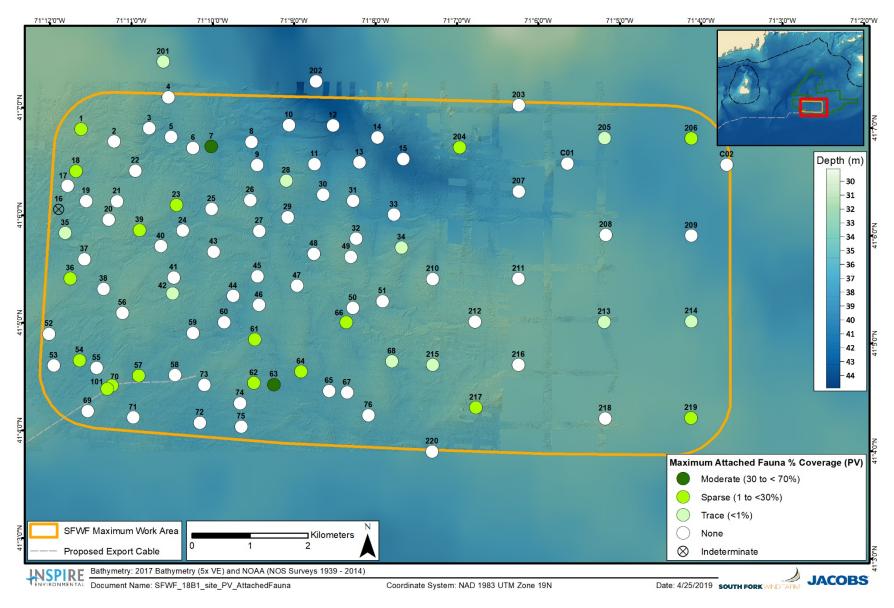


Figure 3-25. Percent cover of attached fauna observed as CMECS Biotic Subclass and/or Co-occurring Biotic Subclass in PV images at the SFWF



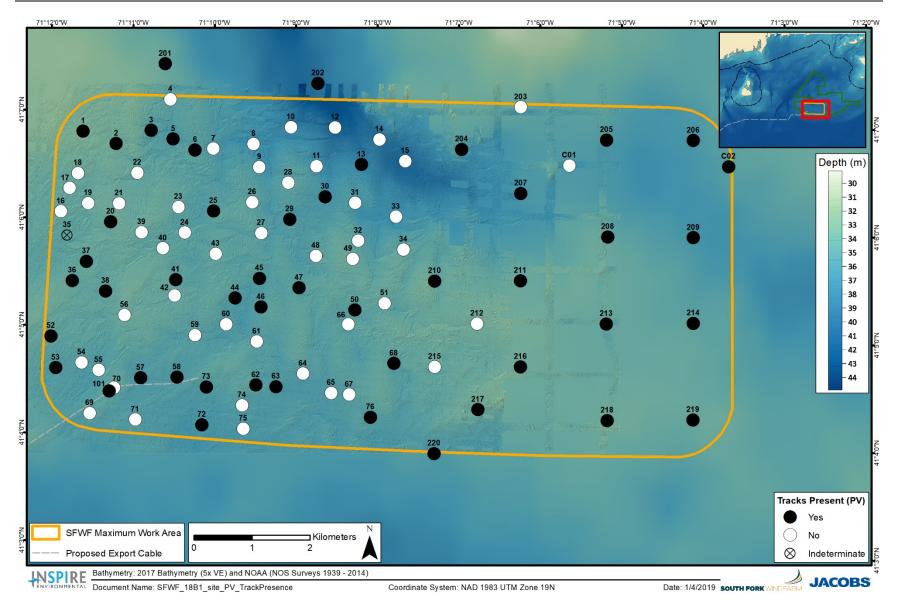


Figure 3-26. Presence of tracks identified in PV images at the SFWF



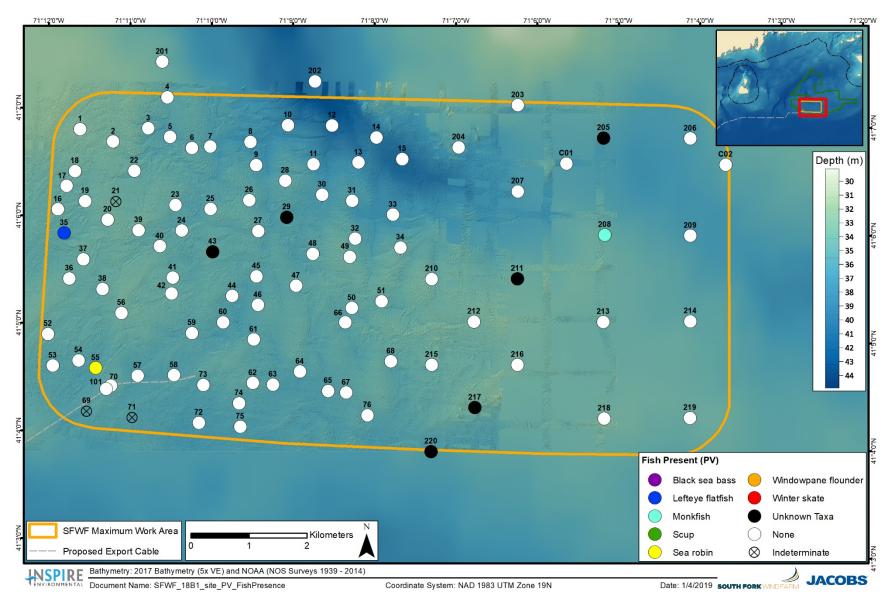


Figure 3-27. Presence of fish identified in PV images at the SFWF. Stations with fish presence of unknown taxa are categorized as such.





Figure 3-28. Representative PV images showing fish species



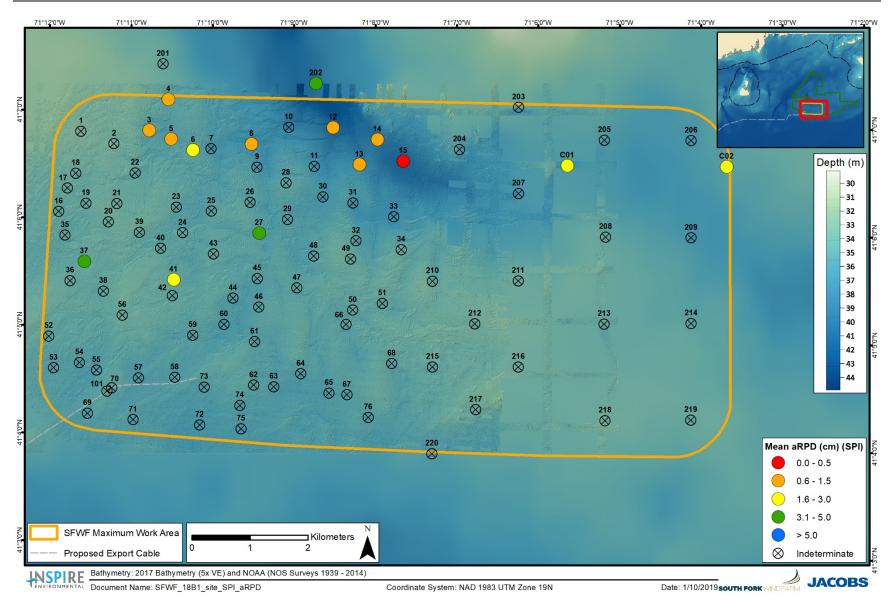


Figure 3-29. Station mean aRPD depths (cm) measured from SPI images at the SFWF



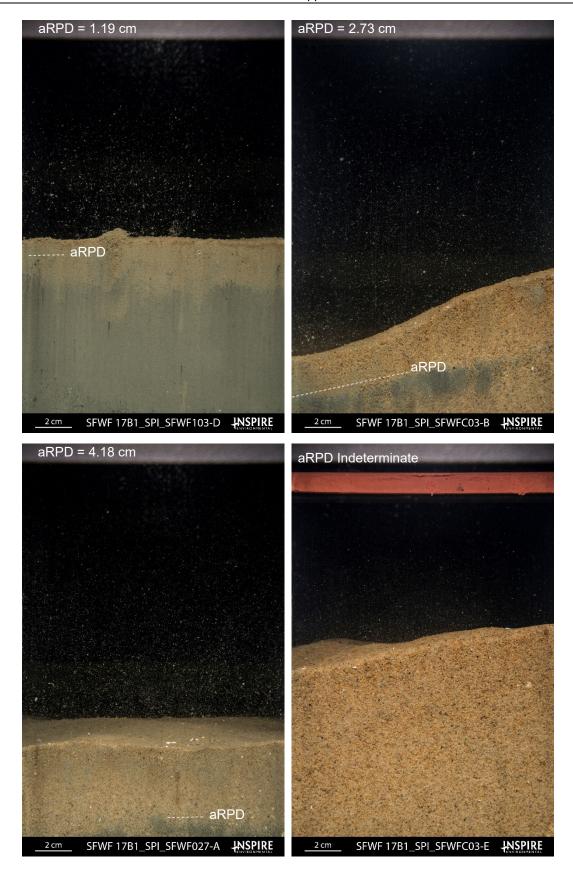


Figure 3-30. Representative SPI images showing multiple aRPD depths including 'IND'



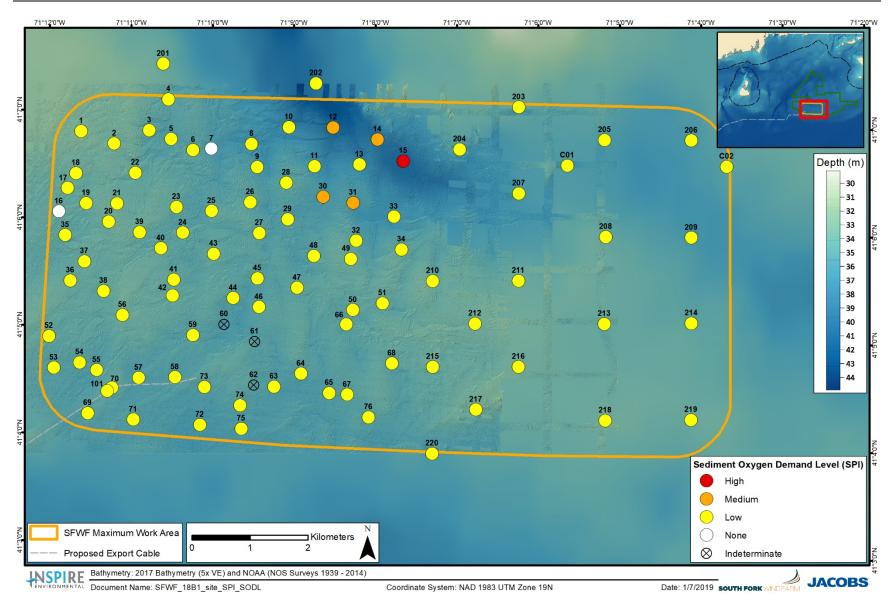


Figure 3-31. Sediment oxygen demand observed from SPI images at the SFWF



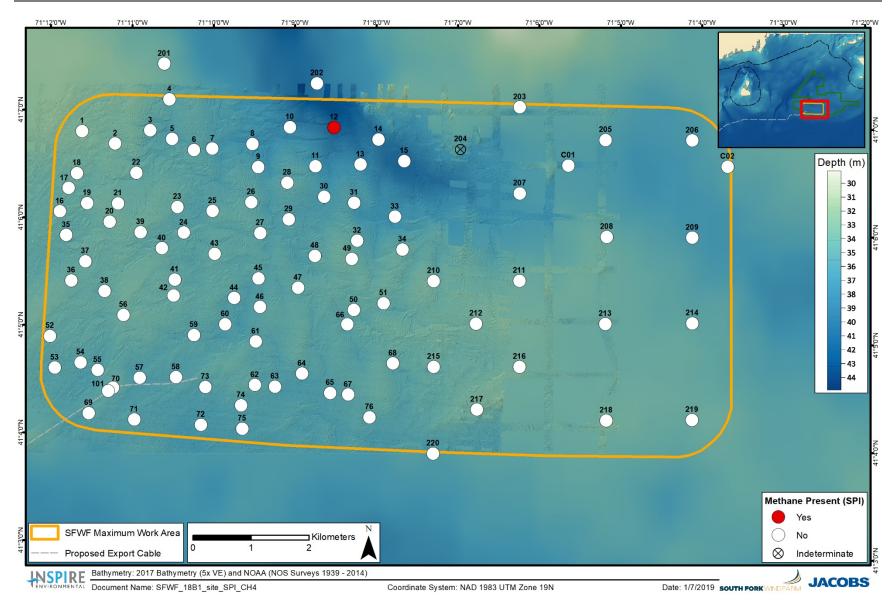


Figure 3-32. Methane observed from SPI images at the SFWF



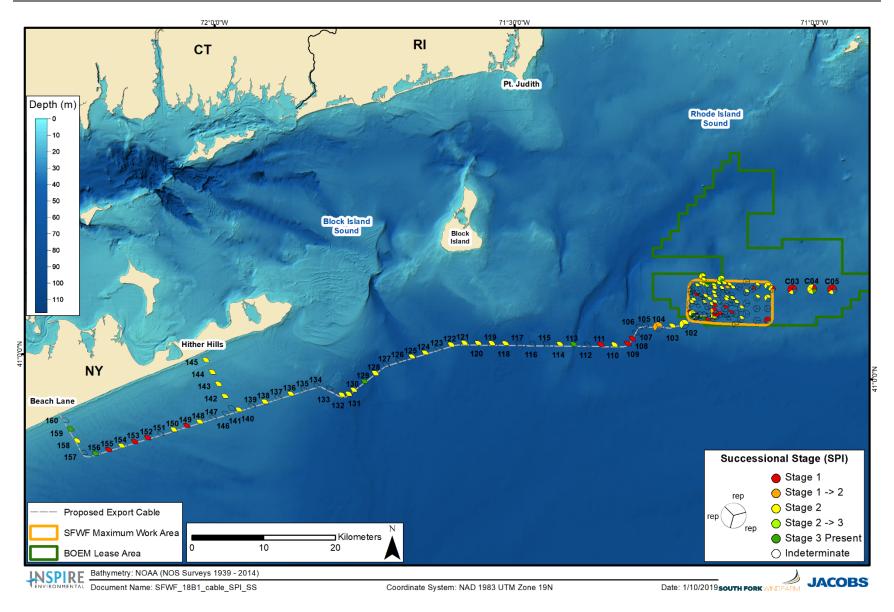


Figure 3-33. Spatial distribution of infaunal successional stages in the surveyed area. Results shown provide a value for each of the three replicate images for each sampling station; where only one replicate was analyzed, only one "slice" of the pie is shown.



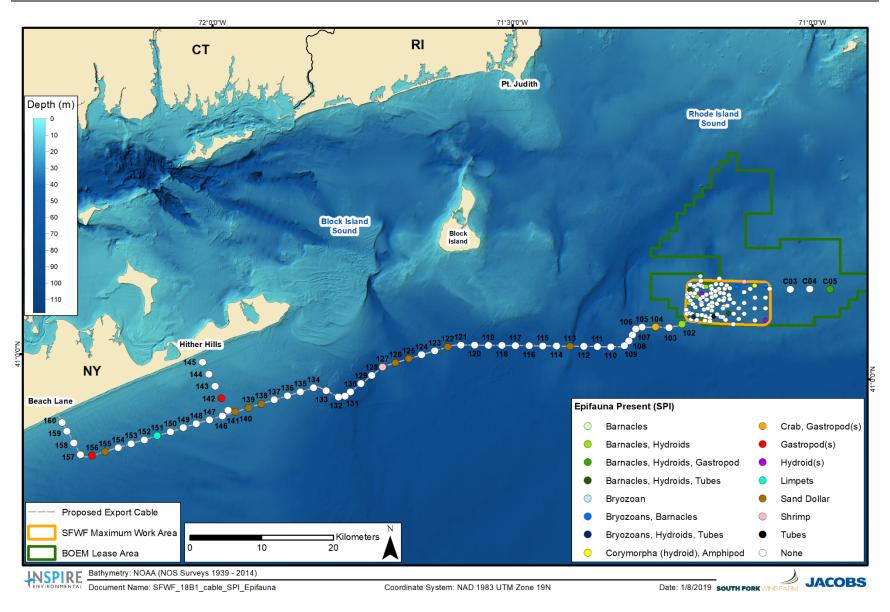


Figure 3-34. Epifauna identified from SPI images across the surveyed area



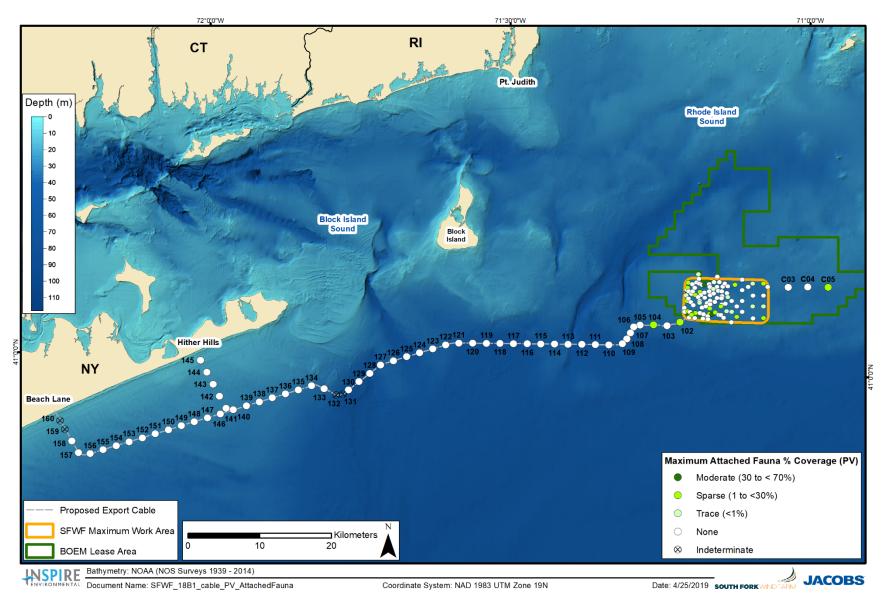


Figure 3-35. Percent cover of attached fauna observed as CMECS Biotic Subclass and/or Co-occurring Subclass in PV images across the surveyed area



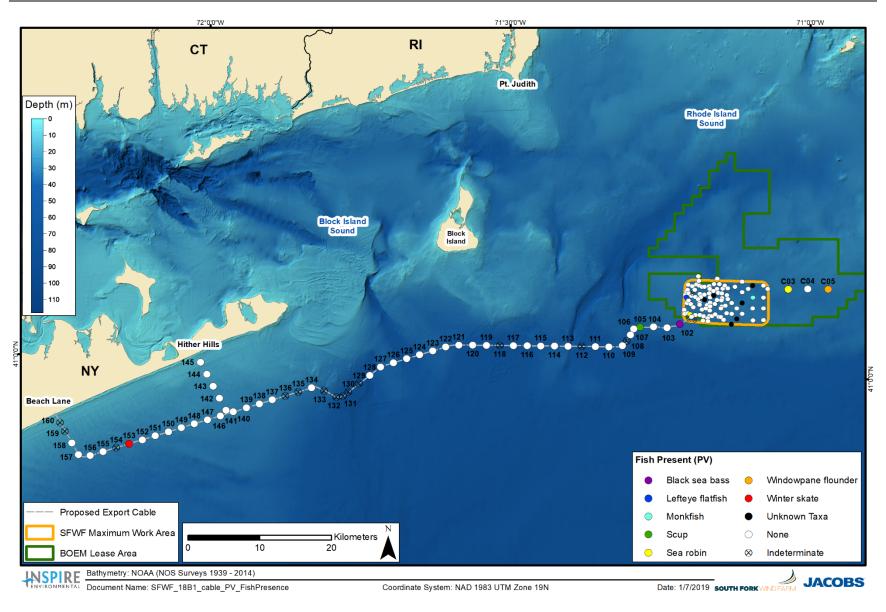


Figure 3-36. Presence of fish identified in PV images across the surveyed area



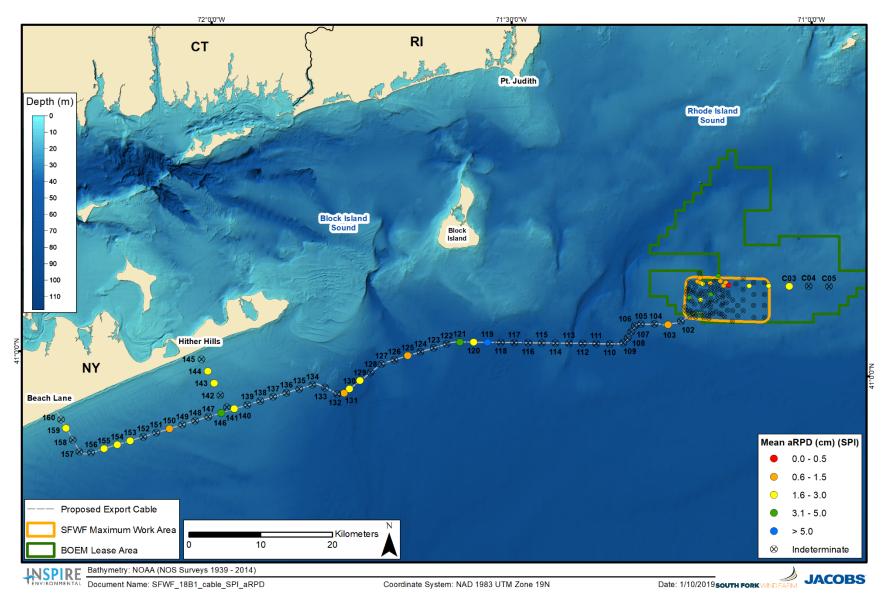


Figure 3-37. Station mean aRPD depths (cm) measured from SPI images across the surveyed area



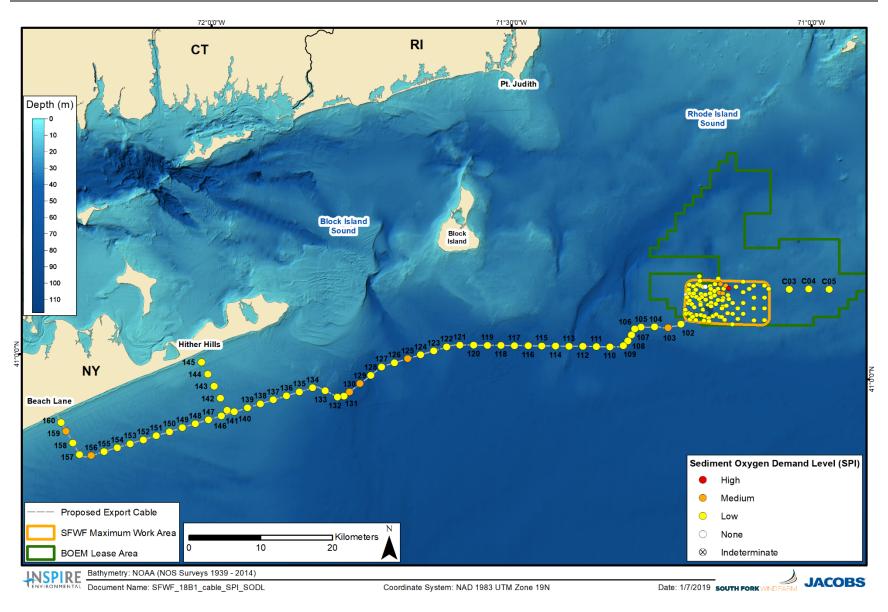


Figure 3-38. Sediment oxygen demand observed from SPI images across the surveyed area



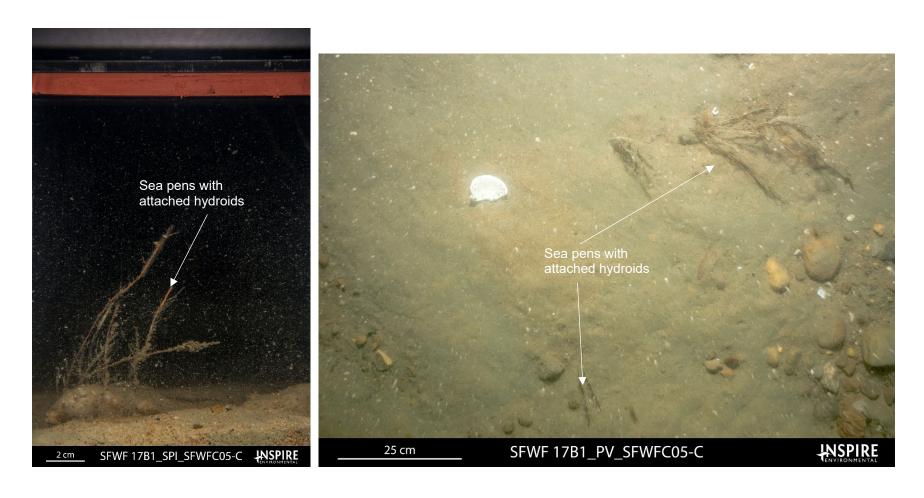


Figure 3-39. SPI and PV images from reference area Station C05 showing sea pens with attached hydroids attached to the seafloor surface and to small cobbles



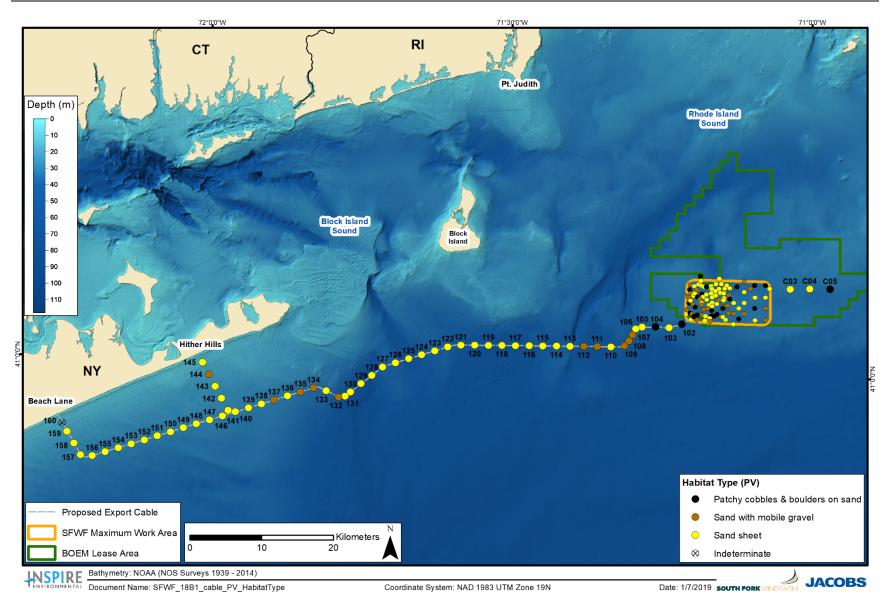


Figure 4-1. Dominant benthic habitat type observed across the surveyed area



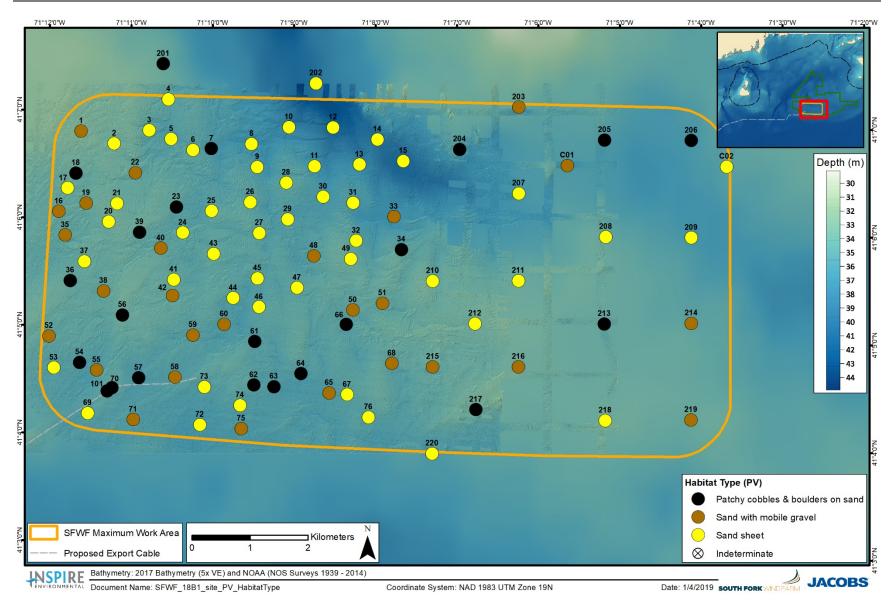


Figure 4-2. Dominant benthic habitat type observed at the SFWF



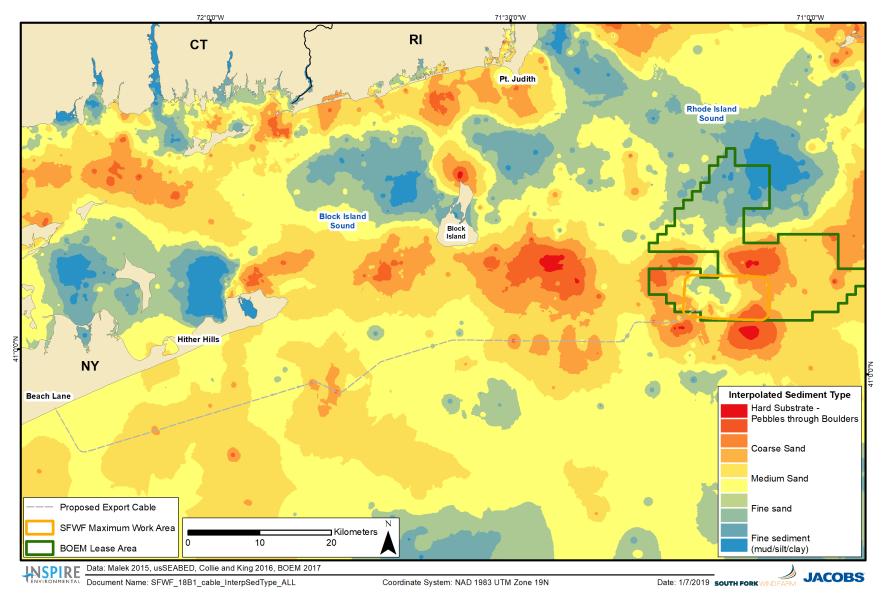


Figure 4-3. Interpolated sediment type derived from the SPI/PV survey and from grab sample surveys in the region (Malek, 2015; usSEABED, Collie and King, 2016; BOEM, 2017)



### Sediment Profile and Plan View Imaging Benthic Assessment Survey in Support of the South Fork Wind Farm Site Assessment

Survey Conducted November 11-15, 2017 and November 20, 2018

## **APPENDICES**

#### Prepared for:



Jacobs Engineering Group

and

# South Fork Wind Farm

Deepwater Wind South Fork, LLC

Submitted by:

**INSPIRE**ENVIRONMENTAL

INSPIRE Environmental Newport, Rhode Island 02840

### APPENDIX A

SPI/PV Station Locations



Area	Station ID	Replicate				Y_UTM_19N_m	Latitude_WGS84	Longitude_WGS84
SFWF	1	Α	11/11/2017	13:30:00		4553680.34	41.11355285	-71.19304415
SFWF	1	В	11/11/2017	13:31:00	315874.31	4553678.95	41.11354075	-71.19302055
SFWF	1	С	11/11/2017	13:32:00	315875.75	4553679.46	41.1135457	-71.19300355
SFWF	1	D	11/11/2017	13:33:00	315878.68	4553680.27	41.1135536	-71.19296897
SFWF	2	Α	11/11/2017	14:19:00	316438.85	4553465.80	41.11174992	-71.18623764
SFWF	2	В	11/11/2017	14:20:00	316438.28	4553468.19	41.11177126	-71.18624517
SFWF	2	С	11/11/2017	14:21:00	316434.49	4553465.80	41.11174888	-71.18628947
SFWF	2	D	11/11/2017	14:22:00	316432.74	4553465.93	41.11174966	-71.18631043
SFWF	3	Α	11/11/2017	14:47:00	317039.75	4553692.47	41.11392584	-71.17915333
SFWF	3	В	11/11/2017	14:48:00	317034.33	4553697.18	41.11396701	-71.17921926
SFWF	3	С	11/11/2017	14:49:00	317029.41	4553701.80	41.11400744	-71.17927917
SFWF	3	D	11/11/2017	14:50:00	317026.26	4553704.02	41.11402676	-71.17931724
SFWF	4	Α	11/11/2017	15:06:00	317371.84	4554224.97	41.11879387	-71.17535896
SFWF	4	В	11/11/2017	15:07:00	317366.32	4554226.43	41.11880577	-71.17542508
SFWF	4	С	11/11/2017	15:08:00	317370.35	4554225.56	41.1187988	-71.17537684
SFWF	4	D	11/11/2017	15:09:00	317373.65	4554220.09	41.11875033	-71.17533603
SFWF	5	Α	11/11/2017	15:23:00	317418.48	4553542.87	41.11266441	-71.17460109
SFWF	5	В	11/11/2017	15:24:00	317415.81	4553543.99	41.11267384	-71.17463315
SFWF	5	С	11/11/2017	15:25:00	317413.05	4553544.27	41.11267578	-71.17466617
SFWF	5	D	11/11/2017	15:26:00	317410.89	4553551.74	41.11274249	-71.17469403
SFWF	6	Α	11/11/2017	15:42:00	317795.34	4553352.97	41.1110396	-71.17005936
SFWF	6	В	11/11/2017	15:43:00	317794.10	4553353.63	41.11104526	-71.17007432
SFWF	6	С	11/11/2017	15:44:00	317794.61	4553354.07	41.11104937	-71.17006829
SFWF	6	D	11/11/2017	15:45:00	317794.58	4553353.34	41.11104274	-71.1700685
SFWF	7	Α	11/11/2017	16:09:00	318111.90	4553384.27	41.11139227	-71.16630096
SFWF	7	В	11/11/2017	16:10:00	318110.54	4553376.50	41.11132204	-71.16631486
SFWF	7	С	11/11/2017	16:11:00	318116.69	4553367.84	41.11124548	-71.16623909
SFWF	7	D	11/11/2017	16:13:00	318118.01	4553370.70	41.11127155	-71.1662242
SFWF	8	Α	11/11/2017	19:19:00	318799.05	4553457.31	41.1122033	-71.15814405
SFWF	8	В	11/11/2017	19:21:00	318799.30	4553458.08	41.11221036	-71.15814125
SFWF	8	С	11/11/2017	19:22:00	318796.57	4553459.25	41.11222028	-71.15817413
SFWF	8	D	11/11/2017	19:23:00	318791.82	4553458.91	41.11221613	-71.1582305
SFWF	9	Α	11/11/2017	19:38:00	318897.19	4553060.42	41.10865253	-71.15685895
SFWF	9	В	11/11/2017	19:39:00	318895.42	4553063.79	41.10868248	-71.156881
SFWF	9	С	11/11/2017	19:41:00	318892.66	4553066.20	41.10870359	-71.15691457
SFWF	9	D	11/11/2017	19:42:00	318894.19	4553058.94	41.10863855	-71.15689421
SFWF	10	Α	11/11/2017	16:39:00	319445.66	4553747.40	41.11495857	-71.15053325
SFWF	10	В	11/11/2017	16:40:00	319450.21	4553748.40	41.11496866	-71.15047934
SFWF	10	С	11/11/2017	16:41:00	319445.93	4553748.46	41.11496823	-71.15053026
SFWF	10	D	11/11/2017		319445.69	4553752.68	41.11500616	-71.15053444
SFWF	11	Α	11/11/2017	18:53:00	319883.30	4553076.92	41.1090203	-71.14512749
SFWF	11	В	11/11/2017	18:54:00	319887.66	4553074.79	41.10900206	-71.14507499
SFWF	11	С	11/11/2017	18:55:00	319885.65	4553074.78	41.10900153	-71.14509896
SFWF	11	D	11/11/2017	18:57:00	319882.76	4553076.98	41.10902066	-71.14513403
SFWF	12	Α	11/11/2017		320202.43	4553741.78	41.11507584	-71.14152391
SFWF	12	В	11/11/2017	17:27:00	320200.97	4553741.40	41.11507213	-71.14154114
SFWF	12	С	11/11/2017	17:28:00	320198.68	4553738.95	41.11504958	-71.14156769
SFWF	12	D	11/11/2017		320195.05	4553735.22	41.11501516	-71.14160986
SFWF	13	Α	11/11/2017	18:32:00	320659.60	4553104.21	41.1094377	-71.13589621
SFWF	13	В	11/11/2017	18:33:00	320670.92	4553104.70	41.1094446	-71.13576158
SFWF	13	С	11/11/2017		320682.38	4553101.86	41.10942152	-71.13562438
SFWF	13	D	11/11/2017		320679.11	4553103.80	41.10943827	-71.13566386
SFWF	14	Α	11/11/2017	17:49:00	320970.14	4553534.55	41.11338002	-71.13232556

Area	Station ID	Replicate	Date	Time	X UTM 19N m	Y UTM 19N m	Latitude_WGS84	Longitude_WGS84
SFWF	14	В	11/11/2017		320975.04	4553538.25	41.11341442	-71.13226838
SFWF	14	С	11/11/2017		320976.02	4553540.33	41.1134333	-71.13225728
SFWF	14	D	11/11/2017		320964.78	4553534.97	41.11338261	-71.13238947
SFWF	15	Α	11/11/2017		321409.17	4553161.69	41.11012022	-71.12699165
SFWF	15	В	11/11/2017		321409.04	4553165.57	41.11015509	-71.12699435
SFWF	15	С	11/11/2017		321407.66	4553165.27	41.11015208	-71.12701066
SFWF	15	D	11/11/2017		321403.72	4553163.49	41.11013522	-71.12705701
SFWF	16	A	11/12/2017		315478.99	4552294.49	41.100989	-71.19731
SFWF	16	В	11/12/2017		315489.52	4552298.45	41.101027	-71.197186
SFWF	16	С	11/12/2017		315490.12	4552297.78	41.101121	-71.197179
SFWF	16	D	11/12/2017		315487.87	4552294.16	41.100988	-71.197204
SFWF	17	A	11/12/2017		315639.87	4552701.97	41.104693	-71.195518
SFWF	17	В	11/12/2017		315644.86	4552707.31	41.104743	-71.19546
SFWF	17	С	11/12/2017		315647.71	4552706.55	41.104736	-71.195433
SFWF	17	D	11/12/2017		315644.06	4552708.11	41.10475	-71.19547
SFWF	18	A	11/12/2017		315783.46	4552957.47	41.107026	-71.193886
SFWF	18	В	11/12/2017		315788.42	4552960.21	41.107052	-71.193827
SFWF	18	С	11/12/2017		315783.50	4552956.34	41.107016	-71.193885
SFWF	18	D	11/12/2017		315781.37	4552954.67	41.107	-71.19391
SFWF	19	A	11/12/2017		315958.42	4552440.24	41.10241	-71.191648
SFWF	19	В	11/12/2017		315963.44	4552437.09	41.102382	-71.191588
SFWF	19	С	11/12/2017		315959.77	4552435.60	41.102386	-71.191631
SFWF	19	D	11/12/2017		315956.45	4552433.72	41.102351	-71.19167
SFWF	20	A	11/12/2017		316345.61	4552119.30	41.099608	-71.186945
SFWF	20	В	11/12/2017	1:41:00	316346.51	4552119.13	41.099607	-71.186933
SFWF	20	С	11/12/2017		316350.32	4552120.78	41.099623	-71.186889
SFWF	20	D	11/12/2017		316354.79	4552122.19	41.099636	-71.186837
SFWF	21	A	11/12/2017		316491.33	4552434.52	41.102479	-71.185305
SFWF	21	В	11/12/2017		316488.20	4552434.52	41.102445	-71.185341
SFWF	21	С	11/12/2017		316485.00	4552426.28	41.102403	-71.185378
SFWF	21	D	11/12/2017		316486.60	4552426.28	41.102404	-71.185359
SFWF	22	Α	11/12/2017		316806.48	4552963.46	41.107311	-71.181712
SFWF	22	В	11/12/2017		316805.68	4552962.34	41.107301	-71.181722
SFWF	22	С	11/12/2017		316807.24	4552961.73	41.107296	-71.181703
SFWF	22	D	11/12/2017		316806.32	4552962.97	41.107307	-71.181714
SFWF	23	Α	11/12/2017		317511.80	4552373.69	41.102161	-71.173143
SFWF	23	В	11/12/2017		317511.69	4552374.49	41.102168	-71.173145
SFWF	23	С	11/12/2017		317516.29	4552374.82	41.102172	-71.17309
SFWF	23	D	11/12/2017		317516.69	4552379.52	41.102215	-71.173087
SFWF	24	Α	11/12/2017		317619.91	4551933.48	41.098223	-71.171726
SFWF	24	В	11/12/2017		317618.11	4551931.26	41.098202	-71.171747
SFWF	24	С	11/12/2017		317623.89	4551924.77	41.098145	-71.171676
SFWF	24	D	11/12/2017		317625.20	4551937.51	41.09826	-71.171664
SFWF	25	Α	11/11/2017		318112.95	4552303.70	41.10166563	-71.16596861
SFWF	25	В	11/11/2017			4552302.20	41.10165131	-71.16601061
SFWF	25	С	11/11/2017			4552299.02	41.10162291	-71.16599812
SFWF	25	D	11/11/2017		318110.46	4552301.17	41.10164228	-71.16599756
SFWF	26	Α	11/11/2017			4552455.98	41.10318529	-71.15808397
SFWF	26	В	11/11/2017			4552458.23	41.10320648	-71.15803231
SFWF	26	С	11/11/2017		318783.86	4552457.82	41.10320282	-71.15803011
SFWF	26	D	11/11/2017			4552454.18	41.10316941	-71.15806533
SFWF	27	Α	11/11/2017			4551923.78	41.09842897	-71.15609327
SFWF	27	В	11/11/2017			4551921.42	41.09840711	-71.15612482

SFWF   27	Area	Station ID	Replicate	Date	Time	X_UTM_19N_m	Y_UTM_19N_m	Latitude_WGS84	Longitude_WGS84
SFWF   28	SFWF	27	С	11/11/2017	22:52:00	318921.88	4551920.74	41.09839896	-71.15622935
SFWF   28	SFWF	27	D	11/11/2017	22:53:00	318915.13	4551916.12	41.09835594	-71.15630836
SFWF   28	SFWF	28	Α	11/11/2017	20:02:00	319397.76	4552790.89	41.10633773	-71.15082225
SFWF   28	SFWF	28	В	11/11/2017	20:04:00	319402.22	4552791.44	41.10634368	-71.15076928
SFWF   29	SFWF	28	С	11/11/2017	20:05:00	319402.24	4552783.98	41.10627651	-71.15076681
SFWF   29	SFWF	28	D	11/11/2017	20:06:00	319402.26	4552790.25	41.10633297	-71.15076844
SFWF         29         C         11/11/2017         22:31:00         319428.44         4552171.39         41.10076802         7-1.15037503           SFWF         29         D         11/11/2017         22:32:00         319424.44         4552163.31         41.10068435         -71.15032033           SFWF         30         A         11/11/2017         20:30:00         320036.63         4552548.80         41.10430016         -71.14310673           SFWF         30         C         11/11/2017         20:32:00         320039.90         4552548.71         41.10429452         -71.14310673           SFWF         30         D         11/11/2017         20:32:00         320037.61         4552548.08         41.10429852         -71.14310673           SFWF         31         A         11/11/2017         20:32:00         320547.93         4552446.03         41.10428986         -71.14310673           SFWF         31         C         11/11/2017         20:55:00         320554.37         4552446.06         41.10348831         -71.13607333           SFWF         31         C         11/11/2017         20:56:00         320554.37         4552446.06         41.10348431         -71.13607348           SFWF         31         <	SFWF	29	Α	11/11/2017	22:28:00	319427.01	4552162.89	41.10069119	-71.15028955
SFWF         29         D         11/11/2017         2:23:200         319424,44         455:216.31         41.10430016         7-1.1502033           SFWF         30         A         11/11/2017         20:30:00         320036.33         455:2548.80         41.10430016         -71.14315133           SFWF         30         B         11/11/2017         20:30:00         320040.10         455:2548.80         41.10430017         -71.14315613           SFWF         30         C         11/11/2017         20:33:00         320037.61         455:2548.80         41.10428986         -71.143168           SFWF         31         A         11/11/2017         20:33:00         320547.93         455:2446.03         41.10428986         -71.1370331           SFWF         31         B         11/11/2017         20:55:00         3205547.93         455:2446.06         41.1034949         -71.13703331           SFWF         31         C         11/11/2017         20:55:00         320554.37         455:2441.44         41.10349849         -71.13603738           SFWF         31         C         11/11/2017         20:55:00         320554.37         455:2441.06         41.10348941         471.13620734           SFWF         31	SFWF	29	В	11/11/2017	22:30:00	319424.83	4552160.00	41.10066465	-71.15031471
SFWF   30	SFWF	29	С	11/11/2017	22:31:00	319428.44	4552171.39	41.10076802	-71.15027505
SFWF         30         B         11/11/2017         20:31:00         320040:10         4552548:71         41.10430017         -71.14310673           SFWF         30         C         11/11/2017         20:32:00         320039:50         4552546:08         41.10429452         -71.14310887           SFWF         30         D         11/11/2017         20:32:00         320037:61         4552547.62         41.1042986         -71.14310887           SFWF         31         A         11/11/2017         20:52:00         32054.87         3452446.73         41.10349449         -71.13703672           SFWF         31         C         11/11/2017         20:55:00         320554.87         4552441.64         41.10348818         -71.13702672           SFWF         31         C         11/11/2017         20:65:00         320551.82         4552441.64         41.10347648         -71.13698644           SFWF         32         A         11/11/2017         20:66:00         320551.82         4552441.64         41.10347648         -71.1362938           SFWF         32         B         11/11/2017         22:06:00         3205608.13         4551801.79         41.09773774         -71.13623409           SFWF         32 <th< td=""><td>SFWF</td><td>29</td><td>D</td><td>11/11/2017</td><td>22:32:00</td><td>319424.44</td><td>4552163.31</td><td>41.10069435</td><td>-71.15032033</td></th<>	SFWF	29	D	11/11/2017	22:32:00	319424.44	4552163.31	41.10069435	-71.15032033
SPWF   30	SFWF	30	Α	11/11/2017	20:30:00	320036.33	4552548.80	41.10430016	-71.14315153
SFWF         30         D         11/11/2017         20:33:00         320037.61         4552547.62         41.1042896         -71.143136           SFWF         31         A         11/11/2017         20:52:00         320547.93         4552446.73         41.1034949         -71.1370331           SFWF         31         C         11/11/2017         20:55:00         320548.47         4552446.63         41.10348858         -71.1370351           SFWF         31         C         11/11/2017         20:55:00         320554.37         4552441.44         41.10344831         -71.13695514           SFWF         31         D         11/11/2017         20:56:00         320551.82         4552444.63         41.103478431         -71.13695514           SFWF         31         D         11/11/2017         20:06:00         320595.182         4552444.63         41.1034761154         -71.13695514           SFWF         32         B         11/11/2017         20:06:00         320598.13         4551801.79         41.0977374         -71.13623003           SFWF         32         B         11/11/2017         20:06:00         320598.13         4551805.74         41.09773774         -71.13623404           SFWF         33	SFWF	30	В	11/11/2017	20:31:00	320040.10	4552548.71	41.10430017	-71.14310673
SFWF         31         A         11/11/2017         20:52:00         320547.93         4552446.73         41.10349449         -71.13703331           SFWF         31         B         11/11/2017         20:54:00         320548.47         4552446.06         41.10348858         -71.13703671           SFWF         31         D         11/11/2017         20:56:00         320551.82         4552441.44         41.10344831         -71.13698644           SFWF         32         A         11/11/2017         20:56:00         320501.32         4551794.11         41.09763154         -71.13620398           SFWF         32         B         11/11/2017         22:05:00         320601.33         4551805.74         41.09770021         -71.13623409           SFWF         32         C         11/11/2017         22:07:00         320608.13         4551805.74         41.09773774         -71.13612984           SFWF         32         D         11/11/2017         22:08:00         320608.56         4551801.41         41.09769889         -71.13612949           SFWF         33         B         11/11/2017         21:19:00         321250.54         4552211.27         41.0154097         -71.12860319           SFWF         33 <t< td=""><td>SFWF</td><td>30</td><td>С</td><td>11/11/2017</td><td>20:32:00</td><td>320039.90</td><td>4552548.08</td><td>41.10429452</td><td>-71.14310887</td></t<>	SFWF	30	С	11/11/2017	20:32:00	320039.90	4552548.08	41.10429452	-71.14310887
SFWF         31         B         11/11/2017         20:54:00         320548.47         4552446.06         41.0348858         -71.13702672           SFWF         31         C         11/11/2017         20:55:00         320551.82         4552441.44         41.0344831         -71.13695314           SFWF         31         D         11/11/2017         20:56:00         320551.82         45524441.44         31.0347648         -71.13698644           SFWF         32         A         11/11/2017         22:05:00         320508.13         4551794.11         41.09763154         -71.13620738           SFWF         32         B         11/11/2017         22:06:00         320690.13         4551805.74         41.09770021         -71.13623409           SFWF         32         D         11/11/2017         22:08:00         320698.13         4551805.74         41.09773774         -71.1362344           SFWF         33         A         11/11/2017         21:21:80         321255.75         4552210.68         41.0140979         -71.1286378           SFWF         33         B         11/11/2017         21:21:00         321245.50         4552210.73         41.0152981         -71.12866484           SFWF         33         C </td <td>SFWF</td> <td>30</td> <td>D</td> <td>11/11/2017</td> <td>20:33:00</td> <td>320037.61</td> <td>4552547.62</td> <td>41.10428986</td> <td>-71.143136</td>	SFWF	30	D	11/11/2017	20:33:00	320037.61	4552547.62	41.10428986	-71.143136
SFWF         31         C         11/11/2017         20:55:00         320554.37         4552441.44         41.10347683         -71.13695514           SFWF         31         D         11/11/2017         20:56:00         320551.82         4552444.63         41.10347648         -71.136958644           SFWF         32         B         11/11/2017         220:50:00         320601.33         4551794.11         41.09763154         -71.13623409           SFWF         32         B         11/11/2017         220:00         320608.13         4551801.79         41.0977021         -71.13623409           SFWF         32         C         11/11/2017         220:00         320608.56         4551801.79         41.09773774         -71.13612344           SFWF         32         D         11/11/2017         21:18:00         321253.75         4552206.86         41.10149079         -71.12860378           SFWF         33         A         11/11/2017         21:19:00         321250.54         4552210.73         41.10152981         -71.12860319           SFWF         33         D         11/11/2017         21:21:00         321245.50         4552210.73         41.1015245         -71.12860315           SFWF         34         A	SFWF	31	Α	11/11/2017	20:52:00	320547.93	4552446.73	41.10349449	-71.13703331
SFWF         31         D         11/11/2017         20:56:00         320551.82         4552444.63         41.10347648         -71.13698644           SFWF         32         A         11/11/2017         22:05:00         320601.33         4551794.11         41.09763154         -71.13623403           SFWF         32         B         11/11/2017         22:06:00         320508.13         4551801.79         41.09770021         -71.13623403           SFWF         32         C         11/11/2017         22:08:00         320608.35         4551805.74         41.09773774         -71.13612984           SFWF         32         D         11/11/2017         21:208:00         320608.56         4551801.41         41.09769889         -71.13612944           SFWF         33         A         11/11/2017         21:18:00         321255.75         4552210.72         41.10152981         -71.1286378           SFWF         33         B         11/11/2017         21:200         321245.50         4552217.02         41.10152981         -71.12866726           SFWF         33         D         11/11/2017         21:24:00         321248.59         4552210.03         41.10152045         -71.1286726           SFWF         34	SFWF	31	В	11/11/2017	20:54:00	320548.47	4552446.06	41.10348858	-71.13702672
SFWF         32         A         11/11/2017         22:05:00         3206901.33         4551794.11         41.09763154         -71.13620738           SFWF         32         B         11/11/2017         22:06:00         320599.27         4551801.79         41.09770201         -71.13623409           SFWF         32         D         11/11/2017         22:07:00         320608.56         4551801.41         41.09773774         -71.13612344           SFWF         32         D         11/11/2017         21:08:00         320608.56         4551801.41         41.09769889         -71.13612344           SFWF         33         A         11/11/2017         21:18:00         321253.75         4552210.27         41.10152981         -71.1286318           SFWF         33         C         11/11/2017         21:12:00         321245.50         4552210.73         41.1015295         -71.1286318           SFWF         33         D         11/11/2017         21:42:00         321248.59         4552210.73         41.1015245         -71.1286725           SFWF         34         A         11/12/2017         21:46:00         321385.07         4551639.08         41.09641233         -71.1268772           SFWF         34         D<	SFWF	31	С	11/11/2017	20:55:00	320554.37	4552441.44	41.10344831	-71.13695514
SFWF         32         B         11/11/2017         22:06:00         320599.27         4551801.79         41.09770021         -71.13623409           SFWF         32         C         11/11/2017         22:07:00         320608.13         4551805.74         41.09773774         -71.13612984           SFWF         32         D         11/11/2017         21:08:00         320608.56         4551801.41         41.09769889         -71.13612344           SFWF         33         A         11/11/2017         21:18:00         321253.75         4552206.86         41.101409079         -71.12860319           SFWF         33         B         11/11/2017         21:21:00         321250.54         4552211.27         41.10152981         -71.12860319           SFWF         33         C         11/11/2017         21:21:00         321285.05         4552210.73         41.10152981         -71.1286738           SFWF         34         A         11/11/2017         21:44:00         321383.70         4551639.08         41.09640833         -71.1268732           SFWF         34         B         11/11/2017         21:45:00         321385.07         4551642.99         41.09640833         -71.1268725           SFWF         34 <th< td=""><td>SFWF</td><td>31</td><td>D</td><td>11/11/2017</td><td>20:56:00</td><td>320551.82</td><td>4552444.63</td><td>41.10347648</td><td>-71.13698644</td></th<>	SFWF	31	D	11/11/2017	20:56:00	320551.82	4552444.63	41.10347648	-71.13698644
SFWF         32         C         11/11/2017         22:07:00         320608.13         4551805.74         41.09773774         -71.13612984           SFWF         32         D         11/11/2017         22:08:00         320608.56         4551801.41         41.09773774         -71.13612344           SFWF         33         A         11/11/2017         21:18:00         321253.75         4552206.86         41.10149079         -71.12856378           SFWF         33         B         11/11/2017         21:21:200         321250.54         4552211.27         41.10152981         -71.12860319           SFWF         33         D         11/11/2017         21:22:00         321245.50         4552210.73         41.1015245         -71.12866484           SFWF         34         A         11/11/2017         21:245:00         321385.97         4551639.56         41.09640833         -71.1268772           SFWF         34         B         11/11/2017         21:46:00         321385.07         4551642.99         41.09640833         -71.12682758           SFWF         34         D         11/12/2017         21:47:00         321385.07         4551642.99         41.09644393         -71.12682758           SFWF         35         <	SFWF	32	Α	11/11/2017	22:05:00	320601.33	4551794.11	41.09763154	-71.13620738
SFWF         32         D         11/11/2017         22:08:00         320608.56         4551801.41         41.09769889         -71.13612344           SFWF         33         A         11/11/2017         21:18:00         321253.75         4552206.86         41.10149079         -71.12856378           SFWF         33         B         11/11/2017         21:19:00         321250.54         4552211.27         41.10152981         -71.12860319           SFWF         33         C         11/11/2017         21:21:00         321245.50         4552217.02         41.10158045         -71.12862631           SFWF         34         A         11/11/2017         21:22:00         321281.62         4551639.56         41.09641213         -71.12862631           SFWF         34         B         11/11/2017         21:45:00         321385.07         4551639.08         41.09640333         -71.12682758           SFWF         34         D         11/11/2017         21:46:00         321385.07         4551642.99         41.0964393         -71.12682758           SFWF         34         D         11/11/2017         21:46:00         321385.07         4551642.99         41.0964333         -71.12682758           SFWF         35 <th< td=""><td>SFWF</td><td>32</td><td>В</td><td>11/11/2017</td><td>22:06:00</td><td>320599.27</td><td>4551801.79</td><td>41.09770021</td><td>-71.13623409</td></th<>	SFWF	32	В	11/11/2017	22:06:00	320599.27	4551801.79	41.09770021	-71.13623409
SFWF         33         A         11/11/2017         21:18:00         321253.75         4552206.86         41.10149079         -71.12856378           SFWF         33         B         11/11/2017         21:19:00         321250.54         4552211.27         41.10152981         -71.12860319           SFWF         33         C         11/11/2017         21:21:00         321248.59         4552217.02         41.1015245         -71.1286631           SFWF         34         A         11/11/2017         21:44:00         321381.62         4551639.56         41.09641213         -71.1268772           SFWF         34         B         11/11/2017         21:45:00         321385.07         4551639.56         41.09641213         -71.12687236           SFWF         34         C         11/11/2017         21:46:00         321385.07         4551639.08         41.09644393         -71.1268725           SFWF         34         C         11/11/2017         21:47:00         321385.07         4551642.99         41.0964393         -71.12683757           SFWF         35         A         11/12/2017         2:55:00         315606.46         4551894.30         41.097419         -71.195789           SFWF         35         B	SFWF	32	С	11/11/2017	22:07:00	320608.13	4551805.74	41.09773774	-71.13612984
SFWF         33         A         11/11/2017         21:18:00         321253.75         4552206.86         41.10149079         -71.12856378           SFWF         33         B         11/11/2017         21:19:00         321250.54         4552211.27         41.10152981         -71.12860319           SFWF         33         C         11/11/2017         21:21:00         321248.59         4552217.02         41.1015245         -71.1286631           SFWF         34         A         11/11/2017         21:44:00         321381.62         4551639.56         41.09641213         -71.1268772           SFWF         34         B         11/11/2017         21:45:00         321385.07         4551639.56         41.09641213         -71.12687236           SFWF         34         C         11/11/2017         21:46:00         321385.07         4551639.08         41.09644393         -71.1268725           SFWF         34         C         11/11/2017         21:47:00         321385.07         4551642.99         41.0964393         -71.12683757           SFWF         35         A         11/12/2017         2:55:00         315606.46         4551894.30         41.097419         -71.195789           SFWF         35         B	SFWF	32	D	11/11/2017	22:08:00	320608.56	4551801.41	41.09769889	-71.13612344
SFWF         33         B         11/11/2017         21:19:00         321250.54         4552211.27         41.10152981         -71.12860319           SFWF         33         C         11/11/2017         21:21:00         321245.50         4552211.02         41.10158045         -71.12860484           SFWF         34         A         11/11/2017         21:24:400         321281.62         4551639.56         41.09641213         -71.1268723           SFWF         34         B         11/11/2017         21:44:00         321381.62         4551639.08         41.09640833         -71.12687236           SFWF         34         C         11/11/2017         21:46:00         321385.87         4551642.99         41.09644393         -71.12687258           SFWF         34         D         11/12/2017         21:54:00         315596.68         4551894.30         41.09645828         -71.1268757           SFWF         35         A         11/12/2017         2:55:00         315606.46         4551894.30         41.097416         -71.195789           SFWF         35         B         11/12/2017         2:55:00         315606.44         4551894.88         41.097416         -71.195673           SFWF         36         D	SFWF	33	Α				4552206.86	41.10149079	-71.12856378
SFWF         33         C         11/11/2017         21:21:00         321245.50         4552217.02         41.10158045         -71.12866484           SFWF         33         D         11/11/2017         21:22:00         321248.59         4552210.73         41.1015245         -71.128672631           SFWF         34         A         11/11/2017         21:45:00         321381.62         4551639.56         41.09641213         -71.1268772           SFWF         34         B         11/11/2017         21:45:00         321383.70         4551639.88         41.09644833         -71.1268778           SFWF         34         C         11/11/2017         21:45:00         321385.07         4551642.99         41.09644393         -71.1268778           SFWF         34         D         11/11/2017         21:47:00         321385.07         4551644.60         41.09644828         -71.1268778           SFWF         35         A         11/12/2017         2:57:00         315606.46         4551892.03         41.097419         -71.195789           SFWF         35         D         11/12/2017         2:57:00         315604.24         4551894.68         41.097419         -71.19573           SFWF         35         D	SFWF	33	В				4552211.27	41.10152981	-71.12860319
SFWF         33         D         11/11/2017         21:22:00         321248.59         4552210.73         41.1015245         -71.12862631           SFWF         34         A         11/11/2017         21:44:00         321381.62         4551639.56         41.09640333         -71.1268772           SFWF         34         B         11/11/2017         21:45:00         321383.70         4551639.08         41.09640833         -71.12682758           SFWF         34         C         11/11/2017         21:46:00         321385.07         4551642.99         41.09644393         -71.12682758           SFWF         34         D         11/11/2017         21:47:00         321385.07         4551642.99         41.09644393         -71.12682758           SFWF         34         D         11/12/2017         21:40:00         3115596.68         4551844.60         41.09645828         -71.12682757           SFWF         35         A         11/12/2017         2:55:00         315606.46         4551894.03         41.097416         -71.195789           SFWF         35         D         11/12/2017         2:57:00         315606.44         4551894.08         41.097419         -71.195789           SFWF         36         A	SFWF	33	С			321245.50	4552217.02	41.10158045	-71.12866484
SFWF         34         A         11/11/2017         21:44:00         321381.62         4551639.56         41.09641213         -71.1268772           SFWF         34         B         11/11/2017         21:45:00         321383.70         4551639.08         41.09640833         -71.12687236           SFWF         34         C         11/11/2017         21:46:00         321385.87         4551642.99         41.09644393         -71.12682758           SFWF         34         D         11/11/2017         21:46:00         321385.07         4551644.60         41.09645828         -71.12682758           SFWF         35         A         11/12/2017         21:54:00         315596.68         4551892.03         41.0974933         -71.195789           SFWF         35         B         11/12/2017         2:55:00         315606.46         4551894.30         41.097416         -71.195673           SFWF         35         D         11/12/2017         2:57:00         315604.24         4551894.68         41.097419         -71.195673           SFWF         35         D         11/12/2017         3:15:00         315689.09         455109.37         41.090416         -71.195369           SFWF         36         B <t< td=""><td>SFWF</td><td>33</td><td>D</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	SFWF	33	D						
SFWF         34         C         11/11/2017         21:46:00         321385.87         4551642.99         41.09644393         -71.12682758           SFWF         34         D         11/11/2017         21:47:00         321385.07         4551644.60         41.09645828         -71.12683757           SFWF         35         A         11/12/2017         2:54:00         315596.68         4551892.03         41.097393         -71.195789           SFWF         35         B         11/12/2017         2:55:00         315606.46         4551894.68         41.097416         -71.195673           SFWF         35         C         11/12/2017         2:55:00         315604.24         4551894.68         41.097419         -71.195673           SFWF         35         D         11/12/2017         3:15:00         315604.24         4551894.68         41.097419         -71.195673           SFWF         36         A         11/12/2017         3:15:00         315685.00         4551109.37         41.097419         -71.19569           SFWF         36         B         11/12/2017         3:15:00         315688.71         4551114.61         41.090416         -71.19461           SFWF         36         C         11/12/2017	SFWF	34	Α			321381.62	4551639.56	41.09641213	-71.1268772
SFWF         34         D         11/11/2017         21:47:00         321385.07         4551644.60         41.09645828         -71.12683757           SFWF         35         A         11/12/2017         2:54:00         315596.68         4551892.03         41.097393         -71.195789           SFWF         35         B         11/12/2017         2:55:00         315606.46         4551894.30         41.097416         -71.195673           SFWF         35         C         11/12/2017         2:55:00         315604.24         4551894.68         41.097419         -71.1957           SFWF         35         D         11/12/2017         3:15:00         315694.24         4551894.68         41.097412         -71.195769           SFWF         36         A         11/12/2017         3:15:00         315685.00         4551109.37         41.097472         -71.195369           SFWF         36         B         11/12/2017         3:16:00         315688.71         4551114.61         41.090416         -71.19461           SFWF         36         D         11/12/2017         3:18:00         315691.23         4551113.44         41.090406         -71.19443           SFWF         37         A         11/12/2017	SFWF	34	В	11/11/2017	21:45:00	321383.70	4551639.08	41.09640833	-71.12685236
SFWF         35         A         11/12/2017         2:54:00         315596.68         4551892.03         41.097393         -71.195789           SFWF         35         B         11/12/2017         2:55:00         315606.46         4551894.30         41.097416         -71.195673           SFWF         35         C         11/12/2017         2:57:00         315604.24         4551894.68         41.097419         -71.1957           SFWF         35         D         11/12/2017         2:58:00         315609.49         4551894.68         41.097419         -71.19576           SFWF         36         A         11/12/2017         3:15:00         315689.00         4551109.37         41.090368         -71.194503           SFWF         36         B         11/12/2017         3:16:00         315688.71         4551119.37         41.090466         -71.19461           SFWF         36         C         11/12/2017         3:16:00         315691.23         4551113.44         41.090406         -71.194461           SFWF         36         D         11/12/2017         3:18:00         315691.23         4551112.58         41.093393         -71.19443           SFWF         37         A         11/12/2017	SFWF	34	С	11/11/2017	21:46:00	321385.87	4551642.99	41.09644393	-71.12682758
SFWF         35         B         11/12/2017         2:55:00         315606.46         4551894.30         41.097416         -71.195673           SFWF         35         C         11/12/2017         2:57:00         315604.24         4551894.68         41.097419         -71.1957           SFWF         35         D         11/12/2017         2:58:00         315609.49         4551900.50         41.097472         -71.195369           SFWF         36         A         11/12/2017         3:16:00         315685.00         4551109.37         41.090368         -71.194401           SFWF         36         B         11/12/2017         3:16:00         315688.71         4551114.61         41.090416         -71.194461           SFWF         36         C         11/12/2017         3:17:00         315690.80         4551113.44         41.090406         -71.194435           SFWF         36         D         11/12/2017         3:18:00         315691.23         4551112.58         41.090398         -71.194435           SFWF         37         A         11/12/2017         3:36:00         315928.80         4551439.25         41.093393         -71.191701           SFWF         37         B         11/12/2017	SFWF	34	D	11/11/2017	21:47:00	321385.07	4551644.60	41.09645828	-71.12683757
SFWF         35         C         11/12/2017         2:57:00         315604.24         4551894.68         41.097419         -71.1957           SFWF         35         D         11/12/2017         2:58:00         315609.49         4551900.50         41.097472         -71.195369           SFWF         36         A         11/12/2017         3:15:00         315685.00         4551109.37         41.090368         -71.194503           SFWF         36         B         11/12/2017         3:16:00         315688.71         4551114.61         41.090416         -71.194461           SFWF         36         C         11/12/2017         3:17:00         315690.80         4551113.44         41.090406         -71.194435           SFWF         36         D         11/12/2017         3:18:00         315691.23         4551112.58         41.090398         -71.19443           SFWF         37         A         11/12/2017         3:34:00         315928.80         4551439.25         41.093393         -71.19163           SFWF         37         B         11/12/2017         3:36:00         315935.24         4551432.99         41.093435         -71.191623           SFWF         37         D         11/12/2017	SFWF	35	Α	11/12/2017	2:54:00	315596.68	4551892.03	41.097393	-71.195789
SFWF         35         D         11/12/2017         2:58:00         315609.49         4551900.50         41.097472         -71.195369           SFWF         36         A         11/12/2017         3:15:00         315685.00         4551109.37         41.090368         -71.194503           SFWF         36         B         11/12/2017         3:16:00         315688.71         4551114.61         41.090416         -71.194461           SFWF         36         C         11/12/2017         3:17:00         315690.80         4551113.44         41.090406         -71.194435           SFWF         36         D         11/12/2017         3:18:00         315691.23         4551112.58         41.090398         -71.19443           SFWF         37         A         11/12/2017         3:34:00         315928.80         4551439.25         41.093393         -71.191701           SFWF         37         B         11/12/2017         3:35:00         315929.96         4551443.95         41.093435         -71.191689           SFWF         37         C         11/12/2017         3:37:00         315926.33         4551441.09         41.093408         -71.191623           SFWF         37         D         11/12/2017	SFWF	35	В	11/12/2017	2:55:00	315606.46	4551894.30	41.097416	-71.195673
SFWF         36         A         11/12/2017         3:15:00         315685.00         4551109.37         41.090368         -71.194503           SFWF         36         B         11/12/2017         3:16:00         315688.71         4551114.61         41.090416         -71.194461           SFWF         36         C         11/12/2017         3:17:00         315690.80         4551113.44         41.090406         -71.194435           SFWF         36         D         11/12/2017         3:18:00         315691.23         4551112.58         41.090398         -71.19443           SFWF         37         A         11/12/2017         3:34:00         315928.80         4551439.25         41.093393         -71.191701           SFWF         37         B         11/12/2017         3:36:00         315929.96         4551443.95         41.093435         -71.191689           SFWF         37         C         11/12/2017         3:36:00         315935.24         4551432.99         41.093435         -71.191689           SFWF         37         D         11/12/2017         3:37:00         315926.33         4551441.03         41.093408         -71.191623           SFWF         38         A         11/12/2017	SFWF	35	С	11/12/2017	2:57:00	315604.24	4551894.68	41.097419	-71.1957
SFWF         36         B         11/12/2017         3:16:00         315688.71         4551114.61         41.090416         -71.194461           SFWF         36         C         11/12/2017         3:17:00         315690.80         4551113.44         41.090406         -71.194435           SFWF         36         D         11/12/2017         3:18:00         315691.23         4551112.58         41.090398         -71.19443           SFWF         37         A         11/12/2017         3:34:00         315928.80         4551439.25         41.093393         -71.191701           SFWF         37         B         11/12/2017         3:35:00         315929.96         4551443.95         41.093435         -71.191689           SFWF         37         C         11/12/2017         3:36:00         315935.24         4551432.99         41.093337         -71.191623           SFWF         37         D         11/12/2017         3:37:00         315926.33         4551441.03         41.093408         -71.191731           SFWF         38         A         11/12/2017         3:59:00         316259.07         4550929.52         41.088879         -71.187619           SFWF         38         B         11/12/2017	SFWF	35	D	11/12/2017	2:58:00	315609.49	4551900.50	41.097472	-71.195369
SFWF         36         C         11/12/2017         3:17:00         315690.80         4551113.44         41.090406         -71.194435           SFWF         36         D         11/12/2017         3:18:00         315691.23         4551112.58         41.090398         -71.19443           SFWF         37         A         11/12/2017         3:34:00         315928.80         4551439.25         41.093393         -71.191701           SFWF         37         B         11/12/2017         3:35:00         315929.96         4551443.95         41.093435         -71.191689           SFWF         37         C         11/12/2017         3:36:00         315926.33         4551443.95         41.093435         -71.191689           SFWF         37         D         11/12/2017         3:36:00         315935.24         4551432.99         41.093435         -71.191689           SFWF         37         D         11/12/2017         3:37:00         315926.33         4551441.03         41.093408         -71.191623           SFWF         38         A         11/12/2017         3:59:00         316259.07         4550925.22         41.08879         -71.187619           SFWF         38         B         11/12/2017	SFWF	36	Α	11/12/2017	3:15:00	315685.00	4551109.37	41.090368	-71.194503
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SFWF         37         A         11/12/2017         3:34:00         315928.80         4551439.25         41.093393         -71.191701           SFWF         37         B         11/12/2017         3:35:00         315929.96         4551443.95         41.093435         -71.191689           SFWF         37         C         11/12/2017         3:36:00         315935.24         4551432.99         41.093337         -71.191623           SFWF         37         D         11/12/2017         3:37:00         315926.33         4551441.03         41.093408         -71.191623           SFWF         38         A         11/12/2017         3:59:00         316259.07         4550929.52         41.088879         -71.187619           SFWF         38         B         11/12/2017         4:00:00         316257.32         4550915.60         41.088753         -71.187636           SFWF         38         C         11/12/2017         4:01:00         316256.78         4550915.03         41.088748         -71.187642           SFWF         38         D         11/12/2017         4:02:00         316255.95         4550923.26         41.088822         -71.187655           SFWF         39         A         11/12/2017	SFWF	36	С	11/12/2017	3:17:00	315690.80	4551113.44	41.090406	-71.194435
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SFWF         37         D         11/12/2017         3:37:00         315926.33         4551441.03         41.093408         -71.191731           SFWF         38         A         11/12/2017         3:59:00         316259.07         4550929.52         41.088879         -71.187619           SFWF         38         B         11/12/2017         4:00:00         316257.32         4550915.60         41.088753         -71.187636           SFWF         38         C         11/12/2017         4:01:00         316256.78         4550915.03         41.088748         -71.187642           SFWF         38         D         11/12/2017         4:02:00         316255.95         4550923.26         41.088822         -71.187655           SFWF         39         A         11/12/2017         4:21:00         316877.80         4551941.58         41.098129         -71.180559           SFWF         39         B         11/12/2017         4:23:00         316869.12         4551933.44         41.098053         -71.18066           SFWF         39         C         11/12/2017         4:24:00         316864.74         4551932.46         41.098022         -71.180751           SFWF         40         A         11/12/2017	SFWF	37	В	11/12/2017	3:35:00	315929.96	4551443.95	41.093435	-71.191689
SFWF         38         A         11/12/2017         3:59:00         316259.07         4550929.52         41.088879         -71.187619           SFWF         38         B         11/12/2017         4:00:00         316257.32         4550915.60         41.088753         -71.187636           SFWF         38         C         11/12/2017         4:01:00         316256.78         4550915.03         41.088748         -71.187642           SFWF         38         D         11/12/2017         4:02:00         316255.95         4550923.26         41.088822         -71.187655           SFWF         39         A         11/12/2017         4:21:00         316877.80         4551941.58         41.098129         -71.180559           SFWF         39         B         11/12/2017         4:23:00         316869.12         4551933.44         41.098053         -71.18066           SFWF         39         C         11/12/2017         4:24:00         316864.74         4551930.10         41.098022         -71.180711           SFWF         39         D         11/12/2017         4:25:00         316861.46         4551932.46         41.098043         -71.180751           SFWF         40         B         11/12/2017	SFWF	37	С	11/12/2017	3:36:00	315935.24	4551432.99	41.093337	-71.191623
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SFWF         38         C         11/12/2017         4:01:00         316256.78         4550915.03         41.088748         -71.187642           SFWF         38         D         11/12/2017         4:02:00         316255.95         4550923.26         41.088822         -71.187655           SFWF         39         A         11/12/2017         4:21:00         316877.80         4551941.58         41.098129         -71.180559           SFWF         39         B         11/12/2017         4:23:00         316869.12         4551933.44         41.098053         -71.18066           SFWF         39         C         11/12/2017         4:24:00         316864.74         4551930.10         41.098022         -71.180711           SFWF         39         D         11/12/2017         4:25:00         316861.46         4551932.46         41.098043         -71.180751           SFWF         40         A         11/12/2017         4:39:00         317244.33         4551663.50         41.095708         -71.176115           SFWF         40         B         11/12/2017         4:41:00         317238.72         4551665.88         41.095728         -71.176182	SFWF	38	А	11/12/2017	3:59:00	316259.07	4550929.52	41.088879	-71.187619
SFWF         38         D         11/12/2017         4:02:00         316255.95         4550923.26         41.088822         -71.187655           SFWF         39         A         11/12/2017         4:21:00         316877.80         4551941.58         41.098129         -71.180559           SFWF         39         B         11/12/2017         4:23:00         316869.12         4551933.44         41.098053         -71.18066           SFWF         39         C         11/12/2017         4:24:00         316864.74         4551930.10         41.098022         -71.180711           SFWF         39         D         11/12/2017         4:25:00         316861.46         4551932.46         41.098043         -71.180751           SFWF         40         A         11/12/2017         4:39:00         317244.33         4551663.50         41.095708         -71.176115           SFWF         40         B         11/12/2017         4:41:00         317238.72         4551665.88         41.095728         -71.176182	SFWF	38	В	11/12/2017	4:00:00	316257.32	4550915.60	41.088753	-71.187636
SFWF         39         A         11/12/2017         4:21:00         316877.80         4551941.58         41.098129         -71.180559           SFWF         39         B         11/12/2017         4:23:00         316869.12         4551933.44         41.098053         -71.18066           SFWF         39         C         11/12/2017         4:24:00         316864.74         4551930.10         41.098022         -71.180711           SFWF         39         D         11/12/2017         4:25:00         316861.46         4551932.46         41.098043         -71.180751           SFWF         40         A         11/12/2017         4:39:00         317244.33         4551663.50         41.095708         -71.176115           SFWF         40         B         11/12/2017         4:41:00         317238.72         4551665.88         41.095728         -71.176182	SFWF	38	С	11/12/2017	4:01:00	316256.78	4550915.03	41.088748	-71.187642
SFWF         39         B         11/12/2017         4:23:00         316869.12         4551933.44         41.098053         -71.18066           SFWF         39         C         11/12/2017         4:24:00         316864.74         4551930.10         41.098022         -71.180711           SFWF         39         D         11/12/2017         4:25:00         316861.46         4551932.46         41.098043         -71.180751           SFWF         40         A         11/12/2017         4:39:00         317244.33         4551663.50         41.095708         -71.176115           SFWF         40         B         11/12/2017         4:41:00         317238.72         4551665.88         41.095728         -71.176182	SFWF	38	D	11/12/2017	4:02:00	316255.95	4550923.26	41.088822	-71.187655
SFWF         39         C         11/12/2017         4:24:00         316864.74         4551930.10         41.098022         -71.180711           SFWF         39         D         11/12/2017         4:25:00         316861.46         4551932.46         41.098043         -71.180751           SFWF         40         A         11/12/2017         4:39:00         317244.33         4551663.50         41.095708         -71.176115           SFWF         40         B         11/12/2017         4:41:00         317238.72         4551665.88         41.095728         -71.176182	SFWF	39	А	11/12/2017	4:21:00	316877.80	4551941.58	41.098129	-71.180559
SFWF         39         D         11/12/2017         4:25:00         316861.46         4551932.46         41.098043         -71.180751           SFWF         40         A         11/12/2017         4:39:00         317244.33         4551663.50         41.095708         -71.176115           SFWF         40         B         11/12/2017         4:41:00         317238.72         4551665.88         41.095728         -71.176182	SFWF	39	В	11/12/2017	4:23:00	316869.12	4551933.44	41.098053	-71.18066
SFWF         40         A         11/12/2017         4:39:00         317244.33         4551663.50         41.095708         -71.176115           SFWF         40         B         11/12/2017         4:41:00         317238.72         4551665.88         41.095728         -71.176182	SFWF	39	С	11/12/2017	4:24:00	316864.74	4551930.10	41.098022	-71.180711
SFWF         40         B         11/12/2017         4:41:00         317238.72         4551665.88         41.095728         -71.176182	SFWF	39	D	11/12/2017	4:25:00	316861.46	4551932.46	41.098043	-71.180751
	SFWF	40	А	11/12/2017	4:39:00	317244.33	4551663.50	41.095708	-71.176115
SFWF 40 C 11/12/2017 4:42:00 317247.37 4551667.48 41.0955744 -71.17608	SFWF	40	В	11/12/2017	4:41:00	317238.72	4551665.88	41.095728	-71.176182
	SFWF	40	С	11/12/2017	4:42:00	317247.37	4551667.48	41.0955744	-71.17608

Area	Station ID	Replicate	Date	Time	X_UTM_19N_m	Y_UTM_19N_m	Latitude_WGS84	Longitude_WGS84
SFWF	40	D	11/12/2017	4:43:00	317252.07	4551674.08	41.095805	-71.176026
SFWF	41	Α	11/12/2017	5:24:00	317465.24	4551125.30	41.090913	-71.173327
SFWF	41	В	11/12/2017	5:25:00	317467.75	4551131.81	41.090972	-71.173299
SFWF	41	С	11/12/2017	5:26:00	317473.76	4551130.86	41.090965	-71.173227
SFWF	41	D	11/12/2017	5:27:00	317468.58	4551133.54	41.090988	-71.173289
SFWF	42	Α	11/12/2017	5:40:00	317443.61	4550851.66	41.088445	-71.173503
SFWF	42	В	11/12/2017	5:41:00	317442.67	4550850.63	41.088435	-71.173514
SFWF	42	С	11/12/2017	5:42:00	317441.75	4550852.40	41.088451	-71.173525
SFWF	42	D	11/12/2017	5:43:00	317445.66	4550864.02	41.088557	-71.173482
SFWF	43	Α	11/12/2017	6:03:00	318149.58	4551567.21	41.095044	-71.165315
SFWF	43	В	11/12/2017	6:04:00	318146.91	4551560.89	41.094987	-71.165345
SFWF	43	С	11/12/2017	6:05:00	318161.75	4551566.78	41.095043	-71.16517
SFWF	43	D	11/12/2017	6:07:00	318153.77	4551563.27	41.09501	-71.165264
SFWF	44	Α	11/12/2017	9:48:00	318476.21	4550821.64	41.088406	-71.161208
SFWF	44	В	11/12/2017	9:49:00	318486.10	4550807.33	41.088279	-71.161086
SFWF	44	С	11/12/2017	9:50:00	318485.77	4550808.31	41.088288	-71.161091
SFWF	44	D	11/12/2017	9:51:00	318485.56	4550807.74	41.088283	-71.161093
SFWF	45	Α	11/12/2017	10:04:00	318912.30	4551148.19	41.091443	-71.156116
SFWF	45	В	11/12/2017			4551147.45	41.091434	-71.156199
SFWF	45	С	11/12/2017			4551146.33	41.091423	-71.156276
SFWF	45	D	11/12/2017	10:07:00	318896.83	4551143.25	41.091395	-71.156299
SFWF	46	Α	11/12/2017			4550657.77	41.087032	-71.15578
SFWF	46	В	11/12/2017		318929.23	4550653.45	41.086993	-71.155769
SFWF	46	С	11/12/2017			4550650.60	41.086967	-71.1558
SFWF	46	D	11/12/2017			4550655.28	41.087009	-71.155785
SFWF	47	A	11/12/2017			4550983.28	41.090112	-71.148083
SFWF	47	В	11/12/2017			4550981.65	41.090091	-71.14815
SFWF	47	С	11/12/2017			4550979.58	41.090073	-71.148149
SFWF	47	D	11/12/2017			4550982.73	41.090102	-71.148085
SFWF	48	A	11/12/2017			4551533.18	41.095122	-71.144796
SFWF	48	В	11/12/2017			4551532.14	41.095112	-71.14482
SFWF	48	С	11/12/2017			4551533.97	41.095128	-71.144814
SFWF	48	D	11/12/2017			4551533.19	41.095121	-71.144829
SFWF	49	A	11/12/2017			4551480.53	41.094789	-71.137199
SFWF	49	В	11/12/2017			4551478.02	41.094767	-71.137148
SFWF	49	С	11/12/2017			4551478.13	41.094768	-71.137133
SFWF	49	D	11/12/2017			4551470.57	41.0947	-71.137165
SFWF	50	A	11/12/2017			4550601.96	41.086888	-71.137103
SFWF	50	В	11/12/2017			4550607.82	41.08694	-71.136531
SFWF	50	С	11/12/2017			4550606.08	41.086923	-71.136631
SFWF	50	D	11/12/2017			4550605.96	41.086923	-71.136576
SFWF	51	A	11/12/2017			4550718.59	41.08805	-71.130570
SFWF	51	В	11/12/2017			4550718.09	41.088044	-71.130502
SFWF	51	С	11/12/2017			4550721.14	41.088072	-71.130544
SFWF	51	D	11/12/2017			4550721.14	41.088072	-71.130548
SFWF	52	A	11/12/2017			4550156.47	41.081707	-71.130348
SFWF	52	В	11/12/2017			4550158.29	41.081707	-71.198578
SFWF	52	С	11/12/2017			4550158.29	41.081723	-71.198518
SFWF	52	D	11/12/2017			4550156.73 4550156.01	41.081711	-71.198518
			11/12/2017					
SFWF SFWF	53 52	A B	11/12/2017			4549611.16	41.076817	-71.197465 -71.197406
	53 52		11/12/2017			4549611.24	41.076819	-71.197406
SFWF	53 52	С				4549623.16	41.076926	-71.197382
SFWF	53	D	11/12/2017	17:30:00	315397.52	4549611.93	41.076824	-71.197474

Area	Station ID	Replicate	Date	Time	X_UTM_19N_m	Y_UTM_19N_m	Latitude_WGS84	Longitude_WGS84
SFWF	54	Α	11/12/2017	17:43:00	315846.63	4549702.03	41.077736	-71.192159
SFWF	54	В	11/12/2017	17:45:00	315847.53	4549704.90	41.077762	-71.192149
SFWF	54	С	11/12/2017	17:46:00	315845.01	4549703.91	41.077753	-71.192179
SFWF	54	D	11/12/2017	17:47:00	315841.92	4549707.17	41.077782	-71.192217
SFWF	55	Α	11/12/2017	17:59:00	316141.06	4549569.70	41.076612	-71.188617
SFWF	55	В	11/12/2017	18:00:00	316143.57	4549571.51	41.076629	-71.188588
SFWF	55	С	11/12/2017	18:01:00	316146.52	4549569.37	41.07661	-71.188552
SFWF	55	D	11/12/2017	18:03:00	316149.51	4549563.28	41.076556	-71.188515
SFWF	56	Α	11/12/2017	16:27:00	316580.61	4550515.96	41.085229	-71.18367
SFWF	56	В	11/12/2017	16:28:00	316582.90	4550514.77	41.085219	-71.183643
SFWF	56	С	11/12/2017	16:29:00	316582.98	4550516.75	41.085236	-71.183642
SFWF	56	D	11/12/2017	16:30:00	316583.10	4550516.74	41.085236	-71.183641
SFWF	57	Α	11/12/2017	18:17:00	316859.92	4549435.20	41.075563	-71.180031
SFWF	57	В	11/12/2017	18:19:00	316858.41	4549435.23	41.075563	-71.180044
SFWF	57	С	11/12/2017	18:20:00	316854.66	4549436.91	41.075577	-71.180089
SFWF	57	D	11/12/2017	18:21:00	316853.62	4549438.04	41.075587	-71.180102
SFWF	58	Α	11/12/2017	18:34:00	317486.47	4549445.04	41.075796	-71.172576
SFWF	58	В	11/12/2017	18:36:00	317485.86	4549444.40	41.075787	-71.172583
SFWF	58	С	11/12/2017	18:37:00	317486.55	4549442.67	41.075771	-71.172574
SFWF	58	D	11/12/2017	18:38:00	317488.50	4549446.91	41.07581	-71.172552
SFWF	59	Α	11/12/2017	16:01:00	317793.01	4550171.82	41.082404	-71.169144
SFWF	59	В	11/12/2017	16:02:00	317797.96	4550178.05	41.082461	-71.169087
SFWF	59	С	11/12/2017	16:04:00	317804.45	4550179.28	41.082473	-71.169011
SFWF	59	D	11/12/2017	16:05:00	317802.49	4550175.78	41.082441	-71.169033
SFWF	60	Α	11/12/2017	15:46:00	318329.60	4550355.34	41.084176	-71.162815
SFWF	60	В	11/12/2017		318335.18	4550356.07	41.084183	-71.162749
SFWF	60	С	11/12/2017	15:49:00	318328.26	4550361.79	41.084233	-71.162833
SFWF	60	D	11/12/2017			4550366.35	41.084273	-71.162885
SFWF	61	Α	11/12/2017	15:31:00	318860.18	4550059.52	41.081631	-71.156415
SFWF	61	В	11/12/2017	15:32:00	318861.35	4550052.19	41.081565	-71.156399
SFWF	61	С	11/12/2017	15:33:00	318862.64	4550038.07	41.081439	-71.15638
SFWF	61	D	11/12/2017	15:35:00	318865.43	4550043.39	41.0814887	-71.156348
SFWF	62	Α	11/12/2017			4549311.62	41.074894	-71.156425
SFWF	62	В	11/12/2017	15:17:00		4549307.64	41.074858	-71.156448
SFWF	62	С	11/12/2017			4549310.56	41.074883	-71.156536
SFWF	62	D	11/12/2017			4549311.79	41.074895	-71.156466
SFWF	63	Α	11/12/2017		319180.89	4549287.21	41.07475	-71.152373
SFWF	63	В	11/12/2017		319186.47	4549282.24	41.074707	-71.152305
SFWF	63	С	11/12/2017		319175.58	4549277.82	41.074665	-71.152434
SFWF	63	D	11/12/2017		319171.81	4549280.56	41.074688	-71.152479
SFWF	64	A	11/12/2017		319652.99	4549507.21	41.076836	-71.146822
SFWF	64	В	11/12/2017		319646.97	4549506.83	41.076831	-71.146893
SFWF	64	С	11/12/2017		319648.34	4549500.62	41.076775	-71.146875
SFWF	64	D	11/12/2017			4549501.32	41.076784	-71.146739
SFWF	65	A	11/12/2017		320135.72	4549175.30	41.073955	-71.140982
SFWF	65	В	11/12/2017		320136.84	4549170.85	41.073915	-71.140968
SFWF	65	С	11/12/2017		320140.18	4549175.02	41.073953	-71.140929
SFWF	65	D	11/12/2017		320138.80	4549180.38	41.074001	-71.140947
SFWF	66	A	11/12/2017		320427.41	4550355.08	41.084639	-71.137857
SFWF	66	В	11/12/2017		320429.06	4550355.47	41.084643	-71.137837
SFWF	66	С	11/12/2017		320425.18	4550357.59	41.084661	-71.137884
SFWF	66	D	11/12/2017		320429.67	4550359.22	41.084677	-71.137831
SFWF	67	A	11/12/2017		320442.16	4549152.97	41.073821	-71.137331
O1 441	, , , , , , , , , , , , , , , , , , ,	^,	,, -011	1.17.00	323772.10	13 13132.31	11.07.5021	, 1.13, 331

Area	Station ID	Replicate	Date	Time	X_UTM_19N_m	Y_UTM_19N_m	Latitude_WGS84	Longitude_WGS84
SFWF	67	В	11/12/2017	14:18:00	320446.18	4549147.11	41.073769	-71.137281
SFWF	67	С	11/12/2017	14:19:00	320445.70	4549146.72	41.073766	-71.137287
SFWF	67	D	11/12/2017	14:20:00	320443.37	4549148.19	41.073779	-71.137315
SFWF	68	Α	11/12/2017	13:12:00	321213.94	4549683.48	41.078767	-71.128304
SFWF	68	В	11/12/2017	13:13:00	321215.81	4549683.85	41.078771	-71.128282
SFWF	68	С	11/12/2017	13:15:00	321218.45	4549684.72	41.078779	-71.128251
SFWF	68	D	11/12/2017	13:16:00	321223.32	4549685.46	41.078787	-71.128191
SFWF	69	Α	11/12/2017	20:31:00	315986.18	4548828.25	41.069903	-71.190238
SFWF	69	В	11/12/2017	20:32:00	315988.29	4548827.14	41.069893	-71.190212
SFWF	69	С	11/12/2017	20:33:00	315986.50	4548826.43	41.069886	-71.190233
SFWF	69	D	11/12/2017	20:34:00	315985.97	4548826.96	41.069891	-71.19024
SFWF	70	Α	11/12/2017	20:53:00	316403.85	4549264.53	41.073924	-71.1854
SFWF	70	В	11/12/2017	20:55:00	316404.30	4549262.82	41.073909	-71.185394
SFWF	70	С	11/12/2017	20:56:00	316404.50	4549262.28	41.073904	-71.185392
SFWF	70	D	11/12/2017	20:57:00	316401.76	4549260.13	41.073884	-71.185424
SFWF	71	Α	11/12/2017	20:10:00	316768.93	4548718.56	41.069092	-71.180895
SFWF	71	В	11/12/2017	20:12:00	316764.06	4548720.36	41.069107	-71.180953
SFWF	71	С	11/12/2017	20:13:00	316765.59	4548720.09	41.069105	-71.180935
SFWF	71	D	11/12/2017	20:14:00	316766.21	4548718.91	41.069094	-71.180927
SFWF	72	А	11/12/2017	19:44:00	317914.00	4548627.44	41.068529	-71.167248
SFWF	72	В	11/12/2017	19:46:00	317914.36	4548629.58	41.068548	-71.167245
SFWF	72	С	11/12/2017	19:47:00	317912.69	4548626.64	41.068521	-71.167264
SFWF	72	D	11/12/2017	19:48:00	317909.19	4548624.55	41.068502	-71.167304
SFWF	73	Α	11/12/2017	18:50:00	317993.29	4549278.99	41.074412	-71.166498
SFWF	73	В	11/12/2017	18:51:00	317994.34	4549279.12	41.074413	-71.166485
SFWF	73	С	11/12/2017	18:52:00	317992.73	4549273.50	41.074362	-71.166503
SFWF	73	D	11/12/2017	18:53:00	317991.65	4549272.09	41.074349	-71.166515
SFWF	74	Α	11/12/2017		318603.49	4548963.54	41.071708	-71.159146
SFWF	74	В	11/12/2017	19:10:00	318602.85	4548961.11	41.071686	-71.159153
SFWF	74	С	11/12/2017	19:11:00	318601.38	4548961.07	41.071685	-71.159171
SFWF	74	D	11/12/2017		318598.04	4548956.49	41.071644	-71.159209
SFWF	75	Α	11/12/2017	19:27:00	318624.29	4548559.43	41.068075	-71.15878
SFWF	75	В	11/12/2017	19:28:00	318623.85	4548560.49	41.068085	-71.158785
SFWF	75	С	11/12/2017			4548561.77	41.068097	-71.158756
SFWF	75	D	11/12/2017	19:30:00	318629.16	4548561.86	41.068098	-71.158723
SFWF	76	Α	11/12/2017			4548757.97	41.070347	-71.13283
SFWF	76	В	11/12/2017		320810.26	4548761.89	41.070382	-71.132838
SFWF	76	С	11/12/2017	14:03:00	320819.35	4548772.17	41.070477	-71.132733
SFWF	76	D	11/12/2017		320817.35	4548762.73	41.070391	-71.132754
SFWF	201	Α	11/20/2018		317283.11	4554837.10	41.12428403	-71.17659726
SFWF	201	В	11/20/2018		317275.49	4554842.39	41.12432993	-71.17668955
SFWF	201	С	11/20/2018		317282.81	4554831.71	41.12423544	-71.17659923
SFWF	201	D	11/20/2018		317287.52	4554837.35	41.12428727	-71.17654484
SFWF	202	Α	11/20/2018	14:53:00	319909.85	4554498.92	41.12182663	-71.14522843
SFWF	202	В	11/20/2018		319904.87	4554494.78	41.12178826	-71.14528649
SFWF	202	С	11/20/2018		319911.12	4554499.58	41.12183286	-71.1452135
SFWF	202	D	11/20/2018		319914.18	4554502.61	41.12186081	-71.14517796
SFWF	203	Α	11/20/2018			4554098.24	41.11898439	-71.10366582
SFWF	203	В	11/20/2018		323396.21	4554089.75	41.11890897	-71.10360838
SFWF	203	С	11/20/2018		323399.47	4554094.29	41.11895054	-71.10357088
SFWF	203	D	11/20/2018		323402.45	4554083.28	41.11885208	-71.10353224
SFWF	204	Α	11/20/2018			4553363.79	41.11215278	-71.11547087
SFWF	204	В	11/20/2018		322386.63	4553352.37	41.11205098	-71.11541293

Area	Station ID	Replicate	Date	Time	X_UTM_19N_m	Y_UTM_19N_m	Latitude_WGS84	Longitude_WGS84
SFWF	204	С	11/20/2018	14:31:45	322392.79	4553350.37	41.11203433	-71.11533904
SFWF	204	D	11/20/2018	14:33:07	322386.43	4553356.37	41.11208695	-71.11541647
SFWF	205	Α	11/20/2018	13:57:26	324871.17	4553525.71	41.11415083	-71.08588983
SFWF	205	В	11/20/2018	13:58:40	324874.00	4553531.88	41.11420698	-71.08585791
SFWF	205	С	11/20/2018	13:59:57	324873.32	4553522.11	41.11411888	-71.08586322
SFWF	205	D	11/20/2018	14:01:01	324872.45	4553525.58	41.11414993	-71.08587456
SFWF	206	Α	11/20/2018	9:37:25	326364.24	4553516.72	41.11439043	-71.06811506
SFWF	206	В	11/20/2018	9:38:37	326365.01	4553514.25	41.11436836	-71.06810519
SFWF	206	С	11/20/2018	9:39:27	326368.28	4553510.82	41.11433818	-71.0680653
SFWF	206	D	11/20/2018	9:40:18	326374.46	4553513.48	41.11436344	-71.06799249
SFWF	206	Е	11/20/2018	9:41:19	326371.65	4553510.98	41.11434034	-71.06802523
SFWF	207	Α	11/20/2018	13:40:14	323395.69	4552607.23	41.10556324	-71.10318843
SFWF	207	В	11/20/2018	13:41:08	323400.45	4552610.25	41.10559146	-71.10313265
SFWF	207	С	11/20/2018	13:42:12	323401.81	4552599.36	41.10549372	-71.10311333
SFWF	207	D	11/20/2018	13:43:24	323400.61	4552598.02	41.1054814	-71.10312723
SFWF	208	Α	11/20/2018	13:22:34	324896.24	4551856.81	41.09913264	-71.08511591
SFWF	208	В	11/20/2018	13:23:34	324885.87	4551860.11	41.09916011	-71.08524026
SFWF	208	С	11/20/2018	13:24:42	324886.43	4551860.00	41.09915924	-71.08523356
SFWF	208	D	11/20/2018	13:25:41	324895.58	4551847.25	41.09904643	-71.08512104
SFWF	209	Α	11/20/2018	10:01:39	326363.08	4551846.19	41.09935175	-71.06765687
SFWF	209	В	11/20/2018	10:02:36	326365.89	4551845.03	41.0993419	-71.0676231
SFWF	209	С	11/20/2018	10:03:33	326365.01	4551856.18	41.09944209	-71.06763672
SFWF	209	D	11/20/2018	10:04:28	326372.29	4551857.15	41.09945238	-71.06755036
SFWF	210	Α	11/20/2018	12:31:53	321915.79	4551100.49	41.09167671	-71.12036469
SFWF	210	В	11/20/2018	12:32:55	321910.41	4551102.83	41.0916966	-71.12042939
SFWF	210	С	11/20/2018	12:33:51	321909.51	4551097.37	41.09164725	-71.12043852
SFWF	210	D	11/20/2018	12:34:58	321916.63	4551093.52	41.09161416	-71.12035268
SFWF	211	Α	11/20/2018		323393.87	4551104.56	41.0920358	-71.10277844
SFWF	211	В	11/20/2018	12:48:51	323399.68	4551101.62	41.0920106	-71.10270846
SFWF	211	С	11/20/2018	12:49:49	323393.03	4551093.55	41.09193651	-71.10278527
SFWF	211	D	11/20/2018	12:51:21	323403.47	4551077.95	41.09179834	-71.10265657
SFWF	212	Α	11/20/2018	12:07:29	322644.46	4550366.63	41.08522983	-71.11148282
SFWF	212	В	11/20/2018	12:08:35	322644.83	4550365.93	41.0852236	-71.11147822
SFWF	212	С	11/20/2018		322644.51	4550367.88	41.08524109	-71.11148259
SFWF	212	D	11/20/2018	12:10:28	322651.53	4550370.84	41.08526927	-71.11139992
SFWF	213	Α	11/20/2018			4550363.07	41.08567996	-71.08501412
SFWF	213	В	11/20/2018		324875.61	4550367.19	41.08571846	-71.08493724
SFWF	213	С	11/20/2018	13:06:11	324884.20	4550367.45	41.08572265	-71.08483511
SFWF	213	D	11/20/2018	13:07:13	324885.64	4550358.14	41.08563915	-71.08481533
SFWF	214	Α	11/20/2018		326365.65	4550370.28	41.08606583	-71.06720958
SFWF	214	В	11/20/2018		326365.20	4550372.09	41.08608203	-71.06721544
SFWF	214	С	11/20/2018		326364.38	4550369.57	41.08605917	-71.06722449
SFWF	214	D	11/20/2018		326370.51	4550378.21	41.08613826	-71.06715399
SFWF	215	Α	11/20/2018			4549623.10	41.07837736	-71.11993717
SFWF	215	В	11/20/2018		321911.46	4549632.69	41.07846274	-71.11999134
SFWF	215	С	11/20/2018			4549639.79	41.07852586	-71.1200367
SFWF	215	D	11/20/2018			4549636.25	41.07849164	-71.12016356
SFWF	216	Α	11/20/2018			4549624.26	41.07870967	-71.10237718
SFWF	216	В	11/20/2018			4549626.28	41.07872784	-71.10237823
SFWF	216	С	11/20/2018		323381.23	4549633.32	41.07878891	-71.10250648
SFWF	216	D	11/20/2018		323394.56	4549635.06	41.07880747	-71.1023484
SFWF	217	Α	11/20/2018		322659.46	4548889.38	41.07193491	-71.11087868
SFWF	217	В	11/20/2018		322644.14	4548881.01	41.07185622	-71.1110585
SFWF	217	В	11/20/2018	11:26:57	322644.14	4548881.01	41.07185622	-71.1110585

Area	Station ID	Replicate	Date	Time	X_UTM_19N_m	Y_UTM_19N_m	Latitude_WGS84	Longitude_WGS84
SFWF	217	С	11/20/2018	11:28:01	322642.46	4548882.87	41.0718726	-71.11107902
SFWF	217	D	11/20/2018	11:29:13	322649.32	4548877.94	41.07182972	-71.110996
SFWF	218	Α	11/20/2018	10:49:02	324882.94	4548701.56	41.0707258	-71.08437609
SFWF	218	В	11/20/2018	10:50:28	324882.88	4548703.31	41.07074154	-71.0843773
SFWF	218	С	11/20/2018	10:51:26	324882.23	4548705.60	41.07076202	-71.08438569
SFWF	218	D	11/20/2018	10:52:25	324883.24	4548705.77	41.07076376	-71.08437372
SFWF	219	Α	11/20/2018	10:34:12	326356.87	4548711.67	41.07113275	-71.06684607
SFWF	219	В	11/20/2018	10:35:14	326352.77	4548709.79	41.07111495	-71.06689431
SFWF	219	С	11/20/2018	10:36:06	326363.36	4548707.42	41.07109587	-71.06676767
SFWF	219	D	11/20/2018	10:37:11	326369.71	4548719.46	41.07120562	-71.06669553
SFWF	220	Α	11/20/2018	11:11:09	321908.11	4548131.18	41.06494549	-71.11959684
SFWF	220	В	11/20/2018	11:12:20	321905.20	4548141.84	41.06504081	-71.11963454
SFWF	220	С	11/20/2018	11:13:45	321905.25	4548132.19	41.06495396	-71.11963115
SFWF	220	D	11/20/2018	11:14:42	321912.31	4548146.81	41.06508711	-71.11955141
SFWF	C01	Α	11/15/2017	17:26:00	324235.05	4553086.45	41.110059	-71.093336
SFWF	C01	В	11/15/2017	17:27:00	324235.54	4553089.85	41.11009	-71.093331
SFWF	C01	С	11/15/2017	17:28:00	324236.38	4553086.85	41.110063	-71.09332
SFWF	C01	D	11/15/2017	17:30:00	324239.13	4553092.09	41.110111	-71.093289
SFWF	C01	Е	11/15/2017	17:31:00	324239.64	4553087.09	41.110066	-71.093281
SFWF	C01	F	11/15/2017	17:32:00	324232.61	4553086.17	41.110056	-71.093365
SFWF	C02	Α	11/15/2017	16:53:00	326972.74	4553063.85	41.110443	-71.060744
SFWF	C02	В	11/15/2017	16:54:00	326945.82	4553064.56	41.110444	-71.061065
SFWF	C02	С	11/15/2017	16:55:00	326938.81	4553063.72	41.110435	-71.061148
SFWF	C02	D	11/15/2017	16:56:00	326941.69	4553066.29	41.110459	-71.061115
SFWF	C02	E	11/15/2017	16:57:00	326948.25	4553070.48	41.110498	-71.061038
SFWF	C02	F	11/15/2017		326953.14	4553066.41	41.110462	-71.060978
SFEC-OCS	101	Α	11/12/2017	21:18:00	316317.90	4549208.55	41.073401	-71.186405
SFEC-OCS	101	В	11/12/2017		316318.45	4549207.19	41.073389	-71.186399
SFEC-OCS	101	С	11/12/2017	21:20:00	316316.07	4549205.40	41.073372	-71.186426
SFEC-OCS	101	D	11/12/2017	21:22:00	316316.21	4549204.25	41.073362	-71.186424
SFEC-OCS	102	Α	11/12/2017		314731.29	4548166.08	41.063657	-71.204964
SFEC-OCS	102	В	11/12/2017	21:47:00	314731.25	4548165.28	41.06365	-71.204965
SFEC-OCS	102	С	11/12/2017		314728.93	4548167.18	41.063667	-71.204993
SFEC-OCS	102	D	11/12/2017		314727.24	4548168.77	41.063681	-71.205013
SFEC-OCS	103	Α	11/12/2017		312927.47	4547670.83	41.058787	-71.226267
SFEC-OCS		В	11/12/2017			4547672.32	41.0588	-71.226261
SFEC-OCS	103	С	11/12/2017		312926.65	4547672.82	41.058804	-71.226277
SFEC-OCS	103	D	11/12/2017		312924.59	4547674.07	41.058815	-71.226302
SFEC-OCS	104	Α	11/12/2017		311059.95	4547826.51	41.059757	-71.248523
SFEC-OCS	104	В	11/12/2017		311065.08	4547832.67	41.059813	-71.248464
SFEC-OCS	104	С	11/12/2017			4547826.93	41.059761	-71.248515
SFEC-OCS	104	D	11/12/2017		311053.29	4547827.67	41.059766	-71.248602
SFEC-OCS	105	Α	11/12/2017		309169.83	4547764.97	41.058762	-71.270981
SFEC-OCS	105	В	11/12/2017		309171.07	4547762.31	41.058738	-71.270965
SFEC-OCS	105	С	11/12/2017		309170.92	4547760.93	41.058726	-71.270966
SFEC-OCS	105	D	11/12/2017		309169.34	4547761.34	41.058729	-71.270985
SFEC-OCS	106	Α	11/12/2017			4547514.66	41.056301	-71.281412
SFEC-OCS	106	В	11/12/2017		308288.54	4547514.82	41.056303	-71.281383
SFEC-OCS	106	С	11/12/2017		308287.39	4547515.70	41.056311	-71.281399
SFEC-OCS	106	D	11/12/2017		308284.33	4547516.68	41.056319	-71.281433
SFEC-OCS	107	A	11/12/2017		307831.63	4546679.40	41.048676	-71.286555
SFEC-OCS	107	В	11/12/2017		307833.92	4546678.53	41.048668	-71.286528
SFEC-OCS	107	С	11/12/2017		307834.56	4546677.88	41.048663	-71.286509
			_,, ,			12 12377.00	1=12.0000	50000

Area	Station ID	Replicate	Date	Time	X_UTM_19N_m	Y_UTM_19N_m	Latitude_WGS84	Longitude_WGS84
SFEC-OCS	107	D	11/12/2017	23:51:00	307834.75	4546682.27	41.048702	-71.286519
SFEC-OCS	108	Α	11/13/2017	0:09:00	307357.80	4545856.48	41.041157	-71.291935
SFEC-OCS	108	В	11/13/2017	0:11:00	307356.04	4545860.64	41.041194	-71.291954
SFEC-OCS	108	С	11/13/2017	0:12:00	307353.95	4545866.57	41.041247	-71.291981
SFEC-OCS	108	D	11/13/2017	0:13:00	307354.17	4545870.95	41.041286	-71.291979
SFEC-OCS	109	Α	11/13/2017	0:27:00	306708.44	4545173.49	41.034855	-71.299437
SFEC-OCS	109	В	11/13/2017	0:28:00	306710.07	4545171.93	41.034842	-71.299418
SFEC-OCS	109	С	11/13/2017	0:30:00	306710.21	4545172.04	41.034843	-71.299416
SFEC-OCS	109	D	11/13/2017		306708.45	4545174.70	41.034866	-71.299438
SFEC-OCS	110	Α	11/13/2017	0:50:00	304843.79	4545024.77	41.033072	-71.321555
SFEC-OCS	110	В	11/13/2017	0:53:00	304850.14	4545027.83	41.033101	-71.321481
SFEC-OCS	110	С	11/13/2017	0:54:00	304848.74	4545031.22	41.033131	-71.321499
SFEC-OCS	110	D	11/13/2017	0:55:00	304845.76	4545035.35	41.033168	-71.321535
SFEC-OCS	111	Α	11/13/2017	1:21:00	302944.41	4545047.95	41.032824	-71.34414
SFEC-OCS	111	В	11/13/2017	1:22:00	302948.67	4545047.26	41.032818	-71.344089
SFEC-OCS	111	С	11/13/2017	1:23:00	302949.92	4545047.99	41.032825	-71.344074
SFEC-OCS	111	D	11/13/2017	1:24:00	302948.59	4545052.43	41.032865	-71.344091
SFEC-OCS	112	Α	11/13/2017	1:45:00	301045.73	4545073.43	41.032595	-71.366716
SFEC-OCS	112	В	11/13/2017	1:46:00	301048.00	4545075.86	41.032614	-71.36669
SFEC-OCS	112	С	11/13/2017	1:48:00	301048.65	4545076.67	41.032621	-71.366682
SFEC-OCS	112	D	11/13/2017	1:49:00	301047.67	4545078.29	41.032636	-71.366694
SFEC-OCS	113	Α	11/13/2017	2:08:00	299146.05	4545091.34	41.032286	-71.389301
SFEC-OCS	113	В	11/13/2017	2:09:00	299146.55	4545095.10	41.03232	-71.389296
SFEC-OCS	113	С	11/13/2017	2:10:00	299146.00	4545094.22	41.032312	-71.389303
SFEC-OCS	113	D	11/13/2017	2:11:00	299148.68	4545092.67	41.032299	-71.38927
SFEC-OCS	114	Α	11/13/2017	2:31:00	297251.95	4545110.23	41.031987	-71.41182
SFEC-OCS	114	В	11/13/2017	2:33:00	297250.15	4545111.85	41.032001	-71.411842
SFEC-OCS	114	С	11/13/2017	2:34:00	297243.07	4545114.69	41.032025	-71.411927
SFEC-OCS	114	D	11/13/2017	2:35:00	297241.18	4545116.23	41.032039	-71.41195
SFEC-OCS	115	Α	11/13/2017	2:55:00	295338.54	4545135.69	41.031738	-71.43457
SFEC-OCS	115	В	11/13/2017	2:56:00	295342.92	4545139.79	41.031776	-71.43452
SFEC-OCS	115	С	11/13/2017	2:58:00	295344.76	4545140.36	41.031782	-71.434498
SFEC-OCS	115	D	11/13/2017	2:59:00	295346.56	4545136.90	41.031751	-71.434475
SFEC-OCS	116	Α	11/13/2017	3:20:00	293443.00	4545157.49	41.031456	-71.457106
SFEC-OCS	116	В	11/13/2017	3:21:00	293441.88	4545153.99	41.031424	-71.457119
SFEC-OCS	116	С	11/13/2017	3:22:00	293441.69	4545150.68	41.031394	-71.45712
SFEC-OCS	116	D	11/13/2017	3:23:00	293440.04	4545156.35	41.031445	-71.457141
SFEC-OCS	117	Α	11/13/2017	3:42:00	291543.17	4545172.32	41.031105	-71.479691
SFEC-OCS	117	В	11/13/2017	3:44:00	291542.14	4545177.05	41.031148	-71.479705
SFEC-OCS	117	С	11/13/2017	3:45:00	291544.23	4545177.79	41.031155	-71.47968
SFEC-OCS	117	D	11/13/2017	3:46:00	291541.23	4545178.23	41.031158	-71.479716
SFEC-OCS	118	Α	11/13/2017	4:08:00	289643.71	4545203.29	41.030896	-71.502276
SFEC-OCS	118	В	11/13/2017	4:09:00	289647.60	4545200.02	41.030868	-71.502228
SFEC-OCS	118	С	11/13/2017	4:10:00	289645.20	4545202.56	41.03089	-71.502258
SFEC-OCS	118	D	11/13/2017	4:12:00	289651.51	4545200.09	41.030869	-71.502182
SFEC-OCS	119	Α	11/13/2017	4:33:00	287743.00	4545225.66	41.030604	-71.524872
SFEC-OCS	119	В	11/13/2017	4:34:00	287743.16	4545225.86	41.030606	-71.524871
SFEC-OCS	119	С	11/13/2017	4:36:00	287746.06	4545226.61	41.030614	-71.524836
SFEC-OCS	119	D	11/13/2017	4:37:00	287742.66	4545221.17	41.030564	-71.524875
SFEC-OCS	120	Α	11/13/2017	4:58:00	285847.18	4545247.76	41.030307	-71.54741
SFEC-OCS	120	В	11/13/2017		285844.82	4545246.98	41.0303	-71.547438
SFEC-OCS	120	С	11/13/2017	5:01:00	285843.04	4545245.36	41.030285	-71.547459
SFEC-OCS	120	D	11/13/2017	5:02:00	285848.73	4545246.45	41.030296	-71.547391

Area	Station ID	Replicate	Date	Time	X_UTM_19N_m	Y_UTM_19N_m	Latitude_WGS84	Longitude_WGS84
SFEC-OCS	121	Α	11/13/2017	5:25:00	283934.63	4545260.18	41.029914	-71.570143
SFEC-OCS	121	В	11/13/2017	5:27:00	283925.71	4545270.47	41.030004	-71.570023
SFEC-OCS	121	С	11/13/2017	5:28:00	283939.13	4545269.56	41.03	-71.570093
SFEC-OCS	121	D	11/13/2017	5:29:00	283948.64	4545272.40	41.030028	-71.569981
SFEC-OCS	122	Α	11/13/2017	6:08:00	282080.99	4545015.18	41.027216	-71.592085
SFEC-OCS	122	В	11/13/2017	6:09:00	282080.02	4545019.75	41.027257	-71.592098
SFEC-OCS	122	С	11/13/2017	6:10:00	282077.37	4545012.75	41.027193	-71.592127
SFEC-OCS	122	D	11/13/2017	6:11:00	282092.35	4545021.57	41.027276	-71.591952
SFEC-OCS	123	Α	11/13/2017	6:33:00	280261.54	4544463.66	41.021764	-71.613509
SFEC-OCS	123	В	11/13/2017	6:34:00	280267.19	4544465.20	41.021779	-71.613442
SFEC-OCS	123	С	11/13/2017	6:35:00	280260.26	4544462.48	41.021753	-71.613524
SFEC-OCS	123	D	11/13/2017	6:37:00	280270.26	4544464.44	41.021773	-71.613405
SFEC-OCS	124	Α	11/13/2017	6:56:00	278447.92	4543907.77	41.016271	-71.634858
SFEC-OCS	124	В	11/13/2017	6:57:00	278439.58	4543902.66	41.016233	-71.634956
SFEC-OCS	124	С	11/13/2017	6:58:00	278443.43	4543896.39	41.016167	-71.634907
SFEC-OCS	124	D	11/13/2017	7:00:00	278435.95	4543906.47	41.016256	-71.635
SFEC-OCS	125	Α	11/13/2017	7:20:00	276628.31	4543355.12	41.010801	-71.656276
SFEC-OCS	125	В	11/13/2017	7:21:00	276631.22	4543349.97	41.010756	-71.65624
SFEC-OCS	125	С	11/13/2017	7:22:00	276629.64	4543351.49	41.010769	-71.656259
SFEC-OCS	125	D	11/13/2017	7:23:00	276627.48	4543356.66	41.010815	-71.656287
SFEC-OCS	126	Α	11/13/2017	7:43:00	274811.09	4542793.10	41.005244	-71.677659
SFEC-OCS	126	В	11/13/2017	7:44:00	274816.21	4542795.74	41.005269	-71.677599
SFEC-OCS	126	С	11/13/2017	7:45:00	274814.95	4542795.43	41.005266	-71.677614
SFEC-OCS	126	D	11/13/2017	7:47:00	274813.09	4542794.72	41.005259	-71.677636
SFEC-OCS	127	Α	11/13/2017	8:09:00	273006.02	4542215.20	40.999544	-71.698888
SFEC-OCS	127	В	11/13/2017	8:10:00	273004.93	4542216.85	40.999558	-71.698901
SFEC-OCS	127	С	11/13/2017	8:11:00	273007.31	4542216.94	40.99956	-71.698873
SFEC-OCS	127	D	11/13/2017	8:13:00	273008.76	4542214.24	40.999536	-71.698855
SFEC-OCS	128	Α	11/13/2017	8:34:00	271503.99	4541047.91	40.988621	-71.716296
SFEC-OCS	128	В	11/13/2017	8:36:00	271503.79	4541052.18	40.988659	-71.7163
SFEC-OCS	128	С	11/13/2017	8:38:00	271507.50	4541051.67	40.988656	-71.716255
SFEC-OCS	128	D	11/13/2017	8:39:00	271505.49	4541049.82	40.988638	-71.716279
SFEC-OCS	129	Α	11/13/2017	9:01:00	270004.50	4539884.60	40.977732	-71.733669
SFEC-OCS	129	В	, ,		270004.11	4539878.06	40.977673	-71.733671
SFEC-OCS	129	С	11/13/2017	9:03:00	270004.01	4539882.78	40.977716	-71.733674
SFEC-OCS	129	D	11/13/2017	9:05:00	270002.36	4539886.52	40.977749	-71.733695
SFEC-OCS	130	Α	11/13/2017		268502.41	4538715.46	40.966788	-71.751066
SFEC-OCS	130	В	11/13/2017		268505.25	4538719.84	40.966828	-71.751034
SFEC-OCS	130	С	11/13/2017		268509.97	4538707.49	40.966718	-71.750973
SFEC-OCS	130	D			268506.71	4538710.38	40.966743	-71.751013
SFEC-OCS	131	Α			267783.66	4538164.80	40.961629	-71.759391
SFEC-OCS	131	В	11/13/2017		267790.66	4538152.73	40.961522	-71.759304
SFEC-OCS	131	С	11/13/2017		267785.47	4538157.37	40.961563	-71.759367
SFEC-OCS	131	D	11/13/2017		267785.20	4538163.85	40.961621	-71.759373
SFEC-OCS	132	Α	11/13/2017			4538040.09	40.960239	-71.770505
SFEC-OCS	132	В	11/13/2017			4538020.23	40.960061	-71.770452
SFEC-OCS	132	С	11/13/2017			4538027.86	40.960129	-71.770508
SFEC-OCS	132	D	11/13/2017			4538036.25	40.960203	-71.770558
SFEC-OCS	133	Α	11/13/2017			4538878.61	40.967298	-71.790946
SFEC-OCS	133	В	11/13/2017			4538878.27	40.967293	-71.791016
SFEC-OCS	133	С	11/13/2017			4538878.15	40.967294	-71.790942
SFEC-OCS	133	D	11/13/2017			4538882.26	40.96733	-71.790966
SFEC-OCS	134	Α	11/13/2017	11:11:00	263368.95	4539297.97	40.970558	-71.812224

	Station ID	Replicate				Y_UTM_19N_m	Latitude_WGS84	Longitude_WGS84
SFEC-OCS	134	В	11/13/2017	11:12:00		4539289.74	40.970486	-71.812133
SFEC-OCS	134	С	11/13/2017	11:14:00	263372.45	4539290.59	40.970492	-71.81218
SFEC-OCS	134	D	11/13/2017	11:15:00	263374.03	4539287.50	40.970465	-71.81216
SFEC-OCS	135	Α	11/13/2017	11:37:00	261555.55	4538738.04	40.964992	-71.833534
SFEC-OCS	135	В	11/13/2017	11:38:00	261556.89	4538734.89	40.964964	-71.833517
SFEC-OCS	135	С	11/13/2017	11:39:00	261557.32	4538733.39	40.964951	-71.833512
SFEC-OCS	135	D	11/13/2017	11:40:00	261557.93	4538737.85	40.964991	-71.833506
SFEC-OCS	136	Α	11/13/2017	12:07:00	259736.25	4538193.43	40.959559	-71.854917
SFEC-OCS	136	В	11/13/2017		259734.40	4538184.33	40.959477	-71.854936
SFEC-OCS	136	С	11/13/2017	12:09:00	259736.54	4538182.01	40.959457	-71.854909
SFEC-OCS	136	D	11/13/2017	12:10:00	259733.63	4538180.19	40.959439	-71.854943
SFEC-OCS	137	Α	11/13/2017	12:34:00	257912.31	4537642.05	40.95406	-71.876348
SFEC-OCS	137	В	11/13/2017	12:35:00	257922.89	4537642.05	40.954063	-71.876223
SFEC-OCS	137	С	11/13/2017	12:36:00	257916.90	4537638.83	40.954032	-71.876293
SFEC-OCS	137	D	11/13/2017	12:37:00	257914.65	4537636.53	40.954011	-71.876318
SFEC-OCS	138	Α	11/13/2017	12:58:00	256105.08	4537072.55	40.948399	-71.897571
SFEC-OCS	138	В	11/13/2017	12:59:00	256098.12	4537076.14	40.948429	-71.897655
SFEC-OCS	138	С	11/13/2017	13:00:00	256099.53	4537074.23	40.948412	-71.897637
SFEC-OCS	138	D	11/13/2017	13:01:00	256105.80	4537074.09	40.948413	-71.897563
SFEC-OCS	139	Α	11/13/2017	13:22:00	254296.64	4536522.24	40.942906	-71.918811
SFEC-OCS	139	В	11/13/2017	13:23:00	254306.14	4536515.09	40.942845	-71.918695
SFEC-OCS	139	С	11/13/2017	13:24:00	254295.56	4536501.81	40.942722	-71.918816
SFEC-OCS	139	D	11/13/2017	13:25:00	254292.76	4536510.74	40.942802	-71.918852
SFEC-OCS	140	Α	11/13/2017	13:52:00	252474.36	4535962.38	40.93732	-71.940208
SFEC-OCS	140	В	11/13/2017	13:53:00	252476.40	4535955.40	40.937258	-71.940181
SFEC-OCS	140	С	11/13/2017	13:54:00	252478.61	4535955.48	40.937259	-71.940155
SFEC-OCS	140	D	11/13/2017	13:56:00	252474.06	4535956.47	40.937266	-71.940209
SFEC-OCS	141	Α	11/13/2017	14:56:00	251470.67	4536191.39	40.939075	-71.952207
SFEC-OCS	141	В	11/13/2017	14:57:00	251475.80	4536193.54	40.939096	-71.952147
SFEC-OCS	141	С	11/13/2017	14:58:00	251472.88	4536187.03	40.939037	-71.952179
SFEC-OCS	141	D	11/13/2017	15:00:00	251465.63	4536186.86	40.939033	-71.952265
SFEC-OCS	142	Α	11/13/2017		250543.03	4537843.56	40.953656	-71.963877
SFEC-OCS	142	В	11/13/2017		250548.45	4537843.92	40.953661	-71.963813
SFEC-OCS	142	С	11/13/2017	17:51:00	250543.38	4537845.86	40.953677	-71.963874
SFEC-OCS	142	D	11/13/2017	17:52:00	250555.07	4537840.91	40.953636	-71.963733
SFEC-OCS	146	С	11/14/2017	15:00:00	250657.66	4535397.06	40.931682	-71.961533
SFEC-OCS	146	D	11/14/2017	15:01:00	250658.71	4535391.52	40.931632	-71.961518
SFEC-OCS	146	E	11/14/2017		250661.30	4535391.66	40.931634	-71.961487
SFEC-OCS	146	F	11/14/2017		250658.49	4535392.04	40.931637	-71.961521
SFEC-OCS	147	Α	11/14/2017		248853.06	4534842.21	40.926138	-71.982714
SFEC-OCS	147	В	11/14/2017		248847.96	4534836.04	40.926081	-71.982772
SFEC-OCS	147	С	11/14/2017		248833.71	4534839.09	40.926105	-71.982919
SFEC-OCS	147	D	11/14/2017		248833.25	4534845.78	40.926164	-71.982951
SFEC-OCS	148	Α	11/14/2017		247025.17	4534292.55	40.92063	-72.00417
SFEC-OCS	148	В	11/14/2017		247018.67	4534291.09	40.920615	-72.004247
SFEC-OCS	148	С	11/14/2017		247013.29	4534289.71	40.920601	-72.00431
SFEC-OCS	148	D	11/14/2017		247022.38	4534290.90	40.920614	-72.004203
SFEC-OCS	149	Α	11/14/2017		245207.93	4533734.55	40.915046	-72.025493
SFEC-OCS	149	В	11/14/2017	16:19:00	245211.70	4533730.67	40.915013	-72.025447
SFEC-OCS	149	С	11/14/2017		245211.79	4533731.81	40.915023	-72.025446
SFEC-OCS	149	D	11/14/2017		245211.61	4533733.54	40.915039	-72.025449
SFEC-OCS	150	Α	11/14/2017		243408.83	4533175.63	40.909456	-72.046597
SFEC-OCS	150	В	11/14/2017	16:44:00	243409.84	4533177.53	40.909474	-72.046585

SFEC-OCS         150         C         11/14/2017         16:45:00         243406.18         4533174.09         40.909442           SFEC-OCS         150         D         11/14/2017         16:46:00         243403.72         4533175.51         40.909454           SFEC-OCS         151         A         11/14/2017         17:10:00         241587.96         4532618.50         40.903872           SFEC-OCS         151         B         11/14/2017         17:12:00         241585.91         4532620.45         40.903889           SFEC-OCS         151         C         11/14/2017         17:13:00         241591.81         4532618.90         40.903877           SFEC-OCS         151         D         11/14/2017         17:14:00         241588.10         4532617.90         40.903866	-72.046627 -72.046657 -72.067955 -72.06798 -72.06791
SFEC-OCS         151         A         11/14/2017         17:10:00         241587.96         4532618.50         40.903872           SFEC-OCS         151         B         11/14/2017         17:12:00         241585.91         4532620.45         40.903889           SFEC-OCS         151         C         11/14/2017         17:13:00         241591.81         4532618.90         40.903877           SFEC-OCS         151         D         11/14/2017         17:14:00         241588.10         4532617.90         40.903866	-72.067955 -72.06798
SFEC-OCS         151         B         11/14/2017         17:12:00         241585.91         4532620.45         40.903889           SFEC-OCS         151         C         11/14/2017         17:13:00         241591.81         4532618.90         40.903877           SFEC-OCS         151         D         11/14/2017         17:14:00         241588.10         4532617.90         40.903866	-72.06798
SFEC-OCS         151         C         11/14/2017         17:13:00         241591.81         4532618.90         40.903877           SFEC-OCS         151         D         11/14/2017         17:14:00         241588.10         4532617.90         40.903866	
SFEC-OCS         151         D         11/14/2017         17:14:00         241588.10         4532617.90         40.903866	-72.06791
	72.00752
CEEC OCC 452 A 44/4/2047 47/20 20 2007CC 27 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 20 17/20 17/20 17/20 17/20 17/20 17/20 17/20 17/20 17/20 17/20 17/20 17/20 17/20 17/20 17/20 17/20 17/20 17/20 17/2	-72.067953
SFEC-OCS         152         A         11/14/2017         17:33:00         239769.37         4532056.39         40.898239	-72.089281
SFEC-OCS         152         B         11/14/2017         17:34:00         239768.83         4532063.75         40.898305	-72.08929
SFEC-OCS         152         C         11/14/2017         17:35:00         239769.82         4532065.79         40.898324	-72.089279
SFEC-OCS         152         D         11/14/2017         17:37:00         239767.66         4532060.65         40.898277	-72.089303
SFEC-OCS         153         A         11/14/2017         17:59:00         237952.46         4531503.13         40.892683	-72.110586
SFEC-OCS         153         B         11/14/2017         18:00:00         237951.37         4531505.42         40.892704	-72.1106
SFEC-OCS         153         C         11/14/2017         18:01:00         237951.85         4531507.24         40.89272	-72.110595
SFEC-OCS         153         D         11/14/2017         18:02:00         237951.86         4531504.29         40.892693	-72.110594
SFEC-OCS         154         A         11/14/2017         18:23:00         236137.68         4530949.12         40.887117	-72.131862
SFEC-OCS         154         B         11/14/2017         18:24:00         236138.35         4530950.52         40.88713	-72.131855
SFEC-OCS         154         C         11/14/2017         18:25:00         236139.75         4530951.02         40.887135	-72.131839
SFEC-OCS 154 D 11/14/2017 18:26:00 236135.60 4530954.11 40.887161	-72.131889
SFEC-OCS 155 A 11/14/2017 18:48:00 234319.69 4530395.66 40.881551	-72.153173
SFEC-OCS         155         B         11/14/2017         18:49:00         234322.03         4530394.95         40.881546	-72.153145
SFEC-OCS 155 C 11/14/2017 18:50:00 234322.14 4530395.61 40.881552	-72.153144
SFEC-OCS 155 D 11/14/2017 18:51:00 234324.44 4530392.33 40.881523	-72.153115
SFEC-OCS 156 A 11/14/2017 19:13:00 232501.51 4529845.89 40.876015	-72.174484
SFEC-OCS 156 B 11/14/2017 19:14:00 232503.58 4529849.76 40.87605	-72.174461
SFEC-OCS 156 C 11/14/2017 19:16:00 232505.67 4529847.75 40.876033	-72.174435
SFEC-OCS 156 D 11/14/2017 19:17:00 232491.43 4529853.96 40.876084	-72.174607
SFEC-OCS 157 A 11/14/2017 19:35:00 230896.79 4529975.37 40.876654	-72.193555
SFEC-OCS         157         B         11/14/2017         19:36:00         230904.36         4529967.96         40.87659	-72.193462
SFEC-OCS 157 C 11/14/2017 19:37:00 230898.20 4529974.72 40.876648	-72.193538
SFEC-OCS         157         D         11/14/2017         19:38:00         230896.81         4529974.01         40.876642	-72.193555
SFEC-NYS         143         A         11/13/2017         15:41:00         249656.94         4539532.19         40.968576	-71.975074
SFEC-NYS         143         B         11/13/2017         15:43:00         249657.93         4539527.01         40.96853	-71.97506
SFEC-NYS         143         C         11/13/2017         15:44:00         249652.55         4539521.05         40.968475	-71.975122
SFEC-NYS         143         D         11/13/2017         15:45:00         249659.95         4539525.75         40.968519	-71.975036
SFEC-NYS         144         A         11/13/2017         17:02:00         248780.03         4541200.51         40.983315	-71.986159
SFEC-NYS 144 B 11/13/2017 17:04:00 248777.85 4541207.13 40.983374	-71.986188
SFEC-NYS 144 C 11/13/2017 17:05:00 248770.09 4541208.21 40.983382	-71.98628
SFEC-NYS         144         D         11/13/2017         17:06:00         248774.01         4541199.98         40.983309	-71.98623
SFEC-NYS 145 A 11/13/2017 16:26:00 247891.87 4542883.21 40.998179	-71.997389
SFEC-NYS         145         B         11/13/2017         16:27:00         247883.74         4542889.31         40.998231	-71.997488
SFEC-NYS         145         C         11/13/2017         16:29:00         247886.07         4542886.03         40.998202	-71.997459
SFEC-NYS         145         D         11/13/2017         16:30:00         247883.81         4542885.24         40.998195	-71.997485
SFEC-NYS 158 A 11/14/2017 20:03:00 229950.01 4531622.22 40.891155	-72.20549
SFEC-NYS 158 B 11/14/2017 20:04:00 229958.18 4531622.99 40.891164	-72.205393
SFEC-NYS 158 C 11/14/2017 20:05:00 229955.89 4531622.61 40.89116	-72.20542
SFEC-NYS 158 D 11/14/2017 20:06:00 229949.83 4531622.63 40.891158	-72.205492
SFEC-NYS 159 A 11/14/2017 20:30:00 229010.03 4533268.13 40.905648	-72.217349
SFEC-NYS 159 B 11/14/2017 20:31:00 229011.86 4533272.28 40.905686	-72.217329
SFEC-NYS 159 C 11/14/2017 20:32:00 229011.49 4533271.47 40.905678	-72.217333
SFEC-NYS 159 D 11/14/2017 20:33:00 229012.32 4533273.13 40.905693	-72.217324
SFEC-NYS 160 A 11/14/2017 20:51:00 228317.45 4534478.08 40.9163	-72.226088
SFEC-NYS 160 B 11/14/2017 20:52:00 228319.61 4534479.24 40.916312	-72.226063
SFEC-NYS 160 C 11/14/2017 20:53:00 228317.21 4534481.70 40.916333	-72.226093

Sediment Profile and Plan View Imaging Benthic Assessment Survey in Support of the South Fork Wind Farm Site Assessment

Area	Station ID	Replicate	Date	Time	X_UTM_19N_m	Y_UTM_19N_m	Latitude_WGS84	Longitude_WGS84
SFEC-NYS	160	D	11/14/2017	20:54:00	228315.60	4534485.86	40.91637	-72.226114
Reference	C03	Α	11/15/2017	16:19:00	329824.01	4553017.83	41.110631	-71.026794
Reference	C03	В	11/15/2017	16:20:00	329825.92	4553015.83	41.110614	-71.02677
Reference	C03	С	11/15/2017	16:21:00	329823.49	4553016.09	41.110616	-71.026799
Reference	C03	D	11/15/2017	16:22:00	329821.43	4553018.51	41.110637	-71.026825
Reference	C03	Е	11/15/2017	16:23:00	329821.56	4553011.76	41.110576	-71.026821
Reference	C03	F	11/15/2017	16:24:00	329826.82	4553009.24	41.110555	-71.026758
Reference	C04	Α	11/15/2017	15:49:00	332558.46	4553076.09	41.111724	-70.994261
Reference	C04	В	11/15/2017	15:50:00	332561.26	4553078.45	41.111746	-70.994229
Reference	C04	С	11/15/2017	15:51:00	332558.02	4553077.06	41.111733	-70.994267
Reference	C04	D	11/15/2017	15:52:00	332558.75	4553079.24	41.111753	-70.994259
Reference	C04	Е	11/15/2017	15:53:00	332562.89	4553077.69	41.111739	-70.994209
Reference	C04	F	11/15/2017	15:54:00	332575.41	4553070.54	41.111678	-70.994058
Reference	C05	Α	11/15/2017	15:17:00	335389.15	4553032.08	41.111906	-70.960554
Reference	C05	В	11/15/2017	15:18:00	335377.82	4553026.43	41.111853	-70.960688
Reference	C05	С	11/15/2017	15:19:00	335379.35	4553028.66	41.111874	-70.96067
Reference	C05	D	11/15/2017	15:21:00	335383.16	4553031.44	41.111899	-70.960626
Reference	C05	E	11/15/2017	15:22:00	335368.90	4553037.72	41.111953	-70.960797
Reference	C05	F	11/15/2017	15:24:00	335389.45	4553034.47	41.111928	-70.960552

### APPENDIX B

SPI/PV Field Logs

### Notes:

FC=Frame Count

WC=Water Column



Area	<b>Station ID</b>	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFWF	1	Α	11/11/2017	13:30:50	4	18	5	33.0	SPI: ISO 640 f11 1/250; PV: ISO 640 f11 1/20
SFWF	1	В	11/11/2017	13:31:52	5	18	5	33.0	
SFWF	1	С	11/11/2017	13:32:50	6	18	5	33.0	
SFWF	1	D	11/11/2017	13:33:48	7	18	5	33.0	PV: changed to f16
SFWF	2	Α	11/11/2017	14:19:35	9	18	5	34.0	
SFWF	2	В	11/11/2017	14:20:35	10	18	5	34.0	
SFWF	2	С	11/11/2017	14:21:33	11	18	5	34.0	
SFWF	2	D	11/11/2017	14:22:36	12	18	5	34.0	
SFWF	3	Α	11/11/2017	14:47:50	13	18	5	35.5	
SFWF	3	В	11/11/2017	14:48:45	14	18	5	35.5	
SFWF	3	С	11/11/2017	14:49:50	15	18	5	35.5	
SFWF	3	D	11/11/2017	14:50:40	16	18	5	35.5	
SFWF	4	Α	11/11/2017	15:06:30	17	18	5	35.8	
SFWF	4	В	11/11/2017	15:07:34	18	18	5	35.8	
SFWF	4	С	11/11/2017	15:08:34	19	18	5	35.8	
SFWF	4	D	11/11/2017	15:09:41	20	18	5	35.8	
SFWF	5	Α	11/11/2017	15:23:22	21	18	5	36.3	
SFWF	5	В	11/11/2017	15:24:22	22	18	5	36.3	
SFWF	5	С	11/11/2017	15:25:25	23	18	5	36.3	
SFWF	5	D	11/11/2017	15:26:25	24	18	5	36.3	
SFWF	6	Α	11/11/2017	15:42:20	25	18	5	35.2	
SFWF	6	В	11/11/2017	15:43:25	26	18	5	35.2	
SFWF	6	С	11/11/2017	15:44:23	27	18	5	35.2	
SFWF	6	D	11/11/2017	15:45:20	28	18	5	35.2	PV: changed to f18
SFWF	7	Α	11/11/2017	16:09:35	29	18	5	36.6	
SFWF	7	В	11/11/2017	16:10:38	30	18	5	36.6	
SFWF	7	С	11/11/2017	16:11:55	31	18	5	36.6	
SFWF	7	D	11/11/2017	16:13:10	32	18	5	36.6	
SFWF	10	Α	11/11/2017	16:39:35	33	18	5	38.5	
SFWF	10	В	11/11/2017	16:40:45	34	18	5	38.5	
SFWF	10	С	11/11/2017	16:41:49	35	18	5	38.5	
SFWF	10	D	11/11/2017	16:43:03	36	18	5	38.5	
SFWF	12	Α	11/11/2017	17:26:20	37	18	5	42.0	
SFWF	12	В	11/11/2017	17:27:34	38	18	5	42.0	
SFWF	12	С	11/11/2017	17:28:51	39	18	5	42.0	
SFWF	12	D	11/11/2017	17:30:09	40	18	5	42.0	
SFWF	14	Α	11/11/2017	17:50:00	41	18	5	40.3	
SFWF	14	В	11/11/2017	17:51:11	42	18	5	40.3	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFWF	14	С	11/11/2017	17:52:33	43	18	5	40.3	
SFWF	14	D	11/11/2017	17:53:45	44	18	5	40.3	
SFWF	15	Α	11/11/2017	18:08:15	45	18	5	41.1	
SFWF	15	В	11/11/2017	18:09:30	46	18	5	41.1	
SFWF	15	С	11/11/2017	18:10:35	47	18	5	41.1	
SFWF	15	D	11/11/2017	18:11:50	48	18	5	41.1	
SFWF	13	Α	11/11/2017	18:32:12	49	18	5	37.8	
SFWF	13	В	11/11/2017	18:33:15	50	18	5	37.8	
SFWF	13	С	11/11/2017	18:34:21	51	18	5	37.8	
SFWF	13	D	11/11/2017	18:35:47	52	18	5	37.8	
SFWF	11	Α	11/11/2017	18:53:35	53	18	5	36.6	
SFWF	11	В	11/11/2017	18:54:45	54	18	5	36.6	
SFWF	11	С	11/11/2017	18:55:55	55	18	5	36.6	
SFWF	11	D	11/11/2017	18:57:15	56	18	5	36.6	
SFWF	8	Α	11/11/2017	19:19:15	57	18	5	37.1	
SFWF	8	В	11/11/2017	19:21:05	58	18	5	37.1	
SFWF	8	С	11/11/2017	19:22:20	59	18	5	37.1	
SFWF	8	D	11/11/2017	19:23:35	60	18	5	37.1	
SFWF	9	Α	11/11/2017	19:38:50	61	18	5	35.6	
SFWF	9	В	11/11/2017	19:40:04	62	18	5	35.6	
SFWF	9	С	11/11/2017	19:41:16	63	18	5	35.6	
SFWF	9	D	11/11/2017	19:42:25	64	18	5	35.6	
SFWF	28	Α	11/11/2017	20:03:00	65	18	5	34.5	
SFWF	28	В	11/11/2017	20:04:15	66	18	5	34.2	
SFWF	28	С	11/11/2017		67	18	5	34.7	
SFWF	28	D	11/11/2017	20:06:40	68	18	5	35.2	
SFWF	30	Α	11/11/2017		69	18	5	36.4	
SFWF	30	В	11/11/2017		70	18	5	36.3	
SFWF	30	С	11/11/2017	20:32:15	71	18	5	36.3	
SFWF	30	D	11/11/2017	20:33:20	72	18	5	37.8	
SFWF	31	Α	11/11/2017		73	18	5	37.0	
SFWF	31	В	11/11/2017		74	18	5	37.8	
SFWF	31	С	11/11/2017		75	18	5	37.3	
SFWF	31	D	11/11/2017		76	18	5	36.5	
SFWF	33	Α	11/11/2017		77	18	5	36.6	
SFWF	33	В	11/11/2017		78	18	5	37.7	
SFWF	33	С	11/11/2017	21:21:11	79	18	5	37.1	
SFWF	33	D	11/11/2017	21:22:32	80	18	5	36.4	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFWF	34	Α	11/11/2017	21:44:10	81	18	5	34.3	
SFWF	34	В	11/11/2017	21:45:15	82	18	5	34.6	
SFWF	34	С	11/11/2017	21:46:23	83	18	5	34.1	
SFWF	34	D	11/11/2017	21:47:24	84	18	5	35.4	
SFWF	32	Α	11/11/2017	22:05:20	85	18	5	35.0	
SFWF	32	В	11/11/2017	22:06:35	86	18	5	34.7	
SFWF	32	С	11/11/2017	22:07:43	87	18	5	35.3	
SFWF	32	D	11/11/2017	22:09:00	88	18	5	34.9	
SFWF	29	Α	11/11/2017	22:29:00	89	18	5	35.3	
SFWF	29	В	11/11/2017	22:30:14	90	18	5	35.6	
SFWF	29	С	11/11/2017	22:31:19	91	18	5	35.2	
SFWF	29	D	11/11/2017	22:32:47	92	18	5	35.3	
SFWF	27	Α	11/11/2017	22:49:53	93	18	5	35.3	
SFWF	27	В	11/11/2017	22:50:58	94	18	5	35.3	
SFWF	27	С	11/11/2017	22:52:15	95	18	5	34.8	
SFWF	27	D	11/11/2017	22:53:15	96	18	5	34.8	
SFWF	26	Α	11/11/2017		97	18	5	35.3	
SFWF	26	В	11/11/2017	23:10:30	98	18	5	35.3	
SFWF	26	С	11/11/2017		99	18	5	35.0	
SFWF	26	D	11/11/2017	23:12:50	100	18	5	35.3	
SFWF	25	Α	11/11/2017	23:31:00	101	18	5	35.2	
SFWF	25	В	11/11/2017	23:32:18	102	18	5	39.4	
SFWF	25	С	11/11/2017		103	18	5	35.3	
SFWF	25	D	11/11/2017	23:34:40	104	18	5	35.4	
SFWF	24	Α	11/12/2017	0:13:39	105	18	5	34.9	
SFWF	24	В	11/12/2017	0:15:00	106	18	5	34.7	
SFWF	24	С	11/12/2017	0:16:03	107	18	5	35.2	
SFWF	24	D	11/12/2017	0:17:17	108	18	5	35.8	
SFWF	23	Α	11/12/2017	0:41:39	110	18	5	34.5	
SFWF	23	В	11/12/2017	0:42:50	111	18	5	35.4	
SFWF	23	С	11/12/2017	0:44:08	112	18	5	35.9	
SFWF	23	D	11/12/2017	0:45:20	113	18	5	35.3	
SFWF	22	Α	11/12/2017	1:03:04	114	18	5	34.4	
SFWF	22	В	11/12/2017	1:04:08	115	18	5	34.7	
SFWF	22	С	11/12/2017	1:05:15	116	18	5	34.7	
SFWF	22	D	11/12/2017	1:06:28	117	18	5	35.7	
SFWF	21	Α	11/12/2017	1:19:53	118	18	5	34.8	
SFWF	21	В	11/12/2017	1:21:03	119	18	5	34.3	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFWF	21	С	11/12/2017	1:22:10	120	18	5	34.8	
SFWF	21	D	11/12/2017	1:23:18	121	18	5	34.2	
SFWF	20	Α	11/12/2017	1:40:01	122	18	5	34.8	
SFWF	20	В	11/12/2017	1:41:02	123	18	5	34.3	
SFWF	20	С	11/12/2017	1:42:00	124	18	5	34.8	
SFWF	20	D	11/12/2017	1:43:16	125	18	5	34.2	
SFWF	19	А	11/12/2017	1:54:17	126	18	5	35.3	
SFWF	19	В	11/12/2017	1:55:27	127	18	5	35.1	
SFWF	19	С	11/12/2017	1:56:35	128	18	5	34.0	
SFWF	19	D	11/12/2017	1:57:51	129	18	5	34.6	
SFWF	18	Α	11/12/2017	2:08:59	130	18	5	35.1	
SFWF	18	В	11/12/2017	2:10:05	131	18	5	35.1	
SFWF	18	С	11/12/2017	2:11:12	132	18	5	34.4	
SFWF	18	D	11/12/2017	2:12:19	133	18	5	34.4	
SFWF	17	Α	11/12/2017	2:23:34	134	18	5	34.9	
SFWF	17	В	11/12/2017	2:24:49	135	18	5	34.8	
SFWF	17	С	11/12/2017	2:26:11	136	18	5	34.6	
SFWF	17	D	11/12/2017	2:27:23	137	18	5	34.1	
SFWF	16	Х	11/12/2017	2:37:53	138	18	5		No fix
SFWF	16	Α	11/12/2017	2:39:12	139	18	5	35.2	
SFWF	16	В	11/12/2017	2:40:15	140	18	5	36.6	
SFWF	16	С	11/12/2017	2:41:13	141	18	5	35.1	
SFWF	16	D	11/12/2017	2:42:24	142	18	5	35.4	
SFWF	35	Α	11/12/2017	2:54:38	143	18	5	35.5	
SFWF	35	В	11/12/2017	2:55:50	144	18	5	35.5	
SFWF	35	С	11/12/2017	2:57:12	145	18	5	36.9	
SFWF	35	D	11/12/2017	2:58:09	146	18	5	36.9	
SFWF	36	Α	11/12/2017	3:15:17	147	18	5	38.4	
SFWF	36	В	11/12/2017	3:16:34	148	18	5	35.8	
SFWF	36	С	11/12/2017	3:17:43	149	18	5	35.2	
SFWF	36	D	11/12/2017	3:18:53	150	18	5	35.7	
SFWF	37	Α	11/12/2017	3:34:05	152	18	5	35.6	
SFWF	37	В	11/12/2017	3:35:21	153	18	5	34.8	
SFWF	37	С	11/12/2017	3:36:39	154	18	5	35.6	
SFWF	37	D	11/12/2017	3:37:54	155	18	5	35.1	
SFWF	38	Α	11/12/2017	3:56:55	156	18	5	34.7	
SFWF	38	В	11/12/2017	4:00:04	157	18	5	34.9	
SFWF	38	С	11/12/2017	4:01:13	158	18	5	35.4	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFWF	38	D	11/12/2017	4:02:20	159	18	5	34.8	
SFWF	39	Α	11/12/2017	4:21:29	160	18	5	36.2	
SFWF	39	В	11/12/2017	4:23:37	161	18	5	34.7	
SFWF	39	С	11/12/2017	4:24:50	162	18	5	34.8	
SFWF	39	D	11/12/2017	4:25:36	163	18	5	34.6	
SFWF	40	Α	11/12/2017	4:39:50	164	18	5	35.1	
SFWF	40	В	11/12/2017	4:41:00	165	18	5	35.2	
SFWF	40	С	11/12/2017	4:42:18	166	18	5	36.8	
SFWF	40	D	11/12/2017	4:43:40	167	18	5	35.1	
SFWF	41	Α	11/12/2017	5:24:20	168	18	5	34.5	
SFWF	41	В	11/12/2017	5:25:28	169	18	5	34.9	
SFWF	41	С	11/12/2017	5:26:43	170	18	5	34.8	
SFWF	41	D	11/12/2017	5:27:50	171	18	5	34.7	
SFWF	42	Α	11/12/2017	5:40:24	172	18	5	34.5	
SFWF	42	В	11/12/2017	5:41:34	173	18	5	34.9	
SFWF	42	С	11/12/2017	5:42:48	174	18	5	34.8	
SFWF	42	D	11/12/2017	5:44:07	175	18	5	37.8	
SFWF	43	Α	11/12/2017	6:03:26	176	18	5	34.9	
SFWF	43	В	11/12/2017	6:04:50	177	18	5	35.0	
SFWF	43	С	11/12/2017	6:05:57	178	18	5	35.7	
SFWF	43	D	11/12/2017	6:07:18	179	18	5	34.7	
SFWF	44	Α	11/12/2017	9:48:18	180	18	5	35.1	
SFWF	44	В	11/12/2017	9:49:28	181	18	5	35.9	
SFWF	44	С	11/12/2017	9:50:37	182	18	5	34.5	
SFWF	44	D	11/12/2017	9:51:41	183	18	5	35.2	
SFWF	45	Α	11/12/2017	10:04:07	184	18	5	35.3	
SFWF	45	В	11/12/2017		185	18	5	35.8	
SFWF	45	С	11/12/2017	10:06:31	186	18	5	35.1	
SFWF	45	D	11/12/2017	10:07:30	187	18	5	35.4	
SFWF	46	Α	11/12/2017	10:26:43	188	18	5	35.2	
SFWF	46	В	11/12/2017		189	18	5	35.2	
SFWF	46	С	11/12/2017		190	18	5	35.3	
SFWF	46	D	11/12/2017		191	18	5	35.2	
SFWF	47	Α	11/12/2017		192	18	5	35.1	
SFWF	47	В	11/12/2017	10:47:46	193	18	5	35.0	
SFWF	47	С	11/12/2017	10:48:56	194	18	5	34.5	
SFWF	47	D	11/12/2017	10:50:06	195	18	5	35.1	
SFWF	48	Α	11/12/2017	11:05:16	196	18	5	36.0	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFWF	48	В	11/12/2017	11:06:30	197	18	5	36.2	
SFWF	48	С	11/12/2017	11:07:46	198	18	5	35.1	
SFWF	48	D	11/12/2017	11:08:49	199	18	5	35.4	
SFWF	49	Α	11/12/2017	11:49:22	200	18	5	36.3	
SFWF	49	В	11/12/2017	11:50:26	201	18	5	35.4	
SFWF	49	С	11/12/2017	11:51:50	202	18	5	33.1	
SFWF	49	D	11/12/2017	11:53:27	203	18	5	34.9	
SFWF	50	Α	11/12/2017	12:18:14	204	18	5	34.8	
SFWF	50	В	11/12/2017	12:19:27	205	18	5	35.6	
SFWF	50	С	11/12/2017	12:20:40	206	18	5	35.1	
SFWF	50	D	11/12/2017	12:22:13	207	18	5	36.8	
SFWF	51	Α	11/12/2017	12:34:25	208	18	5	35.4	
SFWF	51	В	11/12/2017	12:35:49	209	18	5	37.4	
SFWF	51	С	11/12/2017	12:36:53	210	18	5	35.7	
SFWF	51	D	11/12/2017	12:38:04	211	18	5	35.3	
SFWF	66	Α	11/12/2017		212	18	5	35.3	
SFWF	66	В	11/12/2017	12:54:19	213	18	5	35.8	
SFWF	66	С	11/12/2017	12:55:47	214	18	5	35.9	
SFWF	66	D	11/12/2017		215	18	5	35.9	
SFWF	68	Α	11/12/2017	13:13:04	216	18	5	35.5	
SFWF	68	В	11/12/2017	13:14:00	217	18	5	35.7	
SFWF	68	С	11/12/2017	13:15:12	218	18	5	35.5	
SFWF	68	D	11/12/2017		219	18	5	35.5	
SFWF	76	Α	11/12/2017		221	18	5	38.2	
SFWF	76	В	11/12/2017		222	18	5	36.3	
SFWF	76	С	11/12/2017	14:03:27	223	18	5	37.1	
SFWF	76	D	11/12/2017	14:05:20	224	18	5	37.0	
SFWF	67	Α	11/12/2017		225	18	5	35.9	
SFWF	67	В	11/12/2017		226	18	5	35.9	
SFWF	67	С	11/12/2017		227	18	5	36.3	
SFWF	67	D	11/12/2017		228	18	5	36.9	
SFWF	65	Α	11/12/2017		229	18	5	36.4	
SFWF	65	В	11/12/2017		230	18	5	37.5	
SFWF	65	С	11/12/2017		231	18	5	36.4	
SFWF	65	D	11/12/2017		232	18	5	37.6	
SFWF	64	Α	11/12/2017		233	18	5	36.5	
SFWF	64	В	11/12/2017		234	18	5	37.0	
SFWF	64	С	11/12/2017	14:49:09	235	18	5	36.2	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFWF	64	D	11/12/2017	14:50:27	236	18	5	36.6	
SFWF	63	Α	11/12/2017	15:01:45	237	18	5	36.2	
SFWF	63	В	11/12/2017	15:02:55	238	18	5	35.7	
SFWF	63	С	11/12/2017	15:04:15	239	18	5	35.8	
SFWF	63	D	11/12/2017	15:05:40	240	18	5	36.1	
SFWF	62	Α	11/12/2017	15:16:00	241	18	5	35.9	
SFWF	62	В	11/12/2017	15:17:20	242	18	5	35.1	
SFWF	62	С	11/12/2017	15:18:41	243	18	5	35.7	
SFWF	62	D	11/12/2017	15:20:00	244	18	5	36.1	
SFWF	61	Α	11/12/2017	15:31:45	245	18	5	35.6	
SFWF	61	В	11/12/2017	15:32:50	246	18	5	36.4	
SFWF	61	С	11/12/2017	15:33:53	247	18	5	36.1	
SFWF	61	D	11/12/2017	15:35:12	248	18	5	39.5	
SFWF	60	Α	11/12/2017	15:46:50	249	18	5	36.6	
SFWF	60	В	11/12/2017	15:47:55	250	18	5	36.7	
SFWF	60	С	11/12/2017	15:49:14	251	18	5	34.0	
SFWF	60	D	11/12/2017	15:50:25	252	18	5	36.9	
SFWF	59	Α	11/12/2017		253	18	5	37.0	
SFWF	59	В	11/12/2017	16:02:51	254	18	5	36.1	
SFWF	59	С	11/12/2017		255	18	5	36.1	
SFWF	59	D	11/12/2017		256	18	5	35.9	
SFWF	56	Α	11/12/2017		257	18	5	36.1	
SFWF	56	В	11/12/2017		258	18	5	33.9	
SFWF	56	С	11/12/2017		259	18	5	36.0	
SFWF	56	D	11/12/2017		260	18	5	35.7	
SFWF	52	Α	11/12/2017		261	18	5	35.3	
SFWF	52	В	11/12/2017		262	18	5	35.2	
SFWF	52	С	11/12/2017		263	18	5	35.5	
SFWF	52	D	11/12/2017		264	18	5	35.5	
SFWF	53	А	11/12/2017		265	18	5	35.4	
SFWF	53	В	11/12/2017		266	18	5	35.7	
SFWF	53	С	11/12/2017	17:29:37	267	18	5	36.2	
SFWF	53	D	11/12/2017		268	18	5	36.0	
SFWF	54	Α	11/12/2017		269	18	5	35.6	
SFWF	54	В	11/12/2017		270	18	5	35.8	
SFWF	54	С	11/12/2017		271	18	5	35.4	
SFWF	54	D	11/12/2017	17:47:49	272	18	5	36.2	
SFWF	55	Α	11/12/2017	17:59:22	273	18	5	35.9	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFWF	55	В	11/12/2017	18:00:38	274	18	5	36.5	
SFWF	55	С	11/12/2017	18:01:47	275	18	5	36.0	
SFWF	55	D	11/12/2017	18:03:05	276	18	5	37.8	
SFWF	57	Α	11/12/2017	18:17:52	277	18	5	35.8	
SFWF	57	В	11/12/2017	18:19:15	278	18	5	35.7	
SFWF	57	С	11/12/2017	18:20:25	279	18	5	35.7	
SFWF	57	D	11/12/2017	18:21:33	280	18	5	35.7	
SFWF	58	Α	11/12/2017	18:34:42	281	18	5	36.3	
SFWF	58	В	11/12/2017	18:36:07	282	18	5	35.9	
SFWF	58	С	11/12/2017	18:37:12	283	18	5	35.6	
SFWF	58	D	11/12/2017	18:38:20	284	18	5	35.6	
SFWF	73	Α	11/12/2017	18:50:21	285	18	5	35.6	
SFWF	73	В	11/12/2017	18:51:27	286	18	5	35.5	
SFWF	73	С	11/12/2017	18:52:38	287	18	5	35.4	
SFWF	73	D	11/12/2017		288	18	5	35.5	
SFWF	74	Α		19:09:19	289	18	5	35.7	
SFWF	74	В	11/12/2017		290	18	5	35.6	
SFWF	74	С	11/12/2017		291	18	5	36.6	
SFWF	74	D	11/12/2017		292	18	5	35.2	
SFWF	75	Α	11/12/2017		293	18	5	36.1	
SFWF	75	В	11/12/2017		294	18	5	36.2	
SFWF	75	С	11/12/2017		295	18	5	36.0	
SFWF	75	D	11/12/2017		296	18	5	36.2	
SFWF	72	А	11/12/2017		297	18	5	36.1	
SFWF	72	В	11/12/2017		298	18	5	36.4	
SFWF	72	С	11/12/2017		299	18	5	36.2	
SFWF	72	D	11/12/2017		300	18	5	36.5	
SFWF	71	Α	11/12/2017		301	18	5	35.6	
SFWF	71	В	11/12/2017		302	18	5	35.8	
SFWF	71	С	11/12/2017		303	18	5	35.5	
SFWF	71	D	11/12/2017		304	18	5	35.6	
SFWF	69	Α	11/12/2017	20:31:56	305	18	5	35.5	
SFWF	69	В		20:33:00	306	18	5	35.4	
SFWF	69	С	11/12/2017	20:34:00	307	18	5	35.5	
SFWF	69	D	11/12/2017		308	18	5	35.7	
SFWF	70	Α	11/12/2017	20:53:55	309	18	5	34.3	
SFWF	70	В	11/12/2017		310	18	5	36.3	
SFWF	70	С	11/12/2017	20:56:35	311	18	5	34.1	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFWF	70	D	11/12/2017	20:57:45	312	18	5	34.6	
SFEC-OCS	101	Α	11/12/2017	21:19:34	313	18	5	34.7	
SFEC-OCS	101	В	11/12/2017	21:20:40	314	18	5	34.5	
SFEC-OCS	101	С	11/12/2017	21:21:00	315	18	5	34.9	
SFEC-OCS	101	D	11/12/2017	21:22:05	316	18	5	34.9	
SFEC-OCS	102	Α	11/12/2017	21:45:15	317	18	5	35.8	
SFEC-OCS	102	В	11/12/2017	21:46:21	318	18	5	35.1	
SFEC-OCS	102	С	11/12/2017	21:47:20	319	18	5	35.7	
SFEC-OCS	102	D	11/12/2017	21:48:30	320	18	5	35.4	
SFEC-OCS	103	Α	11/12/2017	22:12:27	321	18	5	38.5	
SFEC-OCS	103	В	11/12/2017	22:13:33	322	18	5	38.5	
SFEC-OCS	103	С	11/12/2017	22:14:35	323	18	5	38.7	
SFEC-OCS	103	D	11/12/2017	22:15:42	324	18	5	38.7	
SFEC-OCS	104	Α	11/12/2017	22:37:35	325	18	5	38.5	
SFEC-OCS	104	В	11/12/2017	22:39:10	326	18	5	38.1	
SFEC-OCS	104	С	11/12/2017	22:40:20	327	18	5	37.2	
SFEC-OCS	104	D	11/12/2017	22:41:31	328	18	5	38.3	
SFEC-OCS	105	Α	11/12/2017	23:05:11	329	18	5	40.7	
SFEC-OCS	105	В	11/12/2017	23:06:30	330	18	5	40.1	
SFEC-OCS	105	С	11/12/2017	23:07:35	331	18	5	40.9	
SFEC-OCS	105	D	11/12/2017	23:08:37	332	18	5	40.8	
SFEC-OCS	106	Α	11/12/2017	23:24:34	333	18	5	42.7	
SFEC-OCS	106	В	11/12/2017	23:25:42	334	18	5	42.7	
SFEC-OCS	106	С	11/12/2017	23:26:45	335	18	5	42.9	
SFEC-OCS	106	D	11/12/2017	23:28:04	336	18	5	43.0	
SFEC-OCS	107	Α	11/12/2017	23:47:40	337	18	5	42.7	
SFEC-OCS	107	В	11/12/2017	23:48:50	338	18	5	42.6	
SFEC-OCS	107	С	11/12/2017	23:50:03	339	18	5	42.4	
SFEC-OCS	107	D	11/12/2017	23:51:14	340	18	5	42.4	
SFEC-OCS	108	Α	11/13/2017	0:09:52	341	18	5	42.9	
SFEC-OCS	108	В	11/13/2017	0:11:03	342	18	5	43.1	
SFEC-OCS	108	С	11/13/2017	0:12:29	343	18	5	43.2	
SFEC-OCS	108	D	11/13/2017	0:13:36	344	18	5	43.6	
SFEC-OCS	109	Α	11/13/2017	0:27:29	345	18	5	43.2	
SFEC-OCS	109	В	11/13/2017	0:28:44	346	18	5	43.2	
SFEC-OCS	109	С	11/13/2017	0:29:59	347	18	5	43.4	
SFEC-OCS	109	D	11/13/2017	0:31:03	348	18	5	43.3	
SFEC-OCS	110	Α	11/13/2017	0:50:02	349	18	5	44.8	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFEC-OCS	110	В	11/13/2017	0:53:15	350	18	5	44.9	
SFEC-OCS	110	С	11/13/2017	0:54:21	351	18	5	44.9	
SFEC-OCS	110	D	11/13/2017	0:55:37	352	18	5	44.8	
SFEC-OCS	111	Α	11/13/2017	1:21:13	353	18	5	47.0	
SFEC-OCS	111	В	11/13/2017	1:22:21	354	18	5	47.0	
SFEC-OCS	111	С	11/13/2017	1:23:34	355	18	5	46.8	
SFEC-OCS	111	D	11/13/2017	1:24:51	356	18	5	46.9	
SFEC-OCS	112	Α	11/13/2017	1:45:13	357	18	5	45.1	
SFEC-OCS	112	В	11/13/2017	1:46:50	358	18	5	45.4	
SFEC-OCS	112	С	11/13/2017	1:48:00	359	18	5	46.2	
SFEC-OCS	112	D	11/13/2017	1:49:14	360	18	5	45.5	
SFEC-OCS	113	Α	11/13/2017	2:08:26	361	18	5	44.0	
SFEC-OCS	113	В	11/13/2017	2:09:26	362	18	5	43.4	
SFEC-OCS	113	С	11/13/2017	2:10:35	363	18	5	43.3	
SFEC-OCS	113	D	11/13/2017	2:11:36	364	18	5	43.4	
SFEC-OCS	114	Α	11/13/2017	2:31:43	365	18	5	42.7	
SFEC-OCS	114	В	11/13/2017	2:33:07	366	18	5	42.4	
SFEC-OCS	114	С	11/13/2017	2:34:06	367	18	5	41.8	
SFEC-OCS	114	D	11/13/2017	2:35:09	368	18	5	42.6	
SFEC-OCS	115	Α	11/13/2017	2:55:48	369	18	5	44.8	
SFEC-OCS	115	В	11/13/2017	2:56:50	370	18	5	44.3	
SFEC-OCS	115	С	11/13/2017	2:58:04	371	18	5	44.5	
SFEC-OCS	115	D	11/13/2017	2:59:27	372	18	5	44.7	
SFEC-OCS	116	Α	11/13/2017	3:20:28	373	18	5	44.9	
SFEC-OCS	116	В	11/13/2017	3:21:40	374	18	5	44.3	
SFEC-OCS	116	С	11/13/2017	3:22:50	375	18	5	45.3	
SFEC-OCS	116	D	11/13/2017	3:23:55	376	18	5	45.2	
SFEC-OCS	117	Α	11/13/2017	3:42:41	377	18	5	47.8	
SFEC-OCS	117	В	11/13/2017	3:44:08	378	18	5	48.3	
SFEC-OCS	117	С	11/13/2017	3:45:32	379	18	5	47.9	
SFEC-OCS	117	D	11/13/2017	3:46:52	380	18	5	46.9	
SFEC-OCS	118	Α	11/13/2017	4:08:15	381	18	5	48.2	
SFEC-OCS	118	В	11/13/2017	4:09:37	382	18	5	48.5	
SFEC-OCS	118	С	11/13/2017	4:10:53	383	18	5	46.5	
SFEC-OCS	118	D	11/13/2017	4:12:07	384	18	5	47.8	
SFEC-OCS	119	Α	11/13/2017	4:33:17	385	18	5	47.0	
SFEC-OCS	119	В	11/13/2017	4:34:39	386	18	5	47.0	
SFEC-OCS	119	С	11/13/2017	4:36:04	387	18	5	46.8	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFEC-OCS	119	D	11/13/2017	4:37:25	388	18	5	47.1	
SFEC-OCS	120	Α	11/13/2017	4:59:01	389	18	5	45.4	
SFEC-OCS	120	В	11/13/2017	5:00:09	390	18	5	45.4	
SFEC-OCS	120	С	11/13/2017	5:01:27	391	18	5	46.3	
SFEC-OCS	120	D	11/13/2017	5:02:52	392	18	5	45.5	
SFEC-OCS	121	Α	11/13/2017	5:25:50	393	18	5	44.2	
SFEC-OCS	121	В	11/13/2017	5:27:25	394	18	5	43.1	
SFEC-OCS	121	С	11/13/2017	5:28:36	395	18	5	44.1	
SFEC-OCS	121	D	11/13/2017	5:29:41	396	18	5	44.7	
SFEC-OCS	122	Α	11/13/2017	6:08:02	397	18	5	40.7	
SFEC-OCS	122	В	11/13/2017	6:09:11	398	18	5	40.0	
SFEC-OCS	122	С	11/13/2017	6:10:32	399	18	5	40.4	
SFEC-OCS	122	D	11/13/2017	6:12:09	400	18	5	40.9	
SFEC-OCS	123	Α	11/13/2017	6:33:11	401	18	5	41.1	
SFEC-OCS	123	В	11/13/2017	6:34:22	402	18	5	41.2	
SFEC-OCS	123	С	11/13/2017	6:35:46	403	18	5	41.2	
SFEC-OCS	123	D	11/13/2017	6:37:10	404	18	5	41.0	
SFEC-OCS	124	Α	11/13/2017	6:56:29	405	18	5	42.6	
SFEC-OCS	124	В	11/13/2017	6:57:40	406	18	5	42.4	
SFEC-OCS	124	С	11/13/2017	6:58:52	407	18	5	42.6	
SFEC-OCS	124	D	11/13/2017	7:00:17	408	18	5	42.7	
SFEC-OCS	125	Α	11/13/2017	7:20:29	409	18	5	46.8	
SFEC-OCS	125	В	11/13/2017	7:21:42	410	18	5	45.6	
SFEC-OCS	125	С	11/13/2017	7:22:53	411	18	5	46.5	
SFEC-OCS	125	D	11/13/2017	7:24:02	412	18	5	47.7	
SFEC-OCS	126	Α	11/13/2017	7:43:06	413	18	5	41.2	
SFEC-OCS	126	В	11/13/2017	7:44:19	414	18	5	41.3	
SFEC-OCS	126	С	11/13/2017	7:45:42	415	18	5	41.0	
SFEC-OCS	126	D	11/13/2017	7:47:09	416	18	5	41.4	
SFEC-OCS	127	Α	11/13/2017	8:09:02	417	18	5	40.9	
SFEC-OCS	127	В	11/13/2017	8:10:19	418	18	5	41.3	
SFEC-OCS	127	С	11/13/2017	8:11:49	419	18	5	40.5	
SFEC-OCS	127	D	11/13/2017	8:13:04	420	18	5	43.9	
SFEC-OCS	128	Α	11/13/2017	8:34:55	421	18	5	46.6	
SFEC-OCS	128	В	11/13/2017	8:36:36	422	18	5	47.4	
SFEC-OCS	128	С	11/13/2017	8:38:07	423	18	5	46.5	
SFEC-OCS	128	D	11/13/2017	8:39:21	424	18	5	46.9	
SFEC-OCS	129	Α	11/13/2017	9:01:27	425	18	5	47.8	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFEC-OCS	129	В	11/13/2017	9:02:32	426	18	5	45.9	
SFEC-OCS	129	С	11/13/2017	9:03:46	427	18	5	47.8	
SFEC-OCS	129	D	11/13/2017	9:05:02	428	18	5	47.2	
SFEC-OCS	130	Α	11/13/2017	9:24:46	429	18	5	47.8	
SFEC-OCS	130	В	11/13/2017	9:26:22	430	18	5	45.5	
SFEC-OCS	130	С	11/13/2017	9:27:58	431	18	5	45.6	
SFEC-OCS	130	D	11/13/2017	9:29:23	432	18	5	46.1	
SFEC-OCS	131	Α	11/13/2017	9:47:43	434	18	5	45.0	
SFEC-OCS	131	В	11/13/2017	9:49:10	435	18	5	46.6	
SFEC-OCS	131	С	11/13/2017	9:50:26	436	18	5	45.2	
SFEC-OCS	131	D	11/13/2017	9:51:41	437	18	5	44.5	
SFEC-OCS	132	Α	11/13/2017	10:06:03	438	18	5	41.0	
SFEC-OCS	132	В	11/13/2017	10:07:27	439	18	5	42.1	
SFEC-OCS	132	С	11/13/2017	10:09:06	440	18	5	43.3	
SFEC-OCS	132	D	11/13/2017	10:10:32	441	18	5	41.9	
SFEC-OCS	133	Α	11/13/2017	10:41:20	442	18	5	39.0	
SFEC-OCS	133	В	11/13/2017	10:42:55	443	18	5	39.1	
SFEC-OCS	133	С	11/13/2017	10:44:12	444	18	5	38.3	
SFEC-OCS	133	D	11/13/2017	10:45:43	445	18	5	38.7	
SFEC-OCS	134	Α	11/13/2017	11:11:15	446	18	5	36.0	
SFEC-OCS	134	В	11/13/2017	11:12:46	447	18	5	35.3	
SFEC-OCS	134	С	11/13/2017	11:14:13	448	18	5	36.0	
SFEC-OCS	134	D	11/13/2017	11:15:20	449	18	5	35.7	
SFEC-OCS	135	Α	11/13/2017	11:37:29	450	18	5	34.0	
SFEC-OCS	135	В	11/13/2017	11:38:46	451	18	5	33.8	
SFEC-OCS	135	С	11/13/2017	11:39:52	452	18	5	33.9	
SFEC-OCS	135	D	11/13/2017	11:40:55	453	18	5	34.4	
SFEC-OCS	136	Α	11/13/2017	12:07:27	454	18	5	32.9	
SFEC-OCS	136	В	11/13/2017	12:08:41	455	18	5	33.3	
SFEC-OCS	136	С	11/13/2017	12:09:45	456	18	5	32.9	
SFEC-OCS	136	D	11/13/2017	12:10:45	457	18	5	32.4	
SFEC-OCS	137	Α	11/13/2017	12:34:48	458	18	5	35.0	
SFEC-OCS	137	В	11/13/2017	12:35:45	459	18	5	31.5	
SFEC-OCS	137	С	11/13/2017	12:36:50	460	18	5	32.0	
SFEC-OCS	137	D	11/13/2017	12:37:51	461	18	5	31.6	
SFEC-OCS	138	Α	11/13/2017	12:58:25	462	18	5	30.9	
SFEC-OCS	138	В	11/13/2017	12:59:22	463	18	5	31.9	
SFEC-OCS	138	С	11/13/2017	13:00:21	464	18	5	32.4	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFEC-OCS	138	D	11/13/2017	13:01:29	465	18	5	32.0	
SFEC-OCS	139	Α	11/13/2017	13:22:53	466	18	5	31.5	
SFEC-OCS	139	В	11/13/2017	13:23:50	467	18	5	31.9	
SFEC-OCS	139	С	11/13/2017	13:24:45	468	18	5	31.4	
SFEC-OCS	139	D	11/13/2017	13:25:40	469	18	5	32.2	
SFEC-OCS	140	Α	11/13/2017	13:52:20	470	18	5	31.0	
SFEC-OCS	140	В	11/13/2017	13:53:30	471	18	5	30.5	
SFEC-OCS	140	С	11/13/2017	13:55:05	472	18	5	31.0	
SFEC-OCS	140	D	11/13/2017	13:56:15	473	18	5	31.0	
SFEC-OCS	141	Α	11/13/2017	14:56:45	475	18	5	29.9	
SFEC-OCS	141	В	11/13/2017	14:57:43	476	18	5	30.0	
SFEC-OCS	141	С	11/13/2017	14:59:00	477	18	5	30.4	
SFEC-OCS	141	D	11/13/2017	15:00:19	478	18	5	29.8	
SFEC-NYS	143	Α	11/13/2017	15:41:51	479	18	5	26.0	
SFEC-NYS	143	В	11/13/2017	15:43:20	480	18	5	26.3	
SFEC-NYS	143	С	11/13/2017	15:44:20	481	18	5	26.2	
SFEC-NYS	143	D	11/13/2017	15:45:35	482	18	5	26.2	
SFEC-NYS	145	Α	11/13/2017	16:26:49	483	18	5	17.3	
SFEC-NYS	145	В	11/13/2017	16:27:53	484	18	5	17.3	
SFEC-NYS	145	С	11/13/2017	16:29:07	485	18	5	16.8	
SFEC-NYS	145	D	11/13/2017	16:30:19	486	18	5	18.3	
SFEC-NYS	144	Α	11/13/2017	17:03:05	487	18	5	22.3	
SFEC-NYS	144	В	11/13/2017	17:04:20	488	18	5	22.5	
SFEC-NYS	144	С	11/13/2017	17:05:35	490	18	5	22.8	
SFEC-NYS	144	D	11/13/2017	17:06:50	491	18	5	22.2	
SFEC-OCS	142	Α	11/13/2017	17:46:30	492	18	5	27.7	
SFEC-OCS	142	В	11/13/2017	17:48:37	493	18	5	27.9	
SFEC-OCS	142	С	11/13/2017	17:50:05	494	18	5	23.1	
SFEC-OCS	142	D	11/13/2017	17:51:20	495	18	5	23.2	
SFEC-OCS	146	X1	11/13/2017	18:42:35	498	18	5	30.2	no fix
SFEC-OCS	146	X2	11/13/2017	18:44:20	499	18	5	30.2	no fix; PV: change to f 16, 1/30
SFEC-OCS	146	С	11/14/2017	15:00:25	501	18	5	30.2	Depth from proposed location
SFEC-OCS	146	D	11/14/2017	15:01:20	502	18	5	30.2	Depth from proposed location
SFEC-OCS	146	E	11/14/2017		503	18	5	30.2	Depth from proposed location
SFEC-OCS	146	F	11/14/2017	15:03:40	504	18	5	30.2	Depth from proposed location
SFEC-OCS	147	Α	11/14/2017	15:28:34	505	18	5	30.5	Depth from proposed location
SFEC-OCS	147	В	11/14/2017	15:29:10	506	18	5	30.5	Depth from proposed location
SFEC-OCS	147	С	11/14/2017	15:30:06	507	18	5	30.5	Depth from proposed location

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFEC-OCS	147	D	11/14/2017	15:31:00	508	18	5	30.5	Depth from proposed location
SFEC-OCS	148	Α	11/14/2017	15:53:05	509	18	5	29.7	Depth from proposed location
SFEC-OCS	148	В	11/14/2017	15:54:20	510	18	5	29.7	Depth from proposed location
SFEC-OCS	148	С	11/14/2017	15:55:30	511	18	5	29.7	Depth from proposed location
SFEC-OCS	148	D	11/14/2017	15:56:35	512	18	5	29.7	Depth from proposed location
SFEC-OCS	149	Α	11/14/2017	16:18:55	513	18	5	28.8	Depth from proposed location
SFEC-OCS	149	В	11/14/2017	16:19:54	514	18	5	28.8	Depth from proposed location
SFEC-OCS	149	С	11/14/2017	16:20:45	515	18	5	28.8	Depth from proposed location
SFEC-OCS	149	D	11/14/2017	16:21:40	516	18	5	28.8	Depth from proposed location
SFEC-OCS	150	Α	11/14/2017	16:43:20	517	18	5	30.9	Depth from proposed location
SFEC-OCS	150	В	11/14/2017	16:44:23	518	18	5	30.9	Depth from proposed location
SFEC-OCS	150	С	11/14/2017	16:45:30	519	18	5	30.9	Depth from proposed location
SFEC-OCS	150	D	11/14/2017	16:46:35	520	18	5	30.9	Depth from proposed location
SFEC-OCS	151	Α	11/14/2017	17:10:55	521	18	5	31.3	Depth from proposed location
SFEC-OCS	151	В	11/14/2017	17:12:14	522	18	5	31.3	Depth from proposed location
SFEC-OCS	151	С	11/14/2017	17:13:15	523	18	5	31.3	Depth from proposed location
SFEC-OCS	151	D	11/14/2017	17:14:18	524	18	5	31.3	Depth from proposed location
SFEC-OCS	152	Α	11/14/2017	17:33:56	525	18	5	31.1	Depth from proposed location
SFEC-OCS	152	В	11/14/2017	17:34:59	526	18	5	31.1	Depth from proposed location
SFEC-OCS	152	С	11/14/2017	17:36:00	527	18	5	31.1	Depth from proposed location
SFEC-OCS	152	D	11/14/2017	17:37:07	528	18	5	31.1	Depth from proposed location
SFEC-OCS	153	Α	11/14/2017	17:59:25	529	18	5	30.7	Depth from proposed location
SFEC-OCS	153	В	11/14/2017	18:00:45	530	18	5	30.7	Depth from proposed location
SFEC-OCS	153	С	11/14/2017	18:01:52	531	18	5	30.7	Depth from proposed location
SFEC-OCS	153	D	11/14/2017	18:02:49	532	18	5	30.7	Depth from proposed location
SFEC-OCS	154	Α	11/14/2017	18:23:20	533	18	5	30.5	Depth from proposed location
SFEC-OCS	154	В	11/14/2017	18:24:30	534	18	5	30.5	Depth from proposed location
SFEC-OCS	154	С	11/14/2017	18:25:31	535	18	5	30.5	Depth from proposed location
SFEC-OCS	154	D	11/14/2017	18:26:34	536	18	5	30.5	Depth from proposed location
SFEC-OCS	155	Α	11/14/2017	18:48:30	537	18	5	31.6	Depth from proposed location
SFEC-OCS	155	В	11/14/2017	18:49:31	538	18	5	31.6	Depth from proposed location
SFEC-OCS	155	С	11/14/2017	18:50:29	539	18	5	31.6	Depth from proposed location
SFEC-OCS	155	D	11/14/2017	18:51:34	540	18	5	31.6	Depth from proposed location
SFEC-OCS	156	Α	11/14/2017	19:14:00	541	18	5	31.5	Depth from proposed location
SFEC-OCS	156	В	11/14/2017	19:15:00	542	18	5	31.5	Depth from proposed location
SFEC-OCS	156	С	11/14/2017	19:16:00	543	18	5	31.5	Depth from proposed location
SFEC-OCS	156	D	11/14/2017	19:17:20	544	18	5	31.5	Depth from proposed location
SFEC-OCS	157	Α	11/14/2017	19:35:45	545	18	5	29.9	Depth from proposed location

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFEC-OCS	157	В	11/14/2017	19:36:45	546	18	5	29.9	Depth from proposed location
SFEC-OCS	157	С	11/14/2017	19:37:45	547	18	5	29.9	Depth from proposed location
SFEC-OCS	157	D	11/14/2017	19:38:50	548	18	5	29.9	Depth from proposed location
SFEC-NYS	158	Α	11/14/2017	20:03:09	549	18	5	24.8	Depth from proposed location
SFEC-NYS	158	В	11/14/2017	20:04:10	550	18	5	24.8	Depth from proposed location
SFEC-NYS	158	С	11/14/2017	20:05:14	551	18	5	24.8	Depth from proposed location
SFEC-NYS	158	D	11/14/2017	20:06:15	552	18	5	24.8	Depth from proposed location
SFEC-NYS	159	Α	11/14/2017	20:30:35	553	18	5	21.1	Depth from proposed location
SFEC-NYS	159	В	11/14/2017	20:31:35	554	18	5	21.1	Depth from proposed location
SFEC-NYS	159	С	11/14/2017	20:32:35	555	18	5	21.1	Depth from proposed location
SFEC-NYS	159	D	11/14/2017	20:33:35	556	18	5	21.1	Depth from proposed location
SFEC-NYS	160	Α	11/14/2017	20:52:37	557	18	5	16.1	Depth from proposed location
SFEC-NYS	160	В	11/14/2017	20:53:35	558	18	5	16.1	Depth from proposed location
SFEC-NYS	160	С	11/14/2017	20:54:39	559	18	5	16.1	Depth from proposed location
SFEC-NYS	160	D	11/14/2017	20:55:58	560	18	5	16.1	Depth from proposed location
Reference	C05	Α	11/15/2017	15:17:09	561	18	5	35.2	
Reference	C05	В	11/15/2017	15:18:42	562	18	5	36.4	
Reference	C05	С	11/15/2017	15:19:57	563	18	5	32.5	
Reference	C05	D	11/15/2017	15:21:09	564	18	5	34.9	
Reference	C05	E	11/15/2017	15:22:22	565	18	5	35.9	
Reference	C05	F	11/15/2017	15:24:27	566	18	5	35.4	
Reference	C04	Α	11/15/2017	15:49:04	567	18	5	36.2	
Reference	C04	В	11/15/2017	15:50:05	568	18	5	36.5	
Reference	C04	С	11/15/2017	15:51:15	569	18	5	37.6	
Reference	C04	D	11/15/2017	15:52:26	570	18	5	36.5	
Reference	C04	Е	11/15/2017	15:53:36	571	18	5	36.1	
Reference	C04	F	11/15/2017	15:54:42	572	18	5	36.3	
Reference	C03	Α	11/15/2017	16:19:07	573	18	5	35.2	
Reference	C03	В	11/15/2017	16:20:28	574	18	5	35.5	
Reference	C03	С	11/15/2017	16:21:32	575	18	5	35.5	
Reference	C03	D	11/15/2017	16:22:33	576	18	5	35.3	
Reference	C03	Е	11/15/2017	16:23:45	577	18	5	35.6	
Reference	C03	F	11/15/2017	16:24:44	578	18	5	35.9	
SFWF	C02	Α	11/15/2017	16:53:12	579	18	5	36.5	SPI: ISO 640 f11, 1/250; PV: ISO 640 f18, 1/15
SFWF	C02	В	11/15/2017	16:54:46	580	18	5	36.6	trigger wire: 3ft
SFWF	C02	С	11/15/2017	16:55:56	581	18	5	36.3	
SFWF	C02	D	11/15/2017	16:56:54	582	18	5	36.3	
SFWF	C02	E	11/15/2017	16:58:00	583	18	5	36.4	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFWF	C02	F	11/15/2017	16:59:08	584	18	5	36.8	
SFWF	C01	Α	11/15/2017	17:26:33	585	18	5	37.9	
SFWF	C01	В	11/15/2017	17:27:36	586	18	5	37.9	
SFWF	C01	С	11/15/2017	17:28:50	587	18	5	38.0	
SFWF	C01	D	11/15/2017	17:30:00	588	18	5	37.2	
SFWF	C01	E	11/15/2017	17:31:02	589	18	5	38.2	
SFWF	C01	F	11/15/2017	17:32:16	590	18	5	36.4	
SFWF	206	Α	11/20/2018	9:37:35	6	18	5	36.3	
SFWF	206	В	11/20/2018	9:38:46	7	18	5	36.3	
SFWF	206	С	11/20/2018	9:39:35	8	18	5	36.3	
SFWF	206	D	11/20/2018	9:40:27	9	18	5	36.3	
SFWF	206	Е	11/20/2018	9:41:29	10	18	5	36.3	Camera on Deck, Download, FC=13
SFWF	209	Α	11/20/2018	10:01:48	14	18	5	36.6	
SFWF	209	В	11/20/2018	10:02:44	15	18	5	36.6	
SFWF	209	С	11/20/2018	10:03:42	16	18	5	36.6	
SFWF	209	D	11/20/2018	10:04:37	17	18	5	36.6	Camera on Deck, Changing time on PV
SFWF	214	Α	11/20/2018	10:18:14	18	18	5	34.1	
SFWF	214	В	11/20/2018	10:19:06	19	18	5	34.1	
SFWF	214	С	11/20/2018	10:20:01	20	18	5	34.1	
SFWF	214	D	11/20/2018	10:21:00	21	18	5	34.1	Camera on Deck, FC=23
SFWF	219	Α	11/20/2018	10:34:23	24	18	5	33.8	
SFWF	219	В	11/20/2018	10:35:23	25	18	5	33.8	
SFWF	219	С	11/20/2018	10:36:16	26	18	5	33.8	
SFWF	219	D	11/20/2018	10:37:18	27	18	5	33.8	Camera on Deck, FC=29
SFWF	218	Α	11/20/2018	10:49:14	30	18	5	33.2	
SFWF	218	В	11/20/2018	10:50:37	31	18	5	33.2	
SFWF	218	С	11/20/2018	10:51:35	32	18	5	33.2	
SFWF	218	D	11/20/2018	10:52:33	33	18	5	33.2	Camera on Deck, FC=34
SFWF	220	Α	11/20/2018	11:11:18	35	18	5	36.0	
SFWF	220	В	11/20/2018	11:12:29	36	18	5	36.0	
SFWF	220	С	11/20/2018	11:13:53	37	18	5	36.0	No SPI
SFWF	220	D	11/20/2018	11:14:51	38	18	5	36.0	No SPI, WC, Camera on Deck, FC=37
SFWF	217	Α	11/20/2018	11:25:46	38	18	5	33.5	
SFWF	217	В	11/20/2018	11:27:04	39	18	5	33.5	SPI in WC
SFWF	217	С	11/20/2018	11:28:09	40	18	5	33.5	
SFWF	217	D	11/20/2018	11:29:23	41	18	5	33.5	Camera on Deck
SFWF	215	Α	11/20/2018	11:40:50	42	18	5	34.7	
SFWF	215	В	11/20/2018	11:41:57	43	18	5	34.7	

Area	Station ID	Replicate	Date	Time	Frame	I Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFWF	215	С	11/20/2018	11:42:57	44	18	5	34.7	
SFWF	215	D	11/20/2018	11:43:58	45	18	5	34.7	Camera on Deck
SFWF	216	Α	11/20/2018	11:53:52	46	18	5	32.9	
SFWF	216	В	11/20/2018	11:54:51	47	18	5	32.9	
SFWF	216	С	11/20/2018	11:55:46	48	18	5	32.9	
SFWF	216	D	11/20/2018	11:56:40	49	18	5	32.9	Camera on Deck
SFWF	212	Α	11/20/2018	12:07:39	50	18	5	33.5	
SFWF	212	В	11/20/2018	12:08:43	51	18	5	33.5	
SFWF	212	С	11/20/2018	12:09:43	52	18	5	33.5	
SFWF	212	D	11/20/2018	12:10:37	53	18	5	33.5	Camera on Deck, Download, FC=55
SFWF	210	Α	11/20/2018	12:32:02	56	18	5	34.1	
SFWF	210	В	11/20/2018	12:33:06	57	18	5	34.1	
SFWF	210	С	11/20/2018	12:34:00	58	18	5	34.1	
SFWF	210	D	11/20/2018	12:35:06	59	18	5	34.1	Camera on Deck, FC=60
SFWF	211	Α	11/20/2018	12:47:56	61	18	5	35.1	
SFWF	211	В	11/20/2018	12:48:59	62	18	5	35.1	
SFWF	211	С	11/20/2018	12:49:59	63	18	5	35.1	
SFWF	211	D	11/20/2018	12:51:29	64	18	5	35.1	Camera on Deck
SFWF	213	Α	11/20/2018	13:03:44	65	18	5	34.1	
SFWF	213	В	11/20/2018	13:05:10	66	18	5	34.1	
SFWF	213	С	11/20/2018	13:06:20	67	18	5	34.1	
SFWF	213	D	11/20/2018	13:07:20	68	18	5	34.1	Camera on Deck, FC=69
SFWF	208	Α	11/20/2018	13:22:42	70	18	5	34.1	
SFWF	208	В	11/20/2018	13:23:42	71	18	5	34.1	
SFWF	208	С	11/20/2018	13:24:51	72	18	5	34.1	
SFWF	208	D	11/20/2018	13:25:50	73	18	5	34.1	Camera on Deck, FC=75
SFWF	207	Α	11/20/2018	13:40:24	76	18	5	37.5	
SFWF	207	В	11/20/2018	13:41:18	77	18	5	37.5	
SFWF	207	С	11/20/2018	13:42:22	78	18	5	37.5	
SFWF	207	D	11/20/2018	13:43:33	79	18	5	37.5	Camera on Deck, FC=80
SFWF	205	Α	11/20/2018	13:57:38	81	18	5	35.4	
SFWF	205	В	11/20/2018	13:58:49	82	18	5	35.4	
SFWF	205	С	11/20/2018	14:00:06	83	18	5	35.4	
SFWF	205	D	11/20/2018	14:01:10	84	18	5	35.4	Camera on Deck, FC=85
SFWF	203	А	11/20/2018	14:13:40	86	18	5	36.6	
SFWF	203	В	11/20/2018	14:14:50	87	18	5	36.6	
SFWF	203	С	11/20/2018	14:16:02	88	18	5	36.6	
SFWF	203	D	11/20/2018	14:17:03	89	18	5	36.6	Camera on Deck, FC=90

Area	Station ID	Replicate	Date	Time	Frame	l Stop Collar (	Weights per Side (n	Depth (m)	Comments
SFWF	204	Α	11/20/2018	14:29:14	91	18	5	35.4	
SFWF	204	В	11/20/2018	14:30:26	92	18	5	35.4	
SFWF	204	С	11/20/2018	14:31:55	93	18	5	35.4	
SFWF	204	D	11/20/2018	14:33:17	94	18	5	35.4	Camera on Deck, FC=96
SFWF	202	Α	11/20/2018	14:53:10	97	18	5	44.2	
SFWF	202	В	11/20/2018	14:54:15	98	18	5	44.2	
SFWF	202	С	11/20/2018	14:55:31	99	18	5	44.2	
SFWF	202	D	11/20/2018	14:56:41	100	18	5	44.2	Camera on Deck
SFWF	201	Α	11/20/2018	15:12:45	101	18	5	34.7	
SFWF	201	В	11/20/2018	15:14:01	102	18	5	34.7	
SFWF	201	С	11/20/2018	15:15:10	103	18	5	34.7	
SFWF	201	D	11/20/2018	15:16:18	104	18	5	34.7	Camera on Deck, Download, FC=104

## APPENDIX C

## Sediment Profile Image Analysis Results

## Notes:

IND=Indeterminate

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	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	
SFWF	1	А	33.6	11/11/2017	13:31:30	18	5	285.5	IND		No	No
SFWF	1	В	33.9	11/11/2017	13:32:36	18	5	285.5	IND		No	No
SFWF	1	С	33.9	11/11/2017	13:33:32	18	5	285.5	IND		No	No
SFWF	2	Α	34.0	11/11/2017	14:20:16	18	5	285.5	IND		No	No
SFWF	2	В	34.4	11/11/2017	14:21:14	18	5	285.5				
SFWF	2	С	34.3	11/11/2017	14:22:16	18	5	285.5				
SFWF	3	А	35.7	11/11/2017	14:48:28	18	5	285.5				
SFWF	3	В	35.7	11/11/2017	14:49:24	18	5	285.5	0.78		No	No
SFWF	3	С	35.8	11/11/2017	14:50:23	18	5	285.5				
SFWF	4	А	35.8	11/11/2017	15:07:13	18	5	285.5				
SFWF	4	В	35.8	11/11/2017	15:08:16	18	5	285.5				
SFWF	4	С	35.9	11/11/2017	15:09:16	18	5	285.5	0.94		No	No
SFWF	5	А	36.7	11/11/2017	15:24:04	18	5	285.5	1.09		No	No
SFWF	5	В	36.4	11/11/2017	15:25:03	18	5	285.5				
SFWF	5	С	36.3	11/11/2017	15:26:09	18	5	285.5				
SFWF	6	А	36.2	11/11/2017	15:43:02	18	5	285.5				
SFWF	6	С	35.8	11/11/2017	15:45:05	18	5	285.5				
SFWF	6	D	35.2	11/11/2017	15:46:03	18	5	285.5	2.98		No	No

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	
SFWF	7	В	38.0	11/11/2017	16:11:21	18	5	285.5	IND		No	No
SFWF	7	С	38.0	11/11/2017	16:12:39	18	5	285.5	IND		No	No
SFWF	7	D	36.6	11/11/2017	16:13:51	18	5	285.5	IND		No	No
SFWF	8	А	37.8	11/11/2017	19:20:39	18	5	285.5	1.34		No	No
SFWF	8	В	37.2	11/11/2017	19:21:50	18	5	285.5				
SFWF	8	С	37.1	11/11/2017	19:23:02	18	5	285.5				
SFWF	9	А	36.1	11/11/2017	19:39:30	18	5	285.5	IND		No	No
SFWF	9	В	36.1	11/11/2017	19:40:47	18	5	285.5				
SFWF	9	С	35.6	11/11/2017	19:41:59	18	5	285.5				
SFWF	10	А	38.5	11/11/2017	16:40:15	18	5	285.5				
SFWF	10	В	39.2	11/11/2017	16:41:29	18	5	285.5				
SFWF	10	С	38.8	11/11/2017	16:42:35	18	5	285.5	IND		No	No
SFWF	11	А	37.6	11/11/2017	18:54:18	18	5	285.5	IND		No	No
SFWF	11	В	36.6	11/11/2017	18:55:28	18	5	285.5				
SFWF	11	С	37.6	11/11/2017	18:56:39	18	5	285.5				
SFWF	12	А	40.3	11/11/2017			5	285.5	1.13		Yes	No
SFWF	12	С	40.3	11/11/2017	17:29:34	18	5	285.5				
SFWF	12	D	40.3	11/11/2017	17:30:53	18	5	285.5				

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	
SFWF	13	А	37.8	11/11/2017	18:32:55	18	5	285.5	1.50		No	No
SFWF	13	В	37.8	11/11/2017	18:33:56	18	5	285.5				
SFWF	13	С	38.2	11/11/2017	18:35:03	18	5	285.5				
SFWF	14	А	40.3	11/11/2017	17:50:43	18	5	285.5	1.17		No	No
SFWF	14	В	40.4	11/11/2017	17:51:54	18	5	285.5				
SFWF	14	С	40.3	11/11/2017	17:53:14	18	5	285.5				
SFWF	15	А	41.1	11/11/2017	18:08:55	18	5	285.5	0.33		No	No
SFWF	15	В	41.4	11/11/2017	18:10:15	18	5	285.5				
SFWF	15	С	41.3	11/11/2017	18:11:19	18	5	285.5				
SFWF	16	В	36.6	11/12/2017	2:41:00	18	5	285.5	IND		No	No
SFWF	16	С	35.1	11/12/2017	2:42:02	18	5	285.5				
SFWF	16	D	35.4	11/12/2017	2:43:12	18	5	285.5				
SFWF	17	А	34.9	11/12/2017	2:24:19	18	5	285.5	IND		No	No
SFWF	17	В	34.8	11/12/2017	2:25:36	18	5	285.5				
SFWF	17	С	34.6	11/12/2017	2:26:59	18	5	285.5				
SFWF	18	А	35.1	11/12/2017		18	5	285.5	IND		No	No
SFWF	18	В	35.1	11/12/2017	2:10:53	18	5	285.5	IND		No	No

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFWF	18	D	34.4	11/12/2017	2:13:07	18	5	285.5	IND		No	No
SFWF	19	А	35.3	11/12/2017	1:55:06	18	5	285.5	IND		No	No
SFWF	19	В	35.1	11/12/2017	1:56:15	18	5	285.5				
SFWF	19	С	34.0	11/12/2017	1:57:23	18	5	285.5				
SFWF	20	Α	34.8	11/12/2017	1:40:48	18	5	285.5	IND		No	No
SFWF	20	С	34.8	11/12/2017	1:42:49	18	5	285.5				
SFWF	20	D	34.2	11/12/2017	1:44:04	18	5	285.5				
SFWF	21	Α	34.2	11/12/2017	1:20:41	18	5	285.5				
SFWF	21	В	34.3	11/12/2017	1:21:51	18	5	285.5	IND		No	No
SFWF	21	D	34.5	11/12/2017	1:24:07	18	5	285.5				
SFWF	22	Α	34.4	11/12/2017	1:03:52	18	5	285.5	IND		No	No
SFWF	22	В	34.7	11/12/2017	1:04:57	18	5	285.5				
SFWF	22	С	34.7	11/12/2017	1:06:03	18	5	285.5				
SFWF	23	Α	34.5	11/12/2017	0:42:27	18	5	285.5	IND		No	No
SFWF	23	С	35.9	11/12/2017	0:44:55	18	5	285.5	IND		No	No
SFWF	23	D	35.3	11/12/2017	0:46:08	18	5	285.5	IND		No	No
SFWF	24	Α	34.9	11/12/2017	0:14:24	18	5	285.5	IND		No	No
SFWF	24	В	34.7	11/12/2017	0:15:48	18	5	285.5				
SFWF	24	С	35.2	11/12/2017	0:16:49	18	5	285.5				
SFWF	25	А	35.2	11/11/2017	23:31:40	18	5	285.5	IND		No	No
SFWF	25	В	39.4	11/11/2017	23:33:00	18	5	285.5				
SFWF	25	С	35.3	11/11/2017	23:34:13	18	5	285.5				
SFWF	26	А	35.3	11/11/2017	23:10:01	18	5	285.5				

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	
SFWF	26	В	35.3	11/11/2017	23:11:12	18	5	285.5				
SFWF	26	С	35.0	11/11/2017	23:12:17	18	5	285.5	IND		No	No
SFWF	27	А	35.3	11/11/2017	22:50:37	18	5	285.5	4.19		No	No
SFWF	27	В	35.3	11/11/2017	22:51:42	18	5	285.5				
SFWF	27	С	34.8	11/11/2017	22:52:54	18	5	285.5				
SFWF	28	Α	34.5	11/11/2017	20:03:40	18	5	285.5	IND		No	No
SFWF	28	В	34.2	11/11/2017	20:04:58	18	5	285.5				
SFWF	28	С	34.7	11/11/2017	20:06:15	18	5	285.5				
SFWF	29	А	35.3	11/11/2017	22:29:45	18	5	285.5	IND		No	No
SFWF	29	В	35.6	11/11/2017	22:30:55	18	5	285.5				
SFWF	29	D	35.5	11/11/2017	22:33:30	18	5	285.5				
SFWF	30	А	36.4	11/11/2017	20:30:54	18	5	285.5				
SFWF	30	В	36.3	11/11/2017	20:31:56	18	5	285.5				
SFWF	30	С	36.3	11/11/2017	20:32:57	18	5	285.5	IND		No	No
SFWF	31	Α	37.0	11/11/2017	20:53:46	18	5	285.5				
SFWF	31	В	35.8	11/11/2017	20:54:49	18	5	285.5	IND		No	No
SFWF	31	D	36.5	11/11/2017	20:56:53	18	5	285.5				
SFWF	32	А	35.0	11/11/2017	22:06:08	18	5	285.5	IND		No	No
SFWF	32	В	34.7	11/11/2017	22:07:17	18	5	285.5				

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	
SFWF	32	С	35.3	11/11/2017	22:08:26	18	5	285.5				
SFWF	33	А	36.6	11/11/2017	21:19:38	18	5	285.5				
SFWF	33	С	37.1	11/11/2017	21:21:53	18	5	285.5	IND		No	No
SFWF	33	D	36.4	11/11/2017	21:23:15	18	5	285.5				
SFWF	34	А	34.3	11/11/2017	21:44:49	18	5	285.5	IND		No	No
SFWF	34	В	34.6	11/11/2017	21:45:56	18	5	285.5	IND		No	No
SFWF	34	D	35.4	11/11/2017	21:48:06	18	5	285.5	IND		No	No
SFWF	35	Α	35.5	11/12/2017	2:55:24	18	5	285.5				
SFWF	35	В	35.5	11/12/2017	2:56:38	18	5	285.5	IND		No	No
SFWF	35	С	36.9	11/12/2017	2:58:00	18	5	285.5				
SFWF	36	А	38.3	11/12/2017	3:16:05	18	5	285.5	IND		No	No
SFWF	36	В	35.8	11/12/2017	3:17:23	18	5	285.5	IND		No	No
SFWF	36	D	35.7	11/12/2017	3:19:41	18	5	285.5	IND		No	No
SFWF	37	А	35.6	11/12/2017	3:34:53	18	5	285.5	4.35		No	No
SFWF	37	В	34.8	11/12/2017	3:36:10	18	5	285.5				
SFWF	37	С	35.6	11/12/2017	3:37:27	18	5	285.5				
SFWF	38	Α	34.7	11/12/2017	3:57:47	18	5	285.5	IND		No	No
SFWF	38	В	34.9	11/12/2017	4:00:53	18	5	285.5				
SFWF	38	D	34.8	11/12/2017	4:03:08	18	5	285.5				
SFWF	39	Α	36.2	11/12/2017	4:22:17	18	5	285.5	IND		No	No
SFWF	39	С	34.8	11/12/2017	4:25:38	18	5	285.5	IND		No	No
SFWF	39	D	34.6	11/12/2017	4:26:44	18	5	285.5	IND		No	No

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFWF	40	А	35.1	11/12/2017	4:40:38	18	5	285.5	IND		No	No
SFWF	40	В	35.2	11/12/2017	4:41:48	18	5	285.5				
SFWF	40	С	36.7	11/12/2017	4:43:07	18	5	285.5				
SFWF	41	А	34.5	11/12/2017	5:25:06	18	5	285.5	2.09		No	No
SFWF	41	В	34.9	11/12/2017	5:26:16	18	5	285.5				
SFWF	41	С	34.8	11/12/2017	5:27:31	18	5	285.5				
SFWF	42	Α	34.5	11/12/2017	5:41:13	18	5	285.5	IND		No	No
SFWF	42	В	34.9	11/12/2017		18	5	285.5				
SFWF	42	С	34.8	11/12/2017	5:43:36	18	5	285.5				
SFWF	43	А	34.5	11/12/2017	6:04:14	18	5	285.5	IND		No	No
SFWF	43	В	35.0	11/12/2017	6:05:38	18	5	285.5				
SFWF	43	С	35.7	11/12/2017	6:06:45	18	5	285.5				
SFWF	44	В	35.9	11/12/2017	9:50:16	18	5	285.5				
SFWF	44	С	34.5	11/12/2017	9:51:25	18	5	285.5	IND		No	No
SFWF	44	D	35.2	11/12/2017	9:52:28	18	5	285.5				
SFWF	45	В	35.8	11/12/2017	10:06:09	18	5	285.5	IND		No	No
SFWF	45	С	35.1	11/12/2017	10:07:19	18	5	285.5				
SFWF	45	D	35.4	11/12/2017	10:08:18	18	5	285.5				
SFWF	46	В	35.2	11/12/2017	10:28:41	18	5	285.5	IND		No	No
SFWF	46	С	35.3	11/12/2017	10:30:08	18	5	285.5				
SFWF	46	D	35.2	11/12/2017	10:31:35	18	5	285.5				
SFWF	47	Α	35.1	11/12/2017	10:47:12	18	5	285.5	IND		No	No
SFWF	47	В	35.0	11/12/2017	10:48:33	18	5	285.5				

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFWF	47	С	34.5	11/12/2017	10:49:44	18	5	285.5				
SFWF	48	А	36.0	11/12/2017	11:06:04	18	5	285.5	IND		No	No
SFWF	48	В	36.2	11/12/2017	11:07:17	18	5	285.5				
SFWF	48	С	35.1	11/12/2017	11:08:33	18	5	285.5				
SFWF	49	Α	36.2	11/12/2017	11:50:10	18	5	285.5	IND		No	No
SFWF	49	В	35.4	11/12/2017	11:51:14	18	5	285.5				
SFWF	49	С	33.1	11/12/2017	11:52:37	18	5	285.5				
SFWF	50	Α	34.8	11/12/2017	12:18:53	18	5	285.5	IND		No	No
SFWF	50	С	35.1	11/12/2017	12:21:21	18	5	285.5				
SFWF	50	D	36.8	11/12/2017	12:22:54	18	5	285.5				
SFWF	51	А	35.4	11/12/2017	12:35:07	18	5	285.5	IND		No	No
SFWF	51	В	37.4	11/12/2017	12:36:30	18	5	285.5				
SFWF	51	D	35.3	11/12/2017	12:38:42	18	5	285.5				
SFWF	52	Α	35.3	11/12/2017	17:08:23	18	5	285.5	IND		No	No
SFWF	52	В	35.2	11/12/2017	17:09:41	18	5	285.5				
SFWF	52	С	35.5	11/12/2017	17:10:47	18	5	285.5				
SFWF	53	А	35.4	11/12/2017	17:27:32	18	5	285.5	IND		No	No
SFWF	53	В	35.7	11/12/2017	17:28:57	18	5	285.5				
SFWF	53	С	36.2	11/12/2017	17:30:20	18	5	285.5				
SFWF	54	Α	35.6	11/12/2017	17:44:41	18	5	285.5	IND		No	No
SFWF	54	В	35.8	11/12/2017	17:46:21	18	5	285.5	IND		No	No
SFWF	54	С	35.4	11/12/2017	17:47:25	18	5	285.5	IND		No	No
SFWF	55	А	35.9	11/12/2017	18:00:05	18	5	285.5	IND		No	No

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFWF	55	В	36.5	11/12/2017	18:01:21	18	5	285.5				
SFWF	55	С	36.0	11/12/2017	18:02:29	18	5	285.5				
SFWF	56	А	36.1	11/12/2017	16:27:58	18	5	285.5				
SFWF	56	В	33.9	11/12/2017	16:29:08	18	5	285.5	IND		No	No
SFWF	56	D	35.7	11/12/2017	16:31:16	18	5	285.5				
SFWF	57	Α	35.8	11/12/2017	18:18:35	18	5	285.5	IND		No	No
SFWF	57	С	35.7	11/12/2017	18:21:02	18	5	285.5	IND		No	No
SFWF	57	D	35.6	11/12/2017	18:22:14	18	5	285.5	IND		No	No
SFWF	58	Α	36.3	11/12/2017	18:35:25	18	5	285.5	IND		No	No
SFWF	58	С	35.6	11/12/2017	18:38:03	18	5	285.5				
SFWF	58	D	35.5	11/12/2017	18:39:05	18	5	285.5				
SFWF	59	А	37.0	11/12/2017	16:02:14	18	5	285.5	IND		No	No
SFWF	59	В	36.1	11/12/2017	16:03:34	18	5	285.5				
SFWF	59	С	36.0	11/12/2017	16:04:56	18	5	285.5				
SFWF	60	Α	36.6	11/12/2017	15:47:24	18	5	285.5	IND		No	No
SFWF	60	В	36.7	11/12/2017	15:48:35	18	5	285.5				
SFWF	60	С	34.0	11/12/2017	15:49:51	18	5	285.5				
SFWF	61	Α	35.6	11/12/2017	15:32:26	18	5	285.5	IND		No	No
SFWF	61	В	36.3	11/12/2017	15:33:32	18	5	285.5	IND		No	No
SFWF	61	С	36.1	11/12/2017	15:34:35	18	5	285.5	IND		No	No
SFWF	62	Α	35.9	11/12/2017	15:16:40	18	5	285.5	IND		No	No
SFWF	62	В	35.1	11/12/2017	15:18:02	18	5	285.5	IND		No	No
SFWF	62	С	35.7	11/12/2017	15:19:21	18	5	285.5	IND		No	No
SFWF	63	В	35.7	11/12/2017	15:03:33	18	5	285.5	IND		No	No
SFWF	63	С	35.8	11/12/2017	15:04:56	18	5	285.5	IND		No	No
SFWF	63	D	36.1	11/12/2017	15:06:22	18	5	285.5	IND		No	No
SFWF	64	Α	36.5	11/12/2017	14:47:27	18	5	285.5	IND		No	No
SFWF	64	В	37.0	11/12/2017	14:48:40	18	5	285.5	IND		No	No
SFWF	64	D	36.6	11/12/2017	14:51:09	18	5	285.5	IND		No	No
SFWF	65	А	36.4	11/12/2017	14:31:19	18	5	285.5				
SFWF	65	В	37.5	11/12/2017	14:32:58	18	5	285.5				

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFWF	65	С	36.4	11/12/2017	14:34:18	18	5	285.5	IND		No	No
SFWF	66	В	35.8	11/12/2017	12:54:57	18	5	285.5	IND		No	No
SFWF	66	С	35.8	11/12/2017	12:56:30	18	5	285.5	IND		No	No
SFWF	66	D	35.9	11/12/2017	12:57:44	18	5	285.5	IND		No	No
SFWF	67	В	35.9	11/12/2017	14:19:32	18	5	285.5	IND		No	No
SFWF	67	С	36.3	11/12/2017	14:20:35	18	5	285.5				
SFWF	67	D	36.9	11/12/2017	14:21:42	18	5	285.5				
SFWF	68	А	35.5	11/12/2017	13:13:45	18	5	285.5	IND		No	No
SFWF	68	В	35.7	11/12/2017	13:14:41	18	5	285.5	IND		No	No
SFWF	68	D	35.5	11/12/2017	13:17:03	18	5	285.5	IND		No	No
SFWF	69	А	35.5	11/12/2017	20:32:34	18	5	285.5	IND		No	No
SFWF	69	В	35.4	11/12/2017	20:33:37	18	5	285.5				
SFWF	69	С	35.5	11/12/2017	20:34:38	18	5	285.5				
SFWF	70	Α	34.3	11/12/2017	20:54:35	18	5	285.5	IND		No	No
SFWF	70	В	36.3	11/12/2017	20:56:01	18	5	285.5	IND		No	No
SFWF	70	D	34.6	11/12/2017	20:58:29	18	5	285.5	IND		No	No
SFWF	71	Α	35.5	11/12/2017	20:11:24	18	5	285.5	IND		No	No
SFWF	71	В	35.8	11/12/2017	20:12:49	18	5	285.5				
SFWF	71	С	35.5	11/12/2017	20:13:56	18	5	285.5				
SFWF	72	А	36.1	11/12/2017	19:45:38	18	5	285.5	IND		No	No
SFWF	72	В	36.4	11/12/2017	19:47:07	18	5	285.5				

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	
SFWF	72	С	36.2	11/12/2017	19:48:15	18	5	285.5				
SFWF	73	Α	35.5	11/12/2017	18:51:00	18	5	285.5	IND		No	No
SFWF	73	В	35.5	11/12/2017			5	285.5				
SFWF	73	С	35.4	11/12/2017	18:53:21	18	5	285.5				
SFWF	74	Α	35.7	11/12/2017	19:10:04	18	5	285.5				
SFWF	74	С	36.6	11/12/2017	19:12:01	18	5	285.5				
SFWF	74	D	35.2	11/12/2017	19:13:09	18	5	285.5	IND		No	No
SFWF	75	Α	36.1	11/12/2017	19:28:01	18	5	285.5	IND		No	No
SFWF	75	В	36.2	11/12/2017	19:29:13	18	5	285.5				
SFWF	75	D	36.2	11/12/2017	19:31:26	18	5	285.5				
SFWF	76	А	38.2	11/12/2017	14:01:21	18	5	285.5	IND		No	No
SFWF	76	В	36.3	11/12/2017	14:02:57	18	5	285.5				
SFWF	76	D	37.0	11/12/2017	14:06:04	18	5	285.5				
SFWF	201	А	34.7	11/20/2018	15:12:48	18	5	274.8	IND	Yes	No	No
SFWF	201	В	34.7	11/20/2018	15:14:05	18	5	274.8	IND	Yes	No	No
SFWF	201	С	34.7	11/20/2018	15:15:13	18	5	274.8	IND	Yes	No	No
SFWF	202	А	44.2	11/20/2018	14:53:12	18	5	274.8	4.07		No	No
SFWF	202	В	44.2	11/20/2018	14:54:21	18	5	274.8	2.53		No	No
SFWF	202	С	44.2	11/20/2018	14:55:34	18	5	274.8	2.73		No	No

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFWF	203	В	36.6	11/20/2018	14:14:54	18	5	274.8	IND	Yes	No	No
SFWF	203	С	36.6	11/20/2018	14:16:05	18	5	274.8	IND	Yes	No	No
SFWF	203	D	36.6	11/20/2018	14:17:05	18	5	274.8	IND	Yes	No	No
SFWF	204	А	35.4	11/20/2018	14:29:16	18	5	274.8	IND		IND	IND
SFWF	204	В	35.4	11/20/2018	14:30:29	18	5	274.8	IND		IND	IND
SFWF	204	С	35.4	11/20/2018	14:31:58	18	5	274.8	IND		IND	IND
SFWF	205	А	35.4	11/20/2018	13:57:39	18	5	274.8	IND	Yes	No	No
SFWF	205	В	35.4	11/20/2018	13:58:53	18	5	274.8	IND	Yes	No	No
SFWF	205	С	35.4	11/20/2018	14:00:09	18	5	274.8	IND	Yes	No	No
SFWF	206	А	36.3	11/20/2018	9:37:37	18	5	274.8	IND	Yes	No	No
SFWF	206	С	36.3	11/20/2018	9:39:40	18	5	274.8	IND	Yes	No	No
SFWF	206	D	36.3	11/20/2018	9:40:31	18	5	274.8	IND	Yes	No	No
SFWF	207	А	37.5	11/20/2018	13:40:27	18	5	274.8	IND	Yes	No	No
SFWF	207	В	37.5	11/20/2018	13:41:21	18	5	274.8	IND	Yes	No	No
SFWF	207	С	37.5	11/20/2018	13:42:25	18	5	274.8	IND	Yes	No	No
SFWF	208	А	34.1	11/20/2018	13:22:45	18	5	274.8	IND	Yes	No	No
SFWF	208	В	34.1	11/20/2018	13:23:45	18	5	274.8	IND	Yes	No	No
SFWF	208	С	34.1	11/20/2018	13:24:55	18	5	274.8	IND	Yes	No	No

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	
SFWF	209	В	36.6	11/20/2018	10:02:48	18	5	274.8	IND		No	No
SFWF	209	С	36.6	11/20/2018	10:03:46	18	5	274.8	IND		No	No
SFWF	209	D	36.6	11/20/2018	10:04:41	18	5	274.8	IND		No	No
SFWF	210	А	34.1	11/20/2018	12:32:06	18	5	274.8	IND	Yes	No	No
SFWF	210	В	34.1	11/20/2018	12:33:09	18	5	274.8	IND	Yes	No	No
SFWF	210	С	34.1	11/20/2018	12:34:04	18	5	274.8	IND	Yes	No	No
SFWF	211	А	35.1	11/20/2018	12:48:00	18	5	274.8	IND	Yes	No	No
SFWF	211	В	35.1	11/20/2018	12:49:03	18	5	274.8	IND	Yes	No	No
SFWF	211	С	35.1	11/20/2018	12:50:02	18	5	274.8	IND	Yes	No	No
SFWF	212	А	33.5	11/20/2018	12:07:42	18	5	274.8	IND	Yes	No	No
SFWF	212	С	33.5	11/20/2018	12:09:46	18	5	274.8	IND	Yes	No	No
SFWF	212	D	33.5	11/20/2018	12:10:41	18	5	274.8	IND	Yes	No	No
SFWF	213	Α	34.1	11/20/2018	13:03:47	18	5	274.8	IND		IND	IND
SFWF	213	В	34.1	11/20/2018	13:05:13	18	5	274.8	IND	Yes	No	No
SFWF	213	С	34.1	11/20/2018	13:06:23	18	5	274.8	IND		IND	IND
SFWF	214	В	34.1	11/20/2018	10:19:10	18	5	274.8	IND	Yes	No	No
SFWF	214	С	34.1	11/20/2018	10:20:05	18	5	274.8	IND	Yes	No	No
SFWF	214	D	34.1	11/20/2018	10:21:03	18	5	274.8	IND	Yes	No	No

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFWF	215	А	34.7	11/20/2018	11:40:52	18	5	274.8	IND	Yes	No	No
SFWF	215	В	34.7	11/20/2018	11:42:01	18	5	274.8	IND	Yes	No	No
SFWF	215	С	34.7	11/20/2018	11:43:01	18	5	274.8	IND	Yes	No	No
SFWF	216	Α	32.9	11/20/2018	11:53:55	18	5	274.8	IND	Yes	No	No
SFWF	216	В	32.9	11/20/2018	11:54:56	18	5	274.8	IND	Yes	No	No
SFWF	216	С	32.9	11/20/2018	11:55:49	18	5	274.8	IND	Yes	No	No
SFWF	217	А	33.5	11/20/2018	11:25:49	18	5	274.8	IND	Yes	No	No
SFWF	217	С	33.5	11/20/2018	11:28:13	18	5	274.8	IND	Yes	No	No
SFWF	217	D	33.5	11/20/2018	11:29:26	18	5	274.8	IND	Yes	No	No
SFWF	218	Α	33.2	11/20/2018	10:49:15	18	5	274.8	IND	Yes	No	No
SFWF	218	В	33.2	11/20/2018		18	5	274.8	IND	Yes	No	No
SFWF	218	С	33.2	11/20/2018	10:51:38	18	5	274.8	IND	Yes	No	No
SFWF	219	А	33.8	11/20/2018	10:34:24	18	5	274.8	IND	Yes	No	No
SFWF	219	В	33.8	11/20/2018	10:35:27	18	5	274.8	IND	Yes	No	No
SFWF	219	С	33.8	11/20/2018	10:36:19	18	5	274.8	IND	Yes	No	No
SFWF	220	А	36.0	11/20/2018	11:11:21	18	5	274.8	IND	Yes	No	No
SFWF	220	В	36.0	11/20/2018	11:12:33	18	5	274.8	IND	Yes	No	No
SFWF	C01	Α	37.9	11/15/2017		18	5	285.5	IND		No	No
SFWF	C01	В	37.9	11/15/2017	17:28:20	18	5	285.5	IND		No	No
SFWF	C01	С	38.0	11/15/2017	17:29:35	18	5	285.5	IND		No	No
SFWF	C01	D	37.2	11/15/2017	17:30:45	18	5	285.5	IND		No	No
SFWF	C01	Е	38.2	11/15/2017			5	285.5	1.98		No	No
SFWF	C02	Α	36.5	11/15/2017	16:53:57	18	5	285.5	IND		No	No

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFWF	C02	В	36.6	11/15/2017	16:55:33	18	5	285.5	IND		No	No
SFWF	C02	С	36.3	11/15/2017	16:56:40	18	5	285.5	IND		No	No
SFWF	C02	E	36.4	11/15/2017	16:58:43	18	5	285.5	2.58		No	No
SFWF	C02	F	36.8	11/15/2017	16:59:52	18	5	285.5	IND		No	No
SFEC-OCS	101	Α	34.7	11/12/2017	21:19:11	18	5	285.5	IND		No	No
SFEC-OCS	101	С	34.9	11/12/2017	21:21:31	18	5	285.5	IND		No	No
SFEC-OCS	101	D	34.9	11/12/2017	21:22:49	18	5	285.5	IND		No	No
SFEC-OCS	102	Α	35.8	11/12/2017	21:46:53	18	5	285.5	IND		No	No
SFEC-OCS	102	В	35.1	11/12/2017	21:47:57	18	5	285.5	IND		No	No
SFEC-OCS	102	D	35.4	11/12/2017	21:50:11	18	5	285.5	IND		No	No
SFEC-OCS	103	А	38.5	11/12/2017	22:13:08	18	5	285.5				
SFEC-OCS	103	В	38.5	11/12/2017	22:14:14	18	5	285.5				
SFEC-OCS	103	D	38.7	11/12/2017	22:16:23	18	5	285.5	1.19		No	No
SFEC-OCS	104	А	38.5	11/12/2017	22:38:16	18	5	285.5	IND		No	No
SFEC-OCS	104	В	38.1	11/12/2017	22:39:47	18	5	285.5	IND		No	No
SFEC-OCS	104	D	38.3	11/12/2017	22:42:15	18	5	285.5	IND		No	No
SFEC-OCS	105	Α	40.7	11/12/2017	23:05:53	18	5	285.5	IND		No	No
SFEC-OCS	105	В	40.1	11/12/2017	23:07:11	18	5	285.5				
SFEC-OCS	105	С	40.8	11/12/2017	23:08:14	18	5	285.5				
SFEC-OCS	106	А	42.7	11/12/2017	23:25:14	18	5	285.5	IND		No	No
SFEC-OCS	106	В	42.7	11/12/2017	23:26:22	18	5	285.5				
SFEC-OCS	106	С	42.9	11/12/2017	23:27:23	18	5	285.5				
SFEC-OCS	107	Α	42.7	11/12/2017	23:48:21	18	5	285.5				
SFEC-OCS	107	В	42.6	11/12/2017	23:49:32	18	5	285.5	IND		No	No
SFEC-OCS	107	С	42.3	11/12/2017	23:50:43	18	5	285.5				

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFEC-OCS	108	Α	42.9	11/13/2017	0:10:40	18	5	285.5				
SFEC-OCS	108	С	43.2	11/13/2017	0:13:17	18	5	285.5	IND		No	No
SFEC-OCS	108	D	43.6	11/13/2017	0:14:24	18	5	285.5				
SFEC-OCS	109	Α	43.2	11/13/2017	0:28:16	18	5	285.5	IND		No	No
SFEC-OCS	109	В	43.2	11/13/2017	0:29:32	18	5	285.5				
SFEC-OCS	109	D	43.3	11/13/2017	0:31:51	18	5	285.5				
SFEC-OCS	110	Α	44.8	11/13/2017	0:50:50	18	5	285.5	IND		No	No
SFEC-OCS	110	В	44.9	11/13/2017	0:54:02	18	5	285.5				
SFEC-OCS	110	С	44.9	11/13/2017	0:55:09	18	5	285.5				
SFEC-OCS	111	В	46.9	11/13/2017	1:23:08	18	5	285.5	IND		No	No
SFEC-OCS	111	С	46.8	11/13/2017	1:24:21	18	5	285.5				
SFEC-OCS	111	D	46.8	11/13/2017	1:25:39	18	5	285.5				
SFEC-OCS	112	А	45.2	11/13/2017	1:46:01	18	5	285.5				
SFEC-OCS	112	В	45.4	11/13/2017	1:47:38	18	5	285.5	IND		No	No
SFEC-OCS	112	С	46.2	11/13/2017	1:48:48	18	5	285.5				
SFEC-OCS	113	А	43.9	11/13/2017	2:09:13	18	5	285.5	IND		No	No
SFEC-OCS	113	В	43.4	11/13/2017	2:10:13	18	5	285.5				
SFEC-OCS	113	D	43.4	11/13/2017	2:12:23	18	5	285.5				
SFEC-OCS	114	А	42.7	11/13/2017	2:32:30	18	5	285.5	IND		No	No
SFEC-OCS	114	В	42.4	11/13/2017	2:33:55	18	5	285.5				
SFEC-OCS	114	С	41.8	11/13/2017	2:34:53	18	5	285.5				
SFEC-OCS	115	А	44.8	11/13/2017	2:56:36	18	5	285.5	IND		No	No
SFEC-OCS	115	В	44.3	11/13/2017	2:57:37	18	5	285.5				

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFEC-OCS	115	С	44.5	11/13/2017	2:58:51	18	5	285.5				
SFEC-OCS	116	Α	44.9	11/13/2017	3:21:15	18	5	285.5	IND		No	No
SFEC-OCS	116	С	45.3	11/13/2017	3:23:37	18	5	285.5				
SFEC-OCS	116	D	45.2	11/13/2017	3:24:43	18	5	285.5				
SFEC-OCS	117	Α	47.8	11/13/2017	3:43:38	18	5	285.5	IND		No	No
SFEC-OCS	117	В	48.3	11/13/2017	3:44:56	18	5	285.5				
SFEC-OCS	117	С	47.9	11/13/2017	3:46:20	18	5	285.5				
SFEC-OCS	118	А	48.2	11/13/2017	4:09:02	18	5	285.5	IND	Yes	No	No
SFEC-OCS	118	В	48.5	11/13/2017	4:10:24	18	5	285.5				
SFEC-OCS	118	С	46.5	11/13/2017	4:11:40	18	5	285.5				
SFEC-OCS	119	А	47.0	11/13/2017	4:34:04	18	5	285.5	6.62		No	No
SFEC-OCS	119	В	47.0	11/13/2017	4:35:26	18	5	285.5				
SFEC-OCS	119	С	46.8	11/13/2017	4:36:51	18	5	285.5				
SFEC-OCS	120	Α	45.4	11/13/2017	4:59:48	18	5	285.5	1.56		No	No
SFEC-OCS	120	В	45.4	11/13/2017	5:00:56	18	5	285.5				
SFEC-OCS	120	С	46.3	11/13/2017	5:02:15	18	5	285.5				
SFEC-OCS	121	А	44.2	11/13/2017	5:26:37	18	5	285.5	3.30		No	No
SFEC-OCS	121	В	43.1	11/13/2017	5:28:13	18	5	285.5				
SFEC-OCS	121	D	44.7	11/13/2017	5:30:28	18	5	285.5				
SFEC-OCS	122	А	40.7	11/13/2017	6:08:48	18	5	285.5	IND		No	No
SFEC-OCS	122	В	40.0	11/13/2017	6:09:58	18	5	285.5				

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFEC-OCS	122	С	40.3	11/13/2017	6:11:19	18	5	285.5				
SFEC-OCS	123	А	41.1	11/13/2017	6:33:58	18	5	285.5	IND		No	No
SFEC-OCS	123	В	41.2	11/13/2017	6:35:09	18	5	285.5				
SFEC-OCS	123	D	41.0	11/13/2017	6:37:57	18	5	285.5				
SFEC-OCS	124	А	42.6	11/13/2017	6:57:16	18	5	285.5	IND		No	No
SFEC-OCS	124	В	42.4	11/13/2017	6:58:27	18	5	285.5				
SFEC-OCS	124	С	42.6	11/13/2017	6:59:40	18	5	285.5				
SFEC-OCS	125	А	46.8	11/13/2017	7:21:16	18	5	285.5	0.95		No	No
SFEC-OCS	125	С	46.5	11/13/2017	7:23:41	18	5	285.5				
SFEC-OCS	125	D	47.7	11/13/2017	7:24:50	18	5	285.5				
SFEC-OCS	126	А	41.2	11/13/2017	7:43:53	18	5	285.5	IND		No	No
SFEC-OCS	126	В	41.3	11/13/2017	7:45:07	18	5	285.5				
SFEC-OCS	126	D	41.4	11/13/2017	7:47:56	18	5	285.5				
SFEC-OCS	127	А	40.9	11/13/2017	8:09:49	18	5	285.5	IND		No	No
SFEC-OCS	127	В	41.3	11/13/2017	8:11:06	18	5	285.5				
SFEC-OCS	127	С	40.5	11/13/2017	8:12:36	18	5	285.5				
SFEC-OCS	128	Α	46.6	11/13/2017	8:35:42	18	5	285.5	IND		No	No
SFEC-OCS	128	В	47.4	11/13/2017	8:37:23	18	5	285.5				
SFEC-OCS	128	С	46.4	11/13/2017	8:38:54	18	5	285.5				
SFEC-OCS	129	А	47.8	11/13/2017	9:02:14	18	5	285.5	1.89		No	No
SFEC-OCS	129	В	45.9	11/13/2017	9:03:20	18	5	285.5		_		

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFEC-OCS	129	D	47.1	11/13/2017	9:05:49	18	5	285.5				
SFEC-OCS	130	В	45.5	11/13/2017	9:27:09	18	5	285.5	1.59		No	No
SFEC-OCS	130	С	45.6	11/13/2017	9:28:45	18	5	285.5				
SFEC-OCS	130	D	46.0	11/13/2017	9:30:11	18	5	285.5				
SFEC-OCS	131	В	46.6	11/13/2017	9:49:57	18	5	285.5	1.49		No	No
SFEC-OCS	131	С	45.2	11/13/2017	9:51:13	18	5	285.5				
SFEC-OCS	131	D	44.5	11/13/2017	9:52:28	18	5	285.5				
SFEC-OCS	132	Α	41.0	11/13/2017	10:06:50	18	5	285.5	IND		No	No
SFEC-OCS	132	В	42.1	11/13/2017	10:08:14	18	5	285.5				
SFEC-OCS	132	С	43.3	11/13/2017	10:09:53	18	5	285.5				
SFEC-OCS	133	Α	39.0	11/13/2017	10:42:07	18	5	285.5	IND		No	No
SFEC-OCS	133	В	39.1	11/13/2017	10:43:41	18	5	285.5				
SFEC-OCS	133	D	38.7	11/13/2017	10:46:30	18	5	285.5				
SFEC-OCS	134	Α	36.0	11/13/2017	11:12:02	18	5	285.5	IND		No	No
SFEC-OCS	134	В	35.3	11/13/2017	11:13:33	18	5	285.5				
SFEC-OCS	134	D	35.7	11/13/2017	11:16:06	18	5	285.5				
SFEC-OCS	135	Α	34.0	11/13/2017	11:38:16	18	5	285.5				
SFEC-OCS	135	В	33.8	11/13/2017	11:39:33	18	5	285.5	IND		No	No
SFEC-OCS	135	С	33.9	11/13/2017	11:40:37	18	5	285.5				
SFEC-OCS	136	В	33.3	11/13/2017	12:09:29	18	5	285.5	IND		No	No
SFEC-OCS	136	С	32.9	11/13/2017	12:10:26	18	5	285.5				
SFEC-OCS	136	D	32.4	11/13/2017		18	5	285.5				
SFEC-OCS	137	Α	35.0	11/13/2017	12:35:28	18	5	285.5				
SFEC-OCS	137	В	31.5	11/13/2017		18	5	285.5	IND		No	No
SFEC-OCS	137	С	32.0	11/13/2017		18	5	285.5				
SFEC-OCS	138	А	30.9	11/13/2017			5	285.5	IND		No	No
SFEC-OCS	138	В	31.9	11/13/2017	13:00:04	18	5	285.5				
SFEC-OCS	138	D	32.0	11/13/2017		18	5	285.5				
SFEC-OCS	139	Α	31.5	11/13/2017		18	5	285.5	IND		No	No

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFEC-OCS	139	С	31.4	11/13/2017	13:25:20	18	5	285.5				
SFEC-OCS	139	D	32.2	11/13/2017	13:26:19	18	5	285.5				
SFEC-OCS	140	Α	31.0	11/13/2017	13:53:37	18	5	285.5				
SFEC-OCS	140	В	30.5	11/13/2017	13:54:40	18	5	285.5				
SFEC-OCS	140	С	31.0	11/13/2017	13:55:43	18	5	285.5	2.22		No	No
SFEC-OCS	141	Α	29.9	11/13/2017	14:57:23	18	5	285.5	IND		No	No
SFEC-OCS	141	С	30.4	11/13/2017	14:59:40	18	5	285.5				
SFEC-OCS	141	D	29.8	11/13/2017	15:00:55	18	5	285.5				
SFEC-OCS	142	В	27.9	11/13/2017	17:50:11	18	5	285.5	IND		No	No
SFEC-OCS	142	С	23.1	11/13/2017	17:51:44	18	5	285.5				
SFEC-OCS	142	D	23.2	11/13/2017	17:52:58	18	5	285.5				
SFEC-OCS	146	С	30.2	11/14/2017	15:01:05	18	5	285.5	4.45		No	No
SFEC-OCS	146	E	30.2	11/14/2017	15:02:41	18	5	285.5				
SFEC-OCS	146	F	30.2	11/14/2017	15:03:27	18	5	285.5				
SFEC-OCS	147	Α	30.5	11/14/2017	15:29:11	18	5	285.5	IND		No	No
SFEC-OCS	147	В	30.5	11/14/2017	15:29:51	18	5	285.5				
SFEC-OCS	147	С	30.5	11/14/2017	15:30:46	18	5	285.5				
SFEC-OCS	148	Α	29.7	11/14/2017	15:53:42	18	5	285.5	IND		No	No
SFEC-OCS	148	В	29.7	11/14/2017	15:54:56	18	5	285.5				
SFEC-OCS	148	С	29.7	11/14/2017	15:56:10	18	5	285.5				
SFEC-OCS	149	Α	28.8	11/14/2017	16:19:36	18	5	285.5	IND		No	No
SFEC-OCS	149	В	28.8	11/14/2017	16:20:31	18	5	285.5				
SFEC-OCS	149	С	28.8	11/14/2017	16:21:24	18	5	285.5				
SFEC-OCS	150	А	30.9	11/14/2017	16:43:57	18	5	285.5	1.20		No	No
SFEC-OCS	150	В	30.9	11/14/2017	16:45:02	18	5	285.5				
SFEC-OCS	150	С	30.9	11/14/2017	16:46:09	18	5	285.5				
SFEC-OCS	151	В	31.3	11/14/2017	17:12:49	18	5	285.5	IND		No	No
SFEC-OCS	151	С	31.3	11/14/2017	17:13:53	18	5	285.5				
SFEC-OCS	151	D	31.3	11/14/2017	17:14:58	18	5	285.5				

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFEC-OCS	152	А	31.1	11/14/2017	17:34:35	18	5	285.5	IND		No	No
SFEC-OCS	152	В	31.1	11/14/2017	17:35:39	18	5	285.5				
SFEC-OCS	152	С	31.1	11/14/2017	17:36:54	18	5	285.5				
SFEC-OCS	153	Α	30.7	11/14/2017	18:00:08	18	5	285.5	1.84		No	No
SFEC-OCS	153	В	30.7	11/14/2017	18:01:24	18	5	285.5				
SFEC-OCS	153	С	30.7	11/14/2017	18:02:31	18	5	285.5				
SFEC-OCS	154	А	30.5	11/14/2017	18:23:59	18	5	285.5	1.66		No	No
SFEC-OCS	154	В	30.5	11/14/2017	18:25:08	18	5	285.5				
SFEC-OCS	154	С	30.5	11/14/2017	18:26:11	18	5	285.5				
SFEC-OCS	155	А	31.6	11/14/2017	18:49:10	18	5	285.5	1.78		No	No
SFEC-OCS	155	В	31.6	11/14/2017	18:50:11	18	5	285.5				
SFEC-OCS	155	С	31.6	11/14/2017	18:51:09	18	5	285.5				
SFEC-OCS	156	В	31.5	11/14/2017	19:15:41	18	5	285.5	IND		No	No
SFEC-OCS	156	С	31.5	11/14/2017	19:16:45	18	5	285.5				
SFEC-OCS	156	D	31.5	11/14/2017	19:17:52	18	5	285.5				
SFEC-OCS	157	А	29.9	11/14/2017	19:36:26	18	5	285.5	IND		No	No
SFEC-OCS	157	В	29.9	11/14/2017	19:37:29	18	5	285.5				
SFEC-OCS	157	С	29.9	11/14/2017	19:38:31	18	5	285.5				
SFEC-NYS	143	А	26.0	11/13/2017	15:42:32	18	5	285.5				
SFEC-NYS	143	В	26.3	11/13/2017	15:44:01	18	5	285.5				
SFEC-NYS	143	С	26.2	11/13/2017	15:45:07	18	5	285.5	2.58		No	No

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	Low DO Present?
SFEC-NYS	144	А	22.3	11/13/2017	17:03:39	18	5	285.5	2.82		No	No
SFEC-NYS	144	В	22.5	11/13/2017	17:04:59	18	5	285.5				
SFEC-NYS	144	С	22.8	11/13/2017	17:06:17	18	5	285.5				
SFEC-NYS	145	Α	17.3	11/13/2017	16:27:27	18	5	285.5	IND		No	No
SFEC-NYS	145	В	17.3	11/13/2017	16:28:34	18	5	285.5				
SFEC-NYS	145	С	16.8	11/13/2017	16:29:43	18	5	285.5				
SFEC-NYS	158	А	24.8	11/14/2017	20:03:46	18	5	285.5	IND		No	No
SFEC-NYS	158	В	24.8	11/14/2017	20:04:46	18	5	285.5				
SFEC-NYS	158	С	24.8	11/14/2017	20:05:56	18	5	285.5				
SFEC-NYS	159	А	21.1	11/14/2017	20:31:15	18	5	285.5	2.46		No	No
SFEC-NYS	159	В	21.1	11/14/2017	20:32:16	18	5	285.5				
SFEC-NYS	159	D	21.1	11/14/2017	20:34:17	18	5	285.5				
SFEC-NYS	160	Α	16.1	11/14/2017	20:52:17	18	5	285.5	IND		No	No
SFEC-NYS	160	В	16.1	11/14/2017	20:53:17	18	5	285.5				
SFEC-NYS	160	С	16.1	11/14/2017	20:54:13	18	5	285.5				
Reference	C03	А	35.2	11/15/2017	16:19:51	18	5	285.5	IND		No	No
Reference	C03	В	35.5	11/15/2017	16:21:13	18	5	285.5	2.73		No	No
Reference	C03	С	35.5	11/15/2017	16:22:17	18	5	285.5	IND		No	No
Reference	C03	D	35.3	11/15/2017	16:23:17	18	5	285.5	IND		No	No
Reference	C03	Е	35.6	11/15/2017	16:24:30	18	5	285.5	IND		No	No
Reference	C04	А	36.2	11/15/2017	15:49:48	18	5	285.5	IND		No	No
Reference	C04	В	36.5	11/15/2017	15:50:50	18	5	285.5	IND		No	No
Reference	C04	С	37.6	11/15/2017	15:52:00	18	5	285.5	IND		No	No

Area	Station ID	Replicate	Water Depth (ft)	Date	Time	Stop Collar Setting (in)	# of Weights (per side)	Image Width (cm)	aRPD Mean (cm)	aRPD > Pen?	Methane Present?	
Reference	C04	D	36.5	11/15/2017	15:53:11	18	5	285.5	IND		No	No
Reference	C04	E	36.1	11/15/2017	15:54:20	18	5	285.5	IND		No	No
Reference	C05	А	35.2	11/15/2017	15:17:54	18	5	285.5	IND		No	No
Reference	C05	В	36.4	11/15/2017	15:19:27	18	5	285.5	IND		No	No
Reference	C05	С	32.5	11/15/2017	15:20:42	18	5	285.5	IND		No	No
Reference	C05	D	34.9	11/15/2017	15:21:54	18	5	285.5	IND		No	No
Reference	C05	Е	35.9	11/15/2017	15:23:07	18	5	285.5	IND		No	No

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	1	А	Low	No	No		No		None	None		IND
SFWF	1	В	Low	No	No		No		None	None		IND
SFWF	1	С	Low	No	No		No		None	None		IND
SFWF	2	А	Low	No	No		No		Tubes	None		2
SFWF	2	В										
SFWF	2	С										
SFWF	3	А										
SFWF	3	В	Low	No	No		No		Tubes	None		2
SFWF	3	С										
SFWF	4	А										
SFWF	4	В										
SFWF	4	С	Low	No	No		No		Tubes	None		2
SFWF	5	А	Low	No	No		No		Tubes	None		2
SFWF	5	В										
SFWF	5	С										
SFWF	6	А										
SFWF	6	С										
SFWF	6	D	Low	No	No		No		None	None		2 -> 3

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	7	В	None	No	No		No		None	Barnacles, Hydroids		IND
SFWF	7	С	None	No	No		No		None	IND		IND
SFWF	7	D	None	No	No		No		None	Barnacles, Hydroids		IND
SFWF	8	Α	Low	No	No		No		None	None		2
SFWF	8	В										
SFWF	8	С										
SFWF	9	А	Low	No	No		No		Tubes	None		2
SFWF	9	В										
SFWF	9	С										
SFWF	10	А										
SFWF	10	В										
SFWF	10	С	Low	No	No		No		Tubes	None		2
SFWF	11	А	Low	No	No		No		Tubes	None		2
SFWF	11	В										
SFWF	11	С										
SFWF	12	А	Medium	No	No		No		Polychaete(s), Tubes	None		2
SFWF	12	С										
SFWF	12	D										

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	13	Α	Low	No	No		No		None	None		1 -> 2
SFWF	13	В										
SFWF	13	С										
SFWF	14	А	Medium	No	No		No		None	None		2
SFWF	14	В										
SFWF	14	С										
SFWF	15	А	High	No	No		No		Polychaete(s), Tubes	None		2
SFWF	15	В										
SFWF	15	С										
SFWF	16	В	None	No	No		No		Polychaete(s)	None		IND
SFWF	16	С										
SFWF	16	D										
SFWF	17	А	Low	No	No		No		None	None		IND
SFWF	17	В										
SFWF	17	C										
SFWF	18	А	Low	No	No		No		Tubes	Barnacles, Hydroids		IND
SFWF	18	В	Low	No	No		No		Tubes	Hydroids		IND

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	18	D	Low	No	No		No		Tubes	Hydroids, Tubes		IND
SFWF	19	А	Low	No	No		No		None	None		IND
SFWF	19	В										
SFWF	19	С										
SFWF	20	Α	Low	No	No		No		Tubes	None		1
SFWF	20	С										
SFWF	20	D										
SFWF	21	А										
SFWF	21	В	Low	No	No		No		Tubes	None		IND
SFWF	21	D										
SFWF	22	Α	Low	No	No		No		Tubes	None		IND
SFWF	22	В										
SFWF	22	С										
SFWF	23	Α	Low	No	No		No		Tubes	None		IND
SFWF	23	С	Low	No	No		No		Tubes	None		IND
SFWF	23	D	Low	No	No		No		Tubes	Hydroids		IND
SFWF	24	Α	Low	No	No		No		Tubes	None		2
SFWF	24	В										
SFWF	24	С										
SFWF	25	А	Low	No	No		No		None	None		IND
SFWF	25	В										
SFWF	25	С										
SFWF	26	А										

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	26	В										
SFWF	26	С	Low	No	No		No		Tubes	None		2
SFWF	27	А	Low	No	No		No		Tubes	None		2
SFWF	27	В										
SFWF	27	С										
SFWF	28	А	Low	No	No		No		Tubes	None		IND
SFWF	28	В										
SFWF	28	С										
SFWF	29	А	Low	No	No		No		Tubes	None		IND
SFWF	29	В										
SFWF	29	D										
SFWF	30	А										
SFWF	30	В										
SFWF	30	С	Medium	No	No		No		None	None		IND
SFWF	31	Α										
SFWF	31	В	Medium	No	No		No		None	None		IND
SFWF	31	D										
SFWF	32	А	Low	No	No		No		Tubes	None		2
SFWF	32	В										

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	32	С										
SFWF	33	А										
SFWF	33	С	Low	No	No		No		None	None		IND
SFWF	33	D										
SFWF	34	Α	Low	No	No		No		Tubes	None		2
SFWF	34	В	Low	No	No		No		None	None		IND
SFWF	34	D	Low	No	No		No		None	None		IND
SFWF	35	Α										
SFWF	35	В	Low	No	No		No		Tubes	None		IND
SFWF	35	С										
SFWF	36	А	Low	No	No		No		Tubes	Barnacles, Hydroids		IND
SFWF	36	В	Low	No	No		No		Tubes	None		2
SFWF	36	D	Low	No	No		No		None	Barnacles, Hydroids		IND
SFWF	37	Α	Low	No	No		No		Tubes	None		2
SFWF	37	В										
SFWF	37	С										
SFWF	38	Α	Low	No	No		No		None	None		IND
SFWF	38	В										
SFWF SFWF	38 39	D A	IND	No	No		No		None	Barnacles, Hydroids		IND
SFWF	39	С	Low	No	No		No		None	None		IND
SFWF	39	D	Low	No	No		No		None	None		IND

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	40	Α	Low	No	No		No		None	None		IND
SFWF	40	В										
SFWF	40	С										
SFWF	41	А	Low	No	No		No		Tubes	None		2
SFWF	41	В										
SFWF	41	С										
SFWF	42	Α	Low	No	No		No		None	None		IND
SFWF	42	В										
SFWF	42	С										
SFWF	43	А	Low	No	No		No		Tubes	None		2
SFWF	43	В										
SFWF	43	С										
SFWF	44	В										
SFWF	44	С	Low	No	No		No		Tubes	None		2
SFWF	44	D										
SFWF	45	В	Low	No	No		No		Tubes	None		2
SFWF	45	С										
SFWF	45	D										
SFWF	46	В	Low	No	No		No		None	None		1
SFWF	46	С										
SFWF	46	D										
SFWF	47	Α	Low	No	No		No		None	None		IND
SFWF	47	В										

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	47	С										
SFWF	48	А	Low	No	No		No		None	None		IND
SFWF	48	В										
SFWF	48	С										
SFWF	49	Α	Low	No	No		No		Tubes	None		2
SFWF	49	В										
SFWF	49	С										
SFWF	50	Α	Low	No	No		No		None	None		IND
SFWF	50	С										
SFWF	50	D										
SFWF	51	А	Low	No	No		No		None	None		IND
SFWF	51	В										
SFWF	51	D										
SFWF	52	Α	Low	No	No		No		None	None		IND
SFWF	52	В										
SFWF	52	С										
SFWF	53	Α	Low	No	No		No		None	None		1
SFWF	53	В										
SFWF	53	С										
SFWF	54	Α	Low	No	No		No		None	None		IND
SFWF	54	В	Low	No	No		No		None	None		2
SFWF	54	С	Low	No	No		No		None	None		2
SFWF	55	А	Low	No	No		No		None	None		IND

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	55	В										
SFWF	55	С										
SFWF	56	А										
SFWF	56	В	Low	No	No		No		None	None		IND
SFWF	56	D										
SFWF	57	Α	Low	No	No		No		None	None		IND
SFWF	57	С	IND	No	No		No		None	None		IND
SFWF	57	D	Low	No	No		No		None	None		IND
SFWF	58	Α	Low	No	No		No		None	None		IND
SFWF	58	С										
SFWF	58	D										
SFWF	59	А	Low	No	No		No		None	None		IND
SFWF	59	В										
SFWF	59	С										
SFWF	60	Α	IND	No	No		No		None	None		IND
SFWF	60	В										
SFWF	60	С										
SFWF	61	Α	IND	No	No		No		Tubes	None		1
SFWF	61	В	IND	No	No		No		None	None		1 -> 2
SFWF	61	С	IND	No	No		No		None	Barnacles		IND
SFWF	62	Α	IND	No	No		No		Tubes	None		2
SFWF	62	В	IND	No	No		No		Tubes	None		2
SFWF	62	С	IND	No	No		No		None	None		1
SFWF	63	В	IND	No	No		No		None	None		IND
SFWF	63	С	Low	No	No		No		None	Tubes		1
SFWF	63	D	Low	No	No		No		None	None		IND
SFWF	64	Α	Low	No	No		No		None	None		IND
SFWF	64	В	Low	No	No		No		Tubes	None		1
SFWF	64	D	Low	No	No		No		None	None		IND
SFWF	65	Α										
SFWF	65	В										

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	65	С	Low	No	No		No		None	None		IND
SFWF	66	В	Low	No	No		No		Unidentified infauna	None		IND
SFWF	66	С	Low	No	No		No		None	None		IND
SFWF	66	D	Low	No	No		No		None	None		1
SFWF	67	В	Low	No	No		No		None	None		IND
SFWF	67	С										
SFWF	67	D										
SFWF	68	А	Low	No	No		No		None	None		1
SFWF	68	В	IND	No	No		No		None	Barnacles, Hydroids, Tubes		IND
SFWF	68	D	Low	No	No		No		None	None		IND
SFWF	69	Α	Low	No	No		No		None	None		IND
SFWF	69	В										
SFWF	69	С										
SFWF	70	Α	IND	No	No		No		None	None		IND
SFWF	70	В	IND	No	No		No		None	Barnacles, Hydroids		IND
SFWF	70	D	Low	No	No		No		None	None		IND
SFWF	71	Α	Low	No	No		No		None	None		IND
SFWF	71	В										
SFWF	71	С										
SFWF	72	А	Low	No	No		No		None	None		1
SFWF	72	В										

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	72	С										
SFWF	73	Α	Low	No	No		No		None	None		IND
SFWF	73	В										
SFWF	73	С										
SFWF	74	Α										
SFWF	74	С										
SFWF	74	D	Low	No	No		No		None	None		IND
SFWF	75	Α	Low	No	No		No		None	None		IND
SFWF	75	В										
SFWF	75	D										
SFWF	76	А	Low	No	No		No		None	None		IND
SFWF	76	В										
SFWF	76	D										
SFWF	201	А	Low	No	No		No		None	None	0	IND
SFWF	201	В	Low	No	No		No		Tubes	Bryozoan	0	2
SFWF	201	С	Low	No	No		No		Tubes	None	0	2
SFWF	202	А	Low	No	No		No		Polychaete, Tubes	None	0	2 -> 3
SFWF	202	В	Low	No	No		No		Bivalves, Polychaete	None	1	2 on 3
SFWF	202	С	Low	No	No		No		Polychaetes, Tubes	None	0	2

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	203	В	Low	No	No		No		None	None	0	IND
SFWF	203	С	Low	No	No		No		None	None	0	IND
SFWF	203	D	Low	No	No		No		None	Shrimp	0	IND
SFWF	204	А	IND	No	No		No		IND	Bryozoans, barnacles		IND
SFWF	204	В	IND	No	No		No		IND	Bryozoans, barnacles		IND
SFWF	204	С	IND	No	No		No		IND	Barnacles		IND
SFWF	205	А	Low	No	No		No		None	Corymorpha (hydroid), amphipod	0	2
SFWF	205	В	Low	No	No		No		None	None	1	IND
SFWF	205	С	Low	No	No		No		None	Corymorpha (hydroid)	0	IND
SFWF	206	Α	Low	No	No		No		None	None	0	IND
SFWF	206	С	Low	No	No		No		Tubes	Barnacles, bryozoans	0	2
SFWF	206	D	Low	No	No		No		Tubes	None	0	2
SFWF	207	А	Low	No	No		No		Tubes	None	0	2
SFWF	207	В	Low	No	No		No		IND	None	0	IND
SFWF	207	С	Low	No	No		No		None	None	1	IND
SFWF	208	А	Low	No	No		No		Tubes	None	0	2
SFWF	208	В	Low	No	No		No		None	None	0	IND
SFWF	208	С	Low	No	No		No		None	None	0	IND

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	209	В	Low	No	No		No		Tubes	None	0	2
SFWF	209	С	Low	No	No		No		Tubes	None	0	2
SFWF	209	D	Low	No	No		No		None	None	0	IND
SFWF	210	А	Low	No	No		No		None	None	0	IND
SFWF	210	В	Low	No	No		No		Tubes	None	0	2
SFWF	210	С	Low	No	No		No		None	None	0	IND
SFWF	211	А	Low	No	No		No		None	None	0	IND
SFWF	211	В	Low	No	No		No		None	None	0	IND
SFWF	211	С	Low	No	No		No		None	None	0	IND
SFWF	212	А	Low	No	No		No		None	None	0	IND
SFWF	212	С	Low	No	No		No		Tubes	None	0	2
SFWF	212	D	Low	No	No		No		None	None	0	IND
SFWF	213	А	IND	No	No		No		IND	None		IND
SFWF	213	В	Low	No	No		No		None	None	0	IND
SFWF	213	С	IND	No	No		No		IND	IND		IND
SFWF	214	В	Low	No	No		No		None	None	0	IND
SFWF	214	С	Low	No	No		No		IND	None	0	IND
SFWF	214	D	Low	No	No		No		None	None	0	IND

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	215	А	Low	No	No		No		None	None	0	IND
SFWF	215	В	Low	No	No		No		None	None	0	IND
SFWF	215	С	Low	No	No		No		None	None	0	IND
SFWF	216	Α	Low	No	No		No		None	None	0	IND
SFWF	216	В	Low	No	No		No		None	None	0	IND
SFWF	216	С	Low	No	No		No		None	None	0	IND
SFWF	217	А	Low	No	No		No		Polychaete	None	0	2
SFWF	217	С	Low	No	No		No		None	None	0	IND
SFWF	217	D	Low	No	No		No		None	None	0	IND
SFWF	218	Α	Low	No	No		No		None	None	0	IND
SFWF	218	В	Low	No	No		No		None	None	0	IND
SFWF	218	С	Low	No	No		No		None	None	0	IND
SFWF	219	Α	Low	No	No		No		IND	None	1	1
SFWF	219	В	Low	No	No		No		None	None	0	1
SFWF	219	С	Low	No	No		No		None	Hydroid	0	IND
SFWF	220	А	Low	No	No		No		None	None	0	IND
SFWF	220	В	Low	No	No		No		None	None	0	IND
SFWF	C01	Α	Low	No	No		No		None	None		IND
SFWF	C01	В	Low	No	No		No		None	None		IND
SFWF	C01	С	Low	No	No		No		None	None		1
SFWF	C01	D	Low	No	No		No		None	None		IND
SFWF	C01	Е	Medium	No	No		No		None	None		IND
SFWF	C02	Α	Low	No	No		No		Tubes	None		1

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFWF	C02	В	Low	No	No		No		Tubes	None		2
SFWF	C02	С	Low	No	No		No		None	None		IND
SFWF	C02	E	Low	No	No		No		None	None		IND
SFWF	C02	F	Low	No	No		No		Tubes	None		2
SFEC-OCS	101	Α	Low	No	No		No		None	Bryozoans, Hydroids		IND
SFEC-OCS	101	С	Low	No	No		No		None	Hydroids, Tubes		IND
SFEC-OCS	101	D	IND	No	No		No		None	None		IND
SFEC-OCS	102	Α	Low	No	No		No		Tubes	None		2
SFEC-OCS	102	В	IND	No	No		No		Tubes	None		2
SFEC-OCS	102	D	IND	No	No		No		None	Barnacles, Hydroids		IND
SFEC-OCS	103	Α										
SFEC-OCS	103	В										
SFEC-OCS	103	D	Medium	No	No		No		Tubes	None		2
SFEC-OCS	104	Α	Low	No	No		No		None	Gastropods		1 -> 2
SFEC-OCS	104	В	IND	No	No		No		None	None		IND
SFEC-OCS	104	D	Low	No	No		No		Tubes	Crab		1 -> 2
SFEC-OCS	105	Α	Low	No	No		No		None	None		IND
SFEC-OCS	105	В										
SFEC-OCS	105	С										
SFEC-OCS	106	Α	Low	No	No		No		None	None		IND
SFEC-OCS	106	В										
SFEC-OCS	106	С										
SFEC-OCS	107	Α										
SFEC-OCS	107	В	Low	No	No		No		None	None		IND
SFEC-OCS	107	С										

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFEC-OCS	108	Α										
SFEC-OCS	108	С	Low	No	No		No		Tubes	None		1
SFEC-OCS	108	D										
SFEC-OCS	109	Α	Low	No	No		No		None	None		1
SFEC-OCS	109	В										
SFEC-OCS	109	D										
SFEC-OCS	110	Α	Low	No	No		No		None	None		2
SFEC-OCS	110	В										
SFEC-OCS	110	С										
SFEC-OCS	111	В	Low	No	No		No		None	None		1
SFEC-OCS	111	С										
SFEC-OCS	111	D										
SFEC-OCS	112	Α										
SFEC-OCS	112	В	Low	No	No		No		None	None		IND
SFEC-OCS	112	С										
SFEC-OCS	113	А	Low	No	No		No		Polychaete(s)	Sand Dollar		3
SFEC-OCS	113	В										
SFEC-OCS	113	D										
SFEC-OCS	114	А	Low	No	No		No		Tubes	None		2
SFEC-OCS	114	В										
SFEC-OCS	114	С										
SFEC-OCS	115	А	Low	No	No		No		Tubes	None		IND
SFEC-OCS	115	В										

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFEC-OCS	115	С										
SFEC-OCS	116	Α	Low	No	No		No		None	None		IND
SFEC-OCS	116	С										
SFEC-OCS	116	D										
SFEC-OCS	117	Α	Low	No	No		No		Unidentified Organism	None		IND
SFEC-OCS	117	В										
SFEC-OCS	117	С										
SFEC-OCS	118	А	Low	No	No		No		Tubes	None		2
SFEC-OCS	118	В										
SFEC-OCS	118	С										
SFEC-OCS	119	А	Low	No	No		No		None	None		2
SFEC-OCS	119	В										
SFEC-OCS	119	С										
SFEC-OCS	120	Α	Low	No	No		No		Tubes	None		2
SFEC-OCS	120	В										
SFEC-OCS	120	С										
SFEC-OCS	121	А	Low	No	No		No		Tubes	None		2
SFEC-OCS	121	В										
SFEC-OCS	121	D										
SFEC-OCS	122	А	Low	No	No		No		Tubes	Sand Dollar		2
SFEC-OCS	122	В										

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFEC-OCS	122	С										
SFEC-OCS	123	А	Low	No	No		No		None	None		IND
SFEC-OCS	123	В										
SFEC-OCS	123	D										
SFEC-OCS	124	А	Low	No	No		No		Tubes	None		2
SFEC-OCS	124	В										
SFEC-OCS	124	С										
SFEC-OCS	125	Α	Medium	No	No		No		Tubes	Sand Dollar		2
SFEC-OCS	125	С										
SFEC-OCS	125	D										
SFEC-OCS	126	А	Low	No	No		No		None	Sand Dollar		IND
SFEC-OCS	126	В										
SFEC-OCS	126	D										
SFEC-OCS	127	Α	Low	No	No		No		None	Shrimp		IND
SFEC-OCS	127	В										
SFEC-OCS	127	С										
SFEC-OCS	128	Α	Low	No	No		No		Tubes	None		2
SFEC-OCS	128	В										
SFEC-OCS	128	С										
SFEC-OCS	129	А	Medium	No	No		No		Polychaete(s), Tubes	None		2 on 3
SFEC-OCS	129	В										

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFEC-OCS	129	D										
SFEC-OCS	130	В	Medium	No	No		No		Tubes	None		2
SFEC-OCS	130	С										
SFEC-OCS	130	D										
SFEC-OCS	131	В	Low	No	No		No		Tubes	None		2
SFEC-OCS	131	С										
SFEC-OCS	131	D										
SFEC-OCS	132	Α	Low	No	No		No		None	None		2
SFEC-OCS	132	В										
SFEC-OCS	132	С										
SFEC-OCS	133	Α	Low	No	No		No		None	None		IND
SFEC-OCS	133	В										
SFEC-OCS	133	D										
SFEC-OCS	134	Α	Low	No	No		No		None	None		IND
SFEC-OCS	134	В										
SFEC-OCS	134	D										
SFEC-OCS	135	Α										
SFEC-OCS	135	В	Low	No	No		No		None	None		IND
SFEC-OCS	135	С										
SFEC-OCS	136	В	Low	No	No		No		Tubes	None		2
SFEC-OCS	136	С										
SFEC-OCS	136	D										
SFEC-OCS	137	Α										
SFEC-OCS	137	В	Low	No	No		No		None	None		IND
SFEC-OCS	137	С										
SFEC-OCS	138	Α	Low	No	No		No		None	Sand Dollar		2
SFEC-OCS	138	В										
SFEC-OCS	138	D										
SFEC-OCS	139	Α	Low	No	No		No		None	Sand Dollar		IND

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFEC-OCS	139	С										
SFEC-OCS	139	D										
SFEC-OCS	140	Α										
SFEC-OCS	140	В										
SFEC-OCS	140	С	Low	No	No		No		Polychaete(s)	Sand Dollar		2
SFEC-OCS	141	Α	Low	No	No		No		None	None		IND
SFEC-OCS	141	С										
SFEC-OCS	141	D										
SFEC-OCS	142	В	Low	No	No		No		Tubes	Gastropod		2
SFEC-OCS	142	С										
SFEC-OCS	142	D										
SFEC-OCS	146	С	Low	No	No		No		None	None		IND
SFEC-OCS	146	E										
SFEC-OCS	146	F										
SFEC-OCS	147	Α	Low	No	No		No		None	None		IND
SFEC-OCS	147	В										
SFEC-OCS	147	С										
SFEC-OCS	148	Α	Low	No	No		No		Tubes	None		2
SFEC-OCS	148	В										
SFEC-OCS	148	С										
SFEC-OCS	149	Α	Low	No	No		No		Tubes	None		1
SFEC-OCS	149	В										
SFEC-OCS	149	С										
SFEC-OCS	150	А	Low	No	No		No		Tubes	None		2
SFEC-OCS	150	В										
SFEC-OCS	150	С										
SFEC-OCS	151	В	Low	No	No		No		None	Limpets		IND
SFEC-OCS	151	С								·		
SFEC-OCS	151	D										

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFEC-OCS	152	Α	Low	No	No		No		None	None		1
SFEC-OCS	152	В										
SFEC-OCS	152	С										
SFEC-OCS	153	Α	Low	No	No		No		Tubes	None		1
SFEC-OCS	153	В										
SFEC-OCS	153	С										
SFEC-OCS	154	Α	Low	No	No		No		Tubes	None		2
SFEC-OCS	154	В										
SFEC-OCS	154	С										
SFEC-OCS	155	Α	Low	No	No		No		Tubes	Sand Dollar		1
SFEC-OCS	155	В										
SFEC-OCS	155	С										
SFEC-OCS	156	В	Medium	No	No		No		Polychaete(s)	Gastropods	1	1 on 3
SFEC-OCS	156	С										
SFEC-OCS	156	D										
SFEC-OCS	157	Α	Low	No	No		No		Tubes	None		IND
SFEC-OCS	157	В										
SFEC-OCS	157	С										
SFEC-NYS	143	А										
SFEC-NYS	143	В										
SFEC-NYS	143	С	Low	No	No		No		None	None		2

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
SFEC-NYS	144	Α	Low	No	No		No		None	None		2
SFEC-NYS	144	В										
SFEC-NYS	144	С										
SFEC-NYS	145	Α	Low	No	No		No		Tubes	None		2
SFEC-NYS	145	В										
SFEC-NYS	145	С										
SFEC-NYS	158	Α	Low	No	No		No		Tubes	None		2
SFEC-NYS	158	В										
SFEC-NYS	158	С										
SFEC-NYS	159	А	Medium	No	No		No		Tubes	None	1	1 on 3
SFEC-NYS	159	В										
SFEC-NYS	159	D										
SFEC-NYS	160	А	Low	No	No		No		None	None		IND
SFEC-NYS	160	В										
SFEC-NYS	160	С										
Reference	C03	Α	Low	No	No		No		Tubes	None		1
Reference	C03	В	Low	No	No		No		Tubes	None		1
Reference	C03	С	Low	No	No		No		Tubes	None		1
Reference	C03	D	Low	No	No		No		Tubes	None		2
Reference	C03	E	Low	No	No		No		None	None		IND
Reference	C04	А	Low	No	No		No		Ampharetid(?)	None		3
Reference	C04	В	Low	No	No		No		Tubes	None		2
Reference	C04	С	Low	No	No		No		Tubes	None		2

Area	Station ID	Replicate	Sediment Oxygen Demand	Beggiatoa Present?	Sensitive Taxa Present?	Sensitive Taxa Type	Invasive Taxa Present?	Invasive Taxa Type	Infauna	Epifauna	# of Feeding Voids	Successional Stage
Reference	C04	D	Low	No	No		No		Tubes	None		1
Reference	C04	Е	Low	No	No		No		Tubes	None		2
Reference	C05	А	Low	No	No		No		Polychaete(s), Tubes	None		2
Reference	C05	В	Low	No	No		No		None	Gastropod, Hydroids		1
Reference	C05	С	Low	No	No		No		None	Barnacles, Hydroids		1
Reference	C05	D	Low	No	No		No		None	None		IND
Reference	C05	E	Low	No	No		No		Tubes	None		1

Area	Station ID	Replicate	Comment
SFWF	1	Α	Multicolored coarse sand appears rippled in long-scale waveform. Thin drape of mud in trough of ripple. No fauna visible. Shallow penetration.
SFWF	1	В	Pale tan medium sand with coarse pebbles at SWI. Small shell fragments at SWI. Two small aggregations of mud to far right of image. Shallow penetration.
SFWF	1	С	Pale tan medium sand with many coarse pebbles, and single cobble at SWI. No fauna visible. Very shallow penetration.
SFWF	2	А	Tan medium sand with very slight change in brightness in upper 2cm of sediment. Stout tubes at SWI. SWI appears modified by bioturbation. Long burrow halos in sediment column.
SFWF	2	В	Tan medium sand with slightly darker burrow halos visible in sediment structure. Few stout tubes at SWI. SWI is slightly rippled and modified by bioturbation. Few small shell fragments. Shallow penetration.
SFWF	2	С	Tan medium sand with slightly darker burrow halos visible in sediment structure. Few short, thin, tubes at SWI. SWI is slightly rippled and modified by bioturbation.
SFWF	3	А	Tan, fine sand with traces of muddy sediment at SWI. Sediment surface is slightly rippled, with burrow depressions visibly modifying sediment in PV pair. Small thin burrow halos in sediment structure.
SFWF	3	В	Tan, fine sand with very slight darkening of sediment in upper ~1cm of sediment column. Dark burrow halos visible in sediment column. Very small tubes visible on sloping sediment surface. Shallow penetration.
SFWF	3	С	Tan, fine sand with subtle darkened burrow halos visible in sediment column, RPD is not apparent. Traces of mud at SWI. SWI is slightly sloped. Small tubes at SWI. Shallow penetration.
SFWF	4	А	Tan medium sand with slightly darker burrow halos visible in sediment structure. Few stout tubes at SWI. SWI is slightly rippled and modified by bioturbation. Shallow penetration.
SFWF	4	В	Tan fine sand with slightly more luminous aRPD in upper ~1cm of sediment. Very slight ripples in sediment surface. Traces of mud at SWI. Small gastropod at SWI.
SFWF	4	С	Tan fine sand with subtle ripple and thin layer of slightly darker sediment in upper ~1cm of sediment. Long burrow halos of darker sediment in sediment column. Few small tubes in farfield.
SFWF	5	А	Tan fine sand with subtle ripples in sediment column. Thin layer of slightly darker sediment in upper ~1cm of sediment. Long burrow halos in sediment. Very small patch of reduced fines in sediment column.
SFWF	5	В	Tan, fine sand with thin, irregular, drape of fines over SWI. Short tubes, nearly flush with sediment surface. Shallow penetration.
SFWF	5	С	Tan fine sand with ripples in SWI. Thin slightly orange-brown layer in ~1cm sediment with long burrows in sediment column. Small patch of reduced sediment in sediment column. Shrimp and small tubes at SWI.
SFWF	6	А	Tan fine sand with ripples in SWI. Slightly darker sediment in upper ~1cm in sediment column. Small clumps of consolidated fines over SWI. Shallow penetration.
SFWF	6	С	Tan, fine sand with ripple in sediment surface and slightly orange sediment in upper ~1cm in sediment column. Long burrow halos in sediment column. Short tubes at SWI.
SFWF	6	D	Tan, fine sand, with ~2-3 cm thick layer of slightly darker sediment in upper sediment column. Long burrow haloes in sediment column. Very small tube above burrow halo. Small shell fragment at SWI.

Area	Station ID	Replicate	Comment
SFWF	7	В	Boulder covered with attached hydroids, and barnacles. No penetration.
SFWF	7	С	Silt drape covering coarser underlying sediment. Shell hash and pebbles covering SWI. Small shell with attached organisms near camera prism. No penetration.
SFWF	7	D	Boulder covered with attached hydroids, and barnacles. No penetration.
SFWF	8	А	Tan, fine sand with possible rippling into farfield. Sediment becomes slightly brighter below ~1cm of sediment. No change in grain size throughout image. Slightly darker colored burrows in sediment column. Shallow penetration.
SFWF	8	В	Tan, fine sand with rippling. Slightly darker layer of sediment in upper ~1cm. SWI is studded with stout tubes, nearly flush with SWI. Shallow penetration.
SFWF	8	С	Tan, fine sand with rippling. Slightly darker layer of sediment in upper ~1cm. Long burrow halos visible in sediment column. Very small tubes at SWI. Shallow penetration.
SFWF	9	Α	Tan, fine sand. Trace dragdown of pale gray mud obstructs view of aRPD. Dark brown burrow halos in sediment. SWI is covered with dense assemblage of broken tubes. Shallow penetration.
SFWF	9	В	Tan, fine sand. Trace dark gray silt/clay in lower right corner of image. Dark brown burrow halos in sediment. SWI is covered with assemblage of broken tubes. Shallow penetration.
SFWF	9	С	Tan, fine sand. Trace dark gray silt/clay in lower left corner of image. Dark brown burrow halos in sediment. Small tubes at SWI.
SFWF	10	Α	Tan, fine sand with very thin drape of mud over SWI. Brown burrow halos visible in sediment column. Few small tubes at SWI. Small shell fragments at SWI.
SFWF	10	В	Tan, fine sand with very thin drape of mud over SWI. Brown burrow halos visible in sediment column. Few small tubes at SWI. Small shell fragments at SWI.
SFWF	10	С	Tan, medium sand with slight but ill-defined change in brightness below SWI. Burrow halos visible in sediment column. SWI appears slightly rippled, with short tubes at SWI.
SFWF	11	Α	Tan, medium sand with slight but ill-defined change in brightness below SWI. Burrow halos visible in sediment column. SWI appears rippled, with short tubes and shell fragments at SWI.
SFWF	11	В	Tan, fine sand with traces of mud draped on SWI. Slight color change in upper ~1cm of sediment. Vague burrow halos visible in sediment column.
SFWF	11	С	Tan, fine sand with slight bulge in center of image. Many tubes over SWI.
SFWF	12	А	Tan, silt/clay in upper ~1cm over near black silt/clay. Burrow halos visible in sediment column along with infaunal bodies. Very small methane bubble in center of image, ~1.25cm below SWI. Small tubes visible at SWI.
SFWF	12	С	Tan, fine sand over near black silt/clay. Burrow halos visible in sediment column Buried shell fragments in sediment. Short tubes at SWI.
SFWF	12	D	Tan silt/clay over dark gray silt/clay with pocket of pale tan fine sand in center of image. Long burrow halos in sediment structure. Small polychaetes visible in sediment column. Small tubes at SWI.

Area	Station ID	Replicate	Comment
SFWF	13	Α	Tan, fine sand with very slight color change below ~1cm. Slightly rippled sediment surface. Short tubes nearly flush with SWI. Shallow penetration.
SFWF	13	В	Tan medium sand with little to no color change throughout sediment column. Short tubes at SWI with small pellets in view.
SFWF	13	С	Tan, fine sand with trace mud at SWI. Long, thin burrow halos in sediment column. Blurry object in midfield, not identifiable.
SFWF	14	А	Tan fine sand grading into near black fines. Orange-tan burrow halos in sediment column. Small patch of fines at SWI to far left. Shallow penetration.
SFWF	14	В	Tan fine sand with trace fines dragged down from SWI. Long thin burrow halos in sediment column are visible. SWI is slightly hummocked with small tubes at SWI.
SFWF	14	С	Tan silt/clay with slightly orange-brown layer about ~.5cm thick in upper sediment column. Underlying band of fine tan sediment in column. Long burrow halos in sediment column with accompanying polychaetes.
SFWF	15	А	Dark tan silt/clay with thin drape of pale tan silt/clay at SWI, and underlying layer of pale gray silt/clay. Buried horizon of very fine sand near penetration maximum. Deep burrows visible in sediment column with polychaete bodies. Short tubes and pellets at SWI. Deep penetration.
SFWF	15	В	Dark tan silt/clay with thin drape of pale tan silt/clay at SWI, and underlying layer of pale gray silt/clay. Buried horizon of very fine sand near penetration maximum. Deep burrows visible in sediment column with polychaete bodies. Long column of pale tan fines streaking vertically through sediment column. Short tubes and pellets at SWI. Deep penetration.
SFWF	15	С	Dark tan silt/clay with thin drape of pale tan silt/clay at SWI, and underlying layer of pale gray silt/clay. Buried horizon of very fine sand near penetration maximum. Deep burrows visible in sediment column with polychaete bodies. Short tubes and pellets at SWI. Deep penetration.
SFWF	16	В	Sub-rounded to sub-angular well sorted very coarse sand. Scant fines at SWI and buried in sediment column. Sediment is rippled.
SFWF	16	С	Sub-rounded to sub-angular well sorted very coarse sand. Scant fines at SWI and buried in sediment column. Sediment surface is rippled with cobble in midfield. Shallow penetration.
SFWF	16	D	Sub-rounded to sub-angular very coarse sand. Fines and rounded pebbles accumulating in ripple troughs. Shallow penetration.
SFWF	17	Α	Pale tan coarse sand with very thin drape of silt/clay over SWI. Trace mud dragged into sediment column. Very little penetration.
SFWF	17	В	Pale tan coarse sand with slight rippling at SWI. No change in color or composition throughout sediment column.
SFWF	17	С	Pale tan coarse sand with slight rippling at SWI. No change in color or composition throughout sediment column.
SFWF	18	А	Pale tan, fine sand with cobbles covering much of SWI. Hydroids and barnacles attached to cobbles. Stage 1 tubes floating in water column. Very shallow penetration.
SFWF	18	В	Pale tan, fine sand with few cobbles and shell fragments at SWI. Hydroids attached to cobbles. Stage 1 tubes floating in water column. No penetration.

Area	Station ID	Replicate	Comment
SFWF	18	D	Pale tan, fine sand with few cobbles at SWI. Barnacles, hydroids and tubes attached to cobbles. Stage 1 tubes floating in water column. Large object (Diopatra tube?) covered with hydroids. No penetration.
SFWF	19	Α	Tan sand grading from very coarse near SWI, to medium near penetration maximum. aRPD is not visible in coarse sediment.
SFWF	19	В	Tan sand grading from very coarse near SWI, to medium near penetration maximum. aRPD is not visible in coarse sediment.
SFWF	19	С	Poorly sorted fines with scant pebbles at SWI, coarse and medium sand sediment column. Shallow penetration.
SFWF	20	Α	Tan coarse sand with long waveform ripple in SWI. Scant mud at SWI with stage 1 tubes.
SFWF	20	С	Tan coarse sand with slightly wavy SWI. Sediment is slightly coarser near SWI than at penetration maximum.
SFWF	20	D	Tan coarse sand with slightly rippled SWI. Sediment is slightly coarser near SWI than at penetration maximum. Short tube at SWI.
SFWF	21	Α	Tan medium sand with slightly undulating SWI. Scant stage 1 tubes at SWI. Shallow penetration.
SFWF	21	В	Tan medium sand with slightly undulating SWI.
SFWF	21	D	Tan medium sand with rippled SWI. Small patch of pale gray sediment ~2.5cm under SWI. Very thin, small, mud patches at SWI. Short tubes on SWI.
SFWF	22	Α	Tan medium sand with trace mud at SWI. Very shallow penetration.
SFWF	22	В	Tan medium sand. Small shell fragments at SWI. Partially buried cobble visible in midfield. Most of image width shows no penetration.
SFWF	22	С	Tan, medium sand with trace mud at SWI. Short tubes in at sediment surface. Very shallow penetration.
SFWF	23	Α	Tan, medium sand with trace mud at SWI. Close to zero penetration.
SFWF	23	С	Tan, medium sand with slightly rippled SWI. Burrow halos barely visible in sediment column. Small tubes at SWI near prism faceplate. Shallow penetration.
SFWF	23	D	Tan, medium sand with trace mud at SWI. Large hydroid covered cobble at right edge of image. Stage 1 tubes in water column. Close to zero penetration.
SFWF	24	Α	Tan, fine sand with trace mud at SWI. Stage 2 tube at SWI, collapsed tubes in farfield Close to zero penetration.
SFWF	24	В	Tan, fine sand with slight rise to right edge of SWI. Slightly darker burrow halos visible in sediment column. aRPD is not visible. Stage 2 tubes visible in mid and farfield.
SFWF	24	С	Tan, fine sand with slightly hummocked SWI. Trace mud at SWI. Stage 2 tubes visible in mid and farfield.
SFWF	25	Α	Tan very coarse sand with underlying patch of medium sand. Sloped SWI indicating a likely long waveform ripple. Two clumps of cemented sand grains at SWI.
SFWF	25	В	Tan, medium sand with thin drape of mud over SWI and dragged into sediment column. SWI rises to right farfield. Shallow penetration.
SFWF	25	С	Tan, medium sand with trace mud at SWI. SWI is slightly rippled. Stage 1 tubes at SWI and in water column. Shallow penetration.
SFWF	26	А	Tan, fine sand with slightly darker sediment near SWI and burrow halos to penetration maximum. Slight rippling to SWI. Possible tubes at SWI. Shallow penetration.

Area	Station ID	Replicate	Comment
SFWF	26	В	Tan, fine sand with slightly darker sediment near SWI and burrow halos to penetration maximum. Slight rippling to SWI. Short tubes at SWI. Shallow penetration.
SFWF	26	С	Tan, fine sand with slightly darker sediment near SWI and burrow halos to penetration maximum. aRPD is not discernable. Slight rippling to SWI. Cluster of collapsed tubes in trough of ripple. Shallow penetration.
SFWF	27	А	Tan, fine sand with thin darker burrow halos and underlying layer of pale gray sediment. Trace mud at SWI with small tubes, especially visible in midfield. Few small shell particles at SWI. Shallow penetration.
SFWF	27	В	Tan, fine sand with slightly darker sediment near SWI, barely visible against underlying sediment. Trace mud at SWI. Small tubes at SWI. Shallow penetration.
SFWF	27	С	Tan, medium sand with no color change throughout sediment column. Short tubes at SWI, trace mud at SWI. SWI sloping slightly to left. Shallow penetration.
SFWF	28	Α	Tan medium sand with trace mud at SWI. Sediment surface is slightly wavy. No color change through sediment column.
SFWF	28	В	Tan, medium sand with small burrow halos in sediment column. SWI is slightly uneven. Stage 1 tubes visible in water column.
SFWF	28	С	Tan, coarse sand with SWI sloping down to the left edge if image. Sediment column grades slightly finer to penetration maximum. Larger sediment particles scant in sediment column. Short, stout tubes at SWI.
SFWF	29	Α	Tan medium sand with trace mud at SWI. Sediment surface slopes down and to left No color change through sediment column. Small tubes at farfield SWI.
SFWF	29	В	Tan coarse sand with no color change through sediment column. Grain size grades slightly finer with depth. SWI is slightly rippled.
SFWF	29	D	Tan coarse sand with no color change through sediment column. Grain size grades slightly finer with depth. SWI slopes to left in large ripple crest. Short tube at SWI.
SFWF	30	Α	Tan coarse sand with no color change through sediment column. Grain size grades slightly finer with depth. SWI is slightly rippled.
SFWF	30	В	Tan coarse sand with no color change through sediment column. Trace mud at SWI. Small shell particles at SWI, SWI is slightly rippled. Shallow penetration.
SFWF	30	С	Rippled tan coarse sand with surface mud deposit dragged down obscuring sand profile. Oxic layer in mud was not measured as an aRPD. Hydroid dragged into fines.
SFWF	31	Α	Pale tan medium sand with thin drape of mud. SWI is slightly rippled. Very shallow penetration.
SFWF	31	В	Pale tan medium sand over dark gray fines. Trace mud at SWI. Color change in sediment column is likely change in grain size, not true aRPD. Small tubes at SWI. Shallow penetration
SFWF	31	D	Pale tan coarse sand over dark gray fines. Color change in sediment column is likely change in grain size, not true aRPD. Small tubes at SWI. Shallow penetration
SFWF	32	А	Tan fine sand with slightly hummocky SWI draped with trace mud. No color change in sediment column. Small tubes visible at SWI. Shallow penetration.
SFWF	32	В	Tan fine sand with rippled SWI and short tubes. Sediment column features slightly darker burrow halos extending to penetration maximum. Shallow penetration.

Area	Station ID	Replicate	Comment
SFWF	32	С	Tan fine sand with slightly hummocky SWI draped with trace mud. No color change in sediment column. Small tubes visible at SWI. Shallow penetration.
SFWF	33	Α	Rippled tan coarse sand with mud deposited in transected ripple trough. Thin oxic layer in mud was not measured as an aRPD.
SFWF	33	С	Tan coarse sand with no color change through sediment column. Long wave-form ripple in sediment surface.
SFWF	33	D	Tan coarse sand with no color change through sediment column. Sloping SWI Stage 1 and 2 tubes visible at SWI.
SFWF	34	А	Tan, fine sand with hummocky SWI. Collapsed tubes at SWI. Trace mud at SWI. Small shell particles at sediment surface. Very shallow penetration.
SFWF	34	В	Tan, medium sand with ripple sloping upwards into farfield. Pebbles and small shell fragments at SWI. Very shallow penetration.
SFWF	34	D	Tan, medium sand with ripple sloping upwards into farfield. Trace mud at SWI. Very shallow penetration.
SFWF	35	Α	Tan, medium sand transecting ripple with no visible sediment to left (trough) side of image. No sediment color change in sediment column. Trace mud in trough of ripple.
SFWF	35	В	Tan, medium sand with darker burrow halos in sediment column. Rounded ripple crest at SWI.
SFWF	35	С	Tan, medium sand with darker burrow halos in sediment column. Slightly rippled SWI. Short tube visible in farfield. Shallow penetration.
SFWF	36	Α	Tan sediment with fines and gravels at SWI. Cobble with attached hydroids and barnacles at SWI. No penetration.
SFWF	36	В	Tan, medium sand with slightly wavy SWI and no color change to penetration. Cobble in farfield and few small pebbles in sediment column. Stage 2 tubes at SWI. Shallow penetration.
SFWF	36	D	Tan sand with small pebbles and cobble at SWI. No penetration.
SFWF	37	А	Tan medium sand with rounded ripples at SWI. Slightly darker color in upper ~1cm of sediment column. Long burrow halos in sediment. Short, stage 2 tubes visible at ripple crest in farfield.
SFWF	37	В	Tan, medium sand with slight ripple at SWI. Very shallow penetration.
SFWF	37	С	Tan, medium sand with very small patch of mud at SWI. No color change in sediment to penetration Very shallow penetration.
SFWF	38	Α	Tan, medium sand with trace mud at SWI. No color change in sediment column to penetration.
SFWF	38	В	Very fine pebbles grading slightly finer near penetration maximum. Slightly sloping SWI.
SFWF	38	D	Coarse sand over medium sand with slightly rippled SWI. Sediment grades finer as penetration depth increases.
SFWF	39	Α	Sandy sediment is visible with single, partially buried, cobble at SWI. No penetration.
SFWF	39	С	Coarse sand with pebbles mixed into sediment structure. Long wave-form ripple in sediment surface. No organisms visible. No color change in sediment.
SFWF	39	D	Coarse sand with long wave-form ripple in sediment. No penetration to right side of image.

Area	Station ID	Replicate	Comment
SFWF	40	А	Tan medium sand with ripples visible into distance. Cobbles and pebbles at SWI and in sediment column. Very little penetration.
SFWF	40	В	Tan medium sand with high concentration of pebbles in sediment column. Few cobbles. Very low penetration.
SFWF	40	С	Tan medium sand with high concentration of pebbles in sediment column. Few cobbles. Very low penetration.
SFWF	41	А	Tan fine sand with barely visible color change around ~1cm below SWI. Slight ripple at SWI. Stage 2 tubes visible at SWI in midfield. Shallow penetration.
SFWF	41	В	Tan fine sand with no color change to penetration maximum. Slight ripple at SWI. Stage 2 tubes are abundant at SWI. Shallow penetration.
SFWF	41	(	Tan fine sand with slight ripple at SWI. No color change to penetration maximum. Small shrimp at SWI. Small collapsed tubes at SWI. Shallow penetration.
SFWF	42	Α	Coarse sand with pebbles. Very shallow penetration.
SFWF	42	В	Pebbles with coarse sand with covering of shell hash No penetration. No fauna visible.
SFWF	42	С	Coarse sand with few pebbles and shell particles. SWI rises to ripple crest in farfield. No penetration.
SFWF	43	Δ	Fine sand with trace mud at SWI. Slightly darkened burrow halos visible in sediment column. Small tubes at SWI. No color change through sediment column.
SFWF	43	В	Tan fine sand with slightly wavy SWI. No change in sediment color/luminosity through sediment column. Small tubes visible at SWI and in water column.
SFWF	43	С	Tan fine sand with slightly rippled SWI. Small burrow halos in sediment column. Small tubes visible at SWI and in water column.
SFWF	44	В	Tan medium sand with slight ripple at SWI. No color change in sediment column. Shallow penetration.
SFWF	44	С	Tan medium sand with possible ripple in sediment surface. Stage 2 tubes visible at SWI.
SFWF	44	D	Tan medium sand with possible ripple in sediment surface. Stage 2 tubes visible at SWI. Subtle color change in upper ~1cm of sediment column.
SFWF	45	В	Tan medium sand with trace mud at SWI. SWI is slightly rippled with prism transecting trough. Small tubes visible at SWI. Few coarser particles at SWI. Shallow penetration.
SFWF	45	С	Tan medium sand with trace mud dragged into sediment column. Stage 1 tubes visible at SWI. Very shallow penetration.
SFWF	45	D	Tan medium sand with small shell fragments at SWI. SWI is slightly wavy. NO color change in sediment column. Small tubes at SWI. Shallow penetration.
SFWF	46	В	Tan, medium sand with sloping SWI. No color change through visible sediment column. Small fecal pellet visible at SWI at right. Small Stage 1 tubes at SWI at center.
SFWF	46	С	Tan coarse sand with slightly sloping SWI. Small clumps of coarse sediment at SWI. No color change in visible sediment column.
SFWF	46	D	Tan coarse sand with slightly rippled SWI. Polychaete visible in sediment column.
SFWF	47	Α	Tan medium sand. Dark burrow halos in sediment column. SWI is rippled, with a strong peak in center of image.
SFWF	47	В	Tan, medium sand with no color change throughout sediment column. Subtle color change marks burrow halos. Small tubes at SWI.

Area	Station ID	Replicate	Comment
SFWF	47	С	Tan, medium sand with trace mud dragged into sediment column. No color change in sediment column. Slight ripple to SWI.
SFWF	48	А	Coarse, poorly sorted sand with sloping ripple to SWI. Sediment column is too coarse to see color change from oxidization.
SFWF	48	В	Pebbles covered with muddy fines. SWI is hummocky. Very shallow penetration.
SFWF	48	С	Tan coarse sand grading slightly finer with depth. Slight slope to SWI. Pebbles visible at SWI. No color change through sediment column.
SFWF	49	Α	Tan fine sand with no discernable color change through visible sediment column. Slight ripple at SWI. Stout stage 2 tubes.
SFWF	49	В	Tan fine sand with no discernable color change through visible sediment column. Long burrow halos visible ins sediment column. Stout stage 2 tubes.
SFWF	49	С	Tan fine sand with long waveform ripple. Short tubes visible at SWI. Shallow penetration.
SFWF	50	Α	Coarse sand with pebbles and trace fines. SWI appears slightly rippled. Very shallow penetration.
SFWF	50	С	Tan fine sand with slightly hummocky SWI. No color change discernable in sediment column. Very shallow penetration.
SFWF	50	D	Tan fine sand with slightly hummocky SWI. No color change discernable in sediment column. Slightly darker burrow halos visible in sediment. Collapsed tubes at SWI. Very shallow penetration.
SFWF	51	А	Tan coarse sand with slightly sloping SWI. Few larger particles in farfield. No color change in sediment column. Shallow penetration.
SFWF	51	В	Pebbles and medium sand with cobbles at SWI. No penetration. No fauna visible.
SFWF	51	D	Pebbles and medium sand with cobbles at SWI. No penetration. No fauna visible.
SFWF	52	Α	Coarse sand with sloping SWI. Few pebbles at SWI. Shallow penetration.
SFWF	52	В	Coarse sand with pebbles and drape of trace mud at SWI. SWI is slightly sloped. Stage 1 organisms visible in water column. Shallow penetration.
SFWF	52	С	Very coarse sand with slightly sloping SWI. Trace mud at SWI. Shallow penetration.
SFWF	53	А	Tan fine sand with no color change through sediment column. Slightly darker burrow halos in sediment column. Stage 1 tubes at SWI. Slightly wavy SWI.
SFWF	53	В	Tan fine sand with no color change through sediment column. Slightly darker burrow halos in sediment column. Stage 2 tubes at SWI. Slightly wavy SWI.
SFWF	53	С	Tan fine sand with slight color change in upper ~1cm sediment column. Slightly darker burrow halos in sediment column. Stage 2 tubes at SWI. Slightly wavy SWI.
SFWF	54	Α	Coarse sand grading to mediums and after upper few cm. SWI is rippled. No fauna visible at SWI. aRPD is not visible.
SFWF	54	В	Fine sand with slightly hummocky SWI. Stage 2 tube visible at sediment surface. Trace mud at SWI. Very shallow penetration.
SFWF	54	С	Fine sand with slightly hummocky SWI. Stage 2 tube visible at sediment surface. Trace mud at SWI. Close to zero penetration.
SFWF	55	А	Very fine pebbles with mud in left side of sediment column and SWI. SWI is slightly sloped. Gastropod shell visible in midfield.

Area	Station ID	Replicate	Comment
SFWF	55	В	Coarse sand with pebbles over medium sand. SWI ripples slightly into farfield. Shallow penetration
SFWF	55	С	Coarse sand with pebbles at SWI and in sediment column. Trace mud at left edge of SWI. Shallow penetration.
SFWF	56	Α	Very fine pebbles with thin drape of fluffy mud at SWI. Large cobble partially buried in sediment column, to left of image. Very shallow penetration.
SFWF	56	В	Very coarse sand with cobbles at SWI. No penetration. No attached fauna.
SFWF	56	D	Pebbles with trace fines. No penetration. No attached fauna.
SFWF	57	Α	Fine sand with large cobbles under sediment surface. Trace mud at SWI. Nearly zero penetration.
SFWF	57	С	Sandy SWI with small cobble in midfield. Trace mud at SWI. No penetration.
SFWF	57	D	Coarse sand with rippled SWI. Very low penetration.
SFWF	58	Α	Coarse sand with long wave-form ripple evident. No color change through sediment column.
SFWF	58	С	Coarse sand with trace mud at SWI. No color change in sediment column. Stage 1 worm visible in water column.
SFWF	58	D	Coarse sand with few small pebbles at SWI. No color change in sediment column. SWI is sloped slightly into midfield.
SFWF	59	А	Very coarse sand grading to medium sand after upper 2-3cm below SWI. Thin drape of mud over SWI. SWI is slightly rippled. Very shallow penetration.
SFWF	59	В	Coarse sand with very thin drape of mud over SWI. Very shallow penetration.
SFWF	59	С	Coarse sand with sloping SWI covered in thin, patchy mud. Stage 1 tubes visible in water column near sediment surface. Shallow penetration.
SFWF	60	Α	Fine sand with trace mu at SWI. No penetration.
SFWF	60	В	Medium sand with trace mud at SWI and dragged into sediment column. SWI is sloping with long wave-form ripple. No change in sediment color or composition through visible sediment column. Shallow penetration.
SFWF	60	С	Medium sand with trace mud at SWI. SWI is sloping with long wave-form ripple. No change in sediment color through visible sediment column. Shallow penetration.
SFWF	61	Α	Fine sand with pebbles and cobbles at SWI. Stage 1 tubes in water column. No penetration. No attached fauna
SFWF	61	В	Fine sand with pebbles at SWI. No penetration. No attached fauna
SFWF	61	С	Cobbles with small attached barnacles. Fine sand in thin drape over cobble layer. No penetration.
SFWF	62	Α	Medium sand with few larger particles. Short tubes at SWI. Shallow penetration.
SFWF	62	В	Medium sand with few larger particles. Short tubes at SWI. No penetration.
SFWF	62	С	Medium and fine sand draped over pebbles and cobbles. No penetration.
SFWF	63	В	Medium and fine sand draped over pebbles and cobbles. No penetration.
SFWF	63	С	Tan medium sand with trace mud at SWI. Large cobble at SWI with attached tubes. Very shallow penetration.
SFWF	63	D	Tan medium sand with few pebbles and cobbles at SWI, likely buried as well. Very shallow penetration.
SFWF	64	Α	Coarse sand with rippled SWI. Trace mud at SWI. Partial penetration.
SFWF	64	В	Coarse sand with rippled SWI. Trace mud at SWI. Stage 1 tube in water column. Partial penetration.
SFWF	64	D	Coarse sand with trace mud at SWI. No significant penetration depth.
SFWF	65	Α	Coarse sand with thin drape of mud over SWI. Short tubes at SWI. Shallow penetration.
SFWF	65	В	Coarse sand with trace mud over SWI. No color change visible in sediment column. Small shell particles at SWI.

Area	Station ID	Replicate	Comment
SFWF	65	С	Coarse sand grading slightly finer after upper few centimeters. No color change visible in sediment column.
SFWF	66	В	Prism has transected ripple trough with medium sand and layer of settled mud. Small organism visible at SWI. Very shallow penetration.
SFWF	66	С	Coarse sand with rippled SWI. Few larger sand grains in sediment column. Sediment is slightly finer near penetration maximum. Trace mud at SWI.
SFWF	66	D	Coarse sand with rippled SWI. Sediment is slightly finer near penetration maximum. Trace mud at SWI. SWI is rippled, with crest visible in nearfield. Stage 1 tubes at SWI.
SFWF	67	В	Coarse sand with trace mud at SWI. SWI is slightly mounded in center of image. Small pebbles at SWI. Shallow penetration.
SFWF	67	С	Coarse sand with sloping SWI. Small bulge in sloping SWI may be biogenic. No color change in sediment column.
SFWF	67	D	Coarse sand with trace mud at SWI. Small tubes at SWI. Sediment surface is slightly rippled into distance. Very shallow penetration.
SFWF	68	А	Poorly sorted sediment containing cobbles, pebbles, sand, and mud grading to mostly fine sand. Drape of fines over SWI. No color change apparent in sediment column. Stage 1 tubes at SWI.
SFWF	68	В	Large boulder covered with thin drape of mud. Tubes, hydroids, and barnacles attached to hard substrate. No penetration.
SFWF	68	D	Tan, fine sand with slight rippling at SWI. Trace mud at SWI. Small objects at SWI may be decaying tubes. Very slight color change in sediment after upper ~1cm. Very shallow penetration.
SFWF	69	Α	Tan coarse sand with thin mud drape over SWI. Sediment surface appears to rise into farfield. No color change in sediment column. Small pebbles at SWI.
SFWF	69	В	Tan coarse sand with ridge in center-left of SWI. No color change visible throughout sediment column.
SFWF	69	С	Tan coarse sand with SWI rising into farfield. No color change visible throughout sediment column.
SFWF	70	Α	Tan slightly uneven SWI with trace mud at SWI. Hard substrate visible under sand. No penetration.
SFWF	70	В	Medium sand and mud at SWI with cobbles visible in mid and farfield. Cobbles are covered with attached hydroids and barnacles. Large shell fragment at SWI. No penetration.
SFWF	70	D	Tan medium sand with rippled SWI. No fauna visible. Very shallow penetration.
SFWF	71	Α	Tan medium sand with coarse sand near SWI. SWI is covered with thin drape of mud. Sediment surface is sloped. No color change in sediment column.
SFWF	71	В	Tan medium sand with coarse sand near SWI. Sediment surface is sloped. No color change in sediment column. Small mud clast at SWI. Stage 1 tubes in water column.
SFWF	71	С	Tan medium sand with coarse sand near SWI. Trace mud at SWO. Sediment surface is sloped. No color change in sediment column. Shallow penetration.
SFWF	72	Α	Pale tan medium sand grading to fine sand near penetration maximum. Thin drape of mud at SWI. Stage 1 tubes visible at SWI. Shallow penetration.
SFWF	72	В	Pale tan medium sand with coarse sediment near SWI. SWI is rippled, sloping to right. No color change through sediment column.

Area	Station ID	Replicate	Comment
SFWF	72	С	Pale tan medium sand with coarse sediment near SWI. SWI is rippled, sloping slightly to left. No color change through sediment column.
SFWF	73	Α	Pale tan medium sand with coarse material near SWI. No color change through sediment column. Slight ripple to SWI.
SFWF	73	В	Pale tan medium sand with coarse material near SWI. No color change through sediment column. Slight ripple to SWI.
SFWF	73	С	Pale tan medium sand with coarse sediment at SWI. Small black particles ins sediment column. No color change throughout sediment column.
SFWF	74	Α	Tan coarse sand with sloping partially penetrated sediment column.
SFWF	74	С	Tan coarse sand with sloping partially penetrated sediment column.
SFWF	74	D	Tan coarse sand with sloping rippled SWI. No color change in sediment column. Small pebbles at SWI.
SFWF	75	Α	Tan coarse sand with slightly wavy SWI. No aRPD visible in coarse sediment.
SFWF	75	В	Tan coarse sand with pebbles at SWI. Sediment surface appears rippled. Small patch of black fines in sediment column. Shallow penetration.
SFWF	75	D	Tan coarse sediment in distinct layer of medium sand. Slight ripple to SWI with sharp ridge. Few short tubes at SWI.
SFWF	76	А	Tan coarse sand over medium sand with trace mud at SWI. Slight slope to sediment column. Short tubes in farfield. Few small shell fragments at SWI.
SFWF	76	В	Tan coarse sand with drape of mud over SWI. Color change in upper ~1cm of fines. Fines are dragged into sediment. Shallow penetration.
SFWF	76	D	Tan coarse sand with sloping SWI. No color change in sediment column. Short tubes are sparse at SWI. Shallow penetration.
SFWF	201	А	Light brown very coarse sand with some very fine multi-colored pebbles, very shallow penetration. Some light yellow and brown coarse and medium pebbles on the surface. Some white shell hash at SWI on left, and buried in center.
SFWF	201	В	Light brown very coarse sand with some very fine multi-colored pebbles. Patch of very reduced black silty sand at very bottom, right.  A light greenish-gray very coarse pebble on far right, surface with a small patch of white encrusting bryozoan. Couple small tubes in far field.
SFWF	201	С	Light brown coarse sand with some darker colored very fine pebbles and small white shell hash. Some voids filled with pebbles in the center. Medium tube in far field, possibly amphipod tube.
SFWF	202	Α	Light brown very fine sand, over dark brown-black silt/sand layer. Reduced layer extends to the surface on far right. Significant resuspension of tubes and fecal material in center. A few dark gray very fine pebbles on right at SWI. Polychaete at depth on right.
SFWF	202	В	Light brown very fine sand/silt, over dark gray silt/sand layer with streaks of very dark black silt/sand. Significant resuspension into the water column. Two small bivalves at SWI, right. Burrow in center with a polychaete visible, just below aRPD. Other small burrows from the surface. Patch of white shell hash at depth, right. Very small void in far left, at depth.
SFWF	202	С	Light brown very fine sand, over dark gray silt/sand layer with streaks of very dark black silt/sand. Numerous burrows with small rusty brown worms extending deep into the reduced layer.

Area	Station ID	Replicate	Comment
SFWF	203	В	Light brownish yellow very coarse sand mixed with multi-colored and dark gray pebbles ranging from fine to very coarse. PV trigger weight on far right at SWI. SWI slopes up to the left with a light gray very coarse pebble at the SWI on far left.
SFWF	203	С	Light brownish-yellow very coarse sand mixed with multi-colored very fine pebbles. Patch of darker gray fine sand at depth, towards the right.
SFWF	203	D	Light brownish-yellow very coarse sand with some multi-colored very fine pebbles. Greenish-gray medium pebble on far left at surface. Small red/transparent shrimp on top of sediment.
SFWF	204	А	No penetration. Gravel with attached bryozoans and white barnacles.
SFWF	204	В	No penetration. Large cobble on left with attached bryozoans and barnacles. White shell fragments throughout sediment surface.
SFWF	204	С	No penetration. Some cobble on surface with possible barnacles attached.
SFWF	205	Δ	Very shallow penetration. Light brownish-yellow very coarse sand mixed with multi-color very fine pebbles. Two orange and black and one white coarse pebbles on the far left. Corymorpha hydroid on sediment surface with a small amphipod on it.
SFWF	205	В	Light yellowish-brown medium sand throughout. SWI slopes up to the right. Some small shallow voids on far left.
SFWF	205	( '	SWI slopes up to the right with coarse multi-colored pebbles on far left and light brownish-yellow fine sand on right. Two large Corymorpha hydroid in distance extending from orange cobble.
SFWF	206	А	Very shallow penetration, with small dip in the center of the SWI. Light brownish-yellow coarse sand. Some resuspension of sediment into the water column. A patch of light grayish-brown silt at the surface, far right.
SFWF	206	С	Very shallow penetration. Light whitish-brown coarse sand. Tube in far field at center, possibly amphipod. Cobble with bryozoans and grazed barnacles in far field at right.
SFWF	206	D	Shallow penetration. Light grayish-brown silt over coarse sand with some medium to coarse pebbles on right. Significant resuspension into the water column. Stage 2 tube, possibly amphipod, in suspension.
SFWF	207	А	Shallow penetration. Light yellowish-brown coarse sand mixed with grayish-brown silt and some multi-colored fine to medium pebbles. Thin medium length tube at right in mid-field; possible tube in far field.
SFWF	207		Multi-colored very coarse sand at surface, transitioning to light yellowish-brown coarse sand at depth. Some resuspension. Vertical patches of light brown silt extending from the surface, center and far left, and at depth left. Possible worm at max penetration on right.
SFWF	207		Shallow penetration. Light brown silt over light yellowish-brown very coarse sand. Some small white shell has on far left, surface. Small void of a type just below SWI at center, not classic feeding void.
SFWF	208	Δ	Light yellowish-brown fine sand. SWI slopes down on left, where some light grayish-brown silt is at surface. Tubes, likely amphipods, in far field. Small burrow at 1cm below SWI at left.
SFWF	208	В	Light yellowish-brown fine sand. SWI dips down on left, center. Some light grayish-brown material, fecal casts?, on surface of sediment on left, center.
SFWF	208	С	Light yellowish-brown fine sand. Ripple in the center of SWI.

Area	Station ID	Replicate	Comment
SFWF	209	В	Light yellowish-brown fine sand, flaser bed of dark gray silt at two separate depths, some silt is smeared by faceplate. SWI slopes up towards the left. Some tubes, likely amphipods, on the surface of sediment in the distance.
SFWF	209	С	Light yellowish-brown fine sand with flaser bed of dark gray silt; sand below is more gray than yellow. Two small vertical streaks of very dark gray reduced sediment on right. Tubes, likely amphipods, in far field at right.
SFWF	209	D	Light brown fine sand is the base sediment - deposition of light brown silt is evident at SWI and upper 2 cm, below that ~2/3 of the image width is a thick gray flaser bed of silt, on the left of the image are multi-colored very fine pebbles and in the final ~3 cm to max penetration is a layer of highly reduced dark gray to black silts. Very small void near base of flaser bed.
SFWF	210	А	Homogenous light yellowish-brown medium sand throughout. Possible short tubes just back from SWI at right (resolution too low to discern) and in far field.
SFWF	210	В	Homogenous light yellowish-brown fine sand with a small patch of light grayish-brown silt at the SWI, left. Numerous tubes, likely amphipods, on the surface in the distance. Possible infauna connected to burrow just left of center; indications of shallow burrowing.
SFWF	210	С	Homogenous very light brownish-yellow fine sand throughout. Some ripples in the SWI in the distance.
SFWF	211	А	Yellowish-brown medium sand transitioning to fine sand fraction at depth. SWI slopes down on the left. White medium pebble half way down sediment column on the right. Small white shell hash on the surface at right.
SFWF	211	В	Yellowish-brown medium sand transitioning to fine sand fraction at depth. SWI slopes up at left with some fine pebbles buried at the surface on the left.
SFWF	211	С	Yellowish-brown medium sand with some patches of light gray silt at the surface. Numerous white fine pebbles/shell hash throughout sediment column and across the surface of the sediment in the distance.
SFWF	212	Α	Light rusty brownish yellow very coarse sand to very fine pebbles transitioning to very coarse sand mixed with fine sand at depth.
SFWF	212	С	Shallow penetration. SWI slopes down on left. Yellowish brown very coarse sand mixed with light tan fine sand. Patches of light grayish brown fine silt on right surface. Small tube casing on surface, right.
SFWF	212	D	Rusty yellowish-brown very coarse sand at surface, mixing with medium to fine sand at depth. SWI slopes up to the right. Light grayish-brown silt throughout sediment column on far left.
SFWF	213	Α	No penetration. Some resuspension. Rusty yellowish-brown and black very coarse pebbles on the surface.
SFWF	213	В	Yellowish-brown coarse to very coarse sand at surface transitioning to light tannish-brown fine sand at depth. SWI slopes up to the left . Some small white and brown shell has on top of sediment.
SFWF	213	С	No penetration. Some resuspension. Sediment surface is not visible. Unidentified, possible worm in lower left.
SFWF	214	В	Yellowish-rusty brown coarse sand transitioning to fine to medium sand at depth. SWI slopes up to the right. Some resuspension.
SFWF	214	С	Yellowish-rusty brown coarse sand transitioning to fine to medium sand at depth. SWI slopes up to the left. Some resuspension.  Darker sand on far right, center.
SFWF	214	D	Yellowish-rusty-brown medium to coarse sand homogenous throughout. A few small pieces of white shell near surface.

Area	Station ID	Replicate	Comment
SFWF	215	Δ	Multi-colored, predominantly light tan with some darker gray granules and very fine pebbles intermixed with coarse sand. SWI slopes up to right.
SFWF	215	В	Yellowish-rusty brown fine pebbles at surface with coarse to medium sand at depth. SWI slopes up to left. A small yellowish-white shell fragment on right at surface. Very small half of a white clam shell just below surface on left.
SFWF	215	С	Poorly sorted light tan coarse sand with fine pebbles of varying colors throughout. Some small white shell fragments.
SFWF	216	Α	Yellowish brown very fine pebbles with some light brown fine sand at depth.
SFWF	216	В	Yellowish brown very fine pebbles mixed with fine to medium sand throughout sediment column. SWI slopes up slightly in the center.
SFWF	216	С	Yellowish-rusty brown very fine pebbles mixed with fine to medium sand homogenous throughout.
SFWF	217	Λ	Rusty light tan coarse sand transitioning to fine sand at depth. Light grayish brown silt/very fine sand on far left extending from surface to depth. Small pale pink worm near bottom on right. Some small fragments of shell near and on top of the surface.
SFWF	217	С	Rusty light tan coarse sand transitioning to fine sand at depth. Some very small shell fragments at SWI.
SFWF	217	D	Light tannish brown coarse sand with some fine to medium sand at depth. SWI slopes up to the right. An orange coarse pebble at SWI on left.
SFWF	218	Α	Well sorted light brown medium sand. SWI slopes up to the right.
SFWF	218	В	Light brown fine sand throughout with some light grayish brown silt on surface in the distance, right.
SFWF	218	С	Very light tan well sorted fine sand throughout sediment column. SWI slopes up to the right. Patches of brown/gray fine silt at surface in far field.
SFWF	219	А	Very light tan well sorted coarse sand throughout sediment column. SWI slopes up to the left. Some sediment in suspension, small tubes in suspension. Void near surface on far left, not classic feeding void shape, possible part of sand tube visible within void.
SFWF	219	В	Light tan well sorted coarse sand throughout shallow penetration. SWI slopes down to the right. A patch of light gray silt/very fine sand on surface on left. Small tubes in suspension.
SFWF	219	С	Light tan coarse sand on right, mixed with multi-colored medium to coarse pebbles on left. SWI slopes up to the right. Reddish orange hydroid extending into the water column on very far left.
SFWF	220	А	Shallow penetration. Light brown medium sand throughout. Some light gray fine sand/silt at SWI center and on surface in the distance.
SFWF	220	В	Light brown medium to fine sand throughout with some light gray silt/very fine sand at SWI and on surface in distance.
SFWF	C01	Α	Fine pebbles with cobbles and sand. Thin drape of fines at SWI. Sloped SWI. Shallow penetration.
SFWF	C01	В	Coarse sand with various sized pebbles. No color change in sediment column. Shallow penetration.
SFWF	C01	С	Coarse sand with small pebbles and thin drape of mud at SWI. Stage 1 tubes in mud drape. No color change in sediment column. Shallow penetration.
SFWF	C01	D	Coarse sand with small pebbles. No color change in sediment column. Possible ripple into farfield. Shallow penetration.
SFWF	C01	E	Very coarse sand and organic fines over pale gray silt/clay. SWI is rippled into farfield. Very shallow penetration.
SFWF	C02	Α	Tan medium sand with slightly darker coloring near SWI and in burrow halos. Short stage 1 tubes scant at SWI.

Area	Station ID	Replicate	Comment
SFWF	C02	В	Tan medium sand with no color change in sediment column. Single stage 2 tube at SWI. Slight ripple at SWI.
SFWF	C02	С	Tan medium sand with patches of slightly darker sediment in sediment column. SWI is rippled slightly with sharp peak. Shallow penetration.
SFWF	C02	E	Tan medium sand with long burrow halo visible in sediment and slight change in color at ~2.5cm below SWI. No fauna visible.
SFWF	C02	F	Tan medium sand with no color change in sediment column. Short tubes at SWI. Shallow penetration.
SFEC-OCS	101	Α	Cobbles with drape of medium sand. Hydroids and bryozoans attached to cobbles. No penetration.
SFEC-OCS	101	С	Cobbles and mediums and with hydroids attached to cobbles. Long tubes visible. No penetration.
SFEC-OCS	101	D	Very coarse sand, pebbles, and medium sand visible at SWI. Trace mud draped over sediment surface. No penetration.
SFEC-OCS	102	Α	Fine tan sand with trace mud over SWI. Sediment surface is slightly hummocky. Thick tube at SWI. Shallow penetration.
SFEC-OCS	102	В	Fine sand with short tubes at SWI. Slight ripple into distance. No penetration.
SFEC-OCS	102	D	Cobbles and coarse pebbles visible at SWI. Few hydroids and bryozoans at SWI. No penetration.
SFEC-OCS	103	Α	Very fine sand with slight wav SWI. Subtle color change in sediment where burrow halos extend to penetration maximum. Short tubes at SWI.
SFEC-OCS	103	В	Very fine sand with slight wav SWI. Subtle color change in sediment where burrow halos extend to penetration maximum. Short tubes at SWI.
SFEC-OCS	103	D	Pale gray silt/clay with pale tan layer about 1cm thick. Small tubes at SWI. Long burrow halos ins sediment column. Small mound at SWI.
SFEC-OCS	104	А	Tan fine sand with trace mud at SWI. Very small tubes and gastropod at SWI. SWI is rippled slightly. Very shallow penetration.
SFEC-OCS	104	В	Tan sand at SWI with mostly buried cobble/boulder in sediment. Trace mud at SWI. No penetration./
SFEC-OCS	104	D	Tan medium sand with slight rippling to SWI. Trace mud at SWI. Small tubes and very small (4mm wide) crab. Shallow penetration.
SFEC-OCS	105	Α	Tan medium sand with trace mud at SWI. Slightly wavy SWI. Very shallow penetration.
SFEC-OCS	105	В	Tan medium sand with trace mud at SWI. Small organism/carapace at SWI appears to be flipped on its back at SWI. Few tubes visible. Shallow penetration
SFEC-OCS	105	С	Tan medium sand with uneven SWI. No color change through visible sediment column. Trace mud at SWI.
SFEC-OCS	106	Α	Tan coarse sand with sloping SWI. No color change in sediment. No fauna visible. Very little penetration.
SFEC-OCS	106	В	Tan coarse sand with trace mud at SWI and dragged into sediment column. SWI is slightly wavy. Shallow penetration.
SFEC-OCS	106	С	Tan coarse sand with trace mud at SWI and dragged into sediment column. SWI is slightly hummocky. Shallow penetration.
SFEC-OCS	107	Α	Poorly sorted very coarse sand with mud drape and pebbles. Very shallow penetration.
SFEC-OCS	107	В	Angular very coarse sand to penetration. Trace ,mud at SWI. Sediment surface rises in farfield.
SFEC-OCS	107	С	Very coarse sand with band of coarse sand in center of visible penetration area. SWI forms crest of ripple. Few pebbles at SWI.

Area	Station ID	Replicate	Comment
SFEC-OCS	108	Α	Tan coarse sand with rippled SWI and trace mud. Very little penetration.
SFEC-OCS	108	С	Tan coarse sand with pebbles and trace mud at SWI. No color change through sediment column. Stage 1 tubes in water column. Shallow penetration.
SFEC-OCS	108	D	Tan coarse sand with very little penetration. Wiper blade is visible in upper part of sediment column suggesting that the prism contacted a sediment mound or ripple.
SFEC-OCS	109	Α	Tan coarse sand with thin drape of mud at SWI. Pebbles at SWI. Stage 1 tubes in water column. Shallow penetration.
SFEC-OCS	109	В	Tan very coarse sand with abundant pebbles at SWI. Thin drape of fines at SWI. No fauna visible. Shallow penetration.
SFEC-OCS	109	D	Pebbles over coarse sand. Shell fragments at SWI. Few fines. No fauna present. Shallow penetration.
SFEC-OCS	110	А	Tan coarse sand with no color change through maximum penetration. Trace mud at SWI. Few small tubes at SWI. Shallow penetration.
SFEC-OCS	110	В	Coarse sand with small pebbles at SWI. Very shallow penetration.
SFEC-OCS	110	С	Tan medium sand with prism penetration in trough of ripple. Mud deposit in upper .5 cm of ripple trough. Mediums and extending into midfield as ripple rises.
SFEC-OCS	111	В	Tan coarse sand grading to medium sand. Small shell particles at SWI. Color change associated with grain size in upper 2cm of sediment column. aRPD not visible. Tiny tubes at the SWI.
SFEC-OCS	111	С	Tan coarse sand with slope into farfield. Stage 1 tubes at SWI. Shallow penetration.
SFEC-OCS	111	D	Tan coarse sand with pebbles and shell fragments at SWI. No color change through sediment column. Small hummocks at SWI.
SFEC-OCS	112	А	Tan coarse sand with pebbles at SWI. Ripple trough in center of image. Mud deposit in ripple trough with collapsed tubes and crab carapace fragments. Shallow penetration.
SFEC-OCS	112	В	Tan coarse sand with sloping SWI. No color change through sediment column. Shallow penetration.
SFEC-OCS	112	С	Tan coarse sand with sloping SWI. No color change through sediment column. Shallow penetration.
SFEC-OCS	113	А	Very coarse sand and pebbles over medium sand to penetration maximum. Polychaete visible in sediment column, about 4cm under SWI. Many small test and shell fragments at SWI. Sand dollars at SWI.
SFEC-OCS	113	В	Very coarse sand and pebbles over medium sand to penetration maximum. Many small test and shell fragments at SWI. Sand dollars at SWI. Very shallow penetration.
SFEC-OCS	113	D	Coarse sand with very fine pebbles at SWI. No change in sediment grain size or color throughout sediment column. Sediment surface is rippled into distance.
SFEC-OCS	114	А	Tan medium sand with slightly wavy sediment surface and no color change through sediment column. Short tubes at SWI. Shallow penetration.
SFEC-OCS	114	В	Tan medium sand with abundant sub-rounded shell fragments at SWI and in sediment column. Sediment has low rounded mound. Stage 2 tubes at SWI.
SFEC-OCS	114	С	Tan medium sand with no color change in sediment column. SWI slopes to right in ripple. No fauna present.
SFEC-OCS	115	А	Tan coarse sand with pebbles at SWI. Many small and large shell fragments at SWI. Collapsed tubes and tube casing at SWI. No color change in sediment. Shallow penetration.
SFEC-OCS	115	В	Tan coarse sand with small shell fragments at SWI. Sand dollar visible at sediment surface. Vary little penetration.

Area	Station ID	Replicate	Comment
SFEC-OCS	115	С	Tan coarse sand with pebbles at SWI. Partially buried sand dollar at SWI. Low grade slope into farfield.
SFEC-OCS	116	Α	Tan coarse sand with pebbles at SWI. Partially buried sand dollar at SWI. Sediment is sloped into farfield.
SFEC-OCS	116	С	Tan coarse sand grading slightly finer to penetration depth. Slightly wavy SWI. Trace mud t SWI. Small shell fragments at SWI. Small burrow halo near penetration maximum.
SFEC-OCS	116	D	Tan medium sand with very coarse sand and shell fragments at SWI. Trace mud at SWI. No fauna visible.
SFEC-OCS	117	Α	Dark brown very coarse sand over tan coarse sand. SWI is rounded in low mound. Very small organism (fish?) at SWI.
SFEC-OCS	117	В	Very coarse sand mixed with dark brown coarse sand. Small shell fragments at SWI. Very shallow penetration.
SFEC-OCS	117	С	Coarse sand with very coarse grains at SWI. SWI is slightly wavy, possibly rippled into farfield. Slight color change due to grain size change below SWI.
SFEC-OCS	118	А	Dark brown fine sand with slight color change after ~1cm below SWI. Burrow halos extend to penetration maximum. SWI is rippled in long-waveform. SWI is studded with short tubes visible in farfield. Organic matter at SWI and in water column. Very shallow penetration. aRPD likely extends past penetration maximum.
SFEC-OCS	118	В	Dark brown fine sand with slight color change in upper 1-2 cm of sediment column. SWI is slightly hummocky and studded with short tubes. Tube lining in water column. Shallow penetration.
SFEC-OCS	118	С	Dark brown fine sand with slight color change in upper 1-2 cm of sediment column. SWI is slightly hummocky and studded with short tubes. Shallow penetration.
SFEC-OCS	119	А	Dark tan medium sand grading to fine sand. Color changes to pale gray at ~6.5cm below SWI. Small tubes collapsed at SWI. Slightly wavy SWI.
SFEC-OCS	119	В	Tan medium sand with subtle color change after upper 1-2cm of sediment. Long burrow halos in sediment. Short tubes at SWI.
SFEC-OCS	119	С	Tan coarse sand with slight ripple to SWI. Scant small tubes at SWI. Shallow penetration.
SFEC-OCS	120	Α	Tan fine sand with slightly darker sediment in upper 1cm of sediment column. Dark brown burrows in sediment. Short tubes at SWI. SWI is slightly rippled.
SFEC-OCS	120	В	Tan fine sand with slightly darker sediment in upper 1cm of sediment column. Dark brown burrows in sediment. Short tubes at SWI. SWI is slightly rippled.
SFEC-OCS	120	С	Tan fine sand with slightly darker sediment in upper 1cm of sediment column. Small shell fragment dragged into sediment. Small patch of nearly black fines. Dark brown burrows in sediment. Short tubes at SWI. SWI is slightly rippled.
SFEC-OCS	121	А	Pale tan fine sand with slight color change in upper 1.5cm. Orange burrow halos extending to penetration maximum. Slightly hummocky SWI with short tubes.
SFEC-OCS	121	В	Pale tan medium sand with slight color change in upper 1.5cm. Orange burrow halos extending to penetration maximum.
SFEC-OCS	121	D	Pale tan fine sand with slight color change in upper 1.5cm. Orange burrow halos extending to penetration maximum. Short tubes at SWI. Shallow penetration.
SFEC-OCS	122	Α	Tan medium sand with many small shell fragments at SWI. Sand dollar dragged into sediment column. Short tubes at SWI. SWI is rippled.
SFEC-OCS	122	В	Tan medium sand with slightly hummocky SWI. No color change in sediment. Small shell particles at SWI. Very shallow penetration.

Area	Station ID	Replicate	Comment
SFEC-OCS	122	С	Tan medium sand with slightly hummocky SWI. No color change in sediment. Small shell particles at SWI. Very shallow penetration.
SFEC-OCS	123	А	Tan coarse sand with very coarse sand and pebbles at SWI. Shell fragments over SWI. SWI is rippled slightly into distance. Very shallow penetration.
SFEC-OCS	123	В	Tan very coarse sand over tan coarse sand. Small pebbles and shell fragments at SWI. Color change visible near penetration maximum.
SFEC-OCS	123	D	Very coarse sand over pocket of pale gray silt/clay. SWI is slightly rippled, sloped to one side.
SFEC-OCS	124	Α	Tan medium sand with slightly wavy SWI. Stage 2 tubes at SWI. No color change through sediment column. Shallow penetration.
SFEC-OCS	124	В	Tan medium sand with trace fines dragged into sediment column. Small shell particles. Subtle brown color in upper ~1cm of sediment column. Dark burrows in sediment. Sand dollar at SWI.
SFEC-OCS	124	С	Tan medium sand with slightly wavy SWI. Short tubes at SWI. No color change in sediment column. Shallow penetration.
SFEC-OCS	125	А	Pale tan fine sand with ~1cm layer of brown fines at SWI. Orange-brown burrow halo extends to near penetration maximum. Sand dollar dragged into sediment column. Small tubes at WI.
SFEC-OCS	125	С	Pale tan fine sand with ~1cm layer of brown fines at SWI. Orange-brown burrows halo extends to near penetration maximum. Sand dollars at sediment column. Small tubes at SWI.
SFEC-OCS	125	D	Pale tan fine sand with ~1cm layer of brown fines at SWI. Sediment column becomes fine and pale gray near penetration maximum. Orange-brown burrows halo extends to near penetration maximum. Sand dollars at sediment column. Small tubes at SWI.
SFEC-OCS	126	А	Tan mediums sand with no color change throughout sediment column. Slightly sloped SWI. Many sand dollars at sediment surface.
SFEC-OCS	126	В	Tan mediums sand with no color change throughout sediment column. Many sand dollars at sediment surface.
SFEC-OCS	126	D	Tan mediums sand with no color change throughout sediment column. Many sand dollars at sediment surface. Slightly rippled SWI. Very shallow penetration.
SFEC-OCS	127	Δ	Tan medium sand with no color change in sediment column. SWI is slightly rippled, with small shell fragments scattered in ripple trough. Shrimp partially visible behind ripple. Very shallow penetration.
SFEC-OCS	127	В	Tan medium sand with shallow ripple at SWI. Small tubes at SWI. No color change in sediment column.
SFEC-OCS	127	С	Tan medium sand with shallow ripple at SWI. Stout, stage 2 tubes at SWI. No color change in sediment column.
SFEC-OCS	128	Α	Tan medium sand with wavy SWI. Pellets and short collapsed tubes at SWI. Very low penetration.
SFEC-OCS	128	В	Tan coarse sand with slight slope at SWI. Small fine mound at SWI. No color change in sediment column. Shallow penetration.
SFEC-OCS	128	С	Tan coarse sand with hummocky SWI. Stout tubes at SWI. No color change in sediment.
SFEC-OCS	129	Δ	Pale gray very fine sand with upper 1.5cm oxidized and pale tan. Thin burrow halos and infauna visible ins sediment column. Trace fines at SWI. Tubes at SWI.
SFEC-OCS	129	В	Pale gray very fine sand with upper 1.5cm oxidized and pale tan. Thin burrow halos and infauna visible ins sediment column. Void in sediment column where animal has been transected (mollusk?) Tubes at SWI.

Area	Station ID	Replicate	Comment
SFEC-OCS	129	D	Pale gray very fine sand with upper 1.5cm oxidized and pale tan. Thin burrow halos visible in sediment column. Void transected. Tubes at SWI.
SFEC-OCS	130	В	Pale gray very fine sand with upper 1cm oxidized and pale tan. Few coarse sand particles in sediment column. Thin burrow halos visible in sediment column. Tubes at SWI.
SFEC-OCS	130	С	Pale gray very fine sand with upper 1cm oxidized and pale tan. Few coarse sand particles in sediment column. Thin burrow halos visible in sediment column. Tubes at SWI.
SFEC-OCS	130	D	Pale gray very fine sand with upper 1cm oxidized and pale tan. Few coarse sand particles in sediment column. Polychaete visible near penetration maximum. Tubes at SWI.
SFEC-OCS	131	В	Pale tan fine sand with slightly darker color in upper 1cm of sediment column. Thin brown burrow halos in sediment. SWI ripples into farfield. Small tubes at SWI. Shallow penetration.
SFEC-OCS	131	С	Pale tan medium sand with few very coarse grains. Small tubes are scant at SWI. Shallow penetration.
SFEC-OCS	131	D	Coarse sand with sloping SWI. No color change in sediment column. Small half mussel shell at SWI.
SFEC-OCS	132	Α	Very coarse sand and pebbles with sloping SWI. No fauna or color change in fines.
SFEC-OCS	132	В	Very coarse sand and pebbles. Shallow ripples at SWI. Very low penetration.
SFEC-OCS	132	С	Very coarse sand and pebbles. Shallow ripples at SWI. Short tubes at SWI. Very low penetration.
SFEC-OCS	133	Α	Coarse sand grading to medium sand. Trace mud at SWI. No fauna visible. aRPD is not visible.
SFEC-OCS	133	В	Coarse sand and mud with pebbles at SWI. Shallow penetration.
SFEC-OCS	133	D	Coarse sand with slight color change at SWI. Small pebbles and very coarse sand mixed into sediment column. No fauna visible.
SFEC-OCS	134	Α	Very coarse sand with slightly sloping SWI. Shallow penetration.
SFEC-OCS	134	В	Coarse sand with trace mud at SWI. SWI appears slightly wavy in farfield. Shallow penetration.
SFEC-OCS	134	D	Pebbles over coarse sand. Very little penetration.
SFEC-OCS	135	Α	Coarse sand with sloping SWI and ripples in farfield. Very little penetration.
SFEC-OCS	135	В	Coarse sand with sloping SWI. No color change in sediment. Shallow penetration.
SFEC-OCS	135	С	Coarse sand with sloping SWI. No color change in sediment. Shallow penetration.
SFEC-OCS	136	В	Coarse sand with trace mud at SWI. SWI sloping to left. Stage 2 tube visible at sediment surface. Shallow penetration.
SFEC-OCS	136	С	Coarse sand with sloping SWI. Few pebbles and trace mud at sediment surface. No color change in sediment column.
SFEC-OCS	136	D	Medium sand with trace mud at SWI. No color change in sediment. Shallow penetration.
SFEC-OCS	137	Α	Mud and medium sand. Stage 1 tubes and sand dollar at SWI. Very low penetration.
SFEC-OCS	137	В	Tan coarse sand with slightly sloped SWI. Few very fine pebbles in sediment column. No color change in sediment.
SFEC-OCS	137	С	Tan coarse sand with trace mud at SWI. Very coarse sand just below SWI. Very shallow penetration.
SFEC-OCS	138	А	Tan medium sand with slightly rippled SWI. Sand dollars at SWI. No color change perceptible in sediment. Stage 2 worm located at depth just left of center.
SFEC-OCS	138	В	Tan medium sand with slightly coarser sediment and trace mud at SWI. Shallow penetration.
SFEC-OCS	138	D	Tan medium sand with no color change through sediment column. Sand dollar at SWI. Farfield is not visible.
SFEC-OCS	139	Α	Tan medium sand with coarse sand at SWI. Sloping SWI. Sand dollar in midfield.

Area	Station ID	Replicate	Comment
SFEC-OCS	139	С	Tan medium sand with drape of pale tan mud at SWI. No color change in sediment column. Shallow penetration.
SFEC-OCS	139	D	Pale tan fines with medium sand likely under mud drape. Nearly no penetration.
SFEC-OCS	140	Α	Pale tan medium sand with no color change in sediment column. Very shallow penetration.
SFEC-OCS	140	В	Pale tan medium sand with slightly wavy SWI. Short tubes in farfield. No color change in sediment column.
SFEC-OCS	140	С	Pale tan medium sand with slight color change in upper ~1.5cm of sediment. Burrow halo visible in sediment column. Polychaete in lower left corner of image. Sand dollar at slightly rippled SWI.
SFEC-OCS	141	Α	Pale tan medium sand with slightly wavy SWI. Small patch of fines in lower left of image. Trace mud at SWI.
SFEC-OCS	141	С	Pale tan coarse sand with sloped SWI. Small pebbles at SWI. Stage 1 tubes in water column.
SFEC-OCS	141	D	Pale tan coarse sand with slightly pale gray color near penetration maximum. SWI is sloped and slightly hummocked.
SFEC-OCS	142	В	Tan coarse sand with trace mud at SWI. No color change in sediment column. Small collapsed tube at SWI. Small gastropod in midfield.
SFEC-OCS	142	С	Tan coarse sand with trace mud at SWI. No color change in sediment column. SWI is slightly wavy. Shallow penetration.
SFEC-OCS	142	D	Tan coarse sand with rippled SWI. No color change in sediment column. Small tubes at SWI.
SFEC-OCS	146	С	Tan coarse sand with slightly hummocky SWI. Slight color change in sediment column at ~4cm below SWI.
SFEC-OCS	146	E	Tan coarse sand with slight color change near penetration maximum. Single tube at SWI. SWI is rippled, with peak to right edge of image.
SFEC-OCS	146	F	Tan coarse sand with no color change in sediment column. Slightly wavy SWI. Shallow penetration.
SFEC-OCS	147	Α	Tan coarse sand with slight color change near penetration maximum. SWI is slightly sloped. Possible ripple.
SFEC-OCS	147	В	Tan coarse sand with no color change in sediment column. Sediment is mostly flat at SWI, possibly rippled into farfield.
SFEC-OCS	147	С	Tan coarse sand with no color change in sediment column. Small tubes at SWI.
SFEC-OCS	148	Α	Tan medium sand with shell hash in sediment column. Small tubes at SWI. SWI ripples into distance.
SFEC-OCS	148	В	Tan medium sand with trace mud dragged into sediment column. Slightly wavy SWI. Sand dollar at sediment surface.
SFEC-OCS	148	С	Tan medium sand with slight color change in sediment column after 1-2cm. Short tubes on rippled sediment surface.
SFEC-OCS	149	Α	Tan medium sand with shell hash at SWI. Small tubes visible at SWI. Shallow penetration depth.
SFEC-OCS	149	В	Tan medium sand. Slight color change after upper 1-2cm of sediment column. Small tubes visible at SWI. Shallow penetration depth.
SFEC-OCS	149	С	Tan medium sand with slight color change in sediment column. Small shell particles buried in sediment.
SFEC-OCS	150	А	Tan medium sand transitioning to pale gray medium sand after top ~1cm of sediment column. Stage 1 tubes at SWI and Small collapsed Stage 2 tubes at SWI. Very shallow penetration.
SFEC-OCS	150	В	Pale tan medium sand transitioning to pale gray medium sand. Hermit crab at SWI. Wavy SWI. Short tube to left of hermit crab.
SFEC-OCS	150	С	Pale tan medium sand to transitioning to pale gray medium sand. Very shallow penetration.
SFEC-OCS	151	В	Fine pebbles with cobbles and sand. Abundant limpets at SWI. Very shallow penetration.
SFEC-OCS	151	С	Pebbles with small cobbles and drape of mud. Limpets at SWI. Short tubes at SWI. Very shallow penetration.
SFEC-OCS	151	D	Pale tan silt/clay with color change in sediment column about 2cm below SWI. Short tubes at SWI. Limpets abundant at SWI. Shallow penetration.

Area	Station ID	Replicate	Comment
SFEC-OCS	152	А	Tan coarse sand with slightly sloped SWI. Slightly gray patch of fines and shell hash near penetration maximum. Stage 1 tubes at SWI. Shallow penetration.
SFEC-OCS	152	В	Tan coarse sand. No color change in sediment column. Sloping SWI.
SFEC-OCS	152	С	No penetration. Sandy pale tan sediment is partially visible.
SFEC-OCS	153	Α	Tan fine sand over pale gray fine sand. Trace mud at SWI. Stage 1 tubes at SWI.
SFEC-OCS	153	В	Tan fine sand with slightly darker color at SWI. Small burrow halos visible ion sediment column. Black particles in sediment. Small tubes at SWI.
SFEC-OCS	153	С	Tan fine sand with small black particles in sediment column. Stage tubes at SWI. Sand dollar and hermit crab at SWI. SWI is slightly sloped to left farfield.
SFEC-OCS	154	А	Tan medium sand with slight color change at 1.5cm below SWI. Burrow halos in sediment column. Short tube visible at SWI.
SFEC-OCS	154	В	Tan medium sand with small black particles in sediment. No color change ins sediment column. Stage 2 tubes at SWI.
SFEC-OCS	154	С	Tan medium sand with small black particles in sediment. No color change ins sediment column. Stage 2 tubes at SWI. San dollar at SWI. Shallow penetration.
SFEC-OCS	155	А	Tan fine sand with slight color change in upper ~1cm sediment column. Small stage 1 tubes at SWI. Sand dollar in midfield. Very shallow penetration,.
SFEC-OCS	155	В	Tan medium sand with small patch of dark gray fines in sediment column. Sand dollar at SWI. Very shallow penetration,.
SFEC-OCS	155	С	Tan fine sand with slight color change in upper ~1cm sediment column. Trace mud in upper 1cm of sediment. Small stage 1 tubes at SWI. Sand dollar in midfield. Very shallow penetration.
SFEC-OCS	156	В	Dark gray-brown mud transitions to near black at 4-5 cm below SWI. Clearly defined, tan, underlying layer of medium sand. Polychaetes and void in mud layer. SWI is hummocky, with small clasts. Gastropod and stage 1 tubes at SWI.
SFEC-OCS	156	С	Pale gray-brown fines over near black silt/clay. SWI is heavily disturbed.
SFEC-OCS	156	D	Gray-brown mud with near black patch of mud. Clearly defined, tan, underlying layer of medium sand. Polychaetes in mud layer.
SFEC-OCS	157	А	Pale tan medium sand with trace mud at SWI. Small shell fragments and black particles in sediment column. Very shallow penetration.
SFEC-OCS	157	В	Pale tan medium sand with trace mud at SWI. Small shell fragments and black particles in sediment column. Very shallow penetration.
SFEC-OCS	157	С	Tan medium sand with trace mud at SWI. Small shell fragments and black particles in sediment column. Short tubes at SWI. Shallow penetration.
SFEC-NYS	143	А	Pale tan fine sand with small black particles in sediment. Sediment becomes paler after upper 1-2cm of sediment column. Burrow halos in sediment column. Short tubes at SWI.
SFEC-NYS	143	В	Pale tan and gray fines over fine sand. Small black patch in sediment column. Short tubes at SWI.
SFEC-NYS	143	С	Pale tan medium sand with dark brown burrow halos and slight color change in sediment. SWI is mostly flat, with no tubes visible.

Area	Station ID	Replicate	Comment
SFEC-NYS	144	А	Pale tan coarse sand with slightly color change near penetration maximum. Rounded ripple at SWI. Small collapsed tubes at SWI at right.
SFEC-NYS	144	В	Pale tan coarse sand. No color change in sediment column. Small invertebrate in water column.
SFEC-NYS	144	С	Pale tan coarse sand. Slightly gray sediment ~3cm below SWI. Gastropod at SWI.
SFEC-NYS	145	Α	Pale tan medium sand with no color change in sediment column. SWI is sloped slightly. Large tubes at SWI.
SFEC-NYS	145	В	Pale tan medium sand with no color change in sediment column. Trace mud at SWI. Large tubes at SWI.
SFEC-NYS	145	С	Pale tan coarse sand with no color change in sediment column. Slightly coarser sediment at SWI. SWI is slightly peaked with small clasts of coarse sediment.
SFEC-NYS	158	А	Tan medium sand with no color change in sediment column. SWI covered with small tubes. Slightly rippled SWI. Shallow penetration.
SFEC-NYS	158	В	Tan mediums and with small black particles in sediment. Small tubes at SWI. Shallow penetration.
SFEC-NYS	158	С	Tan medium sand with small black particles. No color change in sediment. Rippled SWI. Sand dollar at SWI. Shallow penetration.
SFEC-NYS	159	А	Pale tan mud transitions to near black over underlying layer of coarse pale tan sand. Single void near penetration maximum. Short tubes carpet SWI.
SFEC-NYS	159	В	Pale tan mud with bright tan layer in upper 0.5cm of sediment column. Coarse grains mixed with mud near p penetration maximum. SWI is fluffy with organic material and pellets.
SFEC-NYS	159	D	Tan coarse sand with no color change in sediment column. Large deposit of cohesive mud at SWI, likely deposited by camera system.
SFEC-NYS	160	А	Pale tan fine sand with n color change in sediment column. Slightly rippled SWI.
SFEC-NYS	160	В	Pale tan fine sand with n color change in sediment column. Long waveform ripple crest at SWI
SFEC-NYS	160	С	Pale tan fine sand with n color change in sediment column. Slightly rippled SWI.
Reference	C03	А	Tan coarse sand with small particles of shell at SWI and in sediment column. No color change in sediment. SWI is slightly wavy. Stage 1 tube in sediment column.
Reference	C03	В	Tan coarse sand with pale gray fines in buried layer of sediment. Slightly sloping SWI. Stage 1 tubes in water column. Shallow penetration.
Reference	C03	С	Tan coarse sand with no color change in sediment column Slightly sloping SWI. Stage 1 tubes in water column. Shallow penetration.
Reference	C03	D	Tan medium sand with no color change in sediment column. Short tubes at SWI. Shallow penetration.
Reference	C03	E	Tan medium sand with no color change in sediment column. Slightly rippled SWI.
Reference	C04	А	Tan medium sand with trace mud at SWI. No color change in sediment column. Large ampharetid tube indicates stage 3 succession. Shallow penetration.
Reference	C04	В	Tan medium sand with small patches of gray and black fines. No color change in sediment column. Shallow ripple at SWI. Stage 1 tubes in water column. Stage 2 tubes at SWI.
Reference	C04	С	Tan medium sand with small patches of gray fines in sediment column. No color change in sediment column. SWI is slightly rippled. Small collapsed tubes at SWI. Shallow penetration.

Area	Station ID	Replicate	Comment
Reference	C04	D	Tan medium sand with small patches of gray fines in sediment column. No color change in sediment column. Stage 1 tubes in water column.
Reference	C04	E	Tan medium sand with no color change in sediment column. SWI is rippled. Short stage 2 tubes at SWI.
Reference	C05	А	Tan coarse sand with trace mud at SWI. Polychaete in sediment column, near penetration maximum. Slightly wavy SWI. Short tubes at SWI.
Reference	C05	В	Tan medium sand. Hydroids attached to long objects in farfield. Gastropod at SWI. Very shallow penetration. Stage 1 tubes in water column.
Reference	C05	С	Tan mediums and with thin drape of mud. Large cobble in midfield with attached barnacles and hydroids. Stage 1 tubes in water column. Very shallow penetration.
Reference	C05	D	Tan medium sand with trace mud at SWI and dragged into sediment column. SWI is sloped slightly.
Reference	C05	E	Tan coarse sand with very slight color change after upper 1-2cm of sediment. Trace mud at SWI. Stage 1 tubes in water column.

## APPENDIX D

Plan View Image Analysis Results

Notes:

IND=Indeterminate



Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	1	В	34	11/11/2017	13:32:17	101.50	67.66	0.69	No		Small Surface- Burrowing Fauna	
SFWF	1	С	34	11/11/2017	13:33:13	102.09	68.06	0.69	No		IND	
SFWF	1	D	34	11/11/2017	13:34:13	99.43	66.28	0.66	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	2	А	34	11/11/2017	14:19:57	102.97	68.65	0.71	No		IND	
SFWF	2	В	34	11/11/2017	14:20:54	100.52	67.01	0.67	No			
SFWF	2	С	34	11/11/2017	14:21:56	105.05	70.03	0.74	No			
SFWF	3	А	36	11/11/2017	14:48:09	95.94	63.96	0.61	No		Small Surface- Burrowing Fauna	
SFWF	3	В	36	11/11/2017	14:49:06	104.28	69.52	0.72	No			
SFWF	3	С	36	11/11/2017	14:50:03	107.66	71.77	0.77	No			
SFWF	4	А	36	11/11/2017	15:06:54	109.94	73.29	0.81	No		Small Surface- Burrowing Fauna	
SFWF	4	В	36	11/11/2017	15:07:57	106.12	70.75	0.75	No			
SFWF	4	D	37	11/11/2017	15:10:06	105.98	70.65	0.75	No			
SFWF	5	Α	37	11/11/2017	15:23:45	108.71	72.47	0.79	No		IND	
SFWF	5	В	36	11/11/2017	15:24:44	104.49	69.66	0.73	No			
SFWF	5	С	36	11/11/2017	15:25:50	106.27	70.84	0.75	No			
SFWF	6	А	36	11/11/2017	15:42:43	102.97	68.65	0.71	No		Small Surface- Burrowing Fauna	
SFWF	6	D	35	11/11/2017	15:45:43	106.41	70.94	0.75	No			
SFWF	7	В	38	11/11/2017	16:11:02	109.63	73.09	0.80	No		Attached Hydroids	Small Surface- Burrowing Fauna

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	7	С	38	11/11/2017	16:12:18	106.48	70.99	0.76	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	7	D	37	11/11/2017	16:13:32	51.01	34.01	0.17	No		Diverse Colonizers	
SFWF	8	А	38	11/11/2017	19:20:18	108.79	72.52	0.79	No		IND	
SFWF	8	В	37	11/11/2017	19:21:31	105.33	70.22	0.74	No			
SFWF	8	С	37	11/11/2017	19:22:43	100.19	66.80	0.67	No			
SFWF	9	А	36	11/11/2017	19:39:09	105.91	70.60	0.75	No		IND	
SFWF	9	В	36	11/11/2017	19:40:27	105.19	70.13	0.74	No			
SFWF	9	С	36	11/11/2017	19:41:40	106.05	70.70	0.75	No			
SFWF	10	А	38	11/11/2017	16:39:55	109.86	73.24	0.80	No			
SFWF	10	В	39	11/11/2017	16:41:08	110.40	73.60	0.81	IND			
SFWF	10	D	39	11/11/2017	16:43:26	111.03	74.02	0.82	No		IND	
SFWF	11	Α	38	11/11/2017	18:53:58	110.56	73.71	0.81	No		IND	
SFWF	11	В	37	11/11/2017	18:55:09	108.64	72.42	0.79	No			
SFWF	12	А	40	11/11/2017	17:26:44	104.56	69.71	0.73	No		Small Surface- Burrowing Fauna	
SFWF	12	С	40	11/11/2017	17:29:15	107.14	71.43	0.77	No			
SFWF	12	D	40	11/11/2017	17:30:34	103.24	68.83	0.71	No			
SFWF	13	А	38	11/11/2017	18:32:34	106.12	70.75	0.75	No		IND	

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	13	В	38	11/11/2017	18:33:37	101.96	67.97	0.69	No			
SFWF	13	С	38	11/11/2017	18:34:44	111.11	74.07	0.82	No			
SFWF	14	В	40	11/11/2017	17:51:34	104.28	69.52	0.72	No		IND	
SFWF	14	С	40	11/11/2017	17:52:53	106.56	71.04	0.76	No			
SFWF	14	D	40	11/11/2017	17:54:09	105.55	70.37	0.74	No			
SFWF	15	Α	41	11/11/2017	18:08:36	94.66	63.11	0.60	No		IND	
SFWF	15	В	41	11/11/2017	18:09:55	95.41	63.61	0.61	No			
SFWF	15	D	41	11/11/2017	18:12:12	92.97	61.98	0.58	No			
SFWF	16	Α	35	11/12/2017	2:39:43	IND	IND		No		IND	
SFWF	16	В	37	11/12/2017	2:40:42	IND	IND		No			
SFWF	16	С	35	11/12/2017	2:41:44	IND	IND		No			
SFWF	17	А	35	11/12/2017	2:24:01	IND	IND		No		Small Surface- Burrowing Fauna	
SFWF	17	В	35	11/12/2017	2:25:18	IND	IND		No			
SFWF	17	D	34	11/12/2017	2:27:53	IND	IND		No			
SFWF	18	А	35	11/12/2017	2:09:26	IND	IND		No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	18	В	35	11/12/2017	2:10:35	IND	IND		IND		IND	
SFWF	18	С	34	11/12/2017	2:11:43	IND	IND		No		IND	
SFWF	19	А	35	11/12/2017	1:54:47	IND	IND		No		IND	

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	19	В	35	11/12/2017	1:55:56	IND	IND		No			
SFWF	19	D	35	11/12/2017	1:58:22	IND	IND		No			
SFWF	20	А	35	11/12/2017	1:40:29	IND	IND		No		IND	
SFWF	20	В	34	11/12/2017	1:41:33	IND	IND		No			
SFWF	20	С	35	11/12/2017	1:42:30	IND	IND		No			
SFWF	21	А	34	11/12/2017	1:20:23	IND	IND		IND		IND	
SFWF	21	В	34	11/12/2017	1:21:33	IND	IND		No			
SFWF	21	D	35	11/12/2017	1:23:48	IND	IND		No			
SFWF	22	А	34	11/12/2017	1:03:33	107.96	71.97	0.78	No		IND	
SFWF	22	В	35	11/12/2017	1:04:38	IND	IND		No			
SFWF	22	С	35	11/12/2017	1:05:44	IND	IND		No			
SFWF	23	А	35	11/12/2017	0:42:08	105.83	70.56	0.75	No		IND	Attached Hydroids
SFWF	23	С	36	11/12/2017	0:44:37	101.23	67.49	0.68	No		IND	Attached Hydroids
SFWF	23	D	35	11/12/2017	0:45:50	106.05	70.70	0.75	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	24	А	35	11/12/2017	0:14:05	108.26	72.17	0.78	No		Small Surface- Burrowing Fauna	
SFWF	24	В	35	11/12/2017	0:15:30	109.63	73.09	0.80	No		-	
SFWF	24	С	35	11/12/2017	0:16:29	104.07	69.38	0.72	No			
SFWF	25	А	35	11/11/2017	23:31:20	IND	IND		No			

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	25	В	39	11/11/2017	23:32:40	102.30	68.20	0.70	No		Small Surface- Burrowing Fauna	
SFWF	25	С	35	11/11/2017	23:33:53	109.70	73.14	0.80	No			
SFWF	26	А	35	11/11/2017	23:09:43	100.32	66.88	0.67	No		IND	
SFWF	26	В	35	11/11/2017	23:10:53	92.64	61.76	0.57	No			
SFWF	26	D	35	11/11/2017	23:13:13	102.16	68.11	0.70	No			
SFWF	27	А	35	11/11/2017	22:50:18	109.55	73.03	0.80	No		IND	
SFWF	27	В	35	11/11/2017	22:51:22	108.26	72.17	0.78	No			
SFWF	27	С	35	11/11/2017	22:52:35	107.73	71.82	0.77	No			
SFWF	28	А	34	11/11/2017	20:03:21	101.50	67.66	0.69	No		IND	Attached Hydroids
SFWF	28	В	34	11/11/2017	20:04:37	100.32	66.88	0.67	No			
SFWF	28	С	35	11/11/2017	20:05:56	110.17	73.45	0.81	No			
SFWF	29	А	35	11/11/2017	22:29:26	95.18	63.45	0.60	No		Small Surface- Burrowing Fauna	
SFWF	29	В	36	11/11/2017	22:30:34	94.20	62.80	0.59	No			
SFWF	29	С	35	11/11/2017	22:31:47	102.23	68.15	0.70	No			
SFWF	30	А	36	11/11/2017	20:30:34	109.01	72.68	0.79	No		IND	
SFWF	30	С	36	11/11/2017	20:32:37	105.98	70.65	0.75	No			
SFWF	30	D	38	11/11/2017	20:33:45	108.64	72.42	0.79	No			
SFWF	31	Α	37	11/11/2017	20:53:26	105.98	70.65	0.75	No		Small Surface- Burrowing Fauna	

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	31	В	36	11/11/2017	20:54:30	101.89	67.93	0.69	No			
SFWF	31	D	36	11/11/2017	20:56:33	110.95	73.97	0.82	No			
SFWF	32	А	35	11/11/2017	22:05:47	108.94	72.63	0.79	No		IND	
SFWF	32	В	35	11/11/2017	22:06:58	107.07	71.38	0.76	No			
SFWF	32	С	35	11/11/2017	22:08:06	106.27	70.84	0.75	No			
SFWF	33	А	37	11/11/2017	21:19:19	98.80	65.86	0.65	No		IND	
SFWF	33	В	38	11/11/2017	21:20:23	122.64	81.76	1.00	No			
SFWF	33	С	37	11/11/2017	21:21:34	105.91	70.60	0.75	No			
SFWF	34	А	34	11/11/2017	21:44:29	109.78	73.19	0.80	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	34	В	35	11/11/2017	21:45:38	100.52	67.01	0.67	No		IND	Attached Hydroids
SFWF	34	D	35	11/11/2017	21:47:47	101.23	67.49	0.68	No		Small Surface- Burrowing Fauna	
SFWF	35	А	36	11/12/2017	2:55:06	IND	IND		No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	35	В	36	11/12/2017	2:56:20	IND	IND		No			
SFWF	35	D	37	11/12/2017	2:58:37	IND	IND		No			
SFWF	36	А	38	11/12/2017	3:15:47	IND	IND		No		Small Surface- Burrowing Fauna	Attached Hydroids

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	36	В	36	11/12/2017	3:17:04	IND	IND		No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	36	D	36	11/12/2017	3:19:23	IND	IND		No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	37	А	36	11/12/2017	3:34:35	IND	IND		No		Small Surface- Burrowing Fauna	
SFWF	37	В	35	11/12/2017	3:35:51	IND	IND		No			
SFWF	37	С	36	11/12/2017	3:37:08	IND	IND		No			
SFWF	38	А	35	11/12/2017	3:57:29	106.63	71.09	0.76	No		Small Surface- Burrowing Fauna	Small Tube- Building Fauna
SFWF	38	В	35	11/12/2017	4:00:35	88.84	59.23	0.53	No			
SFWF	38	D	35	11/12/2017	4:02:50	101.96	67.97	0.69	No			
SFWF	39	А	36	11/12/2017	4:21:59	98.86	65.91	0.65	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	39	В	35	11/12/2017	4:24:07	108.41	72.27	0.78	No		Small Surface- Burrowing Fauna	
SFWF	39	С	35	11/12/2017	4:25:20	98.30	65.53	0.64	No		Small Surface- Burrowing Fauna	
SFWF	40	А	35	11/12/2017	4:40:20	102.56	68.38	0.70	No		Small Surface- Burrowing Fauna	Small Tube- Building Fauna
SFWF	40	В	35	11/12/2017	4:41:30	100.65	67.10	0.68	No			

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	40	D	35	11/12/2017	4:44:10	101.83	67.89	0.69	No			
SFWF	41	А	34	11/12/2017	5:24:47	102.77	68.51	0.70	No		Small Surface- Burrowing Fauna	
SFWF	41	В	35	11/12/2017	5:25:58	100.52	67.01	0.67	No			
SFWF	41	С	35	11/12/2017	5:27:13	96.83	64.56	0.63	No			
SFWF	42	А	34	11/12/2017	5:40:54	104.00	69.33	0.72	No		Small Surface- Burrowing Fauna	Barnacles
SFWF	42	В	35	11/12/2017	5:42:03	105.12	70.08	0.74	No			
SFWF	42	С	35	11/12/2017	5:43:18	106.63	71.09	0.76	No			
SFWF	43	А	34	11/12/2017	6:03:56	107.81	71.87	0.77	No		Small Surface- Burrowing Fauna	
SFWF	43	В	35	11/12/2017	6:05:20	100.39	66.92	0.67	No			
SFWF	43	D	35	11/12/2017	6:07:48	103.45	68.97	0.71	No			
SFWF	44	А	35	11/12/2017	9:48:48	105.26	70.18	0.74	No		Small Surface- Burrowing Fauna	
SFWF	44	В	36	11/12/2017	9:49:57	91.50	61.00	0.56	No		-	
SFWF	44	D	35	11/12/2017	9:52:11	96.65	64.44	0.62	No			
SFWF	45	А	35	11/12/2017	10:04:37	99.74	66.50	0.66	No		Small Surface- Burrowing Fauna	
SFWF	45	В	36	11/12/2017	10:05:52	95.94	63.96	0.61	No			
SFWF	45	С	35	11/12/2017	10:07:01	98.24	65.49	0.64	No			
SFWF	46	А	35	11/12/2017	10:27:13	89.35	59.56	0.53	No		Small Surface- Burrowing Fauna	
SFWF	46	В	35	11/12/2017	10:28:22	96.59	64.40	0.62	No			

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	46	С	35	11/12/2017	10:29:51	90.38	60.25	0.54	No			
SFWF	47	А	35	11/12/2017	10:46:54	94.66	63.11	0.60	No		Small Surface- Burrowing Fauna	
SFWF	47	В	35	11/12/2017	10:48:15	95.71	63.80	0.61	No			
SFWF	47	D	35	11/12/2017	10:50:36	IND	IND		IND			
SFWF	48	Α	36	11/12/2017	11:05:46	82.50	55.00	0.45	No		IND	
SFWF	48	В	36	11/12/2017	11:06:59	100.19	66.80	0.67	No			
SFWF	48	С	35	11/12/2017	11:08:15	93.36	62.24	0.58	No			
SFWF	49	А	36	11/12/2017	11:49:52	100.26	66.84	0.67	No		IND	
SFWF	49	В	35	11/12/2017	11:50:56	99.05	66.03	0.65	No			
SFWF	49	D	35	11/12/2017	11:53:57	97.32	64.88	0.63	No			
SFWF	50	А	35	11/12/2017	12:18:34	95.59	63.73	0.61	No		Small Surface- Burrowing Fauna	
SFWF	50	В	36	11/12/2017	12:19:51	103.52	69.01	0.71	No			
SFWF	50	С	35	11/12/2017	12:21:00	98.11	65.41	0.64	No			
SFWF	51	В	37	11/12/2017	12:36:08	99.05	66.03	0.65	No		IND	
SFWF	51	С	36	11/12/2017	12:37:15	100.91	67.27	0.68	No			
SFWF	51	D	35	11/12/2017	12:38:23	97.74	65.16	0.64	No			
SFWF	52	А	35	11/12/2017	17:08:02	92.97	61.98	0.58	No		Small Surface- Burrowing Fauna	Small Tube- Building Fauna
SFWF	52	В	35	11/12/2017	17:09:21	93.13	62.09	0.58	No			

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	52	D	36	11/12/2017	17:11:37	105.62	70.41	0.74	No			
SFWF	53	А	35	11/12/2017	17:27:10	102.36	68.24	0.70	No		Small Surface- Burrowing Fauna	
SFWF	53	В	36	11/12/2017	17:28:37	104.21	69.47	0.72	No			
SFWF	53	С	36	11/12/2017	17:30:00	98.80	65.86	0.65	No			
SFWF	54	А	36	11/12/2017	17:44:21	100.39	66.92	0.67	No		Small Surface- Burrowing Fauna	
SFWF	54	С	35	11/12/2017	17:47:06	102.63	68.42	0.70	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	54	D	36	11/12/2017	17:48:11	110.09	73.39	0.81	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	55	А	36	11/12/2017	17:59:45	97.14	64.76	0.63	No		IND	
SFWF	55	В	36	11/12/2017	18:01:01	94.55	63.03	0.60	No			
SFWF	55	D	38	11/12/2017	18:03:25	107.44	71.63	0.77	No			
SFWF	56	А	36	11/12/2017	16:27:38	99.55	66.37	0.66	No		Small Surface- Burrowing Fauna	
SFWF	56	В	34	11/12/2017	16:28:49	100.32	66.88	0.67	No			
SFWF	56	С	36	11/12/2017	16:29:50	100.91	67.27	0.68	No			
SFWF	57	А	36	11/12/2017	18:18:14	102.16	68.11	0.70	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	57	С	36	11/12/2017	18:20:42	98.98	65.99	0.65	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	57	D	36	11/12/2017	18:21:54	96.59	64.40	0.62	No		Small Surface- Burrowing Fauna	Attached Hydroids

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	58	А	36	11/12/2017	18:35:06	90.23	60.15	0.54	No		Small Surface- Burrowing Fauna	
SFWF	58	В	36	11/12/2017	18:36:31	100.71	67.14	0.68	No			
SFWF	58	D	36	11/12/2017	18:38:42	99.17	66.12	0.66	No			
SFWF	59	А	37	11/12/2017	16:01:51	119.17	79.45	0.95	No		Small Surface- Burrowing Fauna	
SFWF	59	В	36	11/12/2017	16:03:14	102.97	68.65	0.71	No			
SFWF	59	С	36	11/12/2017	16:04:36	94.32	62.88	0.59	No			
SFWF	60	А	37	11/12/2017	15:47:06	93.53	62.35	0.58	No		Small Surface- Burrowing Fauna	
SFWF	60	В	37	11/12/2017	15:48:16	89.35	59.56	0.53	No			
SFWF	60	С	34	11/12/2017	15:49:31	99.94	66.62	0.67	No			
SFWF	61	А	36	11/12/2017	15:32:06	103.93	69.29	0.72	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	61	С	36	11/12/2017	15:34:16	96.12	64.08	0.62	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	61	D	40	11/12/2017	15:35:32	103.79	69.19	0.72	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	62	А	36	11/12/2017	15:16:21	99.62	66.41	0.66	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	62	С	36	11/12/2017	15:19:00	105.62	70.41	0.74	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	62	D	36	11/12/2017	15:20:23	99.62	66.41	0.66	No		Small Surface- Burrowing Fauna	Attached Hydroids

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	63	А	36	11/12/2017	15:02:07	95.41	63.61	0.61	No		Attached Sponges	Small Surface- Burrowing Fauna
SFWF	63	В	36	11/12/2017	15:03:12	99.30	66.20	0.66	No		Attached Hydroids	
SFWF	63	С	36	11/12/2017	15:04:35	105.48	70.32	0.74	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	64	А	37	11/12/2017	14:47:06	98.24	65.49	0.64	No		Small Surface- Burrowing Fauna	Barnacles
SFWF	64	В	37	11/12/2017	14:48:20	113.87	75.91	0.86	No		Small Surface- Burrowing Fauna	
SFWF	64	С	36	11/12/2017	14:49:33	93.53	62.35	0.58	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	65	А	36	11/12/2017	14:31:01	91.71	61.14	0.56	No		Small Surface- Burrowing Fauna	
SFWF	65	В	38	11/12/2017	14:32:38	90.38	60.25	0.54	No			
SFWF	65	С	36	11/12/2017	14:33:57	102.56	68.38	0.70	No			
SFWF	66	А	35	11/12/2017	12:53:10	108.11	72.07	0.78	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	66	В	36	11/12/2017	12:54:35	105.83	70.56	0.75	No		Small Surface- Burrowing Fauna	
SFWF	66	С	36	11/12/2017	12:56:10	88.89	59.26	0.53	No		Small Surface- Burrowing Fauna	
SFWF	67	А	36	11/12/2017	14:17:56	90.43	60.29	0.55	No		Small Surface- Burrowing Fauna	
SFWF	67	В	36	11/12/2017	14:19:12	95.88	63.92	0.61	No		_	
SFWF	67	С	36	11/12/2017	14:20:17	90.75	60.50	0.55	No			
SFWF	68	А	35	11/12/2017	13:13:25	94.20	62.80	0.59	No		Small Surface- Burrowing Fauna	
SFWF	68	В	36	11/12/2017	13:14:21	IND	IND		IND		IND	

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	68	D	35	11/12/2017	13:16:44	97.50	65.00	0.63	No		Small Surface- Burrowing Fauna	
SFWF	69	А	35	11/12/2017	20:32:14	96.65	64.44	0.62	No		Small Surface- Burrowing Fauna	
SFWF	69	В	35	11/12/2017	20:33:17	101.76	67.84	0.69	No			
SFWF	69	С	36	11/12/2017	20:34:19	88.74	59.16	0.52	No			
SFWF	70	А	34	11/12/2017	20:54:14	101.50	67.66	0.69	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	70	В	36	11/12/2017	20:55:42	103.38	68.92	0.71	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	70	С	34	11/12/2017	20:56:58	99.05	66.03	0.65	No		Small Surface- Burrowing Fauna	Barnacles
SFWF	71	А	36	11/12/2017	20:11:05	97.87	65.24	0.64	No		Small Surface- Burrowing Fauna	
SFWF	71	В	36	11/12/2017	20:12:30	91.17	60.78	0.55	No			
SFWF	71	С	35	11/12/2017	20:13:38	97.87	65.24	0.64	No			
SFWF	72	А	36	11/12/2017	19:45:17	101.50	67.66	0.69	No		Small Surface- Burrowing Fauna	
SFWF	72	В	36	11/12/2017	19:46:46	94.72	63.15	0.60	No			
SFWF	72	С	36	11/12/2017	19:47:55	106.92	71.28	0.76	No			
SFWF	73	А	36	11/12/2017	18:50:41	100.97	67.31	0.68	No		Small Surface- Burrowing Fauna	
SFWF	73	С	35	11/12/2017	18:53:02	89.14	59.43	0.53	No			
SFWF	73	D	35	11/12/2017	18:54:09	109.94	73.29	0.81	No			
SFWF	74	А	36	11/12/2017	19:09:44	100.58	67.05	0.67	No		Small Surface- Burrowing Fauna	
SFWF	74	С	37	11/12/2017	19:11:43	100.97	67.31	0.68	No			
SFWF	74	D	35	11/12/2017	19:12:49	93.69	62.46	0.59	No			
SFWF	75	А	36	11/12/2017	19:27:40	91.23	60.82	0.55	No		Small Surface- Burrowing Fauna	
SFWF	75	С	36	11/12/2017	19:30:03	102.90	68.60	0.71	No			
SFWF	75	D	36	11/12/2017	19:31:06	91.33	60.89	0.56	No			

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	76	А	38	11/12/2017	14:01:01	97.50	65.00	0.63	No		Small Surface- Burrowing Fauna	
SFWF	76	В	36	11/12/2017	14:02:38	104.35	69.57	0.73	No			
SFWF	76	С	37	11/12/2017	14:03:51	102.50	68.33	0.70	No			
SFWF	201	А	35	11/20/2018	15:12:40	91.87	61.25	0.56	No		Small Surface- Burrowing Fauna	Attached Bryozoans
SFWF	201	В	35	11/20/2018	15:13:58	86.91	57.94	0.50	No		Small Surface- Burrowing Fauna	
SFWF	201	С	35	11/20/2018	15:15:04	91.76	61.18	0.56	No		Small Surface- Burrowing Fauna	Barnacles
SFWF	202	А	44	11/20/2018	14:53:04	85.34	56.89	0.49	No		Small Surface- Burrowing Fauna	
SFWF	202	В	44	11/20/2018	14:54:13	77.73	51.82	0.40	No		Small Surface- Burrowing Fauna	
SFWF	202	С	44	11/20/2018	14:55:27	83.69	55.79	0.47	No		Small Surface- Burrowing Fauna	
SFWF	203	А	37	11/20/2018	14:13:35	93.36	62.24	0.58	No		IND	
SFWF	203	С	37	11/20/2018	14:14:45	85.34	56.89	0.49	No		Small Surface- Burrowing Fauna	Mobile Mollusks on Soft Sediments
SFWF	203	D	37	11/20/2018	14:16:58	89.14	59.43	0.53	No		Small Surface- Burrowing Fauna	
SFWF	204	А	35	11/20/2018	14:29:07	90.75	60.50	0.55	No		Diverse Colonizers	Small Surface- Burrowing Fauna
SFWF	204	В	35	11/20/2018	14:30:23	76.66	51.11	0.39	No		Small Surface- Burrowing Fauna	Barnacles
SFWF	204	С	35	11/20/2018	14:31:51	66.84	44.56	0.30	No		Small Surface- Burrowing Fauna	Barnacles
SFWF	205	А	35	11/20/2018	13:57:32	83.74	55.82	0.47	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	205	В	35	11/20/2018	13:58:44	78.79	52.53	0.41	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	205	С	35	11/20/2018	14:00:03	86.67	57.78	0.50	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	206	А	36	11/20/2018	9:37:19	79.35	52.90	0.42	No		Small Surface- Burrowing Fauna	

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	206	С	36	11/20/2018	9:39:21	88.14	58.76	0.52	No		Small Surface- Burrowing Fauna	Attached Bryozoans
SFWF	206	D	36	11/20/2018	9:40:13	78.95	52.63	0.42	No		Small Surface- Burrowing Fauna	
SFWF	207	А	37	11/20/2018	13:40:19	82.45	54.97	0.45	No		Small Surface- Burrowing Fauna	
SFWF	207	В	37	11/20/2018	13:41:14	66.70	44.46	0.30	No		Small Surface- Burrowing Fauna	
SFWF	207	С	37	11/20/2018	13:42:18	81.50	54.34	0.44	No		Small Surface- Burrowing Fauna	
SFWF	208	А	34	11/20/2018	13:22:36	96.42	64.28	0.62	No		Small Surface- Burrowing Fauna	
SFWF	208	В	34	11/20/2018	13:23:38	97.93	65.29	0.64	No		Small Surface- Burrowing Fauna	
SFWF	208	С	34	11/20/2018	13:24:46	IND	IND	IND	No		Small Surface- Burrowing Fauna	
SFWF	209	В	37	11/20/2018	10:02:30	78.23	52.16	0.41	No		Small Surface- Burrowing Fauna	
SFWF	209	С	37	11/20/2018	10:03:29	77.42	51.61	0.40	No		Small Surface- Burrowing Fauna	
SFWF	209	D	37	11/20/2018	10:04:24	69.99	46.66	0.33	No		Small Surface- Burrowing Fauna	
SFWF	210	А	34	11/20/2018	12:31:59	88.79	59.19	0.53	No		Small Surface- Burrowing Fauna	
SFWF	210	В	34	11/20/2018	12:33:02	76.62	51.08	0.39	No		Small Surface- Burrowing Fauna	
SFWF	210	С	34	11/20/2018	12:33:57	78.08	52.05	0.41	No		Small Surface- Burrowing Fauna	
SFWF	211	А	35	11/20/2018	12:47:53	81.46	54.31	0.44	No		Small Surface- Burrowing Fauna	
SFWF	211	В	35	11/20/2018	12:48:56	86.00	57.33	0.49	No		Small Surface- Burrowing Fauna	
SFWF	211	С	35	11/20/2018	12:49:54	77.53	51.69	0.40	No		Small Surface- Burrowing Fauna	
SFWF	212	А	34	11/20/2018	12:07:35	84.87	56.58	0.48	No		Small Surface- Burrowing Fauna	
SFWF	212	С	34	11/20/2018	12:09:38	80.66	53.77	0.43	No		Small Surface- Burrowing Fauna	
SFWF	212	D	34	11/20/2018	12:10:34	92.31	61.54	0.57	No		Small Surface- Burrowing Fauna	Small Tube- Building Fauna

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFWF	213	А	34	11/20/2018	13:03:39	101.76	67.84	0.69	No		Small Surface- Burrowing Fauna	Attached Bryozoans
SFWF	213	В	34	11/20/2018	13:05:04	70.59	47.06	0.33	No		Small Surface- Burrowing Fauna	
SFWF	213	С	34	11/20/2018	13:06:15	84.51	56.34	0.48	No		Small Surface- Burrowing Fauna	Attached Bryozoans
SFWF	214	В	34	11/20/2018	10:18:38	66.67	44.44	0.30	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	214	С	34	11/20/2018	10:19:57	81.04	54.03	0.44	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFWF	214	D	34	11/20/2018	10:20:56	75.95	50.63	0.38	No		Small Surface- Burrowing Fauna	
SFWF	215	А	35	11/20/2018	11:40:43	85.81	57.21	0.49	No		IND	
SFWF	215	В	35	11/20/2018	11:41:53	79.15	52.77	0.42	No		Barnacles	
SFWF	215	С	35	11/20/2018	11:42:53	75.95	50.63	0.38	No		Small Surface- Burrowing Fauna	
SFWF	216	А	33	11/20/2018	11:53:48	89.35	59.56	0.53	No		Small Surface- Burrowing Fauna	
SFWF	216	В	33	11/20/2018	11:54:48	96.42	64.28	0.62	No		Small Surface- Burrowing Fauna	
SFWF	216	С	33	11/20/2018	11:55:41	65.85	43.90	0.29	No		Small Surface- Burrowing Fauna	
SFWF	217	А	34	11/20/2018	11:25:42	58.04	38.69	0.22	No		Small Surface- Burrowing Fauna	
SFWF	217	С	34	11/20/2018	11:28:46	78.59	52.39	0.41	No		Small Surface- Burrowing Fauna	Attached Bryozoans
SFWF	217	D	34	11/20/2018	11:29:19	81.93	54.62	0.45	No		Small Surface- Burrowing Fauna	
SFWF	218	А	33	11/20/2018	10:49:08	81.55	54.36	0.44	No		Small Surface- Burrowing Fauna	
SFWF	218	В	33	11/20/2018	10:50:32	75.14	50.10	0.38	No		Small Surface- Burrowing Fauna	
SFWF	218	С	33	11/20/2018	10:51:30	88.34	58.89	0.52	No		Small Surface- Burrowing Fauna	

Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
219	А	34	11/20/2018	10:34:10	93.19	62.13	0.58	No		Small Surface- Burrowing Fauna	Attached Hydroids
219	В	34	11/20/2018	10:35:19	75.88	50.58	0.38	No		Small Surface- Burrowing Fauna	Attached Hydroids
219	С	34	11/20/2018	10:35:56	83.20	55.47	0.46	No		Small Surface- Burrowing Fauna	
220	Α	36	11/20/2018	11:11:12	74.96	49.98	0.37	No		Small Surface- Burrowing Fauna	
220	В	36	11/20/2018	11:12:24	83.20	55.47	0.46	No		Small Surface- Burrowing Fauna	
220	С	36	11/20/2018		80.25	53.50	0.43	No		Small Surface- Burrowing Fauna	
C01	Α	38						IND		IND	
C01	В	38	11/15/2017	17:28:04	IND	IND		IND		IND	
C01	С	38	11/15/2017	17:29:18	IND	IND		No		IND	
C01	E	38	11/15/2017	17:31:28	IND	IND		No		IND	
C01	F	36	11/15/2017	17:32:44	IND	IND		No		IND	
C02	А	37	11/15/2017	16:53:38	100.58	67.05	0.67	No		Small Surface- Burrowing Fauna	
C02	В	37	11/15/2017	16:55:12	105.98	70.65	0.75	No		Small Surface-	
C02	С	36	11/15/2017	16:56:23	100.32	66.88	0.67	No		Small Surface- Burrowing Fauna	
C02	D	36	11/15/2017	16:57:21	100.65	67.10	0.68	No		Small Surface- Burrowing Fauna	
C02	E	36	11/15/2017	16:58:27	103.93	69.29	0.72	No		Small Surface- Burrowing Fauna	
101	А	35	11/12/2017	21:18:51	102.77	68.51	0.70	No		Small Surface- Burrowing Fauna	Attached Hydroids
101	С	35	11/12/2017	21:21:12	100.13	66.75	0.67	No		Small Surface- Burrowing Fauna	Attached Hydroids
101	D	35	11/12/2017	21:22:30	103.52	69.01	0.71	No		Small Surface- Burrowing Fauna	Attached Hydroids
	219 219 219 220 220 220 C01 C01 C01 C01 C02 C02 C02 C02 C02 C101 T101	219 B 219 C 220 A 220 B 220 C C01 A C01 B C01 C C01 E C01 F C02 A C02 B C02 C C02 D C02 E 101 A	Station ID         Replicate (m)           219         A         34           219         B         34           219         C         34           220         A         36           220         B         36           220         C         36           C01         A         38           C01         B         38           C01         C         38           C01         E         38           C01         F         36           C02         A         37           C02         B         37           C02         B         37           C02         C         36           C02         D         36           C02         E         36           101         A         35           101         C         35	Station ID         Replicate (m)         Date           219         A         34         11/20/2018           219         B         34         11/20/2018           219         C         34         11/20/2018           220         A         36         11/20/2018           220         B         36         11/20/2018           220         C         36         11/20/2018           C01         A         38         11/15/2017           C01         B         38         11/15/2017           C01         C         38         11/15/2017           C01         E         38         11/15/2017           C01         F         36         11/15/2017           C02         A         37         11/15/2017           C02         B         37         11/15/2017           C02         C         36         11/15/2017           C02         D         36         11/15/2017           C02         E         36         11/15/2017           101         A         35         11/12/2017           101         C         35         11/12/2017	Station ID         Replicate (m)         Date (m)         Time           219         A         34         11/20/2018 10:34:10           219         B         34         11/20/2018 10:35:19           219         C         34         11/20/2018 10:35:56           220         A         36         11/20/2018 11:11:12           220         B         36         11/20/2018 11:13:50           C01         A         38         11/15/2017 17:27:01           C01         B         38         11/15/2017 17:28:04           C01         C         38         11/15/2017 17:31:28           C01         E         38         11/15/2017 17:32:44           C02         A         37         11/15/2017 16:53:38           C02         B         37         11/15/2017 16:55:12           C02         C         36         11/15/2017 16:56:23           C02         D         36         11/15/2017 16:56:23           C02         E         36         11/15/2017 21:18:51           101         A         35         11/12/2017 21:18:51           101         C         35         11/12/2017 21:21:12	Station ID         Replicate (m)         Date (m)         Time (cm)           219         A         34         11/20/2018 10:34:10         93.19           219         B         34         11/20/2018 10:35:19         75.88           219         C         34         11/20/2018 10:35:56         83.20           220         A         36         11/20/2018 11:11:12         74.96           220         B         36         11/20/2018 11:12:24         83.20           220         C         36         11/20/2018 11:13:50         80.25           C01         A         38         11/15/2017 17:27:01         IND           C01         B         38         11/15/2017 17:28:04         IND           C01         C         38         11/15/2017 17:29:18         IND           C01         E         38         11/15/2017 17:31:28         IND           C01         F         36         11/15/2017 17:31:28         IND           C02         A         37         11/15/2017 16:53:38         100.58           C02         B         37         11/15/2017 16:55:12         105.98           C02         C         36         11/15/2017 16:56:23	Station ID   Replicate   (m)   Date   Time   (cm)   (cm)	Station in Replicate   (m)   Date   Time   (cm)   (cm)   (m²)	Station in   Replicate   (m)   Date   11me   (cm)   (cm)   (m²)   Present?	Sestive Taxa   Pepicate   (m)	Sation ID   Replicate   (m)

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFEC-OCS	102	А	36	11/12/2017	21:46:34	101.69	67.80	0.69	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFEC-OCS	102	С	36	11/12/2017	21:48:41	99.81	66.54	0.66	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFEC-OCS	102	D	35	11/12/2017	21:49:52	103.79	69.19	0.72	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFEC-OCS	103	А	39	11/12/2017	22:12:47	106.05	70.70	0.75	No		Small Surface- Burrowing Fauna	
SFEC-OCS	103	В	38	11/12/2017	22:13:55	102.16	68.11	0.70	No			
SFEC-OCS	103	D	39	11/12/2017	22:16:03	IND	IND		IND			
SFEC-OCS	104	А	39	11/12/2017	22:37:54	102.90	68.60	0.71	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFEC-OCS	104	В	38	11/12/2017	22:39:28	99.81	66.54	0.66	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFEC-OCS	104	С	37	11/12/2017	22:40:39	103.79	69.19	0.72	No		Small Surface- Burrowing Fauna	Attached Hydroids
SFEC-OCS	105	А	41	11/12/2017	23:05:31	103.17	68.78	0.71	No		Small Surface- Burrowing Fauna	
SFEC-OCS	105	В	40	11/12/2017	23:06:52	100.97	67.31	0.68	No			
SFEC-OCS	105	D	41	11/12/2017	23:09:00	96.24	64.16	0.62	No			
SFEC-OCS	106	А	43	11/12/2017	23:24:54	103.52	69.01	0.71	No		Small Surface- Burrowing Fauna	
SFEC-OCS	106	В	43	11/12/2017	23:26:03	91.50	61.00	0.56	IND			
SFEC-OCS	106	С	43	11/12/2017	23:27:01	IND	IND		IND			

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFEC-OCS	107	А	43	11/12/2017	23:48:00	109.24	72.83	0.80	No		Small Surface- Burrowing Fauna	
SFEC-OCS	107	В	43	11/12/2017	23:49:13	82.15	54.77	0.45	No			
SFEC-OCS	107	С	42	11/12/2017	23:50:22	98.42	65.62	0.65	No			
SFEC-OCS	108	А	43	11/13/2017	0:10:22	115.38	76.92	0.89	No			
SFEC-OCS	108	В	43	11/13/2017	0:11:31	103.72	69.15	0.72	No		Small Surface- Burrowing Fauna	
SFEC-OCS	108	С	43	11/13/2017	0:12:58	106.34	70.89	0.75	No			
SFEC-OCS	109	А	43	11/13/2017	0:27:58	88.09	58.72	0.52	No		Small Surface- Burrowing Fauna	
SFEC-OCS	109	В	43	11/13/2017	0:29:14	90.59	60.39	0.55	No			
SFEC-OCS	109	D	43	11/13/2017	0:31:33	89.14	59.43	0.53	No			
SFEC-OCS	110	А	45	11/13/2017	0:50:32	90.75	60.50	0.55	No		Small Surface- Burrowing Fauna	
SFEC-OCS	110	В	45	11/13/2017	0:53:45	103.38	68.92	0.71	No			
SFEC-OCS	110	С	45	11/13/2017	0:54:51	IND	IND		IND			
SFEC-OCS	111	А	47	11/13/2017	1:21:43	111.35	74.23	0.83	No			
SFEC-OCS	111	В	47	11/13/2017	1:22:51	91.33	60.89	0.56	No		Small Surface- Burrowing Fauna	
SFEC-OCS	111	С	47	11/13/2017	1:24:03	108.56	72.37	0.79	No			
SFEC-OCS	112	А	45	11/13/2017	1:45:43	95.94	63.96	0.61	No		Small Surface- Burrowing Fauna	
SFEC-OCS	112	В	45	11/13/2017	1:47:20	86.67	57.78	0.50	No			
SFEC-OCS	112	С	46	11/13/2017	1:48:29	88.99	59.33	0.53	No			

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFEC-OCS	113	А	44	11/13/2017	2:08:56	91.71	61.14	0.56	No		Sand Dollar Bed	
SFEC-OCS	113	В	43	11/13/2017	2:09:55	106.41	70.94	0.75	No			
SFEC-OCS	113	С	43	11/13/2017	2:11:04	107.81	71.87	0.77	No			
SFEC-OCS	114	А	43	11/13/2017	2:32:12	101.69	67.80	0.69	No		Small Surface- Burrowing Fauna	
SFEC-OCS	114	В	42	11/13/2017	2:33:37	98.61	65.74	0.65	No			
SFEC-OCS	114	С	42	11/13/2017	2:34:34	107.81	71.87	0.77	No			
SFEC-OCS	115	А	45	11/13/2017	2:56:18	93.53	62.35	0.58	No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-OCS	115	В	44	11/13/2017	2:57:19	101.56	67.71	0.69	No			
SFEC-OCS	115	С	44	11/13/2017	2:58:33	84.69	56.46	0.48	No			
SFEC-OCS	116	А	45	11/13/2017	3:20:57	108.56	72.37	0.79	No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-OCS	116	В	44	11/13/2017	3:22:08	100.78	67.18	0.68	No			
SFEC-OCS	116	С	45	11/13/2017	3:23:19	100.52	67.01	0.67	No			
SFEC-OCS	117	А	48	11/13/2017	3:43:20	IND	IND		No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-OCS	117	В	48	11/13/2017	3:44:38	95.94	63.96	0.61	No			
SFEC-OCS	117	С	48	11/13/2017	3:46:01	92.86	61.90	0.57	No			
SFEC-OCS	118	А	48	11/13/2017	4:08:45	92.20	61.47	0.57	No		Small Surface- Burrowing Fauna	
SFEC-OCS	118	В	48	11/13/2017	4:10:06	98.24	65.49	0.64	No			
SFEC-OCS	118	С	46	11/13/2017	4:11:22	IND	IND		IND			
SFEC-OCS	119	А	47	11/13/2017	4:33:47	94.03	62.69	0.59	No		Small Surface- Burrowing Fauna	
SFEC-OCS	119	В	47	11/13/2017	4:35:09	94.66	63.11	0.60	No			

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFEC-OCS	119	С	47	11/13/2017	4:36:32	101.56	67.71	0.69	No			
SFEC-OCS	120	А	45	11/13/2017	4:59:30	97.01	64.68	0.63	No		Small Surface- Burrowing Fauna	
SFEC-OCS	120	В	45	11/13/2017	5:00:38	97.87	65.24	0.64	No			
SFEC-OCS	120	С	46	11/13/2017	5:01:56	98.42	65.62	0.65	No			
SFEC-OCS	121	А	44	11/13/2017	5:26:19	81.46	54.31	0.44	No		Small Surface- Burrowing Fauna	
SFEC-OCS	121	В	43	11/13/2017	5:27:54	101.36	67.58	0.68	No			
SFEC-OCS	121	D	45	11/13/2017	5:30:11	104.77	69.85	0.73	No			
SFEC-OCS	122	А	41	11/13/2017	6:08:31	94.37	62.92	0.59	No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-OCS	122	В	40	11/13/2017	6:09:40	101.89	67.93	0.69	No			
SFEC-OCS	122	С	40	11/13/2017	6:11:01	96.47	64.32	0.62	No			
SFEC-OCS	123	А	41	11/13/2017	6:33:41	97.50	65.00	0.63	No		IND	
SFEC-OCS	123	В	41	11/13/2017	6:34:50	104.77	69.85	0.73	No			
SFEC-OCS	123	С	41	11/13/2017	6:36:15	98.05	65.37	0.64	No			
SFEC-OCS	124	А	43	11/13/2017	6:56:58	100.32	66.88	0.67	No		Small Surface- Burrowing Fauna	
SFEC-OCS	124	В	42	11/13/2017	6:58:09	97.20	64.80	0.63	No			
SFEC-OCS	124	D	43	11/13/2017	7:00:46	95.01	63.34	0.60	No			
SFEC-OCS	125	А	47	11/13/2017	7:20:58	103.31	68.87	0.71	No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-OCS	125	С	47	11/13/2017	7:23:23	98.86	65.91	0.65	No			

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFEC-OCS	125	D	48	11/13/2017	7:24:32	99.43	66.28	0.66	No			
SFEC-OCS	126	А	41	11/13/2017	7:43:35	94.49	62.99	0.60	No		Sand Dollar Bed	Small Surface- Burrowing Fauna
SFEC-OCS	126	В	41	11/13/2017	7:44:49	96.95	64.64	0.63	No			
SFEC-OCS	126	С	41	11/13/2017	7:46:12	93.69	62.46	0.59	No			
SFEC-OCS	127	А	41	11/13/2017	8:09:31	99.55	66.37	0.66	No		Small Surface- Burrowing Fauna	
SFEC-OCS	127	В	41	11/13/2017	8:10:48	101.10	67.40	0.68	No			
SFEC-OCS	127	С	41	11/13/2017	8:12:19	99.05	66.03	0.65	No			
SFEC-OCS	128	А	47	11/13/2017	8:35:24	IND	IND		No			
SFEC-OCS	128	В	47	11/13/2017	8:37:05	IND	IND		No		Small Surface- Burrowing Fauna	
SFEC-OCS	128	С	46	11/13/2017	8:38:36	IND	IND		No			
SFEC-OCS	129	А	48	11/13/2017	9:01:57	IND	IND		No		Small Surface- Burrowing Fauna	
SFEC-OCS	129	С	48	11/13/2017	9:04:15	IND	IND		No			
SFEC-OCS	129	D	47	11/13/2017	9:05:32	IND	IND		No			
SFEC-OCS	130	А	48	11/13/2017	9:25:16	IND	IND		No		Small Surface- Burrowing Fauna	
SFEC-OCS	130	В	46	11/13/2017	9:26:51	IND	IND		No			
SFEC-OCS	130	С	46	11/13/2017	9:28:28	IND	IND		No			
SFEC-OCS	131	Α	45	11/13/2017	9:48:12	IND	IND		IND			
SFEC-OCS	131	С	45	11/13/2017	9:50:55	IND	IND		IND			
SFEC-OCS	131	D	45	11/13/2017	9:52:10	IND	IND		IND		IND	

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFEC-OCS	132	А	41	11/13/2017	10:06:32	IND	IND		IND			
SFEC-OCS	132	С	43	11/13/2017	10:09:35	IND	IND		IND			
SFEC-OCS	132	D	42	11/13/2017	10:11:01	IND	IND		IND		IND	
SFEC-OCS	133	А	39	11/13/2017	10:41:49	IND	IND		IND		Small Surface- Burrowing Fauna	
SFEC-OCS	133	В	39	11/13/2017	10:43:24	IND	IND		IND			
SFEC-OCS	133	D	39	11/13/2017	10:46:13	IND	IND		IND			
SFEC-OCS	134	А	36	11/13/2017	11:11:45	97.01	64.68	0.63	No		IND	
SFEC-OCS	134	В	35	11/13/2017	11:13:16	98.61	65.74	0.65	No			
SFEC-OCS	134	С	36	11/13/2017	11:14:43	IND	IND		No			
SFEC-OCS	135	А	34	11/13/2017	11:37:58	108.48	72.32	0.78	No		IND	
SFEC-OCS	135	В	34	11/13/2017	11:39:16	100.00	66.67	0.67	IND			
SFEC-OCS	135	С	34	11/13/2017	11:40:20				IND			
SFEC-OCS	136	Α	33	11/13/2017	12:07:49	104.14	69.43	0.72	No		Small Surface- Burrowing Fauna	
SFEC-OCS	136	В	33	11/13/2017	12:09:10	106.34	70.89	0.75	No			
SFEC-OCS	136	С	33	11/13/2017	12:10:06	96.42	64.28	0.62	No			
SFEC-OCS	137	Α	35	11/13/2017	12:35:08	105.05	70.03	0.74	No			
SFEC-OCS	137	В	31	11/13/2017	12:36:07	96.12	64.08	0.62	No		Small Surface- Burrowing Fauna	
SFEC-OCS	137	С	32	11/13/2017	12:37:07	105.76	70.51	0.75	No			
SFEC-OCS	138	А	31	11/13/2017	12:58:46	86.19	57.46	0.50	No		Sand Dollar Bed	Small Surface- Burrowing Fauna
SFEC-OCS	138	В	32	11/13/2017	12:59:45	90.91	60.61	0.55	No			

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFEC-OCS	138	D	32	11/13/2017	13:01:50	106.34	70.89	0.75	No			
SFEC-OCS	139	А	31	11/13/2017	13:23:12	100.78	67.18	0.68	No		Sand Dollar Bed	Small Surface- Burrowing Fauna
SFEC-OCS	139	В	32	11/13/2017	13:24:08	100.19	66.80	0.67	No			
SFEC-OCS	139	С	31	11/13/2017	13:25:00	96.06	64.04	0.62	No			
SFEC-OCS	140	А	31	11/13/2017	13:53:17	98.24	65.49	0.64	No		Sand Dollar Bed	Small Surface- Burrowing Fauna
SFEC-OCS	140	В	31	11/13/2017	13:54:21	104.14	69.43	0.72	No			
SFEC-OCS	140	С	31	11/13/2017	13:55:23	99.81	66.54	0.66	No			
SFEC-OCS	141	Α	30	11/13/2017	14:57:04	104.98	69.99	0.73	No		Small Surface- Burrowing Fauna	
SFEC-OCS	141	В	30	11/13/2017	14:58:05	104.42	69.61	0.73	No			
SFEC-OCS	141	С	30	11/13/2017	14:59:19	100.13	66.75	0.67	No			
SFEC-OCS	142	А	28	11/13/2017	17:47:47	97.32	64.88	0.63	No		Small Surface- Burrowing Fauna	
SFEC-OCS	142	В	28	11/13/2017	17:49:50	94.66	63.11	0.60	No			
SFEC-OCS	142	С	23	11/13/2017	17:51:28	81.12	54.08	0.44	No			
SFEC-OCS	146	С	30	11/14/2017	15:00:49	89.66	59.77	0.54	No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-OCS	146	E	30	11/14/2017	15:02:25	IND	IND		IND			
SFEC-OCS	146	F	30	11/14/2017	15:03:11	IND	IND		IND			
SFEC-OCS	147	А	31	11/14/2017	15:28:52	92.36	61.57	0.57	No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-OCS	147	В	31	11/14/2017	15:29:33	94.66	63.11	0.60	No			
SFEC-OCS	147	С	31	11/14/2017	15:30:29	96.83	64.56	0.63	No			
SFEC-OCS	148	Α	30	11/14/2017	15:53:26	91.87	61.25	0.56	No		Small Surface- Burrowing Fauna	Sand Dollar Bed

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFEC-OCS	148	В	30	11/14/2017	15:54:42	IND	IND		No			
SFEC-OCS	148	С	30	11/14/2017	15:55:51	98.48	65.66	0.65	No			
SFEC-OCS	149	А	29	11/14/2017	16:19:17	IND	IND		IND			
SFEC-OCS	149	В	29	11/14/2017	16:20:12	104.77	69.85	0.73	No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-OCS	149	С	29	11/14/2017	16:21:08	90.38	60.25	0.54	No			
SFEC-OCS	150	А	31	11/14/2017	16:43:39	97.14	64.76	0.63	IND		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-OCS	150	С	31	11/14/2017	16:45:50	IND	IND		No			
SFEC-OCS	150	D	31	11/14/2017	16:46:55	IND	IND		No			
SFEC-OCS	151	А	31	11/14/2017	17:11:20	93.81	62.54	0.59	No		Small Surface- Burrowing Fauna	
SFEC-OCS	151	В	31	11/14/2017	17:12:33	95.88	63.92	0.61	No			
SFEC-OCS	151	D	31	11/14/2017	17:14:41	IND	IND		No			
SFEC-OCS	152	А	31	11/14/2017	17:34:19	95.06	63.38	0.60	No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-OCS	152	В	31	11/14/2017	17:35:24	86.09	57.40	0.49	No			
SFEC-OCS	152	С	31	11/14/2017	17:36:25	86.24	57.49	0.50	No			
SFEC-OCS	153	А	31	11/14/2017	17:59:51	95.41	63.61	0.61	No		Small Surface- Burrowing Fauna	
SFEC-OCS	153	В	31	11/14/2017	18:01:08	IND	IND		No			
SFEC-OCS	153	С	31	11/14/2017	18:02:15	IND	IND		No			
SFEC-OCS	154	А	31	11/14/2017	18:23:42	IND	IND		IND		IND	Sand Dollar Bed

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFEC-OCS	154	В	31	11/14/2017	18:24:52	IND	IND		No			
SFEC-OCS	154	D	31	11/14/2017	18:26:55	IND	IND		IND			
SFEC-OCS	155	А	32	11/14/2017	18:48:53	105.83	70.56	0.75	No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-OCS	155	В	32	11/14/2017	18:49:55	IND	IND		IND			
SFEC-OCS	155	С	32	11/14/2017	18:50:52	92.80	61.87	0.57	No			
SFEC-OCS	156	В	32	11/14/2017	19:15:25	IND	IND		IND			
SFEC-OCS	156	С	32	11/14/2017	19:16:29	76.55	51.03	0.39	No		Small Surface- Burrowing Fauna	
SFEC-OCS	156	D	32	11/14/2017	19:17:36	75.73	50.49	0.38	No			
SFEC-OCS	157	А	30	11/14/2017	19:36:09	103.79	69.19	0.72	No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-OCS	157	В	30	11/14/2017	19:37:13	94.83	63.22	0.60	No			
SFEC-OCS	157	D	30	11/14/2017	19:39:13	IND	IND		No			
SFEC-NYS	143	А	26	11/13/2017	15:42:11	100.52	67.01	0.67	No		Small Surface- Burrowing Fauna	
SFEC-NYS	143	В	26	11/13/2017	15:43:43	95.35	63.57	0.61	No			
SFEC-NYS	143	С	26	11/13/2017	15:44:49	100.78	67.18	0.68	No			
SFEC-NYS	144	А	22	11/13/2017	17:03:18	102.36	68.24	0.70	No		Small Surface- Burrowing Fauna	
SFEC-NYS	144	В	22	11/13/2017	17:04:38	99.74	66.50	0.66	No			
SFEC-NYS	144	С	23	11/13/2017	17:05:55	99.43	66.28	0.66	No			
SFEC-NYS	145	А	17	11/13/2017	16:27:06	101.30	67.53	0.68	No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-NYS	145	В	17	11/13/2017	16:28:11	96.42	64.28	0.62	No			

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
SFEC-NYS	145	С	17	11/13/2017	16:29:26	IND	IND		No			
SFEC-NYS	158	А	25	11/14/2017	20:03:30	96.24	64.16	0.62	No		Small Surface- Burrowing Fauna	Sand Dollar Bed
SFEC-NYS	158	В	25	11/14/2017	20:04:29	94.37	62.92	0.59	No			
SFEC-NYS	158	С	25	11/14/2017	20:05:38	IND	IND		No			
SFEC-NYS	159	А	21	11/14/2017	20:30:58	IND	IND		IND		IND	
SFEC-NYS	159	В	21	11/14/2017	20:31:59	IND	IND		IND			
SFEC-NYS	159	С	21	11/14/2017	20:33:02	IND	IND		IND			
SFEC-NYS	160	А	16	11/14/2017	20:52:00	IND	IND		IND		IND	
SFEC-NYS	160	В	16	11/14/2017	20:53:01	IND	IND		IND			
SFEC-NYS	160	D	16	11/14/2017	20:55:04	IND	IND		IND			
Reference	C03	А	35	11/15/2017	16:19:33	98.86	65.91	0.65	No		Small Surface- Burrowing Fauna	
Reference	C03	В	35	11/15/2017	16:20:54	107.96	71.97	0.78	No		Small Surface- Burrowing Fauna	
Reference	C03	С	36	11/15/2017	16:21:59	98.24	65.49	0.64	No		Small Surface- Burrowing Fauna	
Reference	C03	D	35	11/15/2017	16:22:58	IND	IND		No		Small Surface- Burrowing Fauna	
Reference	C03	Е	36	11/15/2017	16:24:14	104.56	69.71	0.73	No		Small Surface- Burrowing Fauna	
Reference	C04	А	36	11/15/2017	15:49:31	105.41	70.27	0.74	No		Small Surface- Burrowing Fauna	Pennatulid Bed
Reference	C04	В	36	11/15/2017	15:50:33	106.85	71.23	0.76	No		Small Surface- Burrowing Fauna	
Reference	C04	С	38	11/15/2017	15:51:42	106.34	70.89	0.75	No		Small Surface- Burrowing Fauna	
Reference	C04	D	36	11/15/2017	15:52:53	104.42	69.61	0.73	No		Small Surface- Burrowing Fauna	

Area	Station ID	Replicate	Water Depth (m)	Date	Time	Image Width (cm)	Image Height (cm)	Field of View (m²)	Sensitive Taxa Present?	Type of Sensitive Taxa	Biotic Group	Co-occurring Biotic Group
Reference	C04	F	36	11/15/2017	15:55:11	109.01	72.68	0.79	No		Small Surface- Burrowing Fauna	Pennatulid Bed
Reference	C05	А	35	11/15/2017	15:17:37	104.98	69.99	0.73	No		Small Surface- Burrowing Fauna	
Reference	C05	В	36	11/15/2017	15:19:09	114.45	76.30	0.87	No		Pennatulid Bed	Attached Hydroids
Reference	C05	С	33	11/15/2017	15:20:24	116.07	77.38	0.90	No		Pennatulid Bed	Attached Hydroids
Reference	C05	D	35	11/15/2017	15:21:36	106.48	70.99	0.76	No		Small Surface- Burrowing Fauna	
Reference	C05	F	35	11/15/2017	15:24:55	97.32	64.88	0.63	No		IND	

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	1	В	None	No		No	Yes	Yes	IND	None	None	None	Sand with mobile gravel
SFWF	1	С	Trace (<1%)	No		No	No	No	IND	Hydroids	None	None	Sand with mobile gravel
SFWF	1	D	Sparse (1 to <30%)	No		No	No	Yes	IND	Hydroids	None	None	Sand with mobile gravel
SFWF	2	А	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFWF	2	В											Sand sheet
SFWF	2	С											Sand sheet
SFWF	3	Α	None	No		No	Yes	Yes	IND	None	None	None	Sand sheet
SFWF	3	В											Sand sheet
SFWF	3	С											Sand sheet
SFWF	4	Α	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFWF	4	В											Sand sheet
SFWF	4	D											Sand sheet
SFWF	5	А	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFWF	5	В											Sand sheet
SFWF	5	С											Sand sheet
SFWF	6	А	None	No		No	Yes	Yes	IND	IND	None	None	Sand sheet
SFWF	6	D											Sand sheet
SFWF	7	В	Sparse (1 to <30%)	No		No	Yes	No	IND	Hydroids	None	None	Patchy cobbles & boulders on sand

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	7	С	Trace (<1%)	No		No	Yes	No	IND	Hydroids	None	None	Sand with mobile gravel
SFWF	7	D	Moderate (30 to < 70%)	No		No	IND	No	IND	Anemone, barnacle, hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	8	А	None	No		No	No	No	IND	None	None	None	Sand sheet
SFWF	8	В											Sand sheet
SFWF	8	С											Sand sheet
SFWF	9	А	None	No		No	No	No	IND	None	None	None	Sand sheet
SFWF	9	В											Sand sheet
SFWF	9	С											Sand sheet
SFWF	10	А											Sand sheet
SFWF	10	В											Sand sheet
SFWF	10	D	None	No		No	No	No	IND	None	None	None	Sand sheet
SFWF	11	А	None	No		No	No	No	IND	None	None	None	Sand sheet
SFWF	11	В											Sand sheet
SFWF	12	А	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFWF	12	С											Sand sheet
SFWF	12	D											Sand sheet
SFWF	13	А	None	No		No	No	Yes	IND	None	None	None	Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	13	В											Sand sheet
SFWF	13	С											Sand sheet
SFWF	14	В	None	No		No	No	No	IND	None	None	None	Sand sheet
SFWF	14	С											Sand sheet
SFWF	14	D											Sand sheet
SFWF	15	А	None	No		No	IND	No	IND	Shrimp	None	None	Sand sheet
SFWF	15	В											Sand sheet
SFWF	15	D											Sand sheet
SFWF	16	А	IND	No		No	No	No	IND	None	None	None	Sand with mobile gravel
SFWF	16	В											Sand with mobile gravel
SFWF	16	С											Sand with mobile gravel
SFWF	17	А	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFWF	17	В											Sand sheet
SFWF	17	D											Sand sheet
SFWF	18	А	Sparse (1 to <30%)	No		No	Yes	No	IND	Barnacles, hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	18	В	IND	IND		IND	IND	IND	IND	IND	IND	IND	Sand sheet
SFWF	18	С	IND	IND		IND	IND	IND	IND	IND	IND	IND	Sand sheet
SFWF	19	А	None	No		No	No	No	IND	None	None	None	Sand with mobile gravel

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	19	В											Sand with mobile gravel
SFWF	19	D											Sand with mobile gravel
SFWF	20	Α	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFWF	20	В											Sand sheet
SFWF	20	С											Sand sheet
SFWF	21	А	None	No		No	No	No	IND	None	None	Unkno wn	Sand sheet
SFWF	21	В											Sand sheet
SFWF	21	D											Sand sheet
SFWF	22	А	None	No		No	No	No	IND	None	None	None	Sand sheet
SFWF	22	В											Sand sheet
SFWF	22	С											Sand with mobile gravel
SFWF	23	А	Sparse (1 to <30%)	No		No	No	No	IND	Hydroids, Sand Dollar	Dead seaweed	None	Sand with mobile gravel
SFWF	23	С	Sparse (1 to <30%)	No		No	No	No	IND	Hydroids, Sponges	None	None	Patchy cobbles & boulders on sand
SFWF	23	D	Sparse (1 to <30%)	No		No	Yes	No	IND	Hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	24	Α	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFWF	24	В											Sand sheet
SFWF	24	С											Sand sheet
SFWF	25	Α											Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	25	В	None	No		No	Yes	Yes	IND	None	None	None	Sand sheet
SFWF	25	С											Sand sheet
SFWF	26	А	None	No		No	No	No	IND	None	None	None	Sand sheet
SFWF	26	В											Sand sheet
SFWF	26	D											Sand sheet
SFWF	27	А	None	No		No	No	No	IND	None	None	None	Sand sheet
SFWF	27	В											Sand sheet
SFWF	27	С											Sand sheet
SFWF	28	А	Trace (<1%)	No		No	No	No	IND	Hydroids	None	None	Sand sheet
SFWF	28	В											Sand sheet
SFWF	28	С											Sand sheet
SFWF	29	А	None	No		No	Yes	Yes	IND	None	None	Unkno wn	Sand sheet
SFWF	29	В											Sand sheet
SFWF	29	С											Sand sheet
SFWF	30	А	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFWF	30	С											Sand sheet
SFWF	30	D											Sand sheet
SFWF	31	Α	None	No		No	Yes	No	IND	None	None	None	Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	31	В											Sand sheet
SFWF	31	D											Sand sheet
SFWF	32	А	None	No		No	No	No	IND	None	None	None	Sand sheet
SFWF	32	В											Sand sheet
SFWF	32	С											Sand sheet
SFWF	33	А	None	No		No	No	No	IND	None	None	None	Sand sheet
SFWF	33	В											Sand with mobile gravel
SFWF	33	С											Sand sheet
SFWF	34	А	Trace (<1%)	No		No	Yes	No	IND	Barnacles, hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	34	В	Trace (<1%)	No		No	IND	No	IND	Barnacles, hydroids	None	None	Sand with mobile gravel
SFWF	34	D	None	No		No	No	No	IND	Clam	None	None	Sand sheet
SFWF	35	А	Trace (<1%)	No		IND	No	IND	IND	Barnacles, hydroids	None	Leftey e flatfis h	Sand with mobile gravel
SFWF	35	В											Sand sheet
SFWF	35	D											Sand sheet
SFWF	36	А	Sparse (1 to <30%)	No		No	No	No	IND	Barnacles, hydroids	None	None	Patchy cobbles & boulders on sand

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	36	В	Sparse (1 to <30%)	No		No	No	Yes	IND	Barnacles, hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	36	D	Sparse (1 to <30%)	No		No	No	No	IND	Barnacles, hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	37	А	None	No		No	Yes	Yes	IND	None	None	None	Sand sheet
SFWF	37	В											Sand sheet
SFWF	37	С											Sand sheet
SFWF	38	А	None	No		Yes	Yes	Yes	IND	IND	None	None	Sand with mobile gravel
SFWF	38	В											Sand sheet
SFWF	38	D											Sand sheet
SFWF	39	А	Sparse (1 to <30%)	No		No	No	No	IND	Hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	39	В	None	No		No	No	No	IND	None	None	None	Sand with mobile gravel
SFWF	39	С	None	No		No	Yes	No	IND	None	None	None	Sand with mobile gravel
SFWF	40	А	None	No		Yes	No	No	IND	None	None	None	Sand with mobile gravel
SFWF	40	В											Sand with mobile gravel

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	40	D											Sand with mobile gravel
SFWF	41	А	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFWF	41	В											Sand sheet
SFWF	41	С											Sand sheet
SFWF	42	А	Trace (<1%)	No		No	Yes	No	IND	Barnacles, hydroids, scallop	None	None	Sand with mobile gravel
SFWF	42	В											Sand with mobile gravel
SFWF	42	С											Sand with mobile gravel
SFWF	43	А	None	No		No	No	No	IND	None	None	Unkno wn	Sand sheet
SFWF	43	В											Sand sheet
SFWF	43	D											Sand sheet
SFWF	44	А	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFWF	44	В											Sand sheet
SFWF	44	D											Sand sheet
SFWF	45	А	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFWF	45	В											Sand sheet
SFWF	45	С											Sand sheet
SFWF	46	А	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFWF	46	В											Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	46	С											Sand sheet
SFWF	47	А	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFWF	47	В											Sand sheet
SFWF	47	D											Sand sheet
SFWF	48	А	None	No		No	No	No	IND	None	None	None	Sand with mobile gravel
SFWF	48	В											Sand with mobile gravel
SFWF	48	С											Sand with mobile gravel
SFWF	49	А	None	No		No	No	No	IND	None	None	None	Sand sheet
SFWF	49	В											Sand sheet
SFWF	49	D											Sand sheet
SFWF	50	А	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFWF	50	В											Sand with mobile gravel
SFWF	50	С											Sand sheet
SFWF	51	В	None	No		No	No	No	IND	None	None	None	Sand with mobile gravel
SFWF	51	С											Sand with mobile gravel
SFWF	51	D											Sand with mobile gravel
SFWF	52	А	None	No		Yes	No	Yes	IND	None	None	None	Sand with mobile gravel
SFWF	52	В											Sand with mobile gravel

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	52	D											Sand with mobile gravel
SFWF	53	А	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFWF	53	В											Sand sheet
SFWF	53	С											Sand sheet
SFWF	54	Α	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFWF	54	С	Sparse (1 to <30%)	No		No	Yes	No	IND	Hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	54	D	Sparse (1 to <30%)	No		Yes	Yes	No	IND	Hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	55	Α	None	No		No	No	No	IND	Sea pen	None	Sea robin	Sand with mobile gravel
SFWF	55	В											Sand with mobile gravel
SFWF	55	D											Sand sheet
SFWF	56	Α	None	No		No	No	No	IND	Scallop	None	None	Sand with mobile gravel
SFWF	56	В											Patchy cobbles & boulders on sand
SFWF	56	С											Patchy cobbles & boulders on sand
SFWF	57	А	Sparse (1 to <30%)	No		No	Yes	Yes	IND	Barnacles, Hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	57	С	Trace (<1%)	No		Yes	Yes	No	IND	Hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	57	D	Trace (<1%)	No		No	Yes	No	IND	Barnacles, Hydroids, Sea Pen	None	None	Patchy cobbles & boulders on sand

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	58	Α	None	No		Yes	Yes	Yes	IND	Hermit crab	None	None	Sand sheet
SFWF	58	В											Sand with mobile gravel
SFWF	58	D											Sand with mobile gravel
SFWF	59	А	None	No		No	Yes	No	IND	None	None	None	Sand with mobile gravel
SFWF	59	В											Sand with mobile gravel
SFWF	59	С											Sand sheet
SFWF	60	А	None	No		No	Yes	No	IND	None	None	None	Sand with mobile gravel
SFWF	60	В											Sand with mobile gravel
SFWF	60	С											Sand with mobile gravel
SFWF	61	А	Sparse (1 to <30%)	No		No	Yes	No	IND	Barnacles, Hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	61	С	Sparse (1 to <30%)	No		No	No	No	IND	Barnacles, Hydroids, Sea pen	None	None	Patchy cobbles & boulders on sand
SFWF	61	D	Sparse (1 to <30%)	No		No	No	No	IND	Barnacles, Hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	62	А	Sparse (1 to <30%)	No		Yes	Yes	No	IND	Barnacles, Hydroids, Sea pens	None	None	Patchy cobbles & boulders on sand
SFWF	62	С	Sparse (1 to <30%)	No		No	Yes	Yes	IND	Barnacles, Hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	62	D	Sparse (1 to <30%)	No		Yes	No	No	IND	Barnacles, Hydroids, Sea pen	None	None	Patchy cobbles & boulders on sand

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	63	А	Moderate (30 to < 70%)	No		Yes	No	Yes	IND	Barnacles, Hydroids, Sponges	None	None	Patchy cobbles & boulders on sand
SFWF	63	В	Sparse (1 to <30%)	No		No	No	No	IND	Hydroids, Sea pen, Sea star, Sponges	None	None	Patchy cobbles & boulders on sand
SFWF	63	С	Sparse (1 to <30%)	No		Yes	Yes	Yes	IND	Barnacles, Hydroids, Sea pen	None	None	Patchy cobbles & boulders on sand
SFWF	64	А	Trace (<1%)	No		No	Yes	No	IND	Barnacles	None	None	Sand with mobile gravel
SFWF	64	В	None	No		No	Yes	No	IND	None	None	None	Sand with mobile gravel
SFWF	64	С	Sparse (1 to <30%)	No		No	Yes	No	IND	Hydroids, Sea pen	None	None	Patchy cobbles & boulders on sand
SFWF	65	А	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFWF	65	В											Sand sheet
SFWF	65	С											Sand with mobile gravel
SFWF	66	А	Sparse (1 to <30%)	No		No	Yes	No	IND	Barnacles, Hydroids, Sea pen	None	None	Patchy cobbles & boulders on sand
SFWF	66	В	None	No		No	Yes	No	IND	None	None	None	Sand with mobile gravel
SFWF	66	С	Trace (<1%)	No		No	Yes	No	IND	Hydroids, Sea pen	None	None	Sand sheet
SFWF	67	А	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFWF	67	В											Sand sheet
SFWF	67	С											Sand sheet
SFWF	68	А	None	No		No	Yes	Yes	IND	None	None	None	Sand with mobile gravel
SFWF	68	В	Trace (<1%)	No		IND	IND	IND	IND	Barnacles	None	None	IND

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	68	D	None	No		Yes	Yes	No	IND	IND	None	None	Sand sheet
SFWF	69	А	None	No		No	Yes	No	IND	Sand dollar, Sea scallop	None	Unkno wn	Sand sheet
SFWF	69	В											Sand sheet
SFWF	69	С											Sand sheet
SFWF	70	А	Sparse (1 to <30%)	No		No	Yes	No	IND	Hydroids, Sea pen	None	None	Patchy cobbles & boulders on sand
SFWF	70	В	Sparse (1 to <30%)	No		No	Yes	No	IND	Barnacles, Hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	70	С	Trace (<1%)	No		No	Yes	No	IND	Barnacles, Sea pen	None	None	Patchy cobbles & boulders on sand
SFWF	71	А	None	No		No	No	No	IND	None	None	Unkno wn	Sand with mobile gravel
SFWF	71	В											Sand with mobile gravel
SFWF	71	С											Sand sheet
SFWF	72	А	None	No		No	Yes	Yes	IND	None	None	None	Sand sheet
SFWF	72	В											Sand sheet
SFWF	72	С											Sand sheet
SFWF	73	Α	None	No		No	Yes	Yes	IND	Hermit crab	None	None	Sand sheet
SFWF	73	С											Sand sheet
SFWF	73	D											Sand sheet
SFWF	74	Α	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFWF	74	С											Sand sheet
SFWF	74	D											Sand sheet
SFWF	75	А	None	No		No	No	No	IND	None	None	None	Sand sheet
SFWF	75	С											Sand with mobile gravel
SFWF	75	D											Sand with mobile gravel

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	76	А	None	No		No	Yes	Yes	IND	None	None	None	Sand sheet
SFWF	76	В											Sand sheet
SFWF	76	С											Sand sheet
SFWF	201	А	Trace (<1%)	No		No	Yes	Yes	No	Bryozoans	None	None	Patchy cobbles & boulders on sand
SFWF	201	В	Trace (<1%)	No		Yes	Yes	No	IND	Shrimp	None	None	Patchy cobbles & boulders on sand
SFWF	201	С	Trace (<1%)	No		No	Yes	No	IND	Barnacles	None	None	Patchy cobbles & boulders on sand
SFWF	202	А	None	No		No	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	202	В	None	No		Yes	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	202	С	None	No		No	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	203	А	None	No		No	No	No	IND	No	None	None	Sand with mobile gravel
SFWF	203	С	None	No		IND	Yes	No	IND	Sea scallop	None	None	Sand with mobile gravel
SFWF	203	D	None	No		IND	Yes	No	IND	No	None	None	Sand with mobile gravel
SFWF	204	А	Sparse (1 to <30%)	No		No	Yes	No	IND	Barnacles, Bryozoans, Shrimp	None	None	Patchy cobbles & boulders on sand
SFWF	204	В	Trace (<1%)	No		No	Yes	Yes	IND	Grazed barnacles, Shrimp	None	None	Patchy cobbles & boulders on sand
SFWF	204	С	Sparse (1 to <30%)	No		No	Yes	No	IND	Barnacles, Bryozoans, Shrimp	None	None	Patchy cobbles & boulders on sand
SFWF	205	Α	Trace (<1%)	No		Yes	Yes	Yes	IND	Hydroids	None	Unkno wn	Patchy cobbles & boulders on sand
SFWF	205	В	Trace (<1%)	No		No	Yes	No	IND	Hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	205	С	Trace (<1%)	No		No	Yes	Yes	IND	Hydroids	None	None	Patchy cobbles & boulders on sand
SFWF	206	А	None	No		IND	Yes	Yes	IND	No	None	None	Patchy cobbles & boulders on sand

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	206	С	Sparse (1 to <30%)	No		No	IND	No	IND	Hydroids, Bryozoans, Barnacles	None	None	Patchy cobbles & boulders on sand
SFWF	206	D	None	No		No	Yes	Yes	IND	No	None	None	Sand with mobile gravel
SFWF	207	А	None	No		No	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	207	В	None	No		No	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	207	С	None	No		No	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	208	Α	None	No		No	Yes	Yes	IND	No	None	Unkno wn	Sand sheet
SFWF	208	В	None	No		No	Yes	No	IND	No	None	Monkf ish	Sand sheet
SFWF	208	С	None	No		IND	Yes	IND	IND	No	None	None	Sand sheet
SFWF	209	В	None	No		IND	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	209	С	None	No		IND	Yes	IND	IND	No	None	None	Sand sheet
SFWF	209	D	None	No		No	Yes	No	IND	No	None	None	Sand sheet
SFWF	210	А	None	No		IND	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	210	В	None	No		Yes	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	210	С	None	No		IND	Yes	No	IND	No	None	None	Sand sheet
SFWF	211	А	None	No		No	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	211	В	None	No		No	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	211	С	None	No		No	Yes	No	IND	No	None	Unkno wn	Sand sheet
SFWF	212	А	None	No		No	Yes	No	IND	No	None	None	Sand sheet
SFWF	212	С	None	No		No	Yes	No	IND	Shrimp	None	None	Sand sheet
SFWF	212	D	None	No		Yes	Yes	No	Tubes	No	None	None	Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	213	А	Trace (<1%)	No		No	IND	Yes	IND	Bryozoans, hydroid	None	None	Patchy cobbles & boulders on sand
SFWF	213	В	None	No		No	Yes	Yes	IND	No	None	None	Sand with mobile gravel
SFWF	213	С	Trace (<1%)	No		No	Yes	Yes	IND	Bryozoans, barnacles	None	None	Patchy cobbles & boulders on sand
SFWF	214	В	Trace (<1%)	No		IND	Yes	No	IND	Hydroids	None	None	Sand with mobile gravel
SFWF	214	С	Trace (<1%)	No		No	Yes	Yes	IND	Hydroids	None	None	Sand with mobile gravel
SFWF	214	D	None	No		No	Yes	Yes	IND	No	None	None	Sand with mobile gravel
SFWF	215	А	None	No		No	IND	No	IND	No	None	None	Sand with mobile gravel
SFWF	215	В	Trace (<1%)	No		No	IND	No	IND	Barnacles, shrimp	None	None	Patchy cobbles & boulders on sand
SFWF	215	С	None	No		No	IND	No	IND	No	None	None	Sand with mobile gravel
SFWF	216	А	None	No		No	Yes	Yes	IND	No	None	None	Sand with mobile gravel
SFWF	216	В	None	No		No	Yes	Yes	IND	No	None	None	Sand with mobile gravel
SFWF	216	С	None	No		No	IND	Yes	IND	No	None	None	Sand with mobile gravel
SFWF	217	А	None	No		No	IND	Yes	IND	No	None	None	Sand sheet
SFWF	217	С	Sparse (1 to <30%)	No		Yes	IND	No	IND	Bryozoans, barnacles, coralline algae	None	None	Patchy cobbles & boulders on sand
SFWF	217	D	None	No		No	IND	No	IND	No	None	Unkno wn	Sand with mobile gravel
SFWF	218	А	None	No		IND	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	218	В	None	No		No	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	218	С	None	No		No	Yes	Yes	IND	Hermit crab	None	None	Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFWF	219	А	Sparse (1 to <30%)	No		No	Yes	Yes	IND	Hydroids, barnacles, bryozoans, coralline algae	None	None	Patchy cobbles & boulders on sand
SFWF	219	В	Trace (<1%)	No		IND	Yes	No	IND	Hydroid	None	None	Sand with mobile gravel
SFWF	219	С	None	No		No	IND	No	IND	No	None	None	Sand with mobile gravel
SFWF	220	А	None	No		IND	Yes	Yes	IND	No	None	Unkno wn	Sand sheet
SFWF	220	В	None	No		No	Yes	No	IND	No	None	None	Sand sheet
SFWF	220	С	None	No		IND	Yes	Yes	IND	No	None	None	Sand sheet
SFWF	C01	Α	IND	IND		IND	IND	IND	IND	IND	IND	IND	IND
SFWF	C01	В	IND	IND		IND	IND	IND	IND	IND	IND	IND	IND
SFWF	C01	С	None	No		No	No	No	IND	None	None	None	Sand with mobile gravel
SFWF	C01	E	None	No		No	IND	No	IND	Shrimp	None	None	Sand with mobile gravel
SFWF	C01	F	None	No		No	IND	No	IND	IND	None	None	Sand with mobile gravel
SFWF	C02	А	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFWF	C02	В	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFWF	C02	С	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFWF	C02	D	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFWF	C02	E	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFEC-OCS	101	А	Sparse (1 to <30%)	No		No	Yes	Yes	IND	Barnacles, Hydroids	None	None	Patchy cobbles & boulders on sand
SFEC-OCS	101	С	Sparse (1 to <30%)	No		No	Yes	No	IND	Barnacles, Hydroids	None	None	Patchy cobbles & boulders on sand
SFEC-OCS	101	D	Sparse (1 to <30%)	No		No	Yes	No	IND	Barnacles, Hydroids	None	None	Patchy cobbles & boulders on sand

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFEC-OCS	102	А	Sparse (1 to <30%)	No		No	Yes	No	IND	Anemone, Barnacles, Hydroids, Sea pen	None	Unkno wn	Patchy cobbles & boulders on sand
SFEC-OCS	102	С	Sparse (1 to <30%)	No		No	Yes	Yes	IND	Barnacles, Hydroids, Sea pen	None	None	Patchy cobbles & boulders on sand
SFEC-OCS	102	D	Sparse (1 to <30%)	No		No	Yes	No	IND	Anemone, Barnacles, Hydroids, Sea pen	None	Unkno wn	Patchy cobbles & boulders on sand
SFEC-OCS	103	А	None	No		Yes	Yes	No	IND	None	None	None	Sand sheet
SFEC-OCS	103	В											Sand sheet
SFEC-OCS	103	D											IND
SFEC-OCS	104	А	Sparse (1 to <30%)	No		No	Yes	No	IND	Anemone, Barnacle, Hermit Crab, Hydroids, Sand dollar, Sea pens	None	None	Patchy cobbles & boulders on sand
SFEC-OCS	104	В	Sparse (1 to <30%)	No		No	Yes	No	IND	Barnacles, Hermit crab, Hydroids, Scallop, Sea pen	None	None	Patchy cobbles & boulders on sand
SFEC-OCS	104	С	Sparse (1 to <30%)	No		No	Yes	No	IND	Hydroids, Sea pens	None	None	Patchy cobbles & boulders on sand
SFEC-OCS	105	А	None	No		No	Yes	No	IND	None	None	Unkno wn	Sand sheet
SFEC-OCS	105	В											Sand sheet
SFEC-OCS	105	D											Sand sheet
SFEC-OCS	106	А	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFEC-OCS	106	В											Sand sheet
SFEC-OCS	106	С											Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFEC-OCS	107	А	None	No		No	Yes	No	IND	Sea pen	None	None	Sand with mobile gravel
SFEC-OCS	107	В											Sand sheet
SFEC-OCS	107	С											Sand with mobile gravel
SFEC-OCS	108	Α											Sand sheet
SFEC-OCS	108	В	None	No		No	Yes	No	IND	Hydroids, Sea pen	None	Unkno wn	Sand with mobile gravel
SFEC-OCS	108	С											Sand with mobile gravel
SFEC-OCS	109	А	None	No		No	Yes	No	IND	None	None	None	Sand with mobile gravel
SFEC-OCS	109	В											Sand with mobile gravel
SFEC-OCS	109	D											Sand with mobile gravel
SFEC-OCS	110	А	None	No		No	Yes	Yes	IND	None	None	None	Sand sheet
SFEC-OCS	110	В											Sand sheet
SFEC-OCS	110	С											Sand sheet
SFEC-OCS	111	А											Sand with mobile gravel
SFEC-OCS	111	В	None	No		No	No	No	IND	Sea pen, shrimp	None	None	Sand with mobile gravel
SFEC-OCS	111	С											Sand with mobile gravel
SFEC-OCS	112	А	None	No		No	No	No	IND	Sand dollar, Sea pen, shrimp	None	Unkno wn	Sand sheet
SFEC-OCS	112	В											Sand with mobile gravel
SFEC-OCS	112	С											Sand with mobile gravel

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFEC-OCS	113	А	None	No		No	No	Yes	IND	Sand dollar	None	None	Sand sheet
SFEC-OCS	113	В											Sand sheet
SFEC-OCS	113	С											Sand sheet
SFEC-OCS	114	А	None	No		No	Yes	Yes	IND	Sand dollar	None	None	Sand sheet
SFEC-OCS	114	В											Sand sheet
SFEC-OCS	114	С											Sand sheet
SFEC-OCS	115	А	None	No		No	No	Yes	IND	Sand dollar	None	None	Sand sheet
SFEC-OCS	115	В											Sand sheet
SFEC-OCS	115	С											Sand sheet
SFEC-OCS	116	А	None	No		No	Yes	Yes	IND	Sand dollar	None	None	Sand sheet
SFEC-OCS	116	В											Sand sheet
SFEC-OCS	116	С											Sand sheet
SFEC-OCS	117	А	None	No		IND	IND	IND	IND	Sand dollar	IND	None	Sand sheet
SFEC-OCS	117	В											Sand sheet
SFEC-OCS	117	С											Sand sheet
SFEC-OCS	118	А	None	No		No	Yes	No	IND	Hermit crab, shrimp	None	Unkno wn	Sand sheet
SFEC-OCS	118	В											Sand sheet
SFEC-OCS	118	С											IND
SFEC-OCS	119	А	None	No		No	No	No	IND	Sea star	None	None	Sand sheet
SFEC-OCS	119	В											Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFEC-OCS	119	С											Sand sheet
SFEC-OCS	120	А	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFEC-OCS	120	В											Sand sheet
SFEC-OCS	120	С											Sand sheet
SFEC-OCS	121	А	None	No		No	Yes	Yes	IND	None	None	None	Sand sheet
SFEC-OCS	121	В											Sand sheet
SFEC-OCS	121	D											Sand sheet
SFEC-OCS	122	А	None	No		Yes	Yes	No	IND	Sand dollars	None	None	Sand sheet
SFEC-OCS	122	В											Sand sheet
SFEC-OCS	122	С											Sand sheet
SFEC-OCS	123	А	None	No		No	No	No	IND	None	None	None	Sand sheet
SFEC-OCS	123	В											Sand sheet
SFEC-OCS	123	С											Sand sheet
SFEC-OCS	124	А	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFEC-OCS	124	В											Sand sheet
SFEC-OCS	124	D											Sand sheet
SFEC-OCS	125	А	None	No		Yes	Yes	Yes	IND	Sand dollars	None	None	Sand sheet
SFEC-OCS	125	С											Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFEC-OCS	125	D											Sand sheet
SFEC-OCS	126	А	None	No		No	Yes	Yes	IND	Sand dollar	None	None	Sand sheet
SFEC-OCS	126	В											Sand sheet
SFEC-OCS	126	С											Sand sheet
SFEC-OCS	127	А	None	No		No	No	Yes	IND	None	None	None	Sand sheet
SFEC-OCS	127	В											Sand sheet
SFEC-OCS	127	С											Sand sheet
SFEC-OCS	128	А											Sand sheet
SFEC-OCS	128	В	None	No		No	IND	No	IND	Shrimp	None	None	Sand sheet
SFEC-OCS	128	С											Sand sheet
SFEC-OCS	129	А	None	IND		IND	Yes	IND	IND	IND	IND	IND	Sand sheet
SFEC-OCS	129	С											Sand sheet
SFEC-OCS	129	D											Sand sheet
SFEC-OCS	130	А	None	IND		IND	IND	IND	IND	Sea pen?	IND	IND	Sand sheet
SFEC-OCS	130	В											Sand sheet
SFEC-OCS	130	С											Sand sheet
SFEC-OCS	131	А											Sand sheet
SFEC-OCS	131	С											Sand sheet
SFEC-OCS	131	D	IND	IND		IND	IND	IND	IND	IND	IND	IND	IND

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFEC-OCS	132	А											IND
SFEC-OCS	132	С											IND
SFEC-OCS	132	D	IND	IND		IND	IND	IND	IND	IND	IND	IND	Sand with mobile gravel
SFEC-OCS	133	А	None	IND		IND	Yes	IND	IND	IND	IND	IND	Sand sheet
SFEC-OCS	133	В											IND
SFEC-OCS	133	D											IND
SFEC-OCS	134	А	None	No		No	No	No	IND	None	None	None	Sand with mobile gravel
SFEC-OCS	134	В											Sand with mobile gravel
SFEC-OCS	134	С											Sand with mobile gravel
SFEC-OCS	135	А	None	IND		IND	IND	IND	IND	Sand dollar	IND	IND	Sand with mobile gravel
SFEC-OCS	135	В											Sand sheet
SFEC-OCS	135	С											IND
SFEC-OCS	136	А	None	No		IND	IND	IND	IND	Sand dollar	IND	IND	IND
SFEC-OCS	136	В											Sand sheet
SFEC-OCS	136	С											Sand sheet
SFEC-OCS	137	А											Sand with mobile gravel
SFEC-OCS	137	В	None	No		No	No	Yes	IND	Sand dollar	None	None	Sand with mobile gravel
SFEC-OCS	137	С						_					Sand with mobile gravel
SFEC-OCS	138	А	None	No		No	No	Yes	IND	Sand dollar	None	None	Sand sheet
SFEC-OCS	138	В											Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFEC-OCS	138	D											Sand sheet
SFEC-OCS	139	А	None	No		No	Yes	Yes	IND	Sand dollar	None	None	Sand sheet
SFEC-OCS	139	В											Sand sheet
SFEC-OCS	139	С											Sand sheet
SFEC-OCS	140	А	None	No		No	No	Yes	IND	Sand dollar	None	None	Sand sheet
SFEC-OCS	140	В											Sand sheet
SFEC-OCS	140	С											Sand sheet
SFEC-OCS	141	А	None	No		No	Yes	Yes	IND	None	None	None	Sand sheet
SFEC-OCS	141	В											Sand sheet
SFEC-OCS	141	С											Sand sheet
SFEC-OCS	142	А	None	No		No	No	Yes	IND	IND, potential gastropod	None	None	Sand sheet
SFEC-OCS	142	В											Sand sheet
SFEC-OCS	142	С											Sand sheet
SFEC-OCS	146	С	None	No		No	No	Yes	IND	Sand dollar	None	None	Sand sheet
SFEC-OCS	146	E											IND
SFEC-OCS	146	F											Sand sheet
SFEC-OCS	147	А	None	No		No	Yes	Yes	IND	Gastropod or hermit crab, Sand dollar	None	None	Sand sheet
SFEC-OCS	147	В											Sand sheet
SFEC-OCS	147	С											Sand sheet
SFEC-OCS	148	Α	None	No		No	No	Yes	IND	Sand dollar	None	None	Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFEC-OCS	148	В											Sand sheet
SFEC-OCS	148	С											Sand sheet
SFEC-OCS	149	А											Sand sheet
SFEC-OCS	149	В	None	No		No	Yes	Yes	IND	Sand dollar, Slipper shell	None	None	Sand sheet
SFEC-OCS	149	С											Sand sheet
SFEC-OCS	150	А	None	No		No	IND	No	IND	Sand dollar	None	None	Sand sheet
SFEC-OCS	150	С											Sand sheet
SFEC-OCS	150	D											Sand sheet
SFEC-OCS	151	А	None	No		No	Yes	No	IND	Barnacles, Slipper shells	None	None	Sand sheet
SFEC-OCS	151	В											Sand sheet
SFEC-OCS	151	D											Sand sheet
SFEC-OCS	152	А	None	No		No	Yes	No	IND	Sand dollar	None	None	Sand sheet
SFEC-OCS	152	В											Sand sheet
SFEC-OCS	152	С											Sand sheet
SFEC-OCS	153	А	None	No		No	Yes	No	IND	Sand dollar	None	Winte r skate	Sand sheet
SFEC-OCS	153	В											Sand sheet
SFEC-OCS	153	С											Sand sheet
SFEC-OCS	154	А	None	IND		IND	IND	IND	IND	IND	IND	IND	IND

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFEC-OCS	154	В											Sand sheet
SFEC-OCS	154	D											Sand sheet
SFEC-OCS	155	А	None	No		No	Yes	No	IND	Sand dollar	None	None	Sand sheet
SFEC-OCS	155	В											Sand sheet
SFEC-OCS	155	С											Sand sheet
SFEC-OCS	156	В											IND
SFEC-OCS	156	С	None	No		No	Yes	No	IND	None	None	None	Sand sheet
SFEC-OCS	156	D											Sand sheet
SFEC-OCS	157	А	None	No		No	Yes	Yes	IND	Hermit crab, Sand dollar	None	None	Sand sheet
SFEC-OCS	157	В											Sand sheet
SFEC-OCS	157	D											Sand sheet
SFEC-NYS	143	А	None	No		No	Yes	Yes	IND	None	None	None	Sand sheet
SFEC-NYS	143	В											Sand sheet
SFEC-NYS	143	С											Sand sheet
SFEC-NYS	144	А	None	No		No	No	Yes	IND	None	None	None	Sand with mobile gravel
SFEC-NYS	144	В											Sand sheet
SFEC-NYS	144	С											Sand sheet
SFEC-NYS	145	А	None	No		No	Yes	No	IND	Sand dollar	None	None	Sand sheet
SFEC-NYS	145	В											Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
SFEC-NYS	145	С											Sand sheet
SFEC-NYS	158	А	None	No		No	No	No	IND	Sand dollar	None	None	Sand sheet
SFEC-NYS	158	В											Sand sheet
SFEC-NYS	158	С											Sand sheet
SFEC-NYS	159	А	IND	IND		IND	IND	IND	IND	IND	IND	IND	Sand sheet
SFEC-NYS	159	В											IND
SFEC-NYS	159	С											IND
SFEC-NYS	160	А	IND	IND		IND	IND	IND	IND	IND	IND	IND	IND
SFEC-NYS	160	В											IND
SFEC-NYS	160	D											IND
Reference	C03	А	None	No		No	Yes	No	IND	None	None	None	Sand sheet
Reference	C03	В	None	No		No	Yes	Yes	IND	None	None	Unkno wn	Sand sheet
Reference	C03	С	None	No		No	Yes	Yes	IND	None	None	None	Sand sheet
Reference	C03	D	None	No		No	Yes	No	IND	None	None	None	Sand sheet
Reference	C03	E	None	No		No	Yes	No	IND	None	None	Unkno wn	Sand sheet
Reference	C04	А	None	No		No	No	Yes	IND	Hydroids	None	None	Sand sheet
Reference	C04	В	None	No		No	No	No	IND	None	None	Unkno wn	Sand sheet
Reference	C04	С	None	No		No	No	No	IND	None	None	None	Sand sheet
Reference	C04	D	None	No		Yes	No	Yes	IND	None	None	None	Sand sheet

Area	Station ID	Replicate	Percent Cover of All Attached Fauna	Invasive Taxa Present?	Type of Invasive Taxa	Tubes	Burrows	Tracks	Infauna	Epifauna	Flora	Fish	Habitat Type
Reference	C04	F	None	No		No	No	Yes	IND	Hydroids, Sea pen	None	None	Sand sheet
Reference	C05	А	None	No		No	Yes	No	IND	None	None	None	Sand sheet
Reference	C05	В	Sparse (1 to <30%)	No		No	No	No	IND	Hydroids, Sea Pens, Sponge	None	None	Patchy cobbles & boulders on sand
Reference	C05	С	Sparse (1 to <30%)	No		No	No	No	IND	Hydroids, Sea Pens	None	None	Patchy cobbles & boulders on sand
Reference	C05	D	None	No		IND	IND	Yes	IND	None	None	None	Sand sheet
Reference	C05	F	None	No		No	No	Yes	IND	None		Windo wpane flound er	Sand sheet

Area	Station ID	Replicate	Comments
SFWF	1	В	Pale tan slightly gravelly sand with thin drape of mud in trough of long waveform ripple. Small perpendicular short-form ripples visible to left of image. Small burrow with possible fecal pellets below lasers, nearby thin track.
SFWF	1	С	Pale tan gravelly sand with gravel bar running up-down through center of image. Long waveform ripple present. Shallow foraging pits present in lower right. Hydroids attached on far right.
SFWF	1	D	Pale tan gravelly sand with gravel bar running up-down through center of image. Long waveform ripple present. Potential tracks present in bottom right. Hydroids and barnacles (and grazing of these) attached to larger cobbles and debris present.
SFWF	2	А	Pale tan muddy sand with areas of darker mud in lower left and right corners. Potentially older longform ripple present that has been modified by fauna since, indicated by burrows. Sparse coverage of shell hash throughout. Fecal pellets and casts throughout, particularly through lower half.
SFWF	2	В	Pale tan muddy sand with slightly darker areas of mud in lower quarter. Sparse shell hash throughout. Short waveform ripples particularly highlighted in lower left of image. Numerous foraging pits with fecal casts present throughout. Potential small fish present in top center.
SFWF	2	С	Pale tan muddy sand. Numerous foraging pits with fecal casts present throughout.
SFWF	3	А	Pale tan slightly muddy sand with short waveform ripples. Ripples run from lower left to top right. Burrows at top center. Several foraging pits and fecal casts in lower center and lower right. Tracks present in center-top and left side.
SFWF	3	В	Pale tan slightly muddy sand with short waveform ripples. Rippling is inconsistent in direction. Numerous foraging pits and tracks present throughout, few burrows. Potential foraging divots present just above left laser.
SFWF	3	С	Pale tan slightly muddy sand with short waveform ripples. Fecal casts on surface, potential old burrows present in bottom center.
SFWF	4	А	Pale tan slightly muddy sand and short waveform ripples. Few burrows, foraging pits, and fecal casts.
SFWF	4	В	Pale tan slightly muddy sand and short waveform ripples. Few burrows ,foraging pits and fecal casts. Numerous tracks present throughout.
SFWF	4	D	Pale tan slightly muddy sand and short waveform ripples. Few foraging pits and fecal casts. Potential old tracks just below lasers, particularly right laser.
SFWF	5	А	Pale tan slightly muddy sand with short waveform ripples. Foraging pits with fecal cast in center through center and bottom right. Tracks prevalent through lower quarter.
SFWF	5	В	Pale tan slightly muddy sand with short waveform ripples. Foraging pits with fecal casts in far lower left. Tracks prevalent through lower quarter.
SFWF	5	С	Pale tan slightly muddy sand with short waveform ripples. Foraging pits with fecal casts in center through center and bottom right. Tracks prevalent through lower quarter and left side.
SFWF	6	А	Pale tan slightly muddy sand with biologically modified surface and potential short waveform ripples. Potential tubes in center bottom below the right laser. Tracks prevalent throughout lower three quarters, some coming from burrows at lower center. Fecal casts on surface too.
SFWF	6	D	Pale tan slightly muddy sand with short waveform ripples. Shell hash throughout, larger debris in top center. Foraging pits in center bottom.  Tracks in lower center. Fecal casts. Some type of fauna, potentially a gastropod, on surface at lower center.
SFWF	7	В	Pale tan sand through center and bottom left. Mud and finer sediment in far bottom left. Mixed gravel and cobble in bottom right quarter.  Sand through center with gravel/cobble/boulder on either side indicate possible long waveform rippling. Small boulder in top left corner with attached hydroids and sparse barnacles and grazed patches. Sandy area contains burrows with fecal pellets. Scallop shell on far left.

Area	Station ID	Replicate	Comments
SFWF	7	С	Pale tan sand with extensive broken shell hash throughout. Gravel/cobble deposit in top right, sparse cobble down center of image. Dead sand dollar and clam shells mixed in with cobble in top right of image. Possible ripples indicated by sand/shell deposit distribution running from bottom left to top right of image. Sparse attached hydroids and potential barnacles on cobbles in top right. Burrows in sand/mud deposits in lower right corner.
SFWF	7	D	Large boulder in bottom 3/4ths of image. Top 1/4 slightly gravelly sand with shell hash. Boulder is colonized by hydroids and barnacles, many of which have been grazed. A large orange anemone is attached to the boulder on the far left of the image. Potential burrow in top right corner in sandy sediment.
SFWF	8	А	Pale tan slightly muddy sand with short waveform ripples. Foraging pits with fecal casts throughout lower half of image. Sparse shell hash evenly distributed throughout. Tracks prevalent through lower quarter. Low level turbidity in water column (as white specks).
SFWF	8	В	Pale tan slightly muddy sand with short waveform ripples. Foraging pits and fecal casts on surface. Low level turbidity in water column (as white specks).
SFWF	8	С	Pale tan slightly muddy sand with short waveform ripples. Foraging pits and clusters of fecal casts throughout image including just above right laser and immediately to the left and top left of left laser. Low level turbidity in water column (as white specks).
SFWF	9	А	Dark tan slightly muddy sand. Biogenically modified surface. Potential mud clasts from SPI frame in bottom left corner of image. Shell hash, including sand dollars, sparsely distributed throughout image. Very high coverage of fecal casts. No indications of burrows, tracks, or tubes.
SFWF	9	В	Dark tan slightly muddy sand. Biogenically modified surface. Shell hash sparsely distributed throughout image. Very high coverage of fecal casts. Likely tube in bottom right corner.
SFWF	9	С	Dark tan slightly muddy sand. Biogenically modified surface. Very high coverage of fecal casts. Gastropod on far left center of image.
SFWF	10	А	Tan sandy mud with generally high water turbidity (as white specks). Biogenically modified surface visible in top right corner of image. Foraging pits in bottom left quarter.
SFWF	10	В	Tan sparsely muddy sand. Very high turbidity level in water column. Not able to discern bedforms or biota.
SFWF	10	D	Tan muddy sand in top left corner transitions to increased dark brown mud in lower right corner of image. Biogenically modified surface. Foraging pits in lower left and lower right areas of image with fecal casts. Turbid water column.
SFWF	11	А	Pale tan slightly muddy sand and biogenically modified surface. Sparse shell hash evenly distributed. Turbid water column. Potential foraging pits with fecal casts along bottom of image.
SFWF	11	В	Pale tan slightly muddy sand and biogenically modified surface. Turbid water column. Foraging pits with fecal casts along bottom of image and far left bottom corner.
SFWF	12	А	Pale tan sand with potentially sparse presence of finer muds. No bedform able to be distinguished, in part due to turbidity. Burrows in center right, foraging pits in lower right.
SFWF	12	С	Pale tan sand with potentially sparse presence of finer muds. No bedform able to be distinguished, in part due to turbidity. Potential foraging pit with fecal pellets under left laser.
SFWF	12	D	Pale tan sand with potentially sparse presence of finer muds. No bedform able to be distinguished, in part due to turbidity. Unable to determine presence of burrows due to turbidity.
SFWF	13	А	Pale tan slightly muddy sand and short waveform ripples. Turbid water column (as white specks). Foraging pits present in lower quarter of image, particularly lower right corner with fecal casts. Potential track in lower left corner on top of sand ridge and far left center.

Area	Station ID	Replicate	Comments
SFWF	13	В	Pale tan slightly muddy sand and biogenically modified surface. Turbid water column (as white specks). Foraging pits present in lower quarter of image, particularly lower right corner with fecal casts. Ctenophore in left center of image.
SFWF	13	С	Pale tan slightly muddy sand and biogenically modified surface. Very turbid water column (as white specks). Foraging pits present in lower quarter of image. Potential tracks in bottom center of image. Image too turbid to confirm burrow or track presence.
SFWF	14	В	Pale tan sand and biogenically modified surface vaguely visible throughout image. Very sparse shell hash present, including center just above lasers. Foraging pits and other areas contain fecal casts.
SFWF	14	С	Tan sand with very turbid water column. Biogenically modified surface vaguely visible through turbidity. Turbidity makes it impossible to discern burrows, tracks, or tubes. Cancer (Jonah?) crab present on far right center of image.
SFWF	14	D	Tan sand with very turbid water column. Biogenically modified surface vaguely visible through turbidity. Turbidity makes it impossible to discern burrows, tracks, or tubes. Small fish present in lower right corner.
SFWF	15	А	Pale tan sand with high turbidity in water column. Dark spot, potential boulder, in bottom right corner. Fecal casts and/or tubes across surface. Shrimp in top right corner.
SFWF	15	В	Pale tan sand with high turbidity in water column. Potential fecal casts in bottom right corner, not possible to pick out other biotic features due to turbidity. Flat fish at right edge partway up.
SFWF	15	D	Pale tan sand with high turbidity in water column. Fecal casts and/or tubes across surface. Not possible to pick out other biotic features due to turbidity. Potential fish along bottom center.
SFWF	16	А	Long waveform ripple running left to right across image. Tan coarse sand on left of image, center of image is washed gravel and right is dark tan sand/mud followed by lighter sand. Small rivulets or tracks on sand bank on left. Potential for attached fauna in gravel bed. Potential burrows on far right.
SFWF	16	В	Long waveform ripple running top left to bottom right across image. Sandy mud in top right, center of image is coarse sand wave, and bottom right in washed gravel. Shell hash interspersed with gravel. Potential barnacles on gravel in bottom right. Skate egg in bottom left corner.
SFWF	16	С	Tan sand with sparse gravel in top center and left of image. Large shell debris on left center of image. No clear indication of burrows or tracks.
SFWF	17	А	Pale tan muddy sand and long waveform ripple. Very sparse presence of gravel in top and right of image. Small burrows and fecal casts.
SFWF	17	В	Pale tan muddy sand and long waveform ripples. Large shell debris in center of image. Possible Chaetopterus tube on far right. No evidence of burrows or tubes.
SFWF	17	D	Pale tan muddy sand and long waveform ripples. Slight turbidity in water column (as white specks). Tube in top left of image. Foraging pits, no evidence of fecal casts.
SFWF	18	А	Tan sand interspersed equally with darker mud deposits and gravel/cobble. Sparse distribution of shell hash around gravel. Gravel and cobble have attached hydroids and sparse barnacle colonies that have been grazed. Smaller gravel are uncolonized. Burrow in bottom left corner of image.
SFWF	18	В	Pale tan sand with likely mud present. Very high turbidity in water column limit further analysis.
SFWF	18	С	Pale tan sand with likely mud present. Very high turbidity in water column limit further analysis.
SFWF	19	А	Pale tan sand with gravel and small cobble. Long waveform rippling visible running from top right to bottom left following a progression of sand, gravel, and finer sand/mud in the trough in the far bottom left. Sparse amounts of shell hash distributed in all three sediment types. No biotic components or attached fauna visible.

Area	Station ID	Replicate	Comments
SFWF	19		Pale tan sand in top right corner with gravel and small cobble running from top left to bottom right as long waveform ripples. Bottom left of image is darker sand/mud. Sparse shell hash distributed throughout. Cobble near center of image is colonized by attached hydroids. Other gravel/cobble in uncolonized.
SFWF	19		Pale tan sand in top left corner with gravel and small cobble running from bottom left to top right as long waveform ripples. Bottom right of image is darker sand/mud. Sparse shell hash distributed throughout. Live scallop in bottom center of image.
SFWF	20		Pale tan sand with darker mud deposits in top left of image. Long waveform ripple runs from top right to bottom left. Potential foraging pits in bottom left and center bottom of image. Track running across ripple crest.
SFWF	20		Pale tan sand with finer muds present and sparse shell hash in trough of long waveform ripple. Long waveform rippling present. Biotic mounds, small tubes and fecal casts on far left center and bottom middle of image.
SFWF	20	С	Pale tan sand with finer muds present and sparse shell hash. Long waveform rippling present. Few small burrows, tubes, and fecal casts in muddy areas.
SFWF	21	А	Pale tan sand with finer muds present. Long waveform ripples that have been biogenically modified. Foraging pits with fecal casts in some.  Small fish or squid present in top center of image.
SFWF	21		Pale tan sand with finer muds present and long waveform ripples. Sparse shell hash throughout image. Tube casing just above and to the right of left laser.
SFWF	21	D	Pale tan sand with finer muds scatted throughout and along waveform ripples. Sparse shell hash in all sediment types. Fecal casts scattered in bottom left of image. Single skate egg in top right of image.
SFWF	22	Δ	Tan muddy sand with sparse shell hash distributed evenly throughout. Single stray gravel or shell fragment present in lower right. Foraging pits present in lower quarter of image, evident below right laser.
SFWF	22	В	Tan muddy sand. Highly turbid water column limits analysis. Seafloor appears to be biogenically modified
SFWF	22	(	Tan muddy sand with gravel and small cobble present on left and top right of image. Sparse shell debris and shell hash distributed throughout. Potential foraging pits at bottom center. Burrow with fecal casts in center at bottom right. Likely dead seaweed with gravel on left of image.
SFWF	23	А	Tan muddy sand with gravel and small cobble present in lower left corner and sparsely throughout. Sand ridge in bottom left. Sparse shell debris (top left) and sparse shell hash throughout. Larger cobbles on right have attached hydroids. Slightly buried sand dollar in top left. Skate egg adjacent to cobble in top right.
SFWF	23		Tan slightly muddy sand with sparse gravel in top right corner and small boulder in left middle. Sparse shell hash throughout. Gravel and shell hash is uncolonized. Foraging pits just below boulder and on far right. Boulder colonized by hydroids. Polymastia sp. sponge present just above boulder on far left.
SFWF	23		Tan slightly muddy sand with cobble and small boulders sparsely distributed throughout. No clear bedform present. Sparse shell hash throughout. Uncolonized small boulder in bottom right, hydroid colonized boulders in top right and bottom left, hydroid colonized cobble in center left. Emergent debris in bottom right.
SFWF	24	Δ	Pale tan slightly muddy sand with biogenically modified surface. Sparse shell hash distributed throughout. Burrow at middle left. Numerous foraging pits throughout image.
SFWF	24		Pale tan sand with biogenically modified surface. Numerous foraging pits throughout image. Turbidity in water column (as white specks).
SFWF	24	C	Pale tan sand with sparse shell hash throughout biogenically modified surface, subtle indication of long waveform ripples. Foraging pits mostly in lower left.
SFWF	25	Δ	Pale tan muddy sand with darker mud on far right of image. Left half of image is obscured by turbidity, potentially from SPI weight. Sparse shell hash throughout. Potential burrows in lower right corner.

Area	Station ID	Replicate	Comments
SFWF	25	В	Pale tan sand along right of image with darker slightly muddy sand on left half of image. Sparse shell hash throughout. Small burrows in finer sediments in trough of ripple Potential tracks in bottom center of image.
SFWF	25	С	Pale tan slightly muddy sand with sparse shell hash throughout. Bedform unclear. Potential foraging pits present below left laser.
SFWF	26	А	Pale tan slightly muddy sand with short waveform ripples. Sparse shell hash throughout. Numerous foraging pits with fecal casts in centers of some.
SFWF	26	В	Pale tan slightly muddy sand with biogenically modified surface. Sparse shell hash throughout. Area of recent turbidity in top left corner potentially from SPI weight. A few foraging pits with fecal casts and several tracks in bottom quarter of image.
SFWF	26	D	Pale tan slightly muddy sand with short waveform ripples. Sparse shell hash throughout. Area of recent turbidity in top left corner potentially from SPI weight. A few foraging pits with fecal casts. Other fecal casts present outside of association with pits.
SFWF	27	А	Pale tan slightly muddy sand with biogenically modified surface. Sparse shell hash throughout. Numerous foraging pits with fecal casts in centers of some.
SFWF	27	В	Pale tan slightly muddy sand with biogenically reworked surface. Sparse shell hash throughout. Numerous foraging pits with fecal casts.  Ctenophore in water column in lower left corner.
SFWF	27	С	Pale tan slightly muddy sand with biogenically reworked surface. Sparse shell hash throughout. A few foraging pits with fecal casts.
SFWF	28	А	Pale tan sand with presence of darker muddy sand. Bedform indeterminate. Foraging pits interspersed throughout image, particularly along left side. Some debris or dead seaweed with attached hydroids below left laser.
SFWF	28	В	Pale tan sand with presence of darker muddy sand. Bedform indeterminate. Potential foraging pits interspersed throughout image, particularly along left side. Potential tube or organism remains half way between right laser and top of image. Image has turbid water column (as white specks).
SFWF	28	С	Tan and dark tan slightly muddy sand with long waveform ripple. Shell hash throughout and large dead sand dollar in center. Burrows and foraging pits in lower and left sides of image.
SFWF	29	А	Pale sand interspersed with tan slightly muddy sand. Large shell debris in lower left, shell hash throughout. Long waveform ripple apparent. Significant tracks, likely from crustacean, present along ridge of ripple. Ctenophores present in top of image. Potential fish along right side of image. Small burrows at center and right.
SFWF	29	В	Pale tan sand interspersed with slightly muddy sand, with long waveform ripples. Sparse shell hash throughout. Biogenically modified surface in lower half of image - burrows and/or foraging pits.
SFWF	29	С	Pale tan sand interspersed with slightly muddy sand, with long waveform ripples. Sparse shell hash throughout. Biogenically modified surface, especially in lower left of image - mostly foraging pits.
SFWF	30	А	Tan sand with slight mud and gravel present. Long waveform ripples evident. Shell hash present throughout. Visible gravel (pebbles) just above right laser. Potential tracks in lower center and lower right of image.
SFWF	30	С	Pale tan slightly muddy sand with long waveform ripple. Shell hash interspersed throughout. Potential foraging pits in lower left of image. Top and far right of image are obscured by high turbidity.
SFWF	30	D	Pale tan slightly muddy sand with sparse gravel (pebbles) present and long waveform ripple. Shell hash present throughout. Potential burrows or foraging pits in lower left corner.
SFWF	31	А	Tan slightly muddy sand with shall hash throughout and an indeterminate bedform. Sand dollar debris on left center of image. Turbidity in the water column. Burrows in lower right corner of image. Potential fecal casts through right side of image.

Area	Station ID	Replicate	Comments
SFWF	31	В	Tan slightly muddy sand with shell hash throughout and an indeterminate bedform. High turbidity in water column. Potential track in bottom center of image.
SFWF	31	D	Tan slightly muddy sand with shell debris and shell hash throughout. Bedform indeterminate. High turbidity along left side of image. Large burrow/pit in center of image.
SFWF	32	А	Pale tan slightly muddy sand with shell hash throughout with biogenically reworked surface. Numerous foraging pits throughout particularly visible below lasers and in bottom right. Potential fecal casts associated with several pits
SFWF	32	В	Pale tan slightly muddy sand with shell hash throughout with biogenically modified surface. Numerous feeding pits throughout particularly visible below lasers and in bottom right. Potential fecal casts associated with several feeding pits. Ctenophore in water column in bottom left corner.
SFWF	32	С	Pale tan slightly muddy sand with shell hash throughout with biogenically modified surface. Numerous foraging pits throughout particularly visible below lasers and in bottom right. Potential fecal casts associated with several pits. Ctenophores present above left laser and on bottom center of image.
SFWF	33	А	Pale tan sand with long waveform rippling running from top of image to bottom of image. Shell hash distributed throughout. No presence of infauna. Ctenophore in bottom center of image. Potential burrows and foraging pits.
SFWF	33	В	Tan slightly gravelly sand with the gravel occurring in the center top of the image. Long waveform ripples running from top right to bottom left of image. Shell debris, including sand dollar, and shell hash distributed throughout. Increased presence of shell hash with gravel. Potential foraging pit in bottom left and far right of image. Ctenophore on bottom left of image.
SFWF	33	С	Tan sand with extensive shell debris and shell hash throughout. Long waveform ripples running from top right to bottom left of image.  Potential foraging pits left of and above the left laser and in far right bottom corner.
SFWF	34	А	Tan sand with sparse cobble (6) distributed evenly throughout. Bedform indeterminate. Sparse shell hash distributed throughout. Cobbles show signs of grazing on barnacles. Sparse hydroid coverage on cobble in top right corner. Small burrows in lower right.
SFWF	34	В	Tan sand with sparse shell hash and long waveform ripple running from bottom left to top right of image. Pebbles and small cobble present in bottom right. Possible foraging divots to the left and below left laser. Potential grazed barnacles and low coverage of hydroids on gravel/cobble in bottom right.
SFWF	34	D	Tan sand with shell hash distributed throughout and long waveform ripple running from top to bottom of image. Complete (both halves) clam shell debris in bottom right of image. Astarte (?) clam directly to the left of clam shell. Foraging pits on and below left laser and right and below right laser. Ctenophores above left laser and over clam shell.
SFWF	35	А	Dark tan slightly gravelly sand with potential finer muds interspersed. Cobbles on lower 1/8th of image. Sparse shell hash throughout. Potential sparse hydroids and grazed barnacles on gravel in lower right and lower left. Foraging pits present in top right and bottom left. Potential tracks just above and to the left of gravel. Lefteye flatfish in center of image. Patches of textured surface likely small tubes or fecal casts.
SFWF	35	В	Pale tan sand with potential darker finer muds on top 1/4 of image. Sparse shell hash throughout. Foraging pits/mounds present to right and right/above the right (only) laser. Clear track above laser.
SFWF	35	D	Pale tan sand with potential finer darker muds in bottom half of image. Bedform indeterminate. Sparse shell hash throughout. Foraging pits and fecal casts present throughout image. Patches of textured surface likely small tubes or fecal casts.
SFWF	36	А	Tan gravelly sand with sparse cobbles throughout. Bedform indeterminate. Sparse shell hash throughout with larger shell debris to the upper right of left (only) laser. Foraging pits present in lower half of image. Two skate eggs present. Larger cobbles in center of image colonized by hydroids. Potential barnacle on small cobble in bottom left.

Area	Station ID	Replicate	Comments
SFWF	36	В	Tan gravelly sand with cobble accounting for ~20% of sediment. Potential sparse occurrence of finer muds. Bedform indeterminate. Sparse shell hash throughout with larger debris in lower left. Foraging pits in lower right of image. Larger gravel/cobble colonized by hydroids and barnacles. Evidence of grazing on barnacles. One skate egg in upper right. Potential track in lower right corner.
SFWF	36	D	Tan gravelly sand with darker finer muds present. Bedform indeterminate. Potential foraging pits in bottom right and middle right. Attached hydroids on gravel/cobble. Barnacles and grazed barnacles present on a few cobbles. Two skate eggs, one in center and one in top right.
SFWF	37		Pale tan sand with darker finer muds running down center of image between long waveform ripples. Sparse shell hash throughout. Few small burrows. Potential foraging pits and tracks in darker sediment through center of image and to left of left (only) laser.
SFWF	37	В	Pale tan sand and long waveform ripple with sparse shell hash throughout. Cobble in lower right and upper right corners. Foraging pits and fecal casts in lower left of image.
SFWF	37	С	Pale tan sand with potential sparse darker finer muds throughout. Sparse shell hash throughout. Evidence of long waveform ripple indicated by long ridge along bottom of image. Potential tracks along ridge. Windowpane flounder in lower left corner.
SFWF	38	А	Pale tan sand along right side of image, darker sand with finer muds along center of image, and pebbles along left side of image. Layout of sediment suggestive of long waveform ripples. Small burrows and tracks in bottom right 1/4 of image. Potential tubes in upper left portion of darker sand sediment.
SFWF	38	В	Pale tan gravelly sand with potential darker finer sands in top left of image. Long waveform ripple present. Sparse shell hash and shell debris throughout. Potential foraging pits along top of sand ridge in lower right quadrant of image.
SFWF	38	D	Pale tan sand along top of image, darker muddy sand along bottom half of image. Sparse shell hash in sand. Extensive shell hash and large shell debris in darker muddy sediment. Small amount of cobble in muddy section as well. Long waveform ripple present. Foraging pits on right at border of sand and muddy sections.
SFWF	39	А	Pale tan sand with sparse darker finer muds present. Sparse shell hash present, particularly around large cobble on top center of image.  Foraging pits present through lower half of image. Large cobble colonized by hydroids with sand covering rest of cobble. Skate egg in top right of image.
SFWF	39	В	Ridge of pale tan sand bordered by gravel. Gravel ranges in size from small pebbles to cobble. Long waveform ripple present. Foraging pits present on top of sand ridge, particularly on left side of image. Evidence of grazed barnacles in lower gravel ridge. Shell hash and debris prominent in gravel.
SFWF	39	С	Ridge of pale tan sand bordered by gravel. Gravel ranges from small pebbles to cobble. Long waveform ripple present. Burrows present on top of sand ridge, particularly on center right of image. Evidence of grazed barnacles in lower gravel ridge. Shell hash and debris prominent in gravel.
SFWF	40	А	Tan sand with two sections of cobble, one in the top right and one running from bottom left to top right. Shell debris common in cobble areas. Long waveform ripple present. Potential foraging in lower right quadrant and middle left area of image. Potential tube in top left corner.
SFWF	40	В	Tan sand ridge bordered by cobble. Shell hash present with cobble. Long waveform ripple present. Potential foraging pits and tracks along sand ridge on left of image. Barnacles and grazed barnacles on cobble on right middle part of image. Large shell debris in top right of image.

Area	Station ID	Replicate	Comments
SFWF	40	D	Tan sand ridge along top of image, cobble in top left corner and bottom half of image. Long waveform ripple present. Shell hash present throughout. Shell debris common in gravel. Potential foraging pits on left side of sand ridge. Potential barnacles and grazed barnacles on gravel. Dead seaweed on far right bottom corner. Small unknown fish in lower right of image.
SFWF	41	А	Pale tan sand with sparse shell hash throughout. Subtle short waveform ripples present. Numerous feeding pits present throughout, particularly in lower half of image. Fecal casts associated with feeding pits. Potential tracks in lower right quadrant of image.
SFWF	41	В	Pale tan sand with sparse shell hash throughout. Subtle short waveform ripples present. Numerous feeding pits present throughout. Fecal casts associated with pits.
SFWF	41	С	Pale tan sand with sparse shell hash throughout. Subtle short waveform ripples present. Numerous feeding pits present throughout, particularly in lower half of image. Potential fecal casts associated with feeding pits. Potential track in 'c' shape on right side of image.
SFWF	42	А	Sandy gravel with darker finer mud on bottom half of image. Gravel through middle (left-right) of image and sand on top 1/8 of image. Shell hash present throughout and shell debris with gravel. Long waveform ripple present. Sparse coverage of hydroids and barnacles on gravel. Scallop in center of image. Few small burrows in lower right in area of finer sediment.
SFWF	42	В	Sandy gravel with abundant shell hash throughout. Likely long waveform ripple present. Sparse barnacles on gravel.
SFWF	42	С	Gravelly sand with gravel along top half of image. Sparse shell hash throughout. Evidence of feeding pits and potential track on bottom center of image.
SFWF	43	Α	Pale tan sand. Sparse shell hash throughout. Numerous feeding pits with fecal casts throughout image. Two unknown fish above right laser.
SFWF	43	В	Pale tan sand with depression at right center edge. Sparse shell hash throughout. Numerous feeding pits with fecal casts throughout image.  Potential tracks in lower left corner and middle left image.
SFWF	43	D	Pale tan sand with possible former ripple at lower left. Sparse shell hash throughout. Numerous feeding pits with fecal casts throughout image. Hatched or eaten skate egg in center of image with drag marks to upper right.
SFWF	44	А	Pale tan sand with long waveform ripples and sparse shell hash throughout. Feeding pits below left laser and along bottom of image. Fecal casts on the top right. Potential track on left of image. Medium burrow to right of center.
SFWF	44	В	Pale tan sand with long waveform ripple present. Potential burrows and feeding divots along top of sand ridge.
SFWF	44	D	Pale tan sand with long waveform ripple sparse shell hash throughout. Likely mud clasts from SPI frame in top left of image. Feeding pits with potential fecal casts to the lower right of right laser and in left corner.
SFWF	45	А	Pale tan sand with potential finer darker muds in the top right quadrant. Sparse shell hash throughout. Long waveform ripple present.  Numerous feeding pits with fecal casts in bottom quarter of image. Numerous tracks throughout image, particularly on bottom and right sides of image.
SFWF	45	В	Pale tan sand with potential darker finer muds in bottom left. Sparse shell hash throughout. Sand dollar debris in top left. Long waveform ripple evident. Feeding pits present on top of sand ridge. Tracks present in finer muds on bottom left corner and top right as well as along sand ridge.
SFWF	45	С	Pale tan sand with sparse shell hash throughout. Long waveform ripple present. Feeding pits present throughout, particularly along left side of image. Tracks present throughout image.
SFWF	46	А	Pale tan sand with sparse shell hash throughout. Long waveform ripple present. Feeding pits present along sand ridge. Tracks prevalent in lower half of image.
SFWF	46	В	Pale tan sand with sparse shell hash throughout. High turbidity limits ability to determine other characteristics.

Area	Station ID	Replicate	Comments
SFWF	46	С	Pale tan sand with potential darker, finer mud on left half of image. Sparse shell hash throughout and partially buried sand dollar debris left of left laser. Tracks prevalent throughout image.
SFWF	47	А	Pale tan sand with sparse shell hash throughout. Bedform indeterminate. Feeding pits in lower left quarter of image. Tracks in lower left quadrant.
SFWF	47	В	Pale tan sand with sparse shell hash throughout. Bedform indeterminate. Potential tracks along lower 1/4 of image particularly lower left.
SFWF	47	D	Pale tan sand. High turbidity limits further analysis.
SFWF	48	А	Pale tan slightly gravelly sand. Sparse shell hash in top left corner of image. Long waveform ripple present. Feeding pits present in lower left and bottom right of image.
SFWF	48	В	Pale tan slightly gravelly sand. Sparse shell hash present throughout image. Long waveform ripple present. Potential barnacles present on gravel in bottom and bottom left of image.
SFWF	48	С	Pale tan sand with gravel in trough of long waveform ripple. Sparse shell hash throughout. Feeding pits on sand ridge. Potential barnacles on gravel on left of image.
SFWF	49	А	Pale tan sand with sparse darker, finer, muds. Biogenically modified seafloor. Sparse shell hash throughout. Indications of long waveform ripples. Feeding pits in bottom left with fecal casts.
SFWF	49	В	Pale tan sand. Sparse shell hash throughout. Bedform indeterminate. Potential feeding pits with fecal casts throughout, particularly bottom and left of image.
SFWF	49	D	Pale tan sand. Sparse shell hash throughout. Indications of long waveform ripples. Potential feeding pits with fecal casts throughout, particularly bottom and left of image. Tracks present along bottom of image. Dead seaweed at bottom center of image.
SFWF	50	А	Pale tan sand with very sparse gravel to the upper right of the right laser and below the right laser. Sparse shell hash throughout. Indications of long waveform ripples. Fecal casts and potential feeding pits near left laser and on far right of image. Potential tracks between lasers and right of the right laser.
SFWF	50	В	Pale tan gravelly sand. Gravel aggregated on far right of image with sparse gravel throughout remainder. Shell hash and shell debris throughout. Indications of long waveform ripple. High turbidity through water column. Potential feeding pits in far right bottom corner.
SFWF	50	С	Pale tan sand with short waveform ripples. Numerous feeding pits with potential fecal casts associated throughout image.
SFWF	51	В	Sandy gravel with small cobbles in center and lower right of image. Long waveform ripple present. Sparse shell hash present with gravel.  Potential grazed barnacles on pebbles and cobbles.
SFWF	51	С	Pale tan sand with gravel along top half of image. Shell hash and shell debris found with gravel. Long waveform ripple present. Feeding pits along sand ridge in lower half of image.
SFWF	51	D	Sandy gravel with gravel along left half of image and sand predominantly in the lower right. Shell hash and shell debris associated with the gravel. Long waveform ripple present. No indication of burrows, feeding pits, or tracks.
SFWF	52	А	Pale tan sand with gravel in top left corner. Very sparse gravel and shell hash distributed throughout sand. Long waveform ripple present. Very long tubes present at top center and on left side of image. Foraging pits present to right of left laser, above left laser, and in lower right quadrant. Potential fecal casts associated with a few feeding pits. Potential track on far right of image.
SFWF	52	В	Slightly gravelly sand with gravel most prominent running up-down through middle of image. Sparse gravel throughout. Sand is pale tan. Long waveform ripple present. Potential foraging pits in bottom right corner and along left side of image. Skate egg on far right. Potential barnacles on orange gravel near center of image.

Area	Station ID	Replicate	Comments
SFWF	52	D	Gravelly sand with gravel bar running up-down along right edge of image. Sparse gravel throughout remainder of image. Sparse shell hash throughout sand and gravel. Long waveform ripple present. Potential foraging pits in lower left of image. Skate egg in lower left.
SFWF	53	А	Pale tan sand with short waveform ripples. Sparse shell hash throughout with a larger shell debris in bottom left. Extensive foraging pits with associated fecal casts throughout. Biogenically modified surface. Potential tracks to the right of the right laser.
SFWF	53	В	Pale tan sand with short waveform ripples. Sparse shell hash throughout. Several foraging pits with associated fecal casts throughout. Biogenically modified surface. Potential tracks visible in the lower quarter of the image. Three or more skate eggs in top left of image. Burrows on far right of image. Potential old collapsed tube to left of left laser in foraging pit.
SFWF	53	С	Pale tan sand with short waveform ripples. Numerous feeding pits with associated fecal casts throughout. Tracks visible between lasers and to the lower right of the right laser. Larger casts in bottom right.
SFWF	54	Α	Pale tan sand with sparse pebbles through center of image. Shell hash throughout with shell debris in lower center of image. Long waveform ripple present with coarser sand on left of image. Feeding pit in lower right and top right of image. Small burrows through middle and right.
SFWF	54	С	Pale tan sand with sparse cobbles throughout. Large boulder in bottom left of image. Sparse shell hash throughout with larger shell debris on right of image. Bedform indeterminate. Attached hydroids with minimal grazing of barnacles on side of boulder.
SFWF	54	D	Tan sand with cobbles present in bottom left corner and running through center, top to bottom. Bedform indeterminate. Sparse shell hash in bottom left corner. Attached hydroids on single cobble near right laser.
SFWF	55	Α	Pale tan sandy gravel with pebble coverage of ~40%. Long waveform ripple visible in bottom left corner. Sparse shell hash throughout. Hatched or eaten skate eggs in top right corner. Sea pen near skate eggs. Sea robin in bottom right of image.
SFWF	55	В	Pale tan sandy gravel with sparse shell hash. Long waveform ripple visible in bottom left corner. Gravel is comprised of pebbles.
SFWF	55	D	Pale tan sand with finer, darker muds in center of image. Long waveform ripple present. Feeding divots present throughout. Few burrows.  Small fish on far left center of image.
SFWF	56	Α	Pale tan sandy gravel with long waveform ripple at left. Sparse shell hash throughout. Live scallop in center has exposed cobbles below surface sand. Feeding pits present along right side of image.
SFWF	56	В	Pebbles and small cobbles covering ~40% with tan sand. Sparse shell hash throughout. Potential grazed hydroids on cobbles on right of image. Sea pens to the top left of right laser and in lower center left of image. Small fish below right laser.
SFWF	56	С	Tan sand with small to medium cobbles along left side of image. Shell debris mixed in with cobble. Layout of cobble indicative of long waveform ripple. Potential grazed hydroids and barnacles on cobble. High turbidity along right side of image.
SFWF	57	А	Pale tan with large cobbles distributed throughout. Bedform indeterminate. Sparse shell hash throughout. Feeding pits throughout. Few small burrows near bottom of image. Tracks on far left of image. Large cobbles have attached hydroids, potential grazing of hydroids on cobble at top of image. Potential barnacles on cobble on top of image.
SFWF	57	С	Pale tan sand with pebbles, small and large cobble in center of image. Shell hash associated with cobbles. Attached hydroids on cobble in center. Potential grazed barnacles on cobble in center. Feeding pits throughout. Small tubes and burrows in middle and lower part of image.
SFWF	57	D	Pale tan sand with cobble and shell hash in bottom right corner. Long waveform ripple in center. Feeding pits on far left and bottom of image. Burrows in lower quarter of image. Cobble in bottom right of image has attached hydroids and barnacles. Sea pen on left of image.

Area	Station ID	Replicate	Comments
SFWF	58	А	Pale tan sand with long waveform ripple. Feeding pits, burrows, and tracks visible in bottom left corner. Hermit crab in top left corner. Tube in upper right quadrant.
SFWF	58	В	Pale tan sand with pebbles and small cobbles along left of image. Sparse shell hash throughout. Long waveform ripple present. Sea pen below left laser. Potential grazed barnacles on cobbles. Feeding pits in bottom left of image.
SFWF	58	D	Pale tan sand with sparse pebbles along right side of image. Sparse shell hash throughout. Long waveform ripple.
SFWF	59	А	Tan sand with cobble in bottom left with extensive shell hash throughout. Bedform indeterminate. Feeding pits present in lower right of image and lower left of image. Small burrows in upper left.
SFWF	59	В	Tan sand with sparse small cobble throughout. Sparse shell hash throughout. Burrows below lasers and at upper edge above right laser.
SFWF	59	С	Pale tan sand with very sparse cobble in center and lower right of image. Sparse shell hash throughout. High turbidity in top and right of image.
SFWF	60	А	Pale tan slightly gravely sand. Pebbles in top half of image. Sparse shell hash throughout. Feeding pits and few small burrows visible in lower half of image.
SFWF	60	В	Pale tan slightly gravely sand. Pebbles along top half of image. High turbidity. Long waveform ripple present.
SFWF	60	С	Pale tan gravelly sand. Pebbles and small cobbles present on left and right of image. Sparse shell hash throughout. Feeding pits in top left of image. Extensive tracks throughout image.
SFWF	61	Α	Pale tan gravelly sand with small to moderately sized cobbles. Bedform indeterminate. Sparse shell hash and shell debris throughout. Attached hydroids and barnacles on cobble. Evidence of grazing on barnacles. Numerous feeding pits and few burrows in sandy sections.
SFWF	61	С	Pale tan gravelly sand with small and moderate sized cobbles. Long waveform ripple present with sand ridge in bottom left corner. Sparse shell hash throughout. Sea pen in top right quadrant with hydroids attached. Cobbles have attached hydroids and barnacles. Many barnacles have been grazed. Feeding pits present throughout sandy sections. Scallop in bottom right quadrant.
SFWF	61	D	Pale tan gravelly sand with small to moderate sized cobbles. Sparse shell hash distributed with cobbles. Long waveform ripple present. A few cobbles have attached hydroids and barnacles. High turbidity in water column.
SFWF	62	А	Pale tan sand with sparse cobbles. Small through large cobbles present with particularly large cobble on right of image. Sparse shell hash throughout. Bedform indeterminate. Small tubes and few medium burrows, mostly on left. Sea pens- one in top left, two in bottom right with attached hydroids. Several cobbles have attached hydroids. Large cobble also has attached barnacles. Feeding pits along left of image.
SFWF	62	С	Tan gravelly sand with small and moderate cobbles in top left of image. Very large cobble partially buried by sand in top right of image. Sparse small cobble throughout sand. Sparse shell hash throughout. Bedform indeterminate. Attached hydroids and barnacles on larger cobbles. Barnacles have been grazed upon. Burrows and feeding pits visible in bottom half of image. Tracks in bottom center.
SFWF	62	D	Pale tan sand with sparse pebble throughout. Large cobble near left laser. Sparse shell hash throughout. Bedform indeterminate. Large cobble has attached hydroids and attached barnacles. Several sea pens in top and center of image with attached hydroids. Foraging pits and small short tubes throughout, particularly in lower half.

Area	Station ID	Replicate	Comments
SFWF	63	Α	Pale tan sand with small cobble sparsely distributed throughout. Larger cobbles along right side of image. Bedform indeterminate. Extensive (~40%) coverage of Polymastia sp. sponges attached to cobbles and/or boulders just barely exposed through sand. Cobbles on left of image have attached hydroids. Visible tracks in bottom left of image. Small burrows and tubes, mainly in bottom left of image.
SFWF	63	В	Right half of image is large boulder with cobble and sand deposited on top. Left side of image is slightly gravelly sand. Extensive shell hash in sand. Bedform indeterminate. Hydroids, sea star, and sea pens on top of boulder. Small patch of Polymastia sp. sponges on right of image.
SFWF	63	С	Pale tan sand with sparse cobble throughout. Larger cobble in upper center and top right. Bedform indeterminate. Numerous feeding pits throughout. Attached hydroids on larger cobbles. Tubes below right laser. Tube casing to top left of left laser. Small burrows near center. Sea pen to top left of left laser.
SFWF	64	А	Pale tan sand with pebbles in lower left corner. Sparse shell hash throughout. Long waveform ripple present with sand ridge visible in lower right corner. A few barnacles on cobbles in lower left. A few feeding pits to the right of the cobbles. Few small burrows in lower left quadrant of image.
SFWF	64	В	Pale tan sand with sparse cobbles on far right and far left of image. Sparse shell hash throughout. High turbidity in water column. Few small burrows and feeding pits visible, particularly below left laser.
SFWF	64	С	Pale tan sand with long waveform ripple at bottom of image and fines gathered in trough. Small burrows near base of ripple to left of center.  Large cobble at very top of image with attached hydroids. Sea pen directly to left of cobble.
SFWF	65	А	Pale tan sand with long waveform ripple visible from ridge in bottom right corner and fines gathered in trough. Sparse shell hash throughout.  Small burrows at left edge.
SFWF	65	В	Pale tan sand with long waveform ripple and fines gathered in trough; with extremely sparse pebbles throughout. Sparse shell hash throughout. Sea pen with attached hydroids in top right. Small foraging pits on far left of image.
SFWF	65	С	Pale tan sand with extremely sparse pebbles and long waveform rippling evidence. Sparse shell hash throughout. Feeding pits and burrows present throughout. Very visible in bottom left corner of image.
SFWF	66	Α	Pale tan sand with sparse shell hash and shell debris. Top left ~15% of image is a large boulder. indeterminate bedform. Boulder has attached hydroids, a sea pen, and barnacles. Signs of grazing present on boulder. Small burrows and a couple foraging pits in lower part of image. High turbidity in water column.
SFWF	66	В	Pale tan slightly gravelly sand with evidence of long waveform rippling. Small cobbles present. Sparse shell hash throughout. Small burrows at left. Feeding pits in lower left.
SFWF	66	С	Pale tan sand with sparse shell hash throughout. Long waveform ripple present with sand ridge in lower right corner. Feeding pits in top left and left. Few small burrows in lower left. Sea pen above left laser with some hydroids attached.
SFWF	67	Α	Pale tan sand with sparse shell hash throughout. Long waveform ripple. Feeding pits and small burrows present in lower half of image.
SFWF	67	В	Pale tan sand with sparse shell hash throughout. Long waveform ripple. Feeding pits and few small burrows present in lower left of image.
SFWF	67	С	Pale tan sand with sparse shell hash throughout. Long waveform ripple. Few small burrows. High turbidity in bottom center of image.
SFWF	68	А	Sandy gravel with pebbles and small cobble running in a band from top left to bottom right. Sand with a couple cobbles in bottom left of image. Extensive shell hash throughout pebbles/cobbles. Distribution of pebbles indicative of long waveform ripple. Tracks and small burrows present in sand.
SFWF	68	В	Top 3/4 of image clouded by high turbidity. Sandy gravel present in bottom and far right of image. indeterminate bedform. A single small cobble in the bottom right has numerous barnacles. Potential collapsed tube next to barnacle cobble.

Area	Station ID	Replicate	Comments
SFWF	68	D	Pale tan sand with indeterminate bedform. Feeding pits with associated fecal casts throughout. Tube in bottom left corner. Burrow in bottom center of image.
SFWF	69	А	Pale tan sand with sparse shell hash throughout. Long waveform ripple present. Feeding pits present throughout. Small fish and sand dollar above left laser. Swimming sea scallop in bottom right of image. Possible small burrows.
SFWF	69	В	Pale tan sand with sparse shell hash throughout. Long waveform ripple present. Small burrows below right laser.
SFWF	69	С	Pale tan sand with very sparse shell hash throughout. Long waveform ripple present. Tracks present in lower left quadrant of image. Small burrow at bottom center.
SFWF	70	А	Pale tan sand with large cobbles along bottom of image. Sparse shell hash throughout. Bedform indeterminate. Large cobbles covered in hydroids. Sea pen above lasers. Small burrows in interspersed fines, near center.
SFWF	70	В	Sandy gravel with moderate and large cobbles. Shell hash and shell debris throughout. Bedform indeterminate. Large cobbles covered in hydroids and barnacles. Small burrows in interspersed fines.
SFWF	70	С	Slightly gravelly sand with cobbles in bottom of image. Sparse shell hash throughout and shell debris. Barnacles on cobble in bottom left of image. Sea pen in bottom center of image. Small burrows in interspersed fines
SFWF	71	А	Slightly gravelly sand with pebbles distributed along right side of image. Long waveform ripple present. Feeding pits on far right and far left of image. Small fish in top right quadrant. Small burrows in fines, center and right; possible bivalve siphon openings near right laser.
SFWF	71	В	Gravelly sand with pebbles along right side of image. Long waveform ripple present. Sea pen in bottom left and upper right. Small fish on far right center.
SFWF	71	С	Pale tan sand with sparse shell hash throughout. Long waveform ripple at left. Feeding pits to bottom right of right laser.
SFWF	72	А	Pale tan sand with sparse shell hash throughout. Evidence of long waveform ripples. Feeding pits and burrows present in bottom quarter and left side of image.
SFWF	72	В	Pale tan sand with sparse shell hash throughout. Long waveform ripple at center. Small burrows in lower right.
SFWF	72	С	Pale tan sand with sparse shell hash throughout. Evidence of long waveform ripples. Feeding pit present below lasers.
SFWF	73	А	Pale tan sand with long waveform ripple with fines in trough. Burrows and feeding pits around lasers in fines. Tracks in lower right quadrant. Hermit in top right corner.
SFWF	73	С	Pale tan sand with long waveform ripple. Sparse shell hash throughout. Potential tube just below lasers. Tracks below lasers.
SFWF	73	D	Tan sand with indeterminate bedform. Feeding pits in top left corner and bottom of image. Tracks near left laser.
SFWF	74	А	Pale tan sand with long waveform ripple, with fines in trough. Sparse shell hash throughout. Small burrows throughout fines.
SFWF	74	С	Pale tan sand with a single pebble on far right center. Long waveform ripple present. Feeding pits in lower left corner. Tracks in bottom right corner.
SFWF	74	D	Pale tan slightly gravelly sand with very sparse pebbles. Very sparse shell hash throughout. Long waveform ripple present. Feeding pits along sand ridge on bottom; large fecal casts in top right corner. Small fish in bottom left corner.
SFWF	75	А	Pale tan sand with very sparse small pebbles and very sparse shell hash throughout. Long waveform ripple present. Feeding pit below lasers.
SFWF	75	С	Tan sand with sparse pebbles and small cobbles evenly distributed throughout. Sparse shell hash throughout. Bedform indeterminate. Two sea pens by right laser. Potential sparse hydroids on medium cobble above left laser. Small burrow near bottom at right.
SFWF	75	D	Pale tan sand with sparse pebble along bottom and top of image. Shell hash mixed in with pebbles. Long waveform ripple present. Feeding pit and tracks to left of left laser.

Area	Station ID	Replicate	Comments
SFWF	76	А	Tan sand with a single medium cobble in top left and fines in troughs of long waveform ripple that runs through center. Sparse shell hash throughout. Feeding pits between lasers and in bottom left. Small burrows in fines. Tracks in darker sediment in lower right quadrant.
SFWF	76	В	Sand with long waveform ripple at right and darker, finer muds in trough. Sparse shell hash throughout. Mud clasts from camera to lower left of left laser. Feeding pit below right laser. Small burrows in fines.
SFWF	76	С	Sand with thin layer of fines and extensive shell hash and shell debris throughout. Feeding pits to right of right laser and along right side of image. Small burrows near image bottom at center.
SFWF	201	А	Pale tan gravelly sand with irregular mounds in upper left. Bryozoans attached to pebble in lower right. Skate egg case in top, center. Fecal coil in lower right corner.
SFWF	201	В	Pale tan gravelly sand with irregular mounds/hummocks and divots. A small tube on left, center. Pebbles with grazed barnacles in upper left corner. Shrimp below middle of lasers.
SFWF	201	С	Pale tan sand with clusters of pebbles. Some barnacles on pebbles in top left and bottom right corners. Small burrow holes with light gray sand surrounding them in lower right corner and directly above right laser.
SFWF	202	А	Light tan sandy mud with indication of slight rippling and numerous divots and burrows throughout.
SFWF	202	В	Light tan sandy mud with numerous large burrows throughout. Circular single groove track on far right.
SFWF	202	С	Light tan sandy mud with numerous large burrows/divots on left side.
SFWF	203	А	Light tan muddy sand with longwave form ripple on top and a gravel bar running horizontally across center, composed of mainly grayish-blue pebbles.
SFWF	203	С	Light tan gravelly sand with longwave form ripples. Large sea scallop center, top. Some shell hash.
SFWF	203	D	Light tan sand with burrows in upper right half and gravelly sand with small pebbles in lower half of image. Some white shell hash.
SFWF	204	А	Light tan sand with shell hash and small pebbles/cobbles throughout. Empty oyster shell at left laser. Bryozoans, barnacles and grazed barnacles scars on cobble/pebble substrate throughout.
SFWF	204	В	Light tan gravelly sand with some shell hash and pebbles/cobbles. Light bluish-gray grazed barnacle scars on pebbles above the lasers, and in the lower right and left corners.
SFWF	204	С	Light tan sand with shell hash and with three cobbles in the center and one in the top right corner. Pebbles are encrusted with bryozoans, barnacles, and light bluish-white grazed barnacle scars. One shrimp above the right laser and another to the left and slight up from the left laser.
SFWF	205	А	Light rusty tan sand with patches of multi-colored very coarse sand along ripple crest and pebbles on all sides of ripple crest. Hydroids attached to pebbles on far right. Possible sand lance emerging from sand in lower right corner.
SFWF	205	В	Light rusty tan sand with patches of multi-colored pebbles and small irregular mounds throughout. Numerous hydroids attached to small gravel on right and top.
SFWF	205	С	Light tan and grayish-brown sand with multi-colored granules, pebbles, and a few small cobbles in the center and top right corner; gravel sections separated by long form ripple. Hydroids attached to cobbles at center and right.
SFWF	206	А	Light tan muddy sand with short single groove tracks. Some shell hash in upper right corner and lower left corner.

Area	Station ID	Replicate	Comments
SFWF	206	С	Light tan sand with pebbles and small cobbles gravel in lower right and light cover of fines. Sand ridge through the middle, top. Half clam shell in lower left corner. Barnacles, bryozoans, and hydroids attached to cobble on far right and lower right corner.
SFWF	206	D	Light tan sand with some pebbles in bottom center, top right corner, and top left corner. Ripple crest of coarser sand through center. Some large burrows to the right of right laser.
SFWF	207	А	Light tan muddy sand with longwave form ripple, horizontal through the center. Some burrows and tracks in upper portion. Some white shell has in lower left corner
SFWF	207	В	Light tan muddy sand with longwave form ripple horizontal through the center. Some divots and burrows in the upper left.
SFWF	207	С	Light tan muddy sand with two longwave form ripples through center. Some white shell hash in top right corner.
SFWF	208	А	Light tan muddy sand with irregular ripples and foraging pits throughout, fecal casts associated with pit in lower left. Unidentified fish in the upper left corner. Possible double groove track through left center.
SFWF	208	В	Light tan muddy sand with irregular short form ripples and feeding pits throughout. Monkfish just below left laser.
SFWF	208	С	Light tan muddy sand with irregular hummocks/mounds. Some burrows throughout. Turbidity obscures view of seafloor at image edges.
SFWF	209	В	Light tan muddy sand with irregular short form ripples. Small burrows throughout, particularly on left. Few feeding pits.
SFWF	209	С	Light tan muddy sand with irregular short form ripples throughout. Small burrows throughout.
SFWF	209	D	Light tan muddy sand with a wide ripple diagonal through the center, with finer sand/silt on either side (lower right corner and upper left corner). Some very small shell hash on the ripple.
SFWF	210	А	Light tan muddy sand with some feeding pits and burrows throughout. Some very small white shell hash scattered throughout. Short, single groove track to the left of left laser.
SFWF	210	В	Light tan muddy sand with feeding pits and associated fecal casts throughout. Small short tubes visible below lasers. Some long single groove tracks on right.
SFWF	210	С	Light tan muddy sand with some feeding pits with associated fecal casts and irregular mounds throughout. Small white shell in center, top.
SFWF	211	А	Light tan muddy sand with some small shell hash throughout. Some feeding pits in upper left corner. Short tracks in upper right corner.
SFWF	211	В	Light tan muddy sand with some small shell hash throughout, some single groove tracks in upper left corner and lower right corner.
SFWF	211	С	Light tan muddy sand with small white shell hash throughout. An unidentified organism above right laser, possible sand lance.
SFWF	212	А	Light rusty tan sand with longform wave ripple across the upper left and finer muddy sand in lower right. Cluster of white shell hash (half a clam shell) in lower right.
SFWF	212	С	Light rusty tan sand with long waveform ripple in upper left, fines on remainder of surface. One light reddish-white shrimp to the right of the right laser and another above and slightly to the left of that one.
SFWF	212	D	Light tan sand ripple through center of image, with lighter gray-tan finer muddy sand on either side. Long tubes of unknown type in top, center. Possible pinkish crab carapace below left laser.

Area	Station ID	Replicate	Comments
SFWF	213	А	Light tan sand with long waveform ridge in upper left corner and another on right. Pale yellow and multi-colored pebbles clustered in the center and in the upper right corner. Bryozoans attached to a red cobble in upper right corner and a hydroid just below this, with distinct circular tracks around it.
SFWF	213	В	Light rusty tan sand mound on right with a small patch of gravel in top center and light grayish tan sand in center and left. Few medium burrows at left.
SFWF	213	С	Light rusty tan sand on longwave form ripple on right with light grayish-tan sand/silt through the center and a patches of gravel in the top center and lower left corner. Barnacles and bryozoans attached to cobble in lower left. Some larger burrows in the center.
SFWF	214	В	Light rusty tan sand with some grayish-tan sand/silt in upper left corner. Some multi-colored pebbles in upper right with attached hydroids, possible tubes to the left of these pebbles.
SFWF	214	С	Light tan sand with some light grayish-tan sand/silt in the center and lower right corner. Patch of multi-colored pebbles in upper right corner with an attached hydroid in the upper right.
SFWF	214	D	Light grayish tan sand with patch of yellowish brown pebbles in the center, depositional layer of fines over most of field of view; edge of long waveform ripples at lower right and upper left.
SFWF	215	Α	Multi-colored pebbles with light tan-brown sand running diagonal through the center.
SFWF	215	В	Yellowish-orange brown pebbles and some small white shell hash throughout with a few larger bluish-gray pebbles. Some light tan sand on the far left and center right. Barnacles attached to larger pebbles, in bottom center and next to left laser. Transparent pinkish shrimp next to the right laser, and three more directly below the center of the lasers (2 on/near the light bluish-gray pebble with barnacles and the other to the left of it).
SFWF	215	С	Light tan sand with some small patches of yellowish-brown pebbles in the top right and left corners, bottom right corner and bottom center.  Ripple running halfway through center, fines on surface at top and left. Some white shell hash throughout.
SFWF	216	Α	Light tan sand with yellowish brown small pebbles throughout. Depositional fines at left. Clam shell valve above right laser.
SFWF	216	В	Light tan muddy sand with small yellowish-brown pebbles on left. Clam shell valve above right laser. Some distinct divots above middle of the lasers.
SFWF	216	С	Light tan gravely sand with some patches of light grayish tan muddy sand on the far right and towards the left.
SFWF	217	А	Light tan sand with a ripple crest running diagonal through center, left. Muddy sand in lower right corner and small divots in the top left corner.
SFWF	217	С	Light grayish tan muddy sand with a ripple along top left. A small boulder with attached bryozoans and barnacles in bottom right corner with some small shell hash around it. Another boulder with bryozoans and pinkish white coralline algae in top right corner. Two tubes in top left corner.
SFWF	217	D	Light tan sand with a strip of multi-colored gravelly sand with white shell hash running diagonal through the center. Small unknown fish in center to the right of a white shell fragment, possible sand lance.
SFWF	218	А	Light tan muddy sand with small white shell fragments throughout. Irregular small mounds/hummocks. Possible tube to the left of left laser. Small burrows throughout.
SFWF	218	В	Light tan muddy sand, with darker grayish-greenish brown muddy sand on top. Numerous burrows, small divots, and tracks throughout. Fecal cast below left laser.
SFWF	218	С	Light tan muddy sand with greenish-brown muddy sand in upper left corner. Small mounds and feeding pits throughout. Small hermit crab to the right of the right laser.

Area	Station ID	Replicate	Comments
SFWF	219	А	Light tan sand with patches of gravelly sand on right, upper left and lower left corners. Reddish pink hydroid in upper left and one at far right center. Hydroid in center between lasers. Barnacles, bryozoans, and coralline algae attached to small gravel in upper left corner and far right, center. Green unknown organism/detritus, possible algae frond in right center.
SFWF	219	В	Light tan sand with patches of multi-colored gravelly sand and irregular mounds/hummocks. Reddish-pink hydroid above left laser. Burrows with excavated material around them below left laser and above right laser
SFWF	219	С	Multi-colored gravelly sand with a ripple of light tan sand diagonal from left corner to right corner.
SFWF	220	А	Light tan muddy sand with small burrows throughout. Two long shallow ridges across image and small patches of slightly gravelly sand. Unknown, possible fish directly above left laser towards the top.
SFWF	220	В	Light tan muddy sand with small burrows throughout. Irregular short period ripples. Few feeding pits in upper right corner.
SFWF	220	С	Light tan muddy sand with small burrows throughout and longwave form ripples running diagonal. Some larger burrows and small divots in lower left corner. Pinkish white shell fragment above lasers. Large tracks in upper right corner.
SFWF	C01	Α	High turbidity in water column does not allow for analysis. Appears to be gravelly sand with shell hash.
SFWF	C01	В	High turbidity in water column does not allow for analysis
SFWF	C01	С	Tan sandy gravel with pebbles and small cobbles. Gravel arranged in long waveform ripple. Shell hash and shell debris throughout. Unidentified water column invertebrate near center of image. Low water column turbidity limits biotic analysis.
SFWF	C01	E	Moderately high turbidity limits analysis. Tan sandy gravel present with pebbles and small cobbles. Indeterminate bedform. Small shrimp present in upper center image.
SFWF	C01	F	High turbidity limits analysis. Appears to be sandy gravel plus shell hash, including sand dollar test.
SFWF	C02	А	Pale tan sand with very sparse shell hash throughout. Indeterminate bedform with biogenically modified seafloor. Numerous feeding pits, some with associated fecal casts. Small burrows throughout.
SFWF	C02	В	Pale tan sand with sparse shell hash throughout and shell debris in bottom right of image. Indeterminate bedform. Several feeding pits throughout. Few small burrows, medium burrow above shell debris.
SFWF	C02	С	Pale tan sand with very sparse shell hash and long waveform ripple. Several feeding pits present throughout, fecal casts in upper one. Small burrows, especially in lower part of image.
SFWF	C02	D	Pale tan sand with shell hash throughout. Feeding pits with fecal casts present. Tracks present below and to the right of lasers.
SFWF	C02	E	Pale tan sand with long waveform ripple. Numerous feeding pits with associated fecal casts throughout. Few medium burrows at lower left.
SFEC-OCS	101	А	Pale tan sandy gravel with gravel ranging from pebbles to large cobble. Shell hash and shell debris distributed throughout. Hydroids attached on ~50% of cobbles. Cobble in bottom left quadrant has grazed barnacles. Track running across right laser. Small to medium burrows at center.
SFEC-OCS	101	С	Pale tan sandy gravel with gravel ranging from pebbles to large cobbles. Shell hash and shell debris distributed throughout. Hydroids attached on larger cobbles. Cobble in bottom center has grazed barnacles. Feeding pits along right of image and bottom left. Small burrow below right laser.
SFEC-OCS	101	D	Pale tan sandy gravel with gravel ranging from pebbles to large cobbles. Shell hash and shell debris distributed throughout. Hydroids attached on larger cobbles. Cobbles in bottom right and top left have grazed barnacles. Feeding pits along right of image and bottom left. Small burrows in area of fines near lasers.

Area	Station ID	Replicate	Comments
SFEC-OCS	102	А	Pale tan sandy gravel with gravel ranging from pebbles to small boulder. Shell hash distributed throughout. Bedform is irregular mounds.  Burrows present in bottom center of image. Feeding pits in lower right and lower left of image. Hydroids on large cobbles and boulder. Grazed barnacles on large cobbles and boulder. Sea pen in sand above lasers. Anemone between lasers. Small unidentified fish on right side of image.
SFEC-OCS	102	С	Pale tan gravelly sand with a mix of small and moderate sized cobbles. Sparse shell hash throughout. Bedform is irregular mounds. Small burrows throughout. Feeding pits visible below lasers. Tracks in far lower left of image. Sea pen on far left center of image. Large cobbles have grazed barnacles and hydroids.
SFEC-OCS	102	D	Pale tan gravelly sand with small through large cobbles. Shell hash and shell debris interspersed with cobble. Bedform in irregular mounds. Feeding pits on far right of image. Small burrows at right at bottom. Large cobbles have grazed and un-grazed barnacles and attached hydroids. Closed anemone on large cobble on far left. Sea pen in sand to left of anemone cobble. Small black sea bass in bottom left corner.
SFEC-OCS	103	А	Pale tan muddy sand with sparse shell hash throughout. Short waveform rippling present. Feeding pits throughout. Fecal casts associated with feeding pits. Burrow mound between lasers. Tubes throughout.
SFEC-OCS	103	В	Pale tan muddy sand. Unidentified round object in far bottom left of image, could be small cobble. Short waveform rippling present. Feeding pits throughout with associated fecal casts. Small burrows.
SFEC-OCS	103	D	Very high turbidity. Pale tan muddy sand with fecal casts visible on far right of image.
SFEC-OCS	104	А	Pale tan sandy gravel with cobble ranging from small pebbles to small boulders. Sparse shell hash and shell debris mixed in with cobble. Hermit crab in top left. Numerous sea pens throughout. Large cobbles/small boulders have attached hydroids and sparse barnacles. Anemone on small boulder in center. Sand dollar in between two center boulders. Small burrow at left upper edge.
SFEC-OCS	104	В	Tan sand with gravel ranging from small pebbles to cobbles evenly dispersed throughout. Very sparse shell hash throughout. indeterminate bedform. Large cobbles have attached hydroids and grazed barnacles. Several sea pens on the right side of the image, some protruding from the sand, others from cobble. Scallop in top left corner. Hermit crab in top left corner. Small burrows in areas of fines.
SFEC-OCS	104	С	Pale tan sand with very sparse pebbles along bottom of image and a medium cobble on the far left. Very sparse shell hash throughout. indeterminate bedform. Numerous sea pens throughout. Cobble on far left of image has attached hydroids. Fecal casts immediately to the left of this large cobble. Foraging pits along bottom. Few small burrows.
SFEC-OCS	105	А	Pale tan muddy sand with indeterminate bedform. High turbidity in water column. Numerous feeding pits and some small burrows throughout including very large example of foraging pit on left laser. Fish below right laser, potentially a scup.
SFEC-OCS	105	В	Pale tan muddy sand with biogenically modified surface. Numerous foraging pits and small burrows throughout image. Turbidity in water column (as white specks).
SFEC-OCS	105	D	Pale tan muddy sand with biogenically modified surface. Numerous foraging pits and small burrows throughout image. Turbidity in water column (as white specks). Hermit crab or small gastropod in top left of image with trailing track.
SFEC-OCS	106	А	Pale tan sand with biogenically modified surface. Long waveform ripples with fines in trough. Large shell debris in bottom left of image.  Numerous foraging pits throughout image. Small burrows in fines. Turbidity in water column (as white specks).
SFEC-OCS	106	В	Very high turbidity. Pale tan sand and indications of long waveform ripples visible on bottom left corner of image.
SFEC-OCS	106	С	Very high turbidity. Pale tan sand visible on bottom of image. Shell debris in bottom right of image.

Area	Station ID	Replicate	Comments
SFEC-OCS	107	А	Tan gravelly sand with pebbles and small cobbles running from top left to bottom right of image. Sparse pebbles distributed throughout remainder of sand. Sparse shell hash throughout. Long waveform ripple indicated by gravel arrangement. Sea pen in top left corner protruding from sand. Few small burrows in area of fines.
SFEC-OCS	107	В	Pale tan sand with small pebbles in lower left corner. Long waveform ripple indicated by sand ridge.
SFEC-OCS	107	С	Pale tan sand with sparse pebbles and very small cobbles visible at top and bottom of image. Shell hash in upper right corner of image. Long waveform ripple present. Sea pens with attached hydroids in bottom right of image.
SFEC-OCS	108	Α	Pale tan sand with very sparse pebbles in bottom right image. Very sparse shell debris throughout. High turbidity in water column.
SFEC-OCS	108	В	Pale tan sand with sparse pebbles throughout. Larger pebbles on right size of image. Sparse shell hash throughout. Indications of long waveform ripples. Feeding pits and small burrows present on bottom half of image in fines. Sea pen with attached hydroids in bottom right of image. Small fish on far right of image.
SFEC-OCS	108	С	Tan sand with pebbles throughout, Shell debris and shell hash through center of image. Long waveform ripple present. High turbidity in water column.
SFEC-OCS	109	А	Pale tan sand with pebbles distributed throughout. Sparse shell hash throughout. Long waveform ripple present. Few small burrows near left laser toward ripple.
SFEC-OCS	109	В	Very high (~75%) pebble coverage with pale tan sand. Extensive shell hash and shell debris throughout. Evidence of long waveform ripples.
SFEC-OCS	109	D	Very high (~65%) pebble coverage with pale tan sand. Extensive shell hash and shell debris throughout. indeterminate bedform. Scallop above left laser. Sea pen to the top right of the right laser.
SFEC-OCS	110	А	Pale tan sand with long waveform ripple. High turbidity along right side of image. Very sparse shell hash throughout. Small burrows in area of fines. Wide gastropod or sand dollar track at left.
SFEC-OCS	110	В	Pale tan sand with biogenically modified seafloor; long waveform ripples with fines in trough. Single large cobble on left side of image. Sparse shell hash visible in top half of image. Small burrows and feeding pits in area of fines.
SFEC-OCS	110	С	Pale tan sand in bottom left of image. Very high turbidity in remainder of image.
SFEC-OCS	111	А	Tan sand with a band of gravel running from bottom left to mid right of image. Gravel primarily pebbles and small cobble. Shell hash extensive within gravel. High turbidity in top half of image.
SFEC-OCS	111	В	Pale tan sand with pebbles and small cobbles distributed throughout. Shell hash distributed throughout. Long waveform ripple present. Sea pen in bottom center of image. Translucent shrimp in mid-center of image.
SFEC-OCS	111	С	Tan sand with sparse pebbles and small cobbles on bottom half of image. Indeterminate bedform. Sea pen to the right of right laser.
SFEC-OCS	112	А	Pale tan slightly gravelly sand with very sparse pebbles. Very sparse shell hash throughout. Long waveform ripple present. Partially buried sea pen in upper center, shrimp to the upper left of left laser, and sand dollars in the lower center and upper center of image. Potential small fish on far right of image.
SFEC-OCS	112	В	Pale tan slightly gravelly sand with pebbles in upper right corner. Sparse shell hash distributed with gravel. Long waveform ripple present. Sand dollars present to left of left laser and below right laser. Shrimp below lasers near bottom of image. Tracks in lower left.
SFEC-OCS	112	С	Pale tan gravelly sand with pebbles and small cobbles along right of image. Shell hash distributed in with gravel. Long waveform ripple present. Sand dollar above right laser.

Area	Station ID	Replicate	Comments
SFEC-OCS	113	А	Tan gravelly sand with evenly distributed pebbles throughout. Very high coverage of shell hash and shell debris. Bedform indeterminate. About 28 sand dollars present with related tracks.
SFEC-OCS	113	В	Tan gravelly sand with evenly distributed pebbles throughout. Very high coverage of shell hash and shell debris. Bedform indeterminate. About 32 sand dollars present with related tracks.
SFEC-OCS	113	С	Tan gravelly sand with evenly distributed pebbles throughout. Very high coverage of shell hash and shell debris. Bedform indeterminate. About 27 sand dollars present with related tracks. Unidentified fish in bottom right corner.
SFEC-OCS	114	А	Pale tan sand with extensive shell hash throughout. indeterminate bedform. Sand dollar in bottom left of image. Tracks in upper center, likely from sand dollar. Few small burrows in lower right.
SFEC-OCS	114	В	Pale tan sand with extensive shell hash throughout. Sand dollar debris in bottom right corner. Feeding pits visible throughout image.
SFEC-OCS	114	С	Pale tan sand with extensive shell hash throughout. indeterminate bedform. Feeding pits throughout.
SFEC-OCS	115	А	Tan gravelly sand with pebbles distributed throughout. Extensive shell hash and shell debris throughout. Long waveform bedform present.  About 18 sand dollars. Sand dollar tracks also visible. Few fecal casts near center.
SFEC-OCS	115	В	Tan gravelly sand with extensive pebbles and shell hash throughout. Long waveform ripple with sand dollars on crest. Approximate 40% surface coverage of sand dollars. Hermit crab just below lasers.
SFEC-OCS	115	С	Tan gravelly sand with extensive pebbles and shell hash throughout. Long waveform ripple with sand dollars on crest. Approximate 50% surface coverage of sand dollars. Sand dollar tracks present throughout bottom right of image.
SFEC-OCS	116	А	Tan sand with extensive shell hash and sparse shell debris throughout. Indeterminate bedform. Dead seaweed between lasers. About 14 sand dollars throughout. Track visible to right of right laser. Few small burrows in areas with fines.
SFEC-OCS	116	В	Tan sand with extensive shell hash and sparse shell debris throughout. Apparent vertebrae to top left of left laser. indeterminate bedform.  About 21 sand dollars throughout. Tracks visible on left side of image.
SFEC-OCS	116	С	Tan sand with shell hash throughout. indeterminate bedform. About 8 sand dollars throughout. Tracks visible in bottom right of image.
SFEC-OCS	117	А	Very high water column turbidity. Appears to be slightly gravelly sand with pebbles and extensive shell hash throughout. Bedform and biotic components indeterminate due to turbidity. About 6 sand dollars.
SFEC-OCS	117	В	Tan gravelly sand with very sparse pebbles throughout. Very extensive shell debris and shell hash throughout. Indeterminate bedform. Potential gastropod just below lasers.
SFEC-OCS	117	С	Tan gravelly sand with very sparse pebbles throughout. Very extensive shell debris and shell hash throughout. Indeterminate bedform. 2 Sand dollars. Moderate sized indeterminate fish below lasers.
SFEC-OCS	118	А	Pale tan sand with indeterminate bedform. Feeding pits and some small burrows in lower half of image. Hermit crab in top right, shrimp in center right and bottom center of image. Small fish in bottom left of image.
SFEC-OCS	118	В	Pale tan sand with very sparse shell hash throughout. Indeterminate bedform. High turbidity in water column limits analysis of biotic components.
SFEC-OCS	118	С	High turbidity in water column does not allow for analysis
SFEC-OCS	119	А	High turbidity clouds top half of image. Tan sand with indeterminate bedform in bottom half of image. Fecal casts in bottom left of images. Sea star in far bottom left corner.
SFEC-OCS	119	В	Very high water column turbidity. Tan sand with indeterminate bedform. Potential fecal casts in center of image.

Area	Station ID	Replicate	Comments
SFEC-OCS	119	С	Tan sand with shell hash throughout. indeterminate bedform. Sand dollar and sea star below lasers.
SFEC-OCS	120	А	Pale tan sand with very sparse shell hash throughout. Indeterminate bedform. Potential feeding pits below lasers. Two hermit crabs of right of right laser. Small burrows at left.
SFEC-OCS	120	В	Tan sand with very sparse shell hash and an indeterminate bedform. Feeding pit and fecal casts between and below lasers.
SFEC-OCS	120	С	Tan sand with very sparse shell hash and an indeterminate bedform. Feeding pit and fecal casts between and below lasers. Sand dollar by left laser. Small indeterminate fish in upper center of image.
SFEC-OCS	121	А	Pale tan sand with very sparse shell hash. Indeterminate bedform. Numerous feeding pits with associated fecal casts. Burrows between and below lasers. Hermit crab in top center of image.
SFEC-OCS	121	В	Pale tan sand with very sparse shell hash throughout. Biogenically modified seafloor. Extensive feeding pits throughout with associated fecal casts. Three sand dollars on right side of image. Few small burrows in lower right.
SFEC-OCS	121	D	Pale tan sand with shell hash throughout. Indeterminate bedform. Numerous burrows with associated mounds. About 9 sand dollars. Large winter skate in top left.
SFEC-OCS	122	Α	Pale tan sand with very extensive shell debris and shell hash coverage. Shell debris includes sand dollars and clams. indeterminate bedform. Feeding pit with associated fecal casts below right laser. 3 sand dollars. Small burrow near left laser and small tubes in lower left quadrant.
SFEC-OCS	122	В	Pale tan sand with very extensive shell debris and shell hash coverage. Shell debris includes sand dollars and clams. indeterminate bedform.  Feeding pit with associated fecal casts below right laser and on right of image. 2 sand dollars. indeterminate mound under right laser - looks like fecal matter.
SFEC-OCS	122	С	Pale tan sand with shell hash and shell debris throughout. Indeterminate bedform. Tracks present on right side of image. Sand dollar below right of laser. Biogenically modified seafloor to left of left laser. Few small burrows and foraging pits at left quadrants.
SFEC-OCS	123	Α	Tan sandy gravel with extensive pebble coverage. Very extensive shell hash and shell debris coverage. Indeterminate bedform.
SFEC-OCS	123	В	Tan sandy gravel with extensive pebble coverage. Extensive shell hash and shell debris throughout. Long waveform ripple indicated by shell hash coverage. Feeding pits to left of left laser.
SFEC-OCS	123	С	Tan sandy gravel with extensive pebble coverage. Very extensive shell debris and shell hash coverage. Indeterminate bedform. 2 sand dollars in top of image.
SFEC-OCS	124	А	Pale tan muddy sand with sparse shell hash. indeterminate bedform. Medium burrow in lower right corner; small burrows throughout. Feeding pits/tracks visible in lower half of image.
SFEC-OCS	124	В	Pale tan muddy sand with very sparse shell hash. Indeterminate bedform. Several burrows in center of screen with associated mounds. Tracks present on bottom and bottom right of image. Sand dollar on far right of image. Tube cast on far right of image.
SFEC-OCS	124	D	Pale tan muddy sand with indeterminate bedform. Two sand dollars with associated tracks. Feeding pits visible below lasers. Fecal casts and tracks visible above lasers. Small burrows throughout, medium burrow near left edge.
SFEC-OCS	125	А	Pale tan muddy sand with sparse shell hash throughout. Indeterminate bedform. Numerous burrows with associated mounds in lower half of image. Feeding pits in lower and left side of image. >25 sand dollars.
SFEC-OCS	125	С	Tan muddy sand with indeterminate bedform. About 20 sand dollars present. Feeding pits with associated fecal casts in top half of image.  Tracks visible in lower half of the image. Small burrows throughout.

Area	Station ID	Replicate	Comments
SFEC-OCS	125	D	Pale tan muddy sand with indeterminate bedform. Feeding pit directly below right laser. > 3 dozen sand dollars present. Small to medium burrows throughout.
SFEC-OCS	126	А	Pale tan sand with shell hash on right and bottom left of image. Indeterminate bedform. Sand dollar coverage at ~75% of image. Sand dollar tracks present. Few small burrows.
SFEC-OCS	126	В	Pale tan sand with shell hash. Indeterminate bedform. Sand dollar coverage at ~65% of image. Numerous tracks present in sand. Unidentified gastropod to right of right laser.
SFEC-OCS	126	С	Pale tan sand with shell hash throughout. Indeterminate bedform. Sand dollar coverage a ~40% of image. Sand dollar tracks present.
SFEC-OCS	127	Α	Pale tan sand with shell hash throughout. Long waveform ripple present. Tracks and/or feeding pits present in lower left corner of image.
SFEC-OCS	127	В	Pale tan sand with sparse shell hash throughout. Indeterminate bedform. Single sand dollar in top left quadrant. Feeding pits in bottom right with sparse fecal casts.
SFEC-OCS	127	С	Pale tan sand with sparse shell hash throughout. Indeterminate bedform with rippling present in lower right corner. Two sand dollars on far left of image. One buried sand dollar on far right of image. Tracks present in lower right corner. Fecal casts in lower part of image.
SFEC-OCS	128	А	Very high turbidity in water column. Tan sand with sparse shell hash on bottom of image. Shrimp in bottom left of image. Turbidity too high to determine bedform or identify other biotic features.
SFEC-OCS	128	В	Tan sand with sparse shell hash and shell debris throughout. Moderately high turbidity in water column. Indeterminate bedform. Feeding pits on left and lower center of image. Gastropod in lower center of image. Shrimp present in lower half of image.
SFEC-OCS	128	С	Tan sand with very sparse shell hash throughout. Moderate turbidity in water column. Indeterminate bedform. Numerous shrimp in lower half of image, particularly lower right image. Tracks present in lower left of image.
SFEC-OCS	129	А	Muddy sand and burrows and/or foraging pits visible through high turbidity in water column; all other parameters are indeterminate.
SFEC-OCS	129	С	Muddy sand and burrows and/or foraging pits visible through high turbidity in water column; all other parameters are indeterminate.
SFEC-OCS	129	D	Muddy sand and burrows and/or foraging pits visible through high turbidity in water column; all other parameters are indeterminate.
SFEC-OCS	130	А	Very high turbidity, top half of image obscured. Tan muddy sand visible with very sparse shell hash and possible burrows or foraging pits. Sea pen? in center of image.
SFEC-OCS	130	В	Muddy sand with possible burrows and/or foraging pits visible through high turbidity in water column; all other parameters are indeterminate.
SFEC-OCS	130	С	Muddy sand with possible burrows and/or foraging pits visible through high turbidity in water column; all other parameters are indeterminate.
SFEC-OCS	131	А	High turbidity in water column does not allow for analysis; shell hash visible
SFEC-OCS	131	С	High turbidity in water column does not allow for analysis; shell hash visible
SFEC-OCS	131	D	Very high turbidity in water column limits analysis. Visible sand and shell hash.

Area	Station ID	Replicate	Comments
SFEC-OCS	132	А	High turbidity in water column does not allow for analysis; some shell hash visible.
SFEC-OCS	132	С	High turbidity in water column does not allow for analysis; shell hash, possible scallop in lower left visible.
SFEC-OCS	132	D	Very high turbidity limits analysis. Pebbles across sand and shell debris and shell hash visible.
SFEC-OCS	133	А	Sand with burrows and/or foraging pits visible in lower part of image with high turbidity in water column rendering all other parameters indeterminate.
SFEC-OCS	133	В	High turbidity in water column does not allow for analysis
SFEC-OCS	133	D	High turbidity in water column does not allow for analysis
SFEC-OCS	134	А	Sandy gravel with extensive pebble and small cobble coverage. Indeterminate bedform. Vertebrae in center of image.
SFEC-OCS	134	В	Tan sand with pebbles evenly distributed. Turbidity limits analysis. Sparse shell hash present.
SFEC-OCS	134	С	High turbidity in water column does not allow for analysis. Gravelly sand and shell debris visible.
SFEC-OCS	135	А	Tan sand with pebbles and small cobbles. High turbidity limits analysis. Sand dollar in top left corner.
SFEC-OCS	135	В	High turbidity limits analysis. Gastropod in center of image
SFEC-OCS	135	С	High turbidity limits analysis. Sand dollar on far left of image. Shell debris in top left.
SFEC-OCS	136	А	High turbidity limits analysis. Sand with very sparse pebbles or small cobbles present. Four sand dollars visible. Possible burrows and/or foraging pits at bottom.
SFEC-OCS	136	В	High turbidity limits analysis. Sand with very sparse pebbles present. One sand dollar visible in top left corner.
SFEC-OCS	136	С	High turbidity limits analysis. Pale tan sand visible with small cobble to upper right of right laser. Slight rippling evident. Two sand dollars on far right of image.
SFEC-OCS	137	А	Pale tan sand with very sparse pebbles and small cobbles. Indeterminate bedform. Seven sand dollars with tracks visible. Moderately high turbidity limits analysis.
SFEC-OCS	137	В	Pale tan sand with sparse pebbles and small cobbles. Very sparse shell hash throughout. indeterminate bedform. Seven sand dollars visible.  Potential tracks or feeding burrows in lower left of image.
SFEC-OCS	137	С	Pale tan sand with two cobbles in center. Shell debris and shell hash throughout. Indeterminate bedform. Potential slipper shells on lower cobble. Three sand dollars along top of image.
SFEC-OCS	138	А	Pale tan sand with long waveform rippling. 11 sand dollars visible. Sand dollar tracks visible in sand.
SFEC-OCS	138	В	Moderate turbidity in water column. Pale tan sand with long waveform ripple. Three sand dollars visible.

Area	Station ID	Replicate	Comments
SFEC-OCS	138	D	Moderate turbidity in water column. Pale tan sand with long waveform bedform. Ten sand dollars visible.
SFEC-OCS	139	А	Pale tan sand with long waveform ripple. About 38 sand dollars running through center of image. Numerous tracks present. Few small to medium burrows, at center and above left laser.
SFEC-OCS	139	В	Pale tan sand with indeterminate bedform. Moderate turbidity limits detailed analysis. Fourteen sand dollars distributed throughout.
SFEC-OCS	139	С	Pale tan sand with long waveform ripple. Moderate turbidity limits detailed analysis. Shell debris in top right corner. Six sand dollars distributed throughout.
SFEC-OCS	140	Α	Pale tan sand with long waveform ripple. Five sand dollars present. Tracks visible on sand ridge.
SFEC-OCS	140	В	Pale tan sand with indeterminate bedform. Four sand dollars visible. Tracks visible in lower half of image. Potential fecal casts in top left quadrant.
SFEC-OCS	140	С	Pale tan sand with sparse shell hash and indeterminate bedform. Two sand dollars in center of image. Few small burrows.
SFEC-OCS	141	А	Pale tan sand with sparse shell hash throughout long waveform ripple. Tracks visible below left laser. A few feeding pits with associated fecal casts on far left of image and below lasers. Few small burrows.
SFEC-OCS	141	В	Tan sand with sparse shell hash and very sparse shell debris. Long waveform ripple present.
SFEC-OCS	141	С	Pale tan sand with sparse shell hash and very sparse shell debris throughout. Long waveform ripple present. Potential cobble in top left of image with attached slipper shells. Potential tracks to lower right of right laser.
SFEC-OCS	142	А	Pale tan sand with very sparse shell hash throughout. Indeterminate bedform; patch of fines at left Tracks to lower right of right laser. Potential gastropod or hermit crab above left laser.
SFEC-OCS	142	В	Very high turbidity limits analysis. Pale tan visible in lower left of image.
SFEC-OCS	142	С	Pale tan sand with indeterminate bedform. Feeding pit below right laser. SPI camera frame track at upper center of image.
SFEC-OCS	146	С	Pale tan sand with very sparse shell hash. Long waveform ripple present. Extensive tracks visible in lower half of image. About 7 sand dollars visible.
SFEC-OCS	146	E	Very high turbidity limits analysis. Four sand dollars present
SFEC-OCS	146	F	Very high turbidity limits analysis. Three sand dollars present
SFEC-OCS	147	А	Pale tan sand with shell hash throughout. Long waveform ripple present. Extensive tracks visible in lower half of image. About 5 sand dollars visible. Small burrow in area of fines to right of center. Small gastropod or hermit crab at center lower edge.
SFEC-OCS	147	В	Pale tan sand with a single moderate cobble in the top right quadrant. Cobble has attached barnacles. Evidence of long wavelength ripple.  Tracks visible in the lower half of image. About 7 sand dollars.
SFEC-OCS	147	С	Pale tan sand with sparse shell hash. Indeterminate bedform. Moderately high turbidity limits analysis. About 9 sand dollars present.
SFEC-OCS	148	А	Pale tan sand with shell hash and very sparse shell debris throughout. Long waveform ripple present. One sand dollar in center of image. Likely tracks on sand ridge near bottom of image.

Area	Station ID	Replicate	Comments
SFEC-OCS	148	В	Pale tan sand with shell hash throughout. Long waveform ripple present. Extensive tracks visible in lower half of image. About 10 sand dollars visible. Potential gastropod (moon snail) in lower left corner with attached barnacles.
SFEC-OCS	148	С	Pale tan sand with shell hash throughout. Long waveform ripple present. Seven sand dollars present. Potential tracks present on far left of image. Potential burrow at center.
SFEC-OCS	149	А	Very high turbidity limits analysis. Pale tan sand visible.
SFEC-OCS	149	В	Pale tan sand with extensive shell hash throughout. Indeterminate bedform. Slipper shells, unattached to substrate in lower right of image. Five sand dollars present. Tracks present in lower left of image. Few small burrows, one to lower left of middle sand dollar.
SFEC-OCS	149	С	Moderately high turbidity limits analysis. Pale tan sand with shell hash throughout. About five sand dollars present.
SFEC-OCS	150	А	Very high turbidity limits analysis. Pale tan sand visible. Sand dollar in center of image. Possible burrows in lower part of image.
SFEC-OCS	150	С	Very high turbidity limits analysis. Pale tan sand visible. Sand dollar in top left of image. Possible burrows in lower right.
SFEC-OCS	150	D	Moderately high turbidity limits analysis. Pale tan sand with sparse shell hash. Small gastropod in center of image. Four sand dollars present. Potential tracks in bottom left of image.
SFEC-OCS	151	А	Tan slightly gravelly sand with very sparse pebbles and small cobbles. Indeterminate bedform. Small burrows and fecal casts throughout, particularly in bottom left of image. Extensive coverage of slipper shells throughout. A few slipper shells have barnacles.
SFEC-OCS	151	В	Tan gravelly sand with pebbles and small cobbles present. Indeterminate bedform. Sparse shell hash throughout. Extensive coverage of slipper shells throughout, numerus slipper shells have attached barnacles. Small gastropod in bottom center of image. Fecal casts present in with slipper shells.
SFEC-OCS	151	D	Tan gravelly sand with pebbles and cobbles. Small cobbles have attached barnacles. Very high coverage of slipper shells preset, ~ 75% coverage.
SFEC-OCS	152	А	Pale tan sand with shell hash throughout. Indeterminate bedform. About 8 sand dollars present. Few small burrows left of center.
SFEC-OCS	152	В	Pale tan sand with very sparse shell hash. Indeterminate bedform. Two sand dollars present. Large cobble or gastropod on far left of image. Fecal casts on surface near center.
SFEC-OCS	152	С	Pale tan sand with very sparse shell hash. Indeterminate bedform. Two sand dollars present. Track visible in bottom left corner. Few small burrows near center.
SFEC-OCS	153	А	Tan sand with indeterminate bedform. Moderately high turbidity limits analysis. Four sand dollars present. Small burrows in lower left. Large female winter skate present.
SFEC-OCS	153	В	High turbidity limits analysis. Appears to be sand. About 8 sand dollars present.
SFEC-OCS	153	С	High turbidity limits analysis. Appears to be sand. About 6 sand dollars present.
SFEC-OCS	154	А	High turbidity limits analysis. Appears to be sand. About 2 sand dollars present.

Area	Station ID	Replicate	Comments
SFEC-OCS	154	В	Pale tan sand with indeterminate bedform. Moderately high turbidity. A single sand dollar and single hermit crab present.
SFEC-OCS	154	D	High turbidity limits analysis. Appears to be sand. About 4 sand dollars present.
SFEC-OCS	155	А	Pale tan sand with sparse shell hash. Indeterminate bedform. High coverage of sand dollars ~25%. Sand dollar tracks present. Medium burrows at right center.
SFEC-OCS	155	В	High turbidity limits analysis. High coverage of sand dollars ~25%.
SFEC-OCS	155	С	Pale tan sand with sparse shell hash throughout. Indeterminate bedform. Hermit crab or gastropod in upper left quadrant. About 16 sand dollars present.
SFEC-OCS	156	В	High turbidity limits analysis
SFEC-OCS	156	С	Moderately high turbidity limits analysis. Muddy sand with small to medium burrows. Some dark reduced sediment reveals at middle- appears to be in a line of disturbance, perhaps from trigger ball.
SFEC-OCS	156	D	Moderately high turbidity limits analysis. Appears to be sand.
SFEC-OCS	157	А	Moderately high turbidity limits analysis. Pale tan sand shell hash throughout. Indeterminate bedform. Several dozen sand dollars present with related tracks. Hermit crab on sand dollar below right laser. Few small burrows in lower part of image.
SFEC-OCS	157	В	Moderately high turbidity limits analysis. Pale tan sand with shell hash throughout. Indeterminate bedform. Several dozen sand dollars present with related tracks.
SFEC-OCS	157	D	Moderately high turbidity limits analysis. Pale tan sand with shell hash throughout. Indeterminate bedform. Several dozen sand dollars present with related tracks. Gastropod or hermit crab in lower right corner. Large cobble in bottom center with attached barnacles.
SFEC-NYS	143	А	Dark tan sand with shell hash throughout. Indeterminate bedform. Tracks in bottom right corner. Fecal casts and small burrows in bottom left of image.
SFEC-NYS	143	В	Tan sand with shell hash throughout. Indeterminate bedform. Numerous burrows throughout image, some with associated mounds. Track running from left side of image through left laser. Unidentified debris on far right side of image.
SFEC-NYS	143	С	High turbidity limits analysis. Pale tan sand with shell hash visible. Indeterminate bedform.
SFEC-NYS	144	А	Pale tan slightly gravelly sand with sparse pebbles throughout. Long waveform ripple present. Tracks in top right of image. Feeding pits in bottom right and far left of image. Potential tube of shell hash in bottom left of image.
SFEC-NYS	144	В	Pale tan slightly gravelly sand with sparse pebbles distributed throughout. Sparse shell hash distributed throughout. Long waveform ripple present. Feeding pits visible in lower half of image.
SFEC-NYS	144	С	Pale tan slightly gravelly sand with sparse pebbles distributed throughout. Sparse shell hash distributed throughout. Long waveform ripple present. Feeding pits visible in lower half of image. Tracks in lower left of image. Small cobble/pebble aggregation in bottom right of image, may be biogenically derived perhaps Crepidula.
SFEC-NYS	145	А	Pale tan sand with long waveform ripple present. Feeding divots along top of sand ridge in center of image. Small burrow in fines in ripple trough. About 8 sand dollars throughout.
SFEC-NYS	145	В	Pale sand with very sparse shell hash. Long waveform ripple present. Feeding pits present on sand ridge near lasers. Small burrows in area of fines in trough of ripples. Five sand dollars present.

Area	Station ID	Replicate	Comments
SFEC-NYS	145	С	Moderately high water column turbidity limits analysis. Pale tan sand with long waveform ridge present. About 7 sand dollars present.
SFEC-NYS	158	А	Pale tan sand with short waveform ripples. Moderately high turbidity limits biotic analyses. Two sand dollars present. Potential foraging pit near right laser.
SFEC-NYS	158	В	Pale tan sand with short waveform ripples. Moderately high turbidity limits biotic analyses. One sand dollar present.
SFEC-NYS	158	С	Pale tan sand with short waveform ripples. Moderately high turbidity limits biotic analyses. Three sand dollars present.
SFEC-NYS	159	А	High turbidity in water column does not allow for analysis
SFEC-NYS	159	В	High turbidity in water column does not allow for analysis
SFEC-NYS	159	С	High turbidity in water column does not allow for analysis
SFEC-NYS	160	А	High turbidity in water column does not allow for analysis
SFEC-NYS	160	В	High turbidity in water column does not allow for analysis
SFEC-NYS	160	D	High turbidity in water column does not allow for analysis
Reference	C03	А	Pale tan sand with shell hash throughout and long waveform ripple. A few feeding pits and burrows, including in lower left corner.
Reference	C03	В	Pale tan sand with sparse shell hash throughout. Long waveform ripple present. Track visible to lower right of right laser. Sea robin in upper left quadrant. Unidentified fish below lasers in center of images. A few feeding pits throughout. Small burrows in area of fines in ripple trough.
Reference	C03	С	Pale tan sand with shell hash throughout. Long waveform ripple present. Feeding pits present below left laser. Fecal casts to lower left of left laser. Tracks present to left of left laser. Small burrows in areas for fines in ripple troughs.
Reference	C03	D	Tan sand with shell hash throughout. Long waveform ripple. Small to medium burrows and/or feeding pits visible Moderate water turbidity limits biotic analysis.
Reference	C03	E	Tan sand with shell hash throughout. Long waveform ripple present. Feeding pits present along sand ridge in center of image. Few small burrows in area of fines in ripple trough. Unidentified fish in top right of image.
Reference	C04	А	Pale tan sand with shell hash throughout. Long waveform ripple present. Tracks and feeding pits present below lasers. Fecal casts present associated with tracks/feeding pits. Potential sea pens in top and bottom right of image with attached hydroids.
Reference	C04	В	Pale tan sand with sparse shell hash throughout. Long waveform ripple present. Numerous feeding pits throughout. Unidentified fish in lower center of image, potentially an Atlantic cod.
Reference	C04	С	Tan sand with sparse shell hash throughout. Long waveform ripple present. Feeding pits and fecal casts present along sand ridge.
Reference	C04	D	Pale tan sand with sparse shell hash throughout. Long waveform ripple present. Tracks visible below left laser. Feeding pit in lower left. Fecal casts and short tubes throughout, more on left side.

Area	Station ID	Replicate	Comments
Reference	C04	F	Pale tan sand with long waveform ripple present. Sea pen with attached hydroids in top right of image. Tracks and feeding pits present along left side of image.
Reference	C05	А	Pale tan sand with finer, darker muds; long waveform ripple. Small burrows in fine at bottom of image. Small clumps of muds visible in lower half of image. Sparse shell hash throughout.
Reference	C05	В	Pale tan sand with cobble and a small boulder present. Sparse shell hash and shell debris throughout. Numerous sea pens throughout, likely attached to cobble and boulders covered by sand. Most sea pens have attached hydroids (also attached to cobbles); one in bottom right has attached sponges.
Reference	C05	С	Pale tan sand with pebbles, small and large cobbles. Sparse shell hash and debris throughout. Numerous sea pens present including a large aggregation in top right corner. Sparse attached hydroids on sea pens.
Reference	C05	D	Pale tan sand with very sparse shell hash throughout. Long waveform ripple present. Small mud clasts in lower left may have dropped off of SPI camera frame. Tracks and feeding pits to the right of right laser. Small tubes or fecal casts at left; possible small burrows in area of fines in ripple trough.
Reference	C05	F	Pale tan sand with long waveform ripple present. Potential tracks to left and below left laser. Windowpane flounder to lower left of left laser.